



MONITORING WELL INSTALLATION SUMMARY REPORT

This monitoring well installation summary report presents a summary of field activities conducted at the Goodfellow Federal Center, 4300 Goodfellow Blvd. in St. Louis, Missouri. In June 2021, 19 groundwater monitoring wells were installed according to [GSA's Remedial Investigation Work Plan](#), which Missouri Department of Natural Resources approved in March 2021.

Sampling and testing results of the groundwater are presented in separate quarterly (once every three months) sampling event reports, separate from this well installation report.

The activities conducted during the monitoring well installation activities consisted of the following:

- Conducting underground utility locates so as not to drill into utilities such as gas, sewer, and electrical lines.
- Drilling and installing 19 monitoring wells using a drill rig. Wells were installed to depths of 21 to 45 feet below the ground surface.
- Developing 19 monitoring wells to allow for quality groundwater samples to be collected.
- Characterizing and disposing of soil and water generated from normal drilling operations.

These activities are part of the remedial investigation, one step in the [CERCLA process](#), which GSA is following in preparation for [transferring ownership of the property](#) sometime around 2024.

If you have any questions, please email r6environmental@gsa.gov, and GSA will provide responses from the appropriate experts.

Please note: The tables and figures in this 635-page report are not accessible for people using screen reader technology. The information can be furnished upon request by contacting 816-223-6198 or r6environmental@gsa.gov.

Goodfellow Federal Complex Monitoring Well Installation Summary Report



**General Services Administration
Kansas City, Missouri**

**Goodfellow Federal Complex
4300 Goodfellow Boulevard
St. Louis, Missouri**

Project No. 128487

September 2021

Goodfellow Federal Complex Monitoring Well Installation Summary Report

prepared for

**General Services Administration
Kansas City, Missouri
Goodfellow Federal Complex
4300 Goodfellow Boulevard
St. Louis, Missouri**

Project No. 128487

September 2021

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TABLE OF CONTENTS

	<u>Page No.</u>
1.0 INTRODUCTION	1-1
1.1 Objectives	1-1
1.2 Responsible Agency.....	1-2
1.3 General Comments.....	1-2
2.0 REPORT ORGANIZATION	2-1
3.0 FIELD ACTIVITIES	3-1
3.1 Health and Safety	3-1
3.2 Underground Utility Locates	3-1
3.3 Monitoring Well Drilling and Installation	3-1
3.3.1 Geology/Hydrogeology.....	3-2
3.3.2 Field Screening	3-3
3.4 Monitoring Well Development.....	3-3
3.5 Decontamination.....	3-3
3.6 Monitoring Well Surveying.....	3-4
3.7 Characterization and Disposal of Investigation-Derived Waste.....	3-4
4.0 REFERENCES.....	4-1

TABLES

FIGURES

APPENDIX A – DRILLING LOGS, MONITORING WELL CONSTRUCTION DIAGRAMS, AND MDNR WELL CERTIFICATION REPORTS

APPENDIX B – FIELD NOTES

APPENDIX C – MONITORING WELL DEVELOPMENT FORMS

APPENDIX D – ANALYTICAL LABORATORY TEST REPORTS FOR EQUIPMENT RINSATE BLANKS

APPENDIX E – SURVEY DATA

APPENDIX F – ANALYTICAL LABORATORY TEST REPORTS FOR SOIL AND WATER IDW

APPENDIX G – WASTE PROFILES, MANIFESTS, AND SCALE TICKETS

LIST OF TABLES

Table Name	Table No.
Monitoring Well Construction Summary	Table 1
Monitoring Well Gauging Measurements and Elevations.....	Table 2
Equipment Rinsate Blank Sample Results Summary	Table 3
Investigation-Derived Waste Results Summary	Table 4

LIST OF FIGURES

Figure Name	Figure No.
Area Location Map	Figure 1
Site Location Map.....	Figure 2

LIST OF ABBREVIATIONS

<u>Abbreviation</u>	<u>Term/Phrase/Name</u>
Baker	Baker Utility Partner, LLC
bgs	below ground surface
BTOC	below top of casing
David Mason	Davis Mason & Associates
Etegra	Etegra, Inc.
GFC	Goodfellow Federal Complex
GSA	General Services Administration
HSA	hollow-stem auger
IDW	Investigation-derived waste
Illini	Illini Environmental, Inc.
MDNR	Missouri Department of Natural Resources
O6	O6 Environmental, LLC
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PID	photoionization detector
REDI	Roberts Environmental Drilling, Inc.
RI	remedial investigation
SLOP	St. Louis Ordnance Plant
TekLab	TekLab, Inc.
VOC	volatile organic compound
Work Plan	<i>Final Remedial Investigation Work Plan; Goodfellow Federal Complex, St. Louis, Missouri</i>

1.0 INTRODUCTION

The General Services Administration (GSA) tasked Burns & McDonnell to install monitoring wells at the Goodfellow Federal Complex (GFC) and prepare this Monitoring Well Installation Summary Report. Burns and McDonnell is also tasked with conducting one year of quarterly groundwater monitoring and preparing quarterly groundwater monitoring reports. Quarterly groundwater monitoring reports will be submitted under separate covers.

The GFC is located at 4300 Goodfellow Boulevard in St. Louis, Missouri and occupies a portion of the former St. Louis Ordnance Plant (SLOP) near the western boundary of the City of St. Louis, Missouri (see Figure 1). The GFC property is owned and operated by the GSA. The GFC encompasses approximately 64 acres, and is bordered northeast by the former SLOP, southeast by Planned Industrial Drive, southwest by Lincoln Way, and northwest by Goodfellow Boulevard. The site location is shown on Figure 2. The GFC is developed with buildings, utility tunnels, and a combined stormwater and sanitary sewer collection system.

The SLOP was constructed in the early 1940s and fabricated .30 and .50 caliber ammunition. Previous environmental investigations at the GFC and SLOP have identified contamination present in soil and groundwater. The GSA is conducting a remedial investigation (RI) at the GFC to identify, characterize, and delineate contamination that may be present from historical operations. The *Final Remedial Investigation Work Plan; Goodfellow Federal Complex, St. Louis, Missouri* (Work Plan) (Etegra, Inc. [Etegra], 2021) was approved by the Missouri Department of Natural Resources (MDNR) on March 2, 2021 and included these monitoring well installations as a portion of the RI scope of work.

This report provides a summary of field activities completed for the installation of 19 monitoring wells at the GFC.

1.1 Objectives

The following objectives were identified for this project:

- Drill and install 19 monitoring wells screened across the overburden/weathered bedrock interface;
- Develop the 19 newly-installed monitoring wells;
- Survey the 19 newly-installed monitoring wells; and
- Characterize and dispose of soil and water investigation-derived waste (IDW) generated during monitoring well drilling and development activities.

Burns & McDonnell's scope of services completed for this project were conducted in general accordance with the Work Plan. All objectives were completed as identified above.

1.2 Responsible Agency

The MDNR is the regulatory agency for this project. Deliverables will be submitted to MDNR.

1.3 General Comments

Burns & McDonnell's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time. Burns & McDonnell makes no warranties, express or implied, regarding the findings, conclusions, or recommendations. Burns & McDonnell does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report.

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents of concern may have been latent, inaccessible, unobservable, nondetectable, or not present during these services. We cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this sampling event. Subsurface conditions may vary from those encountered at specific borings, wells, or during other surveys; tests; assessments; investigations; or exploratory services. The data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

2.0 REPORT ORGANIZATION

This Monitoring Well Installation Summary Report has been divided into four sections as follows:

- Section 1.0, Introduction, discusses the project objectives, site location, and other general project information.
- Section 2.0, Report Organization, discusses this Monitoring Well Installation Summary Report sectional outline.
- Section 3.0, Field Activities, discusses the field activities that were conducted at the GFC.
- Section 4.0, References, includes a list of references used in the report.

Included as attachments to this Monitoring Well Installation Summary Report are supporting tables, figures, and appendices. Appendix A includes drilling logs, monitoring well construction diagrams, and MDNR Well Certification Reports; Appendix B included the field notes; Appendix C includes the monitoring well development forms, Appendix D includes the analytical laboratory test reports for equipment rinsate blank samples, Appendix E includes survey data; Appendix F includes the analytical laboratory test reports for soil and water IDW; and Appendix G includes waste profiles, manifests, and scale tickets. The tables and figures in the appendices may not be accessible for people using screen reader technology. The information can be furnished upon request by contacting 816-223-6198 or r6environmental@gsa.gov.

3.0 FIELD ACTIVITIES

Field activities were completed to meet the project objectives. The field activities conducted at GFC during monitoring well installation activities consisted of the following activities:

- Conducting underground utility locates;
- Drilling and installing 19 monitoring wells;
- Developing 19 monitoring wells;
- Surveying 19 monitoring wells; and
- Characterizing and disposing of soil and water IDW.

3.1 Health and Safety

Burns & McDonnell conducted the fieldwork under the *Health and Safety Plan for Remedial Investigation Activities at the Goodfellow Federal Complex; St. Louis, Missouri* (Burns & McDonnell, 2021a) and the *Site Specific Safety Plan for Remedial Investigation Activities at the Goodfellow Federal Complex; St. Louis Missouri* (Burns & McDonnell, 2021b) developed for this project. Work was performed using USEPA Level D work attire in accordance with Burns & McDonnell's core safety rules and practices. There were no safety incidents reported during the field work conducted during this portion of the RI.

3.2 Underground Utility Locates

Burns & McDonnell's drilling subcontractor, Roberts Environmental Drilling, Inc. (REDI) of Milstadt, Illinois, a Missouri-licensed water well driller, contacted the State of Missouri's One Call service to locate underground utilities prior to commencement of onsite activities. As the GFC is a secured federal facility, no public utilities were marked at the facility.

Burns & McDonnell also subcontracted Baker Utility Partners, LLC (Baker) of St. Louis, Missouri to provide private utility locating services. Baker performed an initial survey of proposed well locations with a receiver to detect live power or radio frequency signals. The areas were then scanned using a 400-megahertz ground penetrating radar antenna to locate any subsurface anomalies or potential utilities. Baker's private utility locating services were performed on May 26 through 28, 2021, prior to drilling activities.

3.3 Monitoring Well Drilling and Installation

Monitoring well drilling and installation activities were conducted from June 1 through 16, 2021. Nineteen soil borings (SB-01 through SB-19) were continuously cored using direct-push technology by

REDI. REDI used a Geoprobe® 8040DT to advance a 5-foot Macrocore® sampler with acetate liners to refusal in the underlying weathered bedrock. Soil cores were collected continuously to document lithology and perform field vapor screening using a photoionization detector (PID). A Burns & McDonnell field geologist classified the soil cores in general accordance with the Unified Soil Classification System.

Upon completion, each soil boring was converted to a monitoring well (MW-01 through MW-19). REDI used the Geoprobe® 8040DT to advance 8.25-inch outside diameter hollow stem augers (HSAs) to the desired depth to install the monitoring wells. The locations of the installed monitoring wells are illustrated on Figure 2. Each monitoring well was installed as a 2-inch diameter Schedule 40 polyvinyl chloride well with 15 feet of 0.010-inch machine-slotted screen, 10/20 grade silica sand filter pack (a minimum of 2 feet above the top of the screen), and 3 feet of 3/8-inch bentonite chip primary seal (hydrated in 1-foot lifts). The secondary seal (annulus) consisted of 3/8-inch bentonite chips which were hydrated in 1-foot lifts and emplaced to 1-foot below ground surface (bgs). Each monitoring well was completed flush to the surface with a flush-grade, protective cover set in a 2-foot by 2-foot concrete well pad. Each monitoring well was fitted with a lockable J-plug. Drilling logs, monitoring well construction diagrams, and MDNR Well Certification Reports are provided in Appendix A. Monitoring well construction details are summarized on Table 1.

3.3.1 Geology/Hydrogeology

Based on the field observations during continuous sampling of the soil borings, the subsurface geology at the GFC generally consisted of fine-grained deposits composed of clay and silty clay overlying a highly weathered siltstone. Each soil boring was advanced to refusal into the weathered siltstone bedrock. Refusal depths of direct-push drilling ranged approximately 21 feet bgs to 48 feet bgs. At Soil Borings SB-2 and SB-17 drilling was switched to HSA after encountering refusal with direct-push drilling techniques and advanced to 64 feet bgs and 70 feet bgs, respectively. HSA drilling at each boring was terminated after field personnel consulted with the Project Manager, as it was determined direct-push refusal was in siltstone bedrock. Lithologic descriptions are presented on the drilling logs provided in Appendix A.

Free groundwater was not observed in any of the soil boring/monitoring wells during direct-push advancement or HSA drilling. However, all but two monitoring wells (MW-11 and MW-14) eventually produced water following well installation. Groundwater levels were gauged with an electronic interface probe prior to development activities. Measured depths to groundwater ranged from between 3.94 feet

below top of casing (BTOC) at MW-13 to 21.14 feet BTOC at MW-15. Table 2 presents the measured water levels and groundwater elevations.

3.3.2 Field Screening

Direct-push soil cores were collected continuously to observe and document soil lithology, color, moisture characteristics, and visual indicators of potential impact. Burns & McDonnell field screened soil cores for organic vapors using a PID. This device provides a direct reading in parts per million isobutylene equivalents. Upon removal of the sampler from the borehole, a Burns & McDonnell geologist field screened recovered soil cores with a PID equipped with a 10.6 electron-volt ultraviolet lamp source. Field screening results for each soil boring are presented on the drilling logs provided in Appendix A.

3.4 Monitoring Well Development

Monitoring well development activities were conducted by Burns & McDonnell personnel from June 18 through 24, 2021. During development activities, Monitoring Wells MW-11, MW-14, and MW-17 were dry at the time of development, thus were not developed. Except for Monitoring Well MW-01, monitoring well were developed dry three times and minimal amounts of water were removed. At Monitoring Well MW-01, 120 gallons of water were removed during development. During the first quarterly groundwater monitoring event, Monitoring Well MW-17 contained water and was developed dry on July 7 and 14, 2021. Monitoring Wells MW-11 and MW-14 remained dry. Well development forms for each of the monitoring wells developed are provided in Appendix C.

3.5 Decontamination

Decontamination of drilling and sampling equipment was performed prior to beginning drilling activities, after completing each boring and monitoring well, and after developing each monitoring well. Drilling, sampling, and development equipment was decontaminated withalconox and potable water. An equipment rinsate blank sample was collected during each day of field work in which decontamination was conducted. Samples were submitted to TekLab, Inc. (TekLab) of Collinsville, Illinois for analysis of metals (antimony, arsenic, copper, lead, and zinc), polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs). Samples Rinse-01, Rinse -06, Rinse-10, and Rinse-11 had low-level detections of metals (copper and zinc). Sample Rinse-01 also had low-level detections of PAHs (fluoranthene and pyrene). All detections were significantly below their respective screening levels. There were no detections on PCBs or VOCs. Analytical laboratory test reports for the equipment rinsate blank samples are provided in Appendix D. Equipment rinsate blank sample results are summarized on Table 3.

3.6 Monitoring Well Surveying

David Mason & Associates (David Mason) of St. Louis, Missouri, a Missouri-licensed surveyor, surveyed the 19 monitoring wells on June 17, 2021. David Mason surveyed the location (northing and easting) and elevation of the ground surface and the monitoring well top of casing for each of the 19 monitoring wells. A copy of the survey data is provided in Appendix E and the survey data is summarized in Table 1.

3.7 Characterization and Disposal of Investigation-Derived Waste

IDW generated from site activities (e.g., soil cuttings, purge water, and decontamination water) were containerized onsite. Soil cutting were containerized in two lined 20 yard roll off containers and water was containerized in six 300-gallon totes.

A composite soil sample from the roll off containers was collected on June 16, 2021, and a composite water sample from the totes was collected on July 9, 2021, for waste characterization/profiling purposes. Waste characterization samples were submitted to TekLab for analysis of waste characterization parameters requested by the disposal facilities. O6 Environmental, LLC (O6) of St. Louis, Missouri completed waste characterization paperwork for the soil and water IDW. The soil IDW was characterized as non-hazardous waste and 16.55 tons of non-hazardous soils were transported by Waste Management and disposed of at Waste Management's Millam landfill located in East St. Louis, Illinois on August 9, 2021. The water IDW was characterized as non-hazardous waste and 1,400 gallons were transported by Illini Environmental Inc. (Illini) and disposed of at their disposal and recycling facility located in Caseyville, Illinois on August 11, 2021. Analytical laboratory test reports for soil and water IDW are provided in Appendix F. Copies of the waste profiles, manifests, and scale tickets are provided in Appendix G. Analytical results for the soil and water IDW are summarized in Table 4.

4.0 REFERENCES

Burns & McDonnell, 2021a. *Final Health and Safety Plan for Remedial Investigation Activities at the Goodfellow Federal Complex; St. Louis, Missouri*, February.

Burns & McDonnell, 2021b. *Final Site Specific Safety Plan for Remedial Investigation Activities at the Goodfellow Federal Complex; St. Louis, Missouri*, May.

Etegra, 2021. *Final Remedial Investigation Work Plan, Goodfellow Federal Complex, St. Louis, Missouri*, February.

TABLES

Table 1
Monitoring Well Construction Summary
Goodfellow Federal Complex
St. Louis, Missouri

Monitoring Well ID	Date Installed	Location		Ground Surface Elevation (MSL)	Top of Casing Elevation (MSL)	Installed Total Depth (feet BTOC)	Top of Screen Elevation (feet MSL)	Screen Length (feet)	Formation Screened
		Northing (feet)	Easting (feet)						
MW-01	6/1/2021	1039540.011	886756.158	543.61	543.55	45.37	513.18	15	Overburden/ Weathered Bedrock
MW-02	6/2/2021	1039740.048	886772.671	544.91	544.92	40.15	519.77	15	Overburden/ Weathered Bedrock
MW-03	6/4/2021	1039766.083	887286.651	539.97	539.95	35.54	519.41	15	Overburden/ Weathered Bedrock
MW-04	6/7/2021	1039867.834	886169.816	559.24	559.27	38.48	535.79	15	Overburden/ Weathered Bedrock
MW-05	6/7/2021	1040193.907	886714.163	550.50	550.51	33.34	532.17	15	Overburden/ Weathered Bedrock
MW-06	6/7/2021	1040587.209	886232.490	577.68	577.72	31.11	561.61	15	Overburden/ Weathered Bedrock
MW-07	6/11/2021	1040354.896	887604.510	540.31	540.49	30.45	525.04	15	Overburden/ Weathered Bedrock
MW-08	6/10/2021	1040246.301	887212.279	545.27	545.28	30.61	529.67	15	Overburden/ Weathered Bedrock
MW-09	6/2/2021	1040523.215	886983.470	550.71	550.73	35.78	529.95	15	Overburden/ Weathered Bedrock
MW-10	6/8/2021	1040781.406	886693.211	557.58	557.40	32.39	540.01	15	Overburden/ Weathered Bedrock
MW-11	6/8/2021	1041164.567	886430.240	581.03	581.06	33.02	563.04	15	Overburden/ Weathered Bedrock
MW-12	6/10/2021	1040836.731	887502.433	545.58	545.57	45.80	514.77	15	Overburden/ Weathered Bedrock
MW-13	6/11/2021	1041047.777	887235.784	551.17	551.20	21.16	545.04	15	Overburden/ Weathered Bedrock
MW-14	6/9/2021	1041487.386	886782.388	563.77	563.86	21.16	557.70	15	Overburden/ Weathered Bedrock
MW-15	6/11/2021	1041098.447	887886.420	541.18	541.18	38.65	517.53	15	Overburden/ Weathered Bedrock
MW-16	6/11/2021	1041247.606	887513.158	548.80	548.76	38.58	525.18	15	Overburden/ Weathered Bedrock

Table 1
Monitoring Well Construction Summary
Goodfellow Federal Complex
St. Louis, Missouri

Monitoring Well ID	Date Installed	Location		Ground Surface Elevation (MSL)	Top of Casing Elevation (MSL)	Installed Total Depth (feet BTOC)	Top of Screen Elevation (feet MSL)	Screen Length (feet)	Formation Screened
		Northing (feet)	Easting (feet)						
MW-17	6/3/2021	1041488.726	887088.652	557.77	557.84	24.63	548.21	15	Overburden/ Weathered Bedrock
MW-18	6/10/2021	1041681.762	886623.582	564.77	564.89	28.68	551.21	15	Overburden/ Weathered Bedrock
MW-19	6/11/2021	1041423.948	888125.728	524.51	524.51	40.62	498.89	15	Overburden/ Weathered Bedrock

Notes:

1. Coodinate System - Missouri State Plane (Missouri East 2401)

BTOC - below top of casing

ID - identification

MSL - mean sea level

Table 2
Monitoring Well Gauging Measurements and Elevations
Goodfellow Federal Complex
St. Louis, Missouri

Monitoring Well ID	Date Measured	Ground Surface Elevation (MSL)	Top of Casing Elevation (MSL)	Measured Water Level (feet BTOC)	Groundwater Elevation (MSL)
MW-01	6/18/2021	543.61	543.55	20.02	523.53
MW-02	6/18/2021	544.91	544.92	16.01	528.91
MW-03	6/18/2021	539.97	539.95	11.40	528.55
MW-04	6/18/2021	559.24	559.27	16.45	542.82
MW-05	6/18/2021	550.50	550.51	8.52	541.99
MW-06	6/18/2021	577.68	577.72	26.23	551.49
MW-07	6/18/2021	540.31	540.49	16.28	524.21
MW-08	6/18/2021	545.27	545.28	11.70	533.58
MW-09	6/18/2021	550.71	550.73	13.12	537.61
MW-10	6/18/2021	557.58	557.40	10.36	547.04
MW-11	6/18/2021	581.03	581.06	DRY	--
MW-12	6/18/2021	545.58	545.57	12.67	532.90
MW-13	6/18/2021	551.17	551.20	3.94	547.26
MW-14	6/18/2021	563.77	563.86	DRY	--
MW-15	6/18/2021	541.18	541.18	21.14	520.04
MW-16	6/18/2021	548.80	548.76	17.15	531.61
MW-17	7/7/2021	557.77	557.84	18.57	539.27
MW-18	6/18/2021	564.77	564.89	14.08	550.81
MW-19	6/18/2021	524.51	524.51	15.54	508.97

Notes:

BTOC - below top of casing

ID - identification

MSL - mean sea level

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

		Sample Point: Sample Date: Phase: Notes:	Rinse-01 6/2/2021 Well Installation -	Rinse-02 6/3/2021 Well Installation -	Rinse-03 6/4/2021 Well Installation -
Parameter	Units	PAL ¹			
Metals, Total					
Antimony	mg/L	6	0.0500 U	0.0500 U	0.0500 U
Arsenic	mg/L	10	0.0250 U	0.0250 U	0.0250 U
Copper	mg/L	1,300	0.0050 U	0.0050 U	0.0050 U
Lead	mg/L	15	0.0150 U	0.0150 U	0.0150 U
Zinc	mg/L	4.69	0.0190	0.0100 U	0.0100 U
Polychlorinated Biphenyls					
Aroclor 1016	mg/L	0.0172	0.00100 U	0.00105 U	0.00100 U
Aroclor 1221	mg/L	0.002	0.00100 U	0.00105 U	0.00100 U
Aroclor 1232	mg/L	0.002	0.00100 U	0.00105 U	0.00100 U
Aroclor 1242	mg/L	0.00101	0.00100 U	0.00105 U	0.00100 U
Aroclor 1248	mg/L	0.002	0.00100 U	0.00105 U	0.00100 U
Aroclor 1254	mg/L	0.00125	0.00100 U	0.00105 U	0.00100 U
Aroclor 1260	mg/L	0.002	0.00100 U	0.00105 U	0.00100 U
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	mg/L	1,610	0.00100 U	0.00100 U	0.00400 U
Acenaphthylene	mg/L	2,060	0.00100 U	0.00100 U	0.00400 U
Anthracene	mg/L	2,290	0.00100 U	0.00100 U	0.00400 U
Benzo(a)anthracene	mg/L	0.133	0.00100 U	0.00100 U	0.00400 U
Benzo(a)pyrene	mg/L	0.2	0.00100 U	0.00100 U	0.00400 U
Benzo(b)fluoranthene	mg/L	7.65	0.00100 U	0.00100 U	0.00400 U
Benzo(g,h,i)perylene	mg/L	218,000	0.00100 U	0.00100 U	0.00400 U
Benzo(k)fluoranthene	mg/L	937	0.00100 U	0.00100 U	0.00400 U
Chrysene	mg/L	81.7	0.00100 U	0.00100 U	0.00400 U
Dibenzo(a,h)anthracene	mg/L	985	0.00100 U	0.00100 U	0.00400 U
Fluoranthene	mg/L	14,200	0.00166	0.00100 U	0.00400 U
Fluorene	mg/L	3,010	0.00100 U	0.00100 U	0.00400 U
Indeno(1,2,3-cd)pyrene	mg/L	596	0.00100 U	0.00100 U	0.00400 U
Naphthalene	mg/L	0.1	0.00100 U	0.00100 U	0.00400 U
Phenanthrene	mg/L	1,190	0.00100 U	0.00100 U	0.00400 U
Pyrene	mg/L	17,300	0.00122	0.00100 U	0.00400 U
Total Petroleum Hydrocarbons					
Gasoline Range Organics	mg/L	18.1	0.500 U	0.500 U	0.500 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

		Sample Point: Sample Date: Phase: Notes:	Rinse-01 6/2/2021 Well Installation -	Rinse-02 6/3/2021 Well Installation -	Rinse-03 6/4/2021 Well Installation -
Parameter	Units	PAL ¹			
Volatile Organic Compounds					
1,1,1,2-Tetrachloroethane	mg/L	0.00699	0.002 U	0.002 U	0.002 U
1,1,1-Trichloroethane	mg/L	1.13	0.002 U	0.002 U	0.002 U
1,1,2,2-Tetrachloroethane	mg/L	0.00582	0.002 U	0.002 U	0.002 U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/L	0.0351	0.005 U	0.005 U	0.005 U
1,1,2-Trichloroethane	mg/L	0.00105	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloro-2-propanone	mg/L	NE	0.03 U	0.03 U	0.03 U
1,1-Dichloroethane	mg/L	0.0114	0.002 U	0.002 U	0.002 U
1,1-Dichloroethene	mg/L	0.0276	0.002 U	0.002 U	0.002 U
1,1-Dichloropropene	mg/L	NE	0.002 U	0.002 U	0.002 U
1,2,3-Trichlorobenzene	mg/L	NE	0.002 U	0.002 U	0.002 U
1,2,3-Trichloropropane	mg/L	0.00411	0.002 U	0.002 U	0.002 U
1,2,3-Trimethylbenzene	mg/L	0.0794	0.002 U	0.002 U	0.002 U
1,2,4-Trichlorobenzene	mg/L	0.00752	0.002 U	0.002 U	0.002 U
1,2,4-Trimethylbenzene	mg/L	0.0475	0.002 U	0.002 U	0.002 U
1,2-Dibromo-3-chloropropane	mg/L	0.004	0.002 U	0.002 U	0.002 U
1,2-Dibromoethane	mg/L	0.004	0.002 U	0.002 U	0.002 U
1,2-Dichlorobenzene	mg/L	0.5	0.002 U	0.002 U	0.002 U
1,2-Dichloroethane	mg/L	0.00355	0.002 U	0.002 U	0.002 U
1,2-Dichloroethene, Total	mg/L	70	0.004 U	0.004 U	0.004 U
1,2-Dichloropropane	mg/L	0.00577	0.002 U	0.002 U	0.002 U
1,3,5-Trimethylbenzene	mg/L	0.0333	0.002 U	0.002 U	0.002 U
1,3-Dichlorobenzene	mg/L	43.6	0.002 U	0.002 U	0.002 U
1,3-Dichloropropane	mg/L	NE	0.002 U	0.002 U	0.002 U
1,3-Dichloropropene, Total	mg/L	0.00431	0.004 U	0.004 U	0.004 U
1,4-Dichloro-2-butene, Total	mg/L	0.00192	0.004 U	0.004 U	0.004 U
1,4-Dichlorobenzene	mg/L	0.00488	0.002 U	0.002 U	0.002 U
1-Chlorobutane	mg/L	NE	0.005 U	0.005 U	0.005 U
2,2-Dichloropropane	mg/L	NE	0.002 U	0.002 U	0.002 U
2-Butanone	mg/L	354	0.01 U	0.01 U	0.01 U
2-Chloroethyl vinyl ether	mg/L	NE	0.005 U	0.005 U	0.005 U
2-Chlorotoluene	mg/L	17.1	0.002 U	0.002 U	0.002 U
2-Hexanone	mg/L	1.46	0.01 U	0.01 U	0.01 U
2-Nitropropane	mg/L	0.02	0.01 U	0.01 U	0.01 U
4-Chlorotoluene	mg/L	0.0666	0.002 U	0.002 U	0.002 U
4-Methyl-2-pentanone	mg/L	94.9	0.01 U	0.01 U	0.01 U
Acetone	mg/L	3370	0.01 U	0.01 U	0.01 U
Acetonitrile	mg/L	6.82	0.01 U	0.01 U	0.01 U
Acrolein	mg/L	0.04	0.02 U	0.02 U	0.02 U
Acrylonitrile	mg/L	0.0117	0.005 U	0.005 U	0.005 U
Allyl chloride	mg/L	0.01	0.005 U	0.005 U	0.005 U
Benzene	mg/L	0.00246	0.0005 U	0.0005 U	0.0005 U
Bromobenzene	mg/L	0.125	0.002 U	0.002 U	0.002 U
Bromochloromethane	mg/L	0.106	0.002 U	0.002 U	0.002 U
Bromodichloromethane	mg/L	0.004	0.002 U	0.002 U	0.002 U
Bromoform	mg/L	0.214	0.002 U	0.002 U	0.002 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

		Sample Point: Sample Date: Phase: Notes:	Rinse-01 6/2/2021 Well Installation -	Rinse-02 6/3/2021 Well Installation -	Rinse-03 6/4/2021 Well Installation -
Parameter	Units	PAL ¹			
Volatile Organic Compounds (continued)					
Bromomethane	mg/L	0.01	0.005 U	0.005 U	0.005 U
Carbon disulfide	mg/L	0.177	0.002 U	0.002 U	0.002 U
Carbon tetrachloride	mg/L	0.004	0.002 U	0.002 U	0.002 U
Chlorobenzene	mg/L	0.0702	0.002 U	0.002 U	0.002 U
Chloroethane	mg/L	3.13	0.002 U	0.002 U	0.002 U
Chloroform	mg/L	0.004	0.002 U	0.002 U	0.002 U
Chloromethane	mg/L	0.0331	0.005 U	0.005 U	0.005 U
Chloroprene	mg/L	0.01	0.005 U	0.005 U	0.005 U
cis-1,2-Dichloroethene	mg/L	70	0.002 U	0.002 U	0.002 U
cis-1,3-Dichloropropene	mg/L	0.596	0.002 U	0.002 U	0.002 U
cis-1,4-Dichloro-2-butene	mg/L	0.004	0.002 U	0.002 U	0.002 U
Cyclohexanone	mg/L	404	0.02 U	0.02 U	0.02 U
Dibromochloromethane	mg/L	80	0.002 U	0.002 U	0.002 U
Dibromomethane	mg/L	0.0199	0.002 U	0.002 U	0.002 U
Dichlorodifluoromethane	mg/L	0.004	0.002 U	0.002 U	0.002 U
Diisopropyl ether	mg/L	0.0697	0.002 U	0.002 U	0.002 U
Ethyl acetate	mg/L	2.13	0.01 U	0.01 U	0.01 U
Ethyl ether	mg/L	NE	0.005 U	0.005 U	0.005 U
Ethyl methacrylate	mg/L	2.76	0.005 U	0.005 U	0.005 U
Ethylbenzene	mg/L	0.00609	0.002 U	0.002 U	0.002 U
Ethyl-tert-butyl ether	mg/L	0.0144	0.002 U	0.002 U	0.002 U
Hexachlorobutadiene	mg/L	0.01	0.005 U	0.005 U	0.005 U
Hexachloroethane	mg/L	0.01	0.005 U	0.005 U	0.005 U
Iodomethane	mg/L	NE	0.005 U	0.005 U	0.005 U
Isopropylbenzene	mg/L	0.1790	0.002 U	0.002 U	0.002 U
m,p-Xylenes	mg/L	NE	0.002 U	0.002 U	0.002 U
Methacrylonitrile	mg/L	0.495	0.005 U	0.005 U	0.005 U
Methyl Methacrylate	mg/L	10.1	0.005 U	0.005 U	0.005 U
Methyl tert-butyl ether	mg/L	0.664	0.002 U	0.002 U	0.002 U
Methylacrylate	mg/L	0.417	0.005 U	0.005 U	0.005 U
Methylene chloride	mg/L	0.685	0.002 U	0.002 U	0.002 U
Naphthalene	mg/L	0.01	0.005 U	0.005 U	0.005 U
n-Butyl acetate	mg/L	NE	0.002 U	0.002 U	0.002 U
n-Butylbenzene	mg/L	8.76	0.002 U	0.002 U	0.002 U
n-Heptane	mg/L	0.01	0.005 U	0.005 U	0.005 U
n-Hexane	mg/L	0.01	0.005 U	0.005 U	0.005 U
Nitrobenzene	mg/L	0.151	0.05 U	0.05 U	0.05 U
n-Propylbenzene	mg/L	0.452	0.002 U	0.002 U	0.002 U
o-Xylene	mg/L	0.0873	0.002 U	0.002 U	0.002 U
Pentachloroethane	mg/L	NE	0.005 U	0.005 U	0.005 U
p-Isopropyltoluene	mg/L	98.5	0.002 U	0.002 U	0.002 U
Propionitrile	mg/L	NE	0.01 U	0.01 U	0.01 U
sec-Butylbenzene	mg/L	6.23	0.002 U	0.002 U	0.002 U
Styrene	mg/L	1.65	0.002 U	0.002 U	0.002 U
tert-Amyl methyl ether	mg/L	0.0828	0.002 U	0.002 U	0.002 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

		Sample Point: Sample Date: Phase: Notes:	Rinse-01 6/2/2021 Well Installation -	Rinse-02 6/3/2021 Well Installation -	Rinse-03 6/4/2021 Well Installation -
Parameter	Units	PAL ¹			
Volatile Organic Compounds (continued)					
tert-Butyl alcohol	mg/L	0.286	0.01 U	0.01 U	0.01 U
tert-Butylbenzene	mg/L	9.43	0.002 U	0.002 U	0.002 U
Tetrachloroethene	mg/L	0.00972	0.0005 U	0.0005 U	0.0005 U
Tetrahydrofuran	mg/L	109	0.005 U	0.005 U	0.005 U
Toluene	mg/L	3.16	0.002 U	0.002 U	0.002 U
trans-1,2-Dichloroethene	mg/L	100	0.002 U	0.002 U	0.002 U
trans-1,3-Dichloropropene	mg/L	0.596	0.002 U	0.002 U	0.002 U
trans-1,4-Dichloro-2-butene	mg/L	0.004	0.002 U	0.002 U	0.002 U
Trichloroethene	mg/L	0.004	0.002 U	0.002 U	0.002 U
Trichlorofluoromethane	mg/L	5.36	0.005 U	0.005 U	0.005 U
Vinyl acetate	mg/L	1.61	0.005 U	0.005 U	0.005 U
Vinyl chloride	mg/L	0.004	0.002 U	0.002 U	0.002 U
Xylenes, Total	mg/L	10	0.004 U	0.004 U	0.004 U

Notes:

¹ For source of PALs, see Table 2 in the *Final Quality Assurance Project Plan, Goodfellow Federal Complex, St. Louis, Missouri* (Etegra, 2021).

Bold - compound was detected

J - estimated value

mg/L - milligrams per liter

NE - not established

PAL - Project Action Limit

U - compound was not detected

U* - compound was qualified as non detected during data review.

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

		Sample Point: Sample Date: Phase: Notes:	Rinse-04 6/7/2021 Well Installation -	Rinse-05 6/8/2021 Well Installation -	Rinse-06 6/9/2021 Well Installation -
Parameter	Units	PAL ¹			
Metals, Total					
Antimony	mg/L	6	0.0500 U	0.0500 U	0.0500 U
Arsenic	mg/L	10	0.0250 U	0.0250 U	0.0250 U
Copper	mg/L	1,300	0.0050 U	0.0050 U	0.0085
Lead	mg/L	15	0.0150 U	0.0150 U	0.0150 U
Zinc	mg/L	4.69	0.0100 U	0.0100 U	0.0562
Polychlorinated Biphenyls					
Aroclor 1016	mg/L	0.0172	0.00100 U	0.00100 U	0.00100 U
Aroclor 1221	mg/L	0.002	0.00100 U	0.00100 U	0.00100 U
Aroclor 1232	mg/L	0.002	0.00100 U	0.00100 U	0.00100 U
Aroclor 1242	mg/L	0.00101	0.00100 U	0.00100 U	0.00100 U
Aroclor 1248	mg/L	0.002	0.00100 U	0.00100 U	0.00100 U
Aroclor 1254	mg/L	0.00125	0.00100 U	0.00100 U	0.00100 U
Aroclor 1260	mg/L	0.002	0.00100 U	0.00100 U	0.00100 U
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	mg/L	1,610	0.00100 U	0.00400 U	0.00100 U
Acenaphthylene	mg/L	2,060	0.00100 U	0.00400 U	0.00100 U
Anthracene	mg/L	2,290	0.00100 U	0.00400 U	0.00100 U
Benzo(a)anthracene	mg/L	0.133	0.00100 U	0.00400 U	0.00100 U
Benzo(a)pyrene	mg/L	0.2	0.00100 U	0.00400 U	0.00100 U
Benzo(b)fluoranthene	mg/L	7.65	0.00100 U	0.00400 U	0.00100 U
Benzo(g,h,i)perylene	mg/L	218,000	0.00100 U	0.00400 U	0.00100 U
Benzo(k)fluoranthene	mg/L	937	0.00100 U	0.00400 U	0.00100 U
Chrysene	mg/L	81.7	0.00100 U	0.00400 U	0.00100 U
Dibenzo(a,h)anthracene	mg/L	985	0.00100 U	0.00400 U	0.00100 U
Fluoranthene	mg/L	14,200	0.00100 U	0.00400 U	0.00100 U
Fluorene	mg/L	3,010	0.00100 U	0.00400 U	0.00100 U
Indeno(1,2,3-cd)pyrene	mg/L	596	0.00100 U	0.00400 U	0.00100 U
Naphthalene	mg/L	0.1	0.00100 U	0.00400 U	0.00100 U
Phenanthrene	mg/L	1,190	0.00100 U	0.00400 U	0.00100 U
Pyrene	mg/L	17,300	0.00100 U	0.00400 U	0.00100 U
Total Petroleum Hydrocarbons					
Gasoline Range Organics	mg/L	18.1	0.500 U	0.500 U	0.500 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

			Sample Point: Sample Date: Phase: Notes:	Rinse-04 6/7/2021 Well Installation -	Rinse-05 6/8/2021 Well Installation -	Rinse-06 6/9/2021 Well Installation -
Parameter	Units	PAL ¹				
Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	mg/L	0.00699		0.002 U	0.002 U	0.002 U
1,1,1-Trichloroethane	mg/L	1.13		0.002 U	0.002 U	0.002 U
1,1,2,2-Tetrachloroethane	mg/L	0.00582		0.002 U	0.002 U	0.002 U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/L	0.0351		0.005 U	0.005 U	0.005 U
1,1,2-Trichloroethane	mg/L	0.00105		0.0005 U	0.0005 U	0.0005 U
1,1-Dichloro-2-propanone	mg/L	NE		0.03 U	0.03 U	0.03 U
1,1-Dichloroethane	mg/L	0.0114		0.002 U	0.002 U	0.002 U
1,1-Dichloroethene	mg/L	0.0276		0.002 U	0.002 U	0.002 U
1,1-Dichloropropene	mg/L	NE		0.002 U	0.002 U	0.002 U
1,2,3-Trichlorobenzene	mg/L	NE		0.002 U	0.002 U	0.002 U
1,2,3-Trichloropropane	mg/L	0.00411		0.002 U	0.002 U	0.002 U
1,2,3-Trimethylbenzene	mg/L	0.0794		0.002 U	0.002 U	0.002 U
1,2,4-Trichlorobenzene	mg/L	0.00752		0.002 U	0.002 U	0.002 U
1,2,4-Trimethylbenzene	mg/L	0.0475		0.002 U	0.002 U	0.002 U
1,2-Dibromo-3-chloropropane	mg/L	0.004		0.002 U	0.002 U	0.002 U
1,2-Dibromoethane	mg/L	0.004		0.002 U	0.002 U	0.002 U
1,2-Dichlorobenzene	mg/L	0.5		0.002 U	0.002 U	0.002 U
1,2-Dichloroethane	mg/L	0.00355		0.002 U	0.002 U	0.002 U
1,2-Dichloroethene, Total	mg/L	70		0.004 U	0.004 U	0.004 U
1,2-Dichloropropane	mg/L	0.00577		0.002 U	0.002 U	0.002 U
1,3,5-Trimethylbenzene	mg/L	0.0333		0.002 U	0.002 U	0.002 U
1,3-Dichlorobenzene	mg/L	43.6		0.002 U	0.002 U	0.002 U
1,3-Dichloropropane	mg/L	NE		0.002 U	0.002 U	0.002 U
1,3-Dichloropropene, Total	mg/L	0.00431		0.004 U	0.004 U	0.004 U
1,4-Dichloro-2-butene, Total	mg/L	0.00192		0.004 U	0.004 U	0.004 U
1,4-Dichlorobenzene	mg/L	0.00488		0.002 U	0.002 U	0.002 U
1-Chlorobutane	mg/L	NE		0.005 U	0.005 U	0.005 U
2,2-Dichloropropane	mg/L	NE		0.002 U	0.002 U	0.002 U
2-Butanone	mg/L	354		0.01 U	0.01 U	0.01 U
2-Chloroethyl vinyl ether	mg/L	NE		0.005 U	0.005 U	0.005 U
2-Chlorotoluene	mg/L	17.1		0.002 U	0.002 U	0.002 U
2-Hexanone	mg/L	1.46		0.01 U	0.01 U	0.01 U
2-Nitropropane	mg/L	0.02		0.01 U	0.01 U	0.01 U
4-Chlorotoluene	mg/L	0.0666		0.002 U	0.002 U	0.002 U
4-Methyl-2-pentanone	mg/L	94.9		0.01 U	0.01 U	0.01 U
Acetone	mg/L	3370		0.01 U	0.01 U	0.01 U
Acetonitrile	mg/L	6.82		0.01 U	0.01 U	0.01 U
Acrolein	mg/L	0.04		0.02 U	0.02 U	0.02 U
Acrylonitrile	mg/L	0.0117		0.005 U	0.005 U	0.005 U
Allyl chloride	mg/L	0.01		0.005 U	0.005 U	0.005 U
Benzene	mg/L	0.00246		0.0005 U	0.0005 U	0.0005 U
Bromobenzene	mg/L	0.125		0.002 U	0.002 U	0.002 U
Bromochloromethane	mg/L	0.106		0.002 U	0.002 U	0.002 U
Bromodichloromethane	mg/L	0.004		0.002 U	0.002 U	0.002 U
Bromoform	mg/L	0.214		0.002 U	0.002 U	0.002 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

			Sample Point: Sample Date: Phase: Notes:	Rinse-04 6/7/2021 Well Installation -	Rinse-05 6/8/2021 Well Installation -	Rinse-06 6/9/2021 Well Installation -
Parameter	Units	PAL ¹				
Volatile Organic Compounds (continued)						
Bromomethane	mg/L	0.01		0.005 U	0.005 U	0.005 U
Carbon disulfide	mg/L	0.177		0.002 U	0.002 U	0.002 U
Carbon tetrachloride	mg/L	0.004		0.002 U	0.002 U	0.002 U
Chlorobenzene	mg/L	0.0702		0.002 U	0.002 U	0.002 U
Chloroethane	mg/L	3.13		0.002 U	0.002 U	0.002 U
Chloroform	mg/L	0.004		0.002 U	0.002 U	0.002 U
Chloromethane	mg/L	0.0331		0.005 U	0.005 U	0.005 U
Chloroprene	mg/L	0.01		0.005 U	0.005 U	0.005 U
cis-1,2-Dichloroethene	mg/L	70		0.002 U	0.002 U	0.002 U
cis-1,3-Dichloropropene	mg/L	0.596		0.002 U	0.002 U	0.002 U
cis-1,4-Dichloro-2-butene	mg/L	0.004		0.002 U	0.002 U	0.002 U
Cyclohexanone	mg/L	404		0.02 U	0.02 U	0.02 U
Dibromochloromethane	mg/L	80		0.002 U	0.002 U	0.002 U
Dibromomethane	mg/L	0.0199		0.002 U	0.002 U	0.002 U
Dichlorodifluoromethane	mg/L	0.004		0.002 U	0.002 U	0.002 U
Diisopropyl ether	mg/L	0.0697		0.002 U	0.002 U	0.002 U
Ethyl acetate	mg/L	2.13		0.01 U	0.01 U	0.01 U
Ethyl ether	mg/L	NE		0.005 U	0.005 U	0.005 U
Ethyl methacrylate	mg/L	2.76		0.005 U	0.005 U	0.005 U
Ethylbenzene	mg/L	0.00609		0.002 U	0.002 U	0.002 U
Ethyl-tert-butyl ether	mg/L	0.0144		0.002 U	0.002 U	0.002 U
Hexachlorobutadiene	mg/L	0.01		0.005 U	0.005 U	0.005 U
Hexachloroethane	mg/L	0.01		0.005 U	0.005 U	0.005 U
Iodomethane	mg/L	NE		0.005 U	0.005 U	0.005 U
Isopropylbenzene	mg/L	0.1790		0.002 U	0.002 U	0.002 U
m,p-Xylenes	mg/L	NE		0.002 U	0.002 U	0.002 U
Methacrylonitrile	mg/L	0.495		0.005 U	0.005 U	0.005 U
Methyl Methacrylate	mg/L	10.1		0.005 U	0.005 U	0.005 U
Methyl tert-butyl ether	mg/L	0.664		0.002 U	0.002 U	0.002 U
Methylacrylate	mg/L	0.417		0.005 U	0.005 U	0.005 U
Methylene chloride	mg/L	0.685		0.002 U	0.002 U	0.002 U
Naphthalene	mg/L	0.01		0.005 U	0.005 U	0.005 U
n-Butyl acetate	mg/L	NE		0.002 U	0.002 U	0.002 U
n-Butylbenzene	mg/L	8.76		0.002 U	0.002 U	0.002 U
n-Heptane	mg/L	0.01		0.005 U	0.005 U	0.005 U
n-Hexane	mg/L	0.01		0.005 U	0.005 U	0.005 U
Nitrobenzene	mg/L	0.151		0.05 U	0.05 U	0.05 U
n-Propylbenzene	mg/L	0.452		0.002 U	0.002 U	0.002 U
o-Xylene	mg/L	0.0873		0.002 U	0.002 U	0.002 U
Pentachloroethane	mg/L	NE		0.005 U	0.005 U	0.005 U
p-Isopropyltoluene	mg/L	98.5		0.002 U	0.002 U	0.002 U
Propionitrile	mg/L	NE		0.01 U	0.01 U	0.01 U
sec-Butylbenzene	mg/L	6.23		0.002 U	0.002 U	0.002 U
Styrene	mg/L	1.65		0.002 U	0.002 U	0.002 U
tert-Amyl methyl ether	mg/L	0.0828		0.002 U	0.002 U	0.002 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

			Sample Point: Sample Date: Phase: Notes:	Rinse-04 6/7/2021 Well Installation -	Rinse-05 6/8/2021 Well Installation -	Rinse-06 6/9/2021 Well Installation -
Parameter	Units	PAL ¹				
Volatile Organic Compounds (continued)						
tert-Butyl alcohol	mg/L	0.286		0.01 U	0.01 U	0.01 U
tert-Butylbenzene	mg/L	9.43		0.002 U	0.002 U	0.002 U
Tetrachloroethene	mg/L	0.00972		0.0005 U	0.0005 U	0.0005 U
Tetrahydrofuran	mg/L	109		0.005 U	0.005 U	0.005 U
Toluene	mg/L	3.16		0.002 U	0.002 U	0.002 U
trans-1,2-Dichloroethene	mg/L	100		0.002 U	0.002 U	0.002 U
trans-1,3-Dichloropropene	mg/L	0.596		0.002 U	0.002 U	0.002 U
trans-1,4-Dichloro-2-butene	mg/L	0.004		0.002 U	0.002 U	0.002 U
Trichloroethene	mg/L	0.004		0.002 U	0.002 U	0.002 U
Trichlorofluoromethane	mg/L	5.36		0.005 U	0.005 U	0.005 U
Vinyl acetate	mg/L	1.61		0.005 U	0.005 U	0.005 U
Vinyl chloride	mg/L	0.004		0.002 U	0.002 U	0.002 U
Xylenes, Total	mg/L	10		0.004 U	0.004 U	0.004 U

Notes:

¹ For source of PALs, see Table 2 in the *Final Quality Assurance Project Plan, Goodfellow Federal Complex, St. Louis, Missouri* (Etegra, 2021).

Bold - compound was detected

J - estimated value

mg/L - milligrams per liter

NE - not established

PAL - Project Action Limit

U - compound was not detected

U* - compound was qualified as non detected during data review.

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

			Sample Point:	Rinse-07	Rinse-08	Rinse-09
			Sample Date:	6/10/2021	6/11/2021	6/14/2021
			Phase:	Well Installation	Well Installation	Well Installation
			Notes:	-	-	-
Parameter	Units	PAL ¹				
Metals, Total						
Antimony	mg/L	6		0.0500 U	0.0500 U	0.0500 U
Arsenic	mg/L	10		0.0250 U	0.0250 U	0.0250 U
Copper	mg/L	1,300		0.0050 U	0.0050 U	0.0050 U
Lead	mg/L	15		0.0150 U	0.0150 U	0.0150 U
Zinc	mg/L	4.69		0.0100 U	0.0100 U	0.0100 U
Polychlorinated Biphenyls						
Aroclor 1016	mg/L	0.0172		0.00100 U	0.00100 U	0.00100 U
Aroclor 1221	mg/L	0.002		0.00100 U	0.00100 U	0.00100 U
Aroclor 1232	mg/L	0.002		0.00100 U	0.00100 U	0.00100 U
Aroclor 1242	mg/L	0.00101		0.00100 U	0.00100 U	0.00100 U
Aroclor 1248	mg/L	0.002		0.00100 U	0.00100 U	0.00100 U
Aroclor 1254	mg/L	0.00125		0.00100 U	0.00100 U	0.00100 U
Aroclor 1260	mg/L	0.002		0.00100 U	0.00100 U	0.00100 U
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	mg/L	1,610		0.00100 U	0.00100 U	0.00400 U
Acenaphthylene	mg/L	2,060		0.00100 U	0.00100 U	0.00400 U
Anthracene	mg/L	2,290		0.00100 U	0.00100 U	0.00400 U
Benzo(a)anthracene	mg/L	0.133		0.00100 U	0.00100 U	0.00400 U
Benzo(a)pyrene	mg/L	0.2		0.00100 U	0.00100 U	0.00400 U
Benzo(b)fluoranthene	mg/L	7.65		0.00100 U	0.00100 U	0.00400 U
Benzo(g,h,i)perylene	mg/L	218,000		0.00100 U	0.00100 U	0.00400 U
Benzo(k)fluoranthene	mg/L	937		0.00100 U	0.00100 U	0.00400 U
Chrysene	mg/L	81.7		0.00100 U	0.00100 U	0.00400 U
Dibenzo(a,h)anthracene	mg/L	985		0.00100 U	0.00100 U	0.00400 U
Fluoranthene	mg/L	14,200		0.00100 U	0.00100 U	0.00400 U
Fluorene	mg/L	3,010		0.00100 U	0.00100 U	0.00400 U
Indeno(1,2,3-cd)pyrene	mg/L	596		0.00100 U	0.00100 U	0.00400 U
Naphthalene	mg/L	0.1		0.00100 U	0.00100 U	0.00400 U
Phenanthrene	mg/L	1,190		0.00100 U	0.00100 U	0.00400 U
Pyrene	mg/L	17,300		0.00100 U	0.00100 U	0.00400 U
Total Petroleum Hydrocarbons						
Gasoline Range Organics	mg/L	18.1		0.500 U	0.500 U	0.500 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

			Sample Point: Sample Date: Phase: Notes:	Rinse-07 6/10/2021 Well Installation -	Rinse-08 6/11/2021 Well Installation -	Rinse-09 6/14/2021 Well Installation -
Parameter	Units	PAL ¹				
Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	mg/L	0.00699		0.002 U	0.002 U	0.002 U
1,1,1-Trichloroethane	mg/L	1.13		0.002 U	0.002 U	0.002 U
1,1,2,2-Tetrachloroethane	mg/L	0.00582		0.002 U	0.002 U	0.002 U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/L	0.0351		0.005 U	0.005 U	0.005 U
1,1,2-Trichloroethane	mg/L	0.00105		0.0005 U	0.0005 U	0.0005 U
1,1-Dichloro-2-propanone	mg/L	NE		0.03 U	0.03 U	0.03 U
1,1-Dichloroethane	mg/L	0.0114		0.002 U	0.002 U	0.002 U
1,1-Dichloroethene	mg/L	0.0276		0.002 U	0.002 U	0.002 U
1,1-Dichloropropene	mg/L	NE		0.002 U	0.002 U	0.002 U
1,2,3-Trichlorobenzene	mg/L	NE		0.002 U	0.002 U	0.002 U
1,2,3-Trichloropropane	mg/L	0.00411		0.002 U	0.002 U	0.002 U
1,2,3-Trimethylbenzene	mg/L	0.0794		0.002 U	0.002 U	0.002 U
1,2,4-Trichlorobenzene	mg/L	0.00752		0.002 U	0.002 U	0.002 U
1,2,4-Trimethylbenzene	mg/L	0.0475		0.002 U	0.002 U	0.002 U
1,2-Dibromo-3-chloropropane	mg/L	0.004		0.002 U	0.002 U	0.002 U
1,2-Dibromoethane	mg/L	0.004		0.002 U	0.002 U	0.002 U
1,2-Dichlorobenzene	mg/L	0.5		0.002 U	0.002 U	0.002 U
1,2-Dichloroethane	mg/L	0.00355		0.002 U	0.002 U	0.002 U
1,2-Dichloroethene, Total	mg/L	70		0.004 U	0.004 U	0.004 U
1,2-Dichloropropane	mg/L	0.00577		0.002 U	0.002 U	0.002 U
1,3,5-Trimethylbenzene	mg/L	0.0333		0.002 U	0.002 U	0.002 U
1,3-Dichlorobenzene	mg/L	43.6		0.002 U	0.002 U	0.002 U
1,3-Dichloropropane	mg/L	NE		0.002 U	0.002 U	0.002 U
1,3-Dichloropropene, Total	mg/L	0.00431		0.004 U	0.004 U	0.004 U
1,4-Dichloro-2-butene, Total	mg/L	0.00192		0.004 U	0.004 U	0.004 U
1,4-Dichlorobenzene	mg/L	0.00488		0.002 U	0.002 U	0.002 U
1-Chlorobutane	mg/L	NE		0.005 U	0.005 U	0.005 U
2,2-Dichloropropane	mg/L	NE		0.002 U	0.002 U	0.002 U
2-Butanone	mg/L	354		0.01 U	0.01 U	0.01 U
2-Chloroethyl vinyl ether	mg/L	NE		0.005 U	0.005 U	0.005 U
2-Chlorotoluene	mg/L	17.1		0.002 U	0.002 U	0.002 U
2-Hexanone	mg/L	1.46		0.01 U	0.01 U	0.01 U
2-Nitropropane	mg/L	0.02		0.01 U	0.01 U	0.01 U
4-Chlorotoluene	mg/L	0.0666		0.002 U	0.002 U	0.002 U
4-Methyl-2-pentanone	mg/L	94.9		0.01 U	0.01 U	0.01 U
Acetone	mg/L	3370		0.01 U	0.01 U	0.01 U
Acetonitrile	mg/L	6.82		0.01 U	0.01 U	0.01 U
Acrolein	mg/L	0.04		0.02 U	0.02 U	0.02 U
Acrylonitrile	mg/L	0.0117		0.005 U	0.005 U	0.005 U
Allyl chloride	mg/L	0.01		0.005 U	0.005 U	0.005 U
Benzene	mg/L	0.00246		0.0005 U	0.0005 U	0.0005 U
Bromobenzene	mg/L	0.125		0.002 U	0.002 U	0.002 U
Bromochloromethane	mg/L	0.106		0.002 U	0.002 U	0.002 U
Bromodichloromethane	mg/L	0.004		0.002 U	0.002 U	0.002 U
Bromoform	mg/L	0.214		0.002 U	0.002 U	0.002 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

			Sample Point:	Rinse-07	Rinse-08	Rinse-09
			Sample Date:	6/10/2021	6/11/2021	6/14/2021
			Phase:	Well Installation	Well Installation	Well Installation
			Notes:	-	-	-
Parameter	Units	PAL ¹				
Volatile Organic Compounds (continued)						
Bromomethane	mg/L	0.01		0.005 U	0.005 U	0.005 U
Carbon disulfide	mg/L	0.177		0.002 U	0.002 U	0.002 U
Carbon tetrachloride	mg/L	0.004		0.002 U	0.002 U	0.002 U
Chlorobenzene	mg/L	0.0702		0.002 U	0.002 U	0.002 U
Chloroethane	mg/L	3.13		0.002 U	0.002 U	0.002 U
Chloroform	mg/L	0.004		0.002 U	0.002 U	0.002 U
Chloromethane	mg/L	0.0331		0.005 U	0.005 U	0.005 U
Chloroprene	mg/L	0.01		0.005 U	0.005 U	0.005 U
cis-1,2-Dichloroethene	mg/L	70		0.002 U	0.002 U	0.002 U
cis-1,3-Dichloropropene	mg/L	0.596		0.002 U	0.002 U	0.002 U
cis-1,4-Dichloro-2-butene	mg/L	0.004		0.002 U	0.002 U	0.002 U
Cyclohexanone	mg/L	404		0.02 U	0.02 U	0.02 U
Dibromochloromethane	mg/L	80		0.002 U	0.002 U	0.002 U
Dibromomethane	mg/L	0.0199		0.002 U	0.002 U	0.002 U
Dichlorodifluoromethane	mg/L	0.004		0.002 U	0.002 U	0.002 U
Diisopropyl ether	mg/L	0.0697		0.002 U	0.002 U	0.002 U
Ethyl acetate	mg/L	2.13		0.01 U	0.01 U	0.01 U
Ethyl ether	mg/L	NE		0.005 U	0.005 U	0.005 U
Ethyl methacrylate	mg/L	2.76		0.005 U	0.005 U	0.005 U
Ethylbenzene	mg/L	0.00609		0.002 U	0.002 U	0.002 U
Ethyl-tert-butyl ether	mg/L	0.0144		0.002 U	0.002 U	0.002 U
Hexachlorobutadiene	mg/L	0.01		0.005 U	0.005 U	0.005 U
Hexachloroethane	mg/L	0.01		0.005 U	0.005 U	0.005 U
Iodomethane	mg/L	NE		0.005 U	0.005 U	0.005 U
Isopropylbenzene	mg/L	0.1790		0.002 U	0.002 U	0.002 U
m,p-Xylenes	mg/L	NE		0.002 U	0.002 U	0.002 U
Methacrylonitrile	mg/L	0.495		0.005 U	0.005 U	0.005 U
Methyl Methacrylate	mg/L	10.1		0.005 U	0.005 U	0.005 U
Methyl tert-butyl ether	mg/L	0.664		0.002 U	0.002 U	0.002 U
Methylacrylate	mg/L	0.417		0.005 U	0.005 U	0.005 U
Methylene chloride	mg/L	0.685		0.002 U	0.002 U	0.002 U
Naphthalene	mg/L	0.01		0.005 U	0.005 U	0.005 U
n-Butyl acetate	mg/L	NE		0.002 U	0.002 U	0.002 U
n-Butylbenzene	mg/L	8.76		0.002 U	0.002 U	0.002 U
n-Heptane	mg/L	0.01		0.005 U	0.005 U	0.005 U
n-Hexane	mg/L	0.01		0.005 U	0.005 U	0.005 U
Nitrobenzene	mg/L	0.151		0.05 U	0.05 U	0.05 U
n-Propylbenzene	mg/L	0.452		0.002 U	0.002 U	0.002 U
o-Xylene	mg/L	0.0873		0.002 U	0.002 U	0.002 U
Pentachloroethane	mg/L	NE		0.005 U	0.005 U	0.005 U
p-Isopropyltoluene	mg/L	98.5		0.002 U	0.002 U	0.002 U
Propionitrile	mg/L	NE		0.01 U	0.01 U	0.01 U
sec-Butylbenzene	mg/L	6.23		0.002 U	0.002 U	0.002 U
Styrene	mg/L	1.65		0.002 U	0.002 U	0.002 U
tert-Amyl methyl ether	mg/L	0.0828		0.002 U	0.002 U	0.002 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

			Sample Point: Sample Date: Phase: Notes:	Rinse-07 6/10/2021 Well Installation -	Rinse-08 6/11/2021 Well Installation -	Rinse-09 6/14/2021 Well Installation -
Parameter	Units	PAL ¹				
Volatile Organic Compounds (continued)						
tert-Butyl alcohol	mg/L	0.286		0.01 U	0.01 U	0.01 U
tert-Butylbenzene	mg/L	9.43		0.002 U	0.002 U	0.002 U
Tetrachloroethene	mg/L	0.00972		0.0005 U	0.0005 U	0.0005 U
Tetrahydrofuran	mg/L	109		0.005 U	0.005 U	0.005 U
Toluene	mg/L	3.16		0.002 U	0.002 U	0.002 U
trans-1,2-Dichloroethene	mg/L	100		0.002 U	0.002 U	0.002 U
trans-1,3-Dichloropropene	mg/L	0.596		0.002 U	0.002 U	0.002 U
trans-1,4-Dichloro-2-butene	mg/L	0.004		0.002 U	0.002 U	0.002 U
Trichloroethene	mg/L	0.004		0.002 U	0.002 U	0.002 U
Trichlorofluoromethane	mg/L	5.36		0.005 U	0.005 U	0.005 U
Vinyl acetate	mg/L	1.61		0.005 U	0.005 U	0.005 U
Vinyl chloride	mg/L	0.004		0.002 U	0.002 U	0.002 U
Xylenes, Total	mg/L	10		0.004 U	0.004 U	0.004 U

Notes:

¹ For source of PALs, see Table 2 in the *Final Quality Assurance Project Plan, Goodfellow Federal Complex, St. Louis, Missouri* (Etegra, 2021).

Bold - compound was detected

J - estimated value

mg/L - milligrams per liter

NE - not established

PAL - Project Action Limit

U - compound was not detected

U* - compound was qualified as non detected during data review.

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

			Sample Point: Sample Date: Phase: Notes:	Rinse-10 6/15/2021 Well Installation -	Rinse-11 6/16/2021 Well Development -	Rinse-12 6/21/2021 Well Development -
Parameter	Units	PAL ¹				
Metals, Total						
Antimony	mg/L	6	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Arsenic	mg/L	10	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Copper	mg/L	1,300	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Lead	mg/L	15	0.0150 U	0.0150 U	0.0150 U	0.0150 U
Zinc	mg/L	4.69	0.132	0.0518		0.0100 U
Polychlorinated Biphenyls						
Aroclor 1016	mg/L	0.0172	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Aroclor 1221	mg/L	0.002	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Aroclor 1232	mg/L	0.002	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Aroclor 1242	mg/L	0.00101	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Aroclor 1248	mg/L	0.002	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Aroclor 1254	mg/L	0.00125	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Aroclor 1260	mg/L	0.002	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	mg/L	1,610	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Acenaphthylene	mg/L	2,060	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Anthracene	mg/L	2,290	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Benzo(a)anthracene	mg/L	0.133	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Benzo(a)pyrene	mg/L	0.2	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Benzo(b)fluoranthene	mg/L	7.65	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Benzo(g,h,i)perylene	mg/L	218,000	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Benzo(k)fluoranthene	mg/L	937	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Chrysene	mg/L	81.7	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Dibenzo(a,h)anthracene	mg/L	985	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Fluoranthene	mg/L	14,200	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Fluorene	mg/L	3,010	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Indeno(1,2,3-cd)pyrene	mg/L	596	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Naphthalene	mg/L	0.1	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Phenanthrene	mg/L	1,190	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Pyrene	mg/L	17,300	0.00100 U	0.00100 U	0.00100 U	0.00100 U
Total Petroleum Hydrocarbons						
Gasoline Range Organics	mg/L	18.1	0.500 U	0.500 U	0.500 U	0.500 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

		Sample Point: Sample Date: Phase: Notes:	Rinse-10 6/15/2021 Well Installation -	Rinse-11 6/16/2021 Well Development -	Rinse-12 6/21/2021 Well Development -
Parameter	Units	PAL ¹			
Volatile Organic Compounds					
1,1,1,2-Tetrachloroethane	mg/L	0.00699	0.002 U	0.002 U	0.002 U
1,1,1-Trichloroethane	mg/L	1.13	0.002 U	0.002 U	0.002 U
1,1,2,2-Tetrachloroethane	mg/L	0.00582	0.002 U	0.002 U	0.002 U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/L	0.0351	0.005 U	0.005 U	0.005 U
1,1,2-Trichloroethane	mg/L	0.00105	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloro-2-propanone	mg/L	NE	0.03 U	0.03 U	0.03 U
1,1-Dichloroethane	mg/L	0.0114	0.002 U	0.002 U	0.002 U
1,1-Dichloroethene	mg/L	0.0276	0.002 U	0.002 U	0.002 U
1,1-Dichloropropene	mg/L	NE	0.002 U	0.002 U	0.002 U
1,2,3-Trichlorobenzene	mg/L	NE	0.002 U	0.002 U	0.002 U
1,2,3-Trichloropropane	mg/L	0.00411	0.002 U	0.002 U	0.002 U
1,2,3-Trimethylbenzene	mg/L	0.0794	0.002 U	0.002 U	0.002 U
1,2,4-Trichlorobenzene	mg/L	0.00752	0.002 U	0.002 U	0.002 U
1,2,4-Trimethylbenzene	mg/L	0.0475	0.002 U	0.002 U	0.002 U
1,2-Dibromo-3-chloropropane	mg/L	0.004	0.002 U	0.002 U	0.002 U
1,2-Dibromoethane	mg/L	0.004	0.002 U	0.002 U	0.002 U
1,2-Dichlorobenzene	mg/L	0.5	0.002 U	0.002 U	0.002 U
1,2-Dichloroethane	mg/L	0.00355	0.002 U	0.002 U	0.002 U
1,2-Dichloroethene, Total	mg/L	70	0.004 U	0.004 U	0.004 U
1,2-Dichloropropane	mg/L	0.00577	0.002 U	0.002 U	0.002 U
1,3,5-Trimethylbenzene	mg/L	0.0333	0.002 U	0.002 U	0.002 U
1,3-Dichlorobenzene	mg/L	43.6	0.002 U	0.002 U	0.002 U
1,3-Dichloropropane	mg/L	NE	0.002 U	0.002 U	0.002 U
1,3-Dichloropropene, Total	mg/L	0.00431	0.004 U	0.004 U	0.004 U
1,4-Dichloro-2-butene, Total	mg/L	0.00192	0.004 U	0.004 U	0.004 U
1,4-Dichlorobenzene	mg/L	0.00488	0.002 U	0.002 U	0.002 U
1-Chlorobutane	mg/L	NE	0.005 U	0.005 U	0.005 U
2,2-Dichloropropane	mg/L	NE	0.002 U	0.002 U	0.002 U
2-Butanone	mg/L	354	0.01 U	0.01 U	0.01 U
2-Chloroethyl vinyl ether	mg/L	NE	0.005 U	0.005 U	0.005 U
2-Chlorotoluene	mg/L	17.1	0.002 U	0.002 U	0.002 U
2-Hexanone	mg/L	1.46	0.01 U	0.01 U	0.01 U
2-Nitropropane	mg/L	0.02	0.01 U	0.01 U	0.01 U
4-Chlorotoluene	mg/L	0.0666	0.002 U	0.002 U	0.002 U
4-Methyl-2-pentanone	mg/L	94.9	0.01 U	0.01 U	0.01 U
Acetone	mg/L	3370	0.01 U	0.01 U	0.01 U
Acetonitrile	mg/L	6.82	0.01 U	0.01 U	0.01 U
Acrolein	mg/L	0.04	0.02 U	0.02 U	0.02 U
Acrylonitrile	mg/L	0.0117	0.005 U	0.005 U	0.005 U
Allyl chloride	mg/L	0.01	0.005 U	0.005 U	0.005 U
Benzene	mg/L	0.00246	0.0005 U	0.0005 U	0.0005 U
Bromobenzene	mg/L	0.125	0.002 U	0.002 U	0.002 U
Bromochloromethane	mg/L	0.106	0.002 U	0.002 U	0.002 U
Bromodichloromethane	mg/L	0.004	0.002 U	0.002 U	0.002 U
Bromoform	mg/L	0.214	0.002 U	0.002 U	0.002 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

			Sample Point: Sample Date: Phase: Notes:	Rinse-10 6/15/2021 Well Installation -	Rinse-11 6/16/2021 Well Development -	Rinse-12 6/21/2021 Well Development -
Parameter	Units	PAL ¹				
Volatile Organic Compounds (continued)						
Bromomethane	mg/L	0.01		0.005 U	0.005 U	0.005 U
Carbon disulfide	mg/L	0.177		0.002 U	0.002 U	0.002 U
Carbon tetrachloride	mg/L	0.004		0.002 U	0.002 U	0.002 U
Chlorobenzene	mg/L	0.0702		0.002 U	0.002 U	0.002 U
Chloroethane	mg/L	3.13		0.002 U	0.002 U	0.002 U
Chloroform	mg/L	0.004		0.002 U	0.002 U	0.002 U
Chloromethane	mg/L	0.0331		0.005 U	0.005 U	0.005 U
Chloroprene	mg/L	0.01		0.005 U	0.005 U	0.005 U
cis-1,2-Dichloroethene	mg/L	70		0.002 U	0.002 U	0.002 U
cis-1,3-Dichloropropene	mg/L	0.596		0.002 U	0.002 U	0.002 U
cis-1,4-Dichloro-2-butene	mg/L	0.004		0.002 U	0.002 U	0.002 U
Cyclohexanone	mg/L	404		0.02 U	0.02 U	0.02 U
Dibromochloromethane	mg/L	80		0.002 U	0.002 U	0.002 U
Dibromomethane	mg/L	0.0199		0.002 U	0.002 U	0.002 U
Dichlorodifluoromethane	mg/L	0.004		0.002 U	0.002 U	0.002 U
Diisopropyl ether	mg/L	0.0697		0.002 U	0.002 U	0.002 U
Ethyl acetate	mg/L	2.13		0.01 U	0.01 U	0.01 U
Ethyl ether	mg/L	NE		0.005 U	0.005 U	0.005 U
Ethyl methacrylate	mg/L	2.76		0.005 U	0.005 U	0.005 U
Ethylbenzene	mg/L	0.00609		0.002 U	0.002 U	0.002 U
Ethyl-tert-butyl ether	mg/L	0.0144		0.002 U	0.002 U	0.002 U
Hexachlorobutadiene	mg/L	0.01		0.005 U	0.005 U	0.005 U
Hexachloroethane	mg/L	0.01		0.005 U	0.005 U	0.005 U
Iodomethane	mg/L	NE		0.005 U	0.005 U	0.005 U
Isopropylbenzene	mg/L	0.1790		0.002 U	0.002 U	0.002 U
m,p-Xylenes	mg/L	NE		0.002 U	0.002 U	0.002 U
Methacrylonitrile	mg/L	0.495		0.005 U	0.005 U	0.005 U
Methyl Methacrylate	mg/L	10.1		0.005 U	0.005 U	0.005 U
Methyl tert-butyl ether	mg/L	0.664		0.002 U	0.002 U	0.002 U
Methylacrylate	mg/L	0.417		0.005 U	0.005 U	0.005 U
Methylene chloride	mg/L	0.685		0.002 U	0.002 U	0.002 U
Naphthalene	mg/L	0.01		0.005 U	0.005 U	0.005 U
n-Butyl acetate	mg/L	NE		0.002 U	0.002 U	0.002 U
n-Butylbenzene	mg/L	8.76		0.002 U	0.002 U	0.002 U
n-Heptane	mg/L	0.01		0.005 U	0.005 U	0.005 U
n-Hexane	mg/L	0.01		0.005 U	0.005 U	0.005 U
Nitrobenzene	mg/L	0.151		0.05 U	0.05 U	0.05 U
n-Propylbenzene	mg/L	0.452		0.002 U	0.002 U	0.002 U
o-Xylene	mg/L	0.0873		0.002 U	0.002 U	0.002 U
Pentachloroethane	mg/L	NE		0.005 U	0.005 U	0.005 U
p-Isopropyltoluene	mg/L	98.5		0.002 U	0.002 U	0.002 U
Propionitrile	mg/L	NE		0.01 U	0.01 U	0.01 U
sec-Butylbenzene	mg/L	6.23		0.002 U	0.002 U	0.002 U
Styrene	mg/L	1.65		0.002 U	0.002 U	0.002 U
tert-Amyl methyl ether	mg/L	0.0828		0.002 U	0.002 U	0.002 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

			Sample Point: Sample Date: Phase: Notes:	Rinse-10 6/15/2021 Well Installation -	Rinse-11 6/16/2021 Well Development -	Rinse-12 6/21/2021 Well Development -
Parameter	Units	PAL ¹				
Volatile Organic Compounds (continued)						
tert-Butyl alcohol	mg/L	0.286		0.01 U	0.01 U	0.01 U
tert-Butylbenzene	mg/L	9.43		0.002 U	0.002 U	0.002 U
Tetrachloroethene	mg/L	0.00972		0.0005 U	0.0005 U	0.0005 U
Tetrahydrofuran	mg/L	109		0.005 U	0.005 U	0.005 U
Toluene	mg/L	3.16		0.002 U	0.002 U	0.002 U
trans-1,2-Dichloroethene	mg/L	100		0.002 U	0.002 U	0.002 U
trans-1,3-Dichloropropene	mg/L	0.596		0.002 U	0.002 U	0.002 U
trans-1,4-Dichloro-2-butene	mg/L	0.004		0.002 U	0.002 U	0.002 U
Trichloroethene	mg/L	0.004		0.002 U	0.002 U	0.002 U
Trichlorofluoromethane	mg/L	5.36		0.005 U	0.005 U	0.005 U
Vinyl acetate	mg/L	1.61		0.005 U	0.005 U	0.005 U
Vinyl chloride	mg/L	0.004		0.002 U	0.002 U	0.002 U
Xylenes, Total	mg/L	10		0.004 U	0.004 U	0.004 U

Notes:

¹ For source of PALs, see Table 2 in the *Final Quality Assurance Project Plan, Goodfellow Federal Complex, St. Louis, Missouri* (Etegra, 2021).

Bold - compound was detected

J - estimated value

mg/L - milligrams per liter

NE - not established

PAL - Project Action Limit

U - compound was not detected

U* - compound was qualified as non detected during data review.

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

		Sample Point:	Rinse-13	Rinse-14	Rinse-15
		Sample Date:	6/22/2021	6/23/2021	6/24/2021
		Phase:	Well Development	Well Development	Well Development
		Notes:	-	-	-
Parameter	Units	PAL ¹			
Metals, Total					
Antimony	mg/L	6	0.0500 U	0.0500 U	0.0500 U
Arsenic	mg/L	10	0.0250 U	0.0250 U	0.0250 U
Copper	mg/L	1,300	0.0050 U	0.0050 U	0.0050 U
Lead	mg/L	15	0.0150 U	0.0150 U	0.0150 U
Zinc	mg/L	4.69	0.0100 U	0.0100 U	0.0100 U
Polychlorinated Biphenyls					
Aroclor 1016	mg/L	0.0172	0.00100 U	0.00100 U	0.00100 U
Aroclor 1221	mg/L	0.002	0.00100 U	0.00100 U	0.00100 U
Aroclor 1232	mg/L	0.002	0.00100 U	0.00100 U	0.00100 U
Aroclor 1242	mg/L	0.00101	0.00100 U	0.00100 U	0.00100 U
Aroclor 1248	mg/L	0.002	0.00100 U	0.00100 U	0.00100 U
Aroclor 1254	mg/L	0.00125	0.00100 U	0.00100 U	0.00100 U
Aroclor 1260	mg/L	0.002	0.00100 U	0.00100 U	0.00100 U
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	mg/L	1,610	0.00100 U	0.00100 U	0.00400 U
Acenaphthylene	mg/L	2,060	0.00100 U	0.00100 U	0.00400 U
Anthracene	mg/L	2,290	0.00100 U	0.00100 U	0.00400 U
Benzo(a)anthracene	mg/L	0.133	0.00100 U	0.00100 U	0.00400 U
Benzo(a)pyrene	mg/L	0.2	0.00100 U	0.00100 U	0.00400 U
Benzo(b)fluoranthene	mg/L	7.65	0.00100 U	0.00100 U	0.00400 U
Benzo(g,h,i)perylene	mg/L	218,000	0.00100 U	0.00100 U	0.00400 U
Benzo(k)fluoranthene	mg/L	937	0.00100 U	0.00100 U	0.00400 U
Chrysene	mg/L	81.7	0.00100 U	0.00100 U	0.00400 U
Dibenzo(a,h)anthracene	mg/L	985	0.00100 U	0.00100 U	0.00400 U
Fluoranthene	mg/L	14,200	0.00100 U	0.00100 U	0.00400 U
Fluorene	mg/L	3,010	0.00100 U	0.00100 U	0.00400 U
Indeno(1,2,3-cd)pyrene	mg/L	596	0.00100 U	0.00100 U	0.00400 U
Naphthalene	mg/L	0.1	0.00100 U	0.00100 U	0.00400 U
Phenanthrene	mg/L	1,190	0.00100 U	0.00100 U	0.00400 U
Pyrene	mg/L	17,300	0.00100 U	0.00100 U	0.00400 U
Total Petroleum Hydrocarbons					
Gasoline Range Organics	mg/L	18.1	0.500 U	0.500 U	0.500 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

		Sample Point: Sample Date: Phase: Notes:	Rinse-13 6/22/2021 Well Development -	Rinse-14 6/23/2021 Well Development -	Rinse-15 6/24/2021 Well Development -
Parameter	Units	PAL ¹			
Volatile Organic Compounds					
1,1,1,2-Tetrachloroethane	mg/L	0.00699	0.002 U	0.002 U	0.002 U
1,1,1-Trichloroethane	mg/L	1.13	0.002 U	0.002 U	0.002 U
1,1,2,2-Tetrachloroethane	mg/L	0.00582	0.002 U	0.002 U	0.002 U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/L	0.0351	0.005 U	0.005 U	0.005 U
1,1,2-Trichloroethane	mg/L	0.00105	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloro-2-propanone	mg/L	NE	0.03 U	0.03 U	0.03 U
1,1-Dichloroethane	mg/L	0.0114	0.002 U	0.002 U	0.002 U
1,1-Dichloroethene	mg/L	0.0276	0.002 U	0.002 U	0.002 U
1,1-Dichloropropene	mg/L	NE	0.002 U	0.002 U	0.002 U
1,2,3-Trichlorobenzene	mg/L	NE	0.002 U	0.002 U	0.002 U
1,2,3-Trichloropropane	mg/L	0.00411	0.002 U	0.002 U	0.002 U
1,2,3-Trimethylbenzene	mg/L	0.0794	0.002 U	0.002 U	0.002 U
1,2,4-Trichlorobenzene	mg/L	0.00752	0.002 U	0.002 U	0.002 U
1,2,4-Trimethylbenzene	mg/L	0.0475	0.002 U	0.002 U	0.002 U
1,2-Dibromo-3-chloropropane	mg/L	0.004	0.002 U	0.002 U	0.002 U
1,2-Dibromoethane	mg/L	0.004	0.002 U	0.002 U	0.002 U
1,2-Dichlorobenzene	mg/L	0.5	0.002 U	0.002 U	0.002 U
1,2-Dichloroethane	mg/L	0.00355	0.002 U	0.002 U	0.002 U
1,2-Dichloroethene, Total	mg/L	70	0.004 U	0.004 U	0.004 U
1,2-Dichloropropane	mg/L	0.00577	0.002 U	0.002 U	0.002 U
1,3,5-Trimethylbenzene	mg/L	0.0333	0.002 U	0.002 U	0.002 U
1,3-Dichlorobenzene	mg/L	43.6	0.002 U	0.002 U	0.002 U
1,3-Dichloropropane	mg/L	NE	0.002 U	0.002 U	0.002 U
1,3-Dichloropropene, Total	mg/L	0.00431	0.004 U	0.004 U	0.004 U
1,4-Dichloro-2-butene, Total	mg/L	0.00192	0.004 U	0.004 U	0.004 U
1,4-Dichlorobenzene	mg/L	0.00488	0.002 U	0.002 U	0.002 U
1-Chlorobutane	mg/L	NE	0.005 U	0.005 U	0.005 U
2,2-Dichloropropane	mg/L	NE	0.002 U	0.002 U	0.002 U
2-Butanone	mg/L	354	0.01 U	0.01 U	0.01 U
2-Chloroethyl vinyl ether	mg/L	NE	0.005 U	0.005 U	0.005 U
2-Chlorotoluene	mg/L	17.1	0.002 U	0.002 U	0.002 U
2-Hexanone	mg/L	1.46	0.01 U	0.01 U	0.01 U
2-Nitropropane	mg/L	0.02	0.01 U	0.01 U	0.01 U
4-Chlorotoluene	mg/L	0.0666	0.002 U	0.002 U	0.002 U
4-Methyl-2-pentanone	mg/L	94.9	0.01 U	0.01 U	0.01 U
Acetone	mg/L	3370	0.01 U	0.01 U	0.01 U
Acetonitrile	mg/L	6.82	0.01 U	0.01 U	0.01 U
Acrolein	mg/L	0.04	0.02 U	0.02 U	0.02 U
Acrylonitrile	mg/L	0.0117	0.005 U	0.005 U	0.005 U
Allyl chloride	mg/L	0.01	0.005 U	0.005 U	0.005 U
Benzene	mg/L	0.00246	0.0005 U	0.0005 U	0.0005 U
Bromobenzene	mg/L	0.125	0.002 U	0.002 U	0.002 U
Bromochloromethane	mg/L	0.106	0.002 U	0.002 U	0.002 U
Bromodichloromethane	mg/L	0.004	0.002 U	0.002 U	0.002 U
Bromoform	mg/L	0.214	0.002 U	0.002 U	0.002 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

		Sample Point: Sample Date: Phase: Notes:	Rinse-13 6/22/2021 Well Development -	Rinse-14 6/23/2021 Well Development -	Rinse-15 6/24/2021 Well Development -
Parameter	Units	PAL ¹			
Volatile Organic Compounds (continued)					
Bromomethane	mg/L	0.01	0.005 U	0.005 U	0.005 U
Carbon disulfide	mg/L	0.177	0.002 U	0.002 U	0.002 U
Carbon tetrachloride	mg/L	0.004	0.002 U	0.002 U	0.002 U
Chlorobenzene	mg/L	0.0702	0.002 U	0.002 U	0.002 U
Chloroethane	mg/L	3.13	0.002 U	0.002 U	0.002 U
Chloroform	mg/L	0.004	0.002 U	0.002 U	0.0052 U*
Chloromethane	mg/L	0.0331	0.005 U	0.005 U	0.005 U
Chloroprene	mg/L	0.01	0.005 U	0.005 U	0.005 U
cis-1,2-Dichloroethene	mg/L	70	0.002 U	0.002 U	0.002 U
cis-1,3-Dichloropropene	mg/L	0.596	0.002 U	0.002 U	0.002 U
cis-1,4-Dichloro-2-butene	mg/L	0.004	0.002 U	0.002 U	0.002 U
Cyclohexanone	mg/L	404	0.02 U	0.02 U	0.02 U
Dibromochloromethane	mg/L	80	0.002 U	0.002 U	0.002 U
Dibromomethane	mg/L	0.0199	0.002 U	0.002 U	0.002 U
Dichlorodifluoromethane	mg/L	0.004	0.002 U	0.002 U	0.002 U
Diisopropyl ether	mg/L	0.0697	0.002 U	0.002 U	0.002 U
Ethyl acetate	mg/L	2.13	0.01 U	0.01 U	0.01 U
Ethyl ether	mg/L	NE	0.005 U	0.005 U	0.005 U
Ethyl methacrylate	mg/L	2.76	0.005 U	0.005 U	0.005 U
Ethylbenzene	mg/L	0.00609	0.002 U	0.002 U	0.002 U
Ethyl-tert-butyl ether	mg/L	0.0144	0.002 U	0.002 U	0.002 U
Hexachlorobutadiene	mg/L	0.01	0.005 U	0.005 U	0.005 U
Hexachloroethane	mg/L	0.01	0.005 U	0.005 U	0.005 U
Iodomethane	mg/L	NE	0.005 U	0.005 U	0.005 U
Isopropylbenzene	mg/L	0.1790	0.002 U	0.002 U	0.002 U
m,p-Xylenes	mg/L	NE	0.002 U	0.002 U	0.002 U
Methacrylonitrile	mg/L	0.495	0.005 U	0.005 U	0.005 U
Methyl Methacrylate	mg/L	10.1	0.005 U	0.005 U	0.005 U
Methyl tert-butyl ether	mg/L	0.664	0.002 U	0.002 U	0.002 U
Methylacrylate	mg/L	0.417	0.005 U	0.005 U	0.005 U
Methylene chloride	mg/L	0.685	0.002 U	0.002 U	0.002 U
Naphthalene	mg/L	0.01	0.005 U	0.005 U	0.005 U
n-Butyl acetate	mg/L	NE	0.002 U	0.002 U	0.002 U
n-Butylbenzene	mg/L	8.76	0.002 U	0.002 U	0.002 U
n-Heptane	mg/L	0.01	0.005 U	0.005 U	0.005 U
n-Hexane	mg/L	0.01	0.005 U	0.005 U	0.005 U
Nitrobenzene	mg/L	0.151	0.05 U	0.05 U	0.05 U
n-Propylbenzene	mg/L	0.452	0.002 U	0.002 U	0.002 U
o-Xylene	mg/L	0.0873	0.002 U	0.002 U	0.002 U
Pentachloroethane	mg/L	NE	0.005 U	0.005 U	0.005 U
p-Isopropyltoluene	mg/L	98.5	0.002 U	0.002 U	0.002 U
Propionitrile	mg/L	NE	0.01 U	0.01 U	0.01 U
sec-Butylbenzene	mg/L	6.23	0.002 U	0.002 U	0.002 U
Styrene	mg/L	1.65	0.002 U	0.002 U	0.002 U
tert-Amyl methyl ether	mg/L	0.0828	0.002 U	0.002 U	0.002 U

Table 3
Equipment Rinsate Blank Sample Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

			Sample Point:	Rinse-13	Rinse-14	Rinse-15
			Sample Date:	6/22/2021	6/23/2021	6/24/2021
			Phase:	Well Development	Well Development	Well Development
			Notes:	-	-	-
Parameter	Units	PAL ¹				
Volatile Organic Compounds (continued)						
tert-Butyl alcohol	mg/L	0.286		0.01 U	0.01 U	0.01 U
tert-Butylbenzene	mg/L	9.43		0.002 U	0.002 U	0.002 U
Tetrachloroethene	mg/L	0.00972		0.0005 U	0.0005 U	0.0005 U
Tetrahydrofuran	mg/L	109		0.005 U	0.005 U	0.005 U
Toluene	mg/L	3.16		0.002 U	0.002 U	0.002 U
trans-1,2-Dichloroethene	mg/L	100		0.002 U	0.002 U	0.002 U
trans-1,3-Dichloropropene	mg/L	0.596		0.002 U	0.002 U	0.002 U
trans-1,4-Dichloro-2-butene	mg/L	0.004		0.002 U	0.002 U	0.002 U
Trichloroethene	mg/L	0.004		0.002 U	0.002 U	0.002 U
Trichlorofluoromethane	mg/L	5.36		0.005 U	0.005 U	0.005 U
Vinyl acetate	mg/L	1.61		0.005 U	0.005 U	0.005 U
Vinyl chloride	mg/L	0.004		0.002 U	0.002 U	0.002 U
Xylenes, Total	mg/L	10		0.004 U	0.004 U	0.004 U

Notes:

¹ For source of PALs, see Table 2 in the *Final Quality Assurance Project Plan, Goodfellow Federal Complex, St. Louis, Missouri* (Etegra, 2021).

Bold - compound was detected

J - estimated value

mg/L - milligrams per liter

NE - not established

PAL - Project Action Limit

U - compound was not detected

U* - compound was qualified as non detected during data review.

Table 4
Investigation-Derived Waste Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

		S-IDW-001 6/25/2021		W-IDW-001 6/25/2021
Parameter	Units		Units	
Paint Filter				
Paint Filter	NA	Pass	NA	Fail
Ignitability				
Ignitability, Open Cup	°F	>200	°F	>200
Cyanide				
Cyanide (Total)	mg/kg	<0.26	mg/L	NS
Cyanide (Reactive)	mg/kg	NS	mg/kg	2.46 U
Sulfide				
Sulfide (Total)	mg/kg	NS	mg/L	<0.05
Sulfide (Reactive)	mg/kg	97	mg/L	NS
Sulfate				
Sulfate (Total)	mg/kg	9.8 U	mg/L	72
pH				
pH	SU	8.50	SU	7.87
Extractable Organic Halogens				
Extractable Organic Halogens	mg/kg	48.1 U	mg/L	NS
Total Organic Halogens				
Total Organic Halogens	mg/kg	NS	mg/L	NS
Phenols				
Phenols	mg/kg	3.19 U	µg/L	20 U
Polychlorinated Biphenyls				
Aroclor 1016	mg/kg	41.2 U	µg/L	1.37 U
Aroclor 1221	mg/kg	41.2 U	µg/L	1.37 U
Aroclor 1232	mg/kg	41.2 U	µg/L	1.37 U
Aroclor 1242	mg/kg	41.2 U	µg/L	1.37 U
Aroclor 1248	mg/kg	41.2 U	µg/L	1.37 U
Aroclor 1254	mg/kg	41.2 U	µg/L	1.37 U
Aroclor 1260	mg/kg	41.2 U	µg/L	1.37 U
Herbicides				
2,4,5-T	µg/kg	11.1 U	µg/L	0.40 U
2,4,5-TP (Silvex)	µg/kg	11.1 U	µg/L	0.40 U
2,4-D	µg/kg	11.1 U	µg/L	2.94
2,4-DB	µg/kg	11.1 U	µg/L	0.40 U
3,5-Dichlorobenzoic Acid	µg/kg	11.1 U	µg/L	0.40 U
4-Nitrophenol	µg/kg	11.1 U	µg/L	0.60 U
Acifluorfen	µg/kg	11.1 U	µg/L	0.40 U
Bentazon	µg/kg	22.2 U	µg/L	0.60 U
Chloramben	µg/kg	11.1 U	µg/L	0.40 U
Dalapon	µg/kg	111 U	µg/L	2.60 U
DCPA	µg/kg	11.1 U	µg/L	0.40 U
Dicamba	µg/kg	11.1 U	µg/L	0.40 U
Dichlorprop	µg/kg	11.1 U	µg/L	0.40 U
MCPA	µg/kg	1,110 U	µg/L	90.0 U
MCPP	µg/kg	1,110 U	µg/L	60.0 U
Pentachlorophenol	µg/kg	11.1 U	µg/L	0.20 U
Picloram	µg/kg	11.1 U	µg/L	0.40 U
Herbicides (Toxicity Characteristic Leaching Procedure)				
2,4,5-TP (Silvex)	mg/L	0.040 U	mg/L	NS
2,4-D	mg/L	0.040 U	mg/L	NS

Table 4
Investigation-Derived Waste Results Summary
Goodfellow Federal Complex
St. Louis, Missouri

		S-IDW-001 6/25/2021	W-IDW-001 6/25/2021	
Parameter	Units		Units	
Metals (Toxicity Characteristic Leaching Procedure)				
Arsenic	mg/L	0.250 U	mg/L	0.250 U
Barium	mg/L	1.010	mg/L	0.450 U
Cadmium	mg/L	0.020 U	mg/L	0.020 U
Chromium	mg/L	0.100 U	mg/L	0.100 U
Lead	mg/L	0.400 U	mg/L	0.400 U
Selenium	mg/L	0.500 U	mg/L	0.500 U
Silver	mg/L	0.070 U	mg/L	0.070 U
Mercury	mg/L	0.0002 U	mg/L	0.0002 U
Pesticides (Toxicity Characteristic Leaching Procedure)				
alpha-Chlordane	mg/L	0.00100 U	mg/L	0.00050 U
Endrin	mg/L	0.00100 U	mg/L	0.00050 U
gamma-BHC	mg/L	0.00100 U	mg/L	0.00050 U
gamma-Chlordane	mg/L	0.00100 U	mg/L	0.00050 U
Heptachlor	mg/L	0.00100 U	mg/L	0.00050 U
Heptachlor epoxide	mg/L	0.00100 U	mg/L	0.00050 U
Methoxychlor	mg/L	0.00100 U	mg/L	0.00050 U
Toxaphene	mg/L	0.0100 U	mg/L	0.00500 U
Chlordane	mg/L	0.00200 U	mg/L	0.00100 U
Semivolatile Organic Compounds (Toxicity Characteristic Leaching Procedure)				
1,4-Dichlorobenzene	mg/L	0.100 U	mg/L	0.100 U
2,4,5-Trichlorophenol	mg/L	0.100 U	mg/L	0.100 U
2,4,6-Trichlorophenol	mg/L	0.100 U	mg/L	0.100 U
2,4-Dinitrotoluene	mg/L	0.100 U	mg/L	0.100 U
Hexachlorobenzene	mg/L	0.100 U	mg/L	0.100 U
Hexachlorobutadiene	mg/L	0.100 U	mg/L	0.100 U
Hexachloroethane	mg/L	0.100 U	mg/L	0.100 U
m,p-Cresol	mg/L	0.100 U	mg/L	0.100 U
Nitrobenzene	mg/L	0.100 U	mg/L	0.100 U
o-Cresol	mg/L	0.100 U	mg/L	0.100 U
Pentachlorophenol	mg/L	0.200 U	mg/L	0.200 U
Pyridine	mg/L	0.200 U	mg/L	0.200 U
Cresols, Total	mg/L	0.200 U	mg/L	0.200 U
Volatile Organic Compounds (Toxicity Characteristic Leaching Procedure)				
1,1-Dichloroethene	mg/L	0.200 U	mg/L	0.200 U
1,2-Dichloroethane	mg/L	0.200 U	mg/L	0.200 U
1,4-Dichlorobenzene	mg/L	0.200 U	mg/L	0.200 U
2-Butanone	mg/L	1.00 U	mg/L	1.00 U
Benzene	mg/L	0.050 U	mg/L	0.050 U
Carbon tetrachloride	mg/L	0.200 U	mg/L	0.200 U
Chlorobenzene	mg/L	0.200 U	mg/L	0.200 U
Chloroform	mg/L	0.200 U	mg/L	0.200 U
Tetrachloroethene	mg/L	0.050 U	mg/L	0.050 U
Trichloroethene	mg/L	0.200 U	mg/L	0.200 U
Vinyl chloride	mg/L	0.200 U	mg/L	0.200 U

Notes:

Bold - compound was detected

°F - degrees Fahrenheit

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

NS - not sampled

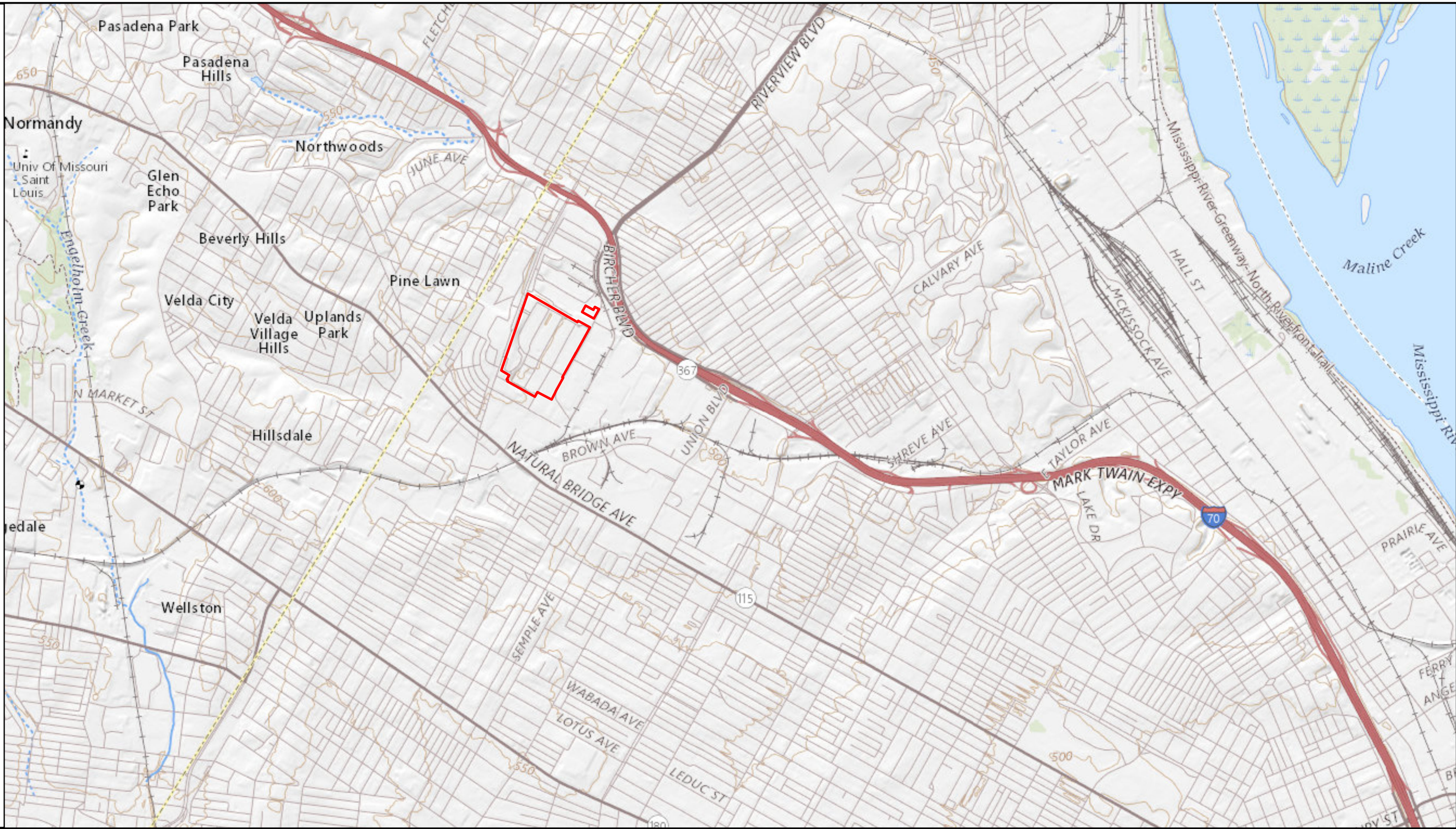
SU - standard units


U - compound was not detected

µg/L - micrograms per liter

FIGURES

Path: Z:\clients\ENR\USGSA\128487_Goodfellow\MM\Studies\Geospatial\DataFiles\ArcDocs\figures\figures.aprx irradler 8/16/2021
Service Layer Credits: USGS The National Map; National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau Tiger Line data; USFS Road Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information; U.S. Coastal Relief Model. Data refreshed June, 2020.



 Site Boundary

Notes:
Site is approximately 66 acres.

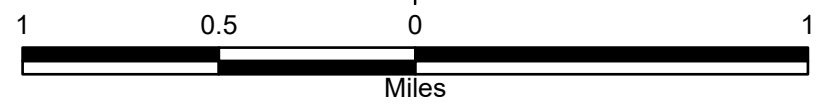
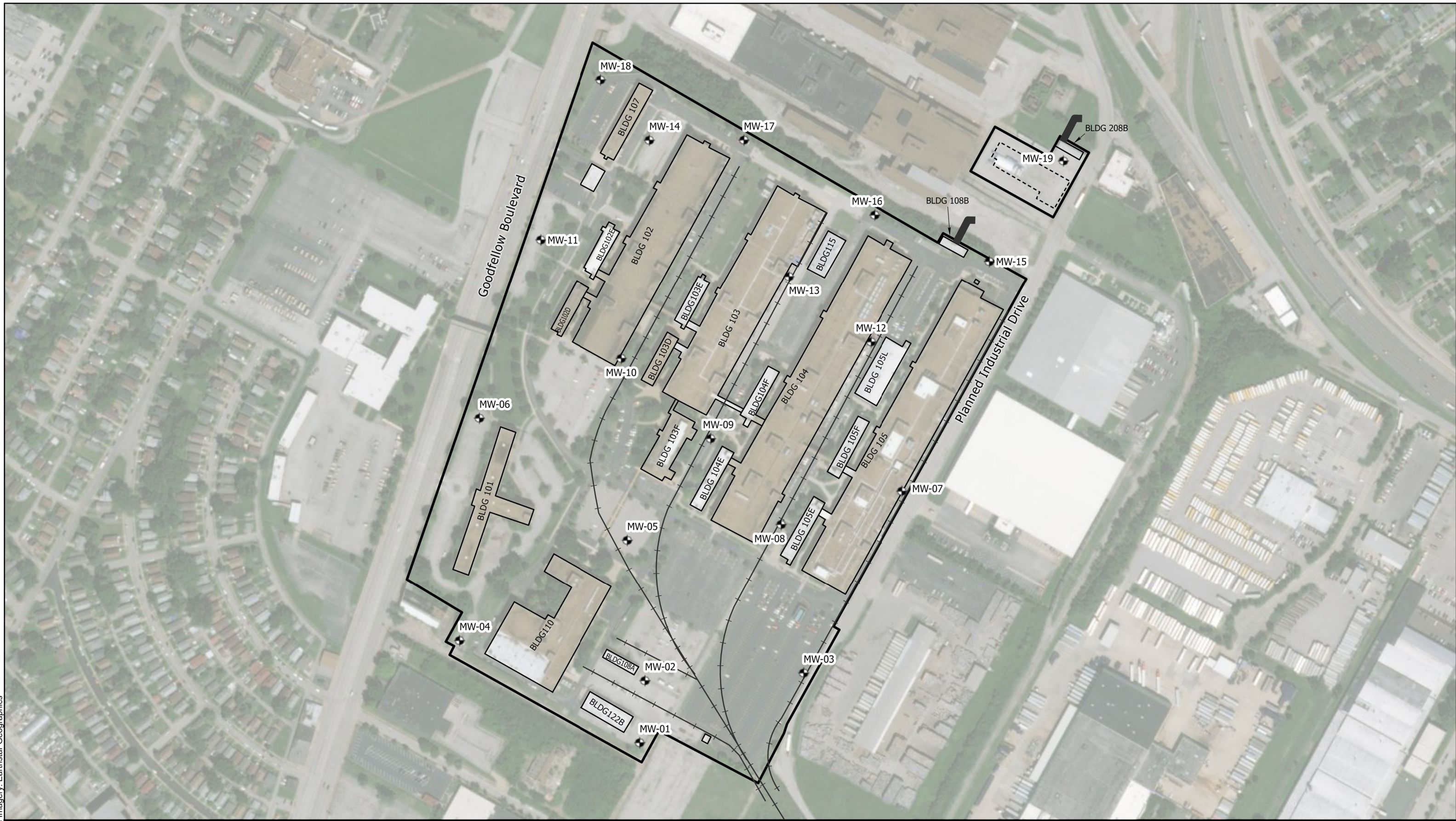


Figure 1
Area Location Map
Goodfellow Federal Complex
St. Louis, Missouri

Path: Z:\Clients\ENR\USGSA\128487_Goodfellow\MM\Studies\Geospatial\DataFiles\ArcDocs\figures\figures.aprx_rfrussell_9/2/2021
Service Layer Credits: World Imagery: Earthstar Geographics



- Monitoring Well
- Former Railroad Track
- Site Boundary

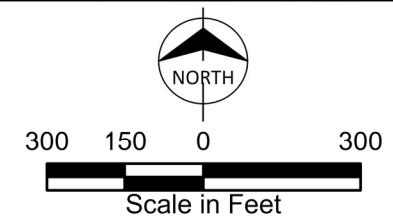


Figure 2
Site Location Map
Goodfellow Federal Complex
St. Louis, Missouri

**APPENDIX A – DRILLING LOGS, MONITORING WELL CONSTRUCTION
DIAGRAMS, AND MDNR WELL CERTIFICATION REPORTS**

Drilling Log

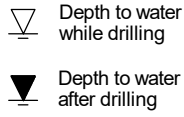
	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-01/MW-01	
	Coordinates		Ground Elevation	Page 1 of 4	
	Total Depth (feet) 45	Hole Size (inches) 2, 8.25	Driller P. Seymour		

Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/1/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphalt (3.0") Concrete (10.0")									
	1										
	2	CLAY, strong Brown (7.5YR 4/6), moist, high plasticity, no odor; FILL.		MC	1		NA	1.4/3	2.0	0	No free water observed
	3								2.5	0	
	4								1.5	0	
	5	silty CLAY, Brown (10YR 4/3), with strong Brown (7.5YR 4/6) mottles, with dark Brown (7.5YR 3/2) mottles, moist, soft, high plasticity, no odor; CL.		MC	2		NA	3.0/5	0.5	0	
	6								1.0	0	
	7								2.0	0	
	8	silty CLAY, greenish Gray (Gley 1 5/10Y), with yellowish Brown (10YR 5/6) mottles, moist, high plasticity, no odor; CL.							4.0	0	
	9								4.0 2.5	0	
	10	- becomes trace very dark Brown (10YR 2/2) mottles							4.0 2.5	0	
	11								6.0 2.0	0	
	12								2.5	0	
	13	silty CLAY, Gray (Gley 1 5/N), with yellowish Brown (10YR 5/6) mottles, moist, high plasticity, no odor; CL.		MC	4		NA	5.0/5			

2021 GSA DRILLING LOGS GPJ 8/9/21







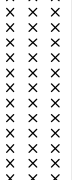
Drilling Log, continued

			Boring/Monitoring Well Number SB-01/MW-01	
	Project Name	Goodfellow Federal Complex	Page	2 of 4
	Project Number	128487	Date	6/1/2021


Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	silty CLAY, Gray (Gley 1 5/N), with yellowish Brown (10YR 5/6) mottles, moist, high plasticity, no odor; CL.							3.0	0	
	16			MC	4		NA	5.0/5	3.0	0	
	17							3.0	0		
	18	- becomes soft						1.5	0		
	19	- becomes hard						3.0	0		
	20			MC	5		NA	5.0/5	3.5	0	
	21							3.5	0		
	22							3.5	0		
	23										
	24	silty CLAY, Brown (10YR 5/2), with strong Brown (7.5YR 5/6) mottles, moist, medium to high plasticity, no odor; CL.							3.0	0	
	25			MC	6		NA	5.0/5	2.5	0	
	26							2.5	0		
	27							2.0	0		
	28			MC	7		NA	5.0/5			

Drilling Log, continued

			Boring/Monitoring Well Number	SB-01/MW-01
	Project Name	Goodfellow Federal Complex	Page	3 of 4
	Project Number	128487	Date	6/1/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	30	silty CLAY, Brown (10YR 5/2), with strong Brown (7.5YR 5/6) mottles, moist, medium to high plasticity, no odor; CL. - becomes soft		MC	7		NA	5.0/5	2.0	0	
	31								1.0	0	
	32								2.5	0	
	33	silty CLAY, Greenish Gray (Gley 1 6/10Y), with yellowish Brown (10YR 5/6) mottles, moist, very stiff, medium plasticity, no odor; CL.		MC	8		NA	5.0/5	3.0	0	
	34								3.5	0	
	35								4.0	0	
	36	CLAY, light greenish Gray (Gley 1 8/10Y), with yellowish Brown (10YR 5/6) mottles, trace dusky Red (5R 3/2) mottles, moist, very hard, low plasticity, no odor; CH.		MC	9		NA	4.5/5	4.5	0	
	37								4.0	0	
	38								4.0	0	
	39	SILTSTONE, brownish Yellow (10YR 6/8), with light greenish Gray (Gley 1 8/10Y) mottles, dry, friable, no odor.		MC	10		NA	2.0/5	4.5	0	
	40								4.5	0	
	41								4.5	0	
	42										
	43										

Drilling Log, continued

			Boring/Monitoring Well Number SB-01/MW-01	
	Project Name	Goodfellow Federal Complex	Page	4 of 4
	Project Number	128487	Date	6/1/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	45	SILTSTONE, brownish Yellow (10YR 6/8), with light greenish Gray (Gley 1 8/10Y) mottles, dry, friable, no odor.	x x x x x x x x x x x x	MC	10		NA	2.0/5	NA	NA	Install MW-01 at 45' with 15' screen interval.
	46	Refusal on bedrock - End of boring at 45 feet bgs.									Monitoring well installed on 6/1/2021
	47										
	48										
	49										
	50										
	51										
	52										
	53										
	54										
	55										
	56										
	57										
	58										

Drilling Log

	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-02/MW-02	
	Coordinates		Ground Elevation	Page 1 of 5	
	Total Depth (feet) 64	Hole Size (inches) 2, 8.25	Driller P. Seymour		


Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/2/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphalt (3.0")									
		Loose FILL									
	1	CLAY, strong Brown (7.5YR 4/6), with dark Gray (7.5YR 4/1) mottles, moist, high plasticity, no odor; CH.		MC	1		NA	1.5/3	2.5	0	No free water observed
	2										
	3							2.5	0		
	4							1.0	0		
	5	silty CLAY, grayish Brown (10YR 5/2), with strong Brown (7.5YR 4/6) mottles, moist, soft, high plasticity, no odor; CH.		MC	2		NA	2.8/5	1.5	0	
	6							2.5	0		
	7	silty CLAY, dark grayish Brown (10YR 4/2), with strong Brown (7.5YR 5/8) mottles, some iron nodules, hard, high plasticity, no odor; CL.						3.0	3.0	0	
	8							3.0	0		
	9	silty CLAY, greenish Gray (Gley 1 5/10Y), with yellowish Brown (10YR 5/6) mottles, trace iron nodules, moist, high plasticity, no odor; CL.						4.5 2.0	2.5	0	
	10			MC	3		NA	4.0/5	2.5	0.1	
	11							2.5	2.5	0	
	12							2.0	2.0	0	
	13			MC	4		NA	5.0/5			


2021 GSA DRILLING LOGS GPJ 8/9/21

Drilling Log, continued

			Boring/Monitoring Well Number	SB-02/MW-02
	Project Name	Goodfellow Federal Complex	Page	2 of 5
	Project Number	128487	Date	6/2/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks	
	15	silty CLAY, greenish Gray (Gley 1 5/10Y), with yellowish Brown (10YR 5/6) mottles, trace iron nodules, moist, high plasticity, no odor; CL.							2.0	0		
	16			MC	4		NA	5.0/5	2.5	0		
	17								2.0	0		
	18											
	19								3.0	0		
	20				MC	5		NA	5.0/5	3.0		0
	21								3.0	0		
	22	silty CLAY, Gray (10YR 5/1), with strong Brown (7.5YR 5.8) mottles, moist, medium to high plasticity, no odor; CL.							2.5	0		
	23											
	24								4.0	0		
	25			MC	6		NA	5.0/5	4.5	0		
	26							4.5	0			
	27							4.5	0			
	28			MC	7		NA	5.0/5				

Drilling Log, continued

			Boring/Monitoring Well Number SB-02/MW-02	
	Project Name	Goodfellow Federal Complex	Page	3 of 5
	Project Number	128487	Date	6/2/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	30	silty CLAY, Gray (10YR 5/1), with strong Brown (7.5YR 5.8) mottles, moist, medium to high plasticity, no odor; CL.	[Diagonal Hatching]						3.0	0	
	31	CLAY, Black (Gley 1 2.5/N), with weak Red (10R 4/2) mottles in fractal pattern, medium plasticity, no odor; CH.	[Diagonal Hatching]	MC	7		NA	5.0/5	4.5	0	
	32	CLAY, greenish Gray (Gley 1 6/10Y), with brownish Yellow (10YR 6/8) mottles, moist, very hard, low plasticity, no odor; CH.	[Diagonal Hatching]						4.5	0	
	33		[Diagonal Hatching]								
	34		[Diagonal Hatching]						4.5	0	
	35		[Diagonal Hatching]	MC	8		NA	5.0/5	4.5	0	
	36		[Diagonal Hatching]						4.5	0	
	37		[Diagonal Hatching]						4.5	0	
	38	SILTSTONE, brownish Yellow (10YR 6/8), with light greenish Gray (Gley 1 8/10Y) mottles, dry, friable, no odor.	[Cross Hatching]	MC	9		NA	1.2/2	NA	NA	
	39		[Cross Hatching]								
	40		[Cross Hatching]								Geoprobe refusal at 30' bgs. Switch to Augers.
	41		[Cross Hatching]								Install MW-02 at 40' bgs with 15' screen interval.
	42		[Cross Hatching]	Cuttings							
	43		[Cross Hatching]								

Drilling Log


	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-03/MW-03	
	Coordinates		Ground Elevation	Page 1 of 3	
	Total Depth (feet) 35	Hole Size (inches) 2, 8.25	Driller P. Seymour		

Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/4/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	0	Asphalt (3.0")									
	1	Loose Gravel, fine to medium grained; FILL.									
	2	Loose Sand, fine grained; FILL.		MC	1		NA	1.6/3			
	3	silty CLAY, Gray (10YR 6/1), with yellowish Red (5YR 5/8) mottles, trace dark Brown (10YR 2/2) mottles, moist, high plasticity, no odor; CL.							1.5	0	No free water observed
	4								2.5	0	
	5								2.5	0	
	6								2.5	0	
	7										
	8										
	9								2.5	0	
	10								2.5	0	
	11								2.5	0	
	12								2.5	0	
	13										
				MC	4		NA	5.0/5			

Drilling Log, continued

			Boring/Monitoring Well Number	SB-03/MW-03
	Project Name	Goodfellow Federal Complex	Page	2 of 3
	Project Number	128487	Date	6/4/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks	
	15	silty CLAY, Gray (10YR 6/1), with yellowish Red (5YR 5/8) mottles, trace dark Brown (10YR 2/2) mottles, moist, high plasticity, no odor; CL.							2.5	0		
	16	CLAY, Gray (Gley 1 6/N), with strong Brown (7.5YR 5/6) mottles, trace silt, moist, medium to high plasticity, no odor; CH.		MC	4		NA	5.0/5	3.5	0		
	17								3.5	0		
	18	- becomes trace very dark Brown (10YR 2/2) mottles										
	19								4.0	0		
	20				MC	5		NA	5.0/5	4.0	0	
	21								4.0	0		
	22								4.5	0		
	23											
	24							4.0	0			
	25							4.5	0			
	26			MC	6		NA	5.0/5	4.5	0		
	27							3.0	0			
	28	- becomes with silt		MC	7		NA	5.0/5				

Drilling Log, continued

			Boring/Monitoring Well Number SB-03/MW-03	
	Project Name	Goodfellow Federal Complex	Page	3 of 3
	Project Number	128487	Date	6/4/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks	
	30	CLAY, Gray (Gley 1 6/N), with strong Brown (7.5YR 5/6) mottles, trace silt, moist, medium to high plasticity, no odor; CH.		MC	7		NA	5.0/5	3.0	0		
	31	CLAY, greenish Gray (Gley 1 6/10Y), with silt, moist, medium plasticity, no odor; CL. CLAY, greenish Gray (Gley 1 6/10Y), with silt, moist, medium plasticity, no odor; CL. CLAY, Black (Gley 1 2.5/N), with weak Red (10R 4/2) mottles in fractal pattern, moist, medium plasticity, no odor; CH.							3.0	0		
	32								2.0	0		
	33								3.0	0		
	34	SILTSTONE, greenish Gray (Gley 1 6/10Y) and yellowish Brown (10YR 5/8), friable, very hard, no odor.		MC	8		NA	2.2	4.2	0	Install MW-03 at 35' bgs with 15' screen interval.	
	35	Refusal on bedrock - End of boring at 35 feet bgs.										Monitoring well installed on 6/4/2021
	36											
	37											
	38											
	39											
	40											
	41											
	42											
	43											

Drilling Log


	Project Name Goodfellow Federal Complex		Project No. 128487		Boring/Monitoring Well Number SB-04/MW-04	
	Coordinates		Ground Elevation		Page 1 of 3	
	Total Depth (feet) 38	Hole Size (inches) 2, 8.25	Driller P. Seymour			



Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/7/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphalt (3.0")									No free water observed Depth to water while drilling Depth to water after drilling
	1	Gravel, medium to fine grained, with clay, some degraded brick fragments; FILL.									
	2	CLAY, Gray (Gley 1 5/N), with dark yellowish Brown (10YR 4/6) mottles, trace silt, moist, medium plasticity, no odor; CH.		MC	1		NA	2.0/3	2.0	0	
	3										
	4	- becomes with light brownish Gray (10YR 6/2) mottles							2.5	0	
	5	silty CLAY, dark yellowish Brown (10YR 4/4), with Gray (10YR 6/1) mottles, and trace iron nodules, moist, high plasticity, no odor; CL.		MC	2		NA	5.0/5	3.0	0	
	6								3.0	0	
	7								1.5	0	
	8										
	9								1.5	0	
	10								1.0	0	
	11	silty CLAY, Brown (10YR 5/3), with strong Brown (7.5YR 4/6) mottles, trace iron nodules, moist, soft, high plasticity, no odor; CL.		MC	3		NA	5.0/5	1.5	0	
	12								1.5	0	
	13			MC	4		NA	5.0/5			

Drilling Log, continued

			Boring/Monitoring Well Number SB-04/MW-04	
	Project Name	Goodfellow Federal Complex	Page	2 of 3
	Project Number	128487	Date	6/7/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks		
	15	silty CLAY, Brown (10YR 5/3), with strong Brown (7.5YR 4/6) mottles, trace iron nodules, moist, soft, high plasticity, no odor; CL.							2.0	0			
	16			MC	4		NA	5.0/5	2.0	0			
	17									1.5		0	
	18												
	19									2.0		0	
	20					MC	5		NA	5.0/5		1.5	0
	21									1.5		0	
	22							1.5	0				
	23												
	24							2.0	0				
	25	- Becomes hard, trace silt		MC	6		NA	5.0/5	3.0	0			
	26							3.0	0				
	27							3.5	0				
	28			MC	7		NA	5.0/5					

Drilling Log, continued

			Boring/Monitoring Well Number SB-04/MW-04	
	Project Name	Goodfellow Federal Complex	Page	3 of 3
	Project Number	128487	Date	6/7/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	30	CLAY, yellowish Brown (10YR 5/6), with greenish Gray (Gley 1 6/5GY) mottles, with Black (Gley 1 2.5/N) mottles, trace fine grained gravel, moist, hard, high plasticity, no odor; CH.		MC	7		NA	5.0/5	3.0	0	
	31								3.0	0	
	32								3.0	0	
	33	SILT, light greenish Gray (Gley 1 7/10Y), with friable strong Brown (7.5YR 5/8) lenses, with trace fine grained sand, moist, low plasticity, no odor; ML.									
	34	SILTSTONE, Friable, light greenish Gray (Gley 1 7/10Y), no odor.		MC	8		NA	4.5/5	3.0	0	
	35								3.0	0	
	36								3.5	0	
	37								5.6	0	
	38								Refusal on bedrock - End of boring at 38 feet bgs.		
	39										Monitoring well installed on 6/7/2021
	40										
	41										
	42										
	43										

Drilling Log


	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-05/MW-05	
	Coordinates		Ground Elevation	Page 1 of 3	
	Total Depth (feet) 33	Hole Size (inches) 2, 8.25	Driller P. Seymour		

Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/7/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphalt (3.0")									
	1	CLAY, with uniform sand, fine to coarse grained; FILL.		MC	1		NA	1.7/3	2.0	0	No free water observed
	2	silty CLAY, strong Brown (7.5YR 5/6), with Brown (7.5YR 4/2) mottles, moist, high plasticity, no odor; CL.									
	3										
	4										
	5	- becomes with iron nodules CLAY, strong Brown (7.5YR 5/6), trace silt, moist, hard, high plasticity, no odor; CH.		MC	2		NA	5.0/5	3.0	0	
	6								3.5	0	
	7								2.5	0	
	8										
	9	- becomes trace iron nodules							4.0	0	
	10			MC	3		NA	5.0/5	4.0	0	
	11								4.5	0	
	12								4.5	0	
	13			MC	4		NA	5.0/5			

Drilling Log, continued

			Boring/Monitoring Well Number SB-05/MW-05	
	Project Name	Goodfellow Federal Complex	Page	2 of 3
	Project Number	128487	Date	6/7/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	CLAY, strong Brown (7.5YR 5/6), trace silt, moist, hard, high plasticity, no odor; CH. - becomes some silt	[Hatched Pattern]	MC	4		NA	5.0/5	4.5	0	
	16								4.5	0	
	17	CLAY, strong Brown (7.5YR 5/6), with Brown (7.5YR 5/2) mottles, with medium to coarse grained iron nodules, moist, hard, medium plasticity, no odor; CH. - becomes very hard - and iron nodules from 22.0' to 23.0'	[Hatched Pattern]	MC	5		NA	5.0/5	4.5	0	
	18								4.0	0	
	19								>4.5	0	
	20								>4.5	0	
	21										
	22										
	23										
	24								3.5	0	
	25								3.0	0	
	26								3.1	0	
	27								3.0	0	
	28										
				MC	5		NA	4.6/5			

Drilling Log, continued

			Boring/Monitoring Well Number SB-05/MW-05	
	Project Name	Goodfellow Federal Complex	Page	3 of 3
	Project Number	128487	Date	6/7/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	30								3.2	0	
	31			MC	5		NA	4.6/5	3.0	0	
	32	SILTSTONE, Friable, no odor.	x x x x x x x x x x						3.1	0	Install MW-05 at 33' bgs with 15' screen interval.
	33	Refusal on bedrock - End of boring at 33 feet bgs.									Monitoring well installed on 6/7/2021
	34										
	35										
	36										
	37										
	38										
	39										
	40										
	41										
	42										
	43										

Drilling Log

	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-06/MW-06	
	Coordinates		Ground Elevation	Page 1 of 3	
	Total Depth (feet) 31	Hole Size (inches) 2, 8.25	Driller P. Seymour		


Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/7/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphalt (3.0")									No free water observed
	1	Asphalt cinders and coarse grained Gravel; FILL.									
	2	silty CLAY, light olive Brown (2.5Y 5/3), moist, very soft, high plasticity, no odor; CL.		MC	1		NA	1.9/3	0.5	0	
	3	silty CLAY, grayish Brown (2.5YR 5/2), moist, soft, high plasticity, no odor; CL.							0.5	0	
	4								1	0	
	5			MC	2		NA	4.5/5	1	0	
	6								1	0	
	7								1.5	0	
	8	silty CLAY, strong Brown (7.5YR 5/6), with Brown (7.5YR 4/2) mottles, moist, high plasticity, no odor; CL.									
	9								1.0	0	
	10								1.5	0	
	11	CLAY, strong Brown (7.5YR 4/6), with iron nodules, moist, hard, high plasticity, no odor; CH.		MC	3		NA	5.0/5	2.0	0	
	12								2.5	0	
	13	- becomes trace iron nodules		MC	4		NA	5.0/5			


2021 GSA DRILLING LOGS GPJ 8/9/21

Drilling Log, continued

	Boring/Monitoring Well Number SB-06/MW-06	
	Project Name Goodfellow Federal Complex	Page 2 of 3
	Project Number 128487	Date 6/7/2021




Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	CLAY, strong Brown (7.5YR 4/6), with iron nodules, moist, hard, high plasticity, no odor; CH.							2.0	0	
	16			MC	4		NA	5.0/5	3.0	0	
	17								3.5	0	
	18	CLAY, reddish Brown (2.5YR 4/4), trace silt, with fine grained gravel, moist, medium plasticity, no odor; CH.							4.0	0	
	19								4.0	0	
	20			MC	5		NA	5.0/5	4.0	0	
	21								4.5	0	
	22						4.0	0			
	23										
	24										
	25										
	26										
	27										
	28										
			x x x x x x x x x x x x	MC	7		NA	2.2/3			

Drilling Log


	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-07/MW-07	
	Coordinates		Ground Elevation	Page 1 of 3	
	Total Depth (feet) 30	Hole Size (inches) 2, 8.25	Driller P. Seymour		

Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/11/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	1	TOPSOIL, clayey silt, dark yellowish Brown (10YR 4/6), moist, medium plasticity; FILL.		MC	1		NA	2.4/3	2.5	0	No free water observed
	2								2.5	0	
	3	Limstone fill, coarse grained gravel and fine to coarse grained sand; FILL.									
	4	silty CLAY, light brownish Gray (10YR 6/2), with dark yellowish Brown (10YR 4/8) mottles, with dark Gray (10YR 3/1) mottles, moist, high plasticity, no odor; CL.		MC	2		NA	4.6/5	2.5	0	
	5								2.5	0	
	6								2.5	0	
	7								2.5	0	
	8										
	9								2.5	0	
	10								2.5	0	
	11								2.5	0	
	12								3.5	0	
	13			MC	4		NA	5.0/5			

Drilling Log, continued

			Boring/Monitoring Well Number	SB-07/MW-07
	Project Name	Goodfellow Federal Complex	Page	2 of 3
	Project Number	128487	Date	6/11/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	CLAY, light brownish Gray (10YR 6/2), with yellowish Brown (10YR 5/8) mottles, with dark Gray (10YR 3/1) mottles, trace silt, moist, high plasticity, no odor; CH.	▨						3.0	0	
	16		MC	4		NA	5.0/5	4.5	0		
	17		4.5	0							
	18	CLAY, yellowish Brown (10YR 5/6), with light brownish Gray (10YR 6/2) mottles, trace silt, moist, hard, high plasticity, no odor; CH.	▨						4.0	0	
	19		MC	5		NA	5.0/5	4.5	0		
	20		4.5	0							
	21		4.5	0							
	22		4.5	0							
	23										
	24							4.5	0		
	25							4.0	0		
	26							3.5	0		
	27							3.5	0		
	28	- becomes some medium grained iron nodules from 27.2' to 28.0'									
		SILTSTONE, brownish Yellow (10YR 6/8), with light greenish Gray (Gley 1 8/10Y) mottles, dry, friable, no odor.	x x x x	MC	7		NA	1.7/2	NA	NA	

Drilling Log

	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-08/MW-08	
	Coordinates		Ground Elevation	Page 1 of 3	
	Total Depth (feet) 30	Hole Size (inches) 2, 8.25	Driller P. Seymour		


Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/10/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphalt (6.0")									
	1	silty CLAY, grayish Brown (10YR 5/2), with strong Brown (7.5YR 5/6) mottles, moist, high plasticity, no odor; FILL.		MC	1		NA	0.4/3	1.5	0	No free water observed
	2										
	3	silty CLAY, very dark greenish Gray (Gley 1 3/10Y), with very dak Gray (Gley 1 3/N) mottles, trace medium grained gravel, moist, hard, medium to high plasticity, no odor; CL.						4.0	0		
	4										
	5	silty CLAY, grayish Brown (10YR 5/2), with strong Brown (7.5YR 5/8) mottles, some iron nodules, moist, soft, no odor; CL.		MC	2		NA	2.0	0		
	6										
	7										
	8	- and iron nodules from 7.0' to 7.4'						2.0	0		
	9	- becomes very soft						1.0	0		
	10	- iron nodules grade out						1.0	0		
	11							2.5	0		
	12							4.0	0		
	13	silty CLAY, light Gray (Gley 1 7/N), with yellowish Brown (10YR 5/8) mottles, moist, medium to high plasticity, no odor; CL.		MC	4		NA	5.0/5			

2021 GSA DRILLING LOGS.GPJ 8/9/21

Drilling Log, continued

	Boring/Monitoring Well Number SB-08/MW-08	
	Project Name Goodfellow Federal Complex	Page 2 of 3
	Project Number 128487	Date 6/10/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	<p>silty CLAY, light Gray (Gley 1 7/N), with yellowish Brown (10YR 5/8) mottles, moist, medium to high plasticity, no odor; CL.</p> <p>- becomes some dark grayish Brown (10YR 3/2) mottles</p>		MC	4		NA	5.0/5	3.5	0	
	16								3.5	0	
	17								3.5	0	
	18										
	19	<p>CLAY, strong Brown (7.5YR 5/6), with light Gray (Gley 7/N) mottles, with Black (10YR 2/1) mottles, trace silt, moist, high plasticity, no odor; CH.</p>		MC	5		NA	5.0/5	4.0	0	
	20								4.0	0	
	21								4.5	0	
	22								3.5	0	
	23	<p>- becomes some fine grained iron nodules</p>									
	24	<p>CLAY, light Brownish Gray (10YR 6/2), with Black (10YR 2/1) nodules, and iron nodules, trace silt, moist, high plasticity, no odor; CH.</p>							4.5	0	
	25	<p>CLAY, strong Brown (7.5YR 5/6), with light Gray (Gley 1 7/N) mottles, trace iron nodules, trace silt, moist, high plasticity, no odor; CH.</p>		MC	6		NA	5.0/5	3.5	0	
	26								3.0	0	
	27	<p>SILTSTONE, light Gray (Gley 1 7/N), with brownish Yellow (10YR 6/8) mottles, friable, no odor.</p>							3.5	0	
	28			MC	7		NA	2.0/2			

Drilling Log

	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-09/MW-09	
	Coordinates		Ground Elevation	Page 1 of 3	
	Total Depth (feet) 38	Hole Size (inches) 2, 8.25	Driller P. Seymour		


Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/2/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Concrete (3.0")									
	1	coarse grained Gravel and fine to coarse grained Sand; FILL.		MC	1		NA	0.4/3	NA	NA	
	2										
	3										
	4	silty CLAY, grayish Brown (2.5Y 5/2), with dark yellowish Brown (10YR 4/6) mottles, with very dark Brown (10YR 2/2) mottles, moist, high plasticity, no odor; CL.		MC	2		NA	2.8/5	2.0	0	No free water observed
	5								2.0	0	
	6								2.0	0	
	7								2.0	0	
	8										
	9	- very dark Brown (10YR 2/2) mottles grades out		MC	3		NA	4.0/5	1.5	0	
	10								1.5	0	
	11								2.0	0	
	12								3.0	0	
	13			MC	4		NA	5.0/5			


2021 GSA DRILLING LOGS.GPJ 8/9/21



Drilling Log, continued

	Project Name Goodfellow Federal Complex		Boring/Monitoring Well Number SB-09/MW-09	
	Project Number 128487		Page 2 of 3	
			Date 6/2/2021	

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	silty CLAY, grayish Brown (2.5Y 5/2), with dark yellowish Brown (10YR 4/6) mottles, with very dark Brown (10YR 2/2) mottles, moist, high plasticity, no odor; CL. - becomes some fine grained iron nodules	[Hatched Pattern]	MC	4		NA	5.0/5	-	0	
	16								3.5	0	
	17								3.0	0	
	18	silty CLAY, light brownish Gray (10YR 6/2), trace light Gray (10YR 7/1) mottles, moist, high plasticity, no odor; CL.	[Hatched Pattern]	MC	5		NA	4.5/5	2.5	0	
	19								1.0	0	
	20								3.5	0	
	21	silty CLAY, Brown (7.5YR 4/3), with strong Brown (7.5YR 5/8) mottles, trace iron nodules, moist, medium to high plasticity, no odor; CL. - becomes with light Gray (10YR 7/1) mottles	[Hatched Pattern]	MC	6		NA	5.0/5	3.5	0	
	22								3.5	0	
	23								4.5	0	
	24	silty CLAY, light greenish Gray (Gley 1 7/10Y), with Brown (7.5YR 5/4) mottles, moist, low to medium plasticity, no odor; CL.	[Hatched Pattern]	MC	7		NA	5.0/5	4.5	0	
	25								4.5	0	
	26								4.5	0	
	27	silty CLAY, Brown (10YR 5/2), with strong Brown (7.5YR 5/8) mottles, moist, medium plasticity, no odor; CL.	[Hatched Pattern]	MC	7		NA	5.0/5	4.0	0	
	28										

Drilling Log, continued

			Boring/Monitoring Well Number	SB-09/MW-09
	Project Name	Goodfellow Federal Complex	Page	3 of 3
	Project Number	128487	Date	6/2/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	30	silty CLAY, Brown (10YR 5/2), with strong Brown (7.5YR 5/8) mottles, moist, medium plasticity, no odor; CL.		MC	7		NA	5.0/5	3.0	0	
	31								3.5	0	
	32								4.0	0	
	33							-	0		
	34										
	35	SILTSTONE, light yellowish Brown (2.5YR 6/4), Friable, no odor.		MC	8		NA	5.0/5	NA	NA	
	36										
	37										Install MW-09 at 35' bgs with 15' screen interval.
	38	Refusal on bedrock - End of boring at 38 feet bgs.									Monitoring well installed on 6/2/2021
	39										
	40										
	41										
	42										
	43										

Drilling Log

	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-10/MW-10	
	Coordinates		Ground Elevation	Page 1 of 3	
	Total Depth (feet) 32	Hole Size (inches) 2, 8.25	Driller P. Seymour		


Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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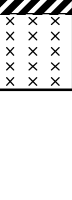



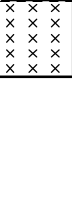
Date 6/8/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphalt (12.0")									
	1	fine grained SAND, some medium to coarse grained GRAVEL; FILL.		MC	1		NA	1.2/3			
	2								1.5	0	
	3	silty CLAY, light brownish Gray (2.5Y 6/2), some strong Brown (7.5YR 4/6) mottling, some dark Gray (10YR 4/1) mottling, moist, high plasticity, no odor; CL.									
	4								2.5	0	
	5	- becomes some iron nodules		MC	2		NA	3.2/5	2.5	0	No free water observed
	6	silty CLAY, Gray (10YR 6/1), some strong Brown (7.5YR 5/8) mottling, moist, high plasticity, no odor; CL.							2.5	0	
	7								3.0	0	
	8										
	9								3.0	0	
	10	- some very dark Gray (7.5YR 3/1) mottling from 10.0' to 11.0'		MC	3		NA	5.0/5	4.0	0	
	11								2.5	0	
	12	- becomes soft							1.5	0	
	13			MC	4		NA	5.0/5			

2021 GSA DRILLING LOGS.GPJ 8/9/21

Drilling Log, continued

			Boring/Monitoring Well Number SB-10/MW-10	
	Project Name	Goodfellow Federal Complex	Page	2 of 3
	Project Number	128487	Date	6/8/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	<p>silty CLAY, strong Brown (7.5YR 5/8), some pale Brown (10YR 7/4) mottling, moist, medium plasticity, no odor; CL.</p> <p>silty CLAY, Brown (7.5YR 5/3), some very dark Brown (10YR 2/2) mottling, moist, medium to high plasticity, no odor; CL.</p>							3.5	0	
	16	CLAY, dark yellowish Brown (10YR 4/6), trace Gray (10YR 6/1) mottling, trace very dark Gray (10YR 3/1) mottling, trace silt, moist, hard, medium plasticity; CH.		MC	4		NA	5.0/5	4.0	0	
	17								4.0	0	
	18	CLAY, dark yellowish Brown (10YR 4/6), some Brown (7.5YR 5/3) mottling, some light greenish Gray (Gley 1 7/10Y) mottling, some silt, moist, medium to high plasticity, no odor; CH.							4.0	0	
	19								3.5	0	
	20			MC	5		NA	5.0/5	3.5	0	
	21								3.5	0	
	22								3.5	0	
	23	- becomes some iron nodules									
	24								4.0	0	
	25	CLAY, dark yellowish Brown (10YR 4/4), trace light greenish Gray (Gley 1 7/10Y), friable, no odor; CH.		MC	6		NA	5.0/5	4.0	0	
	26								4.0	0	
	27								4.0	0	
	28	SILTSTONE, dark yellowish Brown (10YR 4/6), friable.		MC	7		NA	4.0/4			

Drilling Log

	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-11/MW-11	
	Coordinates		Ground Elevation	Page 1 of 3	
	Total Depth (feet) 33	Hole Size (inches) 2, 8.25	Driller P. Seymour		


Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/8/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphalt (3.0") fine to coarse grained GRAVEL, some coarse grained SAND; FILL.									
	1	silty CLAY, dark Gray (5Y 4/1), some medium to coarse grained gravel, moist, soft, high plasticity, no odor; CL.		MC	1		NA	2.0/3	1.5	0	No free water observed
	2	silty CLAY, strong Brown (7.5YR 4/6), trace very dark Brown (10YR 2/2) mottling, moist, high plasticity, soft, no odor; CL.							2.0	0	
	3										
	4								1.5	0	
	5			MC	2		NA	4.5/5	1.0	0	
	6								1.0	0	
	7								0.5	0	
	8										
	9								1.0	0	
	10	- becomes trace fine grained iron nodules		MC	3		NA	4.5/5	1.0	0	
	11								1.5	0	
	12								1.5	0	
	13			MC	4		NA	5.0/5			

2021 GSA DRILLING LOGS GPJ 8/9/21

Drilling Log, continued

			Boring/Monitoring Well Number SB-11/MW-11	
	Project Name	Goodfellow Federal Complex	Page	2 of 3
	Project Number	128487	Date	6/8/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	CLAY, Brown (7.5YR 5/4), trace iron nodules, trace silt, moist, hard, medium to high plasticity, no odor; CH.							2.5	0	
	16			MC	4		NA	5.0/5	2.5	0	
	17								3.0	0	
	18										
	19	- becomes some very dark Gray (10YR 3/2) mottling							3.0	0	
	20	- becomes some medium grained iron nodules			MC	5		NA	5.0/5	3.0	0
	21								3.5	0	
	22							3.5	0		
	23	CLAY, light Gray (Gley 1 7/N), some yellowish Brown (10YR 6/8) mottling, trace silt, moist, hard, high plasticity, no odor; CH.									
	24							3.5	0		
	25	CLAY, light olive Brown (2.5Y 5/4), dark Gray (10YR 4/1), dusty Red (2.5YR 3/2), some brownish Yellow (10YR 6/8) mottling, moist, hard, high plasticity, no odor; CH.		MC	6		NA	5.0/5	4.0	0	
	26							4.5	0		
	27	CLAY, light Gray (Gley 1 7/N), some reddish Brown (5YR 6/3) mottling, trace silt, friable; CH.						4.0	0		
	28	silty CLAY, dark Gray (Gley 1 4/N), some dusty Red (2.5YR 3/2) mottling, friable; CL.		MC	7		NA	2.0/2			

Drilling Log

	Project Name Goodfellow Federal Complex		Project No. 128487		Boring/Monitoring Well Number SB-12/MW-12	
	Coordinates		Ground Elevation		Page 1 of 4	
	Total Depth (feet) 45	Hole Size (inches) 2, 8.25	Driller P. Seymour			

Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/10/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	0	Asphalt (3.0")									
	1	asphaltic GRAVEL and coarse grained SAND, some cinders, some glass fragments; FILL.									
	1	limestone GRAVEL and SAND; FILL.		MC	1		NA	2.1/3	2.5	0	
	2	silty CLAY, Brown (7.5YR 4/4), moist, soft, high plasticity, no odor; CL.									
	3	- becomes and iron nodules									
	4	CLAY, strong Brown (7.5YR 4/6), some light Brown (7.5YR 6/4) mottling, trace silt, some iron nodules, moist, hard, high plasticity, no odor; CH.							3.0	0	
	5			MC	2		NA	5.0/5	4.0	0	No free water observed
	6								3.5	0	
	7								4.0	0	
	8	- becomes trace dark Brown (10YR 2/2) mottling									
	9								4.5	0	
	10			MC	3		NA	5.0/5	4.5	0	
	11								4.5	0	
	12								4.0	0	
	13			MC	4		NA	5.0/5			

2021 GSA DRILLING LOGS.GPJ 8/9/21


Depth to water while drilling
 Depth to water after drilling

Drilling Log, continued

			Boring/Monitoring Well Number	SB-12/MW-12
	Project Name	Goodfellow Federal Complex	Page	2 of 4
	Project Number	128487	Date	6/10/2021


Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	silty CLAY, strong Brown (7.5YR 4/6), light Brown (7.5YR 6/4) mottling, some light greenish Gray (Gley 1 7/10Y), and fine grained iron nodules, moist, soft, high plasticity; CL.	[Hatched Pattern]	MC	4		NA	5.0/5	2.5	0	
	16								4.0	0	
	17								3.0	0	
	18	silty CLAY, very dark Gray (Gley 1 3/N), some fine to medium grained gravel, moist, very soft, no odor; CL.	[Hatched Pattern]	MC	5		NA	4.5/5	NA	NA	
	19								NA	NA	
	20	silty CLAY, light yellowish Brown (2.5Y 6/4), some greenish Gray (Gley 1 6/5GY) mottling, moist, very hard, high plasticity, no odor; CL.	[Hatched Pattern]	MC	6		NA	4.7/5	NA	NA	
	21								NA	NA	
	22								NA	NA	
	23		[Hatched Pattern]	MC	7		NA	4.6/5	NA	NA	
	24								NA	NA	
	25		[Hatched Pattern]								
	26		[Hatched Pattern]								
	27		[Hatched Pattern]								
	28		[Hatched Pattern]								

Drilling Log, continued

			Boring/Monitoring Well Number SB-12/MW-12	
	Project Name	Goodfellow Federal Complex	Page	3 of 4
	Project Number	128487	Date	6/10/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks	
	30	silty CLAY, light yellowish Brown (2.5Y 6/4), some greenish Gray (Gley 1 6/5GY) mottling, moist, very hard, high plasticity, no odor; CL.		MC	7		NA	4.6/5	NA	NA		
	31											
	32											
	33											
	34											
	35			MC	8		NA	4.2/5	NA	NA		
	36											
	37											
	38											
	39											
	40											
	41			MC	9		NA	4.1/5	NA	NA		
	42											
	43	SILTSTONE, dark reddish Brown (2.5YR 3/4), some light greenish Gray (Gley 1 8/10Y) mottling, some light yellowish Brown (2.5Y 6/4), friable.		MC	10		NA	1.7/2	NA	NA		

Drilling Log, continued

			Boring/Monitoring Well Number SB-12/MW-12	
	Project Name	Goodfellow Federal Complex	Page	4 of 4
	Project Number	128487	Date	6/10/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	45	SILTSTONE, dark reddish Brown (2.5YR 3/4), some light greenish Gray (Gley 1 8/10Y) mottling, some light yellowish Brown (2.5Y 6/4), friable.	x x x x x x x x x x x x	MC	10		NA	1.7/2	NA	NA	Install MW-12 at 45' bgs with 15' screen interval.
	46	Refusal on bedrock - End of boring at 45 feet bgs.									Monitoring well installed on 6/10/2021
	47										
	48										
	49										
	50										
	51										
	52										
	53										
	54										
	55										
	56										
	57										
	58										

Drilling Log


	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-13/MW-13	
	Coordinates		Ground Elevation	Page 1 of 2	
	Total Depth (feet) 21	Hole Size (inches) 2, 8.25	Driller P. Seymour		

Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/6/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphalt (4.0")									No free water observed Depth to water while drilling Depth to water after drilling
		Concrete (8.0")									
	1	fine to medium grained GRAVEL, and fine to medium grained SAND; FILL.		MC	1		NA	1.8/3	NA	NA	
	2										
	3	silty CLAY, Gray (10YR 5/1), some dark yellowish Brown (10YR 4/4) mottling, moist, high plasticity, no odor; CL.									
	4	silty CLAY, Brown (7.5YR 5/3), some strong Brown (7.5YR 4/6) mottling, trace fine grained iron nodules, moist, soft, high plasticity, no odor; CL.							1.5	0	
	5			MC	2		NA	3.0/5	1.5	0	
	6								2.5	0	
	7								2.5	0	
	8	CLAY, Brown (7.5YR 4/4), trace Black (10YR 2/1) mottling, trace silt, moist, hard, high plasticity, no odor; CH.									
	9								3.0	0	
	10			MC	3		NA	5.0/5	3.0	0	
	11								4.0	0	
	12	CLAY, Brown (7.5YR 4/4), trace Black (10YR 2/1) mottling, trace silt, moist, hard, high plasticity, no odor; CH.							4.0	0	
	13			MC	4		NA	5.0/5			

Drilling Log, continued

			Boring/Monitoring Well Number SB-13/MW-13	
	Project Name	Goodfellow Federal Complex	Page	2 of 2
	Project Number	128487	Date	6/6/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	CLAY, Brown (7.5YR 4/4), trace Black (10YR 2/1) mottling, trace silt, moist, hard, high plasticity, no odor; CH.		MC	4		NA	5.0/5	4.0	0	
	16								4.0	0	
	17								4.0	0	
	18	SILTSTONE, Brown (7.5YR 4/4), trace Black (10YR 2/1) mottling, trace silt, moist, hard, friable, no odor.		MC	5		NA	2.9/3	4.0	0	Install MW-13 at 21' bgs with 15' screen interval.
	19								3.5	0	
	20										
	21	Refusal on bedrock - End of boring at 21 feet bgs.									Monitoring well installed on 6/6/2021
	22										
	23										
	24										
	25										
	26										
	27										
	28										

Drilling Log

	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-14/MW-14
	Coordinates		Ground Elevation	Page 1 of 2
	Total Depth (feet) 21	Hole Size (inches) 2, 8.25	Driller P. Seymour	


Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/9/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphalt (6.0")									
	1	silty CLAY, Brown (10YR 4/3), some dark Brown (10YR 3/6) mottling, moist, medium plasticity, no odor; CL.									
	2	silty CLAY, Brown (7.5YR 4/4), some dark Gray (7.5YR 4/1) mottling, moist, high plasticity, no odor; CL.		MC	1		NA	1.6/3	2.5	0	
	3								1.5	0	
	4								2.0	0	
	5								3.0	0	No free water observed
	6			MC	2		NA	5.0/5	2.0	0	
	7	CLAY, Brown (7.5YR 5/4), some very dark Brown (10YR 2/2) mottling, trace silt, moist, high plasticity, no odor; CH.							2.5	0	
	8										
	9	CLAY, yellow (10YR 7/8), light Gray (Gley 1 7/N), trace silt, trace fine grained gravel, moist, high plasticity, no odor; CL.							3.0	0	
	10								3.0	0	
	11	- loose coarse grained SAND and fine grained GRAVEL, some yellow (10YR 7/8) clay from 11.0' to 11.2'							3.0	0	
	12	CLAY, dusky Red (2.5YR 3/2), some light Gray (10YR 7/1) mottling, some brownish Yellow (10YR 6/8) mottling, trace silt, moist, medium to high plasticity; CH.							3.5	0	
	13			MC	4		NA	5.0/5			

2021 GSA DRILLING LOGS.GPJ 8/9/21

Drilling Log, continued

			Boring/Monitoring Well Number SB-14/MW-14	
	Project Name	Goodfellow Federal Complex	Page	2 of 2
	Project Number	128487	Date	6/9/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	CLAY, dusky Red (2.5YR 3/2), some reddish Brown (5YR 5/3) mottling, some Yellow (10YR 7/8) mottling, some light Gray (Gley 1 7/N) mottling, some silt, friable; CH.		MC	4		NA	5.0/5	2.5	0	
	16								3.5	0	
	17								3.0	0	
	18							4.0	0		
	19	SILTSTONE, brownish Yellow (10YR 6/8), with light greenish Gray (Gley 1 8/10Y) mottles, dry, friable, no odor.		MC	5		NA	2.0/2	4.5	0	
	20										
	21	Refusal on bedrock - End of boring at 21 feet bgs.									Install MW-14 at 21' bgs with 15' screen interval.
	22										Monitoring well installed on 6/9/2021
	23										
	24										
	25										
	26										
	27										
	28										

Drilling Log


	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-15/MW-15	
	Coordinates		Ground Elevation	Page 1 of 3	
	Total Depth (feet) 38	Hole Size (inches) 2, 8.25	Driller P. Seymour		

Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/11/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks	
		Asphalt (6.0")										
	1	sandy CLAY, fine grained, and limestone GRAVEL, and asphaltic GRAVEL; FILL.		MC	1		NA	1.5/3	1.5	0	No free water observed	
	2									1.0		0
	3	silty CLAY, dark yellowish Brown (10YR 4/2), some Brown (2.5YR 4/4) mottling, some light Gray (10YR 7/1) mottling, some very dark Brown (10YR 2/2) mottling, moist, soft, high plasticity, no odor; CL.		MC	2		NA	2.6/5	1.5	0		
	4									1.5		0
	5									2.5		0
	6									3.0		0
	7											
	8											
	9								2.0	0		
	10								1.5	0		
	11								1.5	0		
	12								1.5	0		
	13			MC	4		NA	5.0/5				

Drilling Log, continued

	Boring/Monitoring Well Number SB-15/MW-15	
	Project Name Goodfellow Federal Complex	Page 2 of 3
	Project Number 128487	Date 6/11/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	silty CLAY, dark yellowish Brown (10YR 4/2), some Brown (2.5YR 4/4) mottling, some light Gray (10YR 7/1) mottling, some very dark Brown (10YR 2/2) mottling, moist, soft, high plasticity, no odor; CL. - becomes trace very dark Brown (10YR 2/2) mottling - becomes some fine grained iron nodules	[Hatched Pattern]	MC	4		NA	5.0/5	1.5	0	
	16								2.0	0	
	17								2.0	0	
	18	silty CLAY, light brownish Gray (10YR 6/2), some strong Brown (7.5YR 4/6) mottling, trace Black (10YR 2/1) mottling, moist, soft, high plasticity, no odor; CL.	[Hatched Pattern]	MC	5		NA	5.0/5	2.5	0	
	19								3.0	0	
	20								3.0	0	
	21								3.5	0	
	22	CLAY, strong Brown (7.5YR 4/4), some Black (10YR 2/1) mottling, some silt, trace fine grained iron nodules, moist, hard, high plasticity; CH.	[Hatched Pattern]	MC	6		NA	5.0/5	2.5	0	
	23								3.5	0	
	24								4.0	0	
	25		[Hatched Pattern]	MC	7		NA	5.0/5			
	26										
	27										
	28										

Drilling Log, continued

			Boring/Monitoring Well Number	SB-15/MW-15
	Project Name	Goodfellow Federal Complex	Page	3 of 3
	Project Number	128487	Date	6/11/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	30	CLAY, strong Brown (7.5YR 4/4), some Black (10YR 2/1) mottling, some silt, trace fine grained iron nodules, moist, hard, high plasticity; CH. - becomes trace medium grained gravel		MC	7		NA	5.0/5	4.0	0	
	31								4.0	0	
	32								4.0	0	
	33								4.5	0	
	34								4.0	0	
	35	SILTSTONE, light Gray (Gley 1 7/N), some yellowish Brown (10YR 5/8) mottling, hard, friable.		MC	8		NA	4.5/5	4.0	0	
	36								4.0	0	
	37								4.5	0	
	38	Refusal on bedrock - End of boring at 38 feet bgs.							5	0	Install MW-15 at 38' bgs with 15' screen interval.
	39										Monitoring well installed on 6/11/2021
	40										
	41										
	42										
	43										

Drilling Log

	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-16/MW-16	
	Coordinates		Ground Elevation	Page 1 of 3	
	Total Depth (feet) 38	Hole Size (inches) 2, 8.25	Driller P. Seymour		


Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/11/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphalt, and SAND, and GRAVEL; FILL.									
	1	sandy CLAY, grayish Brown (10YR 5/2), some medium grained gravel, wet, low plasticity; FILL.		MC	1		NA	2.3/3	-	0	
	2	sandy SILT, coarse grained sand, some fine grained gravel, moist, low plasticity no odor; SM.							3.0	1.33	
	3	- well sorted medium to coarse grained sand 2.4' to 2.6'							2.5	1.96	
	4	silty CLAY, light Brown (10YR 6/2), some medium grained gravel, moist, low plasticity; CL.									
	5	silty CLAY, dark yellowish Brown (10YR 4/4), some grayish Brown (10YR 5/2) mottling, moist, high plasticity, no odor; CL.		MC	2		NA	3.6/5	3.0	0	
	6								1.0	0	No free water observed
	7								1.0	0	
	8	- lens of loose sandy clay from 6.8' to 7.0' - lens of brick fragments from 7.0' to 7.2'							3.0	0	
	9	silty CLAY, olive Brown (2.5Y 4/3), some Gray (Gley 1 5/7) mottling, moist, hard, high plasticity; CL.									
	10			MC	3		NA	4.0/5	1.5	0	
	11								2.0	0	
	12								3.0	0	
	13	- becomes some very dark grayish Brown (10YR 3/2) mottling		MC	4		NA	5.0/5	2.5	0	


2021 GSA DRILLING LOGS.GPJ 8/9/21




Drilling Log, continued

			Boring/Monitoring Well Number SB-16/MW-16	
	Project Name	Goodfellow Federal Complex	Page	2 of 3
	Project Number	128487	Date	6/11/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	silty CLAY, olive Brown (2.5Y 4/3), some Gray (Gley 1 5/7) mottling, moist, hard, high plasticity; CL.							1.5	0	
	16	silty CLAY, grayish Brown (10YR 5/2), some yellowish Brown (10YR 5/8) mottling, moist, soft, no odor; CL.		MC	4		NA	5.0/5	2.0	0	
	17								2.0	0	
	18	- becomes some iron fine grained iron nodules									
	19	- becomes and fine to medium grained iron nodules							2.0	0	
	20			MC	5		NA	5.0/5	2.0	0	
	21								2.0	0	
	22								2.5	0	
	23										
	24								3.0	0	
	25	CLAY, stong Brown (7.5YR 4/6), trace to some silt, trace iron nodules, moist, hard, high plasticity, no odor; CH.		MC	6		NA	5.0/5	4.0	0	
	26								4.0	0	
	27								3.0	0	
	28			MC	7		NA	5.0/5			

Drilling Log, continued

			Boring/Monitoring Well Number	SB-16/MW-16
	Project Name	Goodfellow Federal Complex	Page	3 of 3
	Project Number	128487	Date	6/11/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	30	silty CLAY, grayish Brown (10YR 5/2), some yellowish Brown (10YR 5/8) mottling, some medium grained iron nodules, moist, soft, no odor; CL.		MC	7		NA	5.0/5	1.5	0	
	31								2.0	0	
	32								1.5	0	
	33	CLAY, strong Brown (7.5YR 4/6), trace silt, some fine to medium grained iron nodules, moist, hard, high plasticity, no odor; CH.		MC	8		NA	5.0/5	1.0	0	
	34								4.0	0	
	35								4.0	0	
	36	SILTSTONE, light Gray (Gley 1 7/N), some yellowish Brown (10YR 5/8) mottling, hard, friable.							4.5	0	
	37								4.5	0	
	38	Refusal on bedrock - End of boring at 38 feet bgs.									Install MW-16 at 38' bgs with 15' screen interval.
	39										Monitoring well installed on 6/11/2021
	40										
	41										
	42										
	43										

Drilling Log

	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-17/MW-17	
	Coordinates		Ground Elevation	Page 1 of 5	
	Total Depth (feet) 70	Hole Size (inches) 2, 8.25	Driller P. Seymour		

Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/2/2021 to 6/3/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphalt (4.0")									
		Asphaltic GRAVEL (8.0")									
	1	Gravel Fill (3.0")		MC	1		NA	2.5/3	4.5	0	No free water observed
	2	CLAY, strong Brown (7.5YR 4/6), moist, high plasticity, no odor; FILL.							4.0	0	
	3	- becomes soft									
	4	silty CLAY, Brown (7.5YR 5/3), trace iron nodules, moist, high plasticity, soft, no odor; CL.		MC	2		NA	5.0/5	0.5	0	
	5								0.5	0	
	6								0.5	0	
	7								0.5	0	
	8										
	9								0.5	0	
	10			MC	3		NA	3.5/5	0.5	0	
	11								0.5	0	
	12								0.5	0	
	13	CLAY, strong Brown (7.5YR 4/6), trace iron nodules, moist, high plasticity, hard, no odor; CH.		MC	4		NA	5.0/5			

2021 GSA DRILLING LOGS.GPJ 8/9/21

Depth to water while drilling
 Depth to water after drilling

Drilling Log, continued

			Boring/Monitoring Well Number SB-17/MW-17	
	Project Name	Goodfellow Federal Complex	Page	2 of 5
	Project Number	128487	Date	6/2/2021 to 6/3/2021

Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	CLAY, strong Brown (7.5YR 4/6), trace iron nodules, moist, high plasticity, hard, no odor; CH.		MC	4		NA	5.0/5	3.5	0	
	16								3.5	0	
	17								3.5	0	
	18	CLAY, reddish Brown (5YR 4/3), trace iron nodules, moist, medium plasticity, no odor; CH. - becomes friable		MC	5		NA	5.0/5	3.5	0	
	19								4.0	0	
	20								4.5	0	
	21								4.5	0	
	22	SILTSTONE, Gray (10YR 6/1), friable, no odor.		MC	6		NA	2.0/2	2.0	0	Geoprobe refusal at 25' bgs. Switch to Augers.
	23										
	24										
	25	Cuttings									
	26										
	27										
	28										

Drilling Log

	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-18/MW-18
	Coordinates		Ground Elevation	Page 1 of 2
	Total Depth (feet) 28	Hole Size (inches) 2, 8.25	Driller P. Seymour	

Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/10/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphalt (5.0")									
	1	CLAY, dark Gray (10YR 4/1), with coarse grained sand, fine to medium grained gravel; FILL.		MC	1		NA	2.0/3	2.5	0	No free water observed
	2	silty CLAY, dark yellowish Brown (10YR 4/6), some fine grained gravel, moist, medium plasticity; FILL.							3.5	0	
	3	limestone GRAVEL, and fine grained SAND, loose; FILL.							3.0	0	
	4	silty CLAY, very dark grayish Brown (2.5Y 2/2), some fine to medium grained gravel, moist, medium plasticity, no odor; CL.							2.0	0	
	5	CLAY, olive Yellow (2.5Y 6/6), some very dark Gray (10YR 3/1) mottles, some Gray (10YR 5/1) mottling, moist, high plasticity, no odor; CH.		MC	2		NA	4.4/5	4.0	0	
	6	silty CLAY, dark Gray (10YR 4/1), some pink coarse grained gravel, some coarse grained sand, moist, medium to low plasticity, no odor; CL.							4.5	0	
	7	- limestone gravel and silt from 7.0' to 7.2'							4.5	0	
	8	- medium to coarse grained limestone GRAVEL and coarse grained SAND from 8.2' to 9.0'							4.5	0	
	9	silty CLAY, yellowish Brown (10YR 5/4), some fine grained gravel, moist, hard; CL							4.5	0	
	10	silty CLAY, Olive (5Y 4/2), moist, hard, low plasticity, no odor; CL.							4.5	0	
	11	- medium grained limestone gravel with coarse grained sand from 10.5' to 10.6'		MC	3		NA	4.0/5	1.5	0	
	12	silty CLAY, olive Gray (5Y 5/2), some Black (10YR 2/1) mottling, trace clear and milky white glass fragments, moist, soft, no odor; CL.							1.5	0	
	13	- becomes yellowish Brown (10YR 5/4)									
		silty CLAY, Brown (7.5YR 4/3), dark grayish Brown (10YR 4/3), trace fine grained iron nodules, moist, high plasticity, no odor; CL.		MC	4		NA	5.0/5			

2021 GSA DRILLING LOGS.GPJ 8/9/21

Drilling Log

	Project Name Goodfellow Federal Complex		Project No. 128487	Boring/Monitoring Well Number SB-19/MW-19	
	Coordinates		Ground Elevation	Page 1 of 3	
	Total Depth (feet) 40	Hole Size (inches) 2, 8.25	Driller P. Seymour		


Drilling Rig Geoprobe 8040DT	Drilling Company Roberts Environmental
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Date 6/11/2021	Logged By: B. Lockwood	Reviewed by: Z. Verret	Approved by:
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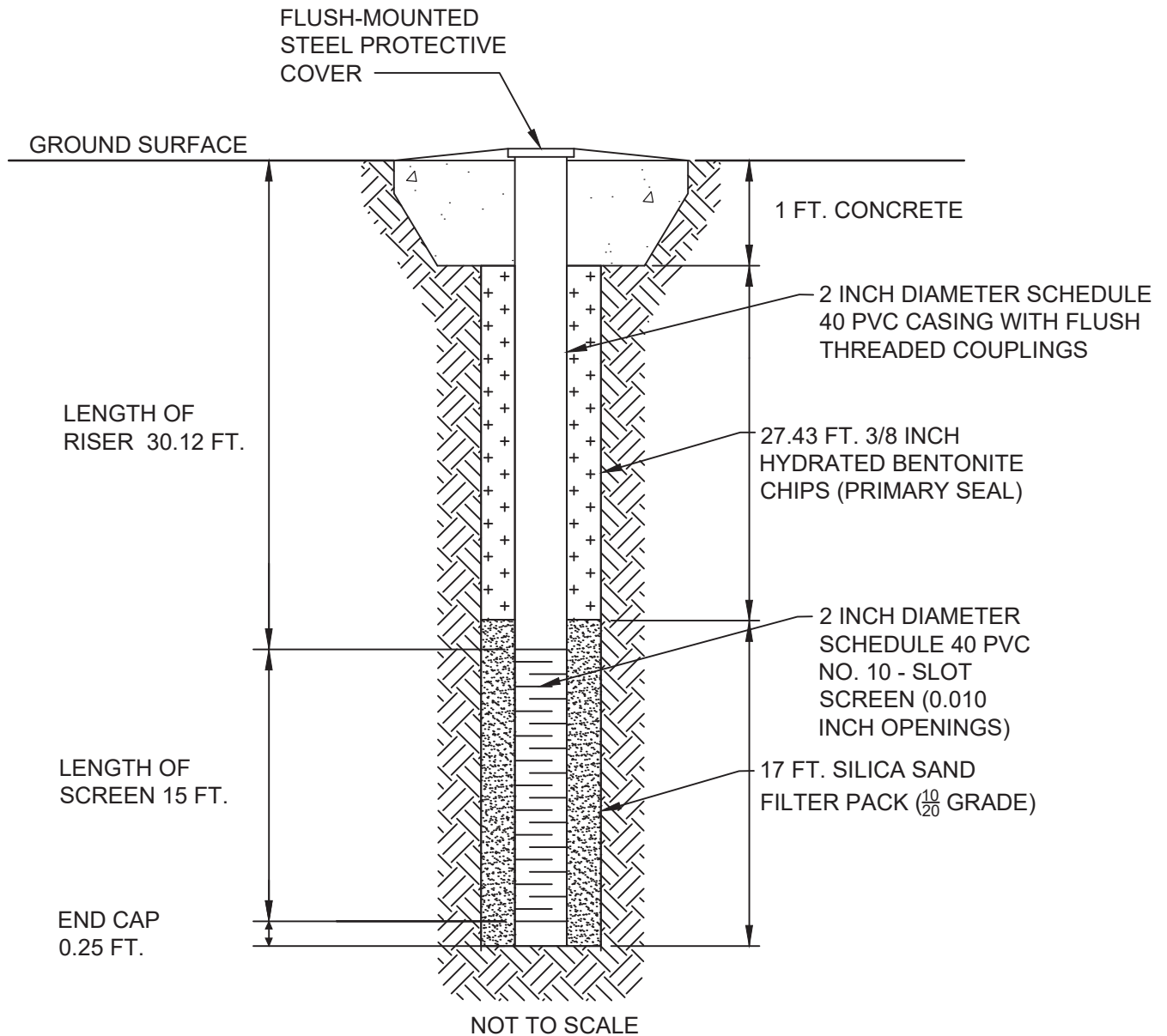
Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
		Asphaltic Concrete (6.0")									
	1	medium to coarse grained limestone GRAVEL, and medium to coarse grained SAND; FILL.									
	2	silty CLAY, dark yellowish Brown (10YR 4/6), some fine to medium grained gravel, moist, high plasticity, no odor; CL.		MC	1		NA	1.9/3	2.0	0	No free water observed
	3										
	4							2.5	0		
	5							2.5	0		
	6	CLAY, dark yellowish Brown (10YR 4/6), trace very dark Gray (10YR 3/1) mottling, trace silt, moist, hard, high plasticity, no odor; CH.		MC	2		NA	5.0/5	3.0	0	
	7	silty CLAY, greenish Gray (Gley 1 6/10Y), trace fine grained gravel, moist, high plasticity, no odor; CL.						2.0	0		
	8	silty CLAY, light brownish Gray (10YR 6/2), some yellowish Brown (10YR 5/8) mottling, some very dark grayish Brown (10YR 3/2) mottling, moist, high plasticity, no odor; CL.									
	9							2.5	0		
	10							3.0	0		
	11							2.5	0		
	12							3.0	0		
	13			MC	4		NA	5.0/5			

2021 GSA DRILLING LOGS.GPJ 8/9/21

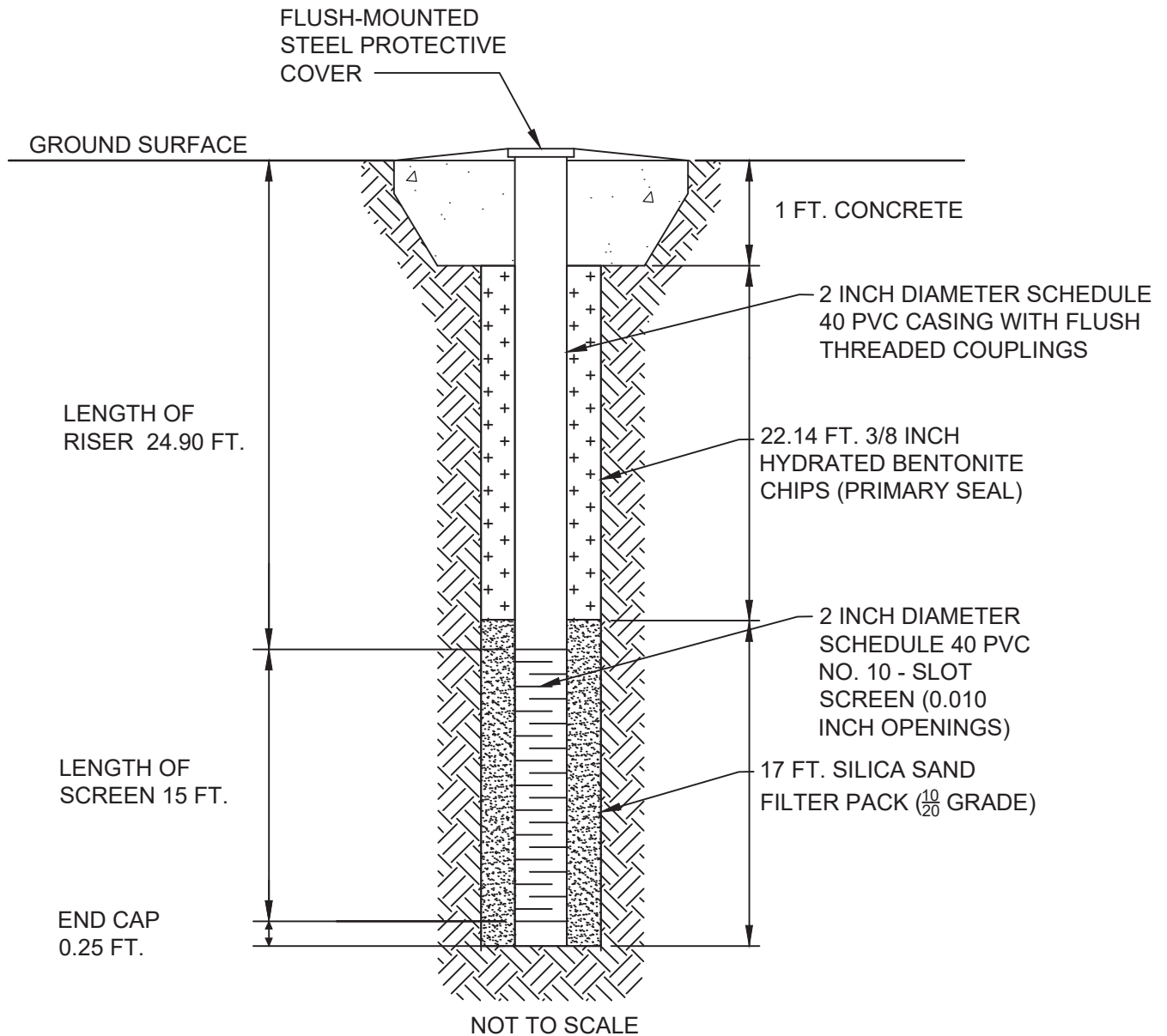
Drilling Log, continued

			Boring/Monitoring Well Number SB-19/MW-19	
	Project Name	Goodfellow Federal Complex	Page	2 of 3
	Project Number	128487	Date	6/11/2021

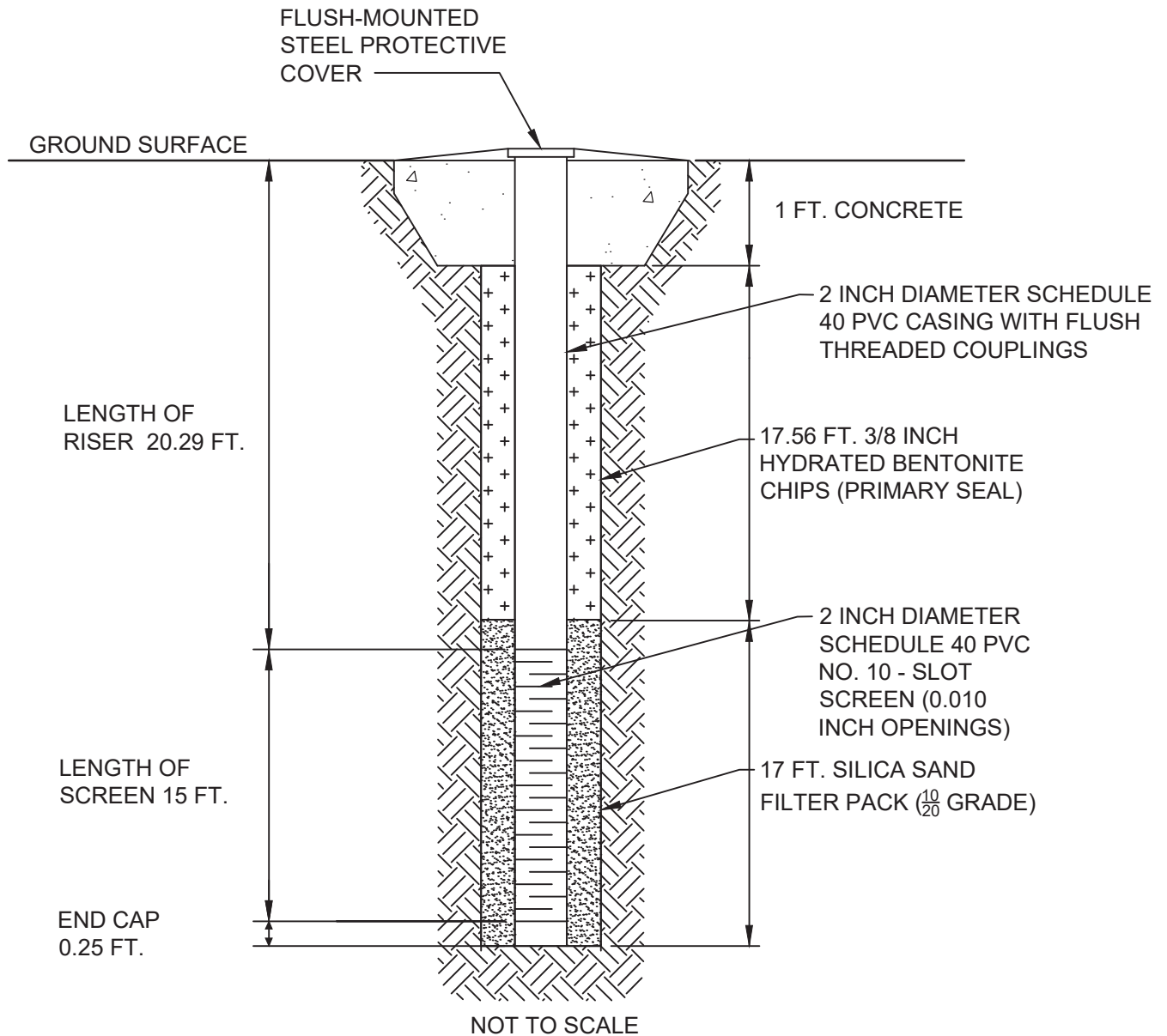
Elevation (MSL)	Depth (feet bgs)	Description	Graphic Log	Sample Type	Sample Number	Blow Count	N Value	Sample Recovery/Length (inches)	Penetrometer (tsf)	PID Reading (ppm)	Remarks
	15	silty CLAY, light brownish Gray (10YR 6/2), some yellowish Brown (10YR 5/8) mottling, some very dark grayish Brown (10YR 3/2) mottling, moist, high plasticity, no odor; CL. - becomes some medium grained iron nodules CLAY, strong Brown (7.5YR 4/6), some light Gray (Gley 1 7/N) mottling, trace silt, moist, high plasticity, no odor; CH.		MC	4		NA	5.0/5	2.5	0	
	16								3.0	0	
	17								3.5	0	
	18								4.0	0	
	19								3.0	0	
	20								3.0	0	
	21								4.0	0	
	22	4.5	0								
	23										
	24							3.5	0		
	25							2.5	0		
	26							2.5	0		
	27							2.5	0		
	28										
				MC	7		NA	5.0/5			



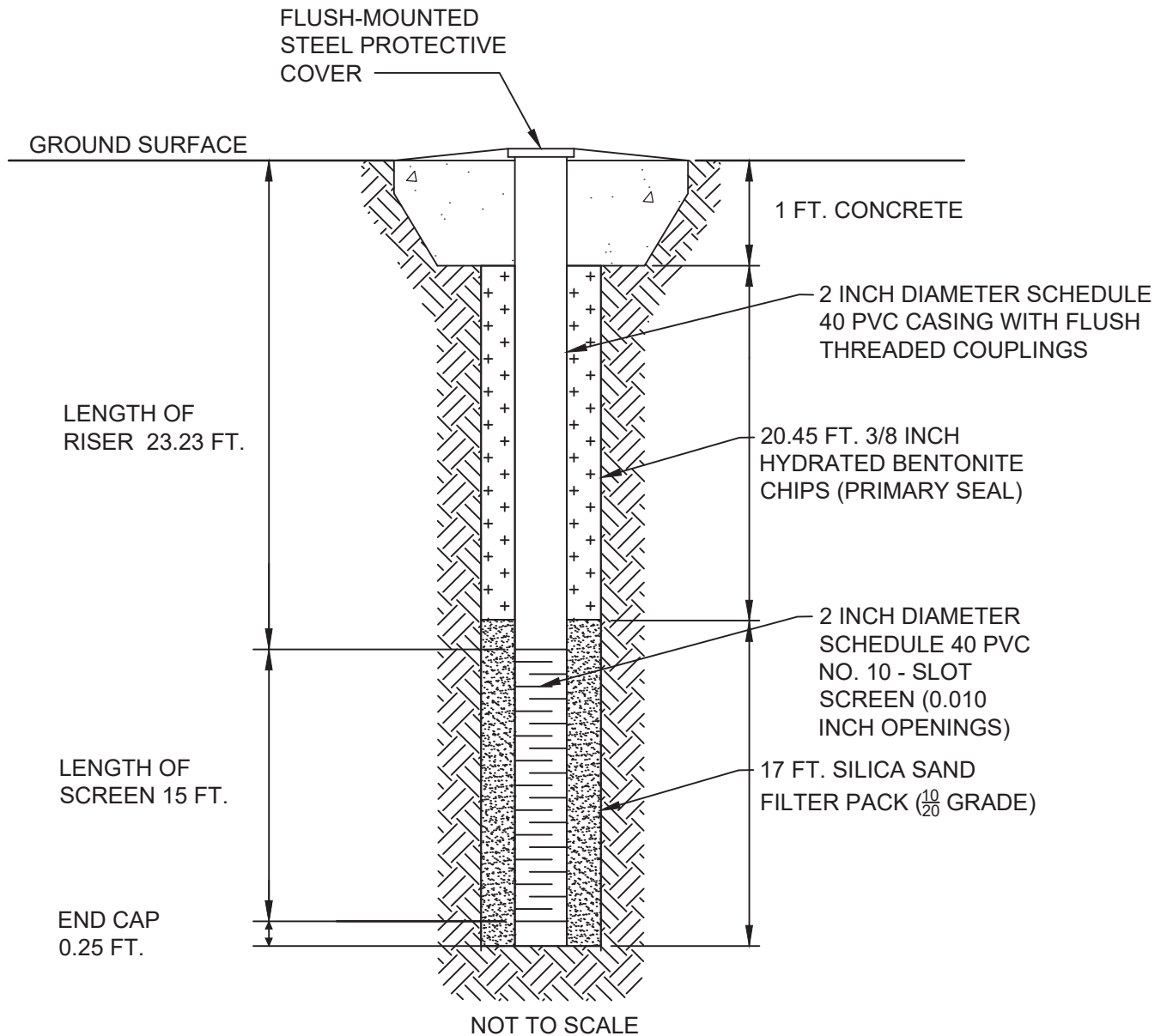
MW-01
FLUSH-GRADE MONITORING
WELL CONSTRUCTION
DIAGRAM
GOODFELLOW FEDERAL
COMPLEX



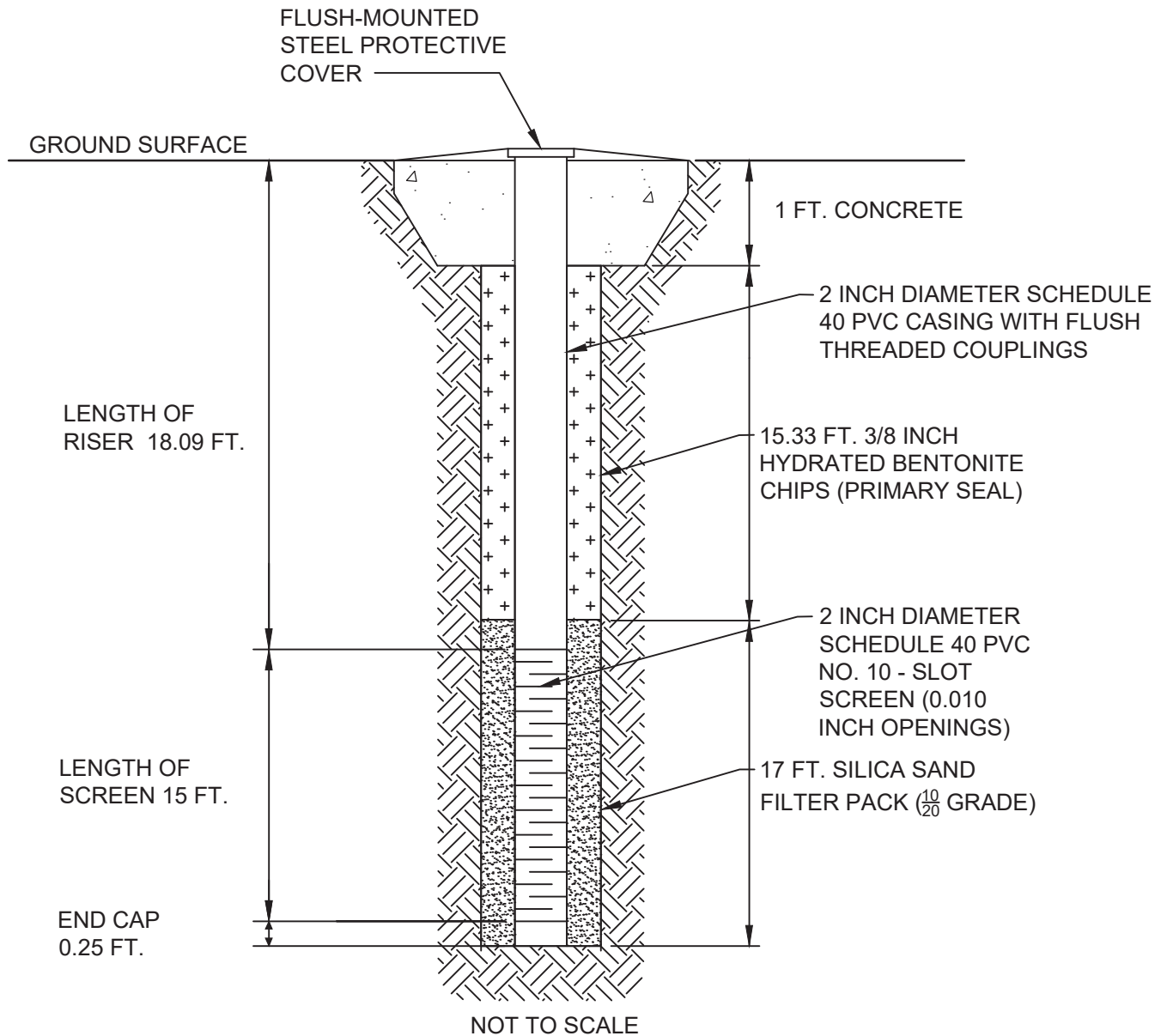
MW-02
FLUSH-GRADE MONITORING
WELL CONSTRUCTION
DIAGRAM
GOODFELLOW FEDERAL
COMPLEX



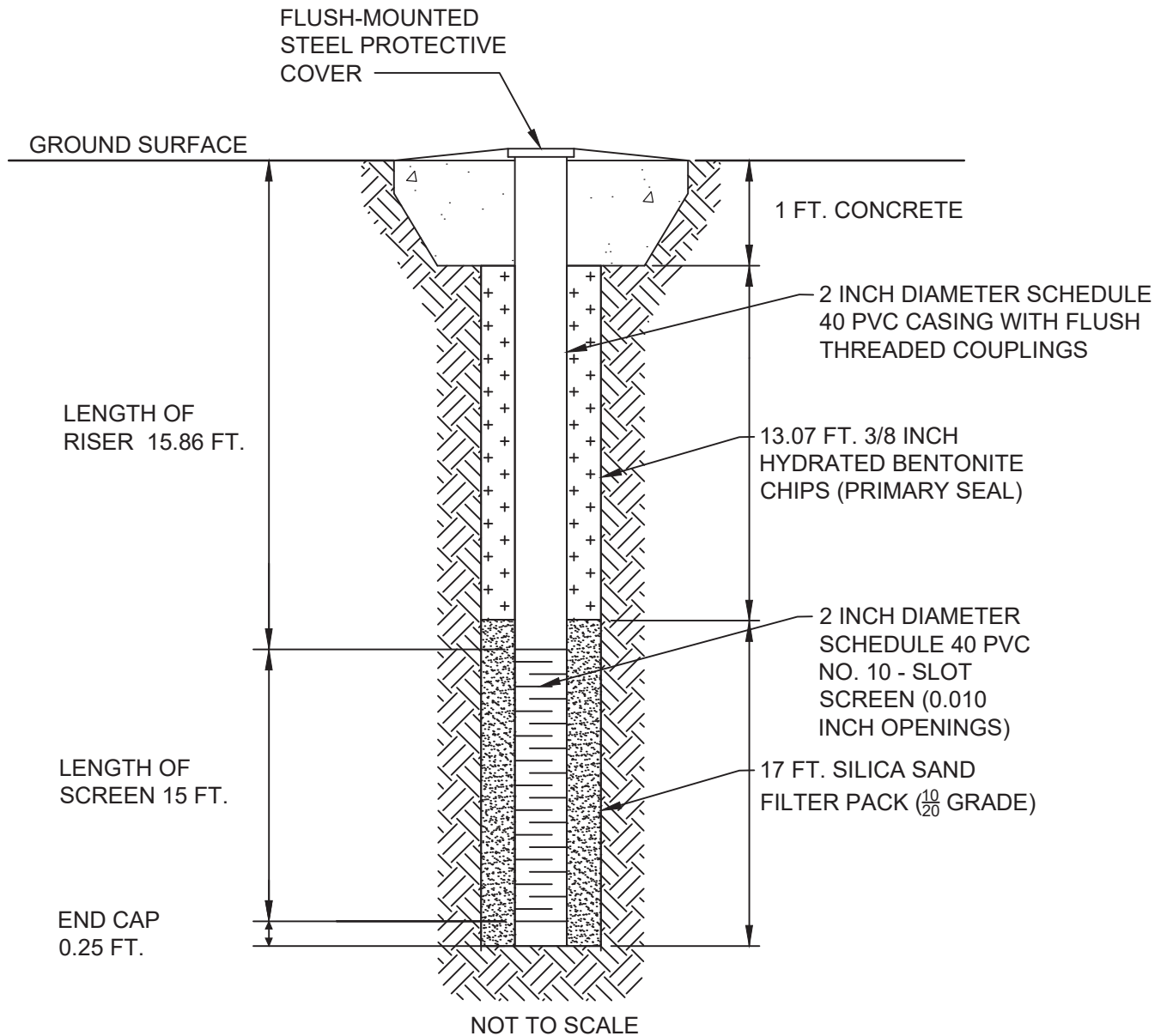
MW-03
 FLUSH-GRADE MONITORING
 WELL CONSTRUCTION
 DIAGRAM
 GOODFELLOW FEDERAL
 COMPLEX



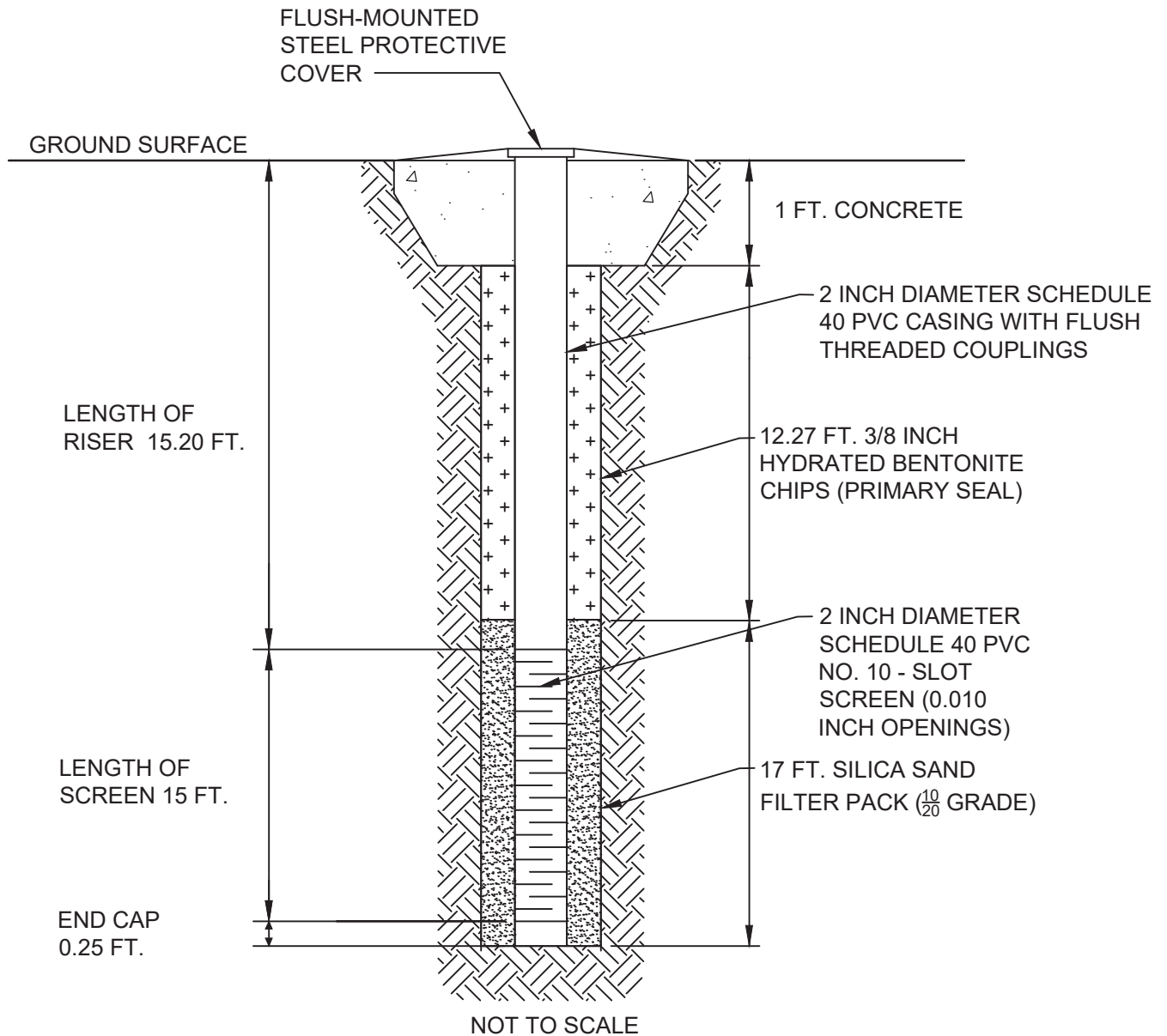
MW-04
 FLUSH-GRADE MONITORING
 WELL CONSTRUCTION
 DIAGRAM
 GOODFELLOW FEDERAL
 COMPLEX



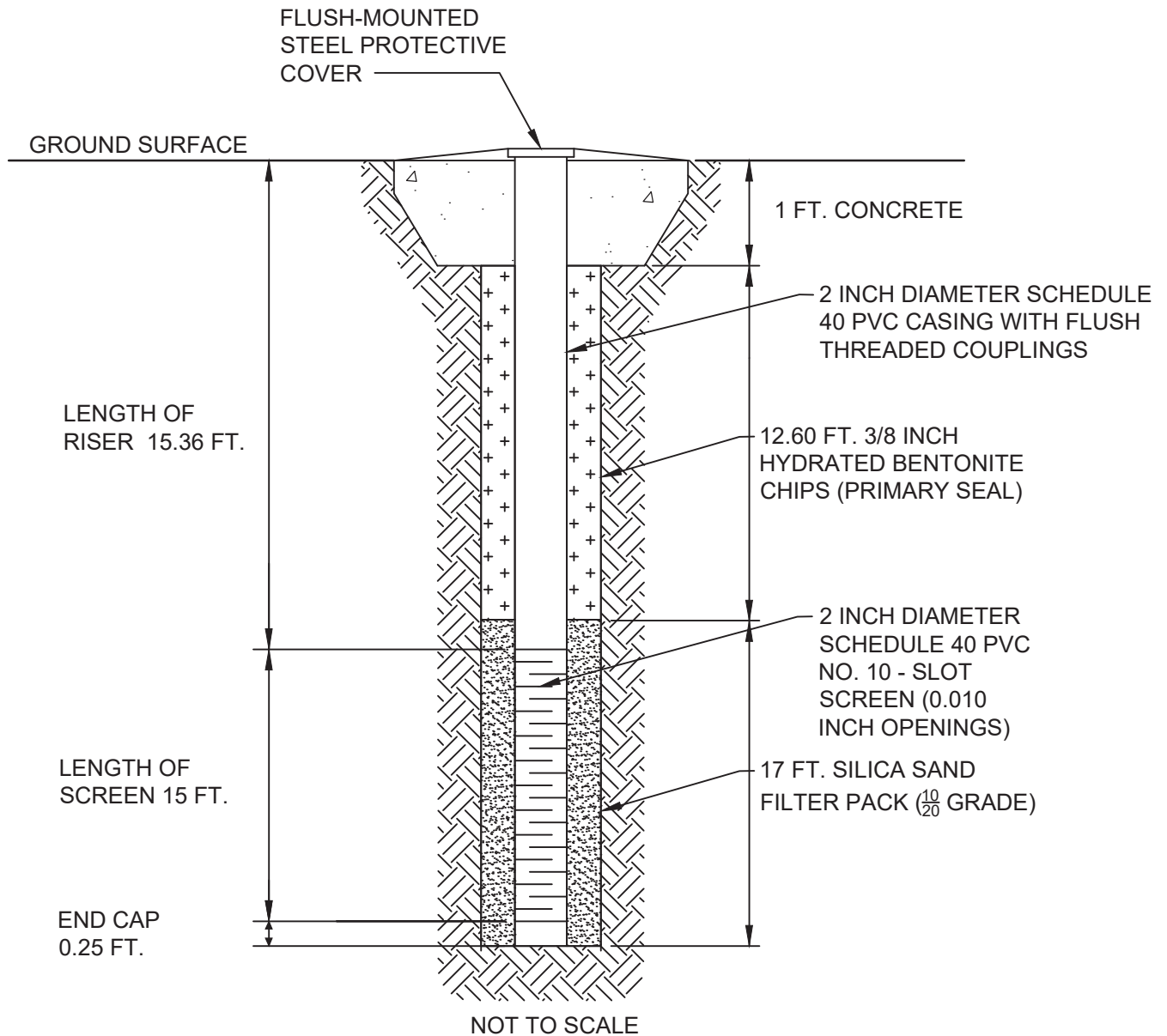
MW-05
 FLUSH-GRADE MONITORING
 WELL CONSTRUCTION
 DIAGRAM
 GOODFELLOW FEDERAL
 COMPLEX



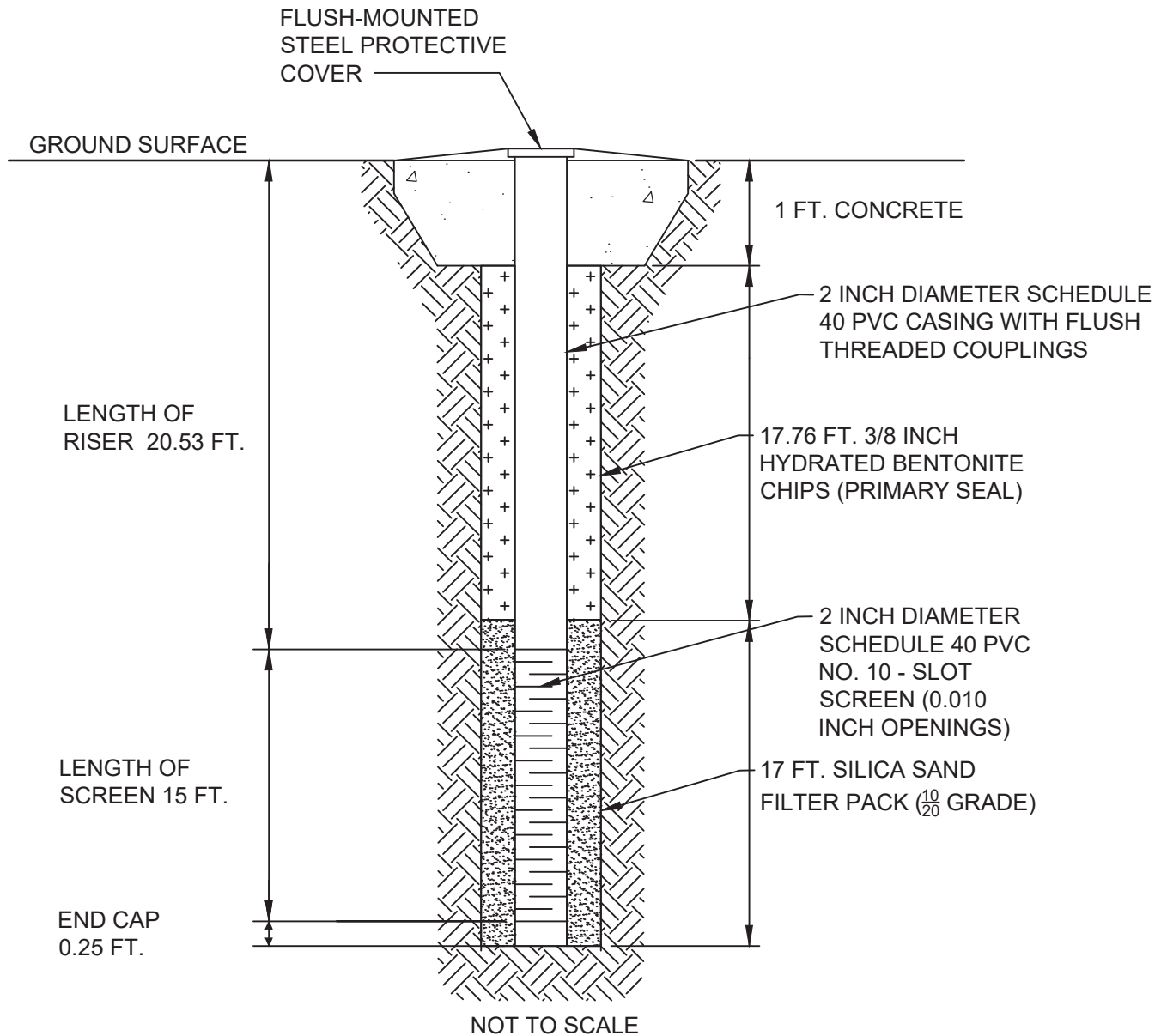
MW-06
FLUSH-GRADE MONITORING
WELL CONSTRUCTION
DIAGRAM
GOODFELLOW FEDERAL
COMPLEX



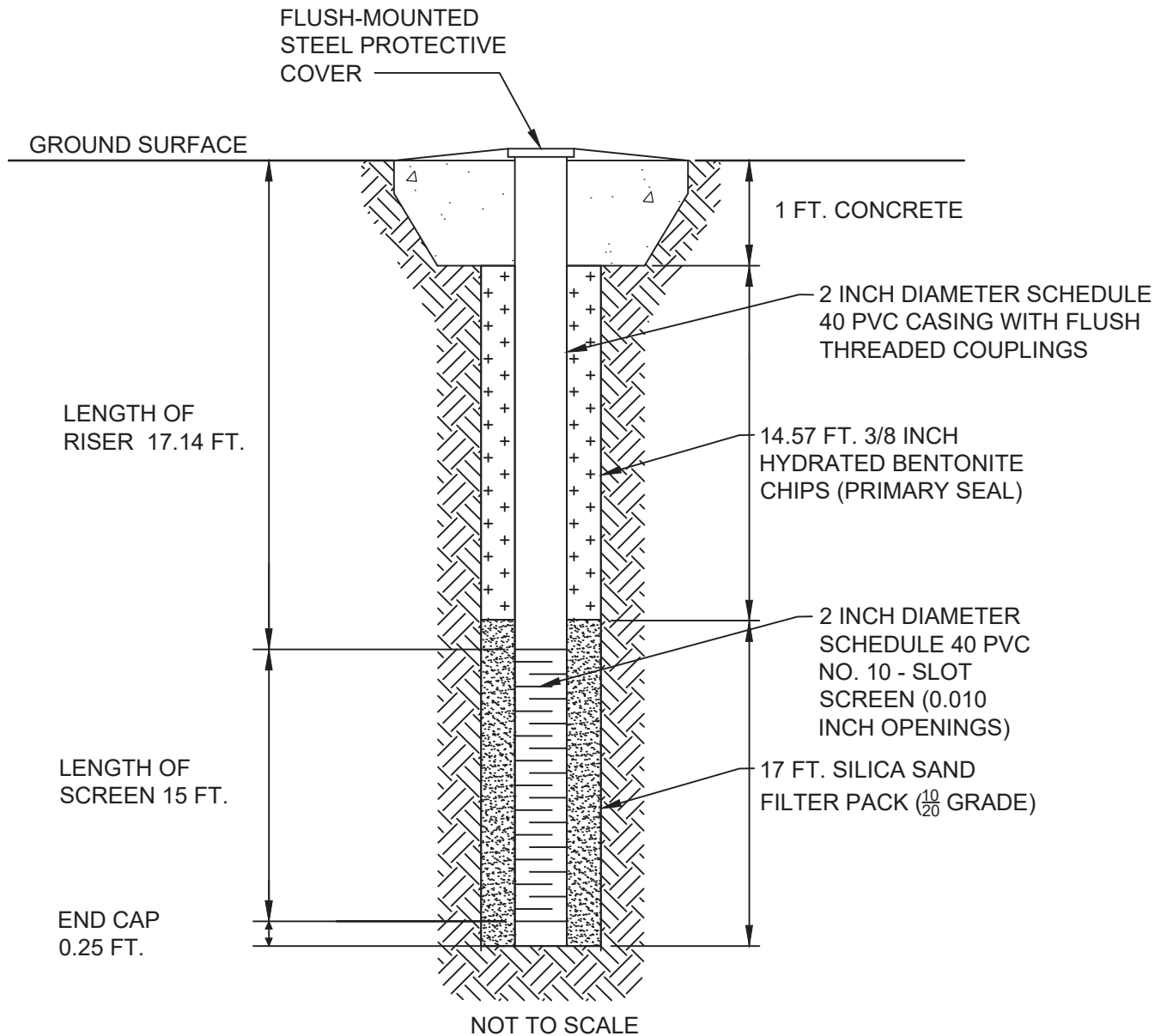
MW-07
 FLUSH-GRADE MONITORING
 WELL CONSTRUCTION
 DIAGRAM
 GOODFELLOW FEDERAL
 COMPLEX



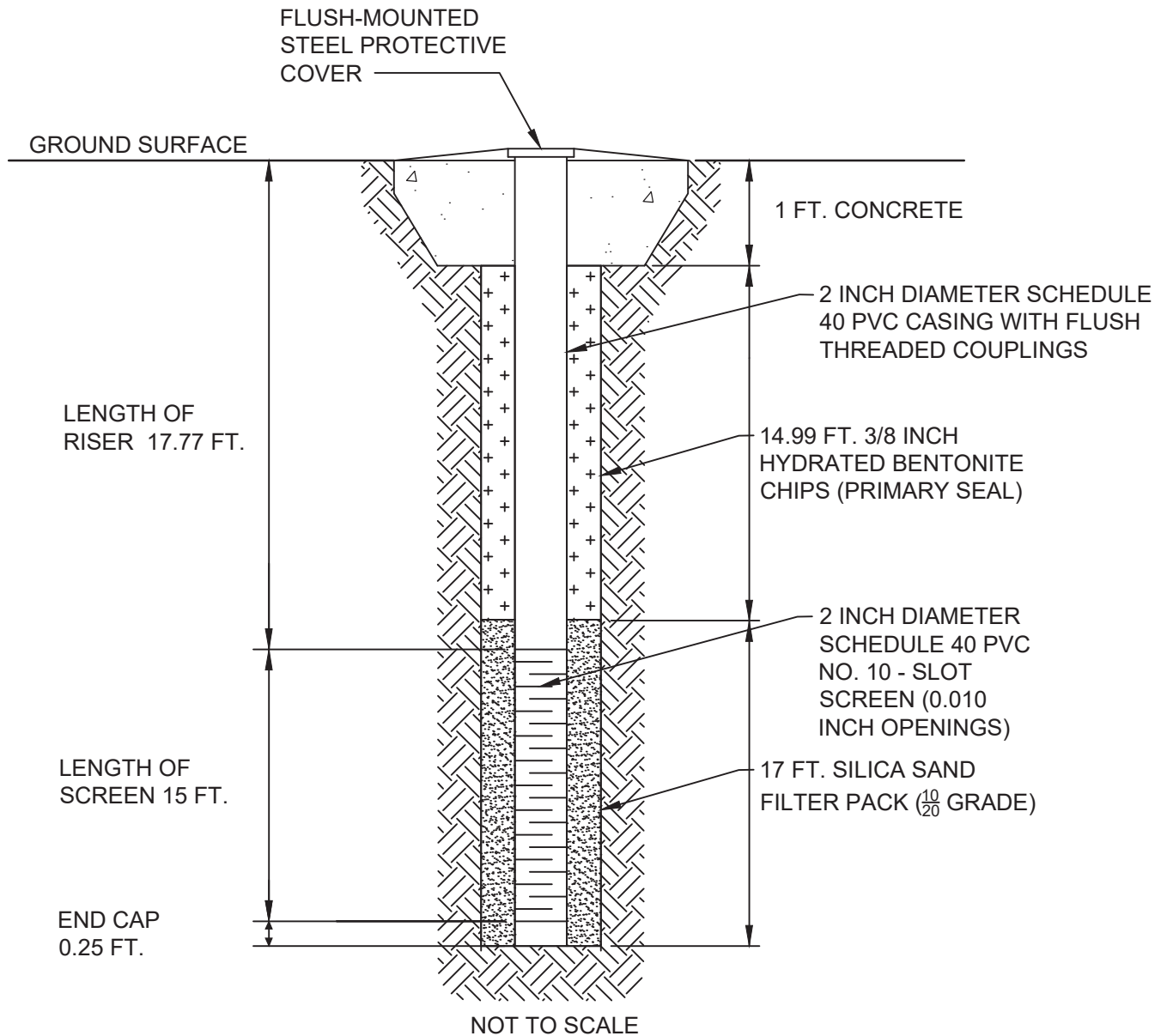
MW-08
 FLUSH-GRADE MONITORING
 WELL CONSTRUCTION
 DIAGRAM
 GOODFELLOW FEDERAL
 COMPLEX



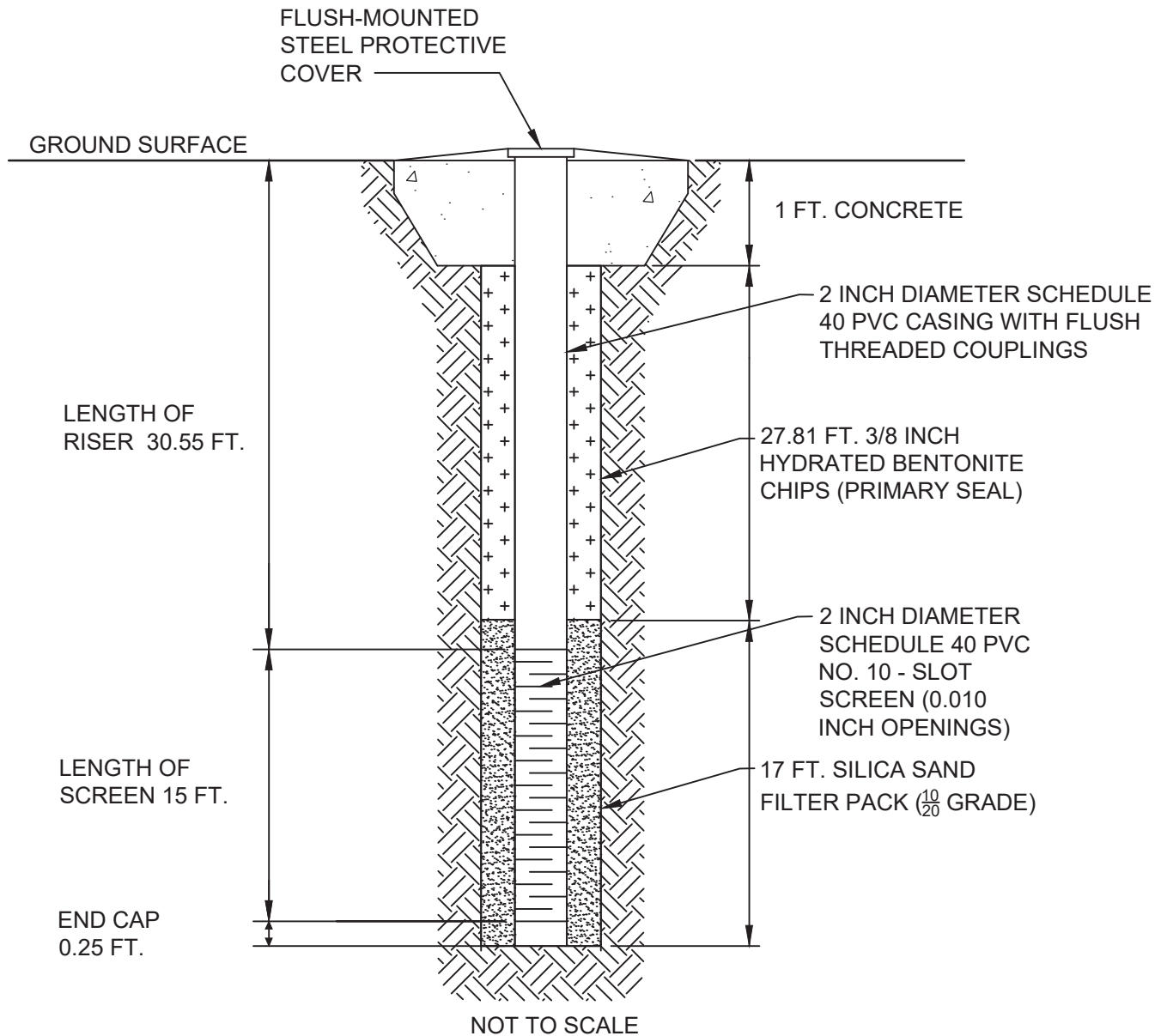
MW-09
 FLUSH-GRADE MONITORING
 WELL CONSTRUCTION
 DIAGRAM
 GOODFELLOW FEDERAL
 COMPLEX



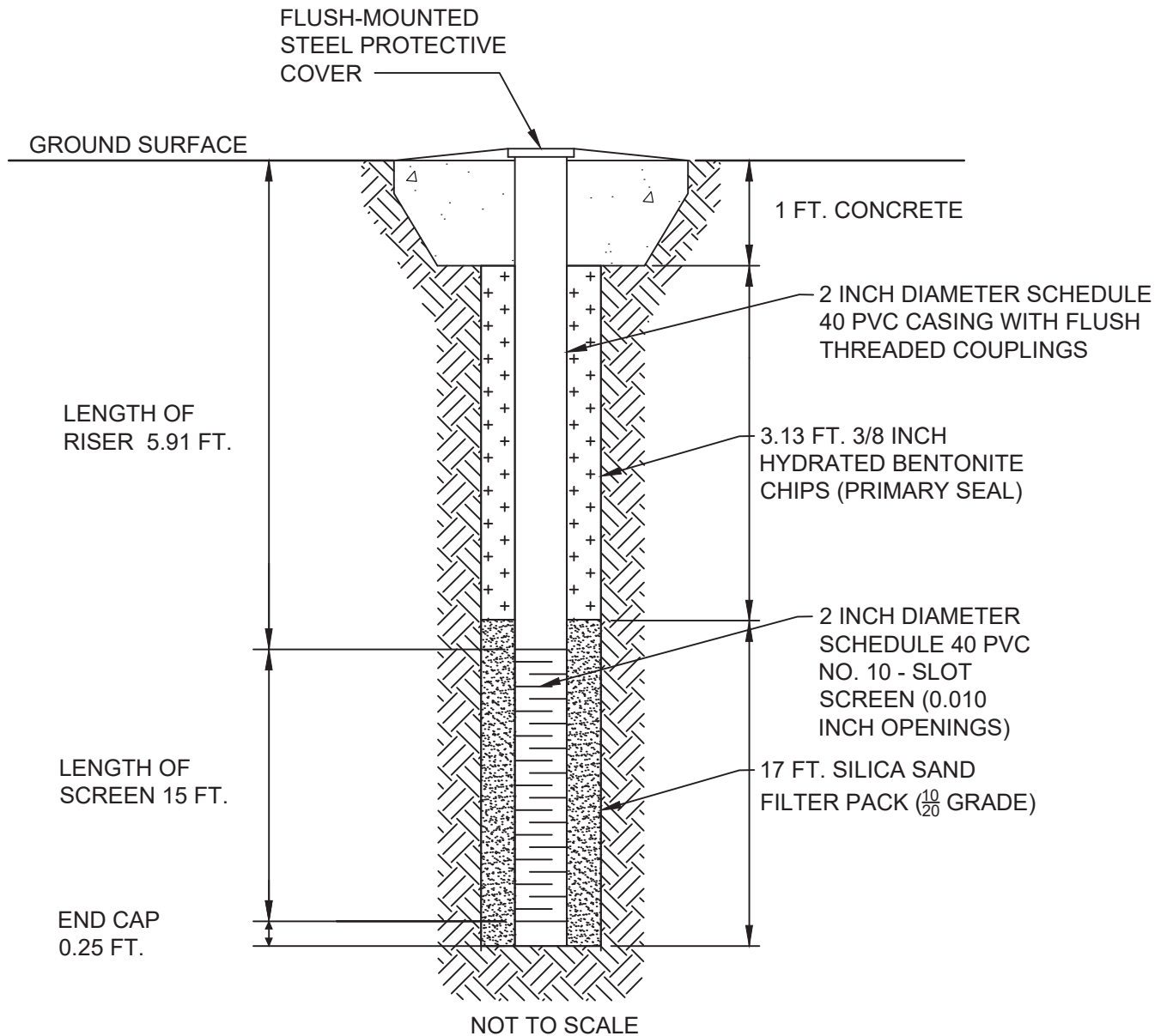
MW-10
FLUSH-GRADE MONITORING
WELL CONSTRUCTION
DIAGRAM
GOODFELLOW FEDERAL
COMPLEX



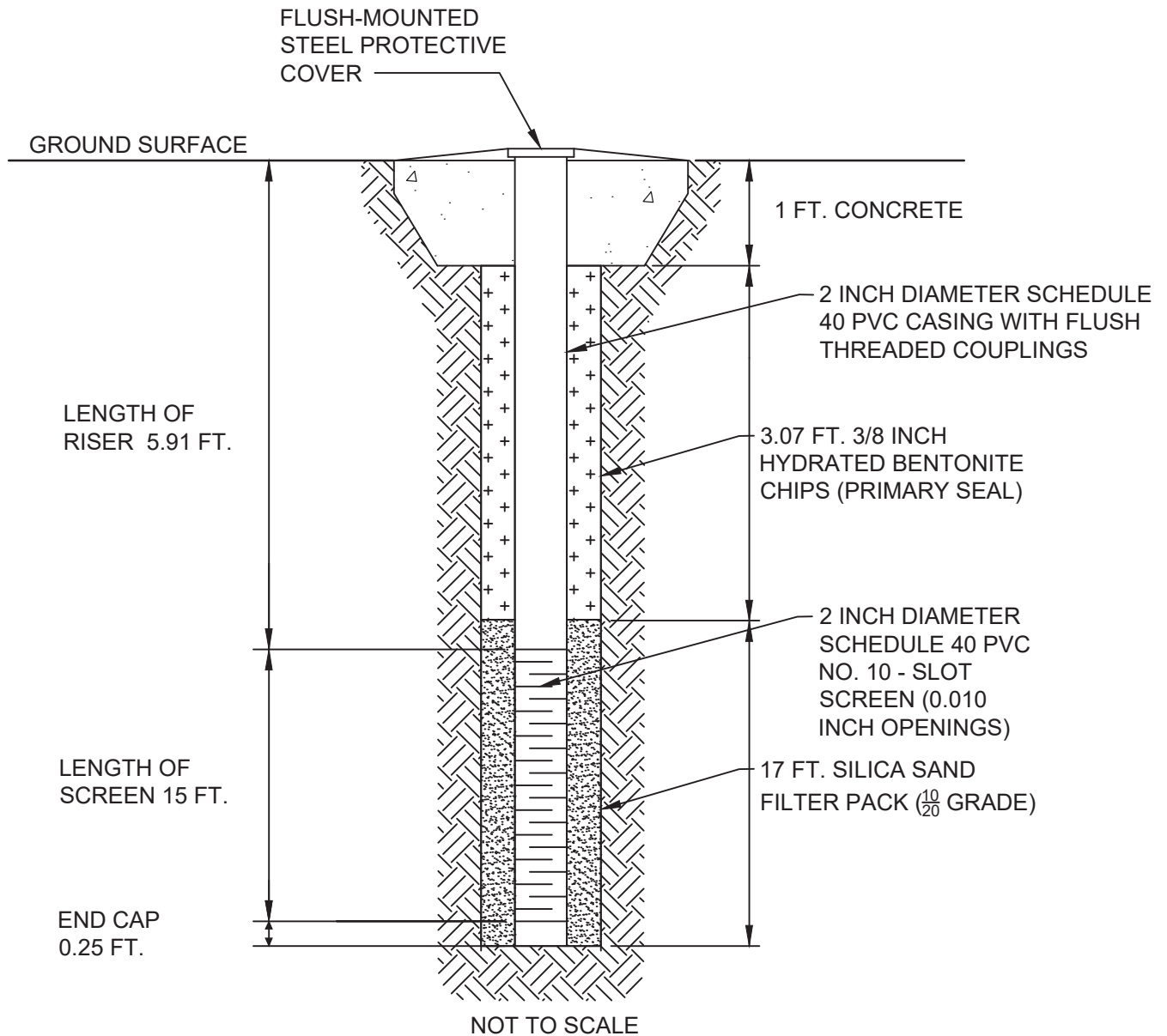
MW-11
 FLUSH-GRADE MONITORING
 WELL CONSTRUCTION
 DIAGRAM
 GOODFELLOW FEDERAL
 COMPLEX



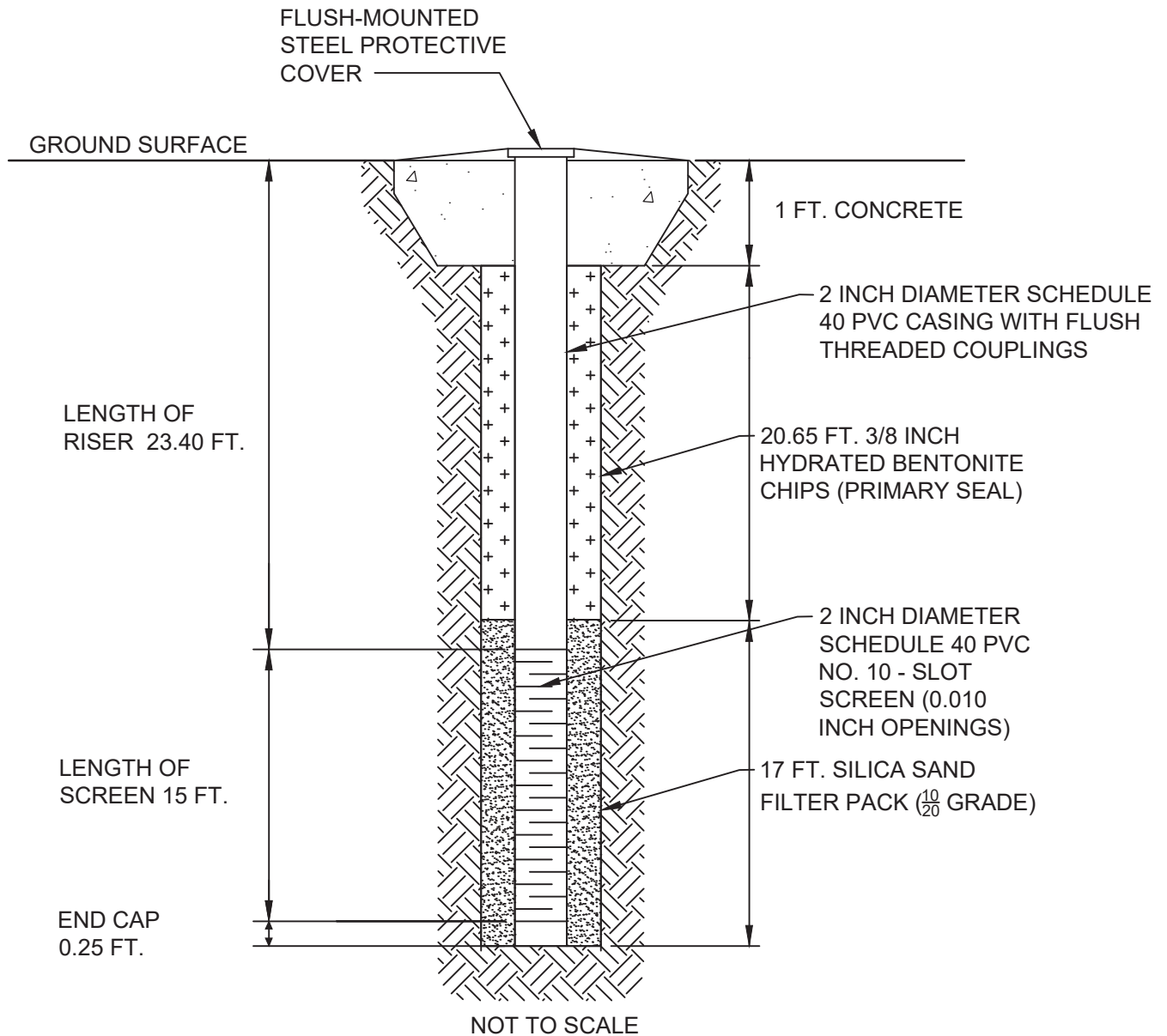
MW-12
FLUSH-GRADE MONITORING
WELL CONSTRUCTION
DIAGRAM
GOODFELLOW FEDERAL
COMPLEX



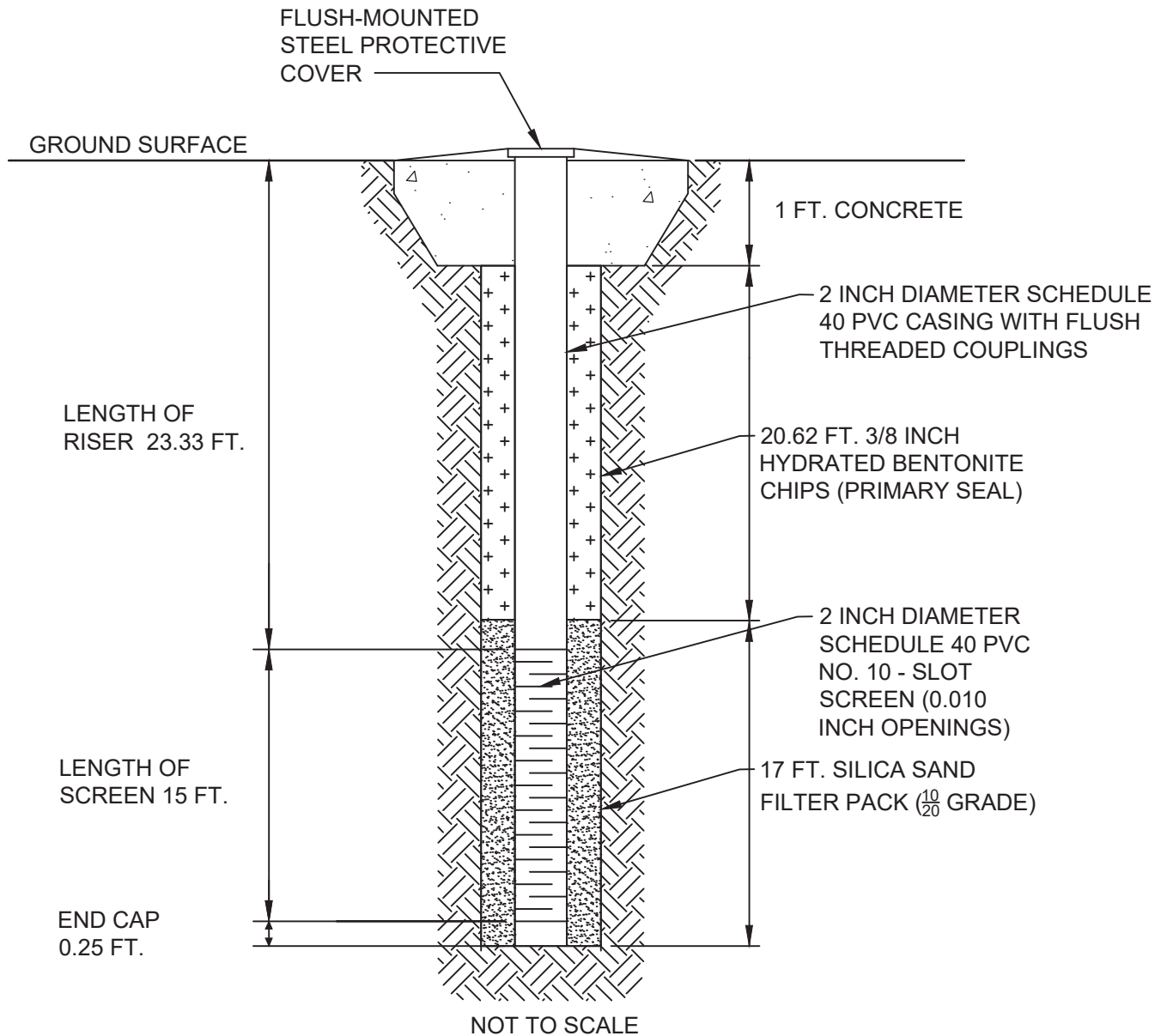
MW-13
 FLUSH-GRADE MONITORING
 WELL CONSTRUCTION
 DIAGRAM
 GOODFELLOW FEDERAL
 COMPLEX



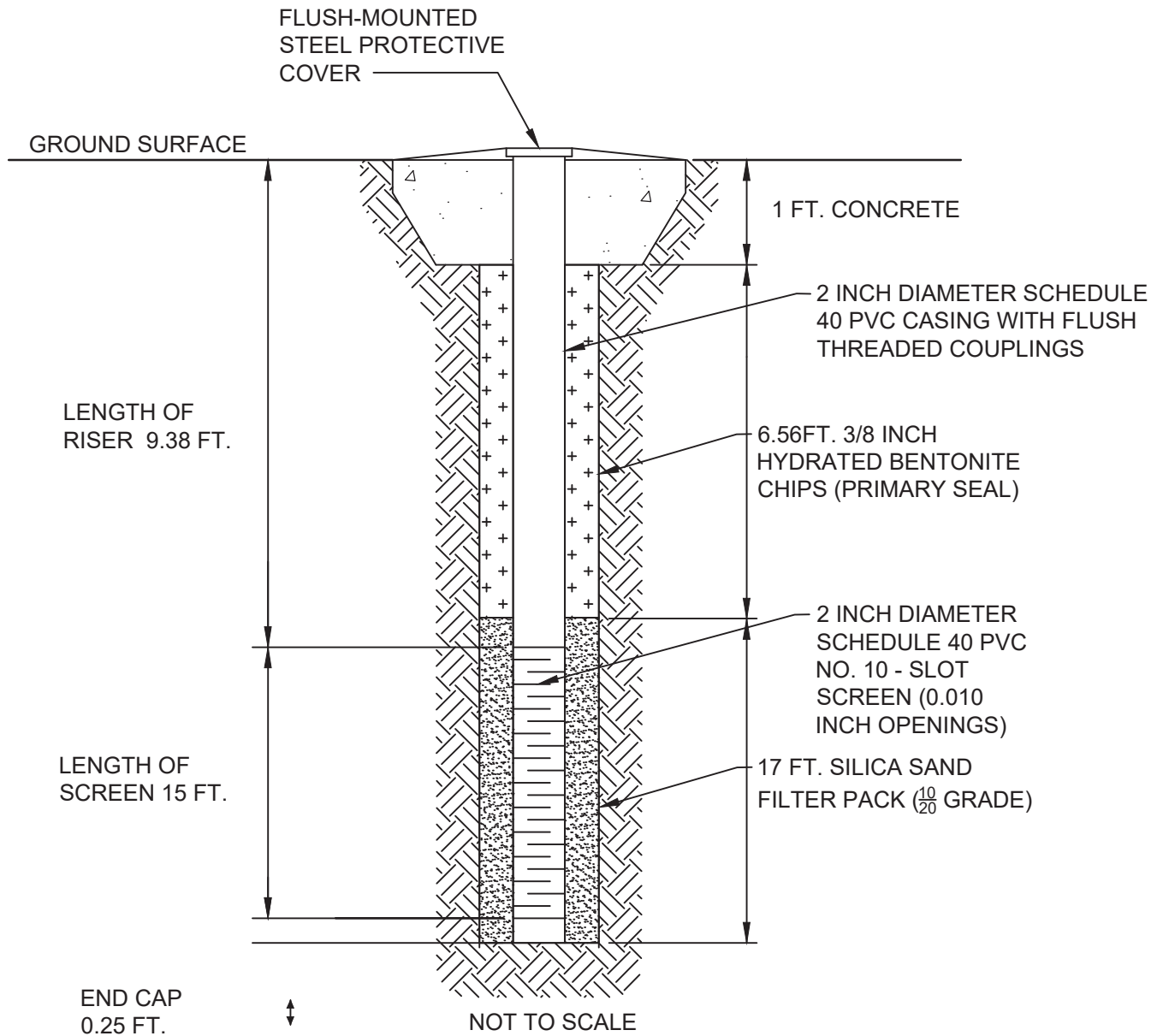
MW-14
FLUSH-GRADE MONITORING
WELL CONSTRUCTION
DIAGRAM
GOODFELLOW FEDERAL
COMPLEX



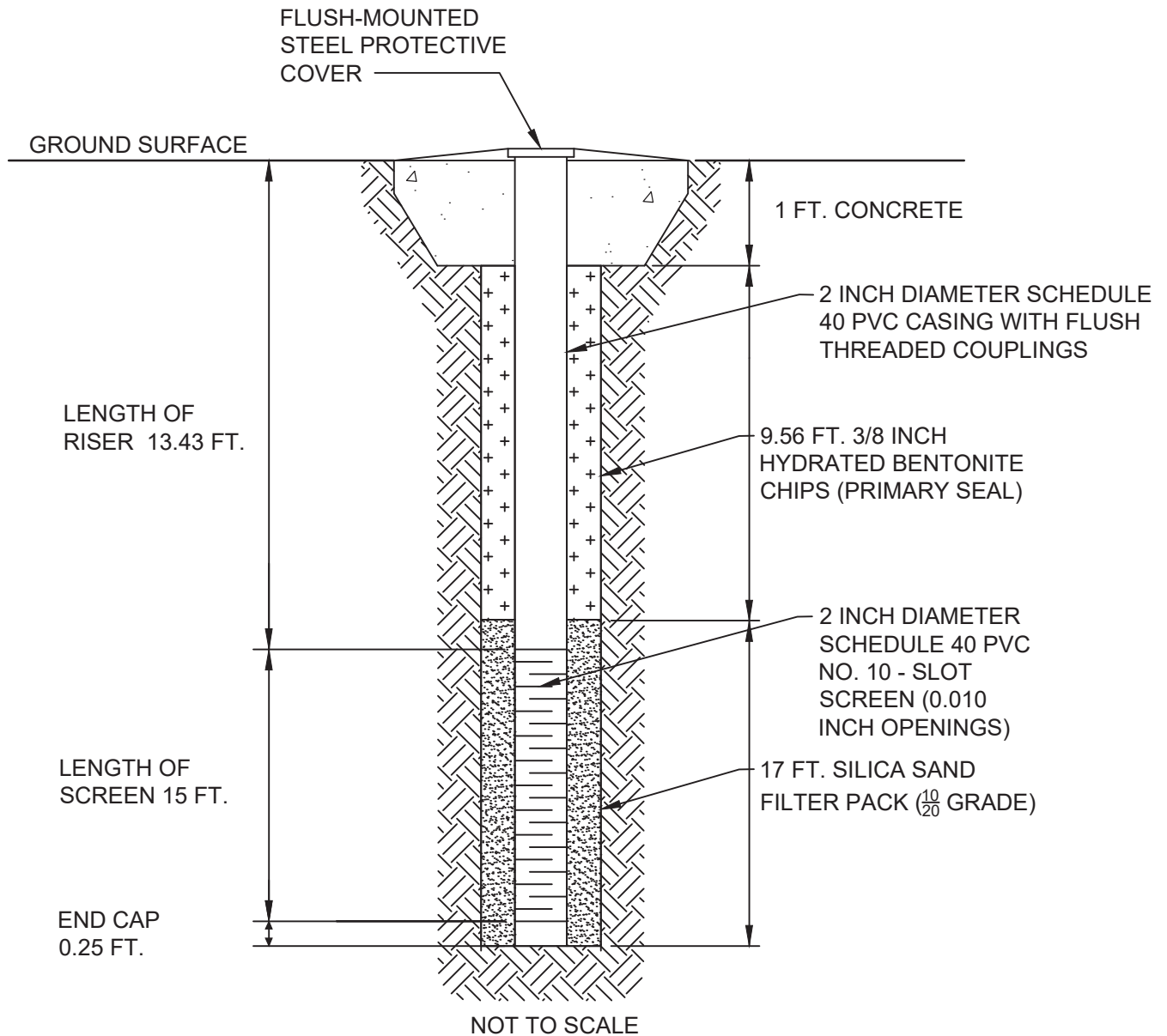
MW-15
FLUSH-GRADE MONITORING
WELL CONSTRUCTION
DIAGRAM
GOODFELLOW FEDERAL
COMPLEX



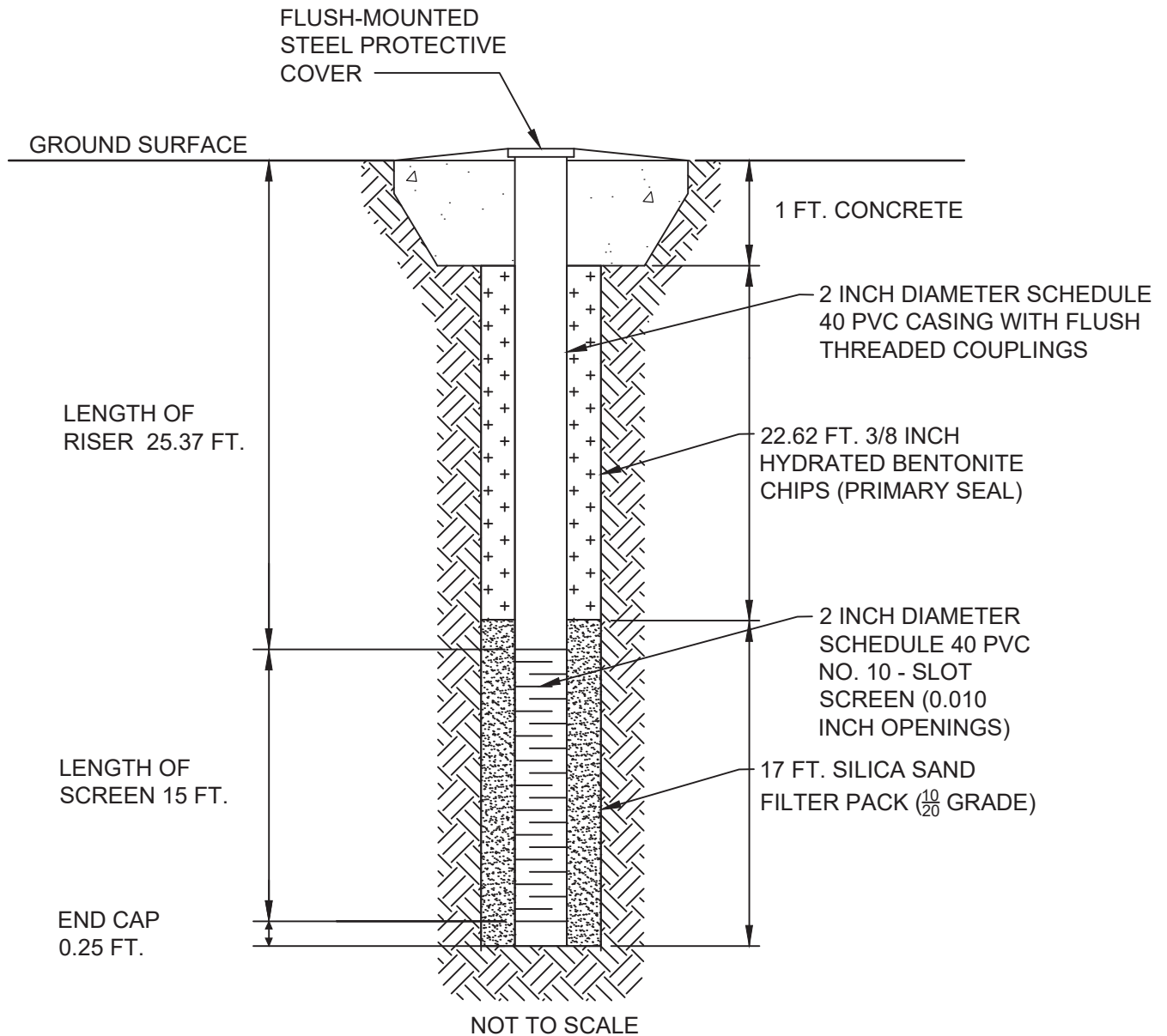
MW-16
FLUSH-GRADE MONITORING
WELL CONSTRUCTION
DIAGRAM
GOODFELLOW FEDERAL
COMPLEX



MW-17
 FLUSH-GRADE MONITORING
 WELL CONSTRUCTION
 DIAGRAM
 GOODFELLOW FEDERAL
 COMPLEX



MW-18
 FLUSH-GRADE MONITORING
 WELL CONSTRUCTION
 DIAGRAM
 GOODFELLOW FEDERAL
 COMPLEX



MW-19
FLUSH-GRADE MONITORING
WELL CONSTRUCTION
DIAGRAM
GOODFELLOW FEDERAL
COMPLEX



MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

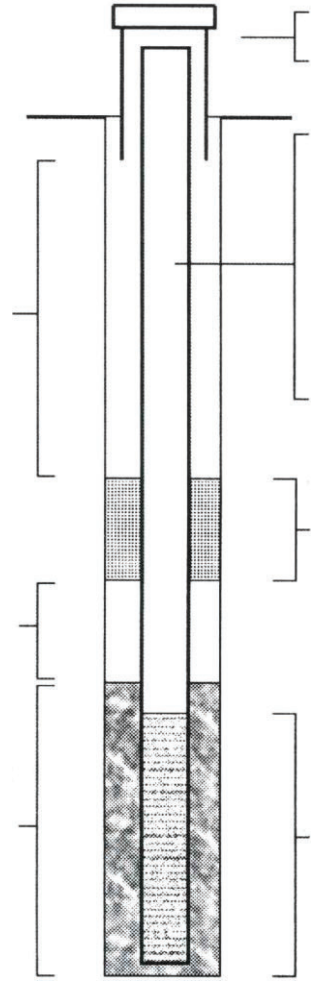
PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-01	WELL COMPLETION DATE 6-1-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
--	---	--	--

LOCATION OF WELL (D/M/S FORMAT ONLY)		
Latitude	<u>N 38</u> ° <u>41</u> ' <u>17.75</u> "	
Longitude	<u>W 90</u> ° <u>16</u> ' <u>00.66</u> "	

- Locking Cap
- Weep Hole



- SURFACE COMPLETION**
- Steel Aluminum Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)

Riser/Casing Diameter 2 IN.
Riser/Casing Length 30.12 FT.
Diameter Of Drill Hole 9 IN.
Weight Or SDR# S40

- MATERIAL**
- Steel Thermoplastic (PVC)
 - Other _____

BENTONITE SEAL

Length 3'

- Chips Pellets Granular
- Saturated Zone Hydrated

SCREEN

Screen Diameter 2 IN.
Screen Length 15 FT.
Diameter Of Drill Hole 9 IN.
Depth To Top 30 FT.

- SCREEN MATERIAL**
- Steel Thermoplastic (PVC)
 - Other _____

Elevation 543.55 FT.

ANNULAR SEAL
Length 24.43 FT.

- Slurry Chips
- Pellets Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:

Bags of Cement Used _____
% of Bentonite Used _____
Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK
28 FT.

LENGTH OF PRIMARY FILTER PACK
17 FT.

SMALLEST _____ **LARGEST** _____

Section _____ Township _____ North
Range _____ E W

- TYPE OF WELL (CHECK ONE)**
- Direct Push Extraction Inclinator
 - Gas Migration Injection Lysimeter
 - Observation Open Hole Other (specify) _____
 - Piezometer Standard

- MONITORING FOR (CHECK ALL THAT APPLY)**
- Explosives Metals
 - Pesticides/Herbicides Petroleum
 - Radionuclides SVOCS
 - VOCS (non-petroleum) Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	4	Fill
4	36.8	Silty Clay
36.8	45	Clay

REDI# 202310-G-D

TOTAL DEPTH: 45.37 TOC FT. *Boring Log Attached

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.				
MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER



MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-02	WELL COMPLETION DATE 6-2-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
--	---	--	--

LOCATION OF WELL (D/M/S FORMAT ONLY)		
Latitude	<u>N 38</u> ° <u>41</u> ' <u>19.73</u> "	
Longitude	<u>W 90</u> ° <u>16</u> ' <u>00.45</u> "	

- Locking Cap
- Weep Hole

Elevation 544.91 FT.

ANNULAR SEAL
Length 19.14 FT.

- Slurry Chips
- Pellets Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:

Bags of Cement Used _____
% of Bentonite Used _____
Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH

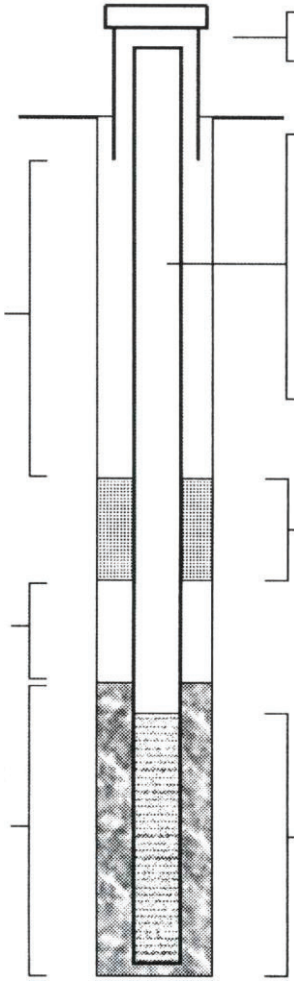
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK

23 FT.

LENGTH OF PRIMARY FILTER PACK

17 FT.



- Steel Aluminum Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)

Riser/Casing Diameter 2 IN.
Riser/Casing Length 24.90 FT.
Diameter Of Drill Hole 9 IN.
Weight Or SDR# S40

- MATERIAL**
 Steel Thermoplastic (PVC)
 Other _____

- BENTONITE SEAL**
Length 3'
 Chips Pellets Granular
 Saturated Zone Hydrated

SCREEN
Screen Diameter 2 IN.
Screen Length 15 FT.
Diameter Of Drill Hole 9 IN.
Depth To Top 25 FT.

- SCREEN MATERIAL**
 Steel Thermoplastic (PVC)
 Other _____

SMALLEST	LARGEST	
<u>1/4</u>	<u>1/4</u>	<u>1/4</u>
Section _____	Township _____	North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W	

- TYPE OF WELL (CHECK ONE)**
 Direct Push Extraction Inclinator
 Gas Migration Injection Lysimeter
 Observation Open Hole Other (specify) _____
 Piezometer Standard

- MONITORING FOR (CHECK ALL THAT APPLY)**
 Explosives Metals
 Pesticides/Herbicides Petroleum
 Radionuclides SVOCS
 VOCS (non-petroleum) Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	4	Fill
4	30.2	Silty Clay
30.2	64	Clay
		Borehole TD = 64' bgs
		Backfilled with grout to 42' bgs
		Backfilled with sand to 40' bgs
		Well set at 40' bgs
		RED# 202310-G-D

TOTAL DEPTH: 40.15 TOC FT. *Boring Log Attached

STATIC WATER LEVEL 16.01 FT. Yes No

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

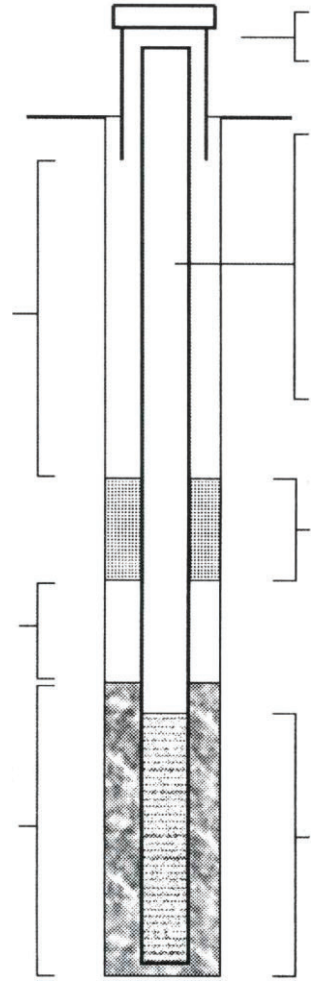
PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-03	WELL COMPLETION DATE 6-4-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
--	---	--	--

LOCATION OF WELL (D/M/S FORMAT ONLY)			
Latitude	<u>N 38</u>	<u>41</u>	<u>19.97</u> "
Longitude	<u>W 90</u>	<u>15</u>	<u>53.96</u> "

- Locking Cap
- Weep Hole



- SURFACE COMPLETION**
- Steel
 - Aluminum
 - Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)

Riser/Casing Diameter	<u>2</u> IN.
Riser/Casing Length	<u>20.29</u> FT.
Diameter Of Drill Hole	<u>9</u> IN.
Weight Or SDR#	<u>S40</u>

- MATERIAL**
- Steel
 - Thermoplastic (PVC)
 - Other _____

- BENTONITE SEAL**
- Length 3'
- Chips
 - Pellets
 - Granular
 - Saturated Zone
 - Hydrated

- SCREEN**
- | | |
|------------------------|---------------|
| Screen Diameter | <u>2</u> IN. |
| Screen Length | <u>15</u> FT. |
| Diameter Of Drill Hole | <u>9</u> IN. |
| Depth To Top | <u>20</u> FT. |

- SCREEN MATERIAL**
- Steel
 - Thermoplastic (PVC)
 - Other _____

SMALLEST	LARGEST	
<u>1/4</u>	<u>1/4</u>	<u>1/4</u>
Section _____	Township _____	North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W	

- TYPE OF WELL (CHECK ONE)**
- Direct Push
 - Gas Migration
 - Piezometer
 - Extraction
 - Injection
 - Open Hole
 - Standard
 - Observation
 - Inclinator
 - Lysimeter
 - Other (specify) _____

- MONITORING FOR (CHECK ALL THAT APPLY)**
- Explosives
 - Pesticides/Herbicides
 - Radionuclides
 - VOCS (non-petroleum)
 - Metals
 - Petroleum
 - SVOCS
 - Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	2.6	Fill
2.6	15.6	Silty Clay
15.6	35	Clay

REDI# 202310-G-D

TOTAL DEPTH: 35.54 TOC	FT.	<input type="checkbox"/> *Boring Log Attached
----------------------------------	-----	---

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

STATIC WATER LEVEL 11.4	FT.	PUMP INSTALLED <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
----------------------------	-----	---

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

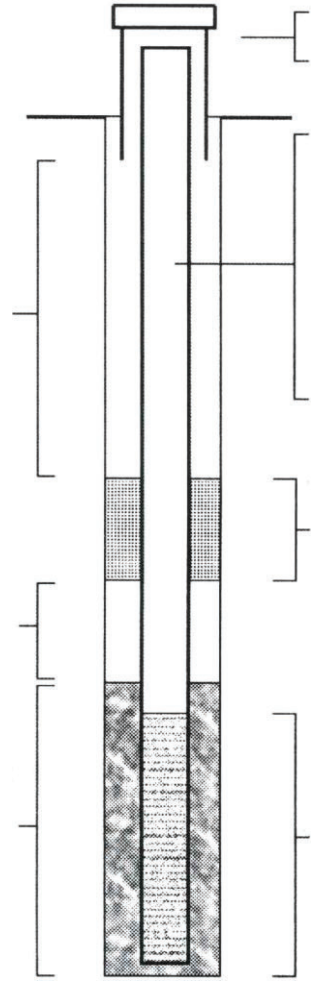
PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-04	WELL COMPLETION DATE 6-7-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
--	---	--	--

LOCATION OF WELL (D/M/S FORMAT ONLY)		
Latitude	<u>N 38</u> ° <u>41</u> ' <u>21.01</u> "	
Longitude	<u>W 90</u> ° <u>16</u> ' <u>08.05</u> "	

- Locking Cap
- Weep Hole



- SURFACE COMPLETION**
- Steel
 - Aluminum
 - Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)

Riser/Casing Diameter	<u>2</u> IN.
Riser/Casing Length	<u>23.23</u> FT.
Diameter Of Drill Hole	<u>9</u> IN.
Weight Or SDR#	<u>S40</u>

- MATERIAL**
- Steel
 - Thermoplastic (PVC)
 - Other _____

- BENTONITE SEAL**
- Length 3'
- Chips
 - Pellets
 - Granular
 - Saturated Zone
 - Hydrated

- SCREEN**
- | | |
|------------------------|---------------|
| Screen Diameter | <u>2</u> IN. |
| Screen Length | <u>15</u> FT. |
| Diameter Of Drill Hole | <u>9</u> IN. |
| Depth To Top | <u>23</u> FT. |

- SCREEN MATERIAL**
- Steel
 - Thermoplastic (PVC)
 - Other _____

Elevation 559.24 FT.

ANNULAR SEAL
Length 17.45 FT.

- Slurry
- Chips
- Pellets
- Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:

Bags of Cement Used _____
% of Bentonite Used _____
Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK
21 FT.

LENGTH OF PRIMARY FILTER PACK
17 FT.

SMALLEST	LARGEST	
<u>1/4</u>	<u>1/4</u>	<u>1/4</u>
Section _____	Township _____	North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W	

- TYPE OF WELL (CHECK ONE)**
- Direct Push
 - Gas Migration
 - Piezometer
 - Extraction
 - Injection
 - Open Hole
 - Standard
 - Inclinator
 - Lysimeter
 - Other (specify) _____

- MONITORING FOR (CHECK ALL THAT APPLY)**
- Explosives
 - Pesticides/Herbicides
 - Radionuclides
 - VOCS (non-petroleum)
 - Metals
 - Petroleum
 - SVOCS
 - Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	5	Fill
5	28.4	Silty Clay
28.4	32.4	Clay
32.4	38	Silt

REDI# 202310-G-D

TOTAL DEPTH: 38.48 TOC FT. *Boring Log Attached

STATIC WATER LEVEL 16.45 FT. PUMP INSTALLED Yes No

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-05	WELL COMPLETION DATE 6-7-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
--	---	--	--

LOCATION OF WELL (D/M/S FORMAT ONLY)			
Latitude	<u>N 38</u>	<u>41</u>	<u>24.22</u>
Longitude	<u>W 90</u>	<u>16</u>	<u>01.17</u>

- Locking Cap
- Weep Hole

Elevation 550.50 FT.

ANNULAR SEAL
Length 12.33 FT.

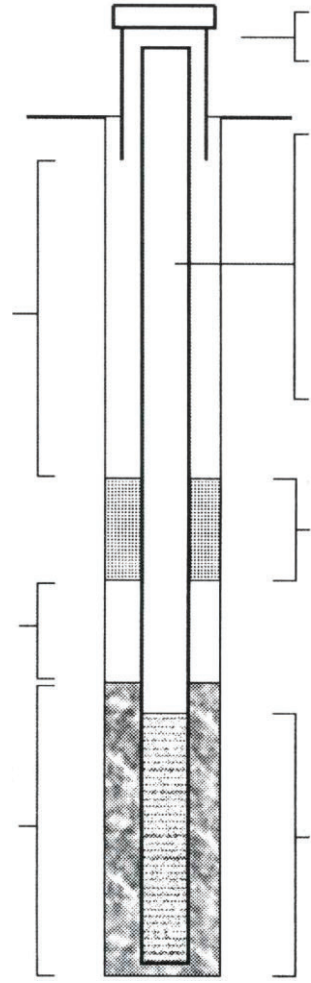
- Slurry Chips
- Pellets Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:
Bags of Cement Used _____
% of Bentonite Used _____
Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK
16 FT.

LENGTH OF PRIMARY FILTER PACK
17 FT.



- SURFACE COMPLETION**
 Steel Aluminum Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)
Riser/Casing Diameter 2 IN.
Riser/Casing Length 18.09 FT.
Diameter Of Drill Hole 9 IN.
Weight Or SDR# S40

- MATERIAL**
 Steel Thermoplastic (PVC)
 Other _____

BENTONITE SEAL
Length 3'
 Chips Pellets Granular
 Saturated Zone Hydrated

SCREEN
Screen Diameter 2 IN.
Screen Length 15 FT.
Diameter Of Drill Hole 9 IN.
Depth To Top 18 FT.

- SCREEN MATERIAL**
 Steel Thermoplastic (PVC)
 Other _____

SMALLEST	LARGEST	
<u>1/4</u>	<u>1/4</u>	<u>1/4</u>
Section _____	Township _____	North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W	

- TYPE OF WELL (CHECK ONE)**
 Direct Push Extraction Inclinator
 Gas Migration Injection Lysimeter
 Observation Open Hole Other (specify) _____
 Piezometer Standard

- MONITORING FOR (CHECK ALL THAT APPLY)**
 Explosives Metals
 Pesticides/Herbicides Petroleum
 Radionuclides SVOCS
 VOCS (non-petroleum) Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	4.8	Fill
4.8	33	Clay
TOTAL DEPTH: 33.34 TOC FT.		RED# 202310-G-D

STATIC WATER LEVEL 8.52 FT. *Boring Log Attached

PUMP INSTALLED
 Yes No

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-06	WELL COMPLETION DATE 6-7-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
--	---	--	--

LOCATION OF WELL (D/M/S FORMAT ONLY)			
Latitude	<u>N 38</u>	<u>41</u>	<u>28.12</u> "
Longitude	<u>W 90</u>	<u>16</u>	<u>07.24</u> "

- Locking Cap
- Weep Hole

Elevation 577.68 FT.

ANNULAR SEAL
Length 10.07 FT.

- Slurry Chips
- Pellets Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:

Bags of Cement Used _____
% of Bentonite Used _____
Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH

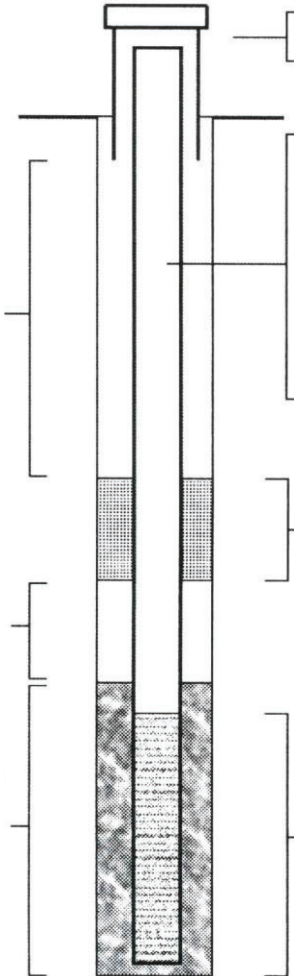
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK

14 FT.

LENGTH OF PRIMARY FILTER PACK

17 FT.



- SURFACE COMPLETION**
- Steel Aluminum Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)

Riser/Casing Diameter 2 IN.
Riser/Casing Length 15.86 FT.
Diameter Of Drill Hole 9 IN.
Weight Or SDR# S40

- MATERIAL**
- Steel Thermoplastic (PVC)
 - Other _____

- BENTONITE SEAL**
Length 3'
- Chips Pellets Granular
 - Saturated Zone Hydrated

SCREEN
Screen Diameter 2 IN.
Screen Length 15 FT.
Diameter Of Drill Hole 9 IN.
Depth To Top 26 FT.

- SCREEN MATERIAL**
- Steel Thermoplastic (PVC)
 - Other _____

SMALLEST	LARGEST	
<u>1/4</u>	<u>1/4</u>	<u>1/4</u>
Section _____	Township _____	North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W	

- TYPE OF WELL (CHECK ONE)**
- Direct Push Extraction Inclinator
 - Gas Migration Injection Lysimeter
 - Observation Open Hole Other (specify) _____
 - Piezometer Standard

- MONITORING FOR (CHECK ALL THAT APPLY)**
- Explosives Metals
 - Pesticides/Herbicides Petroleum
 - Radionuclides SVOCS
 - VOCS (non-petroleum) Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	3	Fill
3	11	Silty Clay
11	31	Clay

REDI# 202310-G-D

TOTAL DEPTH: 31.11 TOC FT. *Boring Log Attached

STATIC WATER LEVEL 26.23 FT. PUMP INSTALLED Yes No

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-07	WELL COMPLETION DATE 6-11-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
--	---	--	--

LOCATION OF WELL (D/M/S FORMAT ONLY)			
Latitude	<u>N 38</u>	<u>41</u>	<u>25.79</u>
Longitude	<u>W 90</u>	<u>15</u>	<u>49.93</u>

- Locking Cap
- Weep Hole

Elevation 540.31 FT.

ANNULAR SEAL
Length 9.27 FT.

- Slurry Chips
- Pellets Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:

Bags of Cement Used _____
% of Bentonite Used _____
Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH

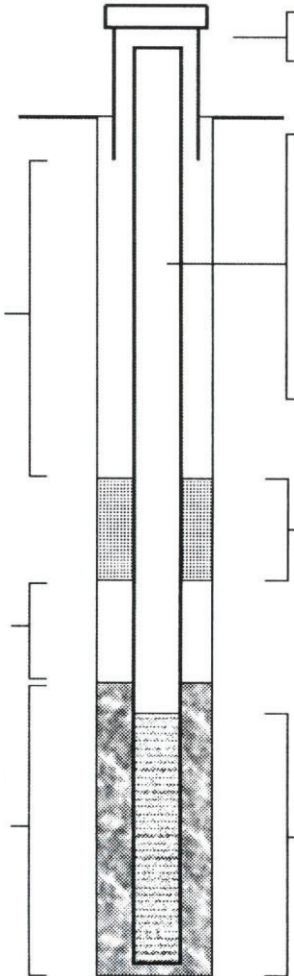
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK

13 FT.

LENGTH OF PRIMARY FILTER PACK

17 FT.



- SURFACE COMPLETION**
- Steel Aluminum Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)

Riser/Casing Diameter 2 IN.
Riser/Casing Length 15.20 FT.
Diameter Of Drill Hole 9 IN.
Weight Or SDR# S40

- MATERIAL**
- Steel Thermoplastic (PVC)
 - Other _____

- BENTONITE SEAL**
Length 3'
- Chips Pellets Granular
 - Saturated Zone Hydrated

SCREEN
Screen Diameter 2 IN.
Screen Length 15 FT.
Diameter Of Drill Hole 9 IN.
Depth To Top 15 FT.

- SCREEN MATERIAL**
- Steel Thermoplastic (PVC)
 - Other _____

SMALLEST	LARGEST	
<u>1/4</u>	<u>1/4</u>	<u>1/4</u>
Section _____	Township _____	North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W	

- TYPE OF WELL (CHECK ONE)**
- Direct Push Extraction Inclinator
 - Gas Migration Injection Lysimeter
 - Observation Open Hole Other (specify) _____
 - Piezometer Standard

- MONITORING FOR (CHECK ALL THAT APPLY)**
- Explosives Metals
 - Pesticides/Herbicides Petroleum
 - Radionuclides SVOCS
 - VOCS (non-petroleum) Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	3	Fill
3	15.8	Silty Clay
15.8	30	Clay

REDI# 202310-G-D

TOTAL DEPTH: 30.45 TOC FT. *Boring Log Attached

STATIC WATER LEVEL 16.28 FT. PUMP INSTALLED Yes No

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-08	WELL COMPLETION DATE 6-10-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
--	---	--	--

LOCATION OF WELL (D/M/S FORMAT ONLY)			
Latitude	<u>N 38</u>	<u>41</u>	<u>24.72</u>
Longitude	<u>W 90</u>	<u>15</u>	<u>54.89</u>

- Locking Cap
- Weep Hole

Elevation 545.27 FT.

ANNULAR SEAL
Length 9.60 FT.

- Slurry Chips
- Pellets Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:

Bags of Cement Used _____
% of Bentonite Used _____
Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH

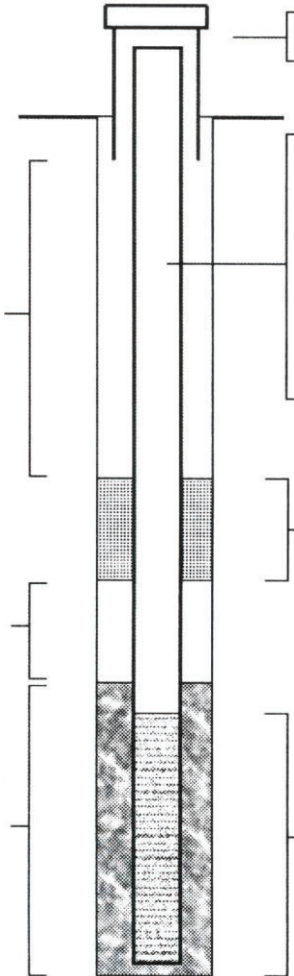
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK

13 FT.

LENGTH OF PRIMARY FILTER PACK

17 FT.



- SURFACE COMPLETION**
- Steel Aluminum Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)

Riser/Casing Diameter 2 IN.
Riser/Casing Length 15.36 FT.
Diameter Of Drill Hole 9 IN.
Weight Or SDR# S40

- MATERIAL**
- Steel Thermoplastic (PVC)
 - Other _____

- BENTONITE SEAL**
Length 3'
- Chips Pellets Granular
 - Saturated Zone Hydrated

SCREEN
Screen Diameter 2 IN.
Screen Length 15 FT.
Diameter Of Drill Hole 9 IN.
Depth To Top 15 FT.

- SCREEN MATERIAL**
- Steel Thermoplastic (PVC)
 - Other _____

SMALLEST	LARGEST	
<u>1/4</u>	<u>1/4</u>	<u>1/4</u>
Section _____	Township _____	North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W	

- TYPE OF WELL (CHECK ONE)**
- Direct Push Extraction Inclinator
 - Gas Migration Injection Lysimeter
 - Observation Open Hole Other (specify) _____
 - Piezometer Standard

- MONITORING FOR (CHECK ALL THAT APPLY)**
- Explosives Metals
 - Pesticides/Herbicides Petroleum
 - Radionuclides SVOCS
 - VOCS (non-petroleum) Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	4	Fill
4	18.8	Silty Clay
18.8	27.8	Clay
27.8	30	Silty Clay

REDI# 202310-G-D

TOTAL DEPTH: 30.61 TOC FT. *Boring Log Attached

STATIC WATER LEVEL 11.70 FT. **PUMP INSTALLED**
 Yes No

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-09	WELL COMPLETION DATE 6-2-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
--	---	--	--

LOCATION OF WELL (D/M/S FORMAT ONLY)			
Latitude	<u>N 38</u>	<u>41</u>	<u>27.47</u>
Longitude	<u>W 90</u>	<u>15</u>	<u>57.77</u>

- Locking Cap
- Weep Hole

Elevation 550.71 FT.

ANNULAR SEAL
Length 14.76 FT.

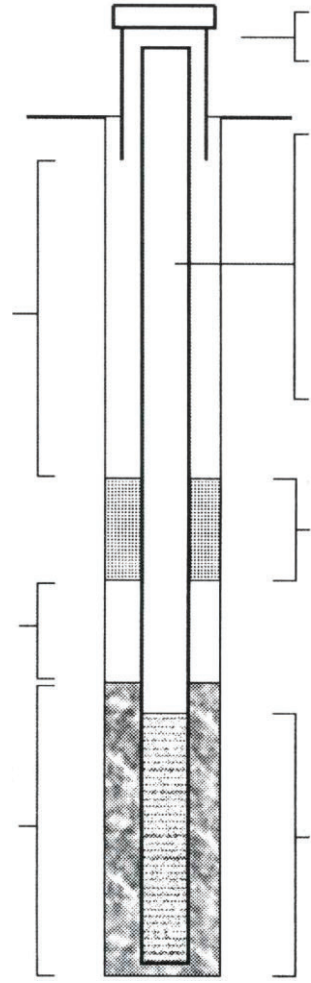
- Slurry Chips
- Pellets Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:
Bags of Cement Used _____
% of Bentonite Used _____
Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK
18 FT.

LENGTH OF PRIMARY FILTER PACK
17 FT.



SURFACE COMPLETION
 Steel Aluminum Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)
Riser/Casing Diameter 2 IN.
Riser/Casing Length 20.53 FT.
Diameter Of Drill Hole 9 IN.
Weight Or SDR# S40

MATERIAL
 Steel Thermoplastic (PVC)
 Other _____

BENTONITE SEAL
Length 3'
 Chips Pellets Granular
 Saturated Zone Hydrated

SCREEN
Screen Diameter 2 IN.
Screen Length 15 FT.
Diameter Of Drill Hole 9 IN.
Depth To Top 20 FT.

SCREEN MATERIAL
 Steel Thermoplastic (PVC)
 Other _____

SMALLEST	LARGEST	
<u>1/4</u>	<u>1/4</u>	<u>1/4</u>
Section _____	Township _____	North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W	

TYPE OF WELL (CHECK ONE)			
<input type="checkbox"/> Direct Push	<input type="checkbox"/> Extraction	<input type="checkbox"/> Inclinator	<input type="checkbox"/> Lysimeter
<input type="checkbox"/> Gas Migration	<input type="checkbox"/> Injection	<input type="checkbox"/> Open Hole	<input type="checkbox"/> Other (specify)
<input type="checkbox"/> Piezometer	<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> Observation	<input type="checkbox"/> Standard

MONITORING FOR (CHECK ALL THAT APPLY)			
<input type="checkbox"/> Explosives	<input checked="" type="checkbox"/> Metals	<input type="checkbox"/> Petroleum	<input type="checkbox"/> Geotechnical Data
<input type="checkbox"/> Pesticides/Herbicides	<input checked="" type="checkbox"/> Petroleum	<input type="checkbox"/> SVOCS	<input type="checkbox"/> Geotechnical Data
<input type="checkbox"/> Radionuclides	<input checked="" type="checkbox"/> SVOCS	<input type="checkbox"/> Geotechnical Data	<input type="checkbox"/> Geotechnical Data
<input checked="" type="checkbox"/> VOCS (non-petroleum)	<input checked="" type="checkbox"/> Geotechnical Data	<input type="checkbox"/> Geotechnical Data	<input type="checkbox"/> Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	3.4	Fill
3.4	31	Silty Clay
31	35	Weathered Mudstone

TOTAL DEPTH: 35.78 TOC FT. *Boring Log Attached

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

STATIC WATER LEVEL 13.12 FT. PUMP INSTALLED Yes No

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-10	WELL COMPLETION DATE 6-8-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
--	---	--	--

LOCATION OF WELL (D/M/S FORMAT ONLY)		
Latitude	<u>N 38</u> ° <u>41</u> ' <u>30.03</u> "	
Longitude	<u>W 90</u> ° <u>16</u> ' <u>01.42</u> "	

- Locking Cap
- Weep Hole

Elevation 557.58 FT.

ANNULAR SEAL

Length 11.57 FT.

- Slurry Chips
- Pellets Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:

Bags of Cement Used _____
% of Bentonite Used _____
Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH

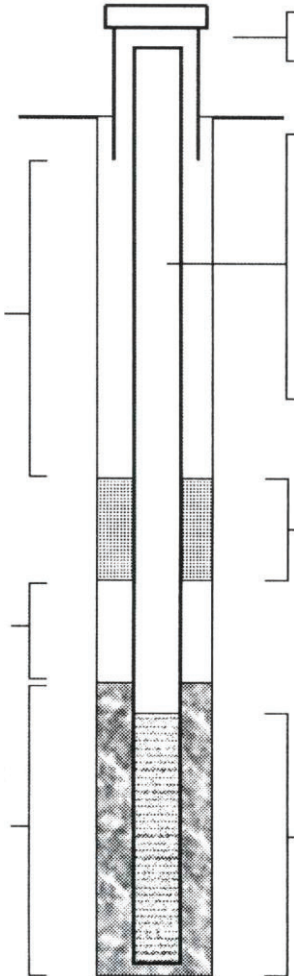
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK

15 FT.

LENGTH OF PRIMARY FILTER PACK

17 FT.



SURFACE COMPLETION

- Steel Aluminum Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)

Riser/Casing Diameter 2 IN.
Riser/Casing Length 17.14 FT.
Diameter Of Drill Hole 9 IN.
Weight Or SDR# S40

MATERIAL

- Steel Thermoplastic (PVC)
- Other _____

BENTONITE SEAL

Length 3'
 Chips Pellets Granular
 Saturated Zone Hydrated

SCREEN

Screen Diameter 2 IN.
Screen Length 15 FT.
Diameter Of Drill Hole 9 IN.
Depth To Top 17 FT.

SCREEN MATERIAL

- Steel Thermoplastic (PVC)
- Other _____

SMALLEST	LARGEST	
<u>1/4</u>	<u>1/4</u>	<u>1/4</u>
Section _____	Township _____	North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W	

TYPE OF WELL (CHECK ONE)		
<input type="checkbox"/> Direct Push	<input type="checkbox"/> Extraction	<input type="checkbox"/> Inclinator
<input type="checkbox"/> Gas Migration	<input type="checkbox"/> Injection	<input type="checkbox"/> Lysimeter
<input checked="" type="checkbox"/> Observation	<input type="checkbox"/> Open Hole	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Piezometer	<input type="checkbox"/> Standard	

MONITORING FOR (CHECK ALL THAT APPLY)		
<input type="checkbox"/> Explosives	<input checked="" type="checkbox"/> Metals	
<input type="checkbox"/> Pesticides/Herbicides	<input checked="" type="checkbox"/> Petroleum	
<input type="checkbox"/> Radionuclides	<input checked="" type="checkbox"/> SVOCS	
<input checked="" type="checkbox"/> VOCS (non-petroleum)	<input checked="" type="checkbox"/> Geotechnical Data	

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	2.8	Fill
2.8	16	Silty Clay
16	25	Clay
25	32	Weathered Mudstone

TOTAL DEPTH: 32.39 TOC	FT.	<input type="checkbox"/> *Boring Log Attached
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For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

STATIC WATER LEVEL <u>10.36</u>	FT.	PUMP INSTALLED <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION			
PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-11	WELL COMPLETION DATE 6-8-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount <input checked="" type="checkbox"/> Locking Cap <input type="checkbox"/> Weep Hole		LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____	LOCATION OF WELL (D/M/S FORMAT ONLY) Latitude <u>N 38</u> ° <u>41</u> ' <u>33.82</u> " Longitude <u>W 90</u> ° <u>16</u> ' <u>04.35</u> " SMALLEST _____ LARGEST _____ Section _____ Township _____ North Range _____ <input type="checkbox"/> E <input type="checkbox"/> W															
Elevation <u>581.03</u> FT. ANNULAR SEAL Length <u>11.99</u> FT. <input type="checkbox"/> Slurry <input checked="" type="checkbox"/> Chips <input type="checkbox"/> Pellets <input type="checkbox"/> Granular <input type="checkbox"/> Cement/Slurry		RISER OR CASING (IF OPEN HOLE COMPLETION) Riser/Casing Diameter <u>2</u> IN. Riser/Casing Length <u>17.77</u> FT. Diameter Of Drill Hole <u>9</u> IN. Weight Or SDR# <u>S40</u>		TYPE OF WELL (CHECK ONE) <input type="checkbox"/> Direct Push <input type="checkbox"/> Extraction <input type="checkbox"/> Inclinator <input type="checkbox"/> Gas Migration <input type="checkbox"/> Injection <input type="checkbox"/> Lysimeter <input checked="" type="checkbox"/> Observation <input type="checkbox"/> Open Hole <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> Piezometer <input type="checkbox"/> Standard																
IF CEMENT/BENTONITE MIX: Bags of Cement Used _____ % of Bentonite Used _____ Water Used Per Bag _____ GAL.		MATERIAL <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Thermoplastic (PVC) <input type="checkbox"/> Other _____		MONITORING FOR (CHECK ALL THAT APPLY) <input type="checkbox"/> Explosives <input checked="" type="checkbox"/> Metals <input type="checkbox"/> Pesticides/Herbicides <input checked="" type="checkbox"/> Petroleum <input type="checkbox"/> Radionuclides <input checked="" type="checkbox"/> SVOCS <input checked="" type="checkbox"/> VOCS (non-petroleum) <input checked="" type="checkbox"/> Geotechnical Data																
SECONDARY FILTER PACK LENGTH <u>NA</u> FT.		BENTONITE SEAL Length <u>3'</u> <input checked="" type="checkbox"/> Chips <input type="checkbox"/> Pellets <input type="checkbox"/> Granular <input type="checkbox"/> Saturated Zone <input checked="" type="checkbox"/> Hydrated		DEPTH <table border="1"> <thead> <tr> <th>FROM</th> <th>TO</th> <th>FORMATION DESCRIPTION (OR ATTACH BORING LOG*)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>2</td> <td>Fill</td> </tr> <tr> <td>2</td> <td>13.8</td> <td>Silty Clay</td> </tr> <tr> <td>13.8</td> <td>27.8</td> <td>Clay</td> </tr> <tr> <td>27.8</td> <td>33</td> <td>Weathered Mudstone</td> </tr> </tbody> </table>		FROM	TO	FORMATION DESCRIPTION (OR ATTACH BORING LOG*)	0	2	Fill	2	13.8	Silty Clay	13.8	27.8	Clay	27.8	33	Weathered Mudstone
FROM	TO	FORMATION DESCRIPTION (OR ATTACH BORING LOG*)																		
0	2	Fill																		
2	13.8	Silty Clay																		
13.8	27.8	Clay																		
27.8	33	Weathered Mudstone																		
DEPTH TO TOP OF PRIMARY FILTER PACK <u>16</u> FT.		SCREEN Screen Diameter <u>2</u> IN. Screen Length <u>15</u> FT. Diameter Of Drill Hole <u>9</u> IN. Depth To Top <u>18</u> FT.		TOTAL DEPTH: <u>33.02</u> TOC FT. <input type="checkbox"/> *Boring Log Attached																
LENGTH OF PRIMARY FILTER PACK <u>17</u> FT.		SCREEN MATERIAL <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Thermoplastic (PVC) <input type="checkbox"/> Other _____		STATIC WATER LEVEL DRY FT. <input type="checkbox"/> PUMP INSTALLED <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-12	WELL COMPLETION DATE 6-10-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
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LOCATION OF WELL (D/M/S FORMAT ONLY)			
Latitude	N 38	41	30.55
Longitude	W 90	15	51.21

- Locking Cap
- Weep Hole

Elevation 545.58 FT.

ANNULAR SEAL
Length 24.81 FT.

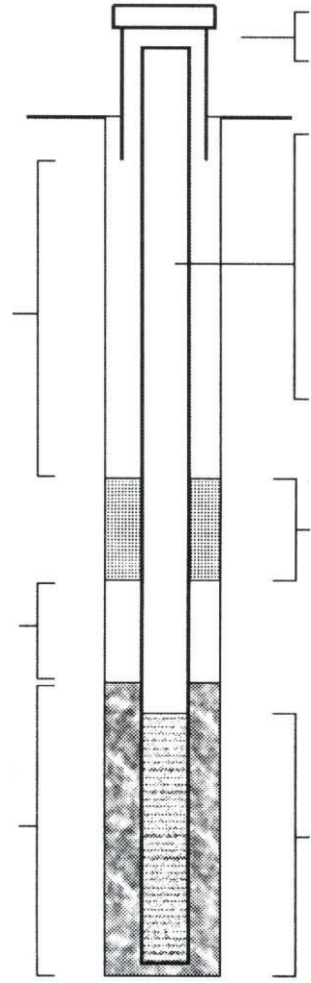
- Slurry Chips
- Pellets Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:
Bags of Cement Used _____
% of Bentonite Used _____
Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK
28 FT.

LENGTH OF PRIMARY FILTER PACK
17 FT.



- SURFACE COMPLETION**
 Steel Aluminum Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)
Riser/Casing Diameter 2 IN.
Riser/Casing Length 30.55 FT.
Diameter Of Drill Hole 9 IN.
Weight Or SDR# S40

- MATERIAL**
 Steel Thermoplastic (PVC)
 Other _____

BENTONITE SEAL
Length 3'
 Chips Pellets Granular
 Saturated Zone Hydrated

SCREEN
Screen Diameter 2 IN.
Screen Length 15 FT.
Diameter Of Drill Hole 9 IN.
Depth To Top 30 FT.

- SCREEN MATERIAL**
 Steel Thermoplastic (PVC)
 Other _____

SMALLEST	LARGEST	
<u>1/4</u>	<u>1/4</u>	<u>1/4</u>
Section _____	Township _____	North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W	

- TYPE OF WELL (CHECK ONE)**
 Direct Push Extraction Inclinator
 Gas Migration Injection Lysimeter
 Observation Open Hole Other (specify) _____
 Piezometer Standard

- MONITORING FOR (CHECK ALL THAT APPLY)**
 Explosives Metals
 Pesticides/Herbicides Petroleum
 Radionuclides SVOCS
 VOCS (non-petroleum) Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	3.4	Fill
3.4	13	Clay
13	23	Silty clay
23	45	Weathered Mudstone

REDI# 202310-G-D

TOTAL DEPTH: **45.80** TOC FT. *Boring Log Attached

STATIC WATER LEVEL **12.67** FT. PUMP INSTALLED Yes No

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-13	WELL COMPLETION DATE 6-11-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
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LOCATION OF WELL (D/M/S FORMAT ONLY)			
Latitude	<u>N 38</u>	<u>41</u>	<u>32.65</u>
Longitude	<u>W 90</u>	<u>15</u>	<u>54.57</u>

- Locking Cap
- Weep Hole

Elevation 551.17 FT.

ANNULAR SEAL
Length NA FT.

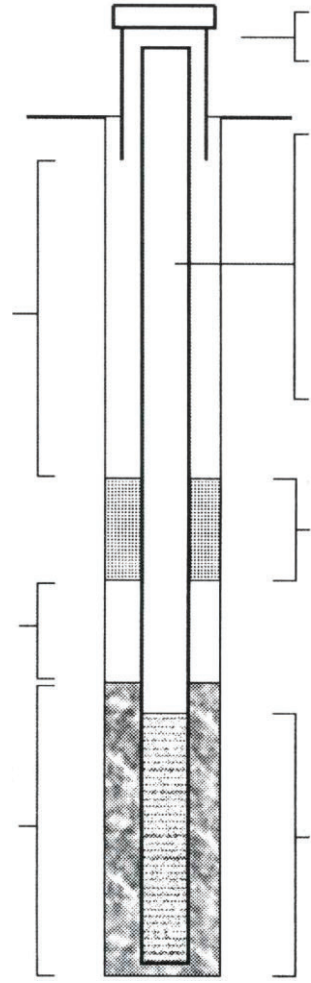
- Slurry Chips
- Pellets Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:
Bags of Cement Used _____
% of Bentonite Used _____
Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK
4 FT.

LENGTH OF PRIMARY FILTER PACK
17 FT.



SURFACE COMPLETION
 Steel Aluminum Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)
Riser/Casing Diameter 2 IN.
Riser/Casing Length 5.91 FT.
Diameter Of Drill Hole 9 IN.
Weight Or SDR# S40

MATERIAL
 Steel Thermoplastic (PVC)
 Other _____

BENTONITE SEAL
Length 3.13'
 Chips Pellets Granular
 Saturated Zone Hydrated

SCREEN
Screen Diameter 2 IN.
Screen Length 15 FT.
Diameter Of Drill Hole 9 IN.
Depth To Top 6 FT.

SCREEN MATERIAL
 Steel Thermoplastic (PVC)
 Other _____

SMALLEST	LARGEST	
<u>1/4</u>	<u>1/4</u>	<u>1/4</u>
Section _____	Township _____	North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W	

TYPE OF WELL (CHECK ONE)
 Direct Push Extraction Inclinator
 Gas Migration Injection Lysimeter
 Observation Open Hole Other (specify) _____
 Piezometer Standard

MONITORING FOR (CHECK ALL THAT APPLY)
 Explosives Metals
 Pesticides/Herbicides Petroleum
 Radionuclides SVOCS
 VOCS (non-petroleum) Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	3.6	Fill
3.6	8	Silty clay
8	12	Clay
12	21	Weathered Mudstone

REDI# 202310-G-D

TOTAL DEPTH: 21.16 TOC FT. *Boring Log Attached

STATIC WATER LEVEL 3.94 FT. PUMP INSTALLED Yes No

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-14	WELL COMPLETION DATE 6-9-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
--	---	--	--

LOCATION OF WELL (D/M/S FORMAT ONLY)		
Latitude	<u>N 38</u> ° <u>41</u> ' <u>37.00</u> "	
Longitude	<u>W 90</u> ° <u>16</u> ' <u>00.27</u> "	

- Locking Cap
- Weep Hole

Elevation 563.77 FT.

ANNULAR SEAL
Length NA FT.

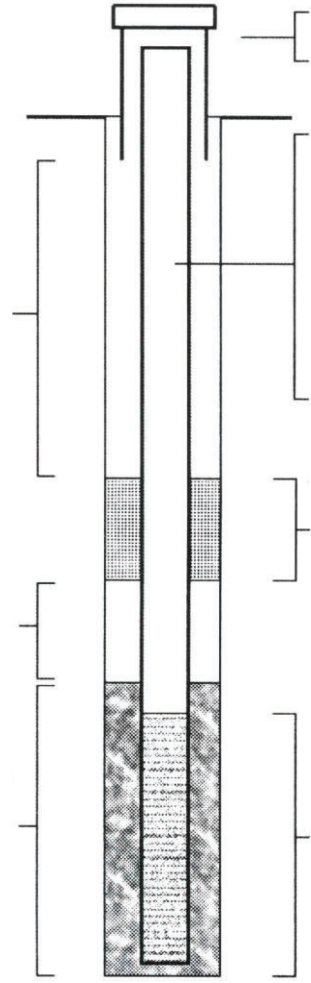
- Slurry Chips
- Pellets Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:
Bags of Cement Used _____
% of Bentonite Used _____
Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK
4 FT.

LENGTH OF PRIMARY FILTER PACK
17 FT.



- SURFACE COMPLETION**
 Steel Aluminum Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)
Riser/Casing Diameter 2 IN.
Riser/Casing Length 5.91 FT.
Diameter Of Drill Hole 9 IN.
Weight Or SDR# S40

- MATERIAL**
 Steel Thermoplastic (PVC)
 Other _____

BENTONITE SEAL
Length 3.07'
 Chips Pellets Granular
 Saturated Zone Hydrated

SCREEN
Screen Diameter 2 IN.
Screen Length 15 FT.
Diameter Of Drill Hole 9 IN.
Depth To Top 6 FT.

- SCREEN MATERIAL**
 Steel Thermoplastic (PVC)
 Other _____

SMALLEST	LARGEST	
<u>1/4</u>	<u>1/4</u>	<u>1/4</u>
Section _____	Township _____	North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W	

- TYPE OF WELL (CHECK ONE)**
 Direct Push Extraction Inclinator
 Gas Migration Injection Lysimeter
 Observation Open Hole Other (specify) _____
 Piezometer Standard

- MONITORING FOR (CHECK ALL THAT APPLY)**
 Explosives Metals
 Pesticides/Herbicides Petroleum
 Radionuclides SVOCS
 VOCS (non-petroleum) Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	1.4	Fill
1.4	6.4	Silty clay
6.4	13.6	Clay
13.6	21	Weathered Mudstone

REDI# 202310-G-D

TOTAL DEPTH: 21.16 TOC FT. *Boring Log Attached

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.				
MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER



MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-15	WELL COMPLETION DATE 6-11-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION		LOCATION OF WELL (D/M/S FORMAT ONLY)																		
TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____																	
<input checked="" type="checkbox"/> Locking Cap <input type="checkbox"/> Weep Hole		Latitude N 38° 41' 33.13" Longitude W 90° 15' 46.36"																		
Elevation <u>541.18</u> FT. ANNULAR SEAL Length <u>17.65</u> FT. <input type="checkbox"/> Slurry <input checked="" type="checkbox"/> Chips <input type="checkbox"/> Pellets <input type="checkbox"/> Granular <input type="checkbox"/> Cement/Slurry		SURFACE COMPLETION <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Aluminum <input type="checkbox"/> Plastic																		
IF CEMENT/BENTONITE MIX: Bags of Cement Used _____ % of Bentonite Used _____ Water Used Per Bag _____ GAL.		RISER OR CASING (IF OPEN HOLE COMPLETION) Riser/Casing Diameter <u>2</u> IN. Riser/Casing Length <u>23.40</u> FT. Diameter Of Drill Hole <u>9</u> IN. Weight Or SDR# <u>S40</u>																		
SECONDARY FILTER PACK LENGTH <u>NA</u> FT.		MATERIAL <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Thermoplastic (PVC) <input type="checkbox"/> Other _____																		
DEPTH TO TOP OF PRIMARY FILTER PACK <u>21</u> FT.		BENTONITE SEAL Length <u>3'</u> <input checked="" type="checkbox"/> Chips <input type="checkbox"/> Pellets <input type="checkbox"/> Granular <input type="checkbox"/> Saturated Zone <input checked="" type="checkbox"/> Hydrated																		
LENGTH OF PRIMARY FILTER PACK <u>17</u> FT.		SCREEN Screen Diameter <u>2</u> IN. Screen Length <u>15</u> FT. Diameter Of Drill Hole <u>9</u> IN. Depth To Top <u>23</u> FT.																		
		SCREEN MATERIAL <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Thermoplastic (PVC) <input type="checkbox"/> Other _____																		
		MONITORING FOR (CHECK ALL THAT APPLY) <input type="checkbox"/> Explosives <input checked="" type="checkbox"/> Metals <input type="checkbox"/> Pesticides/Herbicides <input checked="" type="checkbox"/> Petroleum <input type="checkbox"/> Radionuclides <input checked="" type="checkbox"/> SVOCS <input checked="" type="checkbox"/> VOCS (non-petroleum) <input checked="" type="checkbox"/> Geotechnical Data																		
		<table border="1"> <thead> <tr> <th colspan="2">DEPTH</th> <th rowspan="2">FORMATION DESCRIPTION (OR ATTACH BORING LOG*)</th> </tr> <tr> <th>FROM</th> <th>TO</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>3</td> <td>Fill</td> </tr> <tr> <td>3</td> <td>25</td> <td>Silty clay</td> </tr> <tr> <td>25</td> <td>35.2</td> <td>Clay</td> </tr> <tr> <td>35.2</td> <td>38</td> <td>Weathered Mudstone</td> </tr> </tbody> </table>		DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)	FROM	TO	0	3	Fill	3	25	Silty clay	25	35.2	Clay	35.2	38	Weathered Mudstone
DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)																		
FROM	TO																			
0	3	Fill																		
3	25	Silty clay																		
25	35.2	Clay																		
35.2	38	Weathered Mudstone																		
		TOTAL DEPTH: 38.65 TOC FT. <input type="checkbox"/> *Boring Log Attached																		
		STATIC WATER LEVEL 21.14 FT. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																		
		PUMP INSTALLED <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																		

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-16	WELL COMPLETION DATE 6-11-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
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LOCATION OF WELL (D/M/S FORMAT ONLY)			
Latitude	<u>N 38</u>	<u>41</u>	<u>34.62</u>
Longitude	<u>W 90</u>	<u>15</u>	<u>51.06</u>

- Locking Cap
- Weep Hole

Elevation 548.80 FT.

ANNULAR SEAL
Length 17.62 FT.

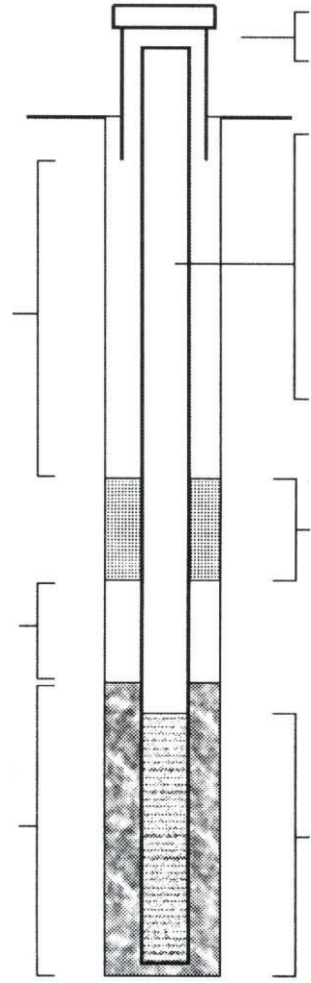
- Slurry Chips
- Pellets Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:
Bags of Cement Used _____
% of Bentonite Used _____
Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK
21 FT.

LENGTH OF PRIMARY FILTER PACK
17 FT.



- SURFACE COMPLETION**
- Steel Aluminum Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)
Riser/Casing Diameter 2 IN.
Riser/Casing Length 23.33 FT.
Diameter Of Drill Hole 9 IN.
Weight Or SDR# S40

- MATERIAL**
- Steel Thermoplastic (PVC)
 - Other _____

BENTONITE SEAL
Length 3'
 Chips Pellets Granular
 Saturated Zone Hydrated

SCREEN
Screen Diameter 2 IN.
Screen Length 15 FT.
Diameter Of Drill Hole 9 IN.
Depth To Top 23 FT.

- SCREEN MATERIAL**
- Steel Thermoplastic (PVC)
 - Other _____

SMALLEST	LARGEST	
<u>1/4</u>	<u>1/4</u>	<u>1/4</u>
Section _____	Township _____	North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W	

- TYPE OF WELL (CHECK ONE)**
- Direct Push Extraction Inclinator
 - Gas Migration Injection Lysimeter
 - Observation Open Hole Other (specify) _____
 - Piezometer Standard

- MONITORING FOR (CHECK ALL THAT APPLY)**
- Explosives Metals
 - Pesticides/Herbicides Petroleum
 - Radionuclides SVOCS
 - VOCS (non-petroleum) Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	7.2	Fill
7.2	24.6	Silty clay
24.6	28	Clay
28	33.2	Silty Clay
33.2	36	Clay
36	38	Weathered Mudstone

TOTAL DEPTH: 38.58 TOC FT. *Boring Log Attached

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

STATIC WATER LEVEL 17.15 FT. **PUMP INSTALLED**
 Yes No

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE / /

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION			
PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-17	WELL COMPLETION DATE 6-3-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount <input checked="" type="checkbox"/> Locking Cap <input type="checkbox"/> Weep Hole		LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____	LOCATION OF WELL (D/M/S FORMAT ONLY) Latitude <u>N 38</u> ° <u>41</u> ' <u>37.01</u> " Longitude <u>W 90</u> ° <u>15</u> ' <u>56.41</u> " SMALLEST _____ LARGEST _____ Section _____ Township _____ North Range _____ <input type="checkbox"/> E <input type="checkbox"/> W															
Elevation <u>557.77</u> FT. ANNULAR SEAL Length <u>3.56</u> FT. <input type="checkbox"/> Slurry <input checked="" type="checkbox"/> Chips <input type="checkbox"/> Pellets <input type="checkbox"/> Granular <input type="checkbox"/> Cement/Slurry		RISER OR CASING (IF OPEN HOLE COMPLETION) Riser/Casing Diameter <u>2</u> IN. Riser/Casing Length <u>9.38</u> FT. Diameter Of Drill Hole <u>9</u> IN. Weight Or SDR# <u>S40</u>		TYPE OF WELL (CHECK ONE) <input type="checkbox"/> Direct Push <input type="checkbox"/> Extraction <input type="checkbox"/> Inclinator <input type="checkbox"/> Gas Migration <input type="checkbox"/> Injection <input type="checkbox"/> Lysimeter <input checked="" type="checkbox"/> Observation <input type="checkbox"/> Open Hole <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> Piezometer <input type="checkbox"/> Standard																
IF CEMENT/BENTONITE MIX: Bags of Cement Used _____ % of Bentonite Used _____ Water Used Per Bag _____ GAL.		MATERIAL <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Thermoplastic (PVC) <input type="checkbox"/> Other _____		MONITORING FOR (CHECK ALL THAT APPLY) <input type="checkbox"/> Explosives <input checked="" type="checkbox"/> Metals <input type="checkbox"/> Pesticides/Herbicides <input checked="" type="checkbox"/> Petroleum <input type="checkbox"/> Radionuclides <input checked="" type="checkbox"/> SVOCS <input checked="" type="checkbox"/> VOCS (non-petroleum) <input checked="" type="checkbox"/> Geotechnical Data																
SECONDARY FILTER PACK LENGTH <u>NA</u> FT.		BENTONITE SEAL Length <u>3'</u> <input checked="" type="checkbox"/> Chips <input type="checkbox"/> Pellets <input type="checkbox"/> Granular <input type="checkbox"/> Saturated Zone <input checked="" type="checkbox"/> Hydrated		DEPTH FORMATION DESCRIPTION (OR ATTACH BORING LOG*) <table border="1"> <thead> <tr> <th>FROM</th> <th>TO</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>4</td> <td>Fill</td> </tr> <tr> <td>4</td> <td>13</td> <td>Silty clay</td> </tr> <tr> <td>13</td> <td>35</td> <td>Clay</td> </tr> <tr> <td>35</td> <td>70</td> <td>Weathered Mudstone</td> </tr> </tbody> </table>		FROM	TO	DESCRIPTION	0	4	Fill	4	13	Silty clay	13	35	Clay	35	70	Weathered Mudstone
FROM	TO	DESCRIPTION																		
0	4	Fill																		
4	13	Silty clay																		
13	35	Clay																		
35	70	Weathered Mudstone																		
DEPTH TO TOP OF PRIMARY FILTER PACK <u>8</u> FT.		SCREEN Screen Diameter <u>2</u> IN. Screen Length <u>15</u> FT. Diameter Of Drill Hole <u>9</u> IN. Depth To Top <u>10</u> FT.		Borehole TD = 70 ft bgs Backfilled with grout to 28' bgs + Backfilled with sand to 24.62' bgs + Well set at 25' bgs RED# 202310-G-D <input type="checkbox"/> *Boring Log Attached																
LENGTH OF PRIMARY FILTER PACK <u>17</u> FT.		SCREEN MATERIAL <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Thermoplastic (PVC) <input type="checkbox"/> Other _____		TOTAL DEPTH: 24.63 TOC FT.																
For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.				STATIC WATER LEVEL <u>13.13</u> FT.																
				PUMP INSTALLED <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
 GEOLOGICAL SURVEY PROGRAM
**MONITORING WELL
 CERTIFICATION REPORT**

OFFICE USE ONLY		DATE RECEIVED	
REFERENCE NO.		CHECK NO.	
STATE WELL NO.		REVENUE NO.	
ENTERED	APPROVED	DATE	ROUTE

NOTE: This form is not to be used for nested wells

OWNER AND SITE INFORMATION

PROPERTY OWNER NAME WHERE WELL IS LOCATED GSA - General Services Administration	PRIMARY PHONE NUMBER WITH AREA CODE (816) 391-8462	WELL NUMBER MW-18	WELL COMPLETION DATE 6-10-2021
PROPERTY OWNER MAILING ADDRESS 2300 Main Street, FMD 7th Floor - 6PM	CITY Kansas City	STATE MO	ZIP CODE 64108
PHYSICAL ADDRESS OF PROPERTY WHERE WELL IS LOCATED 4300 Goodfellow Blvd.	CITY St. Louis	COUNTY St. Louis	
NAME OF SITE, BUSINESS, OR CLEANUP PROJECT Goodfellow Federal Complex	DNR/EPA PROJECT NUMBER OR REGULATORY SITE ID NUMBER (IF APPLICABLE)		VARIANCE NUMBER (IF ISSUED)
PRIMARY CONTRACTOR NAME (PLEASE PRINT) Burns & McDonnell - Justin Carter	PERMIT NUMBER 004054M	Section 256.607(3), RSMo, requires all primary contractors to comply with all rules and regulations promulgated pursuant to Sections 256.600 to 256.640 RSMo.	

SURFACE COMPLETION

TYPE <input type="checkbox"/> Above Ground <input checked="" type="checkbox"/> Flush Mount	LENGTH AND DIAMETER OF SURFACE COMPLETION Length <u>1</u> FT. Diameter <u>8</u> IN.	DIAMETER AND DEPTH OF THE HOLE SURFACE COMPLETION WAS PLACED Diameter <u>24X24</u> IN. Length <u>1</u> FT.	SURFACE COMPLETION GROUT <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____
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LOCATION OF WELL (D/M/S FORMAT ONLY)		
Latitude	<u>N 38</u> ° <u>41</u> ' <u>38.93</u> "	
Longitude	<u>W 90</u> ° <u>16</u> ' <u>02.27</u> "	

- Locking Cap
- Weep Hole

Elevation 564.77 FT.

ANNULAR SEAL
 Length 6.56 FT.

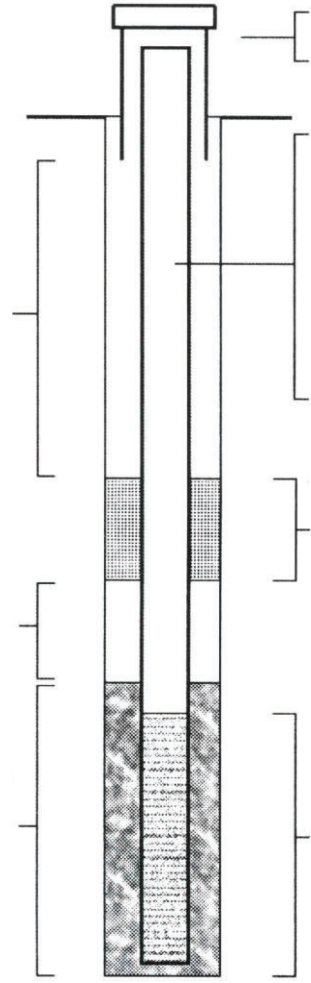
- Slurry Chips
- Pellets Granular
- Cement/Slurry

IF CEMENT/BENTONITE MIX:
 Bags of Cement Used _____
 % of Bentonite Used _____
 Water Used Per Bag _____ GAL.

SECONDARY FILTER PACK LENGTH
NA FT.

DEPTH TO TOP OF PRIMARY FILTER PACK
11 FT.

LENGTH OF PRIMARY FILTER PACK
17 FT.



- SURFACE COMPLETION**
 Steel Aluminum Plastic

RISER OR CASING (IF OPEN HOLE COMPLETION)
 Riser/Casing Diameter 2 IN.
 Riser/Casing Length 13.43 FT.
 Diameter Of Drill Hole 9 IN.
 Weight Or SDR# S40

- MATERIAL**
 Steel Thermoplastic (PVC)
 Other _____

BENTONITE SEAL
 Length 3'
 Chips Pellets Granular
 Saturated Zone Hydrated

SCREEN
 Screen Diameter 2 IN.
 Screen Length 15 FT.
 Diameter Of Drill Hole 9 IN.
 Depth To Top 13 FT.

- SCREEN MATERIAL**
 Steel Thermoplastic (PVC)
 Other _____

SMALLEST	LARGEST
<u>1/4</u>	<u>1/4</u>
Section _____	Township _____ North
Range _____	<input type="checkbox"/> E <input type="checkbox"/> W

- TYPE OF WELL (CHECK ONE)**
 Direct Push Extraction Inclinator
 Gas Migration Injection Lysimeter
 Observation Open Hole Other (specify) _____
 Piezometer Standard

- MONITORING FOR (CHECK ALL THAT APPLY)**
 Explosives Metals
 Pesticides/Herbicides Petroleum
 Radionuclides SVOCS
 VOCS (non-petroleum) Geotechnical Data

DEPTH		FORMATION DESCRIPTION (OR ATTACH BORING LOG*)
FROM	TO	
0	3.6	Fill
3.6	21	Silty clay
21	27	Clay
27	28	Weathered Mudstone

REDI# 202310-G-D

TOTAL DEPTH: 28.68 TOC FT. *Boring Log Attached

For cased wells, submit additional as-built diagrams showing well construction details including type and size of all casing, hole diameter and grout used.

I hereby certify that the monitoring well herein described was constructed in accordance with Missouri Department of Natural Resources requirements.

MONITORING WELL INSTALLATION CONTRACTOR Roberts Env. Drilling, Inc. - Matt Kwiatkowski	PERMIT NUMBER 006463-M	DATE 7-29-21	MONITORING WELL INSTALLATION CONTRACTOR APPRENTICE (IF APPLICABLE)	PERMIT NUMBER
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APPENDIX B – FIELD NOTES

5/26/21

128487

Blackwood

TRIAL UTILITY LOCATE

WEATHER: SW: 80's, cloudy

745 Lockwood @ CHECKPOINT.

800 Lockwood exits

815 Trevor Peterson onsite - Ben

820 SAFETY TAGS COMPLETE

835 BP unable to locate any utilities around 141L.

840 Lockwood call Rocky to discuss utility layout.

845 ICE JV CONTRACTOR onsite to discuss utilities for Rocky.

Notes that most electrical, cems, and H₂O lines run through tunnels that connect buildings. Explains inability to locate anything so far. Tunnels are original (1960s) and thick concrete. BTD A PPE required to enter.

928 Lockwood calls Eric Goeman to discuss tunnels.

Eric suggests looking @ tunnel entrances in basements to get a feel for utilities. Not waterproof, in SSSP. According to Rocky! would require approval.

1000 Goeman sent maps of tunnels to be used. Lockwood
BP to BLDG 107 to meet w/ Rocky for more utility
apps.

1120 Lockwood call w/ Justin Carrol to discuss locate
challenges: schedule concerns.

1245 Ken Lemick on-site to support utility locate.

5/26/21

128487

Blackwood

1705 call with Ob to schedule DW Drop off.

Ob will send contact info for Drivers:

will call post 15min out on flight.

1555 Call with Eric Goeman - Redwood Visions

Agreement to control Basements to need be

Ob to send communication email.

1720 Ben: Ken with BP onsite. Ben will

Return tomorrow @ 7 am.

1720 Lockwood onsite.

(b) (6)

MATTHEW
WILLIAM
VINCENT
B. Lockwood

5/27/21

128487

TASK: UTILITY LOCATE

WEATHER: 80s, cloudy, chance of storms

705 Lockwood onsite, Baker Peterson (BP) onsite.

710 work to BLDG 101 to BEGIN LOCATE.

1245 30 min FOR LIGHTNING + STRONG STORMS.

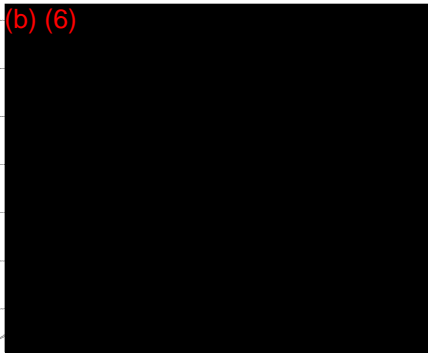
1255 call with JSTW to discuss terminating utility
locate for today due to SEVERE STORMS ALL OFF.
will pick up work tomorrow. Extra DP Guy
will be onsite.

1310 BP + Lockwood OFFSITE.

1515 Lockwood onsite TO COLLECT HISTORICAL DRAWINGS
FROM WILKINS (SSIA).

1520 Lockwood OFFSITE.

(b) (6)



5/28/21

128487

B. Lockwood

TASK: UTILITY LOCATE + LOW DRAG OFF

WEATHER: 60s, cloudy, Rain in Am.

805 Lockwood onsite, Baker Peterson onsite.

832 Andrew with OB onsite to drag off.

5-275 gal Tanks For DRAINING.

845 Andrew (OB) OFFSITE.

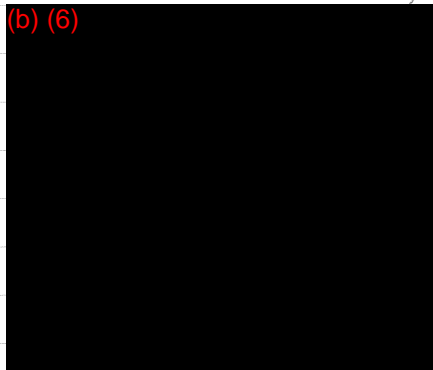
1000 William with BP onsite to support UTILITY LOCATE

1345 MIDDLETOWN SANITATION onsite w/ 2 ROW OFFS.

1455 LOCATE COMPLETE

1530 BP + Lockwood OFFSITE.

(b) (6)



6/01/21

128487 - 654 GARDNER B. Lockwood

TASK: Soil Borings / MW INSTALL

WEATHER: Cloudy, Chance Rain, 60s-70s

730 Lockwood onsite, DUNE onsite, PRINCES onsite

845 THROUGH SECURITY, SAFETY BRIEF COMPLETE

850 DUNE OFFSITE

AWT-02 OR (TEZ)

855 BEGIN ON PAVING

930 DISCUSS WITH MILLNER ABOUT LEAVING RIG NEXT WEEK

RIGGING OVERNIGHT. HE HAS NO ISSUE WITH IT? WILL

LEAVE PLAN WITH SECURITY.

949 BEGIN DRILLING ON SB-01 / MW-01

1111 SB-01 / MW-01 GARDNER COMPLETE, BEGIN SETUP FOR 43'

1120 LOCKWOOD CALLS J. CARTON TO DISCUSS DEPTH (43')

J. CARTON TV CALL ERIC GORMAN (654) TO DISCUSS. WILL

STILL SHOW 15' SCREEN @ BOSTON UNLESS GORMAN STATES

OTHERWISE.

1210 ZED1 CLOW (PAT: TEZ) OFFSITE FOR LIMITED WORK DURING

1215 ZED1 CLOW ONSITE

1350 AUGER BREAK @ 45'

1410 CONTROL ROD WITH WHICH POWER INCREASED DRILLING

DTW: 29.04'

1425 BEGIN MW-01 INSTALL @ 45' (15' SCREEN)

Ø BULK OF SAND

6/01/21

128487

B. Lockwood

1530 MW-01 INSTALLED

1600 BEGIN SETUP OF DUNE PAD AND MW-02

1635 REPORTS DRILLING OFFSITE

1640 LOCKWOOD OFFSITE FOR THE DAY

(b) (6)

6/02/21 128487 - 654 Goodfellow B. Lockwood

Task: Soil Berms - in institute

Weather: Cloudy, 70s, clear of stars

728 Latwood onsite.

735 Roberts onsite.

745 Begin Draw per set up and Draw of PDS
From SB-01

818 Drawn complete

830 Collect Ring-01 From inside shelter CD.

840 Begin Drawing SB-02/mw-02

914 Frank Goodfellow at mw-02/SB-02 TO Begin Accuracy (38')

1015 Run out of Auger @ 10' - Pat Roberts to Berms
15-20' under Auger.

1115 Roberts onsite for lunch.

1120 Latwood onsite for lunch

1145 Latwood, Roberts onsite

1200 Begin continued SB-02/mw-02 Augering.

1245 Auger Rupture @ 64.0' SB-02/mw-02. most likely Borehole
Seepage. Attempted for 3-4 min to cut through with
No Luck.

1304 mw-02 Drawing DTW: NO WATER.

1308 Double check mw-01 DTW: 20.45

1345 Auger Break while setting mw-02, 50' of inner shaft
will per well & relocate 1-2', will move on to
Enter hole for rest of day. New augers will be
onsite in Am.

6/02/21 128487 B. Lockwood

1420 Setup on mw-09/SB-09

1422 Begin drawing mw-09-SB-09

1500 SB-09/mw-09 ~~Complete~~ Complete: Refill @ 18'

1510 Roberts to Draw PDS.

1540 MOB to SB-17/mw-17.

1555 Setup on SB-17/mw-17

1559 Begin Drawing SB-17/mw-17

1624 SB-17/mw-17 Geoprobe complete.

1640 Roberts crew onsite

Plan in Am - Use New augers to set mw-09;
mw-17.

1645 Latwood onsite.

(b) (6)

6/03/21

128497

Blackwood

Task: Soil Borings, 7 MW INSTALLED

WEATHER: 70-80s, PAM cloudy

730 Lockwood onsite

750 Roberts crew onsite

808 Basin Augering, MW-17/SB-17

1100 Lockwood go down station to discuss SB-17/mw-17
clarity at 70'UPDATE: EXPECT TO CONSULT WITH OTHERS RE: Borehole
Photos.1140 FINDER CHY IS LIKELY MUD STAIN (FROM UNDER) AND
Lockwood will get work in that unit.

LATER

1125 Roberts crew OFFSITE FOR LUNCH

END LATER

1210 Roberts crew on site. MW-17

1215 Basin Auger Removal @ clarity to 25' WITH
STAIN FROM 25-28'1425 MW-17 (INSTALLED), SUBSIDED 10-20', 2' OF SAND
ABOVE WELL SCREEN

14 SAND DUG

26 BENT CHIPS BOX

1505 COLLECT BWSC-02 FROM STAG + LOG1510 Basin complete, START WORK ON MW-09 TO AUGER/INSTALL
WELL.

6/03/21

128497

Blackwood

1535 Basin ^{Augering} ~~Removal~~ MW-09/SB-09

1615 Augering complete, BEGIN SETTING MW-09

1710 MW-09 INSTALLED: 20-35' bgs

1735 WTS TO MW-02 IN AREA RETROFIT ATTS-P.

1730 Basin drilling 1.

1750 Sources.

1755 Roberts crew OFFSITE. WILL COMPLETE MW-02 IN AM

1800 Lockwood OFFSITE

(b) (6)

6/4/21

128487

B. Lockwood

THRU: SOIL BORING MW INSTANT SURFACE FINISH.

WEATHER: 80°, SUNNY

740 LOCKWOOD, ROBOTS DR. 4th ONSITE, (PART: MATH)

750 BEGIN BACKHOAVING MW-02 & INSTALL

920 MW-02 INSTALLED 25'-40'

930 BEGIN DECON ? SETUP OR MW-03/SB-03

1030 BEGIN GEOPROBING MW-03/SB-03

1045 COMPLETE MW-03/SB-03 GEOPROB. BEGIN AUGERING
TO 35'

1030 AUGER COMPLETE, BEGIN PULLING AUGER & SETTING WELL

1230 MW-03 INSTALLED 20-35' LOGS

10 bags chip

10 bags sand.

1230 LOCKWOOD OFFSITE FOR GAS, LUNCH

1370 LOCKWOOD ONSITE.

1335 COLLECT SLURRY-03 FROM SHOE: ROD.1345 BEGIN WELL COMPLETION FOR ALL 5 WELLS.
SOME WORK

1530 COLLECT MW RESPONSIBLY FROM FUNDING COMPANY

09 DTW: 27.59

17 DTW: DRY

1545 SAMPLES REMOVED TO TELLER'S COBIDE.

1620 ALL WELL SERVICES COMPLETE.

1645 ROBOTS CLEAR OFFSITE FOR WEEKEND

6/4/21

128487

B. Lockwood

1650 LOCKWOOD COME WITH CARTON TO SUMMERIZED
WORK ? FLAW NEXT WEEK.

1700 LOCKWOOD OFFSITE

(b) (6)

6/07/21

128487

B. Lockwood

T156: Soil Boring: MW install

Historic Camp, 80's, change of streams

725 Lockwood onsite

735 Roberts crew onsite

802 Lower GW water pump

Well	DTW	TD
mw-01	21.19	45.0
mw-02	29.74	39.75
mw-03	23.90	35.07
mw-04	15.32	35.15
mw-19	22.4	24.25

830 Setup on mw-04/SB-04

845 Begin Boring mw-04/SB-04

913 SB-04/mw-04 Geoprobe DP REFUSE @ 37' Below

Tool removal: Assembly

1015 Begin Setting mw-04 @ 37' H' = 38'

11 Saws

10 clips

1110 mw-04 installed, 23-38' bgs

1115 mw-03 to SB-06/mw-06

1145 Lockwood onsite for 15' hour

1245 Lockwood onsite

6/07/21

128487

B. Lockwood

1650 Begin SB-06/mw-06

1715 Finish SB-06/mw-06 Geoprobe DP REFUSE @ 30'

Begin Removal: Assembly

1745 Aborted to 31', Begin removal: MW install

11 Bais Saws

7 Bais clips. 16:31

1530 Complete mw-06: SURFACE MOUNT. MW-03 TO SB-05/

mw-05 TO Geoprobe.

1608 Begin SB-05/mw-05 Geoprobe DP.

1645 SB-05/mw-05 REFUSE @ 23'. DID NOT REACH

FLATBUT UNIT LIKE OTHER HOLE, GUSSET IN FAT CLAY

WITH LOT OF ~~FLAT~~ LAMIN (WAS WATERS @ BOTTOM)

- Will Abort in AM.

1715 CALL WITH J. LARSEN (BMC) TO DISCUSS DAY.

1716 Roberts OFFSITE

1728 Lockwood OFFSITE

LATE

1145 COLLECT SLICES - of FLOW sheet

END LATE

(b) (6)

6/8/21

128487

B. Lockwood

WEATHER: BOS, CLOUDS, CHANCE OF RAIN

TASK: SOIL BORINGS & MW INSTALL.

730 COLLECTED - ROBERTS OFFICE

750 COLLECT REWORK-05 FROM SITE #105800 CONTINUE SB-05/MW-05, TO AUGER UNTIL FEMURUS
SOILS NOT FOUND IN UPPER SPIND.900 AUGER TERMINATED @ 33' bgs IN FEMURUS UNIT.
WELL TO BE SET 18-33' bgs. BEGIN WELL INSTALL.

1000 MW-05 INSTALL COMPLETE

10 BAGS SAND

6 BAGS CHIPS.

1020 ATTEMPTS TO REMOVE ASPHALT FOR WELL COMPLETION
FAILED. REPORTS TO SUPERVISOR IN AM.

1025 MOB TO MW-10/9B-10

1050 BEGIN GEOPROBE DP ON SB-10/MW-10

1127 COMPLETE GEOPROBE DP TO 52' REFUSAL.

1130 BEGIN AUGER SB-10/MW-10

1150 COMPLETE AUGER TO 32'

1155 LUNCH

1250 ~~CONTINUE~~ BEGIN MW-10 INSTALL

10 SAND

8 CHIPS

1330 MW-10 INSTALLED 17-52' bgs.

MOB TO MW-11/SB-11 (7500) (2 BAGS TO BEGIN)

6/8/21

128487

B. Lockwood

1530 START GEOPROBE DP OF SB-11/MW-11

1608 REFUSAL @ SB-11/MW-11 @ 30' BEGIN UNDOING

1645 WANTED TO GO TO 20' & STOP FOR THE DAY. DRIVER DID
NOT WANT TO STOP IN WEATHERED MUD SPOTS.

1651 ROBERTS OFFICE

1654 BEGIN GRADING NEW WELLS

WELL NO	DTW	TZ	PHOSPHORUS ON CAP
MW-04	17.38	37.9	
MW-05	27.05	32.91	
MW-06	DLY	31.09	
MW-10	DLY	31.96	

1730 COLLECTED OFFICE

(b) (6)

6/9/21

128487

B. Lockwood

Track

Weather

735 Lockwood on site

740 ROBERT MW-06 : MW-10 TO SET IP AND WATER
APERTURE.

MW ID	DLW	TD
MW-06	28.8	31.09
MW-10	28.48	31.96

745 Below surface completions for MW-05, MW-04, MW-10

935 complete & final completions

940 minor key repair : REPAIR

1000 continue MW-11. PER CALL WITH CARTER IN AM, WILL SET
WELL @ 33'

1230 ALBER COMPLETE, TIE-IN MW-11 INSTALLED

10 BALS OF SAWY

10 BALS OF SAWY

1145 MW-11 INSTALLATION 18-33'

1150 SAMPLES FINISHED TO LOWER. COURTESY TO TOP WITH
ICE DRESS DELIVERY, STAY PLANTY IN LOWER ON
PLANT OFF.

1220 SET UP ON MW-14, LUNCH BREAK

1215 Lockwood: ROBERTS CLAW OFFICE FOR LUNCH

6/9/21

128487

B. Lockwood

1230 Lockwood on site

1245 ROBERTS CLAW OFFICE

1315 Below 88-14/MW-14 GYPSUM DP.

1342 COMPLETES 58-14/MW-14 DP, DISTAL @ 19'

1400 GYPSUM MW-17, DRY

1407 OAK CARTER TO DOCUS MW-14 DEPTH WILL
SEE MW-14 @ 21'

1430 BEGIN AUGERING MW-14 " MW INSTALLED

10 DAYS SAWY.

2-BALS OF SAWY.

1540 COMPLETES MW-14, SET @ 6-21', MOB TO MW-18

1615 MOB TO MW-18, BEGIN TO DRILL

1630 COLLOR. RISK-06 @ 34' ? 160

1655 ROBERTS OFFSITE.

1705 SEND UPDATE EMAIL TO CARTER.

1710 Lockwood OFFSITE.

(b) (6)

6/10/21

128487

B. Lockwood

Turkish: Some Boring? in well

Weather: Part cloudy, 90s, June

7:25 Lockwood + Robert onsite

7:45 hours to MW-11 to do surface completions

7:50 Complete MW-11 / MW-14 prior to surface completions

Well ID	DFW	ID
MW-11	207	32.80
MW-14	227	20.89

8:45 Complete well surface completions

9:15 Begin MW-10/SB-10 ~~at 20'~~ Geoprobe DP9:40 Complete SB-10/MW-10, Begin ~~at 20'~~ Total Recovery

9:40 Begin Augering.

9:15 Lockwood could. Change to discs & well placement.

Will pump well @ 20' with 43' IP on top to capture

surface zone (piston water)

10:30 Augered to 28', A/C H₂O Break11:00 end A/C H₂O Break.

11:25 Continue MW-10 inside.

11 Bags of sands

4 Bags of chips.

12:10 Complete MW-10 13-28' with 3' stand above

Well screen.

12:15 Drive to MW-07 to discuss rig access

12:30 Offsite for lunch

6/10/21

128487

B. Lockwood

13:15 onsite, surface completion for MW-10.

13:20 Lockwood to discuss electrical vaults outside

Block 105' MW-07. Need further clarification
on voltage casing.

13:40 work to discuss collect RWSE-07

14:15 collect RWSE-07 @ 500' Rod

NOTE: Will leave MW-07 for 6/11/21 when

idea of return line is more clear. Will

Geoprobe rest of today.

14:40 Attempt access to MW-13, security gate for

the day to work to MW-08

14:50 Setup on MW-08/SB-08

14:55 Begin Geoprobe DP on SB-08/MW-08

15:10 Geoprobe DP screen @ 20' on MW-08

15:15 No water seen

15:40 Setup on MW-12/SB-12

16:10 Complete SB-12/MW-12 Geoprobe DP. Recover @ 23'

16:25 DP screen stuck in rod 5/8" covered, not
recoverable.

16:35 Setup rig on SB-10/MW-10

16:40 work to discuss prod.

6/11/21

128487

B. Lockwood

These are Bob's - new insull

Weather: 95, 1hr, fair cloud

732 Lockwood outside

750 Roberts outside

820 SET up on SB-16/mw-16

825 Below geoprobe D1 on SB-16/mw-16

905 complete geoprobe @ SB-16/mw-16 Refusal @ 38'
possibly set well @ 40-41'

920 MOB to mw-13/SB-13

936 start SB-13/mw-13 Geoprobe DP

977 Refusal @ 18' for SB-13/mw-13

1000 MOB to mw-14/SB-15 below

1040 collect D1-SB-8 @ site

1055 MOB to mw-15/SB-15

1059 start mw-15/SB-15 Geoprobe DP

1128 complete mw-15/SB-15 to 37'

1140 MOB to mw-07/SB-07

1155 Roberts & Lockwood OFFSITE for lunch

1226 Samples passed and T&EUB coincide

1250 Lockwood OFFSITE

1255 Below Geoprobe mw-07/SB-07

1320 Refusal @ 28' for mw-07/SB-07

1328 call ICE JV to open gate for mw-19/SB-19

1350 SET up on mw-19/SB-19

WATER/ATE BASIN

6/11/21

128487

B. Lockwood

1404 Below Geoprobe on mw-19/SB-19

1441 Comp Geoprobe Refusal @ 33' for mw-19/SB-19

1450 Below Rts Cleanup & T.V. down for Transport.

will be using a smaller Rig Next week

1608 Roberts Geoprobe OFFSITE

1608 Roberts Crew OFFSITE

1615 Lockwood OFFSITE

(b) (6)

6/14/21 128487

B. Lockwood

Tuck MW install

Weather 90c, 10/14/21, Sun.

738 Lockwood onsite. Roberts onsite. (Pat, Steve, Ryan)

748 Begin setup on MW-12/SB-12

755 Begin Augering MW-12/SB-12. Roberts taking samples

Geoplot 7822T 2.6

954 complete Auger of SB-12/LW-12 @ 45'

957 Begin MW install

10 Brass stand.

12 Bags of chips.

1100 complete MW-12 install (30-45')

1145 MW-12 Surface completed.

1150 setup on MW-15/SB-15, Begin Augering.

1204 Limit

1210 Lockwood onsite. Pat Limit. 11:00

1225 Lockwood onsite.

1253 Continue Augering on MW-15/SB-15

11 Sand

12 Chips

1448 MW-15 install (23-38')

815 MW-15 Surface completed, MOB to Draw.

A/C H₂O Boom.1550 locate Line-09 on Last Auger.

1620 complete all auger draw

6/14/21 128487

B. Lockwood

1618 MOB to MW-16/SB-16

1630 Begin Augering MW-16/SB-16 to 38'

1655 Auger ^{Phase} completed to 30'

1710 Roberts onsite.

1715 Lockwood onsite.

(b) (6)

6/15/21

128487

Blumenau

TASCO: new install

Work order: 800, 5000, 5000 - 1000

735 Callwood: Roberts outside

805 continue ^{Auger} ~~Drill~~ MW-16/SB-16 to 38'

810 Complete Auger MW, Begin setting MW-16 @ 38'

926 MW-16 SET 23-38'

10 SAND

11 CHIPS

950 SUGAR MOVE FOR MW-16 COMPLETE

1000 Pull up New AUGER: MW-13 TO MW-13/SB-13

1040 Begin AUGER MW-13/SB-13 TO 21'

1110 Complete AUGER MW, Begin well install

1144 Complete MW-13 install @ 21'

1200 Complete MW-13 SUGAR MOUNT

1225 SET UP ON MW-08/SB-08

1230 Lunch

1230 Callwood OFFICE FOR ME, Lunch, + Passport

1340 Callwood outside to 107 FOR DRUGS

1400 to MW-08 to continue drilling to 30'

1400 collect BLIND-10 on LONG AUGER prior to

1445 AUGER

1505 Begin pulling auger rods: setting MW-08 @ 30'

1540 complete MW-16 @ 30'

10 SAND

8 CHIPS

6/15/21

128487

B. Lockwood

1610 MW-08 SURETS MOUNT COMPLETE

1625 SETUP ON MW-07/SB-07

1625 BEGIN ^{AUGERS} REMOVAL MW-07

1640 PAUSE AUGERS FOR DAY WILL CONTINUE TOMORROW

1650 REDDITS TO PICK UP: AUGERS & TRAILER OFFSITE IN

PREP FOR DEMO TOMORROW

1705 REDDITS OFFSITE

1725 LOCKWOOD OFFSITE

(b) (6)

6/16/21

128487

B. Lockwood

TASK: END INSURE

WEATHER: 90s, SUNNY

715 LOCKWOOD REDDITS (STARS) OFFSITE

740 REDDITS (POST TEE) OFFSITE MOB TO MW-07
TO CONTINUE AUGERS800 COMPLETE AUGER ON MW-07. PICKUP MW INSURE
10 BAGS SAND

885 MW-07 INSURE 15-30'

920 SURETS MOUNT FOR MW-07 COMPLETE

925 MOB + DRAIN PIPES

1000 LOWER REINFORCE A LEAD AUGER HEAD

1000 SET UP ON MW-19

1025 BEGIN DEMO ON MW-19

1120 COMPLETE AUGER TO 20', BEGIN REMOVAL: W/BL INSURE

775 COMPLETE MW INSURE (25-40')

10 SAND

13 CHIPS

1336 MW-19 SURETS MOUNT INSURED

1345 GEOPROBE 79205 DELETED: LOANED TO TRAILER

1430 COLLECT 5-10W-001 FROM BOTH BOLLARDS (COMPOSITE)

1455 10W STARTS

REMOVAL 1: 3/5 FILL (20994)

REMOVAL 2: 2/5 FILL (20977)

2 TANKS @ 275 GAL TANK @ 150 GAL 2 TANKS EMPTY

2932

84

6/16/21

128487

B Cochran

1510 ROBOTS CLEAR OFFICE WITH ALL EQUIPMENT.

1552 SAMPLES RELINQUISHED TO TELLAS OFFICE.

continued to office

(b) (6)



6/17/21

126487

Blackman

Task: misc survey

Location: 90s Spring Pear Creek

746 Lotness disint

800 Begin work - Gavainb

well ID	Day	TP
mw-04	Day	20.90
mw-17	Day	24.26
mw-11	Day	32.82

830 Doing misc onsite (Tom)

835 Survey meeting

840 Doing survey

850 Locate mw-01 move to mw-02

855 locate mw-02 move to mw-05

902 Locate mw-05 move to mw-03

916 locate mw-03 move to mw-07

926 locate mw-07 move to mw-15

935 locate mw-15 move to mw-12

943 locate mw-12 move to mw-08

951 locate mw-08 move to mw-09

1000 locate mw-09 move to mw-13

1008 locate mw-13 move to mw-16

1018 locate mw-16 move to ~~mw-10~~ mw-07 2nd shot

1028 locate mw-07 2nd shot move to mw-15 2nd shot

6/17/21

120487

B. Lockwood

Tetski: m.w. Survey

1033 ~~Locate~~ ^{Locate} m.w.-15 2nd stbr. move to m.w.-12 2nd stbr

1099 Locate m.w.-12 2nd stbr. move to m.w.-08 2nd stbr

1044 Locate m.w.-08 2nd stbr move to m.w.-10

1100 Locate m.w.-10 move to m.w.-17

1087 Locate m.w.-17 move to m.w.-14

1118 Locate m.w.-14 move to m.w.-18

1128 Locate m.w.-18 move to m.w.-11

1137 Locate m.w.-11 move to stop (567.797')

1142 Locate stop move to m.w.-06

1155 Locate m.w.-06 move to m.w.-04

1202 Locate m.w.-04 move to m.w.-19

1225 DM: Assoc. office for Limit Assoc. Locate m.w.-19

~~1227 Gauge m.w.-19 DTW. to Limit Assoc. Secord~~

Survey

1301 DM: Assoc. office.

1305 Locate m.w.-19 2nd stbr. move to m.w.-06 2nd stbr

1308 m.w.-19 DTW. DTW. TPI: 40.11

1115 Locate m.w.-01 2nd stbr. move to m.w.-02 2nd stbr.

1324 Locate m.w.-02 2nd stbr. move to m.w.-05 2nd stbr

1332 Locate m.w.-05 2nd stbr. move to m.w.-03 2nd stbr

1338 Locate m.w.-03 2nd stbr. move to m.w.-07 3rd stbr.

1351 Locate m.w.-07 3rd stbr. move to m.w.-15 2nd stbr.

1356 Locate m.w.-05 3rd stbr. move to m.w.-10 2nd stbr

6/17/21

120497

B. Lockwood

1400 Locate m.w.-16 2nd stbr. move to m.w.-13

1406 Locate m.w.-13 2nd stbr. move to m.w.-09

1415 Locate m.w.-09 2nd stbr. move to m.w.-10

1438 ~~Locate~~ ^{Locate} m.w.-10 2nd stbr. move to m.w.-17 2nd stbr

1420 GPS continuous Troubles. Possible accident.

1442 Locate m.w.-17 2nd stbr. move to m.w.-14

1447 Locate m.w.-14 2nd stbr. move to m.w.-18

1506 Locate m.w.-18 2nd stbr. move to m.w.-11

1511 Locate m.w.-11 2nd stbr. move to m.w.-06

1516 Locate m.w.-06 2nd stbr. move to m.w.-04

1522 Locate m.w.-04 2nd stbr. move to m.w.-07

1532 Locate m.w.-07 4th stbr. move to m.w.-08

1540 Locate m.w.-09 3rd stbr. move to m.w.-10

1545 Locate m.w.-10 3rd stbr. move to m.w.-11

1551 Locate m.w.-11 3rd stbr. move to m.w.-06

1556 Locate m.w.-06

1605 All wells surveyed, DM: Assoc. office.

1620 Lockwood to Gauge New wells

well ID	DTW	TD	NOTES
m.w.-07	16.51	30.06	
m.w.-08	14.21	30.14	cap pressure - sound of running the
m.w.-12	12.73	45.20	?
m.w.-13	3.81	20.94	
m.w.-15	21.39	30.26	
m.w.-16	18.56	30.18	
m.w.-19	14.47	28.11	

6/17/21

128487

B Lakewood

1715 Lakewood - 1715 to office

(b) (6)



6/18/21

128487

B Lockwood

Task: Well Development

Location: 100th, Siny, MO.

600 Lockwood asst

632 Set up: concentrations complete. Begin Development of
mw-01

641 Begin Well Development of mw-01

850 Pump 0.75 gal removed. Call Susan to discuss.

855 Update: Will pump to 100 gal. note on 102 wv.

930 Pause mw-01 Development @ 100 gal. will return
later. Pump up & move to mw-02

1005 Set up on mw-02

1031 Begin mw-02 Development.

1038 mw-02 Pumped Dry After 10 min of Slug.

Will let sit for 10-15 min to see if recedes
Enough.

*Update: Not enough receded After 15 min.

1052 Begin Cleanup & Down of mw-02

1110 A/C: H₂O Area. move to mw-05

1130 Setup on mw-05.

1137 Begin slugging mw-05

1150 Finish slugging mw-05, set up Pump @ Bottom.

1158 Start Pumping mw-05.

1205 mw-05 pumped Dry.

1207 Begin Cleanup & Down

6/18/21

128487

B Lockwood

1220 Cleanup: Down complete. Lunch: Bathroom

1320 Dump waste water & had to mv-04

1350 Complete Setup on mw-04

1403 Begin slugging mw-04

1412 Complete Slug, Setup Pump @ Bottom.

1420 Begin pumping mw-04

1429 Pumped mw-04 Dry

1445 Cleanup: Down complete. A/C: H₂O Break

1515 Begin mw-06 setup.

1530 ~~Begin mw-06 slugging (10 min)~~

only 5' of water will run dry.

Beins enough H₂O Monday to slug well screen in

1545 mw-06 Pumped Dry (40 gal)

1600 Setup on mw-10

1638 Begin slugging mw-10

1648 Complete mw-10 Slugs. Set up Pump @ Bottom

1654 Begin Pumping mw-10

1702 Pumped Dry 12.5 gal. Begin Pumpup & Down

1726 Cleanup: Down complete. to Dump water

to Beins Monday,

-Gloves

-Kevlar

-Nylon rope (Kevlar)

-DI Water

-Beins

1735 Lockwood sign-off.

6/21/21

128487

B. Lockwood

TASK: New Development

Weather: 70s Cloud, Heavy rain @ pm

740 Lockwood onsite.

800 Connect mw-12 off supply.818 Setup on mw-03, DE827 Begin submerge mw-03 (9-10 min)837 Complete submerge. Set up pump @ Bottom of mw-03842 Start pumping mw-03848 mw-03 pumped Day, Begin cleanup @ Decon914 Setup on mw-18 to Submerge pump

927 Begin submerge (9-10 min)

937 Complete submerge mw-18, Setup pump @ Bottom.

942 Begin pumping

945 mw-18 pumped Day. Begin cleanup @ Decon

1000 Cleanup complete move to dump water.

1025 Drive mw-14 to Drive check DE level1026 Begin setup on mw-09 to Submerge pump

1032 Begin submerge

1042 complete submerge mw-09, to set pump @ Bottom.1046 Begin pumping mw-091052 mw-09 pumped Day, Begin cleanup @ Decon

1100 complete cleanup, move to dump water

1115 move to mw-13 Setup.1130 Begin submerge mw-13

6/21/21

128487

B. Lockwood

1140 Finish submerge. Set up pump @ Bottom.

1148 Begin pumping @ Bottom of mw-091217 PAUSE pumping mw-13 For DE, no

Gate dress gate 1245 today.

1236 Cleanup complete Lockwood onsite for drive?
no rain.

1350 Lockwood onsite.

1405 Setup on mw-16 (Someone is parked on mw-16)1410 Begin submerge mw-161430 complete submerge. Set up pump @ Bottom of mw-15.1437 Begin pumping mw-151444 Pump mw-15 Day. Begin cleanup @

Decon

1500 move to dump water @ mw-121509 Setup on mw-121521 Begin submerge mw-12

1530 complete submerge, Set up pump @ Bottom.

1538 Begin pumping mw-121548 Pump mw-12 Day, Begin cleanup @ Decon

1610 Finish cleanup. to dump water.

1620 Setup on mw-08

1628 Begin submerge

1638 Finish submerge. Set pump @ Bottom.

1641 Begin pumping mw-081645 mw-08 pumped Day. Begin cleanup @ Decon

6/21/21

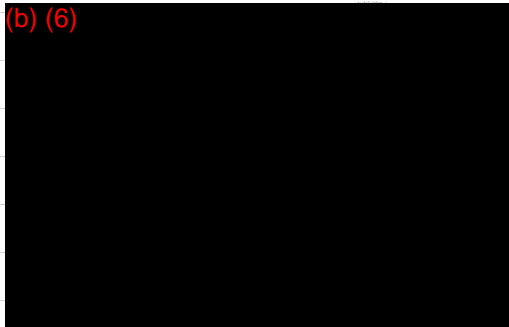
128487

Blackwood

TASK: MW Development

- 1705 Cleanup complete, MOD to MW-07
- 1708 Begin MW-08 Setup.
- 1710 Begin Sealing MW-07
- 1728 Finish Sealing, SET pump @ Bottom.
- 1731 Begin pumping MW-07
- 1734 MW-07 pump on, Begin Cleanup: Down
- 1753 Complete Cleanup, MOD to MW-16
- 1757 Setup on MW-16
- 1806 Begin Sealing MW-16
- 1816 Finish Sealing MW-16, to SET pump @ Bottom.
- 1818 Begin pumping.
- 1823 MW-16 pump on DRY, Begin Cleanup: Down.
- 1846 Cleanup complete, Labeling outside.

(b) (6)



6/21/21

128487

Blackwood

TASK: MW Development

Weather: 80s Sunny

- 735 Labeling outside.
- 735 Setup on MW-02
- 802 Cable w/ Dials (insulated to protect)
- 815 Begin 2nd Sealing of MW-02 (2nd time)
- 825 Finish Sealing
- 833 Start pumping MW-02
- 840 Pump MW-02 DRY (2nd Time), Begin Cleanup: Down
- 858 MOD to MW-05
- 911 Pressure on MW-05 with cap
- 918 Begin Sealing MW-05 (2nd time)
- 928 Finish Sealing, SET pump @ Bottom of MW-05
- 931 Start pumping
- 937 Pumped MW-05 DRY (2nd Time). Begin Cleanup: Down.
- 956 Cleanup complete MOD to MW-19 to Double
Utah WL.
Dial: 27.54
TD: 40.12
- 1008 Setup on MW-19 to Develop.
- 1018 Begin Sealing MW-19
- 1028 Complete Sealing. SET ^{Pump} ~~Label~~ @ Bottom of well
- 1033 Begin pumping.

6/22/21

128487

B. Lockwood

Task: new Development

1037 MW-19 pump out Day Below Cleanup? Below

1000 MOB to MW-04

1190 Setup on MW-04

1112 Sit on Finish pass over work cap. with lot
sit to take track level.

1146 Below Submittal MW-04 (2nd Time)

1158 Finish submittal, SET up pump @ Bottom of
well.

1201 Below pump out (2nd time)

1206 MW-04 pump out Day. Below Cleanup? Below

1230 Cleanup complete MOB to MW-06

1233 Setup on MW-06

1241 Below Submittal MW-06 (25-31' base) (2nd Time)

1255 Complete Submittal, Set up pump @ Bottom.

1259 Below pump out (2nd Time)

1301 Finish pump out. Below Cleanup? Below

1320 MOB to MW-10. Below

1338 Below Submittal (2nd Time)

1347 Complete Submittal

1350 Below pump out MW-10

1355 Finish pump out MW-10 (2nd Time). Below
Cleanup? Below

1410 MOB to MW-03 (Setup)

6/22/21

128487

B. Lockwood

1436 Below Submittal (2nd Time)

1446 Finish Submittal MW-03, SET pump @ Bottom

1449 Below pump out MW-03

1453 Pump out Day (2nd Time). Below Cleanup? Below

1513 Finish Cleanup. MOB to MW-10

1520 Setup on MW-18

1534 Below Submittal MW-18 (2nd Time)

1543 Finish submittal, SET up pump @ Bottom of
well.

1545 Below pump out.

1549 Pump out MW-18 Day (2nd Time). Below Cleanup?
Below.

1612 Finish Cleanup? MOB to MW-09

1615 Setup on MW-09

1630 Below MW-09 Submittal (2nd Time)

1640 Finish submittal MW-09. SET pump @ Bottom of well.

1645 Below pump out MW-02 (2nd Time)

1650
1710 Finish pump out. Below Cleanup? Below

1716 Finish Cleanup. MOB to MW-16

1715 Setup on MW-16

1724 Below Submittal MW-08 (2nd Time)

1734 Finish submittal, Set up pump @ Bottom

1737 Below pump out (2nd Time)

1743 Pump out Day. Below Cleanup? Below

1802 Finish Cleanup

10/22/21

128487

B. Lakewood

Task: new development

1805 collect mw-13 off slug.

1815 Lockwood OFFSITE FOR THE DAY

(b) (6)

4/23/21

128487

B. Lakewood

Task: new development

Weather: sunny 80s

710 Lockwood outside.

715 set up on mw-08: calculations.

720 Begin Surbering mw-08 (2nd time)

740 Finish Surbering

742 Begin pumping mw-08 (2nd time)

747 Finish pumping mw-08. Below cleanup. Done

808 Finish cleanup. note mw-13

813 no response for gate above. will move to
mw-12

815 Begin setup on mw-12

816 Significant pressure on well cap

822 Begin Surbering mw-12 (2nd time)

832 Finish Surbering. set pump @ Bottom

835 Below pumping (2nd time)

844 mw-12 pumped day (2nd time) Below cleanup

906 complete cleanup, note to mw-15

912 Setup on mw-15

930 Begin Surbering mw-15 (2nd time)

948 Finish Surbering. set pump @ Bottom of well

951 Below pumping mw-15 (2nd time)

957 mw-15 pumped day. Below cleanup. Done

1005 Finish cleanup. to fix Surbering gate in last case.

6/23/21

128487

B. Lockwood

- ~~1023~~
- 1023 Stop small leak in total valve, mob to MW-13
- 1029 Draw Setup on MW-13
- 1028 Begin Submits
- 1049 Finish Submits MW-13 (2nd Time)
- 1049 Begin pumping
- 1057 Finish pumping MW-13 Day (2nd Time), Begin cleanup: Draw
- 1113 Finish cleanup: Draw Break
- 1138 Setup on MW-07
- 1148 Begin Submits MW-07 (2nd Time)
- 1158 Finish Submits (
- 1159 Begin pumping MW-07 (2nd Time)
- 1204 Finish pumping MW-07 Day. Begin cleanup
- 1220 Finish cleanup, mob to MW-19.
- 1227 Car pulled to setup location for Thursday (12:30pm)
- 1230 Setup on MW-19
- 1248 Begin Submits MW-19 (31-40)
- 1251 Finish Submits (2nd Time)
- 1251 Begin pumping (2nd Time)
- 1301 MW-19 pumped Day. Begin cleanup: Draw
- 1310 Finish cleanup mob to Dump while v MW-01
- 1336 Begin Submits MW-01
- 1346 Finish Submits MW-01 (3rd Time)
- 1350 Begin pumping MW-01

6/23/21

128487

B. Lockwood

- 1402 Finish pumping MW-01 (3rd Time)
Begin Cleanup.
- 1418 Finish cleanup, mob to Dump while
- 1428 Setup on MW-02
- 1437 Begin Submits MW-02 (3rd Time)
- 1446 Finish Submits MW-02, set pump @ Deter
- 1450 Begin pumping MW-02 (3rd Time).
- 1454 Finish pumping MW-02 Draw cleanup: Draw.
- 1530 Mob to MW-05 / 15: H2O Break.
- 163
- 1602 Begin Submits MW-05 (3rd Time)
- 1611 Finish Submits, set up pump.
- 1617 Begin pumping (3rd Time)
- 1621 Pumped MW-05 Day. Begin cleanup: Draw
- 1640 Cleanup complete. Short Break for H2O. Air.
mob to MW-04
- 1655 Begin Submits MW-04 (3rd Time)
- 1704 Finish Submits
- 1708 Begin pumping MW-04
- 1715 MW-04 pumped Day. Begin cleanup.
- 1730 Finish cleanup, mob to MW-06
- 1738 Setup on MW-06
- 1744 Submit MW-06 (3rd Time)
- 1750 Submit MW-06, set up pump @ Deter
- 1754 Begin Begin pumping

6/23/21

128487

Blackwood

Task: MW Development

1755 Finish pumpout MW-06 (2nd) Begin cleanup

1805 collect runoff-14 off site.

1810 Cleanup complete.

1815 Lockwood OFFSITE for Day.

(b) (6)

6/24/21

128487

B. Lockwood

Task: MW Development

Weather: 50s cloudy, strong possible in pm.

718 Lockwood onsite.

720 Stop on MW-10: calculations

712 Begin Suckling MW-10

752 Finish Suckling MW-10 (3rd time)

755 Begin pumpout MW-10

800 MW-10 pumped Day, Begin cleanup.

807 Finish cleanup, move to MW-03

801 Begin setup on MW-03

801 Begin Suckling MW-03

841 Finish Suckling MW-03 (3rd time)

843 Begin pumpout MW-03

848 MW-03 pumped Day (3rd time)

905 Finish cleanup, move to MW-18

920 Begin Suckling MW-18

936 Finish Suckling MW-18 (3rd time)

937 Begin pumpout.

939 Pumped Day (3rd time) Begin cleanup

955 Finish cleanup, move to MW-09

1010 collect runoff-15 off site.

1010 Setup setup on MW-09

1024 Begin Suckling MW-09

1034 Finish Suckling (3rd time)

1035 Begin pumpout MW-09

6/24/21

128487

B. Lockwood

TASK: Well Development

1040 Pumped MW-09 Day (3rd Time)

1058 Finish cleanup, MOD to MW-13

1100 Semi parked out well. Will return later today

1116 Begin Subirrig MW-16

1125 Finish Subirrig (3rd Time)

1130 Begin pumping

1158 MW-16 pumped Day

1158 Samples passed to courier 128487-006

1220 Lockwood back onsite from lunch: COVID

1237 Setup on MW-13

1241 Begin Subirrig MW-13

1252 Finish Subirrig. (2nd Time)

1305 Begin Subirrig pumping MW-13

1310 Pumped Day. Begin cleanup

1333 Finish cleanup. MOD to MW-19

1341 Setup on MW-19

1349 Begin Subirrig MW-19 (3rd Time)

1348 Finish Subirrig MW-19

1349 Begin pumping MW-19

1401 Finish pumping MW-19 (3rd Time)

1423 Finish cleanup. MOD to MW-08

1430 Begin Subirrig MW-08

1439 Finish Subirrig. (3rd Time)

6/24/21

128277

B. Lockwood

1442 Begin pumping

1447 Pumped MW-08 Day (3rd Time)

1502 Finish cleanup

1503 Short Break

1530 Setup on MW-12

1534 Begin Subirrig MW-12

1534 Finish Subirrig MW-12 (3rd Time)

1538 Begin pumping

1557 Finish pumping MW-12 (3rd Time)

1618 Finish cleanup. MOD to MW-07

1630 Begin Subirrig MW-07

1640 Finish Subirrig MW-07 (3rd Time)

1643 Begin pumping

1647 MW-07 pumped Day (3rd Time). Begin cleanup

1708 Finish cleanup. MOD to MW-15

1721 Setup on MW-15

1725 Begin Subirrig

1735 Finish Subirrig MW-15 (3rd Time)

1737 Begin pumping MW-15

1744 MW-15 pumped Day. Begin cleanup

1815 Cleanup complete

1820 Lockwood OHS

(b) (6)

APPENDIX C – MONITORING WELL DEVELOPMENT FORMS

Well Development Form

Project Name: Goodfellow MW			Project Number: 128487					Well Number: MW-01				
Project Information							Elevation of Monitoring Well					
Facility Name: Goodfellow Federal Complex							Ground Surface Elevation (GS): 543.61					
Location:							Top of Casing Elevation (TOC): 543.55					
Well Information							Well Volume Calculation					
Date Well Installed: 6/1/2021							$1 \text{ well volume (gallons)} = \text{initial height of water column (ft)} \times 0.0408 \times (\text{casing diameter (in)})^2$ $\text{initial height of water column (ft)} = \text{total depth (ft)} - \text{initial depth to water (ft)}$					
Total Depth of Well: 45.37				feet from BTOC								
Depth to Top of Screen: 30.37				feet from BTOC								
Length of Casing Screened: 15				feet								
Type of Formation Screened: Overburden												
Development Method												
Equipment:				Method Description:								
Surge	PVC Slug (2')	Bail		Well was surged in 5' intervals for 3 min/interval. Immediately after surging, the pump was set at the bottom of the well and turned on. Well was surged & pumped dry x3.								
Airlift		Pump	PROACTIVE Typhoon	Comments:								
				Water level appears to rapidly recharge when the pump is not running. Suspect high level recharge that is less than the pumping rate.								
Observations During Development												
Date	Time	Depth to Water* (ft)	Total Depth* (ft)	Fluid Removed		Temp. (degrees C)	Dissolved Oxygen (mg/L)	Specific Conductivity (mS/cm)	pH (standard units)	ORP (mV)	Turbidity (NTU)	Fluid Appearance and Remarks (color, odor, etc.)
				Gallons	Total							
06/18/21	Surged	--		--	0.0	--	--	--	--	--	--	
	07:05 AM	18.77		5.0	5.0	17.8	2.32	1321	6.79	134.2	OVER	Muddy
	07:09 AM	--		2.5	7.5	17.9	4.29	1008	6.92	133.10	OVER	Muddy
	07:12 AM	--		2.5	10.0	17.5	13.66	948	6.92	124.20	OVER	Muddy
	07:14 AM	31.22		5.0	15.0	18.5	1.44	1489	6.96	122.10	OVER	Muddy
	07:25 AM	--		2.5	17.5	18.1	5.28	777	7.03	167.10	OVER	Muddy
	07:30 AM	--		7.5	25.0	17.7	2.52	976	7.00	128.40	OVER	Muddy
	07:32 AM	--		5.0	30.0	17.5	2.09	1283	7.01	124.7	OVER	Muddy
	07:43 AM	--		5.0	35.0	18.3	2.08	1296	7.14	163.0	OVER	Muddy
	07:45 AM	--		5.0	40.0	17.9	1.77	710	7.27	137.5	OVER	Muddy
	07:49 AM	30.10		5.0	45.0	18.6	0.90	710	7.38	116.1	OVER	Muddy
	Surged	--		--	--	--	--	--	--	--	--	
	08:13 AM	--		--	50.0	18.1	6.22	829	6.90	114.2	OVER	Muddy
	08:16 AM	--		5.0	55.0	18.2	4.17	843	6.93	113.1	OVER	Muddy
	08:19 AM	34.40		5.0	60.0	17.3	2.38	1278	7.54	79.7	OVER	Muddy
	08:36 AM	34.70		15.0	75.0	19.5	2.18	712	7.69	57.0	OVER	Muddy Stop to dump H2O
	09:05 AM	33.00		15.0	90.0	18.1	4.00	756	6.07	160.0	OVER	Muddy
	09:19 AM	31.49		10.0	100.0	18.3	3.78	726	6.98	55.4	OVER	Muddy
06/23/21	Surged	27.27		--	--	--	--	--	--	--	--	
	01:52 PM	--		--	105.0	19.0	6.15	723	6.87	145.7	OVER	Muddy
	01:55 PM	--		5.0	110.0	17.5	3.67	952	6.85	126.3	OVER	Muddy
	01:57 PM	--		5.0	115.0	17.3	2.32	926	6.88	112.2	OVER	Muddy
	02:02 PM	--		5.0	120.0	18.4	9.60	976	6.86	120.1	OVER	Muddy
Development Completed												

*from TOC unless otherwise noted in Remarks

Well Development Form

Project Name: Goodfellow MW				Project Number: 128487					Well Number: MW-02			
Project Information							Elevation of Monitoring Well					
Facility Name: Goodfellow Federal Complex							Ground Surface Elevation (GS): 544.91					
Location:							Top of Casing Elevation (TOC): 544.92					
Well Information							Well Volume Calculation					
Date Well Installed: 6/2/2021							$1 \text{ well volume (gallons)} = \text{initial height of water column (ft)} \times 0.0408 \times (\text{casing diameter (in)})^2$ $\text{initial height of water column (ft)} = \text{total depth (ft)} - \text{initial depth to water (ft)}$					
Total Depth of Well: 40.15				feet from BTOC								
Depth to Top of Screen: 25.15				feet from BTOC								
Length of Casing Screened: 15				feet								
Type of Formation Screened: Overburden												
Development Method												
Equipment:				Method Description:								
Surge	PVC Slug (2')	Bail		Well was surged in 5' intervals for 3 min/interval. Immediately after surging, the pump was set at the bottom of the well and turned on. Well was surged & pumped dry x3.								
Airlift		Pump	PROACTIVE Typhoon	Comments:								
Observations During Development												
Date	Time	Depth to Water* (ft)	Total Depth* (ft)	Fluid Removed		Temp. (degrees C)	Dissolved Oxygen (mg/L)	Specific Conductivity (mS/cm)	pH (standard units)	ORP (mV)	Turbidity (NTU)	Fluid Appearance and Remarks (color, odor, etc.)
				Gallons	Total							
06/18/21	Surged	16.01	39.70	--	--	--	--	--	--	--	--	
	10:31 AM	16.21	39.70	--	0.0	--	--	--	--	--	--	
	10:35 AM	--	39.70	5.0	5.0	18.7	7.04	726	6.25	120.3	OVER	Cloudy
	10:38 AM	DRY	39.70	7.5	12.5	18.9	7.13	604	6.54	115.0	OVER	Muddy
06/22/21	Surged	16.84	39.70	--	--	--	--	--	--	--	--	
	08:36 AM	--	39.70	--	17.5	17.6	5.60	718	6.67	115.2	OVER	Cloudy
	08:39 AM	--	39.70	5.0	22.5	17.9	9.24	616	7.44	75.4	OVER	Muddy
	08:40 AM	DRY	39.70	2.5	25.0	--	--	--	--	--	--	
06/23/21	Surged	25.05	39.70	--	--	--	--	--	--	--	--	
	02:53 PM	--	39.70	--	30.0	18.8	8.09	687	7.07	114.5	OVER	Muddy
	12:00 AM	DRY	39.70	5.0	35.0	18.6	5.33	1145	6.97	112.9	OVER	Muddy
Development Completed												

*from TOC unless otherwise noted in Remarks

Well Development Form

Project Name: Goodfellow MW				Project Number: 128487				Well Number: MW-04				
Project Information				Elevation of Monitoring Well								
Facility Name: Goodfellow Federal Complex				Ground Surface Elevation (GS): 559.24								
Location:				Top of Casing Elevation (TOC): 559.27								
Well Information				Well Volume Calculation								
Date Well Installed: 6/7/2021				$1 \text{ well volume (gallons)} = \text{intial height of water column (ft)} \times 0.0408 \times (\text{casing diameter (in)})^2$ $\text{intial height of water column (ft)} = \text{total depth (ft)} - \text{intial depth to water (ft)}$								
Total Depth of Well: 38.48		feet from BTOC										
Depth to Top of Screen: 23.48		feet from BTOC										
Length of Casing Screened: 15		feet										
Type of Formation Screened: Overburden												
Development Method												
Equipment:				Method Description:								
Surge	PVC Slug (2')	Bail		Well was surged in 5' intervals for 3 min/interval. Immediately after surging, the pump was set at the bottom of the well and turned on. Well was surged & pumped dry x3.								
Airlift		Pump	PROACTIVE Typhoon	Comments:								
Observations During Development												
Date	Time	Depth to Water* (ft)	Total Depth* (ft)	Fluid Removed		Temp. (degrees C)	Dissolved Oxygen (mg/L)	Specific Conductivity (mS/cm)	pH (standard units)	ORP (mV)	Turbidity (NTU)	Fluid Appearance and Remarks (color, odor, etc.)
				Gallons	Total							
06/18/21	Surged	16.45	37.91	--	0.0	--	--	--	--	--	--	
	02:23 PM	--	37.91	5.0	5.0	18.5	11.8	1044.0	6.7	131.5	OVER	Muddy
	02:25 PM	--	37.91	5.0	10.0	18.1	10.6	1072.0	6.2	126.3	OVER	Muddy
	02:29 PM	DRY	37.91	4.0	14.0	--	--	--	--	--	--	--
06/22/21	Surged	18.43	37.89	--	14.0	--	--	--	--	--	--	--
	12:02 PM	--	37.89	5.0	19.0	19.1	10.1	1398.0	7.3	55.6	OVER	Muddy
	12:04 PM	--	37.89	5.0	24.0	17.8	9.8	1050.0	7.1	66.8	OVER	Muddy
	12:06 PM	DRY	37.89	4.0	28.0	--	--	--	--	--	--	--
06/23/21	Surged	16.67	37.78	--	28.0	--	--	--	--	--	--	--
	05:11 PM	--	37.78	5.0	33.0	18.8	9.2	1658.0	7.5	103.0	OVER	Muddy
	05:13 PM	--	37.78	5.0	38.0	18.1	9.8	1563.0	7.2	116.7	OVER	Muddy
	05:15 PM	DRY	37.78	5.0	43.0	--	--	--	--	--	--	--
Development Completed												

*from TOC unless otherwise noted in Remarks

Well Development Form

Project Name: Goodfellow MW				Project Number: 128487				Well Number: MW-08				
Project Information				Elevation of Monitoring Well								
Facility Name: Goodfellow Federal Complex				Ground Surface Elevation (GS): 545.27								
Location:				Top of Casing Elevation (TOC): 545.28								
Well Information				Well Volume Calculation								
Date Well Installed: 6/10/2021				$1 \text{ well volume (gallons)} = \text{initial height of water column (ft)} \times 0.0408 \times (\text{casing diameter (in)})^2$ $\text{initial height of water column (ft)} = \text{total depth (ft)} - \text{initial depth to water (ft)}$								
Total Depth of Well: 30.61		feet from BTOC										
Depth to Top of Screen: 15.61		feet from BTOC										
Length of Casing Screened: 15		feet										
Type of Formation Screened: Overburden												
Development Method												
Equipment:				Method Description:								
Surge	PVC Slug (2')	Bail		Well was surged in 5' intervals for 3 min/interval. Immediately after surging, the pump was set at the bottom of the well and turned on. Well was surged & pumped dry x3.								
Airlift		Pump	PROACTIVE Typhoon	Comments:								
Observations During Development												
Date	Time	Depth to Water* (ft)	Total Depth* (ft)	Fluid Removed		Temp. (degrees C)	Dissolved Oxygen (mg/L)	Specific Conductivity (mS/cm)	pH (standard units)	ORP (mV)	Turbidity (NTU)	Fluid Appearance and Remarks (color, odor, etc.)
				Gallons	Total							
06/21/21	Surged	11.70	30.12	--	0.0	--	--	--	--	--	--	--
	04:42 PM	--	30.12	5.0	5.0	17.4	12.20	534.4	10.57	-178.6	OVER	Muddy
	04:44 PM	--	30.12	5.0	10.0	17.2	8.89	516.7	10.48	-174.1	OVER	Muddy
	04:45 PM	DRY	30.12	2.0	12.0	--	--	--	--	--	--	--
06/23/21	Surged	14.03	30.12	--	12.0	--	--	--	--	--	--	--
	07:42 AM	--	30.12	5.0	17.0	16.9	10.48	624.0	6.70	158.4	OVER	Muddy
	07:46 AM	--	30.12	5.0	22.0	17.0	6.61	607.0	6.74	150.1	OVER	Muddy
	07:47 AM	DRY	30.12	1.0	23.0	--	--	--	--	--	--	--
06/24/21	Surged	14.26	30.11	--	23.0	--	--	--	--	--	--	--
	02:43 PM	--	30.11	5.0	28.0	18.5	10.27	557.2	7.14	214.1	OVER	Muddy
	02:46 PM	--	30.11	5.0	33.0	17.5	6.25	639.0	7.51	77.4	OVER	Muddy
	02:47 PM	DRY	30.11	2.5	35.5	--	--	--	--	--	--	--
Development Completed												

*from TOC unless otherwise noted in Remarks

Well Development Form

Project Name: Goodfellow MW				Project Number: 128487				Well Number: MW-09				
Project Information						Elevation of Monitoring Well						
Facility Name: Goodfellow Federal Complex						Ground Surface Elevation (GS): 550.71						
Location:						Top of Casing Elevation (TOC): 550.73						
Well Information						Well Volume Calculation						
Date Well Installed: 6/2/2021						$1 \text{ well volume (gallons)} = \text{initial height of water column (ft)} \times 0.0408 \times (\text{casing diameter (in)})^2$ $\text{initial height of water column (ft)} = \text{total depth (ft)} - \text{initial depth to water (ft)}$						
Total Depth of Well: 35.78				feet from BTOC								
Depth to Top of Screen: 20.78				feet from BTOC								
Length of Casing Screened: 15				feet								
Type of Formation Screened: Overburden												
Development Method												
Equipment:				Method Description:								
Surge	PVC Slug (2')	Bail		Well was surged in 5' intervals for 3 min/interval. Immediately after surging, the pump was set at the bottom of the well and turned on. Well was surged & pumped dry x3.								
Airlift		Pump	PROACTIVE Typhoon									
Observations During Development												
Date	Time	Depth to Water* (ft)	Total Depth* (ft)	Fluid Removed		Temp. (degrees C)	Dissolved Oxygen (mg/L)	Specific Conductivity (mS/cm)	pH (standard units)	ORP (mV)	Turbidity (NTU)	Fluid Appearance and Remarks (color, odor, etc.)
				Gallons	Total							
06/21/21	Surged	13.12	35.12	--	0.0	--	--	--	--	--	--	--
	10:48 AM	--	35.12	5.0	5.0	18.0	10.6	1416.0	7.2	31.5	OVER	Muddy
	10:51 AM	--	35.12	5.0	10.0	17.6	10.4	1363.0	7.1	46.1	OVER	Muddy
	10:53 AM	DRY	35.12	2.5	12.5	--	--	--	--	--	--	--
06/22/21	Surged	15.15	35.12	--	12.5	--	--	--	--	--	--	--
	04:47 PM	--	35.12	5.0	17.5	18.2	9.8	1520.0	7.3	67.6	OVER	Muddy
	04:49 PM	--	35.12	5.0	22.5	17.7	10.9	1452.0	7.3	71.9	OVER	Muddy
	04:50 PM	DRY	35.12	2.5	25.0	--	--	--	--	--	--	--
06/24/21	Surged	15.00	35.12	--	25.0	--	--	--	--	--	--	--
	10:36 AM	--	35.12	5.0	30.0	18.0	11.4	1456.0	7.1	75.0	OVER	Cloudy
	10:38 AM	--	35.12	5.0	35.0	18.0	10.9	1419.0	7.0	76.1	OVER	Cloudy
	10:40 AM	DRY	35.12	4.0	39.0	--	--	--	--	--	OVER	Cloudy
Development Completed												

*from TOC unless otherwise noted in Remarks

Well Development Form

Project Name: Goodfellow MW				Project Number: 128487				Well Number: MW-10				
Project Information						Elevation of Monitoring Well						
Facility Name: Goodfellow Federal Complex						Ground Surface Elevation (GS): 557.58						
Location:						Top of Casing Elevation (TOC): 557.40						
Well Information						Well Volume Calculation						
Date Well Installed: 6/8/2021						$1 \text{ well volume (gallons)} = \text{initial height of water column (ft)} \times 0.0408 \times (\text{casing diameter (in)})^2$ $\text{initial height of water column (ft)} = \text{total depth (ft)} - \text{initial depth to water (ft)}$						
Total Depth of Well: 32.39				feet from BTOC								
Depth to Top of Screen: 17.39				feet from BTOC								
Length of Casing Screened: 15				feet								
Type of Formation Screened: Overburden												
Development Method												
Equipment:				Method Description:								
Surge	PVC Slug (2')	Bail		Well was surged in 5' intervals for 3 min/interval. Immediately after surging, the pump was set at the bottom of the well and turned on. Well was surged & pumped dry x3.								
Airlift		Pump	PROACTIVE Typhoon									
Observations During Development												
Date	Time	Depth to Water* (ft)	Total Depth* (ft)	Fluid Removed		Temp. (degrees C)	Dissolved Oxygen (mg/L)	Specific Conductivity (mS/cm)	pH (standard units)	ORP (mV)	Turbidity (NTU)	Fluid Appearance and Remarks (color, odor, etc.)
				Gallons	Total							
06/18/21	Surged	10.36	31.96	--	0.0	--	--	--	--	--	--	--
	04:56 PM	--	31.96	5.0	5.0	17.3	12.9	403.1	8.5	77.0	Over	Muddy
	04:58 PM	--	31.96	5.0	10.0	17.4	11.0	419.8	9.5	44.3	Over	Muddy
	05:02 PM	Dry	31.96	--	10.0	--	--	--	--	--	--	--
06/22/21	Surged	11.19	31.96	--	10.0	--	--	--	--	--	--	--
	01:51 PM	--	31.96	5.0	15.0	17.8	11.0	535.3	7.6	219.5	Over	Muddy
	01:54 PM	--	31.96	5.0	20.0	17.2	9.3	714.2	8.3	-46.7	Over	Muddy
	01:55 PM	Dry	31.96	1.0	21.0	--	--	--	--	--	--	--
06/24/21	Surged	14.86	31.96	--	21.0	--	--	--	--	--	--	--
	07:57 AM	--	31.96	5.0	26.0	17.0	11.1	663.0	7.0	49.7	Over	Muddy
	07:59 AM	--	31.96	5.0	31.0	16.9	6.2	484.2	7.1	48.3	Over	Muddy
	08:00 AM	Dry	31.96	1.0	32.0	--	--	--	--	--	--	--
Development Completed												

*from TOC unless otherwise noted in Remarks

Well Development Form

Project Name: Goodfellow MW				Project Number: 128487				Well Number: MW-12				
Project Information						Elevation of Monitoring Well						
Facility Name: Goodfellow Federal Complex						Ground Surface Elevation (GS): 545.58						
Location:						Top of Casing Elevation (TOC): 545.57						
Well Information						Well Volume Calculation						
Date Well Installed: 6/10/2021						$1 \text{ well volume (gallons)} = \text{initial height of water column (ft)} \times 0.0408 \times (\text{casing diameter (in)})^2$ $\text{initial height of water column (ft)} = \text{total depth (ft)} - \text{initial depth to water (ft)}$						
Total Depth of Well: 45.80				feet from BTOC								
Depth to Top of Screen: 30.80				feet from BTOC								
Length of Casing Screened: 15				feet								
Type of Formation Screened: Overburden												
Development Method												
Surge	PVC Slug (2')	Bail		Well was surged in 5' intervals for 3 min/interval. Immediately after surging, the pump was set at the bottom of the well and turned on. Well was surged & pumped dry x3.								
Airlift		Pump	PROACTIVE Typhoon	Comments:								
Observations During Development												
Date	Time	Depth to Water* (ft)	Total Depth* (ft)	Fluid Removed		Temp. (degrees C)	Dissolved Oxygen (mg/L)	Specific Conductivity (mS/cm)	pH (standard units)	ORP (mV)	Turbidity (NTU)	Fluid Appearance and Remarks (color, odor, etc.)
				Gallons	Total							
06/21/21	Surged	12.67	45.16	--	0.0	--	--	--	--	--	--	--
	03:41 PM	--	45.16	5.0	5.0	18.6	5.38	342.9	10.98	-200.2	Over	Muddy
	03:43 PM	--	45.16	5.0	10.0	18.5	5.56	347.8	10.58	-180.3	Over	Muddy
	03:46 PM	--	45.16	5.0	15.0	18.4	5.62	361.7	10.50	-176.3	Over	Muddy
	03:48 PM	Dry	45.16	3.0	18.0	--	--	--	--	--	Over	Muddy
06/23/21	Surged	20.23	45.16	--	18.0	--	--	--	--	--	--	--
	08:36 AM	--	45.16	5.0	23.0	18.5	9.30	382.0	7.99	120.0	Over	Muddy
	08:40 AM	--	45.16	5.0	28.0	18.4	6.75	632.0	7.44	78.6	Over	Muddy
	08:43 AM	--	45.16	5.0	33.0	18.3	5.56	500.0	7.44	103.4	Over	Muddy
	08:44 AM	Dry	45.16	1.0	34.0	--	--	--	--	--	--	--
06/24/21	Surged	13.86	45.16	--	34.0	--	--	--	--	--	--	--
	03:48 PM	--	45.16	3.0	37.0	19.2	10.05	388.1	7.50	60.5	Over	Muddy
	03:52 PM	--	45.16	7.0	44.0	18.9	8.25	510.9	7.32	72.0	Over	Muddy
	03:54 PM	--	45.16	5.0	49.0	18.8	7.54	351.0	7.33	74.2	Over	Muddy
	03:57 PM	Dry	45.16	2.5	51.5	--	--	--	--	--	--	--
Development Completed												

*from TOC unless otherwise noted in Remarks

Well Development Form

Project Name: Goodfellow MW				Project Number: 128487				Well Number: MW-13				
Project Information				Elevation of Monitoring Well								
Facility Name: Goodfellow Federal Complex				Ground Surface Elevation (GS): 551.17								
Location:				Top of Casing Elevation (TOC): 551.20								
Well Information				Well Volume Calculation								
Date Well Installed: 6/11/2021				$1 \text{ well volume (gallons)} = \text{initial height of water column (ft)} \times 0.0408 \times (\text{casing diameter (in)})^2$ $\text{initial height of water column (ft)} = \text{total depth (ft)} - \text{initial depth to water (ft)}$								
Total Depth of Well: 21.16		feet from BTOC										
Depth to Top of Screen: 6.16		feet from BTOC										
Length of Casing Screened: 15		feet										
Type of Formation Screened: Overburden												
Development Method												
Equipment:				Method Description:								
Surge	PVC Slug (2')	Bail		Well was surged in 5' intervals for 3 min/interval. Immediately after surging, the pump was set at the bottom of the well and turned on. Well was surged & pumped dry x3.								
Airlift		Pump	PROACTIVE Typhoon	Comments:								
Observations During Development												
Date	Time	Depth to Water* (ft)	Total Depth* (ft)	Fluid Removed		Temp. (degrees C)	Dissolved Oxygen (mg/L)	Specific Conductivity (mS/cm)	pH (standard units)	ORP (mV)	Turbidity (NTU)	Fluid Appearance and Remarks (color, odor, etc.)
				Gallons	Total							
06/21/21	Surged	3.94	20.91	--	0.0	--	--	--	--	--	--	--
	11:49 AM	--	20.91	5.0	5.0	19.3	10.09	353.6	8.77	-88.9	Over	Muddy
	11:51 AM	--	20.91	5.0	10.0	17.5	11.31	610.0	8.10	-55.8	Over	Muddy
	11:54 AM	--	20.91	5.0	15.0	17.1	10.18	317.7	8.06	-51.6	Over	Muddy
	11:57 AM	--	20.91	5.0	20.0	17.6	11.22	262.2	8.08	-55.9	Over	Muddy
	12:15 PM	--	20.91	5.0	25.0	21.0	7.41	300.5	8.98	-100.9	270	Cloudy
	12:17 PM	--	20.91	5.0	30.0	18.7	9.67	224.1	8.33	-67.8	Over	Muddy
	12:19 PM	Dry	20.91	5.0	35.0	18.8	8.81	366.6	8.14	-58.8	Over	Muddy
06/23/21	Surged	4.60	20.91	--	35.0	--	--	--	--	--	--	--
	10:51 AM	--	20.91	5.0	40.0	19.5	12.18	208.7	8.56	41.5	Over	Muddy
	10:52 AM	--	20.91	5.0	45.0	17.9	10.66	203.4	8.38	64.1	Over	Muddy
	10:53 AM	Dry	20.91	2.5	47.5	17.2	11.83	244.1	8.23	79.7	Over	Muddy
06/24/21	Surged	4.21	20.91	--	47.5	--	--	--	--	--	--	--
	01:07 PM	--	20.91	5.0	52.5	20.6	9.36	312.3	8.39	234.1	Over	Muddy
	01:08 PM	--	20.91	5.0	57.5	17.6	10.34	310.0	8.32	83.4	Over	Muddy
	01:10 PM	Dry	20.91	5.0	62.5	17.3	10.54	276.6	8.14	72.5	Over	Muddy
Development Completed												

*from TOC unless otherwise noted in Remarks

Well Development Form

Project Name: Goodfellow MW				Project Number: 128487				Well Number: MW-15				
Project Information				Elevation of Monitoring Well								
Facility Name: Goodfellow Federal Complex				Ground Surface Elevation (GS): 541.18								
Location:				Top of Casing Elevation (TOC): 541.18								
Well Information				Well Volume Calculation								
Date Well Installed: 6/11/2021				$1 \text{ well volume (gallons)} = \text{initial height of water column (ft)} \times 0.0408 \times (\text{casing diameter (in)})^2$ $\text{initial height of water column (ft)} = \text{total depth (ft)} - \text{initial depth to water (ft)}$								
Total Depth of Well: 38.65		feet from BTOC										
Depth to Top of Screen: 23.65		feet from BTOC										
Length of Casing Screened: 15		feet										
Type of Formation Screened: Overburden												
Development Method												
Equipment:				Method Description:								
Surge	PVC Slug (2')	Bail		Well was surged in 5' intervals for 3 min/interval. Immediately after surging, the pump was set at the bottom of the well and turned on. Well was surged & pumped dry x3.								
Airlift		Pump	PROACTIVE Typhoon	Comments:								
Observations During Development												
Date	Time	Depth to Water* (ft)	Total Depth* (ft)	Fluid Removed		Temp. (degrees C)	Dissolved Oxygen (mg/L)	Specific Conductivity (mS/cm)	pH (standard units)	ORP (mV)	Turbidity (NTU)	Fluid Appearance and Remarks (color, odor, etc.)
				Gallons	Total							
06/21/21	Surged	21.14	38.25	--	0.0	--	--	--	--	--	--	--
	02:39 PM	--	38.25	5.0	5.0	17.7	10.7	661.0	6.5	13.1	Over	Muddy
	02:42 PM	--	38.25	5.0	10.0	17.5	12.1	475.4	7.3	-17.1	Over	Muddy
	02:44 PM	Dry	38.25	3.0	13.0	--	--	--	--	--	Over	Muddy
06/23/21	Surged	22.50	38.24	--	13.0	--	--	--	--	--	--	--
	09:53 AM	--	38.24	5.0	18.0	17.7	11.0	556.7	7.2	75.6	Over	Muddy
	09:55 AM	--	38.24	5.0	23.0	17.4	9.6	725.0	6.9	114.8	Over	Muddy
	09:57 AM	Dry	38.24	1.0	24.0	--	--	--	--	--	Over	Muddy
06/24/21	Surged	23.50	38.25	--	24.0	--	--	--	--	--	--	--
	05:39 PM	--	38.25	5.0	29.0	18.1	9.6	544.4	7.4	76.5	Over	Muddy
	05:42 PM	--	38.25	5.0	34.0	18.1	10.0	647.0	7.1	92.8	Over	Muddy
	05:44 PM	Dry	38.25	4.0	38.0	--	--	--	--	--	Over	Muddy
Development Completed												

*from TOC unless otherwise noted in Remarks

Well Development Form

Project Name: Goodfellow MW				Project Number: 128487				Well Number: MW-16				
Project Information						Elevation of Monitoring Well						
Facility Name: Goodfellow Federal Complex						Ground Surface Elevation (GS): 548.80						
Location:						Top of Casing Elevation (TOC): 548.76						
Well Information						Well Volume Calculation						
Date Well Installed: 6/11/2021						$1 \text{ well volume (gallons)} = \text{initial height of water column (ft)} \times 0.0408 \times (\text{casing diameter (in)})^2$ $\text{initial height of water column (ft)} = \text{total depth (ft)} - \text{initial depth to water (ft)}$						
Total Depth of Well: 38.58				feet from BTOC								
Depth to Top of Screen: 23.58				feet from BTOC								
Length of Casing Screened: 15				feet								
Type of Formation Screened: Overburden												
Development Method												
Equipment:				Method Description:								
Surge	PVC Slug (2')	Bail		Well was surged in 5' intervals for 3 min/interval. Immediately after surging, the pump was set at the bottom of the well and turned on. Well was surged & pumped dry x3.								
Airlift		Pump	PROACTIVE Typhoon									
Observations During Development												
Date	Time	Depth to Water* (ft)	Total Depth* (ft)	Fluid Removed		Temp. (degrees C)	Dissolved Oxygen (mg/L)	Specific Conductivity (mS/cm)	pH (standard units)	ORP (mV)	Turbidity (NTU)	Fluid Appearance and Remarks (color, odor, etc.)
				Gallons	Total							
06/21/21	Surged	17.15	38.18	--	0.0	--	--	--	--	--	--	--
	06:20 PM	--	38.18	5.0	5.0	17.6	11.1	2488.0	7.1	28.1	Over	Cloudy
	06:22 PM	--	38.18	5.0	10.0	17.5	10.9	1566.0	7.2	40.8	Over	Cloudy
	06:23 PM	Dry	38.18	2.5	12.5	--	--	--	--	--	--	--
06/22/21	Surged	19.84	38.18	--	12.5	--	--	--	--	--	--	--
	05:40 PM	--	38.18	5.0	17.5	19.3	9.4	1764.0	7.3	64.7	Over	Cloudy
	05:42 PM	--	38.18	5.0	22.5	17.6	10.1	1603.0	7.8	84.2	Over	Cloudy
	05:43 PM	Dry	38.18	2.5	25.0	--	--	--	--	--	--	--
06/24/21	Surged	17.73	38.16	--	25.0	--	--	--	--	--	--	--
	11:32 AM	--	38.16	5.0	30.0	18.5	10.3	1652.0	7.3	125.0	Over	Muddy
	11:34 AM	--	38.16	5.0	35.0	17.7	6.1	2461.0	7.2	65.0	Over	Cloudy
	11:38 AM	Dry	38.16	5.0	40.0	18.0	8.7	2069.0	7.3	73.3	Over	Cloudy
Development Completed												

*from TOC unless otherwise noted in Remarks

**APPENDIX D – ANALYTICAL LABORATORY TEST REPORTS FOR
EQUIPMENT RINSATE BLANKS**

June 11, 2021

Justin Carter
Burns & McDonnell Waste Consultants
9400 Ward Parkway
P.O. Box 419173
Kansas City, MO 64114
TEL: (816) 333-9400
FAX: (816) 822-3494



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: 128487 GSA

WorkOrder: 21060366

Dear Justin Carter:

TEKLAB, INC received 4 samples on 6/4/2021 4:20:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

(b) (6)

Emily Pohlman
Project Manager
(618)344-1004 ex 44
epohlman@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	22
Dates Report	23
Quality Control Results	24
Receiving Check List	49
Chain of Custody	Appended

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



Case Narrative

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Cooler Receipt Temp: 5.0 °C

Locations

Collinsville

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Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
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Collinsville Air

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Accreditations

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-001

Client Sample ID: Rinse-01

Matrix: GROUNDWATER

Collection Date: 06/02/2021 8:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/08/2021 20:23	177614
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/08/2021 20:23	177614
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/08/2021 20:23	177614
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/08/2021 20:23	177614
Zinc	NELAP	0.0100		0.0190	mg/L	1	06/08/2021 20:23	177614
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/09/2021 14:26	178683
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/09/2021 14:26	178683
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/09/2021 14:26	178683
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/09/2021 14:26	178683
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/09/2021 14:26	178683
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/09/2021 14:26	178683
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/09/2021 14:26	178683
Surr: Decachlorobiphenyl	*	10-152		40.1	%REC	1	06/09/2021 14:26	178683
Surr: Tetrachloro-meta-xylene	*	9.73-128		84.3	%REC	1	06/09/2021 14:26	178683
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Acenaphthylene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Anthracene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Benzo(a)anthracene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Benzo(a)pyrene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Benzo(b)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Benzo(g,h,i)perylene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Benzo(k)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Chrysene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Dibenzo(a,h)anthracene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Fluoranthene	NELAP	0.00100		0.00166	mg/L	1	06/07/2021 20:24	177618
Fluorene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Indeno(1,2,3-cd)pyrene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Naphthalene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Phenanthrene	NELAP	0.00100		ND	mg/L	1	06/07/2021 20:24	177618
Pyrene	NELAP	0.00100		0.00122	mg/L	1	06/07/2021 20:24	177618
Surr: 2-Fluorobiphenyl	*	1.39-137		71.3	%REC	1	06/07/2021 20:24	177618
Surr: Nitrobenzene-d5	*	29.1-125		88.4	%REC	1	06/07/2021 20:24	177618
Surr: p-Terphenyl-d14	*	35.2-164		109.1	%REC	1	06/07/2021 20:24	177618
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/08/2021 3:44	178656
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/08/2021 3:44	178656
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/08/2021 3:44	178656
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-001

Client Sample ID: Rinse-01

Matrix: GROUNDWATER

Collection Date: 06/02/2021 8:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/08/2021 3:44	178656
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/08/2021 3:44	178656
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/08/2021 3:44	178656
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
2-Butanone	NELAP	10.0		ND	µg/L	1	06/08/2021 3:44	178656
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/08/2021 3:44	178656
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/08/2021 3:44	178656
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/08/2021 3:44	178656
Acetone	NELAP	10.0		ND	µg/L	1	06/08/2021 3:44	178656
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/08/2021 3:44	178656
Acrolein	NELAP	20.0		ND	µg/L	1	06/08/2021 3:44	178656
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Benzene	NELAP	0.5		ND	µg/L	1	06/08/2021 3:44	178656
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Bromoform	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Bromomethane	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Chloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Chloroform	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Chloromethane	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Chloroprene	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Cyclohexanone	*	20.0		ND	µg/L	1	06/08/2021 3:44	178656
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-001

Client Sample ID: Rinse-01

Matrix: GROUNDWATER

Collection Date: 06/02/2021 8:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Diisopropyl ether	*	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/08/2021 3:44	178656
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Iodomethane	NELAP	5.0		ND	µg/L	1	06/08/2021 16:42	178673
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Naphthalene	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
n-Butyl acetate	*	2.0		ND	µg/L	1	06/08/2021 3:44	178656
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
n-Heptane	*	5.0		ND	µg/L	1	06/08/2021 3:44	178656
n-Hexane	*	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/08/2021 3:44	178656
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
o-Xylene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Propionitrile	NELAP	10.0		ND	µg/L	1	06/08/2021 3:44	178656
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Styrene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/08/2021 3:44	178656
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/08/2021 3:44	178656
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/08/2021 3:44	178656
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Toluene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/08/2021 3:44	178656
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/08/2021 3:44	178656
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/08/2021 3:44	178656
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/08/2021 3:44	178656
Surr: 1,2-Dichloroethane-d4	*	80-120		94.1	%REC	1	06/08/2021 3:44	178656



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-001

Client Sample ID: Rinse-01

Matrix: GROUNDWATER

Collection Date: 06/02/2021 8:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 4-Bromofluorobenzene	*	80-120		99.3	%REC	1	06/08/2021 3:44	178656
Surr: Toluene-d8	*	80-120		105.1	%REC	1	06/08/2021 3:44	178656

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-002

Client Sample ID: Rinse-02

Matrix: GROUNDWATER

Collection Date: 06/03/2021 15:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/08/2021 20:57	177614
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/08/2021 20:57	177614
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/08/2021 20:57	177614
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/08/2021 20:57	177614
Zinc	NELAP	0.0100		< 0.0100	mg/L	1	06/08/2021 20:57	177614
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/09/2021 14:43	178683
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/09/2021 14:43	178683
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/09/2021 14:43	178683
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/09/2021 14:43	178683
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/09/2021 14:43	178683
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/09/2021 14:43	178683
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/09/2021 14:43	178683
Surr: Decachlorobiphenyl	*	10-152		62.2	%REC	1	06/09/2021 14:43	178683
Surr: Tetrachloro-meta-xylene	*	9.73-128		99.4	%REC	1	06/09/2021 14:43	178683
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Acenaphthylene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Anthracene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Benzo(a)anthracene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Benzo(a)pyrene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Benzo(b)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Benzo(g,h,i)perylene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Benzo(k)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Chrysene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Dibenzo(a,h)anthracene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Fluoranthene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Fluorene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Indeno(1,2,3-cd)pyrene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Naphthalene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Phenanthrene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Pyrene	NELAP	0.00100		ND	mg/L	1	06/07/2021 21:02	177618
Surr: 2-Fluorobiphenyl	*	1.39-137		71.9	%REC	1	06/07/2021 21:02	177618
Surr: Nitrobenzene-d5	*	29.1-125		89.8	%REC	1	06/07/2021 21:02	177618
Surr: p-Terphenyl-d14	*	35.2-164		112.3	%REC	1	06/07/2021 21:02	177618
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/08/2021 4:11	178656
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/08/2021 4:11	178656
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/08/2021 4:11	178656
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-002

Client Sample ID: Rinse-02

Matrix: GROUNDWATER

Collection Date: 06/03/2021 15:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/08/2021 4:11	178656
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/08/2021 4:11	178656
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/08/2021 4:11	178656
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
2-Butanone	NELAP	10.0		ND	µg/L	1	06/08/2021 4:11	178656
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/08/2021 4:11	178656
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/08/2021 4:11	178656
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/08/2021 4:11	178656
Acetone	NELAP	10.0		ND	µg/L	1	06/08/2021 4:11	178656
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/08/2021 4:11	178656
Acrolein	NELAP	20.0		ND	µg/L	1	06/08/2021 4:11	178656
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Benzene	NELAP	0.5		ND	µg/L	1	06/08/2021 4:11	178656
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Bromoform	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Bromomethane	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Chloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Chloroform	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Chloromethane	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Chloroprene	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Cyclohexanone	*	20.0		ND	µg/L	1	06/08/2021 4:11	178656
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-002

Client Sample ID: Rinse-02

Matrix: GROUNDWATER

Collection Date: 06/03/2021 15:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Diisopropyl ether	*	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/08/2021 4:11	178656
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Iodomethane	NELAP	5.0		ND	µg/L	1	06/08/2021 17:07	178673
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Naphthalene	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
n-Butyl acetate	*	2.0		ND	µg/L	1	06/08/2021 4:11	178656
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
n-Heptane	*	5.0		ND	µg/L	1	06/08/2021 4:11	178656
n-Hexane	*	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/08/2021 4:11	178656
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
o-Xylene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Propionitrile	NELAP	10.0		ND	µg/L	1	06/08/2021 4:11	178656
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Styrene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/08/2021 4:11	178656
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/08/2021 4:11	178656
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/08/2021 4:11	178656
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Toluene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/08/2021 4:11	178656
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/08/2021 4:11	178656
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/08/2021 4:11	178656
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/08/2021 4:11	178656
Surr: 1,2-Dichloroethane-d4	*	80-120		94.2	%REC	1	06/08/2021 4:11	178656



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-002

Client Sample ID: Rinse-02

Matrix: GROUNDWATER

Collection Date: 06/03/2021 15:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 4-Bromofluorobenzene	*	80-120		98.6	%REC	1	06/08/2021 4:11	178656
Surr: Toluene-d8	*	80-120		104.7	%REC	1	06/08/2021 4:11	178656

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-003

Client Sample ID: Rinse-03

Matrix: GROUNDWATER

Collection Date: 06/04/2021 13:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/08/2021 20:27	177614
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/08/2021 20:27	177614
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/08/2021 20:27	177614
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/08/2021 20:27	177614
Zinc	NELAP	0.0100		< 0.0100	mg/L	1	06/08/2021 20:27	177614
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/09/2021 15:00	178683
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/09/2021 15:00	178683
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/09/2021 15:00	178683
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/09/2021 15:00	178683
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/09/2021 15:00	178683
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/09/2021 15:00	178683
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/09/2021 15:00	178683
Surr: Decachlorobiphenyl	*	10-152		44.5	%REC	1	06/09/2021 15:00	178683
Surr: Tetrachloro-meta-xylene	*	9.73-128		94.5	%REC	1	06/09/2021 15:00	178683
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Acenaphthylene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Anthracene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Benzo(a)anthracene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Benzo(a)pyrene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Benzo(b)fluoranthene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Benzo(g,h,i)perylene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Benzo(k)fluoranthene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Chrysene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Dibenzo(a,h)anthracene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Fluoranthene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Fluorene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Indeno(1,2,3-cd)pyrene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Naphthalene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Phenanthrene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Pyrene	NELAP	0.00400		ND	mg/L	1	06/07/2021 21:41	177618
Surr: 2-Fluorobiphenyl	*	1.39-137		68.1	%REC	1	06/07/2021 21:41	177618
Surr: Nitrobenzene-d5	*	29.1-125		90.0	%REC	1	06/07/2021 21:41	177618
Surr: p-Terphenyl-d14	*	35.2-164		112.9	%REC	1	06/07/2021 21:41	177618

Elevated reporting limit due to sample composition.

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/08/2021 4:38	178656
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/08/2021 4:38	178656
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/08/2021 4:38	178656
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-003

Client Sample ID: Rinse-03

Matrix: GROUNDWATER

Collection Date: 06/04/2021 13:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/08/2021 4:38	178656
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/08/2021 4:38	178656
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/08/2021 4:38	178656
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
2-Butanone	NELAP	10.0		ND	µg/L	1	06/08/2021 4:38	178656
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/08/2021 4:38	178656
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/08/2021 4:38	178656
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/08/2021 4:38	178656
Acetone	NELAP	10.0		ND	µg/L	1	06/08/2021 4:38	178656
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/08/2021 4:38	178656
Acrolein	NELAP	20.0		ND	µg/L	1	06/08/2021 4:38	178656
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Benzene	NELAP	0.5		ND	µg/L	1	06/08/2021 4:38	178656
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Bromoform	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Bromomethane	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Chloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Chloroform	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Chloromethane	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Chloroprene	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Cyclohexanone	*	20.0		ND	µg/L	1	06/08/2021 4:38	178656

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-003

Client Sample ID: Rinse-03

Matrix: GROUNDWATER

Collection Date: 06/04/2021 13:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Diisopropyl ether	*	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/08/2021 4:38	178656
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Iodomethane	NELAP	5.0		ND	µg/L	1	06/08/2021 17:33	178673
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Naphthalene	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
n-Butyl acetate	*	2.0		ND	µg/L	1	06/08/2021 4:38	178656
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
n-Heptane	*	5.0		ND	µg/L	1	06/08/2021 4:38	178656
n-Hexane	*	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/08/2021 4:38	178656
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
o-Xylene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Propionitrile	NELAP	10.0		ND	µg/L	1	06/08/2021 4:38	178656
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Styrene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/08/2021 4:38	178656
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/08/2021 4:38	178656
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/08/2021 4:38	178656
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Toluene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/08/2021 4:38	178656
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/08/2021 4:38	178656
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/08/2021 4:38	178656
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/08/2021 4:38	178656

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-003

Client Sample ID: Rinse-03

Matrix: GROUNDWATER

Collection Date: 06/04/2021 13:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 1,2-Dichloroethane-d4	*	80-120		94.5	%REC	1	06/08/2021 4:38	178656
Surr: 4-Bromofluorobenzene	*	80-120		99.8	%REC	1	06/08/2021 4:38	178656
Surr: Toluene-d8	*	80-120		104.7	%REC	1	06/08/2021 4:38	178656

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-004

Client Sample ID: TB-01

Matrix: TRIP BLANK

Collection Date: 06/04/2021 16:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/08/2021 0:10	178656
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/08/2021 0:10	178656
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/08/2021 0:10	178656
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/08/2021 0:10	178656
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/08/2021 0:10	178656
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/08/2021 0:10	178656
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
2-Butanone	NELAP	10.0		ND	µg/L	1	06/08/2021 0:10	178656
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/08/2021 0:10	178656
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/08/2021 0:10	178656
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/08/2021 0:10	178656
Acetone	NELAP	10.0		ND	µg/L	1	06/08/2021 0:10	178656
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/08/2021 0:10	178656
Acrolein	NELAP	20.0		ND	µg/L	1	06/08/2021 0:10	178656
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Benzene	NELAP	0.5		ND	µg/L	1	06/08/2021 0:10	178656
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Bromoform	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Bromomethane	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-004

Client Sample ID: TB-01

Matrix: TRIP BLANK

Collection Date: 06/04/2021 16:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Chloroethane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Chloroform	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Chloromethane	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Chloroprene	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Cyclohexanone	*	20.0		ND	µg/L	1	06/08/2021 0:10	178656
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Diisopropyl ether	*	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/08/2021 0:10	178656
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Iodomethane	NELAP	5.0		ND	µg/L	1	06/08/2021 17:59	178673
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Naphthalene	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
n-Butyl acetate	*	2.0		ND	µg/L	1	06/08/2021 0:10	178656
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
n-Heptane	*	5.0		ND	µg/L	1	06/08/2021 0:10	178656
n-Hexane	*	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/08/2021 0:10	178656
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
o-Xylene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Propionitrile	NELAP	10.0		ND	µg/L	1	06/08/2021 0:10	178656
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Styrene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/08/2021 0:10	178656
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/08/2021 0:10	178656
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/08/2021 0:10	178656
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab ID: 21060366-004

Client Sample ID: TB-01

Matrix: TRIP BLANK

Collection Date: 06/04/2021 16:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Toluene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/08/2021 0:10	178656
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/08/2021 0:10	178656
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/08/2021 0:10	178656
Surr: 1,2-Dichloroethane-d4	*	80-120		93.3	%REC	1	06/08/2021 0:10	178656
Surr: 4-Bromofluorobenzene	*	80-120		98.0	%REC	1	06/08/2021 0:10	178656
Surr: Toluene-d8	*	80-120		104.4	%REC	1	06/08/2021 0:10	178656



Sample Summary

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
21060366-001	Rinse-01	Groundwater	4	06/02/2021 8:50
21060366-002	Rinse-02	Groundwater	4	06/03/2021 15:05
21060366-003	Rinse-03	Groundwater	4	06/04/2021 13:35
21060366-004	TB-01	Trip Blank	1	06/04/2021 16:20



Dates Report

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
21060366-001A	Rinse-01	06/02/2021 8:50	06/04/2021 16:20		
SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD					
				06/09/2021 7:26	06/09/2021 14:26
21060366-001B	Rinse-01	06/02/2021 8:50	06/04/2021 16:20		
SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS					
				06/07/2021 9:58	06/07/2021 20:24
21060366-001C	Rinse-01	06/02/2021 8:50	06/04/2021 16:20		
SW-846 3005A, 6010B, Metals by ICP (Total)					
				06/07/2021 9:47	06/08/2021 20:23
21060366-001D	Rinse-01	06/02/2021 8:50	06/04/2021 16:20		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS					
					06/08/2021 3:44
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS					
					06/08/2021 16:42
21060366-002A	Rinse-02	06/03/2021 15:05	06/04/2021 16:20		
SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD					
				06/09/2021 7:26	06/09/2021 14:43
21060366-002B	Rinse-02	06/03/2021 15:05	06/04/2021 16:20		
SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS					
				06/07/2021 9:58	06/07/2021 21:02
21060366-002C	Rinse-02	06/03/2021 15:05	06/04/2021 16:20		
SW-846 3005A, 6010B, Metals by ICP (Total)					
				06/07/2021 9:47	06/08/2021 20:57
21060366-002D	Rinse-02	06/03/2021 15:05	06/04/2021 16:20		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS					
					06/08/2021 4:11
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS					
					06/08/2021 17:07
21060366-003A	Rinse-03	06/04/2021 13:35	06/04/2021 16:20		
SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD					
				06/09/2021 7:26	06/09/2021 15:00
21060366-003B	Rinse-03	06/04/2021 13:35	06/04/2021 16:20		
SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS					
				06/07/2021 9:58	06/07/2021 21:41
21060366-003C	Rinse-03	06/04/2021 13:35	06/04/2021 16:20		
SW-846 3005A, 6010B, Metals by ICP (Total)					
				06/07/2021 9:47	06/08/2021 20:27
21060366-003D	Rinse-03	06/04/2021 13:35	06/04/2021 16:20		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS					
					06/08/2021 4:38
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS					
					06/08/2021 17:33
21060366-004A	TB-01	06/04/2021 16:20	06/04/2021 16:20		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS					
					06/08/2021 0:10
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS					
					06/08/2021 17:59



Quality Control Results

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SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 177614 SampType: MBLK Units mg/L
 SampID: MBLK-177614

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		< 0.0500	0.0068	0	0	-100	100	06/08/2021
Arsenic		0.0250		< 0.0250	0.0087	0	0	-100	100	06/08/2021
Copper		0.0050		< 0.0050	0.0013	0	0	-100	100	06/08/2021
Lead		0.0150		< 0.0150	0.0040	0	0	-100	100	06/08/2021
Zinc		0.0100	S	< 0.0100	0.0050	0	138.0	-100	100	06/08/2021
Zinc		0.0100		< 0.0100	0.0055	0	0	-100	100	06/09/2021

Batch 177614 SampType: LCS Units mg/L
 SampID: LCS-177614

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		0.513	0.5000	0	102.6	85	115	06/08/2021
Arsenic		0.0250		0.549	0.5000	0	109.8	85	115	06/08/2021
Copper		0.0050		0.265	0.2500	0	105.8	85	115	06/08/2021
Lead		0.0150		0.514	0.5000	0	102.9	85	115	06/08/2021
Zinc		0.0100	B	0.537	0.5000	0	107.4	85	115	06/08/2021

Batch 177614 SampType: MS Units mg/L
 SampID: 21060366-003CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		0.522	0.5000	0	104.4	75	125	06/08/2021
Arsenic		0.0250		0.540	0.5000	0	108.0	75	125	06/08/2021
Copper		0.0050		0.275	0.2500	0.003000	109.0	75	125	06/08/2021
Lead		0.0150		0.511	0.5000	0	102.2	75	125	06/08/2021
Zinc		0.0100		0.537	0.5000	0.008500	105.6	75	125	06/08/2021

Batch 177614 SampType: MSD Units mg/L RPD Limit 20
 SampID: 21060366-003CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Antimony		0.0500		0.519	0.5000	0	103.7	0.5220	0.63	06/08/2021
Arsenic		0.0250		0.543	0.5000	0	108.6	0.5402	0.55	06/08/2021
Copper		0.0050		0.273	0.2500	0.003000	108.2	0.2754	0.73	06/08/2021
Lead		0.0150		0.509	0.5000	0	101.9	0.5108	0.27	06/08/2021
Zinc		0.0100		0.534	0.5000	0.008500	105.1	0.5366	0.47	06/08/2021

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SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD
Batch 178683 **SampType: MBLK** Units $\mu\text{g/L}$

SampID: MBLK-178683

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		1.00		ND						06/09/2021
Aroclor 1221		1.00		ND						06/09/2021
Aroclor 1232		1.00		ND						06/09/2021
Aroclor 1242		1.00		ND						06/09/2021
Aroclor 1248		1.00		ND						06/09/2021
Aroclor 1254		1.00		ND						06/09/2021
Aroclor 1260		1.00		ND						06/09/2021
Surr: Decachlorobiphenyl	*			0.11	0.1250		88.3	27.5	143	06/09/2021
Surr: Tetrachloro-meta-xylene	*			0.15	0.1250		120.6	35.2	135	06/09/2021

Batch 178683 **SampType: LCS** Units $\mu\text{g/L}$

SampID: LCSPCB-178683

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		1.00		2.67	2.500	0	106.8	56.2	136	06/09/2021
Aroclor 1260		1.00		2.65	2.500	0	105.9	42.1	125	06/09/2021
Surr: Decachlorobiphenyl	*			0.07	0.1250		54.8	27.5	143	06/09/2021
Surr: Tetrachloro-meta-xylene	*			0.12	0.1250		95.7	35.2	135	06/09/2021

Batch 178683 **SampType: LCSD** Units $\mu\text{g/L}$

SampID: LCSPCBD-178683

 RPD Limit **40**

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Aroclor 1016		1.00		2.93	2.500	0	117.0	2.670	9.13	06/09/2021
Aroclor 1260		1.00		2.53	2.500	0	101.2	2.647	4.50	06/09/2021
Surr: Decachlorobiphenyl	*			0.10	0.1250		82.7			06/09/2021
Surr: Tetrachloro-meta-xylene	*			0.14	0.1250		110.1			06/09/2021



Quality Control Results

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SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 177618 **SampType:** MBLK **Units** mg/L

SampID: MBLK-177618

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Acenaphthene		0.00100		ND						06/07/2021
Acenaphthylene		0.00100		ND						06/07/2021
Anthracene		0.00100		ND						06/07/2021
Benzo(a)anthracene		0.00100		ND						06/07/2021
Benzo(a)pyrene		0.00100		ND						06/07/2021
Benzo(b)fluoranthene		0.00100		ND						06/07/2021
Benzo(g,h,i)perylene		0.00100		ND						06/07/2021
Benzo(k)fluoranthene		0.00100		ND						06/07/2021
Chrysene		0.00100		ND						06/07/2021
Dibenzo(a,h)anthracene		0.00100		ND						06/07/2021
Fluoranthene		0.00100		ND						06/07/2021
Fluorene		0.00100		ND						06/07/2021
Indeno(1,2,3-cd)pyrene		0.00100		ND						06/07/2021
Naphthalene		0.00100		ND						06/07/2021
Phenanthrene		0.00100		ND						06/07/2021
Pyrene		0.00100		ND						06/07/2021
Surr: 2-Fluorobiphenyl	*			0.00712	0.0125		56.9	1.09	175	06/07/2021
Surr: Nitrobenzene-d5	*			0.0115	0.0125		92.1	35.5	156	06/07/2021
Surr: p-Terphenyl-d14	*			0.0156	0.0125		125.1	35	222	06/07/2021



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SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 177618 **SampType:** LCS **Units** mg/L
SampID: LCS-177618

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Acenaphthene		0.00100		0.00694	0.0100	0	69.4	39.6	145	06/07/2021
Acenaphthylene		0.00100		0.00677	0.0100	0	67.7	38.3	147	06/07/2021
Anthracene		0.00100		0.00844	0.0100	0	84.4	47.7	153	06/07/2021
Benzo(a)anthracene		0.00100		0.00793	0.0100	0	79.3	45	136	06/07/2021
Benzo(a)pyrene		0.00100		0.00942	0.0100	0	94.2	49.8	164	06/07/2021
Benzo(b)fluoranthene		0.00100		0.00915	0.0100	0	91.5	45.7	167	06/07/2021
Benzo(g,h,i)perylene		0.00100		0.00859	0.0100	0	85.9	41	157	06/07/2021
Benzo(k)fluoranthene		0.00100		0.00962	0.0100	0	96.2	46.7	166	06/07/2021
Chrysene		0.00100		0.00892	0.0100	0	89.2	45.5	162	06/07/2021
Dibenzo(a,h)anthracene		0.00100		0.00889	0.0100	0	88.9	40.4	154	06/07/2021
Fluoranthene		0.00100		0.00914	0.0100	0	91.4	47.3	168	06/07/2021
Fluorene		0.00100		0.00787	0.0100	0	78.7	45.2	153	06/07/2021
Indeno(1,2,3-cd)pyrene		0.00100		0.00889	0.0100	0	88.9	44.6	166	06/07/2021
Naphthalene		0.00100		0.00694	0.0100	0	69.4	16.6	137	06/07/2021
Phenanthrene		0.00100		0.00865	0.0100	0	86.5	50.8	149	06/07/2021
Pyrene		0.00100		0.00890	0.0100	0	89.0	44.9	163	06/07/2021
Surr: 2-Fluorobiphenyl	*			0.00855	0.0125		68.4	1.09	175	06/07/2021
Surr: Nitrobenzene-d5	*			0.0106	0.0125		85.2	35.5	156	06/07/2021
Surr: p-Terphenyl-d14	*			0.0135	0.0125		107.9	35	222	06/07/2021



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SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 177618		SampType: LCSD		Units mg/L				RPD Limit 40		
SampID: LCSD-177618										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Acenaphthene		0.00100		0.00855	0.0100	0	85.5	0.006940	20.75	06/07/2021
Acenaphthylene		0.00100		0.00842	0.0100	0	84.2	0.006766	21.84	06/07/2021
Anthracene		0.00100		0.00912	0.0100	0	91.2	0.008442	7.69	06/07/2021
Benzo(a)anthracene		0.00100		0.00894	0.0100	0	89.4	0.007934	11.87	06/07/2021
Benzo(a)pyrene		0.00100		0.0105	0.0100	0	104.8	0.009422	10.60	06/07/2021
Benzo(b)fluoranthene		0.00100		0.0103	0.0100	0	103.2	0.009150	11.97	06/07/2021
Benzo(g,h,i)perylene		0.00100		0.00964	0.0100	0	96.4	0.008594	11.48	06/07/2021
Benzo(k)fluoranthene		0.00100		0.0106	0.0100	0	106.1	0.009618	9.80	06/07/2021
Chrysene		0.00100		0.00990	0.0100	0	99.0	0.008918	10.40	06/07/2021
Dibenzo(a,h)anthracene		0.00100		0.00988	0.0100	0	98.8	0.008888	10.60	06/07/2021
Fluoranthene		0.00100		0.0101	0.0100	0	100.9	0.009143	9.87	06/07/2021
Fluorene		0.00100		0.00904	0.0100	0	90.4	0.007873	13.80	06/07/2021
Indeno(1,2,3-cd)pyrene		0.00100		0.00988	0.0100	0	98.8	0.008893	10.48	06/07/2021
Naphthalene		0.00100		0.00846	0.0100	0	84.6	0.006945	19.68	06/07/2021
Phenanthrene		0.00100		0.00975	0.0100	0	97.5	0.008654	11.86	06/07/2021
Pyrene		0.00100		0.00983	0.0100	0	98.3	0.008896	9.96	06/07/2021
Surr: 2-Fluorobiphenyl	*			0.00992	0.0125		79.3			06/07/2021
Surr: Nitrobenzene-d5	*			0.0116	0.0125		92.7			06/07/2021
Surr: p-Terphenyl-d14	*			0.0145	0.0125		116.2			06/07/2021

Batch 177618		SampType: LCSG		Units %REC						Date Analyzed
SampID: LCSG-177618										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.00997	0.0125		79.7	1.09	175	06/07/2021
Surr: Nitrobenzene-d5	*			0.0110	0.0125		87.9	35.5	156	06/07/2021
Surr: p-Terphenyl-d14	*			0.0140	0.0125		112.2	35	222	06/07/2021

Batch 177618		SampType: LCSGD		Units %REC				RPD Limit 0		Date Analyzed
SampID: LCSGD-177618										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.0111	0.0125		89.1			06/07/2021
Surr: Nitrobenzene-d5	*			0.0110	0.0125		88.3			06/07/2021
Surr: p-Terphenyl-d14	*			0.0148	0.0125		118.3			06/07/2021



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SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 177618		SampType: MS		Units %REC						
SampID: 21060366-003BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.0399	0.0500		79.8	1.39	137	06/07/2021
Surr: Nitrobenzene-d5	*			0.0452	0.0500		90.3	29.1	125	06/07/2021
Surr: p-Terphenyl-d14	*			0.0596	0.0500		119.3	35.2	164	06/07/2021

Batch 177618		SampType: MSD		Units %REC		RPD Limit 0				
SampID: 21060366-003BMMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.0408	0.0500		81.6			06/07/2021
Surr: Nitrobenzene-d5	*			0.0450	0.0500		89.9			06/07/2021
Surr: p-Terphenyl-d14	*			0.0601	0.0500		120.2			06/07/2021

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SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178656 **SampType:** MBLK **Units** µg/L
SampID: MBLK-AE210607A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		ND						06/07/2021
1,1,1-Trichloroethane	*	2.0		ND						06/07/2021
1,1,2,2-Tetrachloroethane	*	2.0		ND						06/07/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND						06/07/2021
1,1,2-Trichloroethane	*	0.5		ND						06/07/2021
1,1-Dichloro-2-propanone	*	30.0		ND						06/07/2021
1,1-Dichloroethane	*	2.0		ND						06/07/2021
1,1-Dichloroethene	*	2.0		ND						06/07/2021
1,1-Dichloropropene	*	2.0		ND						06/07/2021
1,2,3-Trichlorobenzene	*	2.0		ND						06/07/2021
1,2,3-Trichloropropane	*	2.0		ND						06/07/2021
1,2,3-Trimethylbenzene	*	2.0		ND						06/07/2021
1,2,4-Trichlorobenzene	*	2.0		ND						06/07/2021
1,2,4-Trimethylbenzene	*	2.0		ND						06/07/2021
1,2-Dibromo-3-chloropropane	*	5.0		ND						06/07/2021
1,2-Dibromoethane	*	2.0		ND						06/07/2021
1,2-Dichlorobenzene	*	2.0		ND						06/07/2021
1,2-Dichloroethane	*	2.0		ND						06/07/2021
1,2-Dichloropropane	*	2.0		ND						06/07/2021
1,3,5-Trimethylbenzene	*	2.0		ND						06/07/2021
1,3-Dichlorobenzene	*	2.0		ND						06/07/2021
1,3-Dichloropropane	*	2.0		ND						06/07/2021
1,4-Dichlorobenzene	*	2.0		ND						06/07/2021
1-Chlorobutane	*	5.0		ND						06/07/2021
2,2-Dichloropropane	*	2.0		ND						06/07/2021
2-Butanone	*	10.0		ND						06/07/2021
2-Chloroethyl vinyl ether	*	5.0		ND						06/07/2021
2-Chlorotoluene	*	2.0		ND						06/07/2021
2-Hexanone	*	10.0		ND						06/07/2021
2-Nitropropane	*	10.0		ND						06/07/2021
4-Chlorotoluene	*	2.0		ND						06/07/2021
4-Methyl-2-pentanone	*	10.0		ND						06/07/2021
Acetone	*	10.0		ND						06/07/2021
Acetonitrile	*	10.0		ND						06/07/2021
Acrolein	*	20.0		ND						06/07/2021
Acrylonitrile	*	5.0		ND						06/07/2021



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Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178656 **SampType:** MBLK **Units** µg/L
SampID: MBLK-AE210607A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		ND						06/07/2021
Benzene	*	0.5		ND						06/07/2021
Bromobenzene	*	2.0		ND						06/07/2021
Bromochloromethane	*	2.0		ND						06/07/2021
Bromodichloromethane	*	2.0		ND						06/07/2021
Bromoform	*	2.0		ND						06/07/2021
Bromomethane	*	5.0		ND						06/07/2021
Carbon disulfide	*	2.0		ND						06/07/2021
Carbon tetrachloride	*	2.0		ND						06/07/2021
Chlorobenzene	*	2.0		ND						06/07/2021
Chloroethane	*	2.0		ND						06/07/2021
Chloroform	*	2.0		ND						06/07/2021
Chloromethane	*	5.0		ND						06/07/2021
Chloroprene	*	5.0		ND						06/07/2021
cis-1,2-Dichloroethene	*	2.0		ND						06/07/2021
cis-1,3-Dichloropropene	*	2.0		ND						06/07/2021
cis-1,4-Dichloro-2-butene	*	2.0		ND						06/07/2021
Cyclohexanone	*	20.0		ND						06/07/2021
Dibromochloromethane	*	2.0		ND						06/07/2021
Dibromomethane	*	2.0		ND						06/07/2021
Dichlorodifluoromethane	*	2.0		ND						06/07/2021
Diisopropyl ether	*	2.0		ND						06/07/2021
Ethyl acetate	*	10.0		ND						06/07/2021
Ethyl ether	*	5.0		ND						06/07/2021
Ethyl methacrylate	*	5.0		ND						06/07/2021
Ethylbenzene	*	2.0		ND						06/07/2021
Ethyl-tert-butyl ether	*	2.0		ND						06/07/2021
Hexachlorobutadiene	*	5.0		ND						06/07/2021
Hexachloroethane	*	5.0		ND						06/07/2021
Iodomethane	*	5.0		ND						06/07/2021
Isopropylbenzene	*	2.0		ND						06/07/2021
m,p-Xylenes	*	2.0		ND						06/07/2021
Methacrylonitrile	*	5.0		ND						06/07/2021
Methyl Methacrylate	*	5.0		ND						06/07/2021
Methyl tert-butyl ether	*	2.0		ND						06/07/2021
Methylacrylate	*	5.0		ND						06/07/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178656 **SampType:** MBLK **Units** µg/L
SampID: MBLK-AE210607A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Methylene chloride	*	2.0		ND						06/07/2021
Naphthalene	*	5.0		ND						06/07/2021
n-Butyl acetate	*	2.0		ND						06/07/2021
n-Butylbenzene	*	2.0		ND						06/07/2021
n-Heptane	*	5.0		ND						06/07/2021
n-Hexane	*	5.0		ND						06/07/2021
Nitrobenzene	*	50.0		ND						06/07/2021
n-Propylbenzene	*	2.0		ND						06/07/2021
o-Xylene	*	2.0		ND						06/07/2021
Pentachloroethane	*	5.0		ND						06/07/2021
p-Isopropyltoluene	*	2.0		ND						06/07/2021
Propionitrile	*	10.0		ND						06/07/2021
sec-Butylbenzene	*	2.0		ND						06/07/2021
Styrene	*	2.0		ND						06/07/2021
tert-Amyl methyl ether	*	2.0		ND						06/07/2021
tert-Butyl alcohol	*	10.0		ND						06/07/2021
tert-Butylbenzene	*	2.0		ND						06/07/2021
Tetrachloroethene	*	0.5		ND						06/07/2021
Tetrahydrofuran	*	5.0		ND						06/07/2021
Toluene	*	2.0		ND						06/07/2021
trans-1,2-Dichloroethene	*	2.0		ND						06/07/2021
trans-1,3-Dichloropropene	*	2.0		ND						06/07/2021
trans-1,4-Dichloro-2-butene	*	2.0		ND						06/07/2021
Trichloroethene	*	2.0		ND						06/07/2021
Trichlorofluoromethane	*	5.0		ND						06/07/2021
Vinyl acetate	*	5.0		ND						06/07/2021
Vinyl chloride	*	2.0		ND						06/07/2021
Xylenes, Total	*	4.0		ND						06/07/2021
1,2-Dichloroethene, Total	*	4.0		ND						06/07/2021
1,3-Dichloropropene, Total	*	4.0		ND						06/07/2021
1,4-Dichloro-2-butene, Total	*	4.0		ND						06/07/2021
TPH - GRO (C6 - C10)	*	500		ND						06/07/2021
Surr: 1,2-Dichloroethane-d4	*			46.8	50.00		93.5	80	120	06/07/2021
Surr: 4-Bromofluorobenzene	*			49.5	50.00		98.9	80	120	06/07/2021
Surr: Toluene-d8	*			52.1	50.00		104.2	80	120	06/07/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178656 **SampType:** LCS

Units µg/L

SampID: LCS-AE210607A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		49.7	50.00	0	99.4	82	113	06/07/2021
1,1,1-Trichloroethane	*	2.0		44.4	50.00	0	88.9	76.9	128	06/07/2021
1,1,2,2-Tetrachloroethane	*	2.0		52.6	50.00	0	105.3	76.7	113	06/07/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		44.0	50.00	0	87.9	69.5	127	06/07/2021
1,1,2-Trichloroethane	*	0.5		50.1	50.00	0	100.2	83.8	111	06/07/2021
1,1-Dichloro-2-propanone	*	30.0		110	125.0	0	88.0	74.9	117	06/07/2021
1,1-Dichloroethane	*	2.0		45.4	50.00	0	90.9	77	129	06/07/2021
1,1-Dichloroethene	*	2.0		44.6	50.00	0	89.2	69.4	127	06/07/2021
1,1-Dichloropropene	*	2.0		44.5	50.00	0	89.0	75.1	123	06/07/2021
1,2,3-Trichlorobenzene	*	2.0		54.1	50.00	0	108.1	77.3	121	06/07/2021
1,2,3-Trichloropropane	*	2.0		49.0	50.00	0	98.1	75.3	109	06/07/2021
1,2,3-Trimethylbenzene	*	2.0		50.5	50.00	0	101.0	77	115	06/07/2021
1,2,4-Trichlorobenzene	*	2.0		53.8	50.00	0	107.7	76.8	124	06/07/2021
1,2,4-Trimethylbenzene	*	2.0		50.7	50.00	0	101.4	75	115	06/07/2021
1,2-Dibromo-3-chloropropane	*	5.0		48.9	50.00	0	97.9	71.9	119	06/07/2021
1,2-Dibromoethane	*	2.0		49.7	50.00	0	99.3	83.6	110	06/07/2021
1,2-Dichlorobenzene	*	2.0		52.5	50.00	0	105.0	72.1	113	06/07/2021
1,2-Dichloroethane	*	2.0		41.8	50.00	0	83.6	72.3	117	06/07/2021
1,2-Dichloropropane	*	2.0		45.7	50.00	0	91.3	76.5	119	06/07/2021
1,3,5-Trimethylbenzene	*	2.0		50.1	50.00	0	100.2	75.2	117	06/07/2021
1,3-Dichlorobenzene	*	2.0		52.6	50.00	0	105.2	75.2	115	06/07/2021
1,3-Dichloropropane	*	2.0		50.9	50.00	0	101.8	80.9	110	06/07/2021
1,4-Dichlorobenzene	*	2.0		51.3	50.00	0	102.6	73.9	112	06/07/2021
1-Chlorobutane	*	5.0		46.3	50.00	0	92.6	74.9	130	06/07/2021
2,2-Dichloropropane	*	2.0		36.6	50.00	0	73.2	66.5	138	06/07/2021
2-Butanone	*	10.0		112	125.0	0	89.8	68.8	134	06/07/2021
2-Chloroethyl vinyl ether	*	5.0		51.8	50.00	0	103.6	17.8	163	06/07/2021
2-Chlorotoluene	*	2.0		51.1	50.00	0	102.2	74.9	115	06/07/2021
2-Hexanone	*	10.0		120	125.0	0	95.9	73.2	117	06/07/2021
2-Nitropropane	*	10.0		434	500.0	0	86.7	67.1	140	06/07/2021
4-Chlorotoluene	*	2.0		50.5	50.00	0	101.1	75.7	113	06/07/2021
4-Methyl-2-pentanone	*	10.0		123	125.0	0	98.5	77	113	06/07/2021
Acetone	*	10.0		116	125.0	0	93.0	61.4	130	06/07/2021
Acetonitrile	*	10.0		523	500.0	0	104.5	68.8	136	06/07/2021
Acrolein	*	20.0		367	500.0	0	73.5	28.4	168	06/07/2021
Acrylonitrile	*	5.0		47.5	50.00	0	95.0	77.9	124	06/07/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178656 **SampType:** LCS

Units µg/L

SampID: LCS-AE210607A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		44.2	50.00	0	88.4	75.8	130	06/07/2021
Benzene	*	0.5		46.3	50.00	0	92.7	78.5	119	06/07/2021
Bromobenzene	*	2.0		52.6	50.00	0	105.2	77.5	113	06/07/2021
Bromochloromethane	*	2.0		45.2	50.00	0	90.3	71.5	123	06/07/2021
Bromodichloromethane	*	2.0		44.5	50.00	0	89.0	75.7	123	06/07/2021
Bromoform	*	2.0		49.3	50.00	0	98.7	78.9	121	06/07/2021
Bromomethane	*	5.0		27.7	50.00	0	55.3	30.5	192	06/07/2021
Carbon disulfide	*	2.0		44.3	50.00	0	88.7	66.7	121	06/07/2021
Carbon tetrachloride	*	2.0		41.6	50.00	0	83.1	70.9	127	06/07/2021
Chlorobenzene	*	2.0		49.7	50.00	0	99.4	80	111	06/07/2021
Chloroethane	*	2.0		45.2	50.00	0	90.5	69.6	135	06/07/2021
Chloroform	*	2.0		44.2	50.00	0	88.3	76.2	120	06/07/2021
Chloromethane	*	5.0		35.8	50.00	0	71.6	50.9	138	06/07/2021
Chloroprene	*	5.0		44.5	50.00	0	89.0	68.4	127	06/07/2021
cis-1,2-Dichloroethene	*	2.0		46.6	50.00	0	93.1	79.5	121	06/07/2021
cis-1,3-Dichloropropene	*	2.0		44.3	50.00	0	88.6	79.8	123	06/07/2021
cis-1,4-Dichloro-2-butene	*	2.0		39.2	50.00	0	78.3	64.6	130	06/07/2021
Cyclohexanone	*	20.0		498	500.0	0	99.7	70.5	114	06/07/2021
Dibromochloromethane	*	2.0		47.9	50.00	0	95.7	84.5	114	06/07/2021
Dibromomethane	*	2.0		43.9	50.00	0	87.8	76	119	06/07/2021
Dichlorodifluoromethane	*	2.0		43.6	50.00	0	87.2	46.6	142	06/07/2021
Diisopropyl ether	*	2.0		47.0	50.00	0	94.0	72	128	06/07/2021
Ethyl acetate	*	10.0		47.3	50.00	0	94.5	70.3	115	06/07/2021
Ethyl ether	*	5.0		44.9	50.00	0	89.8	74.6	120	06/07/2021
Ethyl methacrylate	*	5.0		48.7	50.00	0	97.5	81.4	116	06/07/2021
Ethylbenzene	*	2.0		49.3	50.00	0	98.5	78.2	114	06/07/2021
Ethyl-tert-butyl ether	*	2.0		45.0	50.00	0	90.0	74.6	124	06/07/2021
Hexachlorobutadiene	*	5.0		48.0	50.00	0	95.9	73.9	129	06/07/2021
Hexachloroethane	*	5.0		45.4	50.00	0	90.8	78.3	123	06/07/2021
Iodomethane	*	5.0	S	16.0	50.00	0	31.9	50	151	06/07/2021
Isopropylbenzene	*	2.0		48.7	50.00	0	97.4	79.3	115	06/07/2021
m,p-Xylenes	*	2.0		97.5	100.0	0	97.5	77.2	116	06/07/2021
Methacrylonitrile	*	5.0		49.1	50.00	0	98.2	73.9	127	06/07/2021
Methyl Methacrylate	*	5.0		43.4	50.00	0	86.7	70.7	129	06/07/2021
Methyl tert-butyl ether	*	2.0		45.5	50.00	0	90.9	80.3	122	06/07/2021
Methylacrylate	*	5.0		46.9	50.00	0	93.7	75.2	124	06/07/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178656 **SampType:** LCS

Units µg/L

SampID: LCS-AE210607A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Methylene chloride	*	2.0		47.9	50.00	0	95.8	71.8	115	06/07/2021
Naphthalene	*	5.0		53.6	50.00	0	107.1	75.6	121	06/07/2021
n-Butyl acetate	*	2.0		49.3	50.00	0	98.6	72.4	118	06/07/2021
n-Butylbenzene	*	2.0		47.8	50.00	0	95.7	70.8	118	06/07/2021
n-Heptane	*	5.0		34.4	50.00	0	68.8	50.4	143	06/07/2021
n-Hexane	*	5.0		36.1	50.00	0	72.2	60.6	139	06/07/2021
Nitrobenzene	*	50.0		479	500.0	0	95.9	49.4	129	06/07/2021
n-Propylbenzene	*	2.0		50.3	50.00	0	100.6	74	119	06/07/2021
o-Xylene	*	2.0		49.2	50.00	0	98.3	79.2	112	06/07/2021
Pentachloroethane	*	5.0		49.8	50.00	0	99.5	71.8	124	06/07/2021
p-Isopropyltoluene	*	2.0		50.3	50.00	0	100.6	74.4	119	06/07/2021
Propionitrile	*	10.0		488	500.0	0	97.5	76.2	127	06/07/2021
sec-Butylbenzene	*	2.0		50.4	50.00	0	100.7	74.4	119	06/07/2021
Styrene	*	2.0		50.0	50.00	0	100.0	80.4	117	06/07/2021
tert-Amyl methyl ether	*	2.0		45.8	50.00	0	91.6	80.8	125	06/07/2021
tert-Butyl alcohol	*	10.0		206	250.0	0	82.5	64.9	118	06/07/2021
tert-Butylbenzene	*	2.0		48.9	50.00	0	97.9	74	115	06/07/2021
Tetrachloroethene	*	0.5		53.0	50.00	0	106.1	70.1	120	06/07/2021
Tetrahydrofuran	*	5.0		44.5	50.00	0	88.9	63.5	122	06/07/2021
Toluene	*	2.0		50.6	50.00	0	101.3	78.6	112	06/07/2021
trans-1,2-Dichloroethene	*	2.0		44.6	50.00	0	89.1	75.7	130	06/07/2021
trans-1,3-Dichloropropene	*	2.0		47.7	50.00	0	95.5	80.3	116	06/07/2021
trans-1,4-Dichloro-2-butene	*	2.0		39.3	50.00	0	78.5	65.5	124	06/07/2021
Trichloroethene	*	2.0		44.6	50.00	0	89.3	76.2	121	06/07/2021
Trichlorofluoromethane	*	5.0		43.6	50.00	0	87.3	71.1	131	06/07/2021
Vinyl acetate	*	5.0		44.4	50.00	0	88.7	79.8	129	06/07/2021
Vinyl chloride	*	2.0		40.5	50.00	0	81.1	58.6	141	06/07/2021
Xylenes, Total	*	4.0		147	150.0	0	97.8	78.3	114	06/07/2021
1,2-Dichloroethene, Total	*	4.0		91.1	100.0	0	91.1	78.5	125	06/07/2021
1,3-Dichloropropene, Total	*	4.0		92.0	100.0	0	92.0	82.3	117	06/07/2021
1,4-Dichloro-2-butene, Total	*	4.0		78.4	100.0	0	78.4	65.9	126	06/07/2021
Surr: 1,2-Dichloroethane-d4	*			47.2	50.00		94.5	80	120	06/07/2021
Surr: 4-Bromofluorobenzene	*			49.7	50.00		99.3	80	120	06/07/2021
Surr: Toluene-d8	*			52.4	50.00		104.8	80	120	06/07/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	SampType:	Units		RPD Limit						
178656	LCSD	µg/L		15.4						
SampID: LCSD-AE210607A-2										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		47.2	50.00	0	94.3	49.72	5.26	06/07/2021
1,1,1-Trichloroethane	*	2.0		42.5	50.00	0	85.0	44.44	4.46	06/07/2021
1,1,2,2-Tetrachloroethane	*	2.0		50.8	50.00	0	101.5	52.65	3.66	06/07/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		42.4	50.00	0	84.7	43.96	3.68	06/07/2021
1,1,2-Trichloroethane	*	0.5		48.4	50.00	0	96.8	50.12	3.51	06/07/2021
1,1-Dichloro-2-propanone	*	30.0		103	125.0	0	82.7	110.0	6.18	06/07/2021
1,1-Dichloroethane	*	2.0		43.5	50.00	0	87.0	45.43	4.29	06/07/2021
1,1-Dichloroethene	*	2.0		42.3	50.00	0	84.6	44.61	5.34	06/07/2021
1,1-Dichloropropene	*	2.0		42.6	50.00	0	85.3	44.51	4.31	06/07/2021
1,2,3-Trichlorobenzene	*	2.0		52.8	50.00	0	105.5	54.07	2.47	06/07/2021
1,2,3-Trichloropropane	*	2.0		47.8	50.00	0	95.5	49.04	2.67	06/07/2021
1,2,3-Trimethylbenzene	*	2.0		48.8	50.00	0	97.5	50.51	3.51	06/07/2021
1,2,4-Trichlorobenzene	*	2.0		51.7	50.00	0	103.4	53.83	4.04	06/07/2021
1,2,4-Trimethylbenzene	*	2.0		49.1	50.00	0	98.2	50.71	3.23	06/07/2021
1,2-Dibromo-3-chloropropane	*	5.0		47.5	50.00	0	95.1	48.94	2.92	06/07/2021
1,2-Dibromoethane	*	2.0		48.0	50.00	0	96.0	49.67	3.42	06/07/2021
1,2-Dichlorobenzene	*	2.0		50.9	50.00	0	101.9	52.48	3.00	06/07/2021
1,2-Dichloroethane	*	2.0		40.6	50.00	0	81.3	41.81	2.81	06/07/2021
1,2-Dichloropropane	*	2.0		44.6	50.00	0	89.1	45.67	2.44	06/07/2021
1,3,5-Trimethylbenzene	*	2.0		48.2	50.00	0	96.3	50.09	3.95	06/07/2021
1,3-Dichlorobenzene	*	2.0		50.7	50.00	0	101.4	52.62	3.70	06/07/2021
1,3-Dichloropropane	*	2.0		48.9	50.00	0	97.9	50.91	3.97	06/07/2021
1,4-Dichlorobenzene	*	2.0		49.7	50.00	0	99.3	51.29	3.21	06/07/2021
1-Chlorobutane	*	5.0		44.5	50.00	0	89.0	46.29	3.90	06/07/2021
2,2-Dichloropropane	*	2.0		34.7	50.00	0	69.5	36.60	5.24	06/07/2021
2-Butanone	*	10.0		109	125.0	0	86.9	112.3	3.32	06/07/2021
2-Chloroethyl vinyl ether	*	5.0		51.1	50.00	0	102.1	51.80	1.44	06/07/2021
2-Chlorotoluene	*	2.0		49.4	50.00	0	98.9	51.11	3.30	06/07/2021
2-Hexanone	*	10.0		114	125.0	0	91.4	119.8	4.78	06/07/2021
2-Nitropropane	*	10.0		415	500.0	0	83.1	433.7	4.28	06/07/2021
4-Chlorotoluene	*	2.0		48.7	50.00	0	97.5	50.54	3.63	06/07/2021
4-Methyl-2-pentanone	*	10.0		118	125.0	0	94.2	123.1	4.40	06/07/2021
Acetone	*	10.0		112	125.0	0	89.7	116.2	3.58	06/07/2021
Acetonitrile	*	10.0		501	500.0	0	100.1	522.5	4.26	06/07/2021
Acrolein	*	20.0		349	500.0	0	69.8	367.4	5.18	06/07/2021
Acrylonitrile	*	5.0		46.2	50.00	0	92.4	47.48	2.75	06/07/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178656	SampType: LCSD	Units µg/L								RPD Limit 15.4
SampID: LCSD-AE210607A-2										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Allyl chloride	*	5.0		41.7	50.00	0	83.5	44.20	5.72	06/07/2021
Benzene	*	0.5		44.4	50.00	0	88.8	46.34	4.23	06/07/2021
Bromobenzene	*	2.0		51.5	50.00	0	102.9	52.59	2.17	06/07/2021
Bromochloromethane	*	2.0		43.8	50.00	0	87.6	45.16	3.01	06/07/2021
Bromodichloromethane	*	2.0		43.2	50.00	0	86.4	44.50	2.92	06/07/2021
Bromoform	*	2.0		46.9	50.00	0	93.8	49.33	5.07	06/07/2021
Bromomethane	*	5.0		33.4	50.00	0	66.8	27.67	18.74	06/07/2021
Carbon disulfide	*	2.0		42.2	50.00	0	84.4	44.34	4.92	06/07/2021
Carbon tetrachloride	*	2.0		39.8	50.00	0	79.6	41.55	4.35	06/07/2021
Chlorobenzene	*	2.0		46.9	50.00	0	93.8	49.69	5.73	06/07/2021
Chloroethane	*	2.0		42.9	50.00	0	85.8	45.25	5.29	06/07/2021
Chloroform	*	2.0		42.7	50.00	0	85.4	44.16	3.39	06/07/2021
Chloromethane	*	5.0		34.4	50.00	0	68.7	35.79	4.11	06/07/2021
Chloroprene	*	5.0		42.2	50.00	0	84.3	44.52	5.45	06/07/2021
cis-1,2-Dichloroethene	*	2.0		44.8	50.00	0	89.6	46.55	3.85	06/07/2021
cis-1,3-Dichloropropene	*	2.0		43.0	50.00	0	86.0	44.32	2.98	06/07/2021
cis-1,4-Dichloro-2-butene	*	2.0		36.8	50.00	0	73.6	39.15	6.13	06/07/2021
Cyclohexanone	*	20.0		473	500.0	0	94.5	498.5	5.31	06/07/2021
Dibromochloromethane	*	2.0		46.4	50.00	0	92.7	47.86	3.18	06/07/2021
Dibromomethane	*	2.0		43.5	50.00	0	87.0	43.92	0.94	06/07/2021
Dichlorodifluoromethane	*	2.0		41.5	50.00	0	82.9	43.60	5.03	06/07/2021
Diisopropyl ether	*	2.0		45.9	50.00	0	91.8	47.01	2.37	06/07/2021
Ethyl acetate	*	10.0		46.1	50.00	0	92.1	47.27	2.59	06/07/2021
Ethyl ether	*	5.0		43.8	50.00	0	87.6	44.91	2.46	06/07/2021
Ethyl methacrylate	*	5.0		47.0	50.00	0	94.1	48.73	3.55	06/07/2021
Ethylbenzene	*	2.0		46.8	50.00	0	93.6	49.26	5.14	06/07/2021
Ethyl-tert-butyl ether	*	2.0		44.1	50.00	0	88.2	45.00	2.07	06/07/2021
Hexachlorobutadiene	*	5.0		47.6	50.00	0	95.1	47.97	0.86	06/07/2021
Hexachloroethane	*	5.0		44.0	50.00	0	88.1	45.39	3.04	06/07/2021
Iodomethane	*	5.0	S	20.5	50.00	0	40.9	15.97	24.65	06/07/2021
Isopropylbenzene	*	2.0		46.4	50.00	0	92.8	48.70	4.82	06/07/2021
m,p-Xylenes	*	2.0		93.1	100.0	0	93.1	97.50	4.64	06/07/2021
Methacrylonitrile	*	5.0		47.1	50.00	0	94.3	49.11	4.11	06/07/2021
Methyl Methacrylate	*	5.0		42.8	50.00	0	85.6	43.36	1.32	06/07/2021
Methyl tert-butyl ether	*	2.0		44.5	50.00	0	89.1	45.47	2.07	06/07/2021
Methylacrylate	*	5.0		45.3	50.00	0	90.6	46.86	3.36	06/07/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	SampType:	Units		RPD Limit						
178656	LCSD	µg/L		15.4						
SampID: LCSD-AE210607A-2										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Methylene chloride	*	2.0		46.3	50.00	0	92.6	47.92	3.40	06/07/2021
Naphthalene	*	5.0		51.4	50.00	0	102.7	53.56	4.19	06/07/2021
n-Butyl acetate	*	2.0		47.4	50.00	0	94.8	49.30	3.91	06/07/2021
n-Butylbenzene	*	2.0		46.0	50.00	0	92.0	47.85	3.92	06/07/2021
n-Heptane	*	5.0		32.8	50.00	0	65.6	34.38	4.73	06/07/2021
n-Hexane	*	5.0		34.6	50.00	0	69.1	36.11	4.42	06/07/2021
Nitrobenzene	*	50.0		454	500.0	0	90.7	479.4	5.55	06/07/2021
n-Propylbenzene	*	2.0		48.8	50.00	0	97.6	50.31	3.03	06/07/2021
o-Xylene	*	2.0		46.9	50.00	0	93.9	49.17	4.66	06/07/2021
Pentachloroethane	*	5.0		46.7	50.00	0	93.3	49.75	6.41	06/07/2021
p-Isopropyltoluene	*	2.0		48.1	50.00	0	96.2	50.30	4.47	06/07/2021
Propionitrile	*	10.0		468	500.0	0	93.6	487.7	4.10	06/07/2021
sec-Butylbenzene	*	2.0		48.9	50.00	0	97.7	50.36	3.02	06/07/2021
Styrene	*	2.0		47.9	50.00	0	95.8	49.98	4.21	06/07/2021
tert-Amyl methyl ether	*	2.0		44.8	50.00	0	89.6	45.81	2.21	06/07/2021
tert-Butyl alcohol	*	10.0		197	250.0	0	78.8	206.2	4.57	06/07/2021
tert-Butylbenzene	*	2.0		47.2	50.00	0	94.3	48.93	3.66	06/07/2021
Tetrachloroethene	*	0.5		51.2	50.00	0	102.4	53.03	3.55	06/07/2021
Tetrahydrofuran	*	5.0		43.0	50.00	0	85.9	44.47	3.48	06/07/2021
Toluene	*	2.0		48.2	50.00	0	96.3	50.64	5.00	06/07/2021
trans-1,2-Dichloroethene	*	2.0		42.6	50.00	0	85.3	44.55	4.38	06/07/2021
trans-1,3-Dichloropropene	*	2.0		45.8	50.00	0	91.6	47.73	4.08	06/07/2021
trans-1,4-Dichloro-2-butene	*	2.0		37.8	50.00	0	75.5	39.26	3.92	06/07/2021
Trichloroethene	*	2.0		42.8	50.00	0	85.6	44.64	4.23	06/07/2021
Trichlorofluoromethane	*	5.0		41.2	50.00	0	82.4	43.64	5.80	06/07/2021
Vinyl acetate	*	5.0		44.6	50.00	0	89.3	44.36	0.65	06/07/2021
Vinyl chloride	*	2.0		38.3	50.00	0	76.6	40.53	5.68	06/07/2021
Xylenes, Total	*	4.0		140	150.0	0	93.3	146.7	4.65	06/07/2021
1,2-Dichloroethene, Total	*	4.0		87.4	100.0	0	87.4	91.10	4.11	06/07/2021
1,3-Dichloropropene, Total	*	4.0		88.8	100.0	0	88.8	92.05	3.55	06/07/2021
1,4-Dichloro-2-butene, Total	*	4.0		74.6	100.0	0	74.6	78.41	5.02	06/07/2021
Surr: 1,2-Dichloroethane-d4	*			47.2	50.00		94.3			06/07/2021
Surr: 4-Bromofluorobenzene	*			50.0	50.00		100.0			06/07/2021
Surr: Toluene-d8	*			52.0	50.00		104.0			06/07/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178656 **SampType:** LCSG **Units** µg/L
 SampID: LCSG-AE210607A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
TPH - GRO (C6 - C10)	*	500		1980	2000	0	99.1	70	130	06/07/2021
Surr: 1,2-Dichloroethane-d4	*			47.6	50.00		95.2	80	120	06/07/2021
Surr: 4-Bromofluorobenzene	*			49.5	50.00		98.9	80	120	06/07/2021
Surr: Toluene-d8	*			52.8	50.00		105.6	80	120	06/07/2021

Batch 178656 **SampType:** LCSGD **Units** µg/L **RPD Limit** 20
 SampID: LCSGD-AE210607A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
TPH - GRO (C6 - C10)	*	500		1920	2000	0	96.1	1981	3.00	06/07/2021
Surr: 1,2-Dichloroethane-d4	*			46.8	50.00		93.6			06/07/2021
Surr: 4-Bromofluorobenzene	*			49.1	50.00		98.2			06/07/2021
Surr: Toluene-d8	*			52.5	50.00		105.0			06/07/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178673 **SampType:** MBLK **Units** µg/L
SampID: MBLK-AK210608A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		ND						06/08/2021
1,1,1-Trichloroethane	*	2.0		ND						06/08/2021
1,1,2,2-Tetrachloroethane	*	2.0		ND						06/08/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND						06/08/2021
1,1,2-Trichloroethane	*	0.5		ND						06/08/2021
1,1-Dichloro-2-propanone	*	30.0		ND						06/08/2021
1,1-Dichloroethane	*	2.0		ND						06/08/2021
1,1-Dichloroethene	*	2.0		ND						06/08/2021
1,1-Dichloropropene	*	2.0		ND						06/08/2021
1,2,3-Trichlorobenzene	*	2.0		ND						06/08/2021
1,2,3-Trichloropropane	*	2.0		ND						06/08/2021
1,2,3-Trimethylbenzene	*	2.0		ND						06/08/2021
1,2,4-Trichlorobenzene	*	2.0		ND						06/08/2021
1,2,4-Trimethylbenzene	*	2.0		ND						06/08/2021
1,2-Dibromo-3-chloropropane	*	5.0		ND						06/08/2021
1,2-Dibromoethane	*	2.0		ND						06/08/2021
1,2-Dichlorobenzene	*	2.0		ND						06/08/2021
1,2-Dichloroethane	*	2.0		ND						06/08/2021
1,2-Dichloropropane	*	2.0		ND						06/08/2021
1,3,5-Trimethylbenzene	*	2.0		ND						06/08/2021
1,3-Dichlorobenzene	*	2.0		ND						06/08/2021
1,3-Dichloropropane	*	2.0		ND						06/08/2021
1,4-Dichlorobenzene	*	2.0		ND						06/08/2021
1-Chlorobutane	*	5.0		ND						06/08/2021
2,2-Dichloropropane	*	2.0		ND						06/08/2021
2-Butanone	*	10.0		ND						06/08/2021
2-Chloroethyl vinyl ether	*	5.0		ND						06/08/2021
2-Chlorotoluene	*	2.0		ND						06/08/2021
2-Hexanone	*	10.0		ND						06/08/2021
2-Nitropropane	*	10.0		ND						06/08/2021
4-Chlorotoluene	*	2.0		ND						06/08/2021
4-Methyl-2-pentanone	*	10.0		ND						06/08/2021
Acetone	*	10.0		ND						06/08/2021
Acetonitrile	*	10.0		ND						06/08/2021
Acrolein	*	20.0		ND						06/08/2021
Acrylonitrile	*	5.0		ND						06/08/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178673 **SampType:** MBLK **Units** µg/L
SampID: MBLK-AK210608A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		ND						06/08/2021
Benzene	*	0.5		ND						06/08/2021
Bromobenzene	*	2.0		ND						06/08/2021
Bromochloromethane	*	2.0		ND						06/08/2021
Bromodichloromethane	*	2.0		ND						06/08/2021
Bromoform	*	2.0		ND						06/08/2021
Bromomethane	*	5.0		ND						06/08/2021
Carbon disulfide	*	2.0		ND						06/08/2021
Carbon tetrachloride	*	2.0		ND						06/08/2021
Chlorobenzene	*	2.0		ND						06/08/2021
Chloroethane	*	2.0		ND						06/08/2021
Chloroform	*	2.0		ND						06/08/2021
Chloromethane	*	5.0		ND						06/08/2021
Chloroprene	*	5.0		ND						06/08/2021
cis-1,2-Dichloroethene	*	2.0		ND						06/08/2021
cis-1,3-Dichloropropene	*	2.0		ND						06/08/2021
cis-1,4-Dichloro-2-butene	*	2.0		ND						06/08/2021
Cyclohexanone	*	20.0		ND						06/08/2021
Dibromochloromethane	*	2.0		ND						06/08/2021
Dibromomethane	*	2.0		ND						06/08/2021
Dichlorodifluoromethane	*	2.0		ND						06/08/2021
Diisopropyl ether	*	2.0		ND						06/08/2021
Ethyl acetate	*	10.0		ND						06/08/2021
Ethyl ether	*	5.0		ND						06/08/2021
Ethyl methacrylate	*	5.0		ND						06/08/2021
Ethylbenzene	*	2.0		ND						06/08/2021
Ethyl-tert-butyl ether	*	2.0		ND						06/08/2021
Hexachlorobutadiene	*	5.0		ND						06/08/2021
Hexachloroethane	*	5.0		ND						06/08/2021
Iodomethane	*	5.0		ND						06/08/2021
Isopropylbenzene	*	2.0		ND						06/08/2021
m,p-Xylenes	*	2.0		ND						06/08/2021
Methacrylonitrile	*	5.0		ND						06/08/2021
Methyl Methacrylate	*	5.0		ND						06/08/2021
Methyl tert-butyl ether	*	2.0		ND						06/08/2021
Methylacrylate	*	5.0		ND						06/08/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178673 **SampType:** MBLK **Units** µg/L

SampID: MBLK-AK210608A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Methylene chloride	*	2.0		ND						06/08/2021
Naphthalene	*	5.0		ND						06/08/2021
n-Butyl acetate	*	2.0		ND						06/08/2021
n-Butylbenzene	*	2.0		ND						06/08/2021
n-Heptane	*	5.0		ND						06/08/2021
n-Hexane	*	5.0		ND						06/08/2021
Nitrobenzene	*	50.0		ND						06/08/2021
n-Propylbenzene	*	2.0		ND						06/08/2021
o-Xylene	*	2.0		ND						06/08/2021
Pentachloroethane	*	5.0		ND						06/08/2021
p-Isopropyltoluene	*	2.0		ND						06/08/2021
Propionitrile	*	10.0		ND						06/08/2021
sec-Butylbenzene	*	2.0		ND						06/08/2021
Styrene	*	2.0		ND						06/08/2021
tert-Amyl methyl ether	*	2.0		ND						06/08/2021
tert-Butyl alcohol	*	10.0		ND						06/08/2021
tert-Butylbenzene	*	2.0		ND						06/08/2021
Tetrachloroethene	*	0.5		ND						06/08/2021
Tetrahydrofuran	*	5.0		ND						06/08/2021
Toluene	*	2.0		ND						06/08/2021
trans-1,2-Dichloroethene	*	2.0		ND						06/08/2021
trans-1,3-Dichloropropene	*	2.0		ND						06/08/2021
trans-1,4-Dichloro-2-butene	*	2.0		ND						06/08/2021
Trichloroethene	*	2.0		ND						06/08/2021
Trichlorofluoromethane	*	5.0		ND						06/08/2021
Vinyl acetate	*	5.0		ND						06/08/2021
Vinyl chloride	*	2.0		ND						06/08/2021
Xylenes, Total	*	4.0		ND						06/08/2021
1,2-Dichloroethene, Total	*	4.0		ND						06/08/2021
1,3-Dichloropropene, Total	*	4.0		ND						06/08/2021
1,4-Dichloro-2-butene, Total	*	4.0		ND						06/08/2021
TPH - GRO (C6 - C10)	*	500		ND						06/08/2021
Surr: 1,2-Dichloroethane-d4	*			51.0	50.00		102.0	80	120	06/08/2021
Surr: 4-Bromofluorobenzene	*			51.0	50.00		102.0	80	120	06/08/2021
Surr: Toluene-d8	*			50.5	50.00		101.1	80	120	06/08/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178673 **SampType:** LCS

Units µg/L

SampID: LCS-AK210608A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		53.7	50.00	0	107.4	82	113	06/08/2021
1,1,1-Trichloroethane	*	2.0		51.0	50.00	0	101.9	76.9	128	06/08/2021
1,1,2,2-Tetrachloroethane	*	2.0		53.8	50.00	0	107.6	76.7	113	06/08/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		48.4	50.00	0	96.8	69.5	127	06/08/2021
1,1,2-Trichloroethane	*	0.5		52.6	50.00	0	105.2	83.8	111	06/08/2021
1,1-Dichloro-2-propanone	*	30.0		127	125.0	0	101.4	74.9	117	06/08/2021
1,1-Dichloroethane	*	2.0		51.5	50.00	0	103.0	77	129	06/08/2021
1,1-Dichloroethene	*	2.0		50.2	50.00	0	100.5	69.4	127	06/08/2021
1,1-Dichloropropene	*	2.0		51.1	50.00	0	102.2	75.1	123	06/08/2021
1,2,3-Trichlorobenzene	*	2.0		55.3	50.00	0	110.6	77.3	121	06/08/2021
1,2,3-Trichloropropane	*	2.0		52.4	50.00	0	104.9	75.3	109	06/08/2021
1,2,3-Trimethylbenzene	*	2.0		55.1	50.00	0	110.1	77	115	06/08/2021
1,2,4-Trichlorobenzene	*	2.0		56.4	50.00	0	112.9	76.8	124	06/08/2021
1,2,4-Trimethylbenzene	*	2.0		56.3	50.00	0	112.6	75	115	06/08/2021
1,2-Dibromo-3-chloropropane	*	5.0		53.3	50.00	0	106.5	71.9	119	06/08/2021
1,2-Dibromoethane	*	2.0		54.4	50.00	0	108.9	83.6	110	06/08/2021
1,2-Dichlorobenzene	*	2.0		51.4	50.00	0	102.9	72.1	113	06/08/2021
1,2-Dichloroethane	*	2.0		47.9	50.00	0	95.8	72.3	117	06/08/2021
1,2-Dichloropropane	*	2.0		52.8	50.00	0	105.7	76.5	119	06/08/2021
1,3,5-Trimethylbenzene	*	2.0		55.7	50.00	0	111.5	75.2	117	06/08/2021
1,3-Dichlorobenzene	*	2.0		53.8	50.00	0	107.7	75.2	115	06/08/2021
1,3-Dichloropropane	*	2.0		53.2	50.00	0	106.4	80.9	110	06/08/2021
1,4-Dichlorobenzene	*	2.0		51.6	50.00	0	103.2	73.9	112	06/08/2021
1-Chlorobutane	*	5.0		52.7	50.00	0	105.4	74.9	130	06/08/2021
2,2-Dichloropropane	*	2.0		56.3	50.00	0	112.7	66.5	138	06/08/2021
2-Butanone	*	10.0		132	125.0	0	105.2	68.8	134	06/08/2021
2-Chloroethyl vinyl ether	*	5.0		54.2	50.00	0	108.3	17.8	163	06/08/2021
2-Chlorotoluene	*	2.0		53.7	50.00	0	107.3	74.9	115	06/08/2021
2-Hexanone	*	10.0		139	125.0	0	111.4	73.2	117	06/08/2021
2-Nitropropane	*	10.0		529	500.0	0	105.8	67.1	140	06/08/2021
4-Chlorotoluene	*	2.0		56.0	50.00	0	111.9	75.7	113	06/08/2021
4-Methyl-2-pentanone	*	10.0		137	125.0	0	109.8	77	113	06/08/2021
Acetone	*	10.0		124	125.0	0	99.5	61.4	130	06/08/2021
Acetonitrile	*	10.0		544	500.0	0	108.8	68.8	136	06/08/2021
Acrolein	*	20.0		545	500.0	0	108.9	28.4	168	06/08/2021
Acrylonitrile	*	5.0		53.7	50.00	0	107.5	77.9	124	06/08/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178673 SampType: LCS

Units µg/L

SampID: LCS-AK210608A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		56.3	50.00	0	112.6	75.8	130	06/08/2021
Benzene	*	0.5		50.0	50.00	0	100.1	78.5	119	06/08/2021
Bromobenzene	*	2.0		52.7	50.00	0	105.4	77.5	113	06/08/2021
Bromochloromethane	*	2.0		48.9	50.00	0	97.7	71.5	123	06/08/2021
Bromodichloromethane	*	2.0		55.1	50.00	0	110.2	75.7	123	06/08/2021
Bromoform	*	2.0		47.6	50.00	0	95.3	78.9	121	06/08/2021
Bromomethane	*	5.0	B	95.3	50.00	0	190.7	30.5	192	06/08/2021
Carbon disulfide	*	2.0		49.4	50.00	0	98.7	66.7	121	06/08/2021
Carbon tetrachloride	*	2.0		51.6	50.00	0	103.1	70.9	127	06/08/2021
Chlorobenzene	*	2.0		51.5	50.00	0	102.9	80	111	06/08/2021
Chloroethane	*	2.0		49.1	50.00	0	98.2	69.6	135	06/08/2021
Chloroform	*	2.0		50.5	50.00	0	101.1	76.2	120	06/08/2021
Chloromethane	*	5.0		44.8	50.00	0	89.5	50.9	138	06/08/2021
Chloroprene	*	5.0		54.2	50.00	0	108.4	68.4	127	06/08/2021
cis-1,2-Dichloroethene	*	2.0		52.1	50.00	0	104.2	79.5	121	06/08/2021
cis-1,3-Dichloropropene	*	2.0		55.4	50.00	0	110.9	79.8	123	06/08/2021
cis-1,4-Dichloro-2-butene	*	2.0		57.3	50.00	0	114.6	64.6	130	06/08/2021
Cyclohexanone	*	20.0		567	500.0	0	113.4	70.5	114	06/08/2021
Dibromochloromethane	*	2.0		55.9	50.00	0	111.8	84.5	114	06/08/2021
Dibromomethane	*	2.0		51.8	50.00	0	103.5	76	119	06/08/2021
Dichlorodifluoromethane	*	2.0		44.6	50.00	0	89.3	46.6	142	06/08/2021
Diisopropyl ether	*	2.0		54.9	50.00	0	109.8	72	128	06/08/2021
Ethyl acetate	*	10.0		50.6	50.00	0	101.2	70.3	115	06/08/2021
Ethyl ether	*	5.0		54.0	50.00	0	108.1	74.6	120	06/08/2021
Ethyl methacrylate	*	5.0		52.8	50.00	0	105.7	81.4	116	06/08/2021
Ethylbenzene	*	2.0		53.8	50.00	0	107.5	78.2	114	06/08/2021
Ethyl-tert-butyl ether	*	2.0		55.7	50.00	0	111.4	74.6	124	06/08/2021
Hexachlorobutadiene	*	5.0		53.4	50.00	0	106.9	73.9	129	06/08/2021
Hexachloroethane	*	5.0		45.2	50.00	0	90.4	78.3	123	06/08/2021
Iodomethane	*	5.0		43.5	50.00	0	86.9	50	151	06/08/2021
Isopropylbenzene	*	2.0		56.3	50.00	0	112.6	79.3	115	06/08/2021
m,p-Xylenes	*	2.0		106	100.0	0	105.9	77.2	116	06/08/2021
Methacrylonitrile	*	5.0		55.1	50.00	0	110.2	73.9	127	06/08/2021
Methyl Methacrylate	*	5.0		54.7	50.00	0	109.4	70.7	129	06/08/2021
Methyl tert-butyl ether	*	2.0		53.3	50.00	0	106.6	80.3	122	06/08/2021
Methylacrylate	*	5.0		54.0	50.00	0	108.1	75.2	124	06/08/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178673		SampType: LCS		Units µg/L							Date
SampID: LCS-AK210608A-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed	
Methylene chloride	*	2.0		45.5	50.00	0	91.0	71.8	115	06/08/2021	
Naphthalene	*	5.0		49.0	50.00	0	98.0	75.6	121	06/08/2021	
n-Butyl acetate	*	2.0		56.9	50.00	0	113.8	72.4	118	06/08/2021	
n-Butylbenzene	*	2.0		55.6	50.00	0	111.3	70.8	118	06/08/2021	
n-Heptane	*	5.0		51.5	50.00	0	103.0	50.4	143	06/08/2021	
n-Hexane	*	5.0		48.1	50.00	0	96.1	60.6	139	06/08/2021	
Nitrobenzene	*	50.0		522	500.0	0	104.4	49.4	129	06/08/2021	
n-Propylbenzene	*	2.0		55.4	50.00	0	110.7	74	119	06/08/2021	
o-Xylene	*	2.0		53.4	50.00	0	106.9	79.2	112	06/08/2021	
Pentachloroethane	*	5.0		49.2	50.00	0	98.3	71.8	124	06/08/2021	
p-Isopropyltoluene	*	2.0		55.5	50.00	0	111.0	74.4	119	06/08/2021	
Propionitrile	*	10.0		540	500.0	0	107.9	76.2	127	06/08/2021	
sec-Butylbenzene	*	2.0		55.2	50.00	0	110.4	74.4	119	06/08/2021	
Styrene	*	2.0		57.0	50.00	0	114.1	80.4	117	06/08/2021	
tert-Amyl methyl ether	*	2.0		53.7	50.00	0	107.5	80.8	125	06/08/2021	
tert-Butyl alcohol	*	10.0		255	250.0	0	101.9	64.9	118	06/08/2021	
tert-Butylbenzene	*	2.0		56.4	50.00	0	112.8	74	115	06/08/2021	
Tetrachloroethene	*	0.5		50.0	50.00	0	100.1	70.1	120	06/08/2021	
Tetrahydrofuran	*	5.0		47.0	50.00	0	94.0	63.5	122	06/08/2021	
Toluene	*	2.0		51.4	50.00	0	102.9	78.6	112	06/08/2021	
trans-1,2-Dichloroethene	*	2.0		50.5	50.00	0	101.0	75.7	130	06/08/2021	
trans-1,3-Dichloropropene	*	2.0		55.7	50.00	0	111.4	80.3	116	06/08/2021	
trans-1,4-Dichloro-2-butene	*	2.0		58.2	50.00	0	116.4	65.5	124	06/08/2021	
Trichloroethene	*	2.0		50.2	50.00	0	100.4	76.2	121	06/08/2021	
Trichlorofluoromethane	*	5.0		46.5	50.00	0	92.9	71.1	131	06/08/2021	
Vinyl acetate	*	5.0		52.3	50.00	0	104.5	79.8	129	06/08/2021	
Vinyl chloride	*	2.0		50.0	50.00	0	99.9	58.6	141	06/08/2021	
Xylenes, Total	*	4.0		159	150.0	0	106.2	78.3	114	06/08/2021	
1,2-Dichloroethene, Total	*	4.0		103	100.0	0	102.6	78.5	125	06/08/2021	
1,3-Dichloropropene, Total	*	4.0		111	100.0	0	111.1	82.3	117	06/08/2021	
1,4-Dichloro-2-butene, Total	*	4.0		116	100.0	0	115.5	65.9	126	06/08/2021	
Surr: 1,2-Dichloroethane-d4	*			49.9	50.00		99.9	80	120	06/08/2021	
Surr: 4-Bromofluorobenzene	*			49.9	50.00		99.9	80	120	06/08/2021	
Surr: Toluene-d8	*			50.6	50.00		101.1	80	120	06/08/2021	

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178673	SampType: LCSD	Units µg/L							RPD Limit 15.4		Date
SampID: LCSD-AK210608A-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Analyzed	
1,1,1,2-Tetrachloroethane	*	2.0		52.7	50.00	0	105.3	53.68	1.90	06/08/2021	
1,1,1-Trichloroethane	*	2.0		49.8	50.00	0	99.7	50.96	2.22	06/08/2021	
1,1,2,2-Tetrachloroethane	*	2.0		53.3	50.00	0	106.6	53.80	0.93	06/08/2021	
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		46.4	50.00	0	92.8	48.41	4.20	06/08/2021	
1,1,2-Trichloroethane	*	0.5		51.5	50.00	0	103.0	52.62	2.13	06/08/2021	
1,1-Dichloro-2-propanone	*	30.0		124	125.0	0	99.5	126.8	1.89	06/08/2021	
1,1-Dichloroethane	*	2.0		50.9	50.00	0	101.8	51.52	1.21	06/08/2021	
1,1-Dichloroethene	*	2.0		48.9	50.00	0	97.7	50.23	2.77	06/08/2021	
1,1-Dichloropropene	*	2.0		49.6	50.00	0	99.2	51.12	2.98	06/08/2021	
1,2,3-Trichlorobenzene	*	2.0		54.9	50.00	0	109.7	55.32	0.83	06/08/2021	
1,2,3-Trichloropropane	*	2.0		51.8	50.00	0	103.6	52.45	1.25	06/08/2021	
1,2,3-Trimethylbenzene	*	2.0		54.3	50.00	0	108.6	55.07	1.39	06/08/2021	
1,2,4-Trichlorobenzene	*	2.0		55.8	50.00	0	111.5	56.45	1.21	06/08/2021	
1,2,4-Trimethylbenzene	*	2.0		55.3	50.00	0	110.6	56.31	1.85	06/08/2021	
1,2-Dibromo-3-chloropropane	*	5.0		52.1	50.00	0	104.3	53.27	2.16	06/08/2021	
1,2-Dibromoethane	*	2.0		53.4	50.00	0	106.7	54.44	1.98	06/08/2021	
1,2-Dichlorobenzene	*	2.0		51.1	50.00	0	102.3	51.43	0.57	06/08/2021	
1,2-Dichloroethane	*	2.0		47.4	50.00	0	94.9	47.92	0.99	06/08/2021	
1,2-Dichloropropane	*	2.0		52.1	50.00	0	104.2	52.85	1.39	06/08/2021	
1,3,5-Trimethylbenzene	*	2.0		54.7	50.00	0	109.3	55.74	1.94	06/08/2021	
1,3-Dichlorobenzene	*	2.0		53.0	50.00	0	106.1	53.85	1.50	06/08/2021	
1,3-Dichloropropane	*	2.0		52.3	50.00	0	104.6	53.18	1.63	06/08/2021	
1,4-Dichlorobenzene	*	2.0		50.9	50.00	0	101.8	51.59	1.35	06/08/2021	
1-Chlorobutane	*	5.0		51.3	50.00	0	102.5	52.71	2.79	06/08/2021	
2,2-Dichloropropane	*	2.0		55.2	50.00	0	110.3	56.33	2.10	06/08/2021	
2-Butanone	*	10.0		129	125.0	0	103.4	131.6	1.75	06/08/2021	
2-Chloroethyl vinyl ether	*	5.0		52.6	50.00	0	105.2	54.16	2.88	06/08/2021	
2-Chlorotoluene	*	2.0		53.0	50.00	0	106.1	53.67	1.20	06/08/2021	
2-Hexanone	*	10.0		134	125.0	0	107.5	139.2	3.55	06/08/2021	
2-Nitropropane	*	10.0		511	500.0	0	102.3	529.0	3.39	06/08/2021	
4-Chlorotoluene	*	2.0		55.2	50.00	0	110.5	55.96	1.29	06/08/2021	
4-Methyl-2-pentanone	*	10.0		133	125.0	0	106.7	137.2	2.83	06/08/2021	
Acetone	*	10.0		119	125.0	0	95.2	124.4	4.37	06/08/2021	
Acetonitrile	*	10.0		520	500.0	0	103.9	544.1	4.60	06/08/2021	
Acrolein	*	20.0		532	500.0	0	106.5	544.7	2.31	06/08/2021	
Acrylonitrile	*	5.0		51.9	50.00	0	103.8	53.73	3.50	06/08/2021	

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178673		SampType: LCSD		Units µg/L				RPD Limit 15.4		
SampID: LCSD-AK210608A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Allyl chloride	*	5.0		55.5	50.00	0	111.0	56.30	1.45	06/08/2021
Benzene	*	0.5		48.9	50.00	0	97.7	50.04	2.39	06/08/2021
Bromobenzene	*	2.0		52.6	50.00	0	105.2	52.70	0.17	06/08/2021
Bromochloromethane	*	2.0		47.8	50.00	0	95.6	48.87	2.23	06/08/2021
Bromodichloromethane	*	2.0		54.2	50.00	0	108.4	55.11	1.65	06/08/2021
Bromoform	*	2.0		46.5	50.00	0	93.1	47.65	2.36	06/08/2021
Bromomethane	*	5.0	BS	98.0	50.00	0	196.1	95.34	2.79	06/08/2021
Carbon disulfide	*	2.0		48.1	50.00	0	96.1	49.35	2.63	06/08/2021
Carbon tetrachloride	*	2.0		50.1	50.00	0	100.1	51.57	2.97	06/08/2021
Chlorobenzene	*	2.0		50.4	50.00	0	100.7	51.47	2.18	06/08/2021
Chloroethane	*	2.0		47.7	50.00	0	95.4	49.10	2.89	06/08/2021
Chloroform	*	2.0		49.7	50.00	0	99.4	50.54	1.66	06/08/2021
Chloromethane	*	5.0		42.0	50.00	0	83.9	44.75	6.41	06/08/2021
Chloroprene	*	5.0		52.7	50.00	0	105.4	54.20	2.84	06/08/2021
cis-1,2-Dichloroethene	*	2.0		51.2	50.00	0	102.4	52.08	1.68	06/08/2021
cis-1,3-Dichloropropene	*	2.0		54.6	50.00	0	109.1	55.43	1.60	06/08/2021
cis-1,4-Dichloro-2-butene	*	2.0		55.5	50.00	0	111.0	57.29	3.17	06/08/2021
Cyclohexanone	*	20.0		559	500.0	0	111.8	566.8	1.41	06/08/2021
Dibromochloromethane	*	2.0		54.9	50.00	0	109.8	55.90	1.82	06/08/2021
Dibromomethane	*	2.0		50.9	50.00	0	101.9	51.77	1.64	06/08/2021
Dichlorodifluoromethane	*	2.0		42.6	50.00	0	85.2	44.65	4.72	06/08/2021
Diisopropyl ether	*	2.0		54.3	50.00	0	108.6	54.89	1.04	06/08/2021
Ethyl acetate	*	10.0		47.4	50.00	0	94.9	50.59	6.45	06/08/2021
Ethyl ether	*	5.0		53.7	50.00	0	107.4	54.04	0.61	06/08/2021
Ethyl methacrylate	*	5.0		51.4	50.00	0	102.8	52.85	2.76	06/08/2021
Ethylbenzene	*	2.0		52.3	50.00	0	104.5	53.75	2.79	06/08/2021
Ethyl-tert-butyl ether	*	2.0		55.7	50.00	0	111.5	55.71	0.05	06/08/2021
Hexachlorobutadiene	*	5.0		52.2	50.00	0	104.5	53.44	2.29	06/08/2021
Hexachloroethane	*	5.0		44.5	50.00	0	89.0	45.19	1.49	06/08/2021
Iodomethane	*	5.0		47.5	50.00	0	94.9	43.47	8.78	06/08/2021
Isopropylbenzene	*	2.0		54.5	50.00	0	108.9	56.28	3.29	06/08/2021
m,p-Xylenes	*	2.0		103	100.0	0	103.1	105.9	2.71	06/08/2021
Methacrylonitrile	*	5.0		53.6	50.00	0	107.2	55.10	2.80	06/08/2021
Methyl Methacrylate	*	5.0		53.0	50.00	0	106.1	54.72	3.10	06/08/2021
Methyl tert-butyl ether	*	2.0		52.9	50.00	0	105.7	53.28	0.79	06/08/2021
Methylacrylate	*	5.0		52.4	50.00	0	104.9	54.05	3.04	06/08/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	SampType:	Units		RPD Limit						
178673	LCSD	µg/L		15.4						
SampID: LCSD-AK210608A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Methylene chloride	*	2.0		44.8	50.00	0	89.7	45.52	1.48	06/08/2021
Naphthalene	*	5.0		49.0	50.00	0	97.9	48.98	0.04	06/08/2021
n-Butyl acetate	*	2.0		55.6	50.00	0	111.1	56.89	2.35	06/08/2021
n-Butylbenzene	*	2.0		54.0	50.00	0	108.0	55.63	2.97	06/08/2021
n-Heptane	*	5.0		48.0	50.00	0	95.9	51.49	7.12	06/08/2021
n-Hexane	*	5.0		44.3	50.00	0	88.6	48.07	8.19	06/08/2021
Nitrobenzene	*	50.0		504	500.0	0	100.7	522.2	3.61	06/08/2021
n-Propylbenzene	*	2.0		54.2	50.00	0	108.4	55.37	2.15	06/08/2021
o-Xylene	*	2.0		52.2	50.00	0	104.5	53.43	2.25	06/08/2021
Pentachloroethane	*	5.0		48.8	50.00	0	97.5	49.16	0.82	06/08/2021
p-Isopropyltoluene	*	2.0		54.4	50.00	0	108.9	55.49	1.91	06/08/2021
Propionitrile	*	10.0		522	500.0	0	104.4	539.6	3.34	06/08/2021
sec-Butylbenzene	*	2.0		54.1	50.00	0	108.1	55.21	2.09	06/08/2021
Styrene	*	2.0		55.8	50.00	0	111.7	57.04	2.11	06/08/2021
tert-Amyl methyl ether	*	2.0		53.6	50.00	0	107.2	53.74	0.24	06/08/2021
tert-Butyl alcohol	*	10.0		251	250.0	0	100.4	254.6	1.47	06/08/2021
tert-Butylbenzene	*	2.0		55.2	50.00	0	110.4	56.41	2.15	06/08/2021
Tetrachloroethene	*	0.5		48.1	50.00	0	96.3	50.03	3.85	06/08/2021
Tetrahydrofuran	*	5.0		45.6	50.00	0	91.1	46.99	3.07	06/08/2021
Toluene	*	2.0		50.4	50.00	0	100.9	51.45	1.98	06/08/2021
trans-1,2-Dichloroethene	*	2.0		49.3	50.00	0	98.6	50.50	2.36	06/08/2021
trans-1,3-Dichloropropene	*	2.0		54.7	50.00	0	109.4	55.69	1.79	06/08/2021
trans-1,4-Dichloro-2-butene	*	2.0		56.8	50.00	0	113.7	58.22	2.42	06/08/2021
Trichloroethene	*	2.0		48.9	50.00	0	97.8	50.19	2.62	06/08/2021
Trichlorofluoromethane	*	5.0		44.5	50.00	0	89.0	46.47	4.38	06/08/2021
Vinyl acetate	*	5.0		51.6	50.00	0	103.2	52.27	1.29	06/08/2021
Vinyl chloride	*	2.0		47.3	50.00	0	94.6	49.96	5.45	06/08/2021
Xylenes, Total	*	4.0		155	150.0	0	103.6	159.4	2.55	06/08/2021
1,2-Dichloroethene, Total	*	4.0		101	100.0	0	100.5	102.6	2.02	06/08/2021
1,3-Dichloropropene, Total	*	4.0		109	100.0	0	109.2	111.1	1.70	06/08/2021
1,4-Dichloro-2-butene, Total	*	4.0		112	100.0	0	112.3	115.5	2.79	06/08/2021
Surr: 1,2-Dichloroethane-d4	*			49.5	50.00		99.1			06/08/2021
Surr: 4-Bromofluorobenzene	*			50.5	50.00		101.0			06/08/2021
Surr: Toluene-d8	*			50.6	50.00		101.2			06/08/2021



Receiving Check List

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060366

Client Project: 128487 GSA

Report Date: 11-Jun-21

Carrier: Alec Rebbe

Received By: MEK

Completed by: (b) (6)

Reviewed by: (b) (6)

On:

On:

04-Jun-21

04-Jun-21

Mary E. Kemp

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes No Not Present Temp °C **5.0**
- Type of thermal preservation? None Ice Blue Ice Dry Ice
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Reported field parameters measured: Field Lab NA
- Container/Temp Blank temperature in compliance? Yes No

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- Water – at least one vial per sample has zero headspace? Yes No No VOA vials
- Water - TOX containers have zero headspace? Yes No No TOX containers
- Water - pH acceptable upon receipt? Yes No NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes No NA

Any No responses must be detailed below or on the COC.

pH strip #76747. - EEP/MKemp - 6/4/2021 5:03:09 PM

Trip Blank collection date and time will be reported as the received date and time (end of trip). - ehurley - 6/4/2021 6:01:48 PM

21060366

Burns & McDonnell Engineering
425 South Woods Mill Road
Chesterfield, Missouri 63017
Phone: (314) 682-1500 Fax: (314) 682-1600
Attention: JUSTIN CARTER
SCARTER@BurnsMcd.com

Laboratory: TELENA LOWE
Address: 5445 HORSESHOE LANE RD
City/State/Zip: COLLINGSVILLE, IL 62234
Telephone: 618-344-1004

Document Control No: 128487-001

Lab. Reference No. or Episode No.:

Project Number: 128487

Sample Type

Client Name: GSA

Matrix

Sample Number			Sample Event		Sample Depth (in feet)		Sample Collected		Matrix			Number of Containers	Analysis	Remarks			
Group or SWMU Name	Sample Point	Sample Designator	Round	Year	From	To	Date	Time	Liquid	Solid	Gas						
<u>RWSR-01</u>				<u>2021</u>			<u>6/04/21</u>	<u>850</u>	<u>X</u>			<u>5</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>21060366-001</u>
<u>RWSR-02</u>				<u>2021</u>			<u>6/03/21</u>	<u>1505</u>	<u>X</u>			<u>5</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>002</u>
<u>RWSR-03</u>				<u>2021</u>			<u>6/04/21</u>	<u>1335</u>	<u>X</u>			<u>5</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>003</u>
<u>TB-01</u>									<u>X</u>			<u>2</u>				<u>X</u>	<u>004</u>

Analysis

BWAs

PcBs

Metals Total

PAHs TPH GPC

Volatiles

Courier

Sampler (signature): [Redacted]

Sampler (signature):

Special Instructions:

Relinquished By (signature): B. Lockwood

Date/Time: 6/04

Received By (signature): [Redacted]

Date/Time: 6/10/21

Ice Present in Container: Yes No

Temperature Upon Receipt: 5.0 DEG

Relinquished By (signature): [Redacted]

Date/Time: 6/14/21 4:00

Received By (signature): [Redacted]

Date/Time: 6/14/21 16:20

Laboratory Comments:

zero HS. pH 7.6747

June 17, 2021

Justin Carter
Burns & McDonnell Waste Consultants
9400 Ward Parkway
P.O. Box 419173
Kansas City, MO 64114
TEL: (816) 333-9400
FAX: (816) 822-3494



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: 128487

WorkOrder: 21060675

Dear Justin Carter:

TEKLAB, INC received 3 samples on 6/9/2021 2:30:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

(b) (6)

Emily Pohlman
Project Manager
(618)344-1004 ex 44
epohlman@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	18
Dates Report	19
Quality Control Results	20
Receiving Check List	37
Chain of Custody	Appended

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



Case Narrative

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Cooler Receipt Temp: 0.6 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415

Phone (217) 698-1004

Fax (217) 698-1005

Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515

Phone (630) 324-6855

Fax

Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214

Phone (913) 541-1998

Fax (913) 541-1998

Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Lab ID: 21060675-001

Client Sample ID: TB-02

Matrix: TRIP BLANK

Collection Date: 06/09/2021 14:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/10/2021 14:38	178751
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/10/2021 14:38	178751
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/10/2021 14:38	178751
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/10/2021 14:38	178751
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/10/2021 14:38	178751
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/10/2021 14:38	178751
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
2-Butanone	NELAP	10.0		ND	µg/L	1	06/10/2021 14:38	178751
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/10/2021 14:38	178751
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/10/2021 14:38	178751
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/10/2021 14:38	178751
Acetone	NELAP	10.0		ND	µg/L	1	06/10/2021 14:38	178751
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/10/2021 14:38	178751
Acrolein	NELAP	20.0		ND	µg/L	1	06/10/2021 14:38	178751
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Benzene	NELAP	0.5		ND	µg/L	1	06/10/2021 14:38	178751
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Bromoform	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Bromomethane	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Lab ID: 21060675-001

Client Sample ID: TB-02

Matrix: TRIP BLANK

Collection Date: 06/09/2021 14:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Chloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Chloroform	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Chloromethane	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Chloroprene	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Cyclohexanone	*	20.0		ND	µg/L	1	06/10/2021 14:38	178751
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Diisopropyl ether	*	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/10/2021 14:38	178751
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Iodomethane	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Naphthalene	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
n-Butyl acetate	*	2.0		ND	µg/L	1	06/10/2021 14:38	178751
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
n-Heptane	*	5.0		ND	µg/L	1	06/10/2021 14:38	178751
n-Hexane	*	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/10/2021 14:38	178751
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
o-Xylene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Propionitrile	NELAP	10.0		ND	µg/L	1	06/10/2021 14:38	178751
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Styrene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/10/2021 14:38	178751
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/10/2021 14:38	178751
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/10/2021 14:38	178751
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Lab ID: 21060675-001

Client Sample ID: TB-02

Matrix: TRIP BLANK

Collection Date: 06/09/2021 14:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Toluene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/10/2021 14:38	178751
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/10/2021 14:38	178751
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/10/2021 14:38	178751
Surr: 1,2-Dichloroethane-d4	*	80-120		101.1	%REC	1	06/10/2021 14:38	178751
Surr: 4-Bromofluorobenzene	*	80-120		105.3	%REC	1	06/10/2021 14:38	178751
Surr: Toluene-d8	*	80-120		98.4	%REC	1	06/10/2021 14:38	178751

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Lab ID: 21060675-002

Client Sample ID: RINSE-04

Matrix: AQUEOUS

Collection Date: 06/07/2021 11:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/15/2021 20:19	178841
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/15/2021 20:19	178841
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/15/2021 20:19	178841
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/15/2021 20:19	178841
Zinc	NELAP	0.0100		< 0.0100	mg/L	1	06/15/2021 20:19	178841
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/14/2021 16:44	178828
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/14/2021 16:44	178828
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/14/2021 16:44	178828
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/14/2021 16:44	178828
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/14/2021 16:44	178828
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/14/2021 16:44	178828
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/14/2021 16:44	178828
Surr: Decachlorobiphenyl	*	10-152		44.6	%REC	1	06/14/2021 16:44	178828
Surr: Tetrachloro-meta-xylene	*	9.73-128		75.6	%REC	1	06/14/2021 16:44	178828
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Acenaphthylene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Anthracene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Benzo(a)anthracene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Benzo(a)pyrene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Benzo(b)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Benzo(g,h,i)perylene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Benzo(k)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Chrysene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Dibenzo(a,h)anthracene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Fluoranthene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Fluorene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Indeno(1,2,3-cd)pyrene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Naphthalene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Phenanthrene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Pyrene	NELAP	0.00100		ND	mg/L	1	06/11/2021 13:45	178787
Surr: 2-Fluorobiphenyl	*	1.39-137		65.3	%REC	1	06/11/2021 13:45	178787
Surr: Nitrobenzene-d5	*	29.1-125		80.4	%REC	1	06/11/2021 13:45	178787
Surr: p-Terphenyl-d14	*	35.2-164		98.0	%REC	1	06/11/2021 13:45	178787
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/10/2021 15:04	178751
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/10/2021 15:04	178751
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/10/2021 15:04	178751
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Lab ID: 21060675-002

Client Sample ID: RINSE-04

Matrix: AQUEOUS

Collection Date: 06/07/2021 11:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/10/2021 15:04	178751
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/10/2021 15:04	178751
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/10/2021 15:04	178751
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
2-Butanone	NELAP	10.0		ND	µg/L	1	06/10/2021 15:04	178751
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/10/2021 15:04	178751
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/10/2021 15:04	178751
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/10/2021 15:04	178751
Acetone	NELAP	10.0		ND	µg/L	1	06/10/2021 15:04	178751
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/10/2021 15:04	178751
Acrolein	NELAP	20.0		ND	µg/L	1	06/10/2021 15:04	178751
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Benzene	NELAP	0.5		ND	µg/L	1	06/10/2021 15:04	178751
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Bromoform	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Bromomethane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Chloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Chloroform	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Chloromethane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Chloroprene	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Cyclohexanone	*	20.0		ND	µg/L	1	06/10/2021 15:04	178751
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Lab ID: 21060675-002

Client Sample ID: RINSE-04

Matrix: AQUEOUS

Collection Date: 06/07/2021 11:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Diisopropyl ether	*	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/10/2021 15:04	178751
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Iodomethane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Naphthalene	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
n-Butyl acetate	*	2.0		ND	µg/L	1	06/10/2021 15:04	178751
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
n-Heptane	*	5.0		ND	µg/L	1	06/10/2021 15:04	178751
n-Hexane	*	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/10/2021 15:04	178751
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
o-Xylene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Propionitrile	NELAP	10.0		ND	µg/L	1	06/10/2021 15:04	178751
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Styrene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/10/2021 15:04	178751
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/10/2021 15:04	178751
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/10/2021 15:04	178751
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Toluene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/10/2021 15:04	178751
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/10/2021 15:04	178751
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/10/2021 15:04	178751
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/10/2021 15:04	178751
Surr: 1,2-Dichloroethane-d4	*	80-120		102.1	%REC	1	06/10/2021 15:04	178751



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Lab ID: 21060675-002

Client Sample ID: RINSE-04

Matrix: AQUEOUS

Collection Date: 06/07/2021 11:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 4-Bromofluorobenzene	*	80-120		105.9	%REC	1	06/10/2021 15:04	178751
Surr: Toluene-d8	*	80-120		98.8	%REC	1	06/10/2021 15:04	178751

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Lab ID: 21060675-003

Client Sample ID: RINSE-05

Matrix: AQUEOUS

Collection Date: 06/08/2021 7:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/15/2021 20:24	178841
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/15/2021 20:24	178841
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/15/2021 20:24	178841
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/15/2021 20:24	178841
Zinc	NELAP	0.0100		< 0.0100	mg/L	1	06/15/2021 20:24	178841
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/14/2021 17:01	178828
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/14/2021 17:01	178828
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/14/2021 17:01	178828
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/14/2021 17:01	178828
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/14/2021 17:01	178828
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/14/2021 17:01	178828
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/14/2021 17:01	178828
Surr: Decachlorobiphenyl	*	10-152		43.3	%REC	1	06/14/2021 17:01	178828
Surr: Tetrachloro-meta-xylene	*	9.73-128		73.7	%REC	1	06/14/2021 17:01	178828
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Acenaphthylene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Anthracene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Benzo(a)anthracene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Benzo(a)pyrene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Benzo(b)fluoranthene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Benzo(g,h,i)perylene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Benzo(k)fluoranthene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Chrysene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Dibenzo(a,h)anthracene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Fluoranthene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Fluorene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Indeno(1,2,3-cd)pyrene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Naphthalene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Phenanthrene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Pyrene	NELAP	0.00400		ND	mg/L	1	06/11/2021 14:22	178787
Surr: 2-Fluorobiphenyl	*	1.39-137		69.1	%REC	1	06/11/2021 14:22	178787
Surr: Nitrobenzene-d5	*	29.1-125		81.8	%REC	1	06/11/2021 14:22	178787
Surr: p-Terphenyl-d14	*	35.2-164		110.4	%REC	1	06/11/2021 14:22	178787
<i>Elevated reporting limit due to sample composition.</i>								
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/10/2021 15:30	178751
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/10/2021 15:30	178751
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/10/2021 15:30	178751
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Lab ID: 21060675-003

Client Sample ID: RINSE-05

Matrix: AQUEOUS

Collection Date: 06/08/2021 7:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/10/2021 15:30	178751
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/10/2021 15:30	178751
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/10/2021 15:30	178751
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
2-Butanone	NELAP	10.0		ND	µg/L	1	06/10/2021 15:30	178751
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/10/2021 15:30	178751
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/10/2021 15:30	178751
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/10/2021 15:30	178751
Acetone	NELAP	10.0		ND	µg/L	1	06/10/2021 15:30	178751
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/10/2021 15:30	178751
Acrolein	NELAP	20.0		ND	µg/L	1	06/10/2021 15:30	178751
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Benzene	NELAP	0.5		ND	µg/L	1	06/10/2021 15:30	178751
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Bromoform	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Bromomethane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Chloroethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Chloroform	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Chloromethane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Chloroprene	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Cyclohexanone	*	20.0		ND	µg/L	1	06/10/2021 15:30	178751

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Lab ID: 21060675-003

Client Sample ID: RINSE-05

Matrix: AQUEOUS

Collection Date: 06/08/2021 7:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Diisopropyl ether	*	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/10/2021 15:30	178751
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Iodomethane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Naphthalene	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
n-Butyl acetate	*	2.0		ND	µg/L	1	06/10/2021 15:30	178751
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
n-Heptane	*	5.0		ND	µg/L	1	06/10/2021 15:30	178751
n-Hexane	*	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/10/2021 15:30	178751
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
o-Xylene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Propionitrile	NELAP	10.0		ND	µg/L	1	06/10/2021 15:30	178751
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Styrene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/10/2021 15:30	178751
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/10/2021 15:30	178751
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/10/2021 15:30	178751
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Toluene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/10/2021 15:30	178751
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/10/2021 15:30	178751
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/10/2021 15:30	178751
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/10/2021 15:30	178751



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Lab ID: 21060675-003

Client Sample ID: RINSE-05

Matrix: AQUEOUS

Collection Date: 06/08/2021 7:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 1,2-Dichloroethane-d4	*	80-120		101.5	%REC	1	06/10/2021 15:30	178751
Surr: 4-Bromofluorobenzene	*	80-120		105.8	%REC	1	06/10/2021 15:30	178751
Surr: Toluene-d8	*	80-120		98.8	%REC	1	06/10/2021 15:30	178751



Sample Summary

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants
Client Project: 128487

Work Order: 21060675
Report Date: 17-Jun-21

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
21060675-001	TB-02	Trip Blank	1	06/09/2021 14:30
21060675-002	RINSE-04	Aqueous	4	06/07/2021 11:45
21060675-003	RINSE-05	Aqueous	4	06/08/2021 7:50



Dates Report

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
21060675-001A	TB-02	06/09/2021 14:30	06/09/2021 14:30		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		06/10/2021 14:38			
21060675-002A	RINSE-04	06/07/2021 11:45	06/09/2021 14:30		
SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD		06/14/2021 8:28 06/14/2021 16:44			
21060675-002B	RINSE-04	06/07/2021 11:45	06/09/2021 14:30		
SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS		06/11/2021 9:40 06/11/2021 13:45			
21060675-002C	RINSE-04	06/07/2021 11:45	06/09/2021 14:30		
SW-846 3005A, 6010B, Metals by ICP (Total)		06/14/2021 9:28 06/15/2021 20:19			
21060675-002D	RINSE-04	06/07/2021 11:45	06/09/2021 14:30		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		06/10/2021 15:04			
21060675-003A	RINSE-05	06/08/2021 7:50	06/09/2021 14:30		
SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD		06/14/2021 8:28 06/14/2021 17:01			
21060675-003B	RINSE-05	06/08/2021 7:50	06/09/2021 14:30		
SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS		06/11/2021 9:40 06/11/2021 14:22			
21060675-003C	RINSE-05	06/08/2021 7:50	06/09/2021 14:30		
SW-846 3005A, 6010B, Metals by ICP (Total)		06/14/2021 9:28 06/15/2021 20:24			
21060675-003D	RINSE-05	06/08/2021 7:50	06/09/2021 14:30		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		06/10/2021 15:30			

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)
Batch 178841 **SampType: MBLK** Units mg/L

SampID: MBLK-178841

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		< 0.0500	0.0068	0	0	-100	100	06/15/2021
Arsenic		0.0250		< 0.0250	0.0087	0	0	-100	100	06/15/2021
Copper		0.0050		< 0.0050	0.0013	0	0	-100	100	06/15/2021
Lead		0.0150		< 0.0150	0.0040	0	0	-100	100	06/15/2021
Zinc		0.0100		< 0.0100	0.0050	0	0	-100	100	06/15/2021

Batch 178841 **SampType: LCS** Units mg/L

SampID: LCS-178841

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		0.498	0.5000	0	99.6	85	115	06/15/2021
Arsenic		0.0250		0.537	0.5000	0	107.4	85	115	06/15/2021
Copper		0.0050		0.247	0.2500	0	98.8	85	115	06/15/2021
Lead		0.0150		0.504	0.5000	0	100.8	85	115	06/15/2021
Zinc		0.0100		0.507	0.5000	0	101.4	85	115	06/15/2021

Batch 178841 **SampType: MS** Units mg/L

SampID: 21060675-002CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		0.505	0.5000	0	101.0	75	125	06/15/2021
Arsenic		0.0250		0.542	0.5000	0	108.4	75	125	06/15/2021
Copper		0.0050		0.254	0.2500	0.001800	100.7	75	125	06/15/2021
Lead		0.0150		0.512	0.5000	0	102.3	75	125	06/15/2021
Zinc		0.0100		0.523	0.5000	0.006400	103.3	75	125	06/15/2021

Batch 178841 **SampType: MSD** Units mg/L

 RPD Limit **20**

SampID: 21060675-002CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Antimony		0.0500		0.504	0.5000	0	100.7	0.5051	0.28	06/15/2021
Arsenic		0.0250		0.531	0.5000	0	106.2	0.5419	2.01	06/15/2021
Copper		0.0050		0.248	0.2500	0.001800	98.4	0.2536	2.35	06/15/2021
Lead		0.0150		0.505	0.5000	0	101.0	0.5115	1.26	06/15/2021
Zinc		0.0100		0.513	0.5000	0.006400	101.4	0.5228	1.81	06/15/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD

Batch 178828 SampType: MBLK Units µg/L

SampID: MBLK-178828

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		1.00		ND						06/14/2021
Aroclor 1016		0.095		ND						06/14/2021
Aroclor 1221		0.095		ND						06/14/2021
Aroclor 1221		1.00		ND						06/14/2021
Aroclor 1232		0.095		ND						06/14/2021
Aroclor 1232		1.00		ND						06/14/2021
Aroclor 1242		0.095		ND						06/14/2021
Aroclor 1242		1.00		ND						06/14/2021
Aroclor 1248		0.095		ND						06/14/2021
Aroclor 1248		1.00		ND						06/14/2021
Aroclor 1254		0.095		ND						06/14/2021
Aroclor 1254		1.00		ND						06/14/2021
Aroclor 1260		0.095		ND						06/14/2021
Aroclor 1260		1.00		ND						06/14/2021
Surr: Decachlorobiphenyl	*			0.092	0.1250		73.5	31.2	141	06/14/2021
Surr: Decachlorobiphenyl	*			0.09	0.1250		73.5	27.5	143	06/14/2021
Surr: Decachlorobiphenyl	*			0.068	0.1250		54.2	31.2	141	06/15/2021
Surr: Tetrachloro-meta-xylene	*			0.15	0.1250		121.2	35.2	135	06/14/2021

Batch 178828 SampType: LCS Units µg/L

SampID: LCSPCB-178828

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		0.095		2.77	2.500	0	110.8	50	140	06/14/2021
Aroclor 1016		1.00		2.77	2.500	0	110.8	56.2	136	06/14/2021
Aroclor 1260		0.095		2.73	2.500	0	109.3	8	140	06/14/2021
Aroclor 1260		1.00		2.73	2.500	0	109.3	42.1	125	06/14/2021
Surr: Decachlorobiphenyl	*			0.12	0.1250		99.8	27.5	143	06/14/2021
Surr: Decachlorobiphenyl	*			0.125	0.1250		99.8	31.2	141	06/14/2021
Surr: Tetrachloro-meta-xylene	*			0.12	0.1250		98.6	35.2	135	06/14/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD

Batch 178828		SampType: LCSD		Units µg/L				RPD Limit 36			
SampID: LCSPCBD-178828											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Aroclor 1016		0.095		2.55	2.500	0	101.9	2.770	8.33	06/14/2021	
Aroclor 1016		1.00		2.55	2.500	0	101.9	2.770	8.33	06/14/2021	
Aroclor 1260		0.095		2.36	2.500	0	94.5	2.734	14.53	06/14/2021	
Aroclor 1260		1.00		2.36	2.500	0	94.5	2.734	14.53	06/14/2021	
Surr: Decachlorobiphenyl	*			0.109	0.1250		86.9			06/14/2021	
Surr: Decachlorobiphenyl	*			0.11	0.1250		86.9			06/14/2021	
Surr: Tetrachloro-meta-xylene	*			0.11	0.1250		87.5			06/14/2021	

Batch 178828		SampType: LCS		Units %REC							
SampID: LCSPST-178828											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Surr: Decachlorobiphenyl	*			0.101	0.1250		80.4	31.2	141	06/15/2021	

Batch 178828		SampType: LCSD		Units %REC				RPD Limit 0			
SampID: LCSPSTD-178828											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Surr: Decachlorobiphenyl	*			0.110	0.1250		87.7			06/15/2021	



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178787		SampType: MBLK		Units mg/L							
SampID: MBLK-178787										Date Analyzed	
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Acenaphthene		0.00100		ND						06/11/2021	
Acenaphthylene		0.00100		ND						06/11/2021	
Anthracene		0.00100		ND						06/11/2021	
Benzo(a)anthracene		0.00100		ND						06/11/2021	
Benzo(a)pyrene		0.00100		ND						06/11/2021	
Benzo(b)fluoranthene		0.00100		ND						06/11/2021	
Benzo(g,h,i)perylene		0.00100		ND						06/11/2021	
Benzo(k)fluoranthene		0.00100		ND						06/11/2021	
Chrysene		0.00100		ND						06/11/2021	
Dibenzo(a,h)anthracene		0.00100		ND						06/11/2021	
Fluoranthene		0.00100		ND						06/11/2021	
Fluorene		0.00100		ND						06/11/2021	
Indeno(1,2,3-cd)pyrene		0.00100		ND						06/11/2021	
Naphthalene		0.00100		ND						06/11/2021	
Phenanthrene		0.00100		ND						06/11/2021	
Pyrene		0.00100		ND						06/11/2021	
Surr: 2-Fluorobiphenyl	*			0.00663	0.0125		53.0	1.09	175	06/11/2021	
Surr: Nitrobenzene-d5	*			0.0101	0.0125		80.5	35.5	156	06/11/2021	
Surr: p-Terphenyl-d14	*			0.0125	0.0125		99.7	35	222	06/11/2021	



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178787 **SampType:** LCS **Units** mg/L
SampID: LCS-178787

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Acenaphthene		0.00100		0.00642	0.0100	0	64.2	39.6	145	06/11/2021
Acenaphthylene		0.00100		0.00636	0.0100	0	63.6	38.3	147	06/11/2021
Anthracene		0.00100		0.00758	0.0100	0	75.8	47.7	153	06/11/2021
Benzo(a)anthracene		0.00100		0.00686	0.0100	0	68.6	45	136	06/11/2021
Benzo(a)pyrene		0.00100		0.00827	0.0100	0	82.7	49.8	164	06/11/2021
Benzo(b)fluoranthene		0.00100		0.00778	0.0100	0	77.8	45.7	167	06/11/2021
Benzo(g,h,i)perylene		0.00100		0.00734	0.0100	0	73.4	41	157	06/11/2021
Benzo(k)fluoranthene		0.00100		0.00812	0.0100	0	81.2	46.7	166	06/11/2021
Chrysene		0.00100		0.00777	0.0100	0	77.7	45.5	162	06/11/2021
Dibenzo(a,h)anthracene		0.00100		0.00740	0.0100	0	74.0	40.4	154	06/11/2021
Fluoranthene		0.00100		0.00786	0.0100	0	78.6	47.3	168	06/11/2021
Fluorene		0.00100		0.00699	0.0100	0	69.9	45.2	153	06/11/2021
Indeno(1,2,3-cd)pyrene		0.00100		0.00728	0.0100	0	72.8	44.6	166	06/11/2021
Naphthalene		0.00100		0.00612	0.0100	0	61.2	16.6	137	06/11/2021
Phenanthrene		0.00100		0.00772	0.0100	0	77.2	50.8	149	06/11/2021
Pyrene		0.00100		0.00776	0.0100	0	77.6	44.9	163	06/11/2021
Surr: 2-Fluorobiphenyl	*			0.00737	0.0125		58.9	1.09	175	06/11/2021
Surr: Nitrobenzene-d5	*			0.00982	0.0125		78.6	35.5	156	06/11/2021
Surr: p-Terphenyl-d14	*			0.0121	0.0125		96.5	35	222	06/11/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178787		SampType: LCSD		Units mg/L				RPD Limit 40			Date Analyzed
SampID: LCSD-178787											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Acenaphthene		0.00100		0.00757	0.0100	0	75.7	0.006421	16.48	06/11/2021	
Acenaphthylene		0.00100		0.00752	0.0100	0	75.2	0.006362	16.74	06/11/2021	
Anthracene		0.00100		0.00785	0.0100	0	78.5	0.007583	3.50	06/11/2021	
Benzo(a)anthracene		0.00100		0.00745	0.0100	0	74.5	0.006859	8.28	06/11/2021	
Benzo(a)pyrene		0.00100		0.00870	0.0100	0	87.0	0.008273	5.00	06/11/2021	
Benzo(b)fluoranthene		0.00100		0.00853	0.0100	0	85.3	0.007784	9.15	06/11/2021	
Benzo(g,h,i)perylene		0.00100		0.00775	0.0100	0	77.5	0.007344	5.38	06/11/2021	
Benzo(k)fluoranthene		0.00100		0.00862	0.0100	0	86.2	0.008122	5.89	06/11/2021	
Chrysene		0.00100		0.00821	0.0100	0	82.1	0.007772	5.51	06/11/2021	
Dibenzo(a,h)anthracene		0.00100		0.00793	0.0100	0	79.3	0.007398	6.92	06/11/2021	
Fluoranthene		0.00100		0.00859	0.0100	0	85.9	0.007856	8.89	06/11/2021	
Fluorene		0.00100		0.00794	0.0100	0	79.4	0.006992	12.72	06/11/2021	
Indeno(1,2,3-cd)pyrene		0.00100		0.00772	0.0100	0	77.2	0.007279	5.85	06/11/2021	
Naphthalene		0.00100		0.00780	0.0100	0	78.0	0.006116	24.14	06/11/2021	
Phenanthrene		0.00100		0.00827	0.0100	0	82.7	0.007719	6.85	06/11/2021	
Pyrene		0.00100		0.00840	0.0100	0	84.0	0.007758	7.99	06/11/2021	
Surr: 2-Fluorobiphenyl	*			0.00740	0.0125		59.2			06/11/2021	
Surr: Nitrobenzene-d5	*			0.00983	0.0125		78.7			06/11/2021	
Surr: p-Terphenyl-d14	*			0.0128	0.0125		102.3			06/11/2021	

Batch 178787		SampType: LCSG		Units %REC				RPD Limit 40		Date Analyzed
SampID: LCSG-178787										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.00866	0.0125		69.3	1.09	175	06/11/2021
Surr: Nitrobenzene-d5	*			0.00995	0.0125		79.6	35.5	156	06/11/2021
Surr: p-Terphenyl-d14	*			0.0125	0.0125		99.8	35	222	06/11/2021

Batch 178787		SampType: LCSGD		Units %REC				RPD Limit 0		Date Analyzed
SampID: LCSGD-178787										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.00916	0.0125		73.3			06/11/2021
Surr: Nitrobenzene-d5	*			0.0106	0.0125		84.9			06/11/2021
Surr: p-Terphenyl-d14	*			0.0132	0.0125		105.5			06/11/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178787		SampType: MS		Units %REC						
SampID: 21060675-003BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.0382	0.0500		76.4	1.39	137	06/11/2021
Surr: Nitrobenzene-d5	*			0.0390	0.0500		78.0	29.1	125	06/11/2021
Surr: p-Terphenyl-d14	*			0.0534	0.0500		106.8	35.2	164	06/11/2021

Batch 178787		SampType: MSD		Units %REC							RPD Limit 0
SampID: 21060675-003BMMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Surr: 2-Fluorobiphenyl	*			0.0385	0.0500		76.9			06/11/2021	
Surr: Nitrobenzene-d5	*			0.0383	0.0500		76.6			06/11/2021	
Surr: p-Terphenyl-d14	*			0.0523	0.0500		104.6			06/11/2021	



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178751 **SampType:** MBLK **Units** µg/L

SampID: MBLK-AM210610a-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		ND						06/10/2021
1,1,1-Trichloroethane	*	2.0		ND						06/10/2021
1,1,2,2-Tetrachloroethane	*	2.0		ND						06/10/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND						06/10/2021
1,1,2-Trichloroethane	*	0.5		ND						06/10/2021
1,1-Dichloro-2-propanone	*	30.0		ND						06/10/2021
1,1-Dichloroethane	*	2.0		ND						06/10/2021
1,1-Dichloroethene	*	2.0		ND						06/10/2021
1,1-Dichloropropene	*	2.0		ND						06/10/2021
1,2,3-Trichlorobenzene	*	2.0		ND						06/10/2021
1,2,3-Trichloropropane	*	2.0		ND						06/10/2021
1,2,3-Trimethylbenzene	*	2.0		ND						06/10/2021
1,2,4-Trichlorobenzene	*	2.0		ND						06/10/2021
1,2,4-Trimethylbenzene	*	2.0		ND						06/10/2021
1,2-Dibromo-3-chloropropane	*	5.0		ND						06/10/2021
1,2-Dibromoethane	*	2.0		ND						06/10/2021
1,2-Dichlorobenzene	*	2.0		ND						06/10/2021
1,2-Dichloroethane	*	2.0		ND						06/10/2021
1,2-Dichloropropane	*	2.0		ND						06/10/2021
1,3,5-Trimethylbenzene	*	2.0		ND						06/10/2021
1,3-Dichlorobenzene	*	2.0		ND						06/10/2021
1,3-Dichloropropane	*	2.0		ND						06/10/2021
1,4-Dichlorobenzene	*	2.0		ND						06/10/2021
1-Chlorobutane	*	5.0		ND						06/10/2021
2,2-Dichloropropane	*	2.0		ND						06/10/2021
2-Butanone	*	10.0		ND						06/10/2021
2-Chloroethyl vinyl ether	*	5.0		ND						06/10/2021
2-Chlorotoluene	*	2.0		ND						06/10/2021
2-Hexanone	*	10.0		ND						06/10/2021
2-Nitropropane	*	10.0		ND						06/10/2021
4-Chlorotoluene	*	2.0		ND						06/10/2021
4-Methyl-2-pentanone	*	10.0		ND						06/10/2021
Acetone	*	10.0		ND						06/10/2021
Acetonitrile	*	10.0		ND						06/10/2021
Acrolein	*	20.0		ND						06/10/2021
Acrylonitrile	*	5.0		ND						06/10/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178751 **SampType:** MBLK **Units** µg/L
SampID: MBLK-AM210610a-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		ND						06/10/2021
Benzene	*	0.5		ND						06/10/2021
Bromobenzene	*	2.0		ND						06/10/2021
Bromochloromethane	*	2.0		ND						06/10/2021
Bromodichloromethane	*	2.0		ND						06/10/2021
Bromoform	*	2.0		ND						06/10/2021
Bromomethane	*	5.0		ND						06/10/2021
Carbon disulfide	*	2.0		ND						06/10/2021
Carbon tetrachloride	*	2.0		ND						06/10/2021
Chlorobenzene	*	2.0		ND						06/10/2021
Chloroethane	*	2.0		ND						06/10/2021
Chloroform	*	2.0		ND						06/10/2021
Chloromethane	*	5.0		ND						06/10/2021
Chloroprene	*	5.0		ND						06/10/2021
cis-1,2-Dichloroethene	*	2.0		ND						06/10/2021
cis-1,3-Dichloropropene	*	2.0		ND						06/10/2021
cis-1,4-Dichloro-2-butene	*	2.0		ND						06/10/2021
Cyclohexanone	*	20.0		ND						06/10/2021
Dibromochloromethane	*	2.0		ND						06/10/2021
Dibromomethane	*	2.0		ND						06/10/2021
Dichlorodifluoromethane	*	2.0		ND						06/10/2021
Diisopropyl ether	*	2.0		ND						06/10/2021
Ethyl acetate	*	10.0		ND						06/10/2021
Ethyl ether	*	5.0		ND						06/10/2021
Ethyl methacrylate	*	5.0		ND						06/10/2021
Ethylbenzene	*	2.0		ND						06/10/2021
Ethyl-tert-butyl ether	*	2.0		ND						06/10/2021
Hexachlorobutadiene	*	5.0		ND						06/10/2021
Hexachloroethane	*	5.0		ND						06/10/2021
Iodomethane	*	5.0		ND						06/10/2021
Isopropylbenzene	*	2.0		ND						06/10/2021
m,p-Xylenes	*	2.0		ND						06/10/2021
Methacrylonitrile	*	5.0		ND						06/10/2021
Methyl Methacrylate	*	5.0		ND						06/10/2021
Methyl tert-butyl ether	*	2.0		ND						06/10/2021
Methylacrylate	*	5.0		ND						06/10/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178751 **SampType:** MBLK **Units** µg/L
SampID: MBLK-AM210610a-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Methylene chloride	*	2.0		ND						06/10/2021
Naphthalene	*	5.0		ND						06/10/2021
n-Butyl acetate	*	2.0		ND						06/10/2021
n-Butylbenzene	*	2.0		ND						06/10/2021
n-Heptane	*	5.0		ND						06/10/2021
n-Hexane	*	5.0		ND						06/10/2021
Nitrobenzene	*	50.0		ND						06/10/2021
n-Propylbenzene	*	2.0		ND						06/10/2021
o-Xylene	*	2.0		ND						06/10/2021
Pentachloroethane	*	5.0		ND						06/10/2021
p-Isopropyltoluene	*	2.0		ND						06/10/2021
Propionitrile	*	10.0		ND						06/10/2021
sec-Butylbenzene	*	2.0		ND						06/10/2021
Styrene	*	2.0		ND						06/10/2021
tert-Amyl methyl ether	*	2.0		ND						06/10/2021
tert-Butyl alcohol	*	10.0		ND						06/10/2021
tert-Butylbenzene	*	2.0		ND						06/10/2021
Tetrachloroethene	*	0.5		ND						06/10/2021
Tetrahydrofuran	*	5.0		ND						06/10/2021
Toluene	*	2.0		ND						06/10/2021
trans-1,2-Dichloroethene	*	2.0		ND						06/10/2021
trans-1,3-Dichloropropene	*	2.0		ND						06/10/2021
trans-1,4-Dichloro-2-butene	*	2.0		ND						06/10/2021
Trichloroethene	*	2.0		ND						06/10/2021
Trichlorofluoromethane	*	5.0		ND						06/10/2021
Vinyl acetate	*	5.0		ND						06/10/2021
Vinyl chloride	*	2.0		ND						06/10/2021
Xylenes, Total	*	4.0		ND						06/10/2021
1,2-Dichloroethene, Total	*	4.0		ND						06/10/2021
1,3-Dichloropropene, Total	*	4.0		ND						06/10/2021
1,4-Dichloro-2-butene, Total	*	4.0		ND						06/10/2021
TPH - GRO (C6 - C10)	*	500		ND						06/10/2021
Surr: 1,2-Dichloroethane-d4	*			50.8	50.00		101.6	80	120	06/10/2021
Surr: 4-Bromofluorobenzene	*			52.1	50.00		104.3	80	120	06/10/2021
Surr: Toluene-d8	*			49.9	50.00		99.7	80	120	06/10/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178751 **SampType: LCS**

Units µg/L

SampID: LCS-AM210610A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		53.8	50.00	0	107.7	82	113	06/10/2021
1,1,1-Trichloroethane	*	2.0		53.3	50.00	0	106.6	76.9	128	06/10/2021
1,1,2,2-Tetrachloroethane	*	2.0		48.7	50.00	0	97.4	76.7	113	06/10/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		52.2	50.00	0	104.3	69.5	127	06/10/2021
1,1,2-Trichloroethane	*	0.5		52.2	50.00	0	104.4	83.8	111	06/10/2021
1,1-Dichloro-2-propanone	*	30.0		126	125.0	0	101.1	74.9	117	06/10/2021
1,1-Dichloroethane	*	2.0		52.9	50.00	0	105.8	77	129	06/10/2021
1,1-Dichloroethene	*	2.0		52.2	50.00	0	104.3	69.4	127	06/10/2021
1,1-Dichloropropene	*	2.0		53.1	50.00	0	106.2	75.1	123	06/10/2021
1,2,3-Trichlorobenzene	*	2.0		54.8	50.00	0	109.6	77.3	121	06/10/2021
1,2,3-Trichloropropane	*	2.0		48.7	50.00	0	97.4	75.3	109	06/10/2021
1,2,3-Trimethylbenzene	*	2.0		52.6	50.00	0	105.1	77	115	06/10/2021
1,2,4-Trichlorobenzene	*	2.0		55.1	50.00	0	110.2	76.8	124	06/10/2021
1,2,4-Trimethylbenzene	*	2.0		53.4	50.00	0	106.8	75	115	06/10/2021
1,2-Dibromo-3-chloropropane	*	5.0		50.8	50.00	0	101.5	71.9	119	06/10/2021
1,2-Dibromoethane	*	2.0		52.9	50.00	0	105.7	83.6	110	06/10/2021
1,2-Dichlorobenzene	*	2.0		50.3	50.00	0	100.6	72.1	113	06/10/2021
1,2-Dichloroethane	*	2.0		48.5	50.00	0	97.0	72.3	117	06/10/2021
1,2-Dichloropropane	*	2.0		54.2	50.00	0	108.4	76.5	119	06/10/2021
1,3,5-Trimethylbenzene	*	2.0		53.0	50.00	0	106.0	75.2	117	06/10/2021
1,3-Dichlorobenzene	*	2.0		51.7	50.00	0	103.5	75.2	115	06/10/2021
1,3-Dichloropropane	*	2.0		52.0	50.00	0	104.0	80.9	110	06/10/2021
1,4-Dichlorobenzene	*	2.0		51.2	50.00	0	102.3	73.9	112	06/10/2021
1-Chlorobutane	*	5.0		54.3	50.00	0	108.6	74.9	130	06/10/2021
2,2-Dichloropropane	*	2.0		63.1	50.00	0	126.2	66.5	138	06/10/2021
2-Butanone	*	10.0		128	125.0	0	102.8	68.8	134	06/10/2021
2-Chloroethyl vinyl ether	*	5.0		53.1	50.00	0	106.3	17.8	163	06/10/2021
2-Chlorotoluene	*	2.0		50.5	50.00	0	101.1	74.9	115	06/10/2021
2-Hexanone	*	10.0		138	125.0	0	110.3	73.2	117	06/10/2021
2-Nitropropane	*	10.0		468	500.0	0	93.6	67.1	140	06/10/2021
4-Chlorotoluene	*	2.0		52.1	50.00	0	104.2	75.7	113	06/10/2021
4-Methyl-2-pentanone	*	10.0		133	125.0	0	106.1	77	113	06/10/2021
Acetone	*	10.0		127	125.0	0	101.4	61.4	130	06/10/2021
Acetonitrile	*	10.0		546	500.0	0	109.1	68.8	136	06/10/2021
Acrolein	*	20.0		493	500.0	0	98.6	28.4	168	06/10/2021
Acrylonitrile	*	5.0		51.5	50.00	0	103.1	77.9	124	06/10/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178751 **SampType:** LCS

Units µg/L

SampID: LCS-AM210610A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		56.7	50.00	0	113.4	75.8	130	06/10/2021
Benzene	*	0.5		52.2	50.00	0	104.3	78.5	119	06/10/2021
Bromobenzene	*	2.0		50.7	50.00	0	101.4	77.5	113	06/10/2021
Bromochloromethane	*	2.0		51.5	50.00	0	103.0	71.5	123	06/10/2021
Bromodichloromethane	*	2.0		53.3	50.00	0	106.6	75.7	123	06/10/2021
Bromoform	*	2.0		53.6	50.00	0	107.1	78.9	121	06/10/2021
Bromomethane	*	5.0		45.7	50.00	0	91.4	30.5	192	06/10/2021
Carbon disulfide	*	2.0		51.6	50.00	0	103.2	66.7	121	06/10/2021
Carbon tetrachloride	*	2.0		53.2	50.00	0	106.4	70.9	127	06/10/2021
Chlorobenzene	*	2.0		51.4	50.00	0	102.7	80	111	06/10/2021
Chloroethane	*	2.0		49.6	50.00	0	99.3	69.6	135	06/10/2021
Chloroform	*	2.0		52.1	50.00	0	104.1	76.2	120	06/10/2021
Chloromethane	*	5.0		45.1	50.00	0	90.1	50.9	138	06/10/2021
Chloroprene	*	5.0		53.8	50.00	0	107.6	68.4	127	06/10/2021
cis-1,2-Dichloroethene	*	2.0		53.5	50.00	0	106.9	79.5	121	06/10/2021
cis-1,3-Dichloropropene	*	2.0		57.2	50.00	0	114.5	79.8	123	06/10/2021
cis-1,4-Dichloro-2-butene	*	2.0		52.5	50.00	0	105.0	64.6	130	06/10/2021
Cyclohexanone	*	20.0		483	500.0	0	96.6	70.5	114	06/10/2021
Dibromochloromethane	*	2.0		54.0	50.00	0	107.9	84.5	114	06/10/2021
Dibromomethane	*	2.0		50.9	50.00	0	101.8	76	119	06/10/2021
Dichlorodifluoromethane	*	2.0		47.6	50.00	0	95.3	46.6	142	06/10/2021
Diisopropyl ether	*	2.0		56.2	50.00	0	112.3	72	128	06/10/2021
Ethyl acetate	*	10.0		47.1	50.00	0	94.2	70.3	115	06/10/2021
Ethyl ether	*	5.0		54.1	50.00	0	108.2	74.6	120	06/10/2021
Ethyl methacrylate	*	5.0		52.9	50.00	0	105.8	81.4	116	06/10/2021
Ethylbenzene	*	2.0		52.5	50.00	0	104.9	78.2	114	06/10/2021
Ethyl-tert-butyl ether	*	2.0		54.2	50.00	0	108.4	74.6	124	06/10/2021
Hexachlorobutadiene	*	5.0		53.8	50.00	0	107.5	73.9	129	06/10/2021
Hexachloroethane	*	5.0		54.9	50.00	0	109.7	78.3	123	06/10/2021
Iodomethane	*	5.0		52.1	50.00	0	104.2	50	151	06/10/2021
Isopropylbenzene	*	2.0		54.6	50.00	0	109.1	79.3	115	06/10/2021
m,p-Xylenes	*	2.0		105	100.0	0	105.2	77.2	116	06/10/2021
Methacrylonitrile	*	5.0		52.8	50.00	0	105.7	73.9	127	06/10/2021
Methyl Methacrylate	*	5.0		54.0	50.00	0	108.1	70.7	129	06/10/2021
Methyl tert-butyl ether	*	2.0		52.2	50.00	0	104.5	80.3	122	06/10/2021
Methylacrylate	*	5.0		52.7	50.00	0	105.3	75.2	124	06/10/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178751 **SampType: LCS**

Units µg/L

SampID: LCS-AM210610A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Methylene chloride	*	2.0		50.2	50.00	0	100.5	71.8	115	06/10/2021
Naphthalene	*	5.0		54.6	50.00	0	109.2	75.6	121	06/10/2021
n-Butyl acetate	*	2.0		54.7	50.00	0	109.4	72.4	118	06/10/2021
n-Butylbenzene	*	2.0		52.3	50.00	0	104.6	70.8	118	06/10/2021
n-Heptane	*	5.0		62.3	50.00	0	124.6	50.4	143	06/10/2021
n-Hexane	*	5.0		55.8	50.00	0	111.6	60.6	139	06/10/2021
Nitrobenzene	*	50.0		524	500.0	0	104.9	49.4	129	06/10/2021
n-Propylbenzene	*	2.0		51.6	50.00	0	103.2	74	119	06/10/2021
o-Xylene	*	2.0		51.9	50.00	0	103.8	79.2	112	06/10/2021
Pentachloroethane	*	5.0		56.0	50.00	0	111.9	71.8	124	06/10/2021
p-Isopropyltoluene	*	2.0		53.1	50.00	0	106.2	74.4	119	06/10/2021
Propionitrile	*	10.0		544	500.0	0	108.8	76.2	127	06/10/2021
sec-Butylbenzene	*	2.0		53.7	50.00	0	107.4	74.4	119	06/10/2021
Styrene	*	2.0		53.6	50.00	0	107.1	80.4	117	06/10/2021
tert-Amyl methyl ether	*	2.0		54.0	50.00	0	108.1	80.8	125	06/10/2021
tert-Butyl alcohol	*	10.0		256	250.0	0	102.4	64.9	118	06/10/2021
tert-Butylbenzene	*	2.0		52.6	50.00	0	105.1	74	115	06/10/2021
Tetrachloroethene	*	0.5		52.4	50.00	0	104.8	70.1	120	06/10/2021
Tetrahydrofuran	*	5.0		49.0	50.00	0	98.0	63.5	122	06/10/2021
Toluene	*	2.0		51.8	50.00	0	103.5	78.6	112	06/10/2021
trans-1,2-Dichloroethene	*	2.0		52.3	50.00	0	104.6	75.7	130	06/10/2021
trans-1,3-Dichloropropene	*	2.0		50.9	50.00	0	101.9	80.3	116	06/10/2021
trans-1,4-Dichloro-2-butene	*	2.0		51.4	50.00	0	102.9	65.5	124	06/10/2021
Trichloroethene	*	2.0		51.7	50.00	0	103.3	76.2	121	06/10/2021
Trichlorofluoromethane	*	5.0		49.3	50.00	0	98.6	71.1	131	06/10/2021
Vinyl acetate	*	5.0		55.7	50.00	0	111.3	79.8	129	06/10/2021
Vinyl chloride	*	2.0		48.8	50.00	0	97.7	58.6	141	06/10/2021
Xylenes, Total	*	4.0		157	150.0	0	104.8	78.3	114	06/10/2021
1,2-Dichloroethene, Total	*	4.0		106	100.0	0	105.8	78.5	125	06/10/2021
1,3-Dichloropropene, Total	*	4.0		108	100.0	0	108.2	82.3	117	06/10/2021
1,4-Dichloro-2-butene, Total	*	4.0		104	100.0	0	103.9	65.9	126	06/10/2021
Surr: 1,2-Dichloroethane-d4	*			49.1	50.00		98.2	80	120	06/10/2021
Surr: 4-Bromofluorobenzene	*			48.3	50.00		96.6	80	120	06/10/2021
Surr: Toluene-d8	*			49.9	50.00		99.8	80	120	06/10/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	SampType:	Units		RPD Limit						
178751	LCSD	µg/L		15.4						
SampID: LCSD-AM210610A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		54.1	50.00	0	108.2	53.83	0.54	06/10/2021
1,1,1-Trichloroethane	*	2.0		54.0	50.00	0	108.0	53.32	1.30	06/10/2021
1,1,2,2-Tetrachloroethane	*	2.0		49.4	50.00	0	98.8	48.69	1.41	06/10/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		52.5	50.00	0	105.0	52.15	0.63	06/10/2021
1,1,2-Trichloroethane	*	0.5		52.4	50.00	0	104.8	52.22	0.33	06/10/2021
1,1-Dichloro-2-propanone	*	30.0		127	125.0	0	101.6	126.4	0.53	06/10/2021
1,1-Dichloroethane	*	2.0		53.6	50.00	0	107.2	52.88	1.35	06/10/2021
1,1-Dichloroethene	*	2.0		52.6	50.00	0	105.3	52.15	0.95	06/10/2021
1,1-Dichloropropene	*	2.0		53.6	50.00	0	107.3	53.10	1.03	06/10/2021
1,2,3-Trichlorobenzene	*	2.0		55.8	50.00	0	111.6	54.78	1.84	06/10/2021
1,2,3-Trichloropropane	*	2.0		49.2	50.00	0	98.3	48.71	0.90	06/10/2021
1,2,3-Trimethylbenzene	*	2.0		53.5	50.00	0	107.0	52.57	1.79	06/10/2021
1,2,4-Trichlorobenzene	*	2.0		56.7	50.00	0	113.3	55.09	2.81	06/10/2021
1,2,4-Trimethylbenzene	*	2.0		54.1	50.00	0	108.1	53.42	1.21	06/10/2021
1,2-Dibromo-3-chloropropane	*	5.0		52.0	50.00	0	104.0	50.75	2.45	06/10/2021
1,2-Dibromoethane	*	2.0		52.5	50.00	0	105.0	52.86	0.66	06/10/2021
1,2-Dichlorobenzene	*	2.0		50.6	50.00	0	101.3	50.32	0.65	06/10/2021
1,2-Dichloroethane	*	2.0		49.0	50.00	0	97.9	48.50	0.92	06/10/2021
1,2-Dichloropropane	*	2.0		55.0	50.00	0	110.1	54.20	1.52	06/10/2021
1,3,5-Trimethylbenzene	*	2.0		53.4	50.00	0	106.8	52.98	0.83	06/10/2021
1,3-Dichlorobenzene	*	2.0		52.4	50.00	0	104.7	51.73	1.21	06/10/2021
1,3-Dichloropropane	*	2.0		52.3	50.00	0	104.6	52.01	0.59	06/10/2021
1,4-Dichlorobenzene	*	2.0		52.0	50.00	0	104.0	51.17	1.63	06/10/2021
1-Chlorobutane	*	5.0		55.3	50.00	0	110.6	54.28	1.86	06/10/2021
2,2-Dichloropropane	*	2.0		63.3	50.00	0	126.5	63.11	0.24	06/10/2021
2-Butanone	*	10.0		132	125.0	0	105.5	128.5	2.56	06/10/2021
2-Chloroethyl vinyl ether	*	5.0		53.6	50.00	0	107.2	53.13	0.92	06/10/2021
2-Chlorotoluene	*	2.0		51.1	50.00	0	102.2	50.54	1.10	06/10/2021
2-Hexanone	*	10.0		140	125.0	0	112.0	137.8	1.53	06/10/2021
2-Nitropropane	*	10.0		473	500.0	0	94.7	467.9	1.17	06/10/2021
4-Chlorotoluene	*	2.0		52.7	50.00	0	105.4	52.08	1.22	06/10/2021
4-Methyl-2-pentanone	*	10.0		133	125.0	0	106.7	132.6	0.59	06/10/2021
Acetone	*	10.0		128	125.0	0	102.1	126.8	0.62	06/10/2021
Acetonitrile	*	10.0		578	500.0	0	115.6	545.5	5.75	06/10/2021
Acrolein	*	20.0		501	500.0	0	100.2	492.9	1.60	06/10/2021
Acrylonitrile	*	5.0		52.4	50.00	0	104.8	51.53	1.66	06/10/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	SampType:	Units		RPD Limit						
178751	LCSD	µg/L		15.4						
SampID: LCSD-AM210610A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Allyl chloride	*	5.0		59.1	50.00	0	118.2	56.70	4.16	06/10/2021
Benzene	*	0.5		52.5	50.00	0	105.0	52.15	0.71	06/10/2021
Bromobenzene	*	2.0		51.5	50.00	0	103.0	50.71	1.51	06/10/2021
Bromochloromethane	*	2.0		52.4	50.00	0	104.8	51.49	1.73	06/10/2021
Bromodichloromethane	*	2.0		53.4	50.00	0	106.7	53.32	0.06	06/10/2021
Bromoform	*	2.0		54.1	50.00	0	108.2	53.57	1.00	06/10/2021
Bromomethane	*	5.0		47.6	50.00	0	95.1	45.70	3.99	06/10/2021
Carbon disulfide	*	2.0		52.1	50.00	0	104.2	51.62	0.94	06/10/2021
Carbon tetrachloride	*	2.0		54.1	50.00	0	108.1	53.21	1.60	06/10/2021
Chlorobenzene	*	2.0		51.6	50.00	0	103.2	51.35	0.47	06/10/2021
Chloroethane	*	2.0		50.2	50.00	0	100.5	49.63	1.20	06/10/2021
Chloroform	*	2.0		52.2	50.00	0	104.4	52.06	0.23	06/10/2021
Chloromethane	*	5.0		48.0	50.00	0	96.1	45.06	6.40	06/10/2021
Chloroprene	*	5.0		54.0	50.00	0	108.0	53.78	0.39	06/10/2021
cis-1,2-Dichloroethene	*	2.0		53.1	50.00	0	106.2	53.47	0.71	06/10/2021
cis-1,3-Dichloropropene	*	2.0		57.8	50.00	0	115.6	57.25	0.94	06/10/2021
cis-1,4-Dichloro-2-butene	*	2.0		53.9	50.00	0	107.8	52.51	2.61	06/10/2021
Cyclohexanone	*	20.0		507	500.0	0	101.3	483.0	4.78	06/10/2021
Dibromochloromethane	*	2.0		53.8	50.00	0	107.5	53.96	0.37	06/10/2021
Dibromomethane	*	2.0		51.0	50.00	0	102.0	50.92	0.14	06/10/2021
Dichlorodifluoromethane	*	2.0		48.4	50.00	0	96.8	47.65	1.56	06/10/2021
Diisopropyl ether	*	2.0		56.6	50.00	0	113.3	56.17	0.83	06/10/2021
Ethyl acetate	*	10.0		49.0	50.00	0	98.0	47.08	4.00	06/10/2021
Ethyl ether	*	5.0		54.7	50.00	0	109.4	54.08	1.18	06/10/2021
Ethyl methacrylate	*	5.0		53.4	50.00	0	106.9	52.92	0.96	06/10/2021
Ethylbenzene	*	2.0		52.8	50.00	0	105.7	52.46	0.70	06/10/2021
Ethyl-tert-butyl ether	*	2.0		55.1	50.00	0	110.2	54.19	1.65	06/10/2021
Hexachlorobutadiene	*	5.0		54.2	50.00	0	108.5	53.76	0.87	06/10/2021
Hexachloroethane	*	5.0		55.3	50.00	0	110.6	54.87	0.80	06/10/2021
Iodomethane	*	5.0		52.6	50.00	0	105.1	52.08	0.90	06/10/2021
Isopropylbenzene	*	2.0		54.7	50.00	0	109.5	54.56	0.31	06/10/2021
m,p-Xylenes	*	2.0		106	100.0	0	105.9	105.2	0.62	06/10/2021
Methacrylonitrile	*	5.0		53.4	50.00	0	106.9	52.84	1.11	06/10/2021
Methyl Methacrylate	*	5.0		55.0	50.00	0	110.0	54.03	1.80	06/10/2021
Methyl tert-butyl ether	*	2.0		53.8	50.00	0	107.6	52.23	2.96	06/10/2021
Methylacrylate	*	5.0		53.5	50.00	0	107.1	52.66	1.66	06/10/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178751	SampType: LCSD	Units µg/L				RPD Limit 15.4				
SampID: LCSD-AM210610A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Methylene chloride	*	2.0		50.5	50.00	0	101.1	50.23	0.62	06/10/2021
Naphthalene	*	5.0		55.8	50.00	0	111.6	54.62	2.12	06/10/2021
n-Butyl acetate	*	2.0		55.4	50.00	0	110.9	54.72	1.31	06/10/2021
n-Butylbenzene	*	2.0		53.2	50.00	0	106.5	52.28	1.84	06/10/2021
n-Heptane	*	5.0		63.1	50.00	0	126.3	62.31	1.32	06/10/2021
n-Hexane	*	5.0		56.8	50.00	0	113.6	55.80	1.74	06/10/2021
Nitrobenzene	*	50.0		540	500.0	0	108.1	524.3	3.04	06/10/2021
n-Propylbenzene	*	2.0		52.6	50.00	0	105.3	51.62	1.96	06/10/2021
o-Xylene	*	2.0		51.9	50.00	0	103.9	51.90	0.08	06/10/2021
Pentachloroethane	*	5.0		56.4	50.00	0	112.7	55.95	0.71	06/10/2021
p-Isopropyltoluene	*	2.0		53.5	50.00	0	107.1	53.10	0.83	06/10/2021
Propionitrile	*	10.0		558	500.0	0	111.6	544.2	2.47	06/10/2021
sec-Butylbenzene	*	2.0		54.2	50.00	0	108.4	53.72	0.91	06/10/2021
Styrene	*	2.0		54.1	50.00	0	108.3	53.55	1.10	06/10/2021
tert-Amyl methyl ether	*	2.0		54.6	50.00	0	109.2	54.04	0.99	06/10/2021
tert-Butyl alcohol	*	10.0		270	250.0	0	108.1	255.9	5.48	06/10/2021
tert-Butylbenzene	*	2.0		53.3	50.00	0	106.5	52.57	1.32	06/10/2021
Tetrachloroethene	*	0.5		52.4	50.00	0	104.8	52.42	0.06	06/10/2021
Tetrahydrofuran	*	5.0		49.6	50.00	0	99.2	49.00	1.24	06/10/2021
Toluene	*	2.0		51.9	50.00	0	103.8	51.77	0.29	06/10/2021
trans-1,2-Dichloroethene	*	2.0		53.0	50.00	0	106.0	52.29	1.31	06/10/2021
trans-1,3-Dichloropropene	*	2.0		51.1	50.00	0	102.3	50.94	0.39	06/10/2021
trans-1,4-Dichloro-2-butene	*	2.0		52.8	50.00	0	105.7	51.43	2.70	06/10/2021
Trichloroethene	*	2.0		52.0	50.00	0	104.1	51.67	0.71	06/10/2021
Trichlorofluoromethane	*	5.0		50.5	50.00	0	100.9	49.28	2.37	06/10/2021
Vinyl acetate	*	5.0		56.4	50.00	0	112.8	55.66	1.29	06/10/2021
Vinyl chloride	*	2.0		50.1	50.00	0	100.2	48.84	2.55	06/10/2021
Xylenes, Total	*	4.0		158	150.0	0	105.2	157.2	0.44	06/10/2021
1,2-Dichloroethene, Total	*	4.0		106	100.0	0	106.1	105.8	0.29	06/10/2021
1,3-Dichloropropene, Total	*	4.0		109	100.0	0	108.9	108.2	0.68	06/10/2021
1,4-Dichloro-2-butene, Total	*	4.0		107	100.0	0	106.7	103.9	2.66	06/10/2021
Surr: 1,2-Dichloroethane-d4	*			49.1	50.00		98.1			06/10/2021
Surr: 4-Bromofluorobenzene	*			48.3	50.00		96.5			06/10/2021
Surr: Toluene-d8	*			49.3	50.00		98.6			06/10/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178751		SampType: LCSG		Units µg/L							
SampID: LCSG-AM210610A-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
TPH - GRO (C6 - C10)	*	500		1880	2000	0	93.8	70	130	06/10/2021	
Surr: 1,2-Dichloroethane-d4	*			49.9	50.00		99.9	80	120	06/10/2021	
Surr: 4-Bromofluorobenzene	*			51.3	50.00		102.5	80	120	06/10/2021	
Surr: Toluene-d8	*			49.7	50.00		99.4	80	120	06/10/2021	

Batch 178751		SampType: LCSGD		Units µg/L						RPD Limit 20	
SampID: LCSGD-AM210610A-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
TPH - GRO (C6 - C10)	*	500		1820	2000	0	91.2	1875	2.82	06/10/2021	
Surr: 1,2-Dichloroethane-d4	*			49.7	50.00		99.5			06/10/2021	
Surr: 4-Bromofluorobenzene	*			50.8	50.00		101.7			06/10/2021	
Surr: Toluene-d8	*			50.2	50.00		100.4			06/10/2021	



Receiving Check List

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060675

Client Project: 128487

Report Date: 17-Jun-21

Carrier: Alec Rebbe

Received By: ERH

Completed by: (b) (6)
On: [Redacted]
09-Jun-21
Mary E. Kemp

Reviewed by: (b) (6)
On: [Redacted]
09-Jun-21
Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes No Not Present Temp °C **0.6**
- Type of thermal preservation? None Ice Blue Ice Dry Ice
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Reported field parameters measured: Field Lab NA
- Container/Temp Blank temperature in compliance? Yes No

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- Water – at least one vial per sample has zero headspace? Yes No No VOA vials
- Water - TOX containers have zero headspace? Yes No No TOX containers
- Water - pH acceptable upon receipt? Yes No NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes No NA

Any No responses must be detailed below or on the COC.

pH strip #76747. - ERH/MKemp - 6/9/2021 4:38:24 PM

Trip Blank collection date and time will be reported as the received date and time (end of trip). - ehurley - 6/9/2021 5:17:57 PM

21000075

Burns & McDonnell Engineering
 425 South Woods Mill Road
 Chesterfield, Missouri 63017
 Phone: (314) 682-1500 Fax: (314) 682-1600
 Attention: JAMES CARTER
 JMCARTER@BURNSMCD.COM

Laboratory: TEKLAB, Inc.
 Address: 5445 HORSESHOE LAKE RD
 City/State/Zip: COLLINGSVILLE, IL 62234
 Telephone: 618-344-1004

Document Control No: 128487-002

Lab. Reference No. or Episode No.:

Project Number: 128487 Sample Type

Client Name: GSA Matrix

Group or SWMU Name	Sample Point	Sample Designator	Sample Event		Sample Depth (in feet)		Sample Collected		Liquid	Solid	Gas	Number of Containers	Analysis					Remarks
			Round	Year	From	To	Date	Time					RLHS	TEBS	MATERIALS (TANK)	VALS (TYPED GLO)	LABORATORY ORGANIZATIONS	
TB-02									X			2						21060075-001
RINSE-04				2021				6/7/21	1145	X		5	X	X	X	X		002
RINSE-05				2021				6/8/21	750	X		5	X	X	X	X		003

Courier

Sampler (signature): [Redacted]
 (b) (6)

Sampler (signature):
 (b) (6)

Special Instructions: (b) (6) 6/19/21
TEMP: 0.00C LTR 1 TOTAL 8 NS

Relinquished By (signature): [Redacted]
 1. (b) (6) Date/Time: 6/9/21

Received By (signature): [Redacted]
 (b) (6) Date/Time: 6/9/21 1150

Ice Present in Container: Yes No
 Temperature Upon Receipt:

Relinquished By (signature): [Redacted]
 2. (b) (6) Date/Time: 6/9/21

Received By (signature): [Redacted]
 (b) (6) Date/Time: 6/9/21

Laboratory Comments:

June 21, 2021

Justin Carter
Burns & McDonnell Waste Consultants
9400 Ward Parkway
P.O. Box 419173
Kansas City, MO 64114
TEL: (816) 333-9400
FAX: (816) 822-3494



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: 128487

WorkOrder: 21060830

Dear Justin Carter:

TEKLAB, INC received 4 samples on 6/11/2021 2:00:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

(b) (6)

Emily Pohlman
Project Manager
(618)344-1004 ex 44
epohlman@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	22
Dates Report	23
Quality Control Results	24
Receiving Check List	41
Chain of Custody	Appended

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



Case Narrative

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Cooler Receipt Temp: 2.4 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

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Collinsville Air

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Springfield, IL 62711-9415

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Address 1319 Butterfield Rd.
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Kansas City

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Lenexa, KS 66214

Phone (913) 541-1998

Fax (913) 541-1998

Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-001

Client Sample ID: TB-03

Matrix: TRIP BLANK

Collection Date: 06/11/2021 14:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/15/2021 4:29	178875
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/15/2021 4:29	178875
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/15/2021 4:29	178875
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/15/2021 4:29	178875
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/15/2021 4:29	178875
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/15/2021 4:29	178875
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
2-Butanone	NELAP	10.0		ND	µg/L	1	06/15/2021 4:29	178875
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/15/2021 4:29	178875
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/15/2021 4:29	178875
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/15/2021 4:29	178875
Acetone	NELAP	10.0		ND	µg/L	1	06/15/2021 4:29	178875
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/15/2021 4:29	178875
Acrolein	NELAP	20.0		ND	µg/L	1	06/15/2021 4:29	178875
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Benzene	NELAP	0.5		ND	µg/L	1	06/15/2021 4:29	178875
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Bromoform	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Bromomethane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-001

Client Sample ID: TB-03

Matrix: TRIP BLANK

Collection Date: 06/11/2021 14:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Chloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Chloroform	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Chloromethane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Chloroprene	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Cyclohexanone	*	20.0		ND	µg/L	1	06/15/2021 4:29	178875
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Diisopropyl ether	*	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/15/2021 4:29	178875
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Iodomethane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Naphthalene	NELAP	5.0	B	ND	µg/L	1	06/15/2021 4:29	178875
n-Butyl acetate	*	2.0		ND	µg/L	1	06/15/2021 4:29	178875
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
n-Heptane	*	5.0		ND	µg/L	1	06/15/2021 4:29	178875
n-Hexane	*	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/15/2021 4:29	178875
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
o-Xylene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Propionitrile	NELAP	10.0		ND	µg/L	1	06/15/2021 4:29	178875
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Styrene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/15/2021 4:29	178875
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/15/2021 4:29	178875
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/15/2021 4:29	178875
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-001

Client Sample ID: TB-03

Matrix: TRIP BLANK

Collection Date: 06/11/2021 14:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Toluene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/15/2021 4:29	178875
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/15/2021 4:29	178875
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/15/2021 4:29	178875
Surr: 1,2-Dichloroethane-d4	*	80-120		99.2	%REC	1	06/15/2021 4:29	178875
Surr: 4-Bromofluorobenzene	*	80-120		102.7	%REC	1	06/15/2021 4:29	178875
Surr: Toluene-d8	*	80-120		96.6	%REC	1	06/15/2021 4:29	178875

Naphthalene was detected in the MBLK at a level between the MDL and the RL. Sample result is less than the RL. Data is reportable.

Allowable Marginal Exceedance of Chloroethane in the laboratory control sample is verified per the TNI Standard.

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-002

Client Sample ID: RINSE-06

Matrix: AQUEOUS

Collection Date: 06/09/2021 16:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/17/2021 18:24	178909
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/17/2021 18:24	178909
Copper	NELAP	0.0050		0.0085	mg/L	1	06/17/2021 18:24	178909
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/17/2021 18:24	178909
Zinc	NELAP	0.0100		0.0562	mg/L	1	06/17/2021 18:24	178909
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/17/2021 11:51	178931
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/17/2021 11:51	178931
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/17/2021 11:51	178931
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/17/2021 11:51	178931
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/17/2021 11:51	178931
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/17/2021 11:51	178931
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/17/2021 11:51	178931
Surr: Decachlorobiphenyl	*	10-152		42.4	%REC	1	06/17/2021 11:51	178931
Surr: Tetrachloro-meta-xylene	*	9.73-128		99.5	%REC	1	06/17/2021 11:51	178931
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Acenaphthylene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Anthracene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Benzo(a)anthracene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Benzo(a)pyrene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Benzo(b)fluoranthene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Benzo(g,h,i)perylene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Benzo(k)fluoranthene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Chrysene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Dibenzo(a,h)anthracene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Fluoranthene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Fluorene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Indeno(1,2,3-cd)pyrene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Naphthalene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Phenanthrene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Pyrene	NELAP	0.00400		ND	mg/L	1	06/17/2021 16:58	178907
Surr: 2-Fluorobiphenyl	*	1.39-137		85.5	%REC	1	06/17/2021 16:58	178907
Surr: Nitrobenzene-d5	*	29.1-125		95.1	%REC	1	06/17/2021 16:58	178907
Surr: p-Terphenyl-d14	*	35.2-164		122.2	%REC	1	06/17/2021 16:58	178907
<i>Elevated reporting limit due to sample composition.</i>								
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/15/2021 4:55	178875
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/15/2021 4:55	178875
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/15/2021 4:55	178875
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-002

Client Sample ID: RINSE-06

Matrix: AQUEOUS

Collection Date: 06/09/2021 16:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/15/2021 4:55	178875
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/15/2021 4:55	178875
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/15/2021 4:55	178875
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
2-Butanone	NELAP	10.0		ND	µg/L	1	06/15/2021 4:55	178875
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/15/2021 4:55	178875
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/15/2021 4:55	178875
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/15/2021 4:55	178875
Acetone	NELAP	10.0		ND	µg/L	1	06/15/2021 4:55	178875
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/15/2021 4:55	178875
Acrolein	NELAP	20.0		ND	µg/L	1	06/15/2021 4:55	178875
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Benzene	NELAP	0.5		ND	µg/L	1	06/15/2021 4:55	178875
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Bromoform	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Bromomethane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Chloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Chloroform	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Chloromethane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Chloroprene	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Cyclohexanone	*	20.0		ND	µg/L	1	06/15/2021 4:55	178875

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-002

Client Sample ID: RINSE-06

Matrix: AQUEOUS

Collection Date: 06/09/2021 16:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Diisopropyl ether	*	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/15/2021 4:55	178875
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Iodomethane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Naphthalene	NELAP	5.0	B	ND	µg/L	1	06/15/2021 4:55	178875
n-Butyl acetate	*	2.0		ND	µg/L	1	06/15/2021 4:55	178875
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
n-Heptane	*	5.0		ND	µg/L	1	06/15/2021 4:55	178875
n-Hexane	*	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/15/2021 4:55	178875
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
o-Xylene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Propionitrile	NELAP	10.0		ND	µg/L	1	06/15/2021 4:55	178875
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Styrene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/15/2021 4:55	178875
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/15/2021 4:55	178875
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/15/2021 4:55	178875
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Toluene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/15/2021 4:55	178875
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/15/2021 4:55	178875
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/15/2021 4:55	178875
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/15/2021 4:55	178875

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-002

Client Sample ID: RINSE-06

Matrix: AQUEOUS

Collection Date: 06/09/2021 16:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 1,2-Dichloroethane-d4	*	80-120		99.7	%REC	1	06/15/2021 4:55	178875
Surr: 4-Bromofluorobenzene	*	80-120		102.7	%REC	1	06/15/2021 4:55	178875
Surr: Toluene-d8	*	80-120		97.1	%REC	1	06/15/2021 4:55	178875

Naphthalene was detected in the MBLK at a level between the MDL and the RL. Sample result is less than the RL. Data is reportable.

Allowable Marginal Exceedance of Chloroethane in the laboratory control sample is verified per the TNI Standard.



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-003

Client Sample ID: RINSE-07

Matrix: AQUEOUS

Collection Date: 06/10/2021 14:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/17/2021 18:37	178909
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/17/2021 18:37	178909
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/17/2021 18:37	178909
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/17/2021 18:37	178909
Zinc	NELAP	0.0100		< 0.0100	mg/L	1	06/17/2021 18:37	178909
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/17/2021 12:08	178931
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/17/2021 12:08	178931
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/17/2021 12:08	178931
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/17/2021 12:08	178931
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/17/2021 12:08	178931
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/17/2021 12:08	178931
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/17/2021 12:08	178931
Surr: Decachlorobiphenyl	*	10-152		59.9	%REC	1	06/17/2021 12:08	178931
Surr: Tetrachloro-meta-xylene	*	9.73-128		98.2	%REC	1	06/17/2021 12:08	178931
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Acenaphthylene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Anthracene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Benzo(a)anthracene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Benzo(a)pyrene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Benzo(b)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Benzo(g,h,i)perylene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Benzo(k)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Chrysene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Dibenzo(a,h)anthracene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Fluoranthene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Fluorene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Indeno(1,2,3-cd)pyrene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Naphthalene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Phenanthrene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Pyrene	NELAP	0.00100		ND	mg/L	1	06/17/2021 15:41	178907
Surr: 2-Fluorobiphenyl	*	1.39-137		75.7	%REC	1	06/17/2021 15:41	178907
Surr: Nitrobenzene-d5	*	29.1-125		92.6	%REC	1	06/17/2021 15:41	178907
Surr: p-Terphenyl-d14	*	35.2-164		119.1	%REC	1	06/17/2021 15:41	178907
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/15/2021 5:21	178875
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/15/2021 5:21	178875
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/15/2021 5:21	178875
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-003

Client Sample ID: RINSE-07

Matrix: AQUEOUS

Collection Date: 06/10/2021 14:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/15/2021 5:21	178875
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/15/2021 5:21	178875
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/15/2021 5:21	178875
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
2-Butanone	NELAP	10.0		ND	µg/L	1	06/15/2021 5:21	178875
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/15/2021 5:21	178875
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/15/2021 5:21	178875
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/15/2021 5:21	178875
Acetone	NELAP	10.0		ND	µg/L	1	06/15/2021 5:21	178875
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/15/2021 5:21	178875
Acrolein	NELAP	20.0		ND	µg/L	1	06/15/2021 5:21	178875
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Benzene	NELAP	0.5		ND	µg/L	1	06/15/2021 5:21	178875
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Bromoform	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Bromomethane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Chloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Chloroform	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Chloromethane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Chloroprene	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Cyclohexanone	*	20.0		ND	µg/L	1	06/15/2021 5:21	178875
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-003

Client Sample ID: RINSE-07

Matrix: AQUEOUS

Collection Date: 06/10/2021 14:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Diisopropyl ether	*	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/15/2021 5:21	178875
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Iodomethane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Naphthalene	NELAP	5.0	B	ND	µg/L	1	06/15/2021 5:21	178875
n-Butyl acetate	*	2.0		ND	µg/L	1	06/15/2021 5:21	178875
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
n-Heptane	*	5.0		ND	µg/L	1	06/15/2021 5:21	178875
n-Hexane	*	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/15/2021 5:21	178875
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
o-Xylene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Propionitrile	NELAP	10.0		ND	µg/L	1	06/15/2021 5:21	178875
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Styrene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/15/2021 5:21	178875
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/15/2021 5:21	178875
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/15/2021 5:21	178875
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Toluene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/15/2021 5:21	178875
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/15/2021 5:21	178875
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/15/2021 5:21	178875
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/15/2021 5:21	178875
Surr: 1,2-Dichloroethane-d4	*	80-120		100.4	%REC	1	06/15/2021 5:21	178875



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-003

Client Sample ID: RINSE-07

Matrix: AQUEOUS

Collection Date: 06/10/2021 14:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 4-Bromofluorobenzene	*	80-120		102.9	%REC	1	06/15/2021 5:21	178875
Surr: Toluene-d8	*	80-120		96.5	%REC	1	06/15/2021 5:21	178875

Naphthalene was detected in the MBLK at a level between the MDL and the RL. Sample result is less than the RL. Data is reportable.

Allowable Marginal Exceedance of Chloroethane in the laboratory control sample is verified per the TNI Standard.



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-004

Client Sample ID: RINSE-08

Matrix: AQUEOUS

Collection Date: 06/11/2021 10:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/17/2021 18:39	178909
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/17/2021 18:39	178909
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/17/2021 18:39	178909
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/17/2021 18:39	178909
Zinc	NELAP	0.0100		< 0.0100	mg/L	1	06/17/2021 18:39	178909
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/17/2021 13:16	178931
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/17/2021 13:16	178931
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/17/2021 13:16	178931
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/17/2021 13:16	178931
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/17/2021 13:16	178931
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/17/2021 13:16	178931
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/17/2021 13:16	178931
Surr: Decachlorobiphenyl	*	10-152		61.3	%REC	1	06/17/2021 13:16	178931
Surr: Tetrachloro-meta-xylene	*	9.73-128		98.1	%REC	1	06/17/2021 13:16	178931
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Acenaphthylene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Anthracene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Benzo(a)anthracene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Benzo(a)pyrene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Benzo(b)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Benzo(g,h,i)perylene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Benzo(k)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Chrysene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Dibenzo(a,h)anthracene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Fluoranthene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Fluorene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Indeno(1,2,3-cd)pyrene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Naphthalene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Phenanthrene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Pyrene	NELAP	0.00100		ND	mg/L	1	06/17/2021 16:20	178907
Surr: 2-Fluorobiphenyl	*	1.39-137		89.9	%REC	1	06/17/2021 16:20	178907
Surr: Nitrobenzene-d5	*	29.1-125		111.5	%REC	1	06/17/2021 16:20	178907
Surr: p-Terphenyl-d14	*	35.2-164		132.7	%REC	1	06/17/2021 16:20	178907
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/15/2021 5:47	178875
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/15/2021 5:47	178875
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/15/2021 5:47	178875
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-004

Client Sample ID: RINSE-08

Matrix: AQUEOUS

Collection Date: 06/11/2021 10:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/15/2021 5:47	178875
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/15/2021 5:47	178875
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/15/2021 5:47	178875
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
2-Butanone	NELAP	10.0		ND	µg/L	1	06/15/2021 5:47	178875
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/15/2021 5:47	178875
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/15/2021 5:47	178875
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/15/2021 5:47	178875
Acetone	NELAP	10.0		ND	µg/L	1	06/15/2021 5:47	178875
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/15/2021 5:47	178875
Acrolein	NELAP	20.0		ND	µg/L	1	06/15/2021 5:47	178875
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Benzene	NELAP	0.5		ND	µg/L	1	06/15/2021 5:47	178875
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Bromoform	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Bromomethane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Chloroethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Chloroform	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Chloromethane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Chloroprene	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Cyclohexanone	*	20.0		ND	µg/L	1	06/15/2021 5:47	178875
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-004

Client Sample ID: RINSE-08

Matrix: AQUEOUS

Collection Date: 06/11/2021 10:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Diisopropyl ether	*	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/15/2021 5:47	178875
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Iodomethane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Naphthalene	NELAP	5.0	B	ND	µg/L	1	06/15/2021 5:47	178875
n-Butyl acetate	*	2.0		ND	µg/L	1	06/15/2021 5:47	178875
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
n-Heptane	*	5.0		ND	µg/L	1	06/15/2021 5:47	178875
n-Hexane	*	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/15/2021 5:47	178875
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
o-Xylene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Propionitrile	NELAP	10.0		ND	µg/L	1	06/15/2021 5:47	178875
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Styrene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/15/2021 5:47	178875
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/15/2021 5:47	178875
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/15/2021 5:47	178875
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Toluene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/15/2021 5:47	178875
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/15/2021 5:47	178875
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/15/2021 5:47	178875
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/15/2021 5:47	178875
Surr: 1,2-Dichloroethane-d4	*	80-120		99.6	%REC	1	06/15/2021 5:47	178875

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Lab ID: 21060830-004

Client Sample ID: RINSE-08

Matrix: AQUEOUS

Collection Date: 06/11/2021 10:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 4-Bromofluorobenzene	*	80-120		103.8	%REC	1	06/15/2021 5:47	178875
Surr: Toluene-d8	*	80-120		96.6	%REC	1	06/15/2021 5:47	178875

Naphthalene was detected in the MBLK at a level between the MDL and the RL. Sample result is less than the RL. Data is reportable.

Allowable Marginal Exceedance of Chloroethane in the laboratory control sample is verified per the TNI Standard.



Sample Summary

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants
Client Project: 128487

Work Order: 21060830
Report Date: 21-Jun-21

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
21060830-001	TB-03	Trip Blank	1	06/11/2021 14:00
21060830-002	RINSE-06	Aqueous	4	06/09/2021 16:30
21060830-003	RINSE-07	Aqueous	4	06/10/2021 14:15
21060830-004	RINSE-08	Aqueous	4	06/11/2021 10:40



Dates Report

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
21060830-001A	TB-03	06/11/2021 14:00	06/11/2021 14:00		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		06/15/2021 4:29			
21060830-002A	RINSE-06	06/09/2021 16:30	06/11/2021 14:00		
SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD		06/16/2021 15:48 06/17/2021 11:51			
21060830-002B	RINSE-06	06/09/2021 16:30	06/11/2021 14:00		
SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS		06/15/2021 22:10 06/17/2021 16:58			
21060830-002C	RINSE-06	06/09/2021 16:30	06/11/2021 14:00		
SW-846 3005A, 6010B, Metals by ICP (Total)		06/16/2021 8:34 06/17/2021 18:24			
21060830-002D	RINSE-06	06/09/2021 16:30	06/11/2021 14:00		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		06/15/2021 4:55			
21060830-003A	RINSE-07	06/10/2021 14:15	06/11/2021 14:00		
SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD		06/16/2021 16:07 06/17/2021 12:08			
21060830-003B	RINSE-07	06/10/2021 14:15	06/11/2021 14:00		
SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS		06/16/2021 17:45 06/17/2021 15:41			
21060830-003C	RINSE-07	06/10/2021 14:15	06/11/2021 14:00		
SW-846 3005A, 6010B, Metals by ICP (Total)		06/16/2021 8:34 06/17/2021 18:37			
21060830-003D	RINSE-07	06/10/2021 14:15	06/11/2021 14:00		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		06/15/2021 5:21			
21060830-004A	RINSE-08	06/11/2021 10:40	06/11/2021 14:00		
SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD		06/16/2021 16:07 06/17/2021 13:16			
21060830-004B	RINSE-08	06/11/2021 10:40	06/11/2021 14:00		
SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS		06/16/2021 17:45 06/17/2021 16:20			
21060830-004C	RINSE-08	06/11/2021 10:40	06/11/2021 14:00		
SW-846 3005A, 6010B, Metals by ICP (Total)		06/16/2021 8:34 06/17/2021 18:39			
21060830-004D	RINSE-08	06/11/2021 10:40	06/11/2021 14:00		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		06/15/2021 5:47			



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 178909		SampType: MBLK		Units mg/L						
SampID: MBLK-178909										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		< 0.0500	0.0068	0	0	-100	100	06/17/2021
Arsenic		0.0250		< 0.0250	0.0087	0	0	-100	100	06/17/2021
Copper		0.0050		< 0.0050	0.0013	0	0	-100	100	06/17/2021
Lead		0.0150		< 0.0150	0.0040	0	0	-100	100	06/17/2021
Zinc		0.0100		< 0.0100	0.0050	0	0	-100	100	06/17/2021

Batch 178909		SampType: LCS		Units mg/L						
SampID: LCS-178909										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		0.509	0.5000	0	101.8	85	115	06/17/2021
Arsenic		0.0250		0.535	0.5000	0	107.0	85	115	06/17/2021
Copper		0.0050		0.272	0.2500	0	108.6	85	115	06/17/2021
Lead		0.0150		0.508	0.5000	0	101.5	85	115	06/17/2021
Zinc		0.0100		0.519	0.5000	0	103.9	85	115	06/17/2021

Batch 178909		SampType: MS		Units mg/L						
SampID: 21060830-002CMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		0.494	0.5000	0	98.8	75	125	06/17/2021
Arsenic		0.0250		0.522	0.5000	0	104.4	75	125	06/17/2021
Copper		0.0050		0.279	0.2500	0.008500	108.3	75	125	06/17/2021
Lead		0.0150		0.498	0.5000	0	99.5	75	125	06/17/2021
Zinc		0.0100		0.563	0.5000	0.05620	101.3	75	125	06/17/2021

Batch 178909		SampType: MSD		Units mg/L				RPD Limit 20		Date Analyzed
SampID: 21060830-002CMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Antimony		0.0500		0.508	0.5000	0	101.7	0.4940	2.85	06/17/2021
Arsenic		0.0250		0.533	0.5000	0	106.6	0.5218	2.16	06/17/2021
Copper		0.0050		0.286	0.2500	0.008500	111.1	0.2792	2.48	06/17/2021
Lead		0.0150		0.511	0.5000	0	102.2	0.4977	2.66	06/17/2021
Zinc		0.0100		0.578	0.5000	0.05620	104.4	0.5628	2.68	06/17/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD
Batch 178931 **SampType: MBLK** Units µg/L

SampID: MBLK-178931

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		1.00		ND						06/17/2021
Aroclor 1016		0.095		ND						06/17/2021
Aroclor 1221		0.095		ND						06/17/2021
Aroclor 1221		1.00		ND						06/17/2021
Aroclor 1232		0.095		ND						06/17/2021
Aroclor 1232		1.00		ND						06/17/2021
Aroclor 1242		0.095		ND						06/17/2021
Aroclor 1242		1.00		ND						06/17/2021
Aroclor 1248		0.095		ND						06/17/2021
Aroclor 1248		1.00		ND						06/17/2021
Aroclor 1254		0.095		ND						06/17/2021
Aroclor 1254		1.00		ND						06/17/2021
Aroclor 1260		0.095		ND						06/17/2021
Aroclor 1260		1.00		ND						06/17/2021
Surr: Decachlorobiphenyl	*			0.042	0.1250		33.9	31.2	141	06/17/2021
Surr: Decachlorobiphenyl	*			0.05	0.1250		37.5	27.5	143	06/17/2021
Surr: Decachlorobiphenyl	*			0.047	0.1250		37.5	31.2	141	06/17/2021
Surr: Tetrachloro-meta-xylene	*			0.10	0.1250		80.2	35.2	135	06/17/2021

Batch 178931 **SampType: LCS** Units µg/L

SampID: LCSPCB-178931

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		0.095		1.99	2.500	0	79.6	50	140	06/17/2021
Aroclor 1016		1.00		1.99	2.500	0	79.6	56.2	136	06/17/2021
Aroclor 1260		0.095		1.46	2.500	0	58.4	8	140	06/17/2021
Aroclor 1260		1.00		1.46	2.500	0	58.4	42.1	125	06/17/2021
Surr: Decachlorobiphenyl	*			0.07	0.1250		57.2	27.5	143	06/17/2021
Surr: Decachlorobiphenyl	*			0.072	0.1250		57.2	31.2	141	06/17/2021
Surr: Tetrachloro-meta-xylene	*			0.10	0.1250		76.6	35.2	135	06/17/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD

Batch 178931		SampType: LCSD		Units µg/L				RPD Limit 36			
SampID: LCSPCBD-178931											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Aroclor 1016		0.095		2.26	2.500	0	90.5	1.989	12.90	06/17/2021	
Aroclor 1016		1.00		2.26	2.500	0	90.5	1.989	12.90	06/17/2021	
Aroclor 1260		0.095		1.37	2.500	0	54.8	1.459	6.32	06/17/2021	
Aroclor 1260		1.00		1.37	2.500	0	54.8	1.459	6.32	06/17/2021	
Surr: Decachlorobiphenyl	*			0.051	0.1250		40.5			06/17/2021	
Surr: Decachlorobiphenyl	*			0.05	0.1250		40.5			06/17/2021	
Surr: Tetrachloro-meta-xylene	*			0.11	0.1250		86.6			06/17/2021	

Batch 178931		SampType: LCS		Units %REC						
SampID: LCSPST-178931										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: Decachlorobiphenyl	*			0.049	0.1250		39.5	31.2	141	06/17/2021

Batch 178931		SampType: LCSD		Units %REC				RPD Limit 0			
SampID: LCSPSTD-178931											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Surr: Decachlorobiphenyl	*			0.041	0.1250		33.1			06/17/2021	



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178907		SampType: MBLK		Units mg/L							
SampID: MBLK-178907											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Acenaphthene		0.00100		ND						06/17/2021	
Acenaphthylene		0.00100		ND						06/17/2021	
Anthracene		0.00100		ND						06/17/2021	
Benzo(a)anthracene		0.00100		ND						06/17/2021	
Benzo(a)pyrene		0.00100		ND						06/17/2021	
Benzo(b)fluoranthene		0.00100		ND						06/17/2021	
Benzo(g,h,i)perylene		0.00100		ND						06/17/2021	
Benzo(k)fluoranthene		0.00100		ND						06/17/2021	
Chrysene		0.00100		ND						06/17/2021	
Dibenzo(a,h)anthracene		0.00100		ND						06/17/2021	
Fluoranthene		0.00100		ND						06/17/2021	
Fluorene		0.00100		ND						06/17/2021	
Indeno(1,2,3-cd)pyrene		0.00100		ND						06/17/2021	
Naphthalene		0.00100		ND						06/17/2021	
Phenanthrene		0.00100		ND						06/17/2021	
Pyrene		0.00100		ND						06/17/2021	
Surr: 2-Fluorobiphenyl	*			0.0136	0.0125		109.0	1.09	175	06/17/2021	
Surr: Nitrobenzene-d5	*			0.0148	0.0125		118.6	35.5	156	06/17/2021	
Surr: p-Terphenyl-d14	*			0.0197	0.0125		157.3	35	222	06/17/2021	



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178907 **SampType:** LCS **Units** mg/L

SampID: LCS-178907

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Acenaphthene		0.00100		0.00957	0.0100	0	95.7	39.6	145	06/17/2021
Acenaphthylene		0.00100		0.00910	0.0100	0	91.0	38.3	147	06/17/2021
Anthracene		0.00100		0.00993	0.0100	0	99.3	47.7	153	06/17/2021
Benzo(a)anthracene		0.00100		0.0104	0.0100	0	103.7	45	136	06/17/2021
Benzo(a)pyrene		0.00100		0.0107	0.0100	0	107.3	49.8	164	06/17/2021
Benzo(b)fluoranthene		0.00100		0.0110	0.0100	0	110.3	45.7	167	06/17/2021
Benzo(g,h,i)perylene		0.00100		0.0103	0.0100	0	103.1	41	157	06/17/2021
Benzo(k)fluoranthene		0.00100		0.0115	0.0100	0	114.7	46.7	166	06/17/2021
Chrysene		0.00100		0.0109	0.0100	0	108.5	45.5	162	06/17/2021
Dibenzo(a,h)anthracene		0.00100		0.0104	0.0100	0	104.0	40.4	154	06/17/2021
Fluoranthene		0.00100		0.0109	0.0100	0	108.7	47.3	168	06/17/2021
Fluorene		0.00100		0.0103	0.0100	0	102.9	45.2	153	06/17/2021
Indeno(1,2,3-cd)pyrene		0.00100		0.0102	0.0100	0	101.5	44.6	166	06/17/2021
Naphthalene		0.00100		0.00958	0.0100	0	95.8	16.6	137	06/17/2021
Phenanthrene		0.00100		0.0106	0.0100	0	106.1	50.8	149	06/17/2021
Pyrene		0.00100		0.0106	0.0100	0	106.1	44.9	163	06/17/2021
Surr: 2-Fluorobiphenyl	*			0.0108	0.0125		86.5	1.09	175	06/17/2021
Surr: Nitrobenzene-d5	*			0.0126	0.0125		100.6	35.5	156	06/17/2021
Surr: p-Terphenyl-d14	*			0.0163	0.0125		130.6	35	222	06/17/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178907		SampType: LCSD		Units mg/L				RPD Limit 40			
SampID: LCSD-178907											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Acenaphthene		0.00100		0.00900	0.0100	0	90.0	0.009573	6.12	06/17/2021	
Acenaphthylene		0.00100		0.00874	0.0100	0	87.4	0.009103	4.06	06/17/2021	
Anthracene		0.00100		0.00919	0.0100	0	91.9	0.009934	7.76	06/17/2021	
Benzo(a)anthracene		0.00100		0.00969	0.0100	0	96.9	0.01037	6.79	06/17/2021	
Benzo(a)pyrene		0.00100		0.00984	0.0100	0	98.4	0.01073	8.63	06/17/2021	
Benzo(b)fluoranthene		0.00100		0.0102	0.0100	0	101.8	0.01103	8.01	06/17/2021	
Benzo(g,h,i)perylene		0.00100		0.00960	0.0100	0	96.0	0.01031	7.09	06/17/2021	
Benzo(k)fluoranthene		0.00100		0.0108	0.0100	0	108.0	0.01147	6.04	06/17/2021	
Chrysene		0.00100		0.0101	0.0100	0	100.5	0.01085	7.68	06/17/2021	
Dibenzo(a,h)anthracene		0.00100		0.00954	0.0100	0	95.4	0.01040	8.59	06/17/2021	
Fluoranthene		0.00100		0.0103	0.0100	0	102.7	0.01087	5.72	06/17/2021	
Fluorene		0.00100		0.00982	0.0100	0	98.2	0.01029	4.70	06/17/2021	
Indeno(1,2,3-cd)pyrene		0.00100		0.00955	0.0100	0	95.5	0.01015	6.08	06/17/2021	
Naphthalene		0.00100		0.00888	0.0100	0	88.8	0.009582	7.58	06/17/2021	
Phenanthrene		0.00100		0.00974	0.0100	0	97.4	0.01061	8.60	06/17/2021	
Pyrene		0.00100		0.0102	0.0100	0	101.7	0.01061	4.17	06/17/2021	
Surr: 2-Fluorobiphenyl	*			0.0107	0.0125		85.3			06/17/2021	
Surr: Nitrobenzene-d5	*			0.0127	0.0125		101.7			06/17/2021	
Surr: p-Terphenyl-d14	*			0.0155	0.0125		123.9			06/17/2021	

Batch 178907		SampType: LCSG		Units %REC							
SampID: LCSG-178907											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Surr: 2-Fluorobiphenyl	*			0.0126	0.0125		100.7	1.09	175	06/17/2021	
Surr: Nitrobenzene-d5	*			0.0139	0.0125		111.5	35.5	156	06/17/2021	
Surr: p-Terphenyl-d14	*			0.0174	0.0125		139.2	35	222	06/17/2021	

Batch 178907		SampType: LCSGD		Units %REC				RPD Limit 0			
SampID: LCSGD-178907											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Surr: 2-Fluorobiphenyl	*			0.0123	0.0125		98.4			06/17/2021	
Surr: Nitrobenzene-d5	*			0.0135	0.0125		107.8			06/17/2021	
Surr: p-Terphenyl-d14	*			0.0164	0.0125		131.0			06/17/2021	



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178907		SampType: MS		Units %REC						
SampID: 21060830-002BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.0423	0.0500		84.5	1.39	137	06/17/2021
Surr: Nitrobenzene-d5	*			0.0458	0.0500		91.5	29.1	125	06/17/2021
Surr: p-Terphenyl-d14	*			0.0578	0.0500		115.7	35.2	164	06/17/2021

Batch 178907		SampType: MSD		Units %REC		RPD Limit 0				
SampID: 21060830-002BMMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.0418	0.0500		83.5			06/17/2021
Surr: Nitrobenzene-d5	*			0.0469	0.0500		93.8			06/17/2021
Surr: p-Terphenyl-d14	*			0.0582	0.0500		116.3			06/17/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178875 **SampType:** MBLK **Units** µg/L

SampID: MBLK-AM210614a-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		ND						06/14/2021
1,1,1-Trichloroethane	*	2.0		ND						06/14/2021
1,1,2,2-Tetrachloroethane	*	2.0		ND						06/14/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND						06/14/2021
1,1,2-Trichloroethane	*	0.5		ND						06/14/2021
1,1-Dichloro-2-propanone	*	30.0		ND						06/14/2021
1,1-Dichloroethane	*	2.0		ND						06/14/2021
1,1-Dichloroethene	*	2.0		ND						06/14/2021
1,1-Dichloropropene	*	2.0		ND						06/14/2021
1,2,3-Trichlorobenzene	*	2.0		ND						06/14/2021
1,2,3-Trichloropropane	*	2.0		ND						06/14/2021
1,2,3-Trimethylbenzene	*	2.0		ND						06/14/2021
1,2,4-Trichlorobenzene	*	2.0		ND						06/14/2021
1,2,4-Trimethylbenzene	*	2.0		ND						06/14/2021
1,2-Dibromo-3-chloropropane	*	5.0		ND						06/14/2021
1,2-Dibromoethane	*	2.0		ND						06/14/2021
1,2-Dichlorobenzene	*	2.0		ND						06/14/2021
1,2-Dichloroethane	*	2.0		ND						06/14/2021
1,2-Dichloropropane	*	2.0		ND						06/14/2021
1,3,5-Trimethylbenzene	*	2.0		ND						06/14/2021
1,3-Dichlorobenzene	*	2.0		ND						06/14/2021
1,3-Dichloropropane	*	2.0		ND						06/14/2021
1,4-Dichlorobenzene	*	2.0		ND						06/14/2021
1-Chlorobutane	*	5.0		ND						06/14/2021
2,2-Dichloropropane	*	2.0		ND						06/14/2021
2-Butanone	*	10.0		ND						06/14/2021
2-Chloroethyl vinyl ether	*	5.0		ND						06/14/2021
2-Chlorotoluene	*	2.0		ND						06/14/2021
2-Hexanone	*	10.0		ND						06/14/2021
2-Nitropropane	*	10.0		ND						06/14/2021
4-Chlorotoluene	*	2.0		ND						06/14/2021
4-Methyl-2-pentanone	*	10.0		ND						06/14/2021
Acetone	*	10.0		ND						06/14/2021
Acetonitrile	*	10.0		ND						06/14/2021
Acrolein	*	20.0		ND						06/14/2021
Acrylonitrile	*	5.0		ND						06/14/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178875 **SampType:** MBLK **Units** µg/L

SampID: MBLK-AM210614a-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		ND						06/14/2021
Benzene	*	0.5		ND						06/14/2021
Bromobenzene	*	2.0		ND						06/14/2021
Bromochloromethane	*	2.0		ND						06/14/2021
Bromodichloromethane	*	2.0		ND						06/14/2021
Bromoform	*	2.0		ND						06/14/2021
Bromomethane	*	5.0		ND						06/14/2021
Carbon disulfide	*	2.0		ND						06/14/2021
Carbon tetrachloride	*	2.0		ND						06/14/2021
Chlorobenzene	*	2.0		ND						06/14/2021
Chloroethane	*	2.0		ND						06/14/2021
Chloroform	*	2.0		ND						06/14/2021
Chloromethane	*	5.0		ND						06/14/2021
Chloroprene	*	5.0		ND						06/14/2021
cis-1,2-Dichloroethene	*	2.0		ND						06/14/2021
cis-1,3-Dichloropropene	*	2.0		ND						06/14/2021
cis-1,4-Dichloro-2-butene	*	2.0		ND						06/14/2021
Cyclohexanone	*	20.0		ND						06/14/2021
Dibromochloromethane	*	2.0		ND						06/14/2021
Dibromomethane	*	2.0		ND						06/14/2021
Dichlorodifluoromethane	*	2.0		ND						06/14/2021
Diisopropyl ether	*	2.0		ND						06/14/2021
Ethyl acetate	*	10.0		ND						06/14/2021
Ethyl ether	*	5.0		ND						06/14/2021
Ethyl methacrylate	*	5.0		ND						06/14/2021
Ethylbenzene	*	2.0		ND						06/14/2021
Ethyl-tert-butyl ether	*	2.0		ND						06/14/2021
Hexachlorobutadiene	*	5.0		ND						06/14/2021
Hexachloroethane	*	5.0		ND						06/14/2021
Iodomethane	*	5.0		ND						06/14/2021
Isopropylbenzene	*	2.0		ND						06/14/2021
m,p-Xylenes	*	2.0		ND						06/14/2021
Methacrylonitrile	*	5.0		ND						06/14/2021
Methyl Methacrylate	*	5.0		ND						06/14/2021
Methyl tert-butyl ether	*	2.0		ND						06/14/2021
Methylacrylate	*	5.0		ND						06/14/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178875		SampType: MBLK		Units µg/L							
SampID: MBLK-AM210614a-2											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Methylene chloride	*	2.0		ND						06/14/2021	
Naphthalene	*	5.0		ND						06/14/2021	
n-Butyl acetate	*	2.0		ND						06/14/2021	
n-Butylbenzene	*	2.0		ND						06/14/2021	
n-Heptane	*	5.0		ND						06/14/2021	
n-Hexane	*	5.0		ND						06/14/2021	
Nitrobenzene	*	50.0		ND						06/14/2021	
n-Propylbenzene	*	2.0		ND						06/14/2021	
o-Xylene	*	2.0		ND						06/14/2021	
Pentachloroethane	*	5.0		ND						06/14/2021	
p-Isopropyltoluene	*	2.0		ND						06/14/2021	
Propionitrile	*	10.0		ND						06/14/2021	
sec-Butylbenzene	*	2.0		ND						06/14/2021	
Styrene	*	2.0		ND						06/14/2021	
tert-Amyl methyl ether	*	2.0		ND						06/14/2021	
tert-Butyl alcohol	*	10.0		ND						06/14/2021	
tert-Butylbenzene	*	2.0		ND						06/14/2021	
Tetrachloroethene	*	0.5		ND						06/14/2021	
Tetrahydrofuran	*	5.0		ND						06/14/2021	
Toluene	*	2.0		ND						06/14/2021	
trans-1,2-Dichloroethene	*	2.0		ND						06/14/2021	
trans-1,3-Dichloropropene	*	2.0		ND						06/14/2021	
trans-1,4-Dichloro-2-butene	*	2.0		ND						06/14/2021	
Trichloroethene	*	2.0		ND						06/14/2021	
Trichlorofluoromethane	*	5.0		ND						06/14/2021	
Vinyl acetate	*	5.0		ND						06/14/2021	
Vinyl chloride	*	2.0		ND						06/14/2021	
Xylenes, Total	*	4.0		ND						06/14/2021	
1,2-Dichloroethene, Total	*	4.0		ND						06/14/2021	
1,3-Dichloropropene, Total	*	4.0		ND						06/14/2021	
1,4-Dichloro-2-butene, Total	*	4.0		ND						06/14/2021	
TPH - GRO (C6 - C10)	*	500		ND						06/14/2021	
Surr: 1,2-Dichloroethane-d4	*			49.7	50.00		99.3	80	120	06/14/2021	
Surr: 4-Bromofluorobenzene	*			50.8	50.00		101.7	80	120	06/14/2021	
Surr: Toluene-d8	*			48.6	50.00		97.2	80	120	06/14/2021	

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178875 **SampType:** LCS

Units µg/L

SampID: LCS-AM210614A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		52.2	50.00	0	104.3	82	113	06/14/2021
1,1,1-Trichloroethane	*	2.0		53.2	50.00	0	106.4	76.9	128	06/14/2021
1,1,2,2-Tetrachloroethane	*	2.0		45.6	50.00	0	91.2	76.7	113	06/14/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		51.2	50.00	0	102.4	69.5	127	06/14/2021
1,1,2-Trichloroethane	*	0.5		49.3	50.00	0	98.6	83.8	111	06/14/2021
1,1-Dichloro-2-propanone	*	30.0		115	125.0	0	91.6	74.9	117	06/14/2021
1,1-Dichloroethane	*	2.0		51.4	50.00	0	102.8	77	129	06/14/2021
1,1-Dichloroethene	*	2.0		50.5	50.00	0	101.0	69.4	127	06/14/2021
1,1-Dichloropropene	*	2.0		52.0	50.00	0	103.9	75.1	123	06/14/2021
1,2,3-Trichlorobenzene	*	2.0		53.0	50.00	0	105.9	77.3	121	06/14/2021
1,2,3-Trichloropropane	*	2.0		46.5	50.00	0	93.1	75.3	109	06/14/2021
1,2,3-Trimethylbenzene	*	2.0		50.0	50.00	0	100.0	77	115	06/14/2021
1,2,4-Trichlorobenzene	*	2.0		53.5	50.00	0	107.0	76.8	124	06/14/2021
1,2,4-Trimethylbenzene	*	2.0		50.3	50.00	0	100.5	75	115	06/14/2021
1,2-Dibromo-3-chloropropane	*	5.0		48.9	50.00	0	97.8	71.9	119	06/14/2021
1,2-Dibromoethane	*	2.0		50.4	50.00	0	100.8	83.6	110	06/14/2021
1,2-Dichlorobenzene	*	2.0		48.7	50.00	0	97.4	72.1	113	06/14/2021
1,2-Dichloroethane	*	2.0		47.8	50.00	0	95.6	72.3	117	06/14/2021
1,2-Dichloropropane	*	2.0		53.2	50.00	0	106.3	76.5	119	06/14/2021
1,3,5-Trimethylbenzene	*	2.0		49.7	50.00	0	99.4	75.2	117	06/14/2021
1,3-Dichlorobenzene	*	2.0		49.8	50.00	0	99.7	75.2	115	06/14/2021
1,3-Dichloropropane	*	2.0		49.4	50.00	0	98.7	80.9	110	06/14/2021
1,4-Dichlorobenzene	*	2.0		49.1	50.00	0	98.1	73.9	112	06/14/2021
1-Chlorobutane	*	5.0		52.8	50.00	0	105.5	74.9	130	06/14/2021
2,2-Dichloropropane	*	2.0		54.5	50.00	0	109.0	66.5	138	06/14/2021
2-Butanone	*	10.0		127	125.0	0	101.8	68.8	134	06/14/2021
2-Chloroethyl vinyl ether	*	5.0		55.5	50.00	0	111.0	17.8	163	06/14/2021
2-Chlorotoluene	*	2.0		47.8	50.00	0	95.5	74.9	115	06/14/2021
2-Hexanone	*	10.0		130	125.0	0	104.4	73.2	117	06/14/2021
2-Nitropropane	*	10.0		463	500.0	0	92.6	67.1	140	06/14/2021
4-Chlorotoluene	*	2.0		49.4	50.00	0	98.8	75.7	113	06/14/2021
4-Methyl-2-pentanone	*	10.0		125	125.0	0	100.4	77	113	06/14/2021
Acetone	*	10.0		127	125.0	0	101.4	61.4	130	06/14/2021
Acetonitrile	*	10.0		586	500.0	0	117.1	68.8	136	06/14/2021
Acrolein	*	20.0		419	500.0	0	83.8	28.4	168	06/14/2021
Acrylonitrile	*	5.0		51.7	50.00	0	103.4	77.9	124	06/14/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178875 **SampType:** LCS

Units µg/L

SampID: LCS-AM210614A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		55.3	50.00	0	110.5	75.8	130	06/14/2021
Benzene	*	0.5		51.3	50.00	0	102.7	78.5	119	06/14/2021
Bromobenzene	*	2.0		49.7	50.00	0	99.5	77.5	113	06/14/2021
Bromochloromethane	*	2.0		50.3	50.00	0	100.6	71.5	123	06/14/2021
Bromodichloromethane	*	2.0		52.6	50.00	0	105.2	75.7	123	06/14/2021
Bromoform	*	2.0		53.6	50.00	0	107.1	78.9	121	06/14/2021
Bromomethane	*	5.0		49.3	50.00	0	98.5	30.5	192	06/14/2021
Carbon disulfide	*	2.0		49.8	50.00	0	99.6	66.7	121	06/14/2021
Carbon tetrachloride	*	2.0		53.1	50.00	0	106.2	70.9	127	06/14/2021
Chlorobenzene	*	2.0		49.3	50.00	0	98.6	80	111	06/14/2021
Chloroethane	*	2.0	S	33.6	50.00	0	67.2	69.6	135	06/14/2021
Chloroform	*	2.0		54.5	50.00	0	109.0	76.2	120	06/14/2021
Chloromethane	*	5.0		45.0	50.00	0	90.0	50.9	138	06/14/2021
Chloroprene	*	5.0		51.8	50.00	0	103.6	68.4	127	06/14/2021
cis-1,2-Dichloroethene	*	2.0		52.8	50.00	0	105.5	79.5	121	06/14/2021
cis-1,3-Dichloropropene	*	2.0		55.6	50.00	0	111.2	79.8	123	06/14/2021
cis-1,4-Dichloro-2-butene	*	2.0		53.4	50.00	0	106.8	64.6	130	06/14/2021
Cyclohexanone	*	20.0		491	500.0	0	98.3	70.5	114	06/14/2021
Dibromochloromethane	*	2.0		52.3	50.00	0	104.6	84.5	114	06/14/2021
Dibromomethane	*	2.0		51.2	50.00	0	102.4	76	119	06/14/2021
Dichlorodifluoromethane	*	2.0		42.6	50.00	0	85.2	46.6	142	06/14/2021
Diisopropyl ether	*	2.0		54.1	50.00	0	108.1	72	128	06/14/2021
Ethyl acetate	*	10.0		46.3	50.00	0	92.6	70.3	115	06/14/2021
Ethyl ether	*	5.0		52.6	50.00	0	105.2	74.6	120	06/14/2021
Ethyl methacrylate	*	5.0		50.2	50.00	0	100.5	81.4	116	06/14/2021
Ethylbenzene	*	2.0		49.8	50.00	0	99.6	78.2	114	06/14/2021
Ethyl-tert-butyl ether	*	2.0		53.5	50.00	0	107.0	74.6	124	06/14/2021
Hexachlorobutadiene	*	5.0		51.4	50.00	0	102.8	73.9	129	06/14/2021
Hexachloroethane	*	5.0		51.0	50.00	0	102.1	78.3	123	06/14/2021
Iodomethane	*	5.0		58.8	50.00	0	117.6	50	151	06/14/2021
Isopropylbenzene	*	2.0		51.8	50.00	0	103.5	79.3	115	06/14/2021
m,p-Xylenes	*	2.0		101	100.0	0	100.7	77.2	116	06/14/2021
Methacrylonitrile	*	5.0		53.0	50.00	0	105.9	73.9	127	06/14/2021
Methyl Methacrylate	*	5.0		52.4	50.00	0	104.9	70.7	129	06/14/2021
Methyl tert-butyl ether	*	2.0		52.8	50.00	0	105.7	80.3	122	06/14/2021
Methylacrylate	*	5.0		53.4	50.00	0	106.7	75.2	124	06/14/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178875		SampType: LCS		Units µg/L							Date
SampID: LCS-AM210614A-2											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed	
Methylene chloride	*	2.0		48.0	50.00	0	96.1	71.8	115	06/14/2021	
Naphthalene	*	5.0	B	53.7	50.00	0	107.4	75.6	121	06/14/2021	
n-Butyl acetate	*	2.0		51.5	50.00	0	102.9	72.4	118	06/14/2021	
n-Butylbenzene	*	2.0		47.3	50.00	0	94.5	70.8	118	06/14/2021	
n-Heptane	*	5.0		54.5	50.00	0	108.9	50.4	143	06/14/2021	
n-Hexane	*	5.0		49.8	50.00	0	99.6	60.6	139	06/14/2021	
Nitrobenzene	*	50.0		496	500.0	0	99.3	49.4	129	06/14/2021	
n-Propylbenzene	*	2.0		48.1	50.00	0	96.3	74	119	06/14/2021	
o-Xylene	*	2.0		49.7	50.00	0	99.4	79.2	112	06/14/2021	
Pentachloroethane	*	5.0		47.7	50.00	0	95.4	71.8	124	06/14/2021	
p-Isopropyltoluene	*	2.0		49.4	50.00	0	98.9	74.4	119	06/14/2021	
Propionitrile	*	10.0		550	500.0	0	110.0	76.2	127	06/14/2021	
sec-Butylbenzene	*	2.0		49.7	50.00	0	99.4	74.4	119	06/14/2021	
Styrene	*	2.0		52.0	50.00	0	104.1	80.4	117	06/14/2021	
tert-Amyl methyl ether	*	2.0		54.0	50.00	0	108.1	80.8	125	06/14/2021	
tert-Butyl alcohol	*	10.0		268	250.0	0	107.4	64.9	118	06/14/2021	
tert-Butylbenzene	*	2.0		48.8	50.00	0	97.5	74	115	06/14/2021	
Tetrachloroethene	*	0.5		55.7	50.00	0	111.4	70.1	120	06/14/2021	
Tetrahydrofuran	*	5.0		47.6	50.00	0	95.2	63.5	122	06/14/2021	
Toluene	*	2.0		49.5	50.00	0	99.0	78.6	112	06/14/2021	
trans-1,2-Dichloroethene	*	2.0		51.0	50.00	0	101.9	75.7	130	06/14/2021	
trans-1,3-Dichloropropene	*	2.0		47.0	50.00	0	94.1	80.3	116	06/14/2021	
trans-1,4-Dichloro-2-butene	*	2.0		51.3	50.00	0	102.6	65.5	124	06/14/2021	
Trichloroethene	*	2.0		52.1	50.00	0	104.2	76.2	121	06/14/2021	
Trichlorofluoromethane	*	5.0		48.5	50.00	0	97.0	71.1	131	06/14/2021	
Vinyl acetate	*	5.0		53.9	50.00	0	107.9	79.8	129	06/14/2021	
Vinyl chloride	*	2.0		49.2	50.00	0	98.4	58.6	141	06/14/2021	
Xylenes, Total	*	4.0		150	150.0	0	100.3	78.3	114	06/14/2021	
1,2-Dichloroethene, Total	*	4.0		104	100.0	0	103.7	78.5	125	06/14/2021	
1,3-Dichloropropene, Total	*	4.0		103	100.0	0	102.6	82.3	117	06/14/2021	
1,4-Dichloro-2-butene, Total	*	4.0		105	100.0	0	104.7	65.9	126	06/14/2021	
Surr: 1,2-Dichloroethane-d4	*			48.5	50.00		97.0	80	120	06/14/2021	
Surr: 4-Bromofluorobenzene	*			47.5	50.00		95.0	80	120	06/14/2021	
Surr: Toluene-d8	*			48.4	50.00		96.8	80	120	06/14/2021	

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178875	SampType: LCSD	Units µg/L								RPD Limit 15.4	Date Analyzed
SampID: LCSD-AM210614A-2											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
1,1,1,2-Tetrachloroethane	*	2.0		52.2	50.00	0	104.4	52.15	0.08	06/14/2021	
1,1,1-Trichloroethane	*	2.0		52.6	50.00	0	105.2	53.21	1.11	06/14/2021	
1,1,2,2-Tetrachloroethane	*	2.0		46.2	50.00	0	92.4	45.59	1.31	06/14/2021	
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		51.0	50.00	0	102.0	51.22	0.39	06/14/2021	
1,1,2-Trichloroethane	*	0.5		49.9	50.00	0	99.7	49.31	1.13	06/14/2021	
1,1-Dichloro-2-propanone	*	30.0		115	125.0	0	91.8	114.5	0.19	06/14/2021	
1,1-Dichloroethane	*	2.0		51.9	50.00	0	103.8	51.40	0.93	06/14/2021	
1,1-Dichloroethene	*	2.0		50.2	50.00	0	100.4	50.49	0.56	06/14/2021	
1,1-Dichloropropene	*	2.0		51.6	50.00	0	103.2	51.95	0.71	06/14/2021	
1,2,3-Trichlorobenzene	*	2.0		55.2	50.00	0	110.5	52.97	4.20	06/14/2021	
1,2,3-Trichloropropane	*	2.0		47.7	50.00	0	95.3	46.53	2.40	06/14/2021	
1,2,3-Trimethylbenzene	*	2.0		51.4	50.00	0	102.9	49.98	2.90	06/14/2021	
1,2,4-Trichlorobenzene	*	2.0		55.3	50.00	0	110.7	53.49	3.38	06/14/2021	
1,2,4-Trimethylbenzene	*	2.0		51.3	50.00	0	102.7	50.26	2.13	06/14/2021	
1,2-Dibromo-3-chloropropane	*	5.0		49.3	50.00	0	98.5	48.90	0.75	06/14/2021	
1,2-Dibromoethane	*	2.0		50.9	50.00	0	101.8	50.42	0.95	06/14/2021	
1,2-Dichlorobenzene	*	2.0		49.6	50.00	0	99.2	48.72	1.75	06/14/2021	
1,2-Dichloroethane	*	2.0		48.2	50.00	0	96.3	47.82	0.73	06/14/2021	
1,2-Dichloropropane	*	2.0		53.3	50.00	0	106.6	53.17	0.26	06/14/2021	
1,3,5-Trimethylbenzene	*	2.0		50.7	50.00	0	101.4	49.72	1.95	06/14/2021	
1,3-Dichlorobenzene	*	2.0		50.3	50.00	0	100.7	49.85	0.96	06/14/2021	
1,3-Dichloropropane	*	2.0		49.6	50.00	0	99.2	49.36	0.49	06/14/2021	
1,4-Dichlorobenzene	*	2.0		49.8	50.00	0	99.6	49.06	1.52	06/14/2021	
1-Chlorobutane	*	5.0		52.6	50.00	0	105.1	52.77	0.42	06/14/2021	
2,2-Dichloropropane	*	2.0		54.2	50.00	0	108.4	54.52	0.55	06/14/2021	
2-Butanone	*	10.0		126	125.0	0	101.1	127.2	0.67	06/14/2021	
2-Chloroethyl vinyl ether	*	5.0		55.4	50.00	0	110.9	55.49	0.11	06/14/2021	
2-Chlorotoluene	*	2.0		48.5	50.00	0	97.0	47.76	1.52	06/14/2021	
2-Hexanone	*	10.0		132	125.0	0	105.8	130.4	1.34	06/14/2021	
2-Nitropropane	*	10.0		466	500.0	0	93.1	462.8	0.62	06/14/2021	
4-Chlorotoluene	*	2.0		50.1	50.00	0	100.2	49.42	1.37	06/14/2021	
4-Methyl-2-pentanone	*	10.0		126	125.0	0	101.1	125.5	0.74	06/14/2021	
Acetone	*	10.0		126	125.0	0	100.5	126.7	0.87	06/14/2021	
Acetonitrile	*	10.0		591	500.0	0	118.3	585.7	0.96	06/14/2021	
Acrolein	*	20.0		421	500.0	0	84.2	419.2	0.40	06/14/2021	
Acrylonitrile	*	5.0		51.0	50.00	0	102.1	51.70	1.27	06/14/2021	



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	SampType:	Units µg/L			RPD Limit 15.4					
SampID: LCSD-AM210614A-2										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Allyl chloride	*	5.0		55.2	50.00	0	110.3	55.27	0.22	06/14/2021
Benzene	*	0.5		51.5	50.00	0	102.9	51.34	0.25	06/14/2021
Bromobenzene	*	2.0		50.5	50.00	0	101.1	49.73	1.60	06/14/2021
Bromochloromethane	*	2.0		49.3	50.00	0	98.7	50.28	1.91	06/14/2021
Bromodichloromethane	*	2.0		52.3	50.00	0	104.7	52.59	0.48	06/14/2021
Bromoform	*	2.0		54.0	50.00	0	108.0	53.57	0.78	06/14/2021
Bromomethane	*	5.0		49.6	50.00	0	99.2	49.27	0.63	06/14/2021
Carbon disulfide	*	2.0		49.8	50.00	0	99.5	49.78	0.02	06/14/2021
Carbon tetrachloride	*	2.0		53.3	50.00	0	106.6	53.11	0.36	06/14/2021
Chlorobenzene	*	2.0		49.7	50.00	0	99.4	49.30	0.81	06/14/2021
Chloroethane	*	2.0		46.2	50.00	0	92.3	33.58	31.57	06/14/2021
Chloroform	*	2.0		54.2	50.00	0	108.4	54.51	0.57	06/14/2021
Chloromethane	*	5.0		41.6	50.00	0	83.1	45.01	7.95	06/14/2021
Chloroprene	*	5.0		51.8	50.00	0	103.5	51.78	0.02	06/14/2021
cis-1,2-Dichloroethene	*	2.0		52.1	50.00	0	104.2	52.75	1.28	06/14/2021
cis-1,3-Dichloropropene	*	2.0		55.5	50.00	0	110.9	55.58	0.20	06/14/2021
cis-1,4-Dichloro-2-butene	*	2.0		53.4	50.00	0	106.7	53.39	0.07	06/14/2021
Cyclohexanone	*	20.0		486	500.0	0	97.3	491.4	1.01	06/14/2021
Dibromochloromethane	*	2.0		52.5	50.00	0	105.1	52.28	0.48	06/14/2021
Dibromomethane	*	2.0		50.7	50.00	0	101.5	51.20	0.92	06/14/2021
Dichlorodifluoromethane	*	2.0		42.3	50.00	0	84.5	42.62	0.82	06/14/2021
Diisopropyl ether	*	2.0		54.4	50.00	0	108.8	54.06	0.66	06/14/2021
Ethyl acetate	*	10.0		46.3	50.00	0	92.6	46.31	0.00	06/14/2021
Ethyl ether	*	5.0		53.5	50.00	0	107.0	52.59	1.70	06/14/2021
Ethyl methacrylate	*	5.0		50.9	50.00	0	101.9	50.24	1.38	06/14/2021
Ethylbenzene	*	2.0		50.1	50.00	0	100.2	49.78	0.68	06/14/2021
Ethyl-tert-butyl ether	*	2.0		54.0	50.00	0	108.1	53.52	0.95	06/14/2021
Hexachlorobutadiene	*	5.0		54.2	50.00	0	108.5	51.39	5.40	06/14/2021
Hexachloroethane	*	5.0		53.0	50.00	0	106.1	51.03	3.86	06/14/2021
Iodomethane	*	5.0		62.4	50.00	0	124.8	58.80	5.97	06/14/2021
Isopropylbenzene	*	2.0		52.2	50.00	0	104.4	51.77	0.83	06/14/2021
m,p-Xylenes	*	2.0		101	100.0	0	101.0	100.7	0.28	06/14/2021
Methacrylonitrile	*	5.0		52.7	50.00	0	105.5	52.95	0.42	06/14/2021
Methyl Methacrylate	*	5.0		53.3	50.00	0	106.7	52.45	1.68	06/14/2021
Methyl tert-butyl ether	*	2.0		52.8	50.00	0	105.6	52.83	0.06	06/14/2021
Methylacrylate	*	5.0		54.2	50.00	0	108.5	53.36	1.65	06/14/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178875	SampType: LCSD	Units µg/L							RPD Limit 15.4		Date
SampID: LCSD-AM210614A-2											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Analyzed	
Methylene chloride	*	2.0		48.0	50.00	0	96.0	48.04	0.08	06/14/2021	
Naphthalene	*	5.0	B	54.7	50.00	0	109.4	53.69	1.85	06/14/2021	
n-Butyl acetate	*	2.0		52.0	50.00	0	103.9	51.47	0.97	06/14/2021	
n-Butylbenzene	*	2.0		48.8	50.00	0	97.5	47.27	3.12	06/14/2021	
n-Heptane	*	5.0		53.9	50.00	0	107.7	54.47	1.13	06/14/2021	
n-Hexane	*	5.0		50.0	50.00	0	100.0	49.82	0.36	06/14/2021	
Nitrobenzene	*	50.0		500	500.0	0	99.9	496.5	0.62	06/14/2021	
n-Propylbenzene	*	2.0		49.1	50.00	0	98.1	48.14	1.89	06/14/2021	
o-Xylene	*	2.0		50.0	50.00	0	100.1	49.70	0.66	06/14/2021	
Pentachloroethane	*	5.0		48.7	50.00	0	97.4	47.68	2.16	06/14/2021	
p-Isopropyltoluene	*	2.0		50.8	50.00	0	101.6	49.45	2.71	06/14/2021	
Propionitrile	*	10.0		545	500.0	0	109.0	549.8	0.92	06/14/2021	
sec-Butylbenzene	*	2.0		51.0	50.00	0	101.9	49.70	2.50	06/14/2021	
Styrene	*	2.0		51.9	50.00	0	103.8	52.05	0.33	06/14/2021	
tert-Amyl methyl ether	*	2.0		54.6	50.00	0	109.2	54.05	1.01	06/14/2021	
tert-Butyl alcohol	*	10.0		268	250.0	0	107.1	268.5	0.31	06/14/2021	
tert-Butylbenzene	*	2.0		50.5	50.00	0	101.0	48.76	3.47	06/14/2021	
Tetrachloroethene	*	0.5		55.4	50.00	0	110.7	55.70	0.63	06/14/2021	
Tetrahydrofuran	*	5.0		48.7	50.00	0	97.5	47.62	2.32	06/14/2021	
Toluene	*	2.0		49.1	50.00	0	98.3	49.52	0.77	06/14/2021	
trans-1,2-Dichloroethene	*	2.0		50.5	50.00	0	101.0	50.97	0.95	06/14/2021	
trans-1,3-Dichloropropene	*	2.0		47.4	50.00	0	94.8	47.05	0.74	06/14/2021	
trans-1,4-Dichloro-2-butene	*	2.0		52.5	50.00	0	105.0	51.30	2.33	06/14/2021	
Trichloroethene	*	2.0		51.4	50.00	0	102.7	52.10	1.43	06/14/2021	
Trichlorofluoromethane	*	5.0		47.7	50.00	0	95.4	48.52	1.75	06/14/2021	
Vinyl acetate	*	5.0		53.6	50.00	0	107.3	53.94	0.56	06/14/2021	
Vinyl chloride	*	2.0		43.6	50.00	0	87.1	49.22	12.20	06/14/2021	
Xylenes, Total	*	4.0		151	150.0	0	100.7	150.4	0.40	06/14/2021	
1,2-Dichloroethene, Total	*	4.0		103	100.0	0	102.6	103.7	1.11	06/14/2021	
1,3-Dichloropropene, Total	*	4.0		103	100.0	0	102.9	102.6	0.23	06/14/2021	
1,4-Dichloro-2-butene, Total	*	4.0		106	100.0	0	105.9	104.7	1.11	06/14/2021	
Surr: 1,2-Dichloroethane-d4	*			48.2	50.00		96.5			06/14/2021	
Surr: 4-Bromofluorobenzene	*			47.9	50.00		95.8			06/14/2021	
Surr: Toluene-d8	*			48.5	50.00		97.0			06/14/2021	



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178875 **SampType:** LCSG Units µg/L

SampID: LCSG-AM210614A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
TPH - GRO (C6 - C10)	*	500		1760	2000	0	88.1	70	130	06/14/2021
Surr: 1,2-Dichloroethane-d4	*			49.0	50.00		98.1	80	120	06/14/2021
Surr: 4-Bromofluorobenzene	*			49.5	50.00		99.0	80	120	06/14/2021
Surr: Toluene-d8	*			48.5	50.00		97.0	80	120	06/14/2021

Batch 178875 **SampType:** LCSGD Units µg/L

RPD Limit **20**

SampID: LCSGD-AM210614A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
TPH - GRO (C6 - C10)	*	500		1710	2000	0	85.3	1763	3.27	06/14/2021
Surr: 1,2-Dichloroethane-d4	*			49.1	50.00		98.3			06/14/2021
Surr: 4-Bromofluorobenzene	*			49.3	50.00		98.7			06/14/2021
Surr: Toluene-d8	*			49.0	50.00		97.9			06/14/2021



Receiving Check List

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21060830

Client Project: 128487

Report Date: 21-Jun-21

Carrier: Alec Rebbe

Received By: MEK

Completed by: (b) (6)

Reviewed by: (b) (6)

On:

On:

11-Jun-21

11-Jun-21

Mary E. Kemp

Shelly A. Hennessy

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes No Not Present Temp °C **2.4**
- Type of thermal preservation? None Ice Blue Ice Dry Ice
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Reported field parameters measured: Field Lab NA
- Container/Temp Blank temperature in compliance? Yes No

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- Water – at least one vial per sample has zero headspace? Yes No No VOA vials
- Water - TOX containers have zero headspace? Yes No No TOX containers
- Water - pH acceptable upon receipt? Yes No NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes No NA

Any No responses must be detailed below or on the COC.

Trip Blank collection date and time will be reported as the received date and time (end of trip). - MKemp - 6/11/2021 3:43:53 PM

pH strip #76747. - ERH/MKemp - 6/11/2021 3:43:58 PM

Burns & McDonnell Engineering
 425 South Woods Mill Road
 Chesterfield, Missouri 63017
 Phone: (314) 682-1500 Fax: (314) 682-1600
 Attention: JUSTIN CANTER
 JCANTER@BURNSMCD.COM

Laboratory: TEELER, Inc.
 Address: 5445 Housertown Lane 26
 City/State/Zip: COMMERCE, IL 62234
 Telephone: 618-344-1004

Document Control No: 128487-003
 Lab. Reference No. or Episode No.: 21000830

Project Number: 128487

Sample Type

Client Name: GSA

Matrix

Sample Number			Sample Event		Sample Depth (in feet)		Sample Collected		Liquid	Solid	Gas	Number of Containers	Analysis	Remarks
Group or SWMU Name	Sample Point	Sample Designator	Round	Year	From	To	Date	Time						
<u>TR-03</u>									<input checked="" type="checkbox"/>			<u>2</u>		<u>21000830-001</u>
<u>RWSR-06</u>				<u>2021</u>			<u>6/09</u>	<u>1630</u>	<input checked="" type="checkbox"/>			<u>5'</u>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<u>002</u>
<u>RWSR-07</u>				<u>2021</u>			<u>6/10</u>	<u>1415</u>	<input checked="" type="checkbox"/>			<u>5'</u>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<u>003</u>
<u>RWSR-08</u>				<u>2021</u>			<u>6/11</u>	<u>1040</u>	<input checked="" type="checkbox"/>			<u>5'</u>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<u>004</u>

Analysis
 BUNKS
 PCBs
 METALS (TOTAL)
 VOLATILES (TPH)
 VOLATILE ORGANICS

Courier

Sampler (signature): [Signature]
 (b) (6)

Sampler (signature):
 (b) (6)

Special Instructions: 70747 ØHS (b) (6) 6/11/21

Relinquished By (signature): [Signature]
 1. (b) (6)

Date/Time
6/11 1224

Received By (signature): [Signature]
 (b) (6)

Date/Time
6/11/21 1226

Ice Present in Container:
 Yes No

Temperature Upon Receipt:
2.4 LTG: 5

Relinquished By (signature): [Signature]
 2. (b) (6)

Date/Time
6/11 202

Received By (signature): [Signature]
 (b) (6)

Date/Time
6/11/21 1400

Laboratory Comments:
 PH

June 28, 2021

Justin Carter
Burns & McDonnell Waste Consultants
9400 Ward Parkway
P.O. Box 419173
Kansas City, MO 64114
TEL: (816) 333-9400
FAX: (816) 822-3494



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: 128487 GSA

WorkOrder: 21061101

Dear Justin Carter:

TEKLAB, INC received 4 samples on 6/16/2021 3:47:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

(b) (6)

Emily Pohlman
Project Manager
(618)344-1004 ex 44
epohlman@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	22
Dates Report	23
Quality Control Results	24
Receiving Check List	42
Chain of Custody	Appended

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Qualifiers

- | | |
|---|--|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| C - RL shown is a Client Requested Quantitation Limit | E - Value above quantitation range |
| H - Holding times exceeded | I - Associated internal standard was outside method criteria |
| J - Analyte detected below quantitation limits | M - Manual Integration used to determine area response |
| ND - Not Detected at the Reporting Limit | R - RPD outside accepted recovery limits |
| S - Spike Recovery outside recovery limits | T - TIC(Tentatively identified compound) |
| X - Value exceeds Maximum Contaminant Level | |



Case Narrative

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Cooler Receipt Temp: 0.6 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-001

Client Sample ID: TB-01

Matrix: TRIP BLANK

Collection Date: 06/16/2021 15:47

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/17/2021 13:34	178954
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/17/2021 13:34	178954
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/17/2021 13:34	178954
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/17/2021 13:34	178954
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/17/2021 13:34	178954
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/17/2021 13:34	178954
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
2-Butanone	NELAP	10.0		ND	µg/L	1	06/17/2021 13:34	178954
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/17/2021 13:34	178954
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/17/2021 13:34	178954
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/17/2021 13:34	178954
Acetone	NELAP	10.0		ND	µg/L	1	06/17/2021 13:34	178954
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/17/2021 13:34	178954
Acrolein	NELAP	20.0		ND	µg/L	1	06/17/2021 13:34	178954
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Benzene	NELAP	0.5		ND	µg/L	1	06/17/2021 13:34	178954
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Bromoform	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Bromomethane	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-001

Client Sample ID: TB-01

Matrix: TRIP BLANK

Collection Date: 06/16/2021 15:47

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Chloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Chloroform	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Chloromethane	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Chloroprene	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Cyclohexanone	*	20.0		ND	µg/L	1	06/17/2021 13:34	178954
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Diisopropyl ether	*	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/17/2021 13:34	178954
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Iodomethane	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Naphthalene	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
n-Butyl acetate	*	2.0		ND	µg/L	1	06/17/2021 13:34	178954
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
n-Heptane	*	5.0		ND	µg/L	1	06/17/2021 13:34	178954
n-Hexane	*	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/17/2021 13:34	178954
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
o-Xylene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Propionitrile	NELAP	10.0		ND	µg/L	1	06/17/2021 13:34	178954
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Styrene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/17/2021 13:34	178954
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/17/2021 13:34	178954
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/17/2021 13:34	178954
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-001

Client Sample ID: TB-01

Matrix: TRIP BLANK

Collection Date: 06/16/2021 15:47

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Toluene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/17/2021 13:34	178954
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/17/2021 13:34	178954
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/17/2021 13:34	178954
Surr: 1,2-Dichloroethane-d4	*	80-120		101.6	%REC	1	06/17/2021 13:34	178954
Surr: 4-Bromofluorobenzene	*	80-120		103.7	%REC	1	06/17/2021 13:34	178954
Surr: Toluene-d8	*	80-120		95.4	%REC	1	06/17/2021 13:34	178954

LCS recovered outside upper control limits for acetonitrile and n-heptane. Sample results are below the reporting limit. Data is reportable per the TNI Standard.



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-002

Client Sample ID: Rinse-09

Matrix: GROUNDWATER

Collection Date: 06/14/2021 15:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/21/2021 17:14	179031
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/21/2021 17:14	179031
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/21/2021 17:14	179031
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/21/2021 17:14	179031
Zinc	NELAP	0.0100	B	< 0.0100	mg/L	1	06/21/2021 17:14	179031

Contamination present in the MBLK for Zn. Sample results below the reporting limit are reportable per the TNI Standard.

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/18/2021 12:28	178931
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/18/2021 12:28	178931
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/18/2021 12:28	178931
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/18/2021 12:28	178931
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/18/2021 12:28	178931
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/18/2021 12:28	178931
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/18/2021 12:28	178931
Surr: Decachlorobiphenyl	*	10-152		52.4	%REC	1	06/18/2021 12:28	178931
Surr: Tetrachloro-meta-xylene	*	9.73-128		100.0	%REC	1	06/18/2021 12:28	178931

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Acenaphthylene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Anthracene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Benzo(a)anthracene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Benzo(a)pyrene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Benzo(b)fluoranthene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Benzo(g,h,i)perylene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Benzo(k)fluoranthene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Chrysene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Dibenzo(a,h)anthracene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Fluoranthene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Fluorene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Indeno(1,2,3-cd)pyrene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Naphthalene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Phenanthrene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Pyrene	NELAP	0.00400		ND	mg/L	1	06/18/2021 19:09	179009
Surr: 2-Fluorobiphenyl	*	1.39-137		68.8	%REC	1	06/18/2021 19:09	179009
Surr: Nitrobenzene-d5	*	29.1-125		89.5	%REC	1	06/18/2021 19:09	179009
Surr: p-Terphenyl-d14	*	35.2-164		113.3	%REC	1	06/18/2021 19:09	179009

Elevated reporting limit due to sample composition.

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/17/2021 14:01	178954
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/17/2021 14:01	178954
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/17/2021 14:01	178954
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-002

Client Sample ID: Rinse-09

Matrix: GROUNDWATER

Collection Date: 06/14/2021 15:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/17/2021 14:01	178954
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/17/2021 14:01	178954
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/17/2021 14:01	178954
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
2-Butanone	NELAP	10.0		ND	µg/L	1	06/17/2021 14:01	178954
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/17/2021 14:01	178954
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/17/2021 14:01	178954
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/17/2021 14:01	178954
Acetone	NELAP	10.0		ND	µg/L	1	06/17/2021 14:01	178954
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/17/2021 14:01	178954
Acrolein	NELAP	20.0		ND	µg/L	1	06/17/2021 14:01	178954
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Benzene	NELAP	0.5		ND	µg/L	1	06/17/2021 14:01	178954
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Bromoform	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Bromomethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Chloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Chloroform	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Chloromethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Chloroprene	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-002

Client Sample ID: Rinse-09

Matrix: GROUNDWATER

Collection Date: 06/14/2021 15:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Cyclohexanone	*	20.0		ND	µg/L	1	06/17/2021 14:01	178954
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Diisopropyl ether	*	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/17/2021 14:01	178954
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Iodomethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Naphthalene	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
n-Butyl acetate	*	2.0		ND	µg/L	1	06/17/2021 14:01	178954
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
n-Heptane	*	5.0		ND	µg/L	1	06/17/2021 14:01	178954
n-Hexane	*	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/17/2021 14:01	178954
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
o-Xylene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Propionitrile	NELAP	10.0		ND	µg/L	1	06/17/2021 14:01	178954
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Styrene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/17/2021 14:01	178954
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/17/2021 14:01	178954
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/17/2021 14:01	178954
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Toluene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/17/2021 14:01	178954
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/17/2021 14:01	178954
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/17/2021 14:01	178954



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-002

Client Sample ID: Rinse-09

Matrix: GROUNDWATER

Collection Date: 06/14/2021 15:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/17/2021 14:01	178954
Surr: 1,2-Dichloroethane-d4	*	80-120		100.9	%REC	1	06/17/2021 14:01	178954
Surr: 4-Bromofluorobenzene	*	80-120		103.8	%REC	1	06/17/2021 14:01	178954
Surr: Toluene-d8	*	80-120		100.4	%REC	1	06/17/2021 14:01	178954

LCS recovered outside upper control limits for acetonitrile and n-heptane. Sample results are below the reporting limit. Data is reportable per the TNI Standard.

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-003

Client Sample ID: Rinse-10

Matrix: GROUNDWATER

Collection Date: 06/15/2021 14:08

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/21/2021 17:17	179031
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/21/2021 17:17	179031
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/21/2021 17:17	179031
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/21/2021 17:17	179031
Zinc	NELAP	0.0100	B	0.132	mg/L	1	06/21/2021 17:17	179031
<i>Sample result(s) for Zn exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.</i>								
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/18/2021 12:45	178931
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/18/2021 12:45	178931
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/18/2021 12:45	178931
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/18/2021 12:45	178931
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/18/2021 12:45	178931
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/18/2021 12:45	178931
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/18/2021 12:45	178931
Surr: Decachlorobiphenyl	*	10-152		44.2	%REC	1	06/18/2021 12:45	178931
Surr: Tetrachloro-meta-xylene	*	9.73-128		94.8	%REC	1	06/18/2021 12:45	178931
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Acenaphthylene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Anthracene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Benzo(a)anthracene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Benzo(a)pyrene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Benzo(b)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Benzo(g,h,i)perylene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Benzo(k)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Chrysene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Dibenzo(a,h)anthracene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Fluoranthene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Fluorene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Indeno(1,2,3-cd)pyrene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Naphthalene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Phenanthrene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Pyrene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:05	179009
Surr: 2-Fluorobiphenyl	*	1.39-137		61.6	%REC	1	06/18/2021 21:05	179009
Surr: Nitrobenzene-d5	*	29.1-125		82.9	%REC	1	06/18/2021 21:05	179009
Surr: p-Terphenyl-d14	*	35.2-164		89.4	%REC	1	06/18/2021 21:05	179009
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/17/2021 14:27	178954
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/17/2021 14:27	178954
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/17/2021 14:27	178954
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-003

Client Sample ID: Rinse-10

Matrix: GROUNDWATER

Collection Date: 06/15/2021 14:08

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/17/2021 14:27	178954
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/17/2021 14:27	178954
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/17/2021 14:27	178954
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
2-Butanone	NELAP	10.0		ND	µg/L	1	06/17/2021 14:27	178954
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/17/2021 14:27	178954
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/17/2021 14:27	178954
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/17/2021 14:27	178954
Acetone	NELAP	10.0		ND	µg/L	1	06/17/2021 14:27	178954
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/17/2021 14:27	178954
Acrolein	NELAP	20.0		ND	µg/L	1	06/17/2021 14:27	178954
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Benzene	NELAP	0.5		ND	µg/L	1	06/17/2021 14:27	178954
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Bromoform	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Bromomethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Chloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Chloroform	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Chloromethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Chloroprene	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Cyclohexanone	*	20.0		ND	µg/L	1	06/17/2021 14:27	178954

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-003

Client Sample ID: Rinse-10

Matrix: GROUNDWATER

Collection Date: 06/15/2021 14:08

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Diisopropyl ether	*	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/17/2021 14:27	178954
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Iodomethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Naphthalene	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
n-Butyl acetate	*	2.0		ND	µg/L	1	06/17/2021 14:27	178954
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
n-Heptane	*	5.0		ND	µg/L	1	06/17/2021 14:27	178954
n-Hexane	*	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/17/2021 14:27	178954
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
o-Xylene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Propionitrile	NELAP	10.0		ND	µg/L	1	06/17/2021 14:27	178954
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Styrene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/17/2021 14:27	178954
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/17/2021 14:27	178954
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/17/2021 14:27	178954
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Toluene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/17/2021 14:27	178954
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/17/2021 14:27	178954
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/17/2021 14:27	178954
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/17/2021 14:27	178954

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-003

Client Sample ID: Rinse-10

Matrix: GROUNDWATER

Collection Date: 06/15/2021 14:08

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 1,2-Dichloroethane-d4	*	80-120		100.9	%REC	1	06/17/2021 14:27	178954
Surr: 4-Bromofluorobenzene	*	80-120		104.3	%REC	1	06/17/2021 14:27	178954
Surr: Toluene-d8	*	80-120		95.6	%REC	1	06/17/2021 14:27	178954

LCS recovered outside upper control limits for acetonitrile and n-heptane. Sample results are below the reporting limit. Data is reportable per the TNI Standard.



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-004

Client Sample ID: Rinse-11

Matrix: GROUNDWATER

Collection Date: 06/16/2021 10:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/21/2021 17:29	179031
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/21/2021 17:29	179031
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/21/2021 17:29	179031
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/21/2021 17:29	179031
Zinc	NELAP	0.0100		0.0518	mg/L	1	06/23/2021 18:18	179126
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/18/2021 13:02	178931
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/18/2021 13:02	178931
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/18/2021 13:02	178931
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/18/2021 13:02	178931
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/18/2021 13:02	178931
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/18/2021 13:02	178931
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/18/2021 13:02	178931
Surr: Decachlorobiphenyl	*	10-152		56.5	%REC	1	06/18/2021 13:02	178931
Surr: Tetrachloro-meta-xylene	*	9.73-128		98.5	%REC	1	06/18/2021 13:02	178931
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Acenaphthylene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Anthracene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Benzo(a)anthracene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Benzo(a)pyrene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Benzo(b)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Benzo(g,h,i)perylene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Benzo(k)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Chrysene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Dibenzo(a,h)anthracene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Fluoranthene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Fluorene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Indeno(1,2,3-cd)pyrene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Naphthalene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Phenanthrene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Pyrene	NELAP	0.00100		ND	mg/L	1	06/18/2021 21:44	179009
Surr: 2-Fluorobiphenyl	*	1.39-137		61.1	%REC	1	06/18/2021 21:44	179009
Surr: Nitrobenzene-d5	*	29.1-125		83.4	%REC	1	06/18/2021 21:44	179009
Surr: p-Terphenyl-d14	*	35.2-164		106.4	%REC	1	06/18/2021 21:44	179009
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/17/2021 14:54	178954
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/17/2021 14:54	178954
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/17/2021 14:54	178954
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-004

Client Sample ID: Rinse-11

Matrix: GROUNDWATER

Collection Date: 06/16/2021 10:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/17/2021 14:54	178954
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/17/2021 14:54	178954
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/17/2021 14:54	178954
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
2-Butanone	NELAP	10.0		ND	µg/L	1	06/17/2021 14:54	178954
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/17/2021 14:54	178954
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/17/2021 14:54	178954
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/17/2021 14:54	178954
Acetone	NELAP	10.0		ND	µg/L	1	06/17/2021 14:54	178954
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/17/2021 14:54	178954
Acrolein	NELAP	20.0		ND	µg/L	1	06/17/2021 14:54	178954
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Benzene	NELAP	0.5		ND	µg/L	1	06/17/2021 14:54	178954
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Bromoform	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Bromomethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Chloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Chloroform	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Chloromethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Chloroprene	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Cyclohexanone	*	20.0		ND	µg/L	1	06/17/2021 14:54	178954
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-004

Client Sample ID: Rinse-11

Matrix: GROUNDWATER

Collection Date: 06/16/2021 10:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Diisopropyl ether	*	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/17/2021 14:54	178954
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Iodomethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Naphthalene	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
n-Butyl acetate	*	2.0		ND	µg/L	1	06/17/2021 14:54	178954
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
n-Heptane	*	5.0		ND	µg/L	1	06/17/2021 14:54	178954
n-Hexane	*	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/17/2021 14:54	178954
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
o-Xylene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Propionitrile	NELAP	10.0		ND	µg/L	1	06/17/2021 14:54	178954
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Styrene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/17/2021 14:54	178954
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/17/2021 14:54	178954
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/17/2021 14:54	178954
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Toluene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/17/2021 14:54	178954
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/17/2021 14:54	178954
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/17/2021 14:54	178954
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/17/2021 14:54	178954
Surr: 1,2-Dichloroethane-d4	*	80-120		101.4	%REC	1	06/17/2021 14:54	178954



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab ID: 21061101-004

Client Sample ID: Rinse-11

Matrix: GROUNDWATER

Collection Date: 06/16/2021 10:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 4-Bromofluorobenzene	*	80-120		103.0	%REC	1	06/17/2021 14:54	178954
Surr: Toluene-d8	*	80-120		95.0	%REC	1	06/17/2021 14:54	178954

LCS recovered outside upper control limits for acetonitrile and n-heptane. Sample results are below the reporting limit. Data is reportable per the TNI Standard.



Sample Summary

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
21061101-001	TB-01	Trip Blank	1	06/16/2021 15:47
21061101-002	Rinse-09	Groundwater	4	06/14/2021 15:50
21061101-003	Rinse-10	Groundwater	4	06/15/2021 14:08
21061101-004	Rinse-11	Groundwater	4	06/16/2021 10:00

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
21061101-001A	TB-01	06/16/2021 15:47	06/16/2021 15:47		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		06/17/2021 13:34			
21061101-002A	Rinse-09	06/14/2021 15:50	06/16/2021 15:47		
SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD		06/17/2021 15:34 06/18/2021 12:28			
21061101-002B	Rinse-09	06/14/2021 15:50	06/16/2021 15:47		
SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS		06/18/2021 12:34 06/18/2021 19:09			
21061101-002C	Rinse-09	06/14/2021 15:50	06/16/2021 15:47		
SW-846 3005A, 6010B, Metals by ICP (Total)		06/21/2021 8:48 06/21/2021 17:14			
21061101-002D	Rinse-09	06/14/2021 15:50	06/16/2021 15:47		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		06/17/2021 14:01			
21061101-003A	Rinse-10	06/15/2021 14:08	06/16/2021 15:47		
SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD		06/17/2021 15:34 06/18/2021 12:45			
21061101-003B	Rinse-10	06/15/2021 14:08	06/16/2021 15:47		
SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS		06/18/2021 12:34 06/18/2021 21:05			
21061101-003C	Rinse-10	06/15/2021 14:08	06/16/2021 15:47		
SW-846 3005A, 6010B, Metals by ICP (Total)		06/21/2021 8:48 06/21/2021 17:17			
21061101-003D	Rinse-10	06/15/2021 14:08	06/16/2021 15:47		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		06/17/2021 14:27			
21061101-004A	Rinse-11	06/16/2021 10:00	06/16/2021 15:47		
SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD		06/17/2021 15:34 06/18/2021 13:02			
21061101-004B	Rinse-11	06/16/2021 10:00	06/16/2021 15:47		
SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS		06/18/2021 12:34 06/18/2021 21:44			
21061101-004C	Rinse-11	06/16/2021 10:00	06/16/2021 15:47		
SW-846 3005A, 6010B, Metals by ICP (Total)		06/21/2021 8:48 06/21/2021 17:29			
SW-846 3005A, 6010B, Metals by ICP (Total)		06/23/2021 11:16 06/23/2021 18:18			
21061101-004D	Rinse-11	06/16/2021 10:00	06/16/2021 15:47		
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS		06/17/2021 14:54			



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 179031 **SampType: MBLK** Units mg/L

SampID: MBLK-179031

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		< 0.0500	0.0068	0	0	-100	100	06/21/2021
Arsenic		0.0250		< 0.0250	0.0087	0	0	-100	100	06/21/2021
Copper		0.0050		< 0.0050	0.0013	0	100.0	-100	100	06/21/2021
Lead		0.0150		< 0.0150	0.0040	0	0	-100	100	06/21/2021
Zinc		0.0100	S	0.0110	0.0050	0	220.0	-100	100	06/21/2021

Batch 179031 **SampType: LCS** Units mg/L

SampID: LCS-179031

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		0.535	0.5000	0	107.1	85	115	06/21/2021
Arsenic		0.0250		0.547	0.5000	0	109.5	85	115	06/21/2021
Copper		0.0050		0.267	0.2500	0	106.8	85	115	06/21/2021
Lead		0.0150		0.517	0.5000	0	103.3	85	115	06/21/2021
Zinc		0.0100	B	0.534	0.5000	0	106.9	85	115	06/21/2021

Batch 179031 **SampType: MS** Units mg/L

SampID: 21061101-003CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		0.523	0.5000	0	104.6	75	125	06/21/2021
Arsenic		0.0250		0.548	0.5000	0	109.6	75	125	06/21/2021
Copper		0.0050		0.271	0.2500	0.004800	106.5	75	125	06/21/2021
Lead		0.0150		0.521	0.5000	0	104.1	75	125	06/21/2021
Zinc		0.0100	B	0.664	0.5000	0.1322	106.3	75	125	06/21/2021

Batch 179031 **SampType: MSD** Units mg/L

SampID: 21061101-003CMSD

RPD Limit **20**

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Antimony		0.0500		0.517	0.5000	0	103.5	0.5230	1.08	06/21/2021
Arsenic		0.0250		0.541	0.5000	0	108.2	0.5482	1.32	06/21/2021
Copper		0.0050		0.265	0.2500	0.004800	104.2	0.2711	2.16	06/21/2021
Lead		0.0150		0.509	0.5000	0	101.9	0.5206	2.17	06/21/2021
Zinc		0.0100	B	0.650	0.5000	0.1322	103.6	0.6636	2.06	06/21/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 179126 **SampType: MBLK** Units mg/L
 SampID: MBLK-179126

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		< 0.0500	0.0068	0	0	-100	100	06/23/2021
Arsenic		0.0250		< 0.0250	0.0087	0	0	-100	100	06/23/2021
Copper		0.0050		< 0.0050	0.0013	0	0	-100	100	06/23/2021
Lead		0.0150		< 0.0150	0.0040	0	0	-100	100	06/23/2021
Zinc		0.0100		< 0.0100	0.0050	0	0	-100	100	06/23/2021

Batch 179126 **SampType: LCS** Units mg/L
 SampID: LCS-179126

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		0.514	0.5000	0	102.8	85	115	06/23/2021
Arsenic		0.0250		0.549	0.5000	0	109.8	85	115	06/23/2021
Copper		0.0050		0.267	0.2500	0	106.8	85	115	06/23/2021
Lead		0.0150		0.513	0.5000	0	102.6	85	115	06/23/2021
Zinc		0.0100		0.520	0.5000	0	104.0	85	115	06/23/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD
Batch 178931 **SampType: MBLK** Units µg/L

SampID: MBLK-178931

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		0.095		ND						06/17/2021
Aroclor 1016		1.00		ND						06/17/2021
Aroclor 1221		0.095		ND						06/17/2021
Aroclor 1221		1.00		ND						06/17/2021
Aroclor 1232		1.00		ND						06/17/2021
Aroclor 1232		0.095		ND						06/17/2021
Aroclor 1242		0.095		ND						06/17/2021
Aroclor 1242		1.00		ND						06/17/2021
Aroclor 1248		1.00		ND						06/17/2021
Aroclor 1248		0.095		ND						06/17/2021
Aroclor 1254		0.095		ND						06/17/2021
Aroclor 1254		1.00		ND						06/17/2021
Aroclor 1260		0.095		ND						06/17/2021
Aroclor 1260		1.00		ND						06/17/2021
Surr: Decachlorobiphenyl	*			0.042	0.1250		33.9	31.2	141	06/17/2021
Surr: Decachlorobiphenyl	*			0.047	0.1250		37.5	31.2	141	06/17/2021
Surr: Decachlorobiphenyl	*			0.05	0.1250		37.5	27.5	143	06/17/2021
Surr: Tetrachloro-meta-xylene	*			0.10	0.1250		80.2	35.2	135	06/17/2021

Batch 178931 **SampType: LCS** Units µg/L

SampID: LCSPCB-178931

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		0.095		1.99	2.500	0	79.6	50	140	06/17/2021
Aroclor 1016		1.00		1.99	2.500	0	79.6	56.2	136	06/17/2021
Aroclor 1260		1.00		1.46	2.500	0	58.4	42.1	125	06/17/2021
Aroclor 1260		0.095		1.46	2.500	0	58.4	8	140	06/17/2021
Surr: Decachlorobiphenyl	*			0.072	0.1250		57.2	31.2	141	06/17/2021
Surr: Decachlorobiphenyl	*			0.07	0.1250		57.2	27.5	143	06/17/2021
Surr: Tetrachloro-meta-xylene	*			0.10	0.1250		76.6	35.2	135	06/17/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD

Batch 178931		SampType: LCSD		Units µg/L				RPD Limit 36			
SampID: LCSPCBD-178931											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Aroclor 1016		0.095		2.26	2.500	0	90.5	1.989	12.90	06/17/2021	
Aroclor 1016		1.00		2.26	2.500	0	90.5	1.989	12.90	06/17/2021	
Aroclor 1260		0.095		1.37	2.500	0	54.8	1.459	6.32	06/17/2021	
Aroclor 1260		1.00		1.37	2.500	0	54.8	1.459	6.32	06/17/2021	
Surr: Decachlorobiphenyl	*			0.051	0.1250		40.5			06/17/2021	
Surr: Decachlorobiphenyl	*			0.05	0.1250		40.5			06/17/2021	
Surr: Tetrachloro-meta-xylene	*			0.11	0.1250		86.6			06/17/2021	

Batch 178931		SampType: LCS		Units %REC						
SampID: LCSPST-178931										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: Decachlorobiphenyl	*			0.049	0.1250		39.5	31.2	141	06/17/2021

Batch 178931		SampType: LCSD		Units %REC				RPD Limit 0			
SampID: LCSPSTD-178931											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Surr: Decachlorobiphenyl	*			0.041	0.1250		33.1			06/17/2021	



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179009		SampType: MBLK		Units mg/L							
SampID: MBLK-179009											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Acenaphthene		0.00100		ND						06/18/2021	
Acenaphthylene		0.00100		ND						06/18/2021	
Anthracene		0.00100		ND						06/18/2021	
Benzo(a)anthracene		0.00100		ND						06/18/2021	
Benzo(a)pyrene		0.00100		ND						06/18/2021	
Benzo(b)fluoranthene		0.00100		ND						06/18/2021	
Benzo(g,h,i)perylene		0.00100		ND						06/18/2021	
Benzo(k)fluoranthene		0.00100		ND						06/18/2021	
Chrysene		0.00100		ND						06/18/2021	
Dibenzo(a,h)anthracene		0.00100		ND						06/18/2021	
Fluoranthene		0.00100		ND						06/18/2021	
Fluorene		0.00100		ND						06/18/2021	
Indeno(1,2,3-cd)pyrene		0.00100		ND						06/18/2021	
Naphthalene		0.00100		ND						06/18/2021	
Phenanthrene		0.00100		ND						06/18/2021	
Pyrene		0.00100		ND						06/18/2021	
Surr: 2-Fluorobiphenyl	*			0.00468	0.0125		37.5	1.09	175	06/18/2021	
Surr: Nitrobenzene-d5	*			0.00801	0.0125		64.1	35.5	156	06/18/2021	
Surr: p-Terphenyl-d14	*			0.0101	0.0125		81.1	35	222	06/18/2021	



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179009 **SampType:** LCS **Units** mg/L

SampID: LCS-179009

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Acenaphthene		0.00100		0.00695	0.0100	0	69.5	39.6	145	06/18/2021
Acenaphthylene		0.00100		0.00651	0.0100	0	65.1	38.3	147	06/18/2021
Anthracene		0.00100		0.00714	0.0100	0	71.4	47.7	153	06/18/2021
Benzo(a)anthracene		0.00100		0.00746	0.0100	0	74.6	45	136	06/18/2021
Benzo(a)pyrene		0.00100		0.00756	0.0100	0	75.6	49.8	164	06/18/2021
Benzo(b)fluoranthene		0.00100		0.00767	0.0100	0	76.7	45.7	167	06/18/2021
Benzo(g,h,i)perylene		0.00100		0.00681	0.0100	0	68.1	41	157	06/18/2021
Benzo(k)fluoranthene		0.00100		0.00822	0.0100	0	82.2	46.7	166	06/18/2021
Chrysene		0.00100		0.00769	0.0100	0	76.9	45.5	162	06/18/2021
Dibenzo(a,h)anthracene		0.00100		0.00705	0.0100	0	70.5	40.4	154	06/18/2021
Fluoranthene		0.00100		0.00794	0.0100	0	79.4	47.3	168	06/18/2021
Fluorene		0.00100		0.00738	0.0100	0	73.8	45.2	153	06/18/2021
Indeno(1,2,3-cd)pyrene		0.00100		0.00723	0.0100	0	72.3	44.6	166	06/18/2021
Naphthalene		0.00100		0.00685	0.0100	0	68.5	16.6	137	06/18/2021
Phenanthrene		0.00100		0.00770	0.0100	0	77.0	50.8	149	06/18/2021
Pyrene		0.00100		0.00799	0.0100	0	79.9	44.9	163	06/18/2021
Surr: 2-Fluorobiphenyl	*			0.00652	0.0125		52.1	1.09	175	06/18/2021
Surr: Nitrobenzene-d5	*			0.00979	0.0125		78.3	35.5	156	06/18/2021
Surr: p-Terphenyl-d14	*			0.0124	0.0125		99.4	35	222	06/18/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179009		SampType: LCSD		Units mg/L				RPD Limit 40			Date Analyzed
SampID: LCSD-179009											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Acenaphthene		0.00100		0.00687	0.0100	0	68.7	0.006947	1.07	06/18/2021	
Acenaphthylene		0.00100		0.00666	0.0100	0	66.6	0.006514	2.19	06/18/2021	
Anthracene		0.00100		0.00691	0.0100	0	69.1	0.007136	3.23	06/18/2021	
Benzo(a)anthracene		0.00100		0.00722	0.0100	0	72.2	0.007462	3.37	06/18/2021	
Benzo(a)pyrene		0.00100		0.00727	0.0100	0	72.7	0.007562	3.98	06/18/2021	
Benzo(b)fluoranthene		0.00100		0.00759	0.0100	0	75.9	0.007674	1.07	06/18/2021	
Benzo(g,h,i)perylene		0.00100		0.00656	0.0100	0	65.6	0.006812	3.79	06/18/2021	
Benzo(k)fluoranthene		0.00100		0.00795	0.0100	0	79.5	0.008222	3.40	06/18/2021	
Chrysene		0.00100		0.00776	0.0100	0	77.6	0.007689	0.94	06/18/2021	
Dibenzo(a,h)anthracene		0.00100		0.00654	0.0100	0	65.4	0.007052	7.57	06/18/2021	
Fluoranthene		0.00100		0.00783	0.0100	0	78.3	0.007944	1.40	06/18/2021	
Fluorene		0.00100		0.00733	0.0100	0	73.3	0.007383	0.73	06/18/2021	
Indeno(1,2,3-cd)pyrene		0.00100		0.00693	0.0100	0	69.3	0.007227	4.24	06/18/2021	
Naphthalene		0.00100		0.00709	0.0100	0	70.9	0.006852	3.47	06/18/2021	
Phenanthrene		0.00100		0.00743	0.0100	0	74.3	0.007698	3.52	06/18/2021	
Pyrene		0.00100		0.00781	0.0100	0	78.1	0.007994	2.32	06/18/2021	
Surr: 2-Fluorobiphenyl	*			0.00736	0.0125		58.9			06/18/2021	
Surr: Nitrobenzene-d5	*			0.00948	0.0125		75.8			06/18/2021	
Surr: p-Terphenyl-d14	*			0.0121	0.0125		96.5			06/18/2021	

Batch 179009		SampType: LCSG		Units %REC				RPD Limit 0		Date Analyzed
SampID: LCSG179009										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.00888	0.0125		71.1	1.09	175	06/18/2021
Surr: Nitrobenzene-d5	*			0.0103	0.0125		82.3	35.5	156	06/18/2021
Surr: p-Terphenyl-d14	*			0.0129	0.0125		103.2	35	222	06/18/2021

Batch 179009		SampType: LCSGD		Units %REC				RPD Limit 0		Date Analyzed
SampID: LCSGD-179009										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.00930	0.0125		74.4			06/18/2021
Surr: Nitrobenzene-d5	*			0.0106	0.0125		84.6			06/18/2021
Surr: p-Terphenyl-d14	*			0.0132	0.0125		105.5			06/18/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179009		SampType: MS		Units %REC						
SampID: 21061101-002BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.0384	0.0500		76.8	1.39	137	06/18/2021
Surr: Nitrobenzene-d5	*			0.0446	0.0500		89.1	29.1	125	06/18/2021
Surr: p-Terphenyl-d14	*			0.0560	0.0500		112.1	35.2	164	06/18/2021

Batch 179009		SampType: MSD		Units %REC		RPD Limit 0				
SampID: 21061101-002BMMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.0396	0.0500		79.2			06/18/2021
Surr: Nitrobenzene-d5	*			0.0444	0.0500		88.9			06/18/2021
Surr: p-Terphenyl-d14	*			0.0586	0.0500		117.2			06/18/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954 **SampType:** MBLK **Units** µg/L
SampID: MBLK-AM210617a-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		ND						06/17/2021
1,1,1-Trichloroethane	*	2.0		ND						06/17/2021
1,1,2,2-Tetrachloroethane	*	2.0		ND						06/17/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND						06/17/2021
1,1,2-Trichloroethane	*	0.5		ND						06/17/2021
1,1-Dichloro-2-propanone	*	30.0		ND						06/17/2021
1,1-Dichloroethane	*	2.0		ND						06/17/2021
1,1-Dichloroethene	*	2.0		ND						06/17/2021
1,1-Dichloropropene	*	2.0		ND						06/17/2021
1,2,3-Trichlorobenzene	*	2.0		ND						06/17/2021
1,2,3-Trichloropropane	*	2.0		ND						06/17/2021
1,2,3-Trimethylbenzene	*	2.0		ND						06/17/2021
1,2,4-Trichlorobenzene	*	2.0		ND						06/17/2021
1,2,4-Trimethylbenzene	*	2.0		ND						06/17/2021
1,2-Dibromo-3-chloropropane	*	5.0		ND						06/17/2021
1,2-Dibromoethane	*	2.0		ND						06/17/2021
1,2-Dichlorobenzene	*	2.0		ND						06/17/2021
1,2-Dichloroethane	*	2.0		ND						06/17/2021
1,2-Dichloropropane	*	2.0		ND						06/17/2021
1,3,5-Trimethylbenzene	*	2.0		ND						06/17/2021
1,3-Dichlorobenzene	*	2.0		ND						06/17/2021
1,3-Dichloropropane	*	2.0		ND						06/17/2021
1,4-Dichlorobenzene	*	2.0		ND						06/17/2021
1-Chlorobutane	*	5.0		ND						06/17/2021
2,2-Dichloropropane	*	2.0		ND						06/17/2021
2-Butanone	*	10.0		ND						06/17/2021
2-Chloroethyl vinyl ether	*	5.0		ND						06/17/2021
2-Chlorotoluene	*	2.0		ND						06/17/2021
2-Hexanone	*	10.0		ND						06/17/2021
2-Nitropropane	*	10.0		ND						06/17/2021
4-Chlorotoluene	*	2.0		ND						06/17/2021
4-Methyl-2-pentanone	*	10.0		ND						06/17/2021
Acetone	*	10.0		ND						06/17/2021
Acetonitrile	*	10.0		ND						06/17/2021
Acrolein	*	20.0		ND						06/17/2021
Acrylonitrile	*	5.0		ND						06/17/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954 **SampType:** MBLK **Units** µg/L

SampID: MBLK-AM210617a-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		ND						06/17/2021
Benzene	*	0.5		ND						06/17/2021
Bromobenzene	*	2.0		ND						06/17/2021
Bromochloromethane	*	2.0		ND						06/17/2021
Bromodichloromethane	*	2.0		ND						06/17/2021
Bromoform	*	2.0		ND						06/17/2021
Bromomethane	*	5.0		ND						06/17/2021
Carbon disulfide	*	2.0		ND						06/17/2021
Carbon tetrachloride	*	2.0		ND						06/17/2021
Chlorobenzene	*	2.0		ND						06/17/2021
Chloroethane	*	2.0		ND						06/17/2021
Chloroform	*	2.0		ND						06/17/2021
Chloromethane	*	5.0		ND						06/17/2021
Chloroprene	*	5.0		ND						06/17/2021
cis-1,2-Dichloroethene	*	2.0		ND						06/17/2021
cis-1,3-Dichloropropene	*	2.0		ND						06/17/2021
cis-1,4-Dichloro-2-butene	*	2.0		ND						06/17/2021
Cyclohexanone	*	20.0		ND						06/17/2021
Dibromochloromethane	*	2.0		ND						06/17/2021
Dibromomethane	*	2.0		ND						06/17/2021
Dichlorodifluoromethane	*	2.0		ND						06/17/2021
Diisopropyl ether	*	2.0		ND						06/17/2021
Ethyl acetate	*	10.0		ND						06/17/2021
Ethyl ether	*	5.0		ND						06/17/2021
Ethyl methacrylate	*	5.0		ND						06/17/2021
Ethylbenzene	*	2.0		ND						06/17/2021
Ethyl-tert-butyl ether	*	2.0		ND						06/17/2021
Hexachlorobutadiene	*	5.0		ND						06/17/2021
Hexachloroethane	*	5.0		ND						06/17/2021
Iodomethane	*	5.0		ND						06/17/2021
Isopropylbenzene	*	2.0		ND						06/17/2021
m,p-Xylenes	*	2.0		ND						06/17/2021
Methacrylonitrile	*	5.0		ND						06/17/2021
Methyl Methacrylate	*	5.0		ND						06/17/2021
Methyl tert-butyl ether	*	2.0		ND						06/17/2021
Methylacrylate	*	5.0		ND						06/17/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954 **SampType:** MBLK **Units** µg/L

SampID: MBLK-AM210617a-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Methylene chloride	*	2.0		ND						06/17/2021
Naphthalene	*	5.0		ND						06/17/2021
n-Butyl acetate	*	2.0		ND						06/17/2021
n-Butylbenzene	*	2.0		ND						06/17/2021
n-Heptane	*	5.0		ND						06/17/2021
n-Hexane	*	5.0		ND						06/17/2021
Nitrobenzene	*	50.0		ND						06/17/2021
n-Propylbenzene	*	2.0		ND						06/17/2021
o-Xylene	*	2.0		ND						06/17/2021
Pentachloroethane	*	5.0		ND						06/17/2021
p-Isopropyltoluene	*	2.0		ND						06/17/2021
Propionitrile	*	10.0		ND						06/17/2021
sec-Butylbenzene	*	2.0		ND						06/17/2021
Styrene	*	2.0		ND						06/17/2021
tert-Amyl methyl ether	*	2.0		ND						06/17/2021
tert-Butyl alcohol	*	10.0		ND						06/17/2021
tert-Butylbenzene	*	2.0		ND						06/17/2021
Tetrachloroethene	*	0.5		ND						06/17/2021
Tetrahydrofuran	*	5.0		ND						06/17/2021
Toluene	*	2.0		ND						06/17/2021
trans-1,2-Dichloroethene	*	2.0		ND						06/17/2021
trans-1,3-Dichloropropene	*	2.0		ND						06/17/2021
trans-1,4-Dichloro-2-butene	*	2.0		ND						06/17/2021
Trichloroethene	*	2.0		ND						06/17/2021
Trichlorofluoromethane	*	5.0		ND						06/17/2021
Vinyl acetate	*	5.0		ND						06/17/2021
Vinyl chloride	*	2.0		ND						06/17/2021
Xylenes, Total	*	4.0		ND						06/17/2021
1,2-Dichloroethene, Total	*	4.0		ND						06/17/2021
1,3-Dichloropropene, Total	*	4.0		ND						06/17/2021
1,4-Dichloro-2-butene, Total	*	4.0		ND						06/17/2021
TPH - GRO (C6 - C10)	*	500		ND						06/17/2021
Surr: 1,2-Dichloroethane-d4	*			50.3	50.00		100.6	80	120	06/17/2021
Surr: 4-Bromofluorobenzene	*			51.6	50.00		103.1	80	120	06/17/2021
Surr: Toluene-d8	*			48.3	50.00		96.6	80	120	06/17/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954 **SampType:** LCS

Units µg/L

SampID: LCS-AM210617A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		53.5	50.00	0	107.0	82	113	06/17/2021
1,1,1-Trichloroethane	*	2.0		53.8	50.00	0	107.5	76.9	128	06/17/2021
1,1,2,2-Tetrachloroethane	*	2.0		48.1	50.00	0	96.3	76.7	113	06/17/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		52.4	50.00	0	104.7	69.5	127	06/17/2021
1,1,2-Trichloroethane	*	0.5		51.1	50.00	0	102.2	83.8	111	06/17/2021
1,1-Dichloro-2-propanone	*	30.0		130	125.0	0	104.1	74.9	117	06/17/2021
1,1-Dichloroethane	*	2.0		54.4	50.00	0	108.8	77	129	06/17/2021
1,1-Dichloroethene	*	2.0		52.8	50.00	0	105.5	69.4	127	06/17/2021
1,1-Dichloropropene	*	2.0		54.3	50.00	0	108.5	75.1	123	06/17/2021
1,2,3-Trichlorobenzene	*	2.0		55.0	50.00	0	110.1	77.3	121	06/17/2021
1,2,3-Trichloropropane	*	2.0		47.9	50.00	0	95.8	75.3	109	06/17/2021
1,2,3-Trimethylbenzene	*	2.0		52.1	50.00	0	104.1	77	115	06/17/2021
1,2,4-Trichlorobenzene	*	2.0		55.1	50.00	0	110.1	76.8	124	06/17/2021
1,2,4-Trimethylbenzene	*	2.0		52.7	50.00	0	105.4	75	115	06/17/2021
1,2-Dibromo-3-chloropropane	*	5.0		51.5	50.00	0	102.9	71.9	119	06/17/2021
1,2-Dibromoethane	*	2.0		51.9	50.00	0	103.8	83.6	110	06/17/2021
1,2-Dichlorobenzene	*	2.0		50.1	50.00	0	100.1	72.1	113	06/17/2021
1,2-Dichloroethane	*	2.0		50.0	50.00	0	100.0	72.3	117	06/17/2021
1,2-Dichloropropane	*	2.0		57.2	50.00	0	114.4	76.5	119	06/17/2021
1,3,5-Trimethylbenzene	*	2.0		52.1	50.00	0	104.1	75.2	117	06/17/2021
1,3-Dichlorobenzene	*	2.0		51.2	50.00	0	102.3	75.2	115	06/17/2021
1,3-Dichloropropane	*	2.0		51.0	50.00	0	102.0	80.9	110	06/17/2021
1,4-Dichlorobenzene	*	2.0		50.9	50.00	0	101.7	73.9	112	06/17/2021
1-Chlorobutane	*	5.0		55.6	50.00	0	111.2	74.9	130	06/17/2021
2,2-Dichloropropane	*	2.0		63.5	50.00	0	127.1	66.5	138	06/17/2021
2-Butanone	*	10.0		143	125.0	0	114.4	68.8	134	06/17/2021
2-Chloroethyl vinyl ether	*	5.0		57.7	50.00	0	115.4	17.8	163	06/17/2021
2-Chlorotoluene	*	2.0		50.1	50.00	0	100.2	74.9	115	06/17/2021
2-Hexanone	*	10.0		144	125.0	0	115.0	73.2	117	06/17/2021
2-Nitropropane	*	10.0		519	500.0	0	103.7	67.1	140	06/17/2021
4-Chlorotoluene	*	2.0		51.8	50.00	0	103.6	75.7	113	06/17/2021
4-Methyl-2-pentanone	*	10.0		137	125.0	0	109.7	77	113	06/17/2021
Acetone	*	10.0		140	125.0	0	111.8	61.4	130	06/17/2021
Acetonitrile	*	10.0	S	683	500.0	0	136.7	68.8	136	06/17/2021
Acrolein	*	20.0		646	500.0	0	129.3	28.4	168	06/17/2021
Acrylonitrile	*	5.0		56.9	50.00	0	113.7	77.9	124	06/17/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954 **SampType:** LCS

Units µg/L

SampID: LCS-AM210617A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		58.5	50.00	0	117.1	75.8	130	06/17/2021
Benzene	*	0.5		54.0	50.00	0	108.0	78.5	119	06/17/2021
Bromobenzene	*	2.0		50.1	50.00	0	100.2	77.5	113	06/17/2021
Bromochloromethane	*	2.0		53.1	50.00	0	106.3	71.5	123	06/17/2021
Bromodichloromethane	*	2.0		54.6	50.00	0	109.3	75.7	123	06/17/2021
Bromoform	*	2.0		54.4	50.00	0	108.8	78.9	121	06/17/2021
Bromomethane	*	5.0		37.7	50.00	0	75.4	30.5	192	06/17/2021
Carbon disulfide	*	2.0		51.7	50.00	0	103.4	66.7	121	06/17/2021
Carbon tetrachloride	*	2.0		54.2	50.00	0	108.4	70.9	127	06/17/2021
Chlorobenzene	*	2.0		51.0	50.00	0	101.9	80	111	06/17/2021
Chloroethane	*	2.0		40.2	50.00	0	80.4	69.6	135	06/17/2021
Chloroform	*	2.0		53.6	50.00	0	107.1	76.2	120	06/17/2021
Chloromethane	*	5.0		46.8	50.00	0	93.5	50.9	138	06/17/2021
Chloroprene	*	5.0		55.3	50.00	0	110.5	68.4	127	06/17/2021
cis-1,2-Dichloroethene	*	2.0		54.8	50.00	0	109.5	79.5	121	06/17/2021
cis-1,3-Dichloropropene	*	2.0		59.4	50.00	0	118.7	79.8	123	06/17/2021
cis-1,4-Dichloro-2-butene	*	2.0		54.2	50.00	0	108.4	64.6	130	06/17/2021
Cyclohexanone	*	20.0		511	500.0	0	102.2	70.5	114	06/17/2021
Dibromochloromethane	*	2.0		53.2	50.00	0	106.3	84.5	114	06/17/2021
Dibromomethane	*	2.0		52.9	50.00	0	105.8	76	119	06/17/2021
Dichlorodifluoromethane	*	2.0		42.3	50.00	0	84.6	46.6	142	06/17/2021
Diisopropyl ether	*	2.0		58.6	50.00	0	117.3	72	128	06/17/2021
Ethyl acetate	*	10.0		51.3	50.00	0	102.5	70.3	115	06/17/2021
Ethyl ether	*	5.0		55.7	50.00	0	111.5	74.6	120	06/17/2021
Ethyl methacrylate	*	5.0		52.7	50.00	0	105.4	81.4	116	06/17/2021
Ethylbenzene	*	2.0		52.6	50.00	0	105.2	78.2	114	06/17/2021
Ethyl-tert-butyl ether	*	2.0		55.2	50.00	0	110.5	74.6	124	06/17/2021
Hexachlorobutadiene	*	5.0		55.5	50.00	0	111.0	73.9	129	06/17/2021
Hexachloroethane	*	5.0		53.3	50.00	0	106.7	78.3	123	06/17/2021
Iodomethane	*	5.0		50.1	50.00	0	100.3	50	151	06/17/2021
Isopropylbenzene	*	2.0		54.7	50.00	0	109.5	79.3	115	06/17/2021
m,p-Xylenes	*	2.0		107	100.0	0	106.8	77.2	116	06/17/2021
Methacrylonitrile	*	5.0		57.3	50.00	0	114.5	73.9	127	06/17/2021
Methyl Methacrylate	*	5.0		57.4	50.00	0	114.7	70.7	129	06/17/2021
Methyl tert-butyl ether	*	2.0		53.7	50.00	0	107.4	80.3	122	06/17/2021
Methylacrylate	*	5.0		57.2	50.00	0	114.4	75.2	124	06/17/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954		SampType: LCS		Units µg/L							Date
SampID: LCS-AM210617A-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed	
Methylene chloride	*	2.0		51.9	50.00	0	103.8	71.8	115	06/17/2021	
Naphthalene	*	5.0		54.6	50.00	0	109.1	75.6	121	06/17/2021	
n-Butyl acetate	*	2.0		55.3	50.00	0	110.7	72.4	118	06/17/2021	
n-Butylbenzene	*	2.0		52.6	50.00	0	105.1	70.8	118	06/17/2021	
n-Heptane	*	5.0	S	71.6	50.00	0	143.1	50.4	143	06/17/2021	
n-Hexane	*	5.0		60.2	50.00	0	120.5	60.6	139	06/17/2021	
Nitrobenzene	*	50.0		549	500.0	0	109.8	49.4	129	06/17/2021	
n-Propylbenzene	*	2.0		51.2	50.00	0	102.5	74	119	06/17/2021	
o-Xylene	*	2.0		52.6	50.00	0	105.2	79.2	112	06/17/2021	
Pentachloroethane	*	5.0		54.5	50.00	0	109.1	71.8	124	06/17/2021	
p-Isopropyltoluene	*	2.0		51.4	50.00	0	102.8	74.4	119	06/17/2021	
Propionitrile	*	10.0		611	500.0	0	122.2	76.2	127	06/17/2021	
sec-Butylbenzene	*	2.0		52.4	50.00	0	104.8	74.4	119	06/17/2021	
Styrene	*	2.0		54.3	50.00	0	108.6	80.4	117	06/17/2021	
tert-Amyl methyl ether	*	2.0		55.5	50.00	0	111.1	80.8	125	06/17/2021	
tert-Butyl alcohol	*	10.0		287	250.0	0	114.9	64.9	118	06/17/2021	
tert-Butylbenzene	*	2.0		51.7	50.00	0	103.5	74	115	06/17/2021	
Tetrachloroethene	*	0.5		52.4	50.00	0	104.8	70.1	120	06/17/2021	
Tetrahydrofuran	*	5.0		55.0	50.00	0	110.1	63.5	122	06/17/2021	
Toluene	*	2.0		51.5	50.00	0	102.9	78.6	112	06/17/2021	
trans-1,2-Dichloroethene	*	2.0		54.3	50.00	0	108.6	75.7	130	06/17/2021	
trans-1,3-Dichloropropene	*	2.0		49.3	50.00	0	98.5	80.3	116	06/17/2021	
trans-1,4-Dichloro-2-butene	*	2.0		51.9	50.00	0	103.7	65.5	124	06/17/2021	
Trichloroethene	*	2.0		53.3	50.00	0	106.6	76.2	121	06/17/2021	
Trichlorofluoromethane	*	5.0		49.9	50.00	0	99.8	71.1	131	06/17/2021	
Vinyl acetate	*	5.0		56.8	50.00	0	113.6	79.8	129	06/17/2021	
Vinyl chloride	*	2.0		51.8	50.00	0	103.5	58.6	141	06/17/2021	
Xylenes, Total	*	4.0		159	150.0	0	106.3	78.3	114	06/17/2021	
1,2-Dichloroethene, Total	*	4.0		109	100.0	0	109.0	78.5	125	06/17/2021	
1,3-Dichloropropene, Total	*	4.0		109	100.0	0	108.6	82.3	117	06/17/2021	
1,4-Dichloro-2-butene, Total	*	4.0		106	100.0	0	106.1	65.9	126	06/17/2021	
Surr: 1,2-Dichloroethane-d4	*			48.9	50.00		97.8	80	120	06/17/2021	
Surr: 4-Bromofluorobenzene	*			47.8	50.00		95.6	80	120	06/17/2021	
Surr: Toluene-d8	*			48.0	50.00		95.9	80	120	06/17/2021	



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	SampType:	Units µg/L			RPD Limit 15.4					Date
178954	LCSD									Analyzed
SampID: LCSD-AM210617A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
1,1,1,2-Tetrachloroethane	*	2.0		52.8	50.00	0	105.7	53.50	1.26	06/17/2021
1,1,1-Trichloroethane	*	2.0		53.1	50.00	0	106.2	53.77	1.27	06/17/2021
1,1,2,2-Tetrachloroethane	*	2.0		48.5	50.00	0	97.0	48.13	0.81	06/17/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		51.2	50.00	0	102.4	52.37	2.30	06/17/2021
1,1,2-Trichloroethane	*	0.5		50.7	50.00	0	101.4	51.12	0.86	06/17/2021
1,1-Dichloro-2-propanone	*	30.0		134	125.0	0	107.3	130.1	3.00	06/17/2021
1,1-Dichloroethane	*	2.0		53.5	50.00	0	107.0	54.41	1.67	06/17/2021
1,1-Dichloroethene	*	2.0		51.7	50.00	0	103.3	52.75	2.07	06/17/2021
1,1-Dichloropropene	*	2.0		53.6	50.00	0	107.1	54.26	1.32	06/17/2021
1,2,3-Trichlorobenzene	*	2.0		55.2	50.00	0	110.3	55.05	0.20	06/17/2021
1,2,3-Trichloropropane	*	2.0		47.5	50.00	0	95.0	47.91	0.82	06/17/2021
1,2,3-Trimethylbenzene	*	2.0		52.1	50.00	0	104.2	52.07	0.08	06/17/2021
1,2,4-Trichlorobenzene	*	2.0		55.1	50.00	0	110.2	55.06	0.07	06/17/2021
1,2,4-Trimethylbenzene	*	2.0		52.4	50.00	0	104.8	52.69	0.59	06/17/2021
1,2-Dibromo-3-chloropropane	*	5.0		51.3	50.00	0	102.6	51.46	0.33	06/17/2021
1,2-Dibromoethane	*	2.0		51.2	50.00	0	102.4	51.92	1.36	06/17/2021
1,2-Dichlorobenzene	*	2.0		49.6	50.00	0	99.3	50.06	0.86	06/17/2021
1,2-Dichloroethane	*	2.0		49.5	50.00	0	99.1	49.98	0.90	06/17/2021
1,2-Dichloropropane	*	2.0		56.2	50.00	0	112.5	57.22	1.75	06/17/2021
1,3,5-Trimethylbenzene	*	2.0		51.6	50.00	0	103.2	52.07	0.87	06/17/2021
1,3-Dichlorobenzene	*	2.0		51.2	50.00	0	102.5	51.17	0.16	06/17/2021
1,3-Dichloropropane	*	2.0		50.6	50.00	0	101.3	51.02	0.75	06/17/2021
1,4-Dichlorobenzene	*	2.0		50.7	50.00	0	101.3	50.87	0.39	06/17/2021
1-Chlorobutane	*	5.0		55.1	50.00	0	110.1	55.60	0.98	06/17/2021
2,2-Dichloropropane	*	2.0		62.1	50.00	0	124.3	63.54	2.23	06/17/2021
2-Butanone	*	10.0		140	125.0	0	112.2	143.0	1.94	06/17/2021
2-Chloroethyl vinyl ether	*	5.0		56.9	50.00	0	113.9	57.68	1.31	06/17/2021
2-Chlorotoluene	*	2.0		49.7	50.00	0	99.4	50.11	0.84	06/17/2021
2-Hexanone	*	10.0		143	125.0	0	114.3	143.8	0.66	06/17/2021
2-Nitropropane	*	10.0		512	500.0	0	102.4	518.7	1.30	06/17/2021
4-Chlorotoluene	*	2.0		51.7	50.00	0	103.5	51.80	0.14	06/17/2021
4-Methyl-2-pentanone	*	10.0		136	125.0	0	108.6	137.1	0.97	06/17/2021
Acetone	*	10.0		139	125.0	0	111.1	139.7	0.61	06/17/2021
Acetonitrile	*	10.0		595	500.0	0	119.0	683.3	13.80	06/17/2021
Acrolein	*	20.0		641	500.0	0	128.2	646.3	0.83	06/17/2021
Acrylonitrile	*	5.0		55.3	50.00	0	110.5	56.86	2.84	06/17/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	SampType:	Units µg/L			RPD Limit 15.4					Date
178954	LCSD									Analyzed
SampID: LCSD-AM210617A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Allyl chloride	*	5.0		57.9	50.00	0	115.8	58.53	1.05	06/17/2021
Benzene	*	0.5		53.1	50.00	0	106.2	54.00	1.64	06/17/2021
Bromobenzene	*	2.0		50.2	50.00	0	100.5	50.09	0.28	06/17/2021
Bromochloromethane	*	2.0		53.3	50.00	0	106.6	53.14	0.28	06/17/2021
Bromodichloromethane	*	2.0		53.9	50.00	0	107.7	54.65	1.46	06/17/2021
Bromoform	*	2.0		53.9	50.00	0	107.9	54.39	0.85	06/17/2021
Bromomethane	*	5.0		38.8	50.00	0	77.7	37.70	2.98	06/17/2021
Carbon disulfide	*	2.0		50.7	50.00	0	101.4	51.68	1.88	06/17/2021
Carbon tetrachloride	*	2.0		53.5	50.00	0	107.1	54.21	1.24	06/17/2021
Chlorobenzene	*	2.0		50.3	50.00	0	100.5	50.95	1.34	06/17/2021
Chloroethane	*	2.0		48.2	50.00	0	96.3	40.19	18.02	06/17/2021
Chloroform	*	2.0		52.7	50.00	0	105.4	53.55	1.60	06/17/2021
Chloromethane	*	5.0		42.6	50.00	0	85.3	46.76	9.24	06/17/2021
Chloroprene	*	5.0		53.7	50.00	0	107.4	55.27	2.86	06/17/2021
cis-1,2-Dichloroethene	*	2.0		53.9	50.00	0	107.7	54.77	1.68	06/17/2021
cis-1,3-Dichloropropene	*	2.0		59.0	50.00	0	117.9	59.35	0.68	06/17/2021
cis-1,4-Dichloro-2-butene	*	2.0		52.8	50.00	0	105.5	54.20	2.69	06/17/2021
Cyclohexanone	*	20.0		508	500.0	0	101.6	511.1	0.59	06/17/2021
Dibromochloromethane	*	2.0		52.9	50.00	0	105.8	53.17	0.53	06/17/2021
Dibromomethane	*	2.0		52.0	50.00	0	104.0	52.89	1.72	06/17/2021
Dichlorodifluoromethane	*	2.0		41.4	50.00	0	82.7	42.32	2.29	06/17/2021
Diisopropyl ether	*	2.0		57.6	50.00	0	115.2	58.65	1.84	06/17/2021
Ethyl acetate	*	10.0		50.6	50.00	0	101.3	51.26	1.20	06/17/2021
Ethyl ether	*	5.0		54.9	50.00	0	109.7	55.74	1.59	06/17/2021
Ethyl methacrylate	*	5.0		52.5	50.00	0	105.0	52.70	0.34	06/17/2021
Ethylbenzene	*	2.0		51.6	50.00	0	103.2	52.58	1.92	06/17/2021
Ethyl-tert-butyl ether	*	2.0		55.3	50.00	0	110.6	55.25	0.09	06/17/2021
Hexachlorobutadiene	*	5.0		55.3	50.00	0	110.6	55.48	0.34	06/17/2021
Hexachloroethane	*	5.0		53.2	50.00	0	106.4	53.34	0.24	06/17/2021
Iodomethane	*	5.0		54.5	50.00	0	109.1	50.14	8.39	06/17/2021
Isopropylbenzene	*	2.0		53.6	50.00	0	107.1	54.73	2.18	06/17/2021
m,p-Xylenes	*	2.0		105	100.0	0	105.0	106.8	1.77	06/17/2021
Methacrylonitrile	*	5.0		56.3	50.00	0	112.7	57.26	1.62	06/17/2021
Methyl Methacrylate	*	5.0		57.6	50.00	0	115.3	57.36	0.47	06/17/2021
Methyl tert-butyl ether	*	2.0		54.1	50.00	0	108.2	53.70	0.78	06/17/2021
Methylacrylate	*	5.0		56.0	50.00	0	112.1	57.19	2.03	06/17/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	SampType:	Units		RPD Limit						
178954	LCSD	µg/L		15.4						
SampID: LCSD-AM210617A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Methylene chloride	*	2.0		50.7	50.00	0	101.5	51.91	2.28	06/17/2021
Naphthalene	*	5.0		54.6	50.00	0	109.2	54.55	0.13	06/17/2021
n-Butyl acetate	*	2.0		55.3	50.00	0	110.6	55.34	0.04	06/17/2021
n-Butylbenzene	*	2.0		51.7	50.00	0	103.4	52.55	1.61	06/17/2021
n-Heptane	*	5.0		70.7	50.00	0	141.4	71.57	1.19	06/17/2021
n-Hexane	*	5.0		58.9	50.00	0	117.7	60.25	2.33	06/17/2021
Nitrobenzene	*	50.0		550	500.0	0	110.1	549.0	0.24	06/17/2021
n-Propylbenzene	*	2.0		50.7	50.00	0	101.4	51.23	1.04	06/17/2021
o-Xylene	*	2.0		51.5	50.00	0	103.0	52.61	2.09	06/17/2021
Pentachloroethane	*	5.0		54.6	50.00	0	109.2	54.53	0.16	06/17/2021
p-Isopropyltoluene	*	2.0		51.9	50.00	0	103.9	51.40	1.03	06/17/2021
Propionitrile	*	10.0		603	500.0	0	120.6	611.1	1.34	06/17/2021
sec-Butylbenzene	*	2.0		52.0	50.00	0	104.0	52.40	0.77	06/17/2021
Styrene	*	2.0		53.3	50.00	0	106.6	54.30	1.82	06/17/2021
tert-Amyl methyl ether	*	2.0		55.6	50.00	0	111.2	55.54	0.09	06/17/2021
tert-Butyl alcohol	*	10.0		289	250.0	0	115.6	287.3	0.60	06/17/2021
tert-Butylbenzene	*	2.0		51.2	50.00	0	102.3	51.74	1.11	06/17/2021
Tetrachloroethene	*	0.5		51.8	50.00	0	103.6	52.41	1.19	06/17/2021
Tetrahydrofuran	*	5.0		55.8	50.00	0	111.6	55.04	1.41	06/17/2021
Toluene	*	2.0		50.7	50.00	0	101.4	51.46	1.51	06/17/2021
trans-1,2-Dichloroethene	*	2.0		53.1	50.00	0	106.1	54.28	2.25	06/17/2021
trans-1,3-Dichloropropene	*	2.0		49.2	50.00	0	98.4	49.26	0.12	06/17/2021
trans-1,4-Dichloro-2-butene	*	2.0		51.3	50.00	0	102.5	51.86	1.16	06/17/2021
Trichloroethene	*	2.0		52.5	50.00	0	105.0	53.30	1.51	06/17/2021
Trichlorofluoromethane	*	5.0		49.6	50.00	0	99.3	49.90	0.52	06/17/2021
Vinyl acetate	*	5.0		56.6	50.00	0	113.1	56.78	0.39	06/17/2021
Vinyl chloride	*	2.0		45.6	50.00	0	91.2	51.77	12.67	06/17/2021
Xylenes, Total	*	4.0		156	150.0	0	104.3	159.4	1.87	06/17/2021
1,2-Dichloroethene, Total	*	4.0		107	100.0	0	106.9	109.0	1.96	06/17/2021
1,3-Dichloropropene, Total	*	4.0		108	100.0	0	108.2	108.6	0.42	06/17/2021
1,4-Dichloro-2-butene, Total	*	4.0		104	100.0	0	104.0	106.1	1.94	06/17/2021
Surr: 1,2-Dichloroethane-d4	*			49.2	50.00		98.3			06/17/2021
Surr: 4-Bromofluorobenzene	*			48.0	50.00		95.9			06/17/2021
Surr: Toluene-d8	*			47.9	50.00		95.9			06/17/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954 **SampType:** LCSG **Units** µg/L

SampID: LCSG-AM210617A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
TPH - GRO (C6 - C10)	*	500		1790	2000	0	89.7	70	130	06/17/2021
Surr: 1,2-Dichloroethane-d4	*			49.0	50.00		98.0	80	120	06/17/2021
Surr: 4-Bromofluorobenzene	*			49.9	50.00		99.9	80	120	06/17/2021
Surr: Toluene-d8	*			48.4	50.00		96.8	80	120	06/17/2021

Batch 178954 **SampType:** LCSGD **Units** µg/L

RPD Limit 20

SampID: LCSGD-AM210617A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
TPH - GRO (C6 - C10)	*	500		1790	2000	0	89.5	1794	0.20	06/17/2021
Surr: 1,2-Dichloroethane-d4	*			48.9	50.00		97.7			06/17/2021
Surr: 4-Bromofluorobenzene	*			49.8	50.00		99.7			06/17/2021
Surr: Toluene-d8	*			48.6	50.00		97.2			06/17/2021



Receiving Check List

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061101

Client Project: 128487 GSA

Report Date: 28-Jun-21

Carrier: Employee

Received By: PRY

Completed by: (b) (6)
On: [Redacted]
16-Jun-21
Mary E. Kemp

Reviewed by: (b) (6)
On: [Redacted]
16-Jun-21
Emily Pohlman

Pages to follow: Chain of custody Extra pages included

- Shipping container/cooler in good condition? Yes No Not Present Temp °C **0.6**
- Type of thermal preservation? None Ice Blue Ice Dry Ice
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Reported field parameters measured: Field Lab NA
- Container/Temp Blank temperature in compliance? Yes No

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- Water – at least one vial per sample has zero headspace? Yes No No VOA vials
- Water - TOX containers have zero headspace? Yes No No TOX containers
- Water - pH acceptable upon receipt? Yes No NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes No NA

Any No responses must be detailed below or on the COC.

pH strip #76747. - MKemp - 6/16/2021 4:42:48 PM

Trip Blank collection date and time will be reported as the received date and time (end of trip). - MKemp - 6/16/2021 4:45:00 PM

21061101

021618 Form WCD-KC1-STL

Burns & McDonnell Engineering
 425 South Woods Mill Road
 Chesterfield, Missouri 63017
 Phone: (314) 682-1500 Fax: (314) 682-1600
 LUSTIN CARTER
 Attention: JCARTER@BURNSMCD.COM

Laboratory: TEKLAB, INC.
 Address: 5445 HORSESHOE LAKE RD
 City/State/Zip: COLLINGSVILLE, IL 62234
 Telephone: (618) 344-1004

Document Control No: 128487-004

Lab. Reference No. or Episode No.:

Project Number: 128487 Sample Type

Client Name: GSA Matrix

Sample Number			Sample Event		Sample Depth (in feet)		Sample Collected		Matrix			Number of Containers	Analysis					Remarks
Group or SWMU Name	Sample Point	Sample Designator	Round	Year	From	To	Date	Time	Liquid	Solid	Gas		B.M.A.s	P.B.s	INORGANICS (TOTAL)	VOL. + TPH GLO	VOLATILE ORGANICS	
<u>TB-07</u>				<u>2021</u>					X			1				X		<u>21061101-001</u>
<u>RINSE-09</u>				<u>2021</u>			<u>6/14</u>	<u>1550</u>	X			5	X	X	X	X		<u>002</u>
<u>RINSE-10</u>				<u>2021</u>			<u>6/15</u>	<u>1408</u>	X			5	X	X	X	X		<u>003</u>
<u>RINSE-11</u>				<u>2021</u>			<u>6/16</u>	<u>1000</u>	X			5	X	X	X	X		<u>004</u>

Sampler (signature): [Signature]
 (b) (6)

Sampler (signature): [Signature]
 (b) (6)

Special Instructions:

Relinquished By (signature): [Signature]
 1. (b) (6)

Date/Time: 6/16/21 1947

Received By (signature): [Signature]
 (b) (6)

Date/Time: 6/16/21 1947

Ice Present in Container: Yes No

Temperature Upon Receipt: 0.6 41.6 3

Relinquished By (signature):

Date/Time:

Received By (signature):

Date/Time:

Laboratory Comments: DHS. pHV 76747 (b) (6)

June 30, 2021

Justin Carter
Burns & McDonnell Waste Consultants
9400 Ward Parkway
P.O. Box 419173
Kansas City, MO 64114
TEL: (816) 333-9400
FAX: (816) 822-3494



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: 128487 GSA

WorkOrder: 21061576

Dear Justin Carter:

TEKLAB, INC received 5 samples on 6/24/2021 12:30:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

(b) (6)

Emily Pohlman
Project Manager
(618)344-1004 ex 44
epohlman@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	26
Dates Report	27
Quality Control Results	28
Receiving Check List	45
Chain of Custody	Appended

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



Case Narrative

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Cooler Receipt Temp: 1.2 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

Email jhriley@teklabinc.com

Collinsville Air

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Fax

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Phone (913) 541-1998

Fax (913) 541-1998

Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-001

Client Sample ID: Rinse-12

Matrix: GROUNDWATER

Collection Date: 06/21/2021 8:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/28/2021 21:29	179236
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/28/2021 21:29	179236
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/28/2021 21:29	179236
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/28/2021 21:29	179236
Zinc	NELAP	0.0100		< 0.0100	mg/L	1	06/28/2021 21:29	179236
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/29/2021 15:15	179214
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/29/2021 15:15	179214
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/29/2021 15:15	179214
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/29/2021 15:15	179214
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/29/2021 15:15	179214
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/29/2021 15:15	179214
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/29/2021 15:15	179214
Surr: Decachlorobiphenyl	*	10-152		64.4	%REC	1	06/29/2021 15:15	179214
Surr: Tetrachloro-meta-xylene	*	9.73-128		89.4	%REC	1	06/29/2021 15:15	179214
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Acenaphthylene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Anthracene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Benzo(a)anthracene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Benzo(a)pyrene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Benzo(b)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Benzo(g,h,i)perylene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Benzo(k)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Chrysene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Dibenzo(a,h)anthracene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Fluoranthene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Fluorene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Indeno(1,2,3-cd)pyrene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Naphthalene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Phenanthrene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Pyrene	NELAP	0.00100		ND	mg/L	1	06/25/2021 17:53	179200
Surr: 2-Fluorobiphenyl	*	1.39-137		54.5	%REC	1	06/25/2021 17:53	179200
Surr: Nitrobenzene-d5	*	29.1-125		76.6	%REC	1	06/25/2021 17:53	179200
Surr: p-Terphenyl-d14	*	35.2-164		88.0	%REC	1	06/25/2021 17:53	179200
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/25/2021 12:19	179215
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/25/2021 12:19	179215
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/25/2021 12:19	179215
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-001

Client Sample ID: Rinse-12

Matrix: GROUNDWATER

Collection Date: 06/21/2021 8:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/25/2021 12:19	179215
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/25/2021 12:19	179215
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/25/2021 12:19	179215
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
2-Butanone	NELAP	10.0		ND	µg/L	1	06/25/2021 12:19	179215
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/25/2021 12:19	179215
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/25/2021 12:19	179215
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/25/2021 12:19	179215
Acetone	NELAP	10.0		ND	µg/L	1	06/25/2021 12:19	179215
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/25/2021 12:19	179215
Acrolein	NELAP	20.0		ND	µg/L	1	06/25/2021 12:19	179215
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Benzene	NELAP	0.5		ND	µg/L	1	06/25/2021 12:19	179215
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Bromoform	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Bromomethane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Chloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Chloroform	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Chloromethane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Chloroprene	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Cyclohexanone	*	20.0		ND	µg/L	1	06/25/2021 12:19	179215
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-001

Client Sample ID: Rinse-12

Matrix: GROUNDWATER

Collection Date: 06/21/2021 8:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Diisopropyl ether	*	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/25/2021 12:19	179215
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Iodomethane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Naphthalene	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
n-Butyl acetate	*	2.0		ND	µg/L	1	06/25/2021 12:19	179215
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
n-Heptane	*	5.0		ND	µg/L	1	06/25/2021 12:19	179215
n-Hexane	*	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/25/2021 12:19	179215
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
o-Xylene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Propionitrile	NELAP	10.0		ND	µg/L	1	06/25/2021 12:19	179215
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Styrene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/25/2021 12:19	179215
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/25/2021 12:19	179215
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/25/2021 12:19	179215
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Toluene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/25/2021 12:19	179215
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/25/2021 12:19	179215
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/25/2021 12:19	179215
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/25/2021 12:19	179215
Surr: 1,2-Dichloroethane-d4	*	80-120		90.0	%REC	1	06/25/2021 12:19	179215



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-001

Client Sample ID: Rinse-12

Matrix: GROUNDWATER

Collection Date: 06/21/2021 8:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 4-Bromofluorobenzene	*	80-120		94.8	%REC	1	06/25/2021 12:19	179215
Surr: Toluene-d8	*	80-120		99.1	%REC	1	06/25/2021 12:19	179215

Allowable Marginal Exceedance of 1,1-Dichloro-2-propanone in the laboratory control sample is verified per the TNI Standard.



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-002

Client Sample ID: Rinse-13

Matrix: GROUNDWATER

Collection Date: 06/22/2021 18:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/28/2021 21:40	179236
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/28/2021 21:40	179236
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/28/2021 21:40	179236
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/28/2021 21:40	179236
Zinc	NELAP	0.0100		< 0.0100	mg/L	1	06/28/2021 21:40	179236
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/29/2021 15:30	179214
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/29/2021 15:30	179214
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/29/2021 15:30	179214
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/29/2021 15:30	179214
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/29/2021 15:30	179214
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/29/2021 15:30	179214
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/29/2021 15:30	179214
Surr: Decachlorobiphenyl	*	10-152		63.6	%REC	1	06/29/2021 15:30	179214
Surr: Tetrachloro-meta-xylene	*	9.73-128		94.0	%REC	1	06/29/2021 15:30	179214
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Acenaphthylene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Anthracene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Benzo(a)anthracene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Benzo(a)pyrene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Benzo(b)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Benzo(g,h,i)perylene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Benzo(k)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Chrysene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Dibenzo(a,h)anthracene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Fluoranthene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Fluorene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Indeno(1,2,3-cd)pyrene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Naphthalene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Phenanthrene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Pyrene	NELAP	0.00100		ND	mg/L	1	06/25/2021 18:32	179200
Surr: 2-Fluorobiphenyl	*	1.39-137		69.9	%REC	1	06/25/2021 18:32	179200
Surr: Nitrobenzene-d5	*	29.1-125		79.8	%REC	1	06/25/2021 18:32	179200
Surr: p-Terphenyl-d14	*	35.2-164		102.0	%REC	1	06/25/2021 18:32	179200
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/25/2021 12:45	179215
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/25/2021 12:45	179215
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/25/2021 12:45	179215
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-002

Client Sample ID: Rinse-13

Matrix: GROUNDWATER

Collection Date: 06/22/2021 18:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/25/2021 12:45	179215
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/25/2021 12:45	179215
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/25/2021 12:45	179215
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
2-Butanone	NELAP	10.0		ND	µg/L	1	06/25/2021 12:45	179215
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/25/2021 12:45	179215
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/25/2021 12:45	179215
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/25/2021 12:45	179215
Acetone	NELAP	10.0		ND	µg/L	1	06/25/2021 12:45	179215
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/25/2021 12:45	179215
Acrolein	NELAP	20.0		ND	µg/L	1	06/25/2021 12:45	179215
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Benzene	NELAP	0.5		ND	µg/L	1	06/25/2021 12:45	179215
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Bromoform	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Bromomethane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Chloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Chloroform	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Chloromethane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Chloroprene	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Cyclohexanone	*	20.0		ND	µg/L	1	06/25/2021 12:45	179215
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-002

Client Sample ID: Rinse-13

Matrix: GROUNDWATER

Collection Date: 06/22/2021 18:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Diisopropyl ether	*	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/25/2021 12:45	179215
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Iodomethane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Naphthalene	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
n-Butyl acetate	*	2.0		ND	µg/L	1	06/25/2021 12:45	179215
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
n-Heptane	*	5.0		ND	µg/L	1	06/25/2021 12:45	179215
n-Hexane	*	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/25/2021 12:45	179215
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
o-Xylene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Propionitrile	NELAP	10.0		ND	µg/L	1	06/25/2021 12:45	179215
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Styrene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/25/2021 12:45	179215
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/25/2021 12:45	179215
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/25/2021 12:45	179215
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Toluene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/25/2021 12:45	179215
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/25/2021 12:45	179215
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/25/2021 12:45	179215
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/25/2021 12:45	179215
Surr: 1,2-Dichloroethane-d4	*	80-120		90.4	%REC	1	06/25/2021 12:45	179215



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants
Client Project: 128487 GSA
Lab ID: 21061576-002
Matrix: GROUNDWATER

Work Order: 21061576
Report Date: 30-Jun-21
Client Sample ID: Rinse-13
Collection Date: 06/22/2021 18:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 4-Bromofluorobenzene	*	80-120		95.7	%REC	1	06/25/2021 12:45	179215
Surr: Toluene-d8	*	80-120		97.8	%REC	1	06/25/2021 12:45	179215

Allowable Marginal Exceedance of 1,1-Dichloro-2-propanone in the laboratory control sample is verified per the TNI Standard.

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-003

Client Sample ID: Rinse-14

Matrix: GROUNDWATER

Collection Date: 06/23/2021 18:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/28/2021 21:58	179236
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/28/2021 21:58	179236
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/28/2021 21:58	179236
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/28/2021 21:58	179236
Zinc	NELAP	0.0100		< 0.0100	mg/L	1	06/28/2021 21:58	179236
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/29/2021 15:46	179214
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/29/2021 15:46	179214
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/29/2021 15:46	179214
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/29/2021 15:46	179214
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/29/2021 15:46	179214
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/29/2021 15:46	179214
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/29/2021 15:46	179214
Surr: Decachlorobiphenyl	*	10-152		73.1	%REC	1	06/29/2021 15:46	179214
Surr: Tetrachloro-meta-xylene	*	9.73-128		117.2	%REC	1	06/29/2021 15:46	179214
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Acenaphthylene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Anthracene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Benzo(a)anthracene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Benzo(a)pyrene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Benzo(b)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Benzo(g,h,i)perylene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Benzo(k)fluoranthene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Chrysene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Dibenzo(a,h)anthracene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Fluoranthene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Fluorene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Indeno(1,2,3-cd)pyrene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Naphthalene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Phenanthrene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Pyrene	NELAP	0.00100		ND	mg/L	1	06/25/2021 19:11	179200
Surr: 2-Fluorobiphenyl	*	1.39-137		77.7	%REC	1	06/25/2021 19:11	179200
Surr: Nitrobenzene-d5	*	29.1-125		77.3	%REC	1	06/25/2021 19:11	179200
Surr: p-Terphenyl-d14	*	35.2-164		99.6	%REC	1	06/25/2021 19:11	179200
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/25/2021 13:12	179215
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/25/2021 13:12	179215
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/25/2021 13:12	179215
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-003

Client Sample ID: Rinse-14

Matrix: GROUNDWATER

Collection Date: 06/23/2021 18:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/25/2021 13:12	179215
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/25/2021 13:12	179215
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/25/2021 13:12	179215
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
2-Butanone	NELAP	10.0		ND	µg/L	1	06/25/2021 13:12	179215
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/25/2021 13:12	179215
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/25/2021 13:12	179215
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/25/2021 13:12	179215
Acetone	NELAP	10.0		ND	µg/L	1	06/25/2021 13:12	179215
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/25/2021 13:12	179215
Acrolein	NELAP	20.0		ND	µg/L	1	06/25/2021 13:12	179215
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Benzene	NELAP	0.5		ND	µg/L	1	06/25/2021 13:12	179215
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Bromoform	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Bromomethane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Chloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Chloroform	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Chloromethane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Chloroprene	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Cyclohexanone	*	20.0		ND	µg/L	1	06/25/2021 13:12	179215
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-003

Client Sample ID: Rinse-14

Matrix: GROUNDWATER

Collection Date: 06/23/2021 18:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Diisopropyl ether	*	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/25/2021 13:12	179215
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Iodomethane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Naphthalene	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
n-Butyl acetate	*	2.0		ND	µg/L	1	06/25/2021 13:12	179215
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
n-Heptane	*	5.0		ND	µg/L	1	06/25/2021 13:12	179215
n-Hexane	*	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/25/2021 13:12	179215
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
o-Xylene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Propionitrile	NELAP	10.0		ND	µg/L	1	06/25/2021 13:12	179215
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Styrene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/25/2021 13:12	179215
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/25/2021 13:12	179215
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/25/2021 13:12	179215
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Toluene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/25/2021 13:12	179215
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/25/2021 13:12	179215
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/25/2021 13:12	179215
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/25/2021 13:12	179215
Surr: 1,2-Dichloroethane-d4	*	80-120		90.4	%REC	1	06/25/2021 13:12	179215



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-003

Client Sample ID: Rinse-14

Matrix: GROUNDWATER

Collection Date: 06/23/2021 18:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 4-Bromofluorobenzene	*	80-120		95.7	%REC	1	06/25/2021 13:12	179215
Surr: Toluene-d8	*	80-120		98.4	%REC	1	06/25/2021 13:12	179215

Allowable Marginal Exceedance of 1,1-Dichloro-2-propanone in the laboratory control sample is verified per the TNI Standard.

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-004

Client Sample ID: Rinse-15

Matrix: GROUNDWATER

Collection Date: 06/24/2021 10:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)								
Antimony	NELAP	0.0500		< 0.0500	mg/L	1	06/28/2021 22:02	179236
Arsenic	NELAP	0.0250		< 0.0250	mg/L	1	06/28/2021 22:02	179236
Copper	NELAP	0.0050		< 0.0050	mg/L	1	06/28/2021 22:02	179236
Lead	NELAP	0.0150		< 0.0150	mg/L	1	06/28/2021 22:02	179236
Zinc	NELAP	0.0100		< 0.0100	mg/L	1	06/28/2021 22:02	179236
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.00		ND	µg/L	1	06/29/2021 16:01	179214
Aroclor 1221	NELAP	1.00		ND	µg/L	1	06/29/2021 16:01	179214
Aroclor 1232	NELAP	1.00		ND	µg/L	1	06/29/2021 16:01	179214
Aroclor 1242	NELAP	1.00		ND	µg/L	1	06/29/2021 16:01	179214
Aroclor 1248	NELAP	1.00		ND	µg/L	1	06/29/2021 16:01	179214
Aroclor 1254	NELAP	1.00		ND	µg/L	1	06/29/2021 16:01	179214
Aroclor 1260	NELAP	1.00		ND	µg/L	1	06/29/2021 16:01	179214
Surr: Decachlorobiphenyl	*	10-152		75.5	%REC	1	06/29/2021 16:01	179214
Surr: Tetrachloro-meta-xylene	*	9.73-128		119.1	%REC	1	06/29/2021 16:01	179214
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Acenaphthylene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Anthracene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Benzo(a)anthracene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Benzo(a)pyrene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Benzo(b)fluoranthene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Benzo(g,h,i)perylene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Benzo(k)fluoranthene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Chrysene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Dibenzo(a,h)anthracene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Fluoranthene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Fluorene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Indeno(1,2,3-cd)pyrene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Naphthalene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Phenanthrene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Pyrene	NELAP	0.00400		ND	mg/L	1	06/25/2021 19:50	179200
Surr: 2-Fluorobiphenyl	*	1.39-137		77.3	%REC	1	06/25/2021 19:50	179200
Surr: Nitrobenzene-d5	*	29.1-125		81.5	%REC	1	06/25/2021 19:50	179200
Surr: p-Terphenyl-d14	*	35.2-164		108.1	%REC	1	06/25/2021 19:50	179200
<i>Elevated reporting limit due to sample composition.</i>								
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/25/2021 13:39	179215
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/25/2021 13:39	179215
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/25/2021 13:39	179215
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-004

Client Sample ID: Rinse-15

Matrix: GROUNDWATER

Collection Date: 06/24/2021 10:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/25/2021 13:39	179215
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/25/2021 13:39	179215
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/25/2021 13:39	179215
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
2-Butanone	NELAP	10.0		ND	µg/L	1	06/25/2021 13:39	179215
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/25/2021 13:39	179215
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/25/2021 13:39	179215
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/25/2021 13:39	179215
Acetone	NELAP	10.0		ND	µg/L	1	06/25/2021 13:39	179215
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/25/2021 13:39	179215
Acrolein	NELAP	20.0		ND	µg/L	1	06/25/2021 13:39	179215
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Benzene	NELAP	0.5		ND	µg/L	1	06/25/2021 13:39	179215
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Bromoform	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Bromomethane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Chloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Chloroform	NELAP	2.0		5.2	µg/L	1	06/25/2021 13:39	179215
Chloromethane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Chloroprene	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Cyclohexanone	*	20.0		ND	µg/L	1	06/25/2021 13:39	179215

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-004

Client Sample ID: Rinse-15

Matrix: GROUNDWATER

Collection Date: 06/24/2021 10:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Diisopropyl ether	*	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/25/2021 13:39	179215
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Iodomethane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Naphthalene	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
n-Butyl acetate	*	2.0		ND	µg/L	1	06/25/2021 13:39	179215
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
n-Heptane	*	5.0		ND	µg/L	1	06/25/2021 13:39	179215
n-Hexane	*	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/25/2021 13:39	179215
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
o-Xylene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Propionitrile	NELAP	10.0		ND	µg/L	1	06/25/2021 13:39	179215
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Styrene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/25/2021 13:39	179215
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/25/2021 13:39	179215
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/25/2021 13:39	179215
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Toluene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/25/2021 13:39	179215
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/25/2021 13:39	179215
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/25/2021 13:39	179215
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/25/2021 13:39	179215



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-004

Client Sample ID: Rinse-15

Matrix: GROUNDWATER

Collection Date: 06/24/2021 10:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Surr: 1,2-Dichloroethane-d4	*	80-120		90.5	%REC	1	06/25/2021 13:39	179215
Surr: 4-Bromofluorobenzene	*	80-120		95.1	%REC	1	06/25/2021 13:39	179215
Surr: Toluene-d8	*	80-120		98.2	%REC	1	06/25/2021 13:39	179215
<i>Allowable Marginal Exceedance of 1,1-Dichloro-2-propanone in the laboratory control sample is verified per the TNI Standard.</i>								



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-005

Client Sample ID: TB-06

Matrix: TRIP BLANK

Collection Date: 06/24/2021 12:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/25/2021 10:59	179215
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/25/2021 10:59	179215
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/25/2021 10:59	179215
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/25/2021 10:59	179215
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/25/2021 10:59	179215
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/25/2021 10:59	179215
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
2-Butanone	NELAP	10.0		ND	µg/L	1	06/25/2021 10:59	179215
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/25/2021 10:59	179215
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/25/2021 10:59	179215
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/25/2021 10:59	179215
Acetone	NELAP	10.0		ND	µg/L	1	06/25/2021 10:59	179215
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/25/2021 10:59	179215
Acrolein	NELAP	20.0		ND	µg/L	1	06/25/2021 10:59	179215
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Benzene	NELAP	0.5		ND	µg/L	1	06/25/2021 10:59	179215
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Bromoform	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Bromomethane	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-005

Client Sample ID: TB-06

Matrix: TRIP BLANK

Collection Date: 06/24/2021 12:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Chloroethane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Chloroform	NELAP	2.0		6.5	µg/L	1	06/25/2021 10:59	179215
Chloromethane	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Chloroprene	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Cyclohexanone	*	20.0		ND	µg/L	1	06/25/2021 10:59	179215
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Diisopropyl ether	*	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/25/2021 10:59	179215
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Iodomethane	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Naphthalene	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
n-Butyl acetate	*	2.0		ND	µg/L	1	06/25/2021 10:59	179215
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
n-Heptane	*	5.0		ND	µg/L	1	06/25/2021 10:59	179215
n-Hexane	*	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/25/2021 10:59	179215
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
o-Xylene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Propionitrile	NELAP	10.0		ND	µg/L	1	06/25/2021 10:59	179215
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Styrene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/25/2021 10:59	179215
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/25/2021 10:59	179215
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/25/2021 10:59	179215
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab ID: 21061576-005

Client Sample ID: TB-06

Matrix: TRIP BLANK

Collection Date: 06/24/2021 12:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Toluene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/25/2021 10:59	179215
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/25/2021 10:59	179215
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/25/2021 10:59	179215
Surr: 1,2-Dichloroethane-d4	*	80-120		89.4	%REC	1	06/25/2021 10:59	179215
Surr: 4-Bromofluorobenzene	*	80-120		94.8	%REC	1	06/25/2021 10:59	179215
Surr: Toluene-d8	*	80-120		98.5	%REC	1	06/25/2021 10:59	179215

Allowable Marginal Exceedance of 1,1-Dichloro-2-propanone in the laboratory control sample is verified per the TNI Standard.



Sample Summary

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
21061576-001	Rinse-12	Groundwater	4	06/21/2021 8:00
21061576-002	Rinse-13	Groundwater	4	06/22/2021 18:05
21061576-003	Rinse-14	Groundwater	4	06/23/2021 18:05
21061576-004	Rinse-15	Groundwater	4	06/24/2021 10:10
21061576-005	TB-06	Trip Blank	1	06/24/2021 12:30



Dates Report

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
21061576-001A	Rinse-12	06/21/2021 8:00	06/24/2021 12:30		
	SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD			06/25/2021 14:40	06/29/2021 15:15
21061576-001B	Rinse-12	06/21/2021 8:00	06/24/2021 12:30		
	SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS			06/25/2021 9:32	06/25/2021 17:53
21061576-001C	Rinse-12	06/21/2021 8:00	06/24/2021 12:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			06/28/2021 8:59	06/28/2021 21:29
21061576-001D	Rinse-12	06/21/2021 8:00	06/24/2021 12:30		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				06/25/2021 12:19
21061576-002A	Rinse-13	06/22/2021 18:05	06/24/2021 12:30		
	SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD			06/25/2021 14:40	06/29/2021 15:30
21061576-002B	Rinse-13	06/22/2021 18:05	06/24/2021 12:30		
	SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS			06/25/2021 9:32	06/25/2021 18:32
21061576-002C	Rinse-13	06/22/2021 18:05	06/24/2021 12:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			06/28/2021 8:59	06/28/2021 21:40
21061576-002D	Rinse-13	06/22/2021 18:05	06/24/2021 12:30		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				06/25/2021 12:45
21061576-003A	Rinse-14	06/23/2021 18:05	06/24/2021 12:30		
	SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD			06/25/2021 14:40	06/29/2021 15:46
21061576-003B	Rinse-14	06/23/2021 18:05	06/24/2021 12:30		
	SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS			06/25/2021 9:32	06/25/2021 19:11
21061576-003C	Rinse-14	06/23/2021 18:05	06/24/2021 12:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			06/28/2021 8:59	06/28/2021 21:58
21061576-003D	Rinse-14	06/23/2021 18:05	06/24/2021 12:30		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				06/25/2021 13:12
21061576-004A	Rinse-15	06/24/2021 10:10	06/24/2021 12:30		
	SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD			06/25/2021 14:40	06/29/2021 16:01
21061576-004B	Rinse-15	06/24/2021 10:10	06/24/2021 12:30		
	SW-846 3510C, 8270C, Semi-Volatile Organic Compounds by GC/MS			06/25/2021 9:32	06/25/2021 19:50
21061576-004C	Rinse-15	06/24/2021 10:10	06/24/2021 12:30		
	SW-846 3005A, 6010B, Metals by ICP (Total)			06/28/2021 8:59	06/28/2021 22:02
21061576-004D	Rinse-15	06/24/2021 10:10	06/24/2021 12:30		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				06/25/2021 13:39
21061576-005A	TB-06	06/24/2021 12:30	06/24/2021 12:30		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				06/25/2021 10:59



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 179236 **SampType: MBLK** Units mg/L
 SampID: MBLK-179236

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		< 0.0500	0.0068	0	0	-100	100	06/28/2021
Arsenic		0.0250		< 0.0250	0.0087	0	0	-100	100	06/28/2021
Copper		0.0050		< 0.0050	0.0013	0	0	-100	100	06/28/2021
Lead		0.0150		< 0.0150	0.0040	0	0	-100	100	06/28/2021
Zinc		0.0100		< 0.0100	0.0050	0	0	-100	100	06/28/2021

Batch 179236 **SampType: LCS** Units mg/L
 SampID: LCS-179236

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		0.512	0.5000	0	102.3	85	115	06/28/2021
Arsenic		0.0250		0.535	0.5000	0	107.0	85	115	06/28/2021
Copper		0.0050		0.260	0.2500	0	104.0	85	115	06/28/2021
Lead		0.0150		0.505	0.5000	0	101.0	85	115	06/28/2021
Zinc		0.0100		0.522	0.5000	0	104.3	85	115	06/28/2021

Batch 179236 **SampType: MS** Units mg/L
 SampID: 21061576-001CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0500		0.514	0.5000	0	102.8	75	125	06/28/2021
Arsenic		0.0250		0.545	0.5000	0	109.1	75	125	06/28/2021
Copper		0.0050		0.267	0.2500	0	106.8	75	125	06/28/2021
Lead		0.0150		0.510	0.5000	0	102.0	75	125	06/28/2021
Zinc		0.0100		0.547	0.5000	0.006100	108.2	75	125	06/28/2021

Batch 179236 **SampType: MSD** Units mg/L
 SampID: 21061576-001CMSD

RPD Limit 20

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Antimony		0.0500		0.519	0.5000	0	103.8	0.5142	0.97	06/28/2021
Arsenic		0.0250		0.546	0.5000	0	109.1	0.5453	0.06	06/28/2021
Copper		0.0050		0.267	0.2500	0	106.8	0.2669	0.04	06/28/2021
Lead		0.0150		0.510	0.5000	0	102.1	0.5102	0.02	06/28/2021
Zinc		0.0100		0.534	0.5000	0.006100	105.6	0.5469	2.39	06/28/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD
Batch 179214 **SampType: MBLK** Units µg/L

SampID: MBLK-179214

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		1.00		ND						06/29/2021
Aroclor 1016		0.095		ND						06/29/2021
Aroclor 1221		0.095		ND						06/29/2021
Aroclor 1221		1.00		ND						06/29/2021
Aroclor 1232		0.095		ND						06/29/2021
Aroclor 1232		1.00		ND						06/29/2021
Aroclor 1242		0.095		ND						06/29/2021
Aroclor 1242		1.00		ND						06/29/2021
Aroclor 1248		0.095		ND						06/29/2021
Aroclor 1248		1.00		ND						06/29/2021
Aroclor 1254		0.095		ND						06/29/2021
Aroclor 1254		1.00		ND						06/29/2021
Aroclor 1260		0.095		ND						06/29/2021
Aroclor 1260		1.00		ND						06/29/2021
Surr: Decachlorobiphenyl	*			0.098	0.1250		78.7	31.2	141	06/26/2021
Surr: Decachlorobiphenyl	*			0.12	0.1250		96.6	27.5	143	06/29/2021
Surr: Decachlorobiphenyl	*			0.121	0.1250		96.6	31.2	141	06/29/2021
Surr: Tetrachloro-meta-xylene	*			0.13	0.1250		102.8	35.2	135	06/29/2021

Batch 179214 **SampType: LCS** Units µg/L

SampID: LCSPCB-179214

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		0.095		2.99	2.500	0	119.5	50	140	06/29/2021
Aroclor 1016		1.00		2.99	2.500	0	119.5	56.2	136	06/29/2021
Aroclor 1260		0.095		2.83	2.500	0	113.2	8	140	06/29/2021
Aroclor 1260		1.00		2.83	2.500	0	113.2	42.1	125	06/29/2021
Surr: Decachlorobiphenyl	*			0.14	0.1250		109.3	27.5	143	06/29/2021
Surr: Decachlorobiphenyl	*			0.137	0.1250		109.3	31.2	141	06/29/2021
Surr: Tetrachloro-meta-xylene	*			0.14	0.1250		112.4	35.2	135	06/29/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD

Batch 179214		SampType: LCSD		Units µg/L				RPD Limit 36			
SampID: LCSPCBD-179214											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Aroclor 1016		0.095		3.05	2.500	0	122.1	2.987	2.18	06/29/2021	
Aroclor 1016		1.00		3.05	2.500	0	122.1	2.987	2.18	06/29/2021	
Aroclor 1260		0.095		2.60	2.500	0	104.0	2.830	8.49	06/29/2021	
Aroclor 1260		1.00		2.60	2.500	0	104.0	2.830	8.49	06/29/2021	
Surr: Decachlorobiphenyl	*			0.117	0.1250		93.3			06/29/2021	
Surr: Decachlorobiphenyl	*			0.12	0.1250		93.3			06/29/2021	
Surr: Tetrachloro-meta-xylene	*			0.14	0.1250		114.8			06/29/2021	

Batch 179214		SampType: LCS		Units %REC						
SampID: LCSPST-179214										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: Decachlorobiphenyl	*			0.106	0.1250		85.2	31.2	141	06/26/2021

Batch 179214		SampType: LCSD		Units %REC				RPD Limit 0			
SampID: LCSPSTD-179214											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Surr: Decachlorobiphenyl	*			0.125	0.1250		99.9			06/26/2021	



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179200 **SampType:** MBLK **Units** mg/L

SampID: MBLK-179200

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Acenaphthene		0.00100		ND						06/25/2021
Acenaphthylene		0.00100		ND						06/25/2021
Anthracene		0.00100		ND						06/25/2021
Benzo(a)anthracene		0.00100		ND						06/25/2021
Benzo(a)pyrene		0.00100		ND						06/25/2021
Benzo(b)fluoranthene		0.00100		ND						06/25/2021
Benzo(g,h,i)perylene		0.00100		ND						06/25/2021
Benzo(k)fluoranthene		0.00100		ND						06/25/2021
Chrysene		0.00100		ND						06/25/2021
Dibenzo(a,h)anthracene		0.00100		ND						06/25/2021
Fluoranthene		0.00100		ND						06/25/2021
Fluorene		0.00100		ND						06/25/2021
Indeno(1,2,3-cd)pyrene		0.00100		ND						06/25/2021
Naphthalene		0.00100		ND						06/25/2021
Phenanthrene		0.00100		ND						06/25/2021
Pyrene		0.00100		ND						06/25/2021
Surr: 2-Fluorobiphenyl	*			0.00689	0.0125		55.1	1.09	175	06/25/2021
Surr: Nitrobenzene-d5	*			0.00944	0.0125		75.5	35.5	156	06/25/2021
Surr: p-Terphenyl-d14	*			0.0126	0.0125		101.1	35	222	06/25/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179200 **SampType:** LCS **Units** mg/L

SampID: LCS-179200

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Acenaphthene		0.00100		0.00600	0.0100	0	60.0	39.6	145	06/25/2021
Acenaphthylene		0.00100		0.00594	0.0100	0	59.4	38.3	147	06/25/2021
Anthracene		0.00100		0.00649	0.0100	0	64.9	47.7	153	06/25/2021
Benzo(a)anthracene		0.00100		0.00664	0.0100	0	66.4	45	136	06/25/2021
Benzo(a)pyrene		0.00100		0.00663	0.0100	0	66.3	49.8	164	06/25/2021
Benzo(b)fluoranthene		0.00100		0.00694	0.0100	0	69.4	45.7	167	06/25/2021
Benzo(g,h,i)perylene		0.00100		0.00729	0.0100	0	72.9	41	157	06/25/2021
Benzo(k)fluoranthene		0.00100		0.00711	0.0100	0	71.1	46.7	166	06/25/2021
Chrysene		0.00100		0.00684	0.0100	0	68.4	45.5	162	06/25/2021
Dibenzo(a,h)anthracene		0.00100		0.00702	0.0100	0	70.2	40.4	154	06/25/2021
Fluoranthene		0.00100		0.00726	0.0100	0	72.6	47.3	168	06/25/2021
Fluorene		0.00100		0.00682	0.0100	0	68.2	45.2	153	06/25/2021
Indeno(1,2,3-cd)pyrene		0.00100		0.00713	0.0100	0	71.3	44.6	166	06/25/2021
Naphthalene		0.00100		0.00581	0.0100	0	58.1	16.6	137	06/25/2021
Phenanthrene		0.00100		0.00672	0.0100	0	67.2	50.8	149	06/25/2021
Pyrene		0.00100		0.00723	0.0100	0	72.3	44.9	163	06/25/2021
Surr: 2-Fluorobiphenyl	*			0.00697	0.0125		55.8	1.09	175	06/25/2021
Surr: Nitrobenzene-d5	*			0.00879	0.0125		70.4	35.5	156	06/25/2021
Surr: p-Terphenyl-d14	*			0.0118	0.0125		94.8	35	222	06/25/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179200		SampType: LCSD		Units mg/L				RPD Limit 40		
SampID: LCSD-179200										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Acenaphthene		0.00100		0.00695	0.0100	0	69.5	0.006000	14.73	06/25/2021
Acenaphthylene		0.00100		0.00693	0.0100	0	69.3	0.005935	15.44	06/25/2021
Anthracene		0.00100		0.00743	0.0100	0	74.3	0.006488	13.57	06/25/2021
Benzo(a)anthracene		0.00100		0.00756	0.0100	0	75.6	0.006640	12.97	06/25/2021
Benzo(a)pyrene		0.00100		0.00751	0.0100	0	75.1	0.006634	12.38	06/25/2021
Benzo(b)fluoranthene		0.00100		0.00782	0.0100	0	78.2	0.006945	11.81	06/25/2021
Benzo(g,h,i)perylene		0.00100		0.00815	0.0100	0	81.5	0.007292	11.09	06/25/2021
Benzo(k)fluoranthene		0.00100		0.00791	0.0100	0	79.1	0.007112	10.66	06/25/2021
Chrysene		0.00100		0.00778	0.0100	0	77.8	0.006835	12.93	06/25/2021
Dibenzo(a,h)anthracene		0.00100		0.00801	0.0100	0	80.1	0.007018	13.25	06/25/2021
Fluoranthene		0.00100		0.00829	0.0100	0	82.9	0.007260	13.28	06/25/2021
Fluorene		0.00100		0.00771	0.0100	0	77.1	0.006824	12.19	06/25/2021
Indeno(1,2,3-cd)pyrene		0.00100		0.00801	0.0100	0	80.1	0.007130	11.57	06/25/2021
Naphthalene		0.00100		0.00735	0.0100	0	73.5	0.005808	23.46	06/25/2021
Phenanthrene		0.00100		0.00773	0.0100	0	77.3	0.006719	13.97	06/25/2021
Pyrene		0.00100		0.00831	0.0100	0	83.1	0.007230	13.86	06/25/2021
Surr: 2-Fluorobiphenyl	*			0.00811	0.0125		64.9			06/25/2021
Surr: Nitrobenzene-d5	*			0.0103	0.0125		82.2			06/25/2021
Surr: p-Terphenyl-d14	*			0.0132	0.0125		105.2			06/25/2021

Batch 179200		SampType: LCSG		Units %REC						Date Analyzed
SampID: LCSG-179200										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.00916	0.0125		73.3	1.09	175	06/25/2021
Surr: Nitrobenzene-d5	*			0.00919	0.0125		73.5	35.5	156	06/25/2021
Surr: p-Terphenyl-d14	*			0.0125	0.0125		99.8	35	222	06/25/2021

Batch 179200		SampType: LCSGD		Units %REC				RPD Limit 0		Date Analyzed
SampID: LCSGD-179200										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.00918	0.0125		73.4			06/25/2021
Surr: Nitrobenzene-d5	*			0.00914	0.0125		73.1			06/25/2021
Surr: p-Terphenyl-d14	*			0.0123	0.0125		98.1			06/25/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179200		SampType: MS		Units %REC						
SampID: 21061576-004BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.0476	0.0500		95.2	1.39	137	06/25/2021
Surr: Nitrobenzene-d5	*			0.0412	0.0500		82.5	29.1	125	06/25/2021
Surr: p-Terphenyl-d14	*			0.0550	0.0500		110.0	35.2	164	06/25/2021

Batch 179200		SampType: MSD		Units %REC		RPD Limit 0				
SampID: 21061576-004BMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Surr: 2-Fluorobiphenyl	*			0.0480	0.0500		96.0			06/25/2021
Surr: Nitrobenzene-d5	*			0.0399	0.0500		79.8			06/25/2021
Surr: p-Terphenyl-d14	*			0.0551	0.0500		110.1			06/25/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179215 **SampType:** MBLK **Units** µg/L
SampID: MBLK-AE210625A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		ND						06/25/2021
1,1,1-Trichloroethane	*	2.0		ND						06/25/2021
1,1,2,2-Tetrachloroethane	*	2.0		ND						06/25/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND						06/25/2021
1,1,2-Trichloroethane	*	0.5		ND						06/25/2021
1,1-Dichloro-2-propanone	*	30.0		ND						06/25/2021
1,1-Dichloroethane	*	2.0		ND						06/25/2021
1,1-Dichloroethene	*	2.0		ND						06/25/2021
1,1-Dichloropropene	*	2.0		ND						06/25/2021
1,2,3-Trichlorobenzene	*	2.0		ND						06/25/2021
1,2,3-Trichloropropane	*	2.0		ND						06/25/2021
1,2,3-Trimethylbenzene	*	2.0		ND						06/25/2021
1,2,4-Trichlorobenzene	*	2.0		ND						06/25/2021
1,2,4-Trimethylbenzene	*	2.0		ND						06/25/2021
1,2-Dibromo-3-chloropropane	*	5.0		ND						06/25/2021
1,2-Dibromoethane	*	2.0		ND						06/25/2021
1,2-Dichlorobenzene	*	2.0		ND						06/25/2021
1,2-Dichloroethane	*	2.0		ND						06/25/2021
1,2-Dichloropropane	*	2.0		ND						06/25/2021
1,3,5-Trimethylbenzene	*	2.0		ND						06/25/2021
1,3-Dichlorobenzene	*	2.0		ND						06/25/2021
1,3-Dichloropropane	*	2.0		ND						06/25/2021
1,4-Dichlorobenzene	*	2.0		ND						06/25/2021
1-Chlorobutane	*	5.0		ND						06/25/2021
2,2-Dichloropropane	*	2.0		ND						06/25/2021
2-Butanone	*	10.0		ND						06/25/2021
2-Chloroethyl vinyl ether	*	5.0		ND						06/25/2021
2-Chlorotoluene	*	2.0		ND						06/25/2021
2-Hexanone	*	10.0		ND						06/25/2021
2-Nitropropane	*	10.0		ND						06/25/2021
4-Chlorotoluene	*	2.0		ND						06/25/2021
4-Methyl-2-pentanone	*	10.0		ND						06/25/2021
Acetone	*	10.0		ND						06/25/2021
Acetonitrile	*	10.0		ND						06/25/2021
Acrolein	*	20.0		ND						06/25/2021
Acrylonitrile	*	5.0		ND						06/25/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179215 **SampType:** MBLK **Units** µg/L

SampID: MBLK-AE210625A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		ND						06/25/2021
Benzene	*	0.5		ND						06/25/2021
Bromobenzene	*	2.0		ND						06/25/2021
Bromochloromethane	*	2.0		ND						06/25/2021
Bromodichloromethane	*	2.0		ND						06/25/2021
Bromoform	*	2.0		ND						06/25/2021
Bromomethane	*	5.0		ND						06/25/2021
Carbon disulfide	*	2.0		ND						06/25/2021
Carbon tetrachloride	*	2.0		ND						06/25/2021
Chlorobenzene	*	2.0		ND						06/25/2021
Chloroethane	*	2.0		ND						06/25/2021
Chloroform	*	2.0		ND						06/25/2021
Chloromethane	*	5.0		ND						06/25/2021
Chloroprene	*	5.0		ND						06/25/2021
cis-1,2-Dichloroethene	*	2.0		ND						06/25/2021
cis-1,3-Dichloropropene	*	2.0		ND						06/25/2021
cis-1,4-Dichloro-2-butene	*	2.0		ND						06/25/2021
Cyclohexanone	*	20.0		ND						06/25/2021
Dibromochloromethane	*	2.0		ND						06/25/2021
Dibromomethane	*	2.0		ND						06/25/2021
Dichlorodifluoromethane	*	2.0		ND						06/25/2021
Diisopropyl ether	*	2.0		ND						06/25/2021
Ethyl acetate	*	10.0		ND						06/25/2021
Ethyl ether	*	5.0		ND						06/25/2021
Ethyl methacrylate	*	5.0		ND						06/25/2021
Ethylbenzene	*	2.0		ND						06/25/2021
Ethyl-tert-butyl ether	*	2.0		ND						06/25/2021
Hexachlorobutadiene	*	5.0		ND						06/25/2021
Hexachloroethane	*	5.0		ND						06/25/2021
Iodomethane	*	5.0		ND						06/25/2021
Isopropylbenzene	*	2.0		ND						06/25/2021
m,p-Xylenes	*	2.0		ND						06/25/2021
Methacrylonitrile	*	5.0		ND						06/25/2021
Methyl Methacrylate	*	5.0		ND						06/25/2021
Methyl tert-butyl ether	*	2.0		ND						06/25/2021
Methylacrylate	*	5.0		ND						06/25/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179215 **SampType:** MBLK **Units** µg/L

SampID: MBLK-AE210625A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Methylene chloride	*	2.0		ND						06/25/2021
Naphthalene	*	5.0		ND						06/25/2021
n-Butyl acetate	*	2.0		ND						06/25/2021
n-Butylbenzene	*	2.0		ND						06/25/2021
n-Heptane	*	5.0		ND						06/25/2021
n-Hexane	*	5.0		ND						06/25/2021
Nitrobenzene	*	50.0		ND						06/25/2021
n-Propylbenzene	*	2.0		ND						06/25/2021
o-Xylene	*	2.0		ND						06/25/2021
Pentachloroethane	*	5.0		ND						06/25/2021
p-Isopropyltoluene	*	2.0		ND						06/25/2021
Propionitrile	*	10.0		ND						06/25/2021
sec-Butylbenzene	*	2.0		ND						06/25/2021
Styrene	*	2.0		ND						06/25/2021
tert-Amyl methyl ether	*	2.0		ND						06/25/2021
tert-Butyl alcohol	*	10.0		ND						06/25/2021
tert-Butylbenzene	*	2.0		ND						06/25/2021
Tetrachloroethene	*	0.5		ND						06/25/2021
Tetrahydrofuran	*	5.0		ND						06/25/2021
Toluene	*	2.0		ND						06/25/2021
trans-1,2-Dichloroethene	*	2.0		ND						06/25/2021
trans-1,3-Dichloropropene	*	2.0		ND						06/25/2021
trans-1,4-Dichloro-2-butene	*	2.0		ND						06/25/2021
Trichloroethene	*	2.0		ND						06/25/2021
Trichlorofluoromethane	*	5.0		ND						06/25/2021
Vinyl acetate	*	5.0		ND						06/25/2021
Vinyl chloride	*	2.0		ND						06/25/2021
Xylenes, Total	*	4.0		ND						06/25/2021
1,2-Dichloroethene, Total	*	4.0		ND						06/25/2021
1,3-Dichloropropene, Total	*	4.0		ND						06/25/2021
1,4-Dichloro-2-butene, Total	*	4.0		ND						06/25/2021
TPH - GRO (C6 - C10)	*	500		ND						06/25/2021
Surr: 1,2-Dichloroethane-d4	*			45.5	50.00		91.1	80	120	06/25/2021
Surr: 4-Bromofluorobenzene	*			47.8	50.00		95.7	80	120	06/25/2021
Surr: Toluene-d8	*			49.3	50.00		98.6	80	120	06/25/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179215 **SampType:** LCS

Units µg/L

SampID: LCS-AE210625A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		48.2	50.00	0	96.3	82	113	06/25/2021
1,1,1-Trichloroethane	*	2.0		48.3	50.00	0	96.5	76.9	128	06/25/2021
1,1,2,2-Tetrachloroethane	*	2.0		45.7	50.00	0	91.4	76.7	113	06/25/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		48.8	50.00	0	97.6	69.5	127	06/25/2021
1,1,2-Trichloroethane	*	0.5		47.9	50.00	0	95.8	83.8	111	06/25/2021
1,1-Dichloro-2-propanone	*	30.0		95.2	125.0	0	76.1	74.9	117	06/25/2021
1,1-Dichloroethane	*	2.0		47.6	50.00	0	95.2	77	129	06/25/2021
1,1-Dichloroethene	*	2.0		46.5	50.00	0	93.1	69.4	127	06/25/2021
1,1-Dichloropropene	*	2.0		48.5	50.00	0	96.9	75.1	123	06/25/2021
1,2,3-Trichlorobenzene	*	2.0		50.5	50.00	0	101.1	77.3	121	06/25/2021
1,2,3-Trichloropropane	*	2.0		43.8	50.00	0	87.5	75.3	109	06/25/2021
1,2,3-Trimethylbenzene	*	2.0		46.4	50.00	0	92.7	77	115	06/25/2021
1,2,4-Trichlorobenzene	*	2.0		50.2	50.00	0	100.3	76.8	124	06/25/2021
1,2,4-Trimethylbenzene	*	2.0		47.6	50.00	0	95.3	75	115	06/25/2021
1,2-Dibromo-3-chloropropane	*	5.0		41.8	50.00	0	83.7	71.9	119	06/25/2021
1,2-Dibromoethane	*	2.0		47.8	50.00	0	95.5	83.6	110	06/25/2021
1,2-Dichlorobenzene	*	2.0		48.5	50.00	0	97.1	72.1	113	06/25/2021
1,2-Dichloroethane	*	2.0		42.4	50.00	0	84.9	72.3	117	06/25/2021
1,2-Dichloropropane	*	2.0		47.4	50.00	0	94.8	76.5	119	06/25/2021
1,3,5-Trimethylbenzene	*	2.0		47.6	50.00	0	95.1	75.2	117	06/25/2021
1,3-Dichlorobenzene	*	2.0		49.9	50.00	0	99.7	75.2	115	06/25/2021
1,3-Dichloropropane	*	2.0		47.4	50.00	0	94.9	80.9	110	06/25/2021
1,4-Dichlorobenzene	*	2.0		47.7	50.00	0	95.4	73.9	112	06/25/2021
1-Chlorobutane	*	5.0		49.1	50.00	0	98.3	74.9	130	06/25/2021
2,2-Dichloropropane	*	2.0		47.0	50.00	0	94.1	66.5	138	06/25/2021
2-Butanone	*	10.0		111	125.0	0	89.1	68.8	134	06/25/2021
2-Chloroethyl vinyl ether	*	5.0		63.0	50.00	0	125.9	17.8	163	06/25/2021
2-Chlorotoluene	*	2.0		47.3	50.00	0	94.6	74.9	115	06/25/2021
2-Hexanone	*	10.0		108	125.0	0	86.2	73.2	117	06/25/2021
2-Nitropropane	*	10.0		429	500.0	0	85.9	67.1	140	06/25/2021
4-Chlorotoluene	*	2.0		46.6	50.00	0	93.2	75.7	113	06/25/2021
4-Methyl-2-pentanone	*	10.0		113	125.0	0	90.7	77	113	06/25/2021
Acetone	*	10.0		114	125.0	0	91.0	61.4	130	06/25/2021
Acetonitrile	*	10.0		523	500.0	0	104.5	68.8	136	06/25/2021
Acrolein	*	20.0		499	500.0	0	99.7	28.4	168	06/25/2021
Acrylonitrile	*	5.0		47.2	50.00	0	94.5	77.9	124	06/25/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179215 **SampType:** LCS

Units µg/L

SampID: LCS-AE210625A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		46.7	50.00	0	93.5	75.8	130	06/25/2021
Benzene	*	0.5		49.2	50.00	0	98.3	78.5	119	06/25/2021
Bromobenzene	*	2.0		49.7	50.00	0	99.4	77.5	113	06/25/2021
Bromochloromethane	*	2.0		45.8	50.00	0	91.7	71.5	123	06/25/2021
Bromodichloromethane	*	2.0		46.2	50.00	0	92.4	75.7	123	06/25/2021
Bromoform	*	2.0		47.1	50.00	0	94.1	78.9	121	06/25/2021
Bromomethane	*	5.0		51.2	50.00	0	102.3	30.5	192	06/25/2021
Carbon disulfide	*	2.0		47.3	50.00	0	94.6	66.7	121	06/25/2021
Carbon tetrachloride	*	2.0		45.4	50.00	0	90.9	70.9	127	06/25/2021
Chlorobenzene	*	2.0		48.1	50.00	0	96.2	80	111	06/25/2021
Chloroethane	*	2.0		47.6	50.00	0	95.3	69.6	135	06/25/2021
Chloroform	*	2.0		46.4	50.00	0	92.7	76.2	120	06/25/2021
Chloromethane	*	5.0		41.9	50.00	0	83.8	50.9	138	06/25/2021
Chloroprene	*	5.0		46.9	50.00	0	93.9	68.4	127	06/25/2021
cis-1,2-Dichloroethene	*	2.0		50.1	50.00	0	100.1	79.5	121	06/25/2021
cis-1,3-Dichloropropene	*	2.0		48.1	50.00	0	96.2	79.8	123	06/25/2021
cis-1,4-Dichloro-2-butene	*	2.0		42.4	50.00	0	84.8	64.6	130	06/25/2021
Cyclohexanone	*	20.0		446	500.0	0	89.3	70.5	114	06/25/2021
Dibromochloromethane	*	2.0		46.1	50.00	0	92.3	84.5	114	06/25/2021
Dibromomethane	*	2.0		45.5	50.00	0	91.1	76	119	06/25/2021
Dichlorodifluoromethane	*	2.0		48.0	50.00	0	96.1	46.6	142	06/25/2021
Diisopropyl ether	*	2.0		47.8	50.00	0	95.6	72	128	06/25/2021
Ethyl acetate	*	10.0		47.8	50.00	0	95.5	70.3	115	06/25/2021
Ethyl ether	*	5.0		44.7	50.00	0	89.5	74.6	120	06/25/2021
Ethyl methacrylate	*	5.0		45.1	50.00	0	90.3	81.4	116	06/25/2021
Ethylbenzene	*	2.0		48.2	50.00	0	96.4	78.2	114	06/25/2021
Ethyl-tert-butyl ether	*	2.0		46.2	50.00	0	92.5	74.6	124	06/25/2021
Hexachlorobutadiene	*	5.0		50.0	50.00	0	100.1	73.9	129	06/25/2021
Hexachloroethane	*	5.0		46.0	50.00	0	91.9	78.3	123	06/25/2021
Iodomethane	*	5.0		39.5	50.00	0	78.9	50	151	06/25/2021
Isopropylbenzene	*	2.0		48.5	50.00	0	97.0	79.3	115	06/25/2021
m,p-Xylenes	*	2.0		94.7	100.0	0	94.7	77.2	116	06/25/2021
Methacrylonitrile	*	5.0		50.3	50.00	0	100.6	73.9	127	06/25/2021
Methyl Methacrylate	*	5.0		42.9	50.00	0	85.8	70.7	129	06/25/2021
Methyl tert-butyl ether	*	2.0		46.9	50.00	0	93.8	80.3	122	06/25/2021
Methylacrylate	*	5.0		49.1	50.00	0	98.2	75.2	124	06/25/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179215 SampType: LCS

Units µg/L

SampID: LCS-AE210625A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Methylene chloride	*	2.0		48.3	50.00	0	96.6	71.8	115	06/25/2021
Naphthalene	*	5.0		46.3	50.00	0	92.6	75.6	121	06/25/2021
n-Butyl acetate	*	2.0		44.1	50.00	0	88.2	72.4	118	06/25/2021
n-Butylbenzene	*	2.0		47.1	50.00	0	94.3	70.8	118	06/25/2021
n-Heptane	*	5.0		50.4	50.00	0	100.8	50.4	143	06/25/2021
n-Hexane	*	5.0		45.2	50.00	0	90.3	60.6	139	06/25/2021
Nitrobenzene	*	50.0		410	500.0	0	82.0	49.4	129	06/25/2021
n-Propylbenzene	*	2.0		48.1	50.00	0	96.3	74	119	06/25/2021
o-Xylene	*	2.0		47.1	50.00	0	94.2	79.2	112	06/25/2021
Pentachloroethane	*	5.0		49.3	50.00	0	98.6	71.8	124	06/25/2021
p-Isopropyltoluene	*	2.0		49.0	50.00	0	97.9	74.4	119	06/25/2021
Propionitrile	*	10.0		496	500.0	0	99.2	76.2	127	06/25/2021
sec-Butylbenzene	*	2.0		49.6	50.00	0	99.1	74.4	119	06/25/2021
Styrene	*	2.0		48.2	50.00	0	96.5	80.4	117	06/25/2021
tert-Amyl methyl ether	*	2.0		47.3	50.00	0	94.5	80.8	125	06/25/2021
tert-Butyl alcohol	*	10.0		213	250.0	0	85.1	64.9	118	06/25/2021
tert-Butylbenzene	*	2.0		46.6	50.00	0	93.2	74	115	06/25/2021
Tetrachloroethene	*	0.5		50.5	50.00	0	100.9	70.1	120	06/25/2021
Tetrahydrofuran	*	5.0		44.4	50.00	0	88.8	63.5	122	06/25/2021
Toluene	*	2.0		49.1	50.00	0	98.2	78.6	112	06/25/2021
trans-1,2-Dichloroethene	*	2.0		47.4	50.00	0	94.7	75.7	130	06/25/2021
trans-1,3-Dichloropropene	*	2.0		46.5	50.00	0	93.1	80.3	116	06/25/2021
trans-1,4-Dichloro-2-butene	*	2.0		42.0	50.00	0	83.9	65.5	124	06/25/2021
Trichloroethene	*	2.0		48.7	50.00	0	97.4	76.2	121	06/25/2021
Trichlorofluoromethane	*	5.0		46.5	50.00	0	92.9	71.1	131	06/25/2021
Vinyl acetate	*	5.0		48.5	50.00	0	97.1	79.8	129	06/25/2021
Vinyl chloride	*	2.0		44.6	50.00	0	89.1	58.6	141	06/25/2021
Xylenes, Total	*	4.0		142	150.0	0	94.5	78.3	114	06/25/2021
1,2-Dichloroethene, Total	*	4.0		97.4	100.0	0	97.4	78.5	125	06/25/2021
1,3-Dichloropropene, Total	*	4.0		94.6	100.0	0	94.6	82.3	117	06/25/2021
1,4-Dichloro-2-butene, Total	*	4.0		84.4	100.0	0	84.4	65.9	126	06/25/2021
Surr: 1,2-Dichloroethane-d4	*			44.8	50.00		89.7	80	120	06/25/2021
Surr: 4-Bromofluorobenzene	*			47.8	50.00		95.6	80	120	06/25/2021
Surr: Toluene-d8	*			49.5	50.00		99.0	80	120	06/25/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	SampType:	Units		RPD Limit						
179215	LCSD	µg/L		15.4						
SampID: LCSD-AE210625A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		47.0	50.00	0	94.0	48.16	2.48	06/25/2021
1,1,1-Trichloroethane	*	2.0		47.5	50.00	0	95.0	48.26	1.59	06/25/2021
1,1,2,2-Tetrachloroethane	*	2.0		44.4	50.00	0	88.8	45.70	2.89	06/25/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		48.2	50.00	0	96.4	48.80	1.26	06/25/2021
1,1,2-Trichloroethane	*	0.5		46.4	50.00	0	92.8	47.92	3.24	06/25/2021
1,1-Dichloro-2-propanone	*	30.0	S	92.7	125.0	0	74.2	95.18	2.60	06/25/2021
1,1-Dichloroethane	*	2.0		46.8	50.00	0	93.6	47.62	1.76	06/25/2021
1,1-Dichloroethene	*	2.0		45.7	50.00	0	91.5	46.54	1.76	06/25/2021
1,1-Dichloropropene	*	2.0		47.7	50.00	0	95.4	48.47	1.58	06/25/2021
1,2,3-Trichlorobenzene	*	2.0		47.7	50.00	0	95.4	50.54	5.78	06/25/2021
1,2,3-Trichloropropane	*	2.0		42.2	50.00	0	84.5	43.75	3.49	06/25/2021
1,2,3-Trimethylbenzene	*	2.0		44.3	50.00	0	88.6	46.36	4.52	06/25/2021
1,2,4-Trichlorobenzene	*	2.0		47.9	50.00	0	95.8	50.15	4.57	06/25/2021
1,2,4-Trimethylbenzene	*	2.0		45.6	50.00	0	91.3	47.64	4.29	06/25/2021
1,2-Dibromo-3-chloropropane	*	5.0		39.0	50.00	0	77.9	41.84	7.10	06/25/2021
1,2-Dibromoethane	*	2.0		45.8	50.00	0	91.5	47.77	4.28	06/25/2021
1,2-Dichlorobenzene	*	2.0		46.5	50.00	0	92.9	48.54	4.36	06/25/2021
1,2-Dichloroethane	*	2.0		41.4	50.00	0	82.8	42.43	2.41	06/25/2021
1,2-Dichloropropane	*	2.0		46.4	50.00	0	92.9	47.41	2.07	06/25/2021
1,3,5-Trimethylbenzene	*	2.0		45.8	50.00	0	91.6	47.55	3.79	06/25/2021
1,3-Dichlorobenzene	*	2.0		47.7	50.00	0	95.4	49.87	4.45	06/25/2021
1,3-Dichloropropane	*	2.0		46.2	50.00	0	92.3	47.45	2.78	06/25/2021
1,4-Dichlorobenzene	*	2.0		46.2	50.00	0	92.4	47.68	3.20	06/25/2021
1-Chlorobutane	*	5.0		48.9	50.00	0	97.8	49.14	0.47	06/25/2021
2,2-Dichloropropane	*	2.0		46.3	50.00	0	92.6	47.05	1.61	06/25/2021
2-Butanone	*	10.0		107	125.0	0	85.8	111.4	3.80	06/25/2021
2-Chloroethyl vinyl ether	*	5.0		60.4	50.00	0	120.9	62.97	4.08	06/25/2021
2-Chlorotoluene	*	2.0		45.9	50.00	0	91.7	47.32	3.11	06/25/2021
2-Hexanone	*	10.0		103	125.0	0	82.0	107.8	4.94	06/25/2021
2-Nitropropane	*	10.0		412	500.0	0	82.4	429.3	4.11	06/25/2021
4-Chlorotoluene	*	2.0		45.0	50.00	0	89.9	46.59	3.54	06/25/2021
4-Methyl-2-pentanone	*	10.0		108	125.0	0	86.2	113.4	5.08	06/25/2021
Acetone	*	10.0		110	125.0	0	87.8	113.8	3.63	06/25/2021
Acetonitrile	*	10.0		494	500.0	0	98.8	522.7	5.61	06/25/2021
Acrolein	*	20.0		477	500.0	0	95.5	498.6	4.36	06/25/2021
Acrylonitrile	*	5.0		45.2	50.00	0	90.3	47.24	4.48	06/25/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	SampType:	Units µg/L			RPD Limit 15.4					Date
179215	LCSD									Analyzed
SampID: LCSD-AE210625A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Allyl chloride	*	5.0		46.1	50.00	0	92.3	46.74	1.29	06/25/2021
Benzene	*	0.5		48.7	50.00	0	97.4	49.15	0.94	06/25/2021
Bromobenzene	*	2.0		47.5	50.00	0	95.0	49.72	4.57	06/25/2021
Bromochloromethane	*	2.0		44.9	50.00	0	89.8	45.83	2.07	06/25/2021
Bromodichloromethane	*	2.0		45.6	50.00	0	91.2	46.22	1.39	06/25/2021
Bromoform	*	2.0		45.6	50.00	0	91.3	47.06	3.04	06/25/2021
Bromomethane	*	5.0		56.6	50.00	0	113.1	51.15	10.06	06/25/2021
Carbon disulfide	*	2.0		46.4	50.00	0	92.9	47.28	1.79	06/25/2021
Carbon tetrachloride	*	2.0		44.7	50.00	0	89.3	45.45	1.73	06/25/2021
Chlorobenzene	*	2.0		46.7	50.00	0	93.5	48.08	2.85	06/25/2021
Chloroethane	*	2.0		46.8	50.00	0	93.7	47.64	1.71	06/25/2021
Chloroform	*	2.0		45.7	50.00	0	91.5	46.36	1.37	06/25/2021
Chloromethane	*	5.0		41.6	50.00	0	83.3	41.91	0.62	06/25/2021
Chloroprene	*	5.0		47.1	50.00	0	94.1	46.94	0.28	06/25/2021
cis-1,2-Dichloroethene	*	2.0		48.8	50.00	0	97.7	50.07	2.49	06/25/2021
cis-1,3-Dichloropropene	*	2.0		47.0	50.00	0	94.1	48.10	2.23	06/25/2021
cis-1,4-Dichloro-2-butene	*	2.0		40.5	50.00	0	80.9	42.40	4.68	06/25/2021
Cyclohexanone	*	20.0		424	500.0	0	84.8	446.5	5.20	06/25/2021
Dibromochloromethane	*	2.0		44.6	50.00	0	89.1	46.14	3.46	06/25/2021
Dibromomethane	*	2.0		44.4	50.00	0	88.8	45.54	2.49	06/25/2021
Dichlorodifluoromethane	*	2.0		48.5	50.00	0	97.0	48.03	0.97	06/25/2021
Diisopropyl ether	*	2.0		46.9	50.00	0	93.8	47.81	1.90	06/25/2021
Ethyl acetate	*	10.0		45.1	50.00	0	90.3	47.77	5.68	06/25/2021
Ethyl ether	*	5.0		44.3	50.00	0	88.6	44.73	1.01	06/25/2021
Ethyl methacrylate	*	5.0		43.7	50.00	0	87.4	45.14	3.22	06/25/2021
Ethylbenzene	*	2.0		46.9	50.00	0	93.8	48.20	2.69	06/25/2021
Ethyl-tert-butyl ether	*	2.0		45.4	50.00	0	90.7	46.24	1.94	06/25/2021
Hexachlorobutadiene	*	5.0		47.2	50.00	0	94.3	50.04	5.95	06/25/2021
Hexachloroethane	*	5.0		44.7	50.00	0	89.3	45.96	2.85	06/25/2021
Iodomethane	*	5.0		39.8	50.00	0	79.5	39.46	0.78	06/25/2021
Isopropylbenzene	*	2.0		47.0	50.00	0	94.0	48.48	3.14	06/25/2021
m,p-Xylenes	*	2.0		92.0	100.0	0	92.0	94.72	2.90	06/25/2021
Methacrylonitrile	*	5.0		47.9	50.00	0	95.8	50.29	4.83	06/25/2021
Methyl Methacrylate	*	5.0		42.2	50.00	0	84.4	42.90	1.62	06/25/2021
Methyl tert-butyl ether	*	2.0		45.6	50.00	0	91.3	46.90	2.75	06/25/2021
Methylacrylate	*	5.0		46.3	50.00	0	92.6	49.10	5.83	06/25/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179215	SampType: LCSD	Units µg/L				RPD Limit 15.4				
SampID: LCSD-AE210625A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Methylene chloride	*	2.0		48.0	50.00	0	96.0	48.32	0.71	06/25/2021
Naphthalene	*	5.0		43.4	50.00	0	86.9	46.29	6.38	06/25/2021
n-Butyl acetate	*	2.0		42.7	50.00	0	85.4	44.11	3.27	06/25/2021
n-Butylbenzene	*	2.0		45.2	50.00	0	90.5	47.13	4.11	06/25/2021
n-Heptane	*	5.0		48.2	50.00	0	96.5	50.42	4.44	06/25/2021
n-Hexane	*	5.0		43.6	50.00	0	87.2	45.16	3.54	06/25/2021
Nitrobenzene	*	50.0		387	500.0	0	77.5	410.1	5.67	06/25/2021
n-Propylbenzene	*	2.0		46.3	50.00	0	92.7	48.14	3.83	06/25/2021
o-Xylene	*	2.0		46.0	50.00	0	91.9	47.10	2.43	06/25/2021
Pentachloroethane	*	5.0		47.4	50.00	0	94.7	49.32	4.05	06/25/2021
p-Isopropyltoluene	*	2.0		47.0	50.00	0	94.1	48.95	3.98	06/25/2021
Propionitrile	*	10.0		473	500.0	0	94.5	496.1	4.87	06/25/2021
sec-Butylbenzene	*	2.0		48.0	50.00	0	95.9	49.55	3.28	06/25/2021
Styrene	*	2.0		47.2	50.00	0	94.4	48.23	2.20	06/25/2021
tert-Amyl methyl ether	*	2.0		46.6	50.00	0	93.1	47.26	1.51	06/25/2021
tert-Butyl alcohol	*	10.0		205	250.0	0	82.0	212.8	3.70	06/25/2021
tert-Butylbenzene	*	2.0		44.7	50.00	0	89.5	46.60	4.07	06/25/2021
Tetrachloroethene	*	0.5		49.6	50.00	0	99.2	50.47	1.72	06/25/2021
Tetrahydrofuran	*	5.0		41.9	50.00	0	83.8	44.42	5.79	06/25/2021
Toluene	*	2.0		48.1	50.00	0	96.2	49.08	2.04	06/25/2021
trans-1,2-Dichloroethene	*	2.0		46.4	50.00	0	92.8	47.37	2.07	06/25/2021
trans-1,3-Dichloropropene	*	2.0		45.1	50.00	0	90.1	46.54	3.23	06/25/2021
trans-1,4-Dichloro-2-butene	*	2.0		40.4	50.00	0	80.7	41.96	3.91	06/25/2021
Trichloroethene	*	2.0		47.8	50.00	0	95.5	48.71	1.95	06/25/2021
Trichlorofluoromethane	*	5.0		45.9	50.00	0	91.9	46.46	1.13	06/25/2021
Vinyl acetate	*	5.0		46.1	50.00	0	92.2	48.54	5.11	06/25/2021
Vinyl chloride	*	2.0		44.8	50.00	0	89.6	44.55	0.54	06/25/2021
Xylenes, Total	*	4.0		138	150.0	0	92.0	141.8	2.74	06/25/2021
1,2-Dichloroethene, Total	*	4.0		95.2	100.0	0	95.2	97.44	2.28	06/25/2021
1,3-Dichloropropene, Total	*	4.0		92.1	100.0	0	92.1	94.64	2.72	06/25/2021
1,4-Dichloro-2-butene, Total	*	4.0		80.8	100.0	0	80.8	84.36	4.30	06/25/2021
Surr: 1,2-Dichloroethane-d4	*			45.4	50.00		90.8			06/25/2021
Surr: 4-Bromofluorobenzene	*			47.6	50.00		95.1			06/25/2021
Surr: Toluene-d8	*			49.0	50.00		98.0			06/25/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179215 **SampType:** LCSG Units µg/L

SampID: LCSG-AE210625A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
TPH - GRO (C6 - C10)	*	500		1820	2000	0	91.2	70	130	06/25/2021
Surr: 1,2-Dichloroethane-d4	*			45.4	50.00		90.8	80	120	06/25/2021
Surr: 4-Bromofluorobenzene	*			47.1	50.00		94.2	80	120	06/25/2021
Surr: Toluene-d8	*			49.4	50.00		98.8	80	120	06/25/2021

Batch 179215 **SampType:** LCSGD Units µg/L

RPD Limit **20**

SampID: LCSGD-AE210625A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
TPH - GRO (C6 - C10)	*	500		1800	2000	0	90.2	1825	1.14	06/25/2021
Surr: 1,2-Dichloroethane-d4	*			45.4	50.00		90.8			06/25/2021
Surr: 4-Bromofluorobenzene	*			47.7	50.00		95.4			06/25/2021
Surr: Toluene-d8	*			49.7	50.00		99.4			06/25/2021



Receiving Check List

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061576

Client Project: 128487 GSA

Report Date: 30-Jun-21

Carrier: Alec Rebbe

Received By: SAH

Completed by: (b) (6)

Reviewed by: (b) (6)

On:

On:

24-Jun-21

24-Jun-21

Mary E. Kemp

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes No Not Present Temp °C **1.2**
- Type of thermal preservation? None Ice Blue Ice Dry Ice
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Reported field parameters measured: Field Lab NA
- Container/Temp Blank temperature in compliance? Yes No

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- Water – at least one vial per sample has zero headspace? Yes No No VOA vials
- Water - TOX containers have zero headspace? Yes No No TOX containers
- Water - pH acceptable upon receipt? Yes No NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes No NA

Any No responses must be detailed below or on the COC.

pH strip #75652. - PRY/MKemp - 6/24/2021 4:09:04 PM

Trip Blank collection date and time will be reported as the received date and time (end of trip). - MKemp - 6/24/2021 4:09:18 PM

Burns & McDonnell Engineering
 425 South Woods Mill Road
 Chesterfield, Missouri 63017
 Phone: (314) 682-1500 Fax: (314) 682-1600
 JUSTIN CARSON
 Attention: SCARCE@burnsmcd.com

Laboratory: Tecon Int.
 Address: 5745 Housatonic Lake Dr
 City/State/Zip: Collingsville, IL 62234
 Telephone: 618-344-1004

Document Control No: 128487-006

Lab. Reference No. or Episode No.:

Project Number: 128487

Sample Type

Client Name: GSA

Matrix

Sample Number			Sample Event		Sample Depth (in feet)		Sample Collected		Liquid	Solid	Gas	Number of Containers	Analysis					Remarks
Group or SWMU Name	Sample Point	Sample Designator	Round	Year	From	To	Date	Time					Burns	PCBS	Metals (Total)	VOC + TPH Bed	Volatiles (Degradable)	
Rw55-12				2021			6/21	800	X			1	X	X	X	X	21061576-001	
Rw55-13				2021			6/22	1805	X			5	X	X	X	X	002	
Rw55-14				2021			6/23	1805	X			5	X	X	X	X	003	
Rw55-15				2021			6/24	1010	X			5	X	X	X	X	004	
TB-06				2021					X			2				X	005	

Courier

Sampler (signature): [Signature]
 (b) (6)

Sampler (signature):

Special Instructions:

Relinquished By (signature): [Signature]
 1. (b) (6)

Date/Time: 6/21/21

Received By (signature): [Signature]
 (b) (6)

Date/Time: 6/21/21 1200

Ice Present in Container: Yes No

Temperature Upon Receipt: 72°C U61

Relinquished By (signature): [Signature]
 2. (b) (6)

Date/Time: 6/21/21 1230

Received By (signature): [Signature]
 (b) (6)

Date/Time: 6/21/21 1230

Laboratory Comments: OAS, PIAV T5652, PAT 6:24

APPENDIX E – SURVEY DATA

Project file data		Coordinate System	
Name:	R:\2021139-00 BMCD Goodfellow Monitoring Well Locations\Trimble\2021139-00.vce	Name:	United States/State Plane 1983
Size:	87 KB	Datum:	NAD 1983 (Conus)
Modified:	6/18/2021 9:22:27 AM (UTC:-5)	Zone:	Missouri East 2401
Time zone:	Central Standard Time	Geoid:	GEOID18 (Conus)
Reference number:		Vertical datum:	
Description:		Calibrated site:	
Comment 1:			
Comment 2:			
Comment 3:			

Point List

ID	Northing (US survey foot)	Easting (US survey foot)	Elevation (US survey foot)	Feature Code
1000	1039540.011	886756.158	543.547	120/MW.01
1001	1039740.048	886772.671	544.916	120/MW.02
1002	1040193.907	886714.163	550.509	120/MW.05
1003	1039766.083	887286.651	539.949	120/MW.03
1004	1040354.896	887604.510	540.491	120/MW.07 120/MW 07
1005	1041098.447	887886.420	541.182	120/MW.15
1006	1040836.731	887502.433	545.570	120/MW.12
1007	1040246.301	887212.279	545.281	120/MW.08
1008	1040523.215	886983.470	550.731	120/MW.09 120/MW 09
1009	1041047.777	887235.784	551.195	120/MW.13
1010	1041247.606	887513.158	548.758	102/MW.16
1011	1040781.406	886693.211	557.400	120/MW.10 120/MW 10
1012	1041488.726	887088.652	557.835	120/MW.17
1013	1041487.386	886782.388	563.864	120/MW.14
1014	1041681.762	886623.582	564.887	120/MW 18
1015	1041164.567	886430.240	581.060	120/MW.11 120/MW 11
1016	1040587.209	886232.490	577.720	120/MW.06 120/MW 06
1017	1039867.834	886169.816	559.265	120/MW.04 120/MW 4
1018	1041423.948	888125.728	524.505	120/MW.19
1020	1039540.239	886755.177	543.612	MW 01 GS
1021	1039739.233	886772.158	544.908	MW 02 GS
1022	1040194.644	886714.540	550.499	MW 05 GS
1023	1039766.909	887287.177	539.965	MW 03 GS
1024	1040353.952	887603.951	540.305	MW 07 GS

1025	1041098.161	887886.985	541.180	MW 15 GS
1026	1040837.600	887502.856	545.583	MW 10 GS
1027	1040245.868	887211.729	545.273	MW 08 GS
1028	1040522.557	886983.433	550.709	MW 09 GS
1029	1041048.568	887236.128	551.173	MW 13 GS
1030	1041246.877	887513.874	548.795	MW 16 GS
1031	1040780.941	886694.532	557.577	MW 17 GS
1032	1041487.716	887088.161	557.767	MW 12 GS
1033	1041487.204	886783.072	563.774	MW 14 GS
1034	1041682.255	886622.897	564.773	MW 18 GS
1035	1041165.548	886430.481	581.034	MW 11 GS
1036	1040587.947	886232.658	577.677	MW 06 GS
1037	1039868.183	886168.842	559.242	MW 04 GS
1038	1041423.988	888125.080	524.512	MW-19 GS

6/22/2021 1:23:59 PM

R:\2
V

(b) (6)

6/22/21

**APPENDIX F – ANALYTICAL LABORATORY TEST REPORTS FOR SOIL AND
WATER IDW**

June 25, 2021

Justin Carter
Burns & McDonnell Waste Consultants
9400 Ward Parkway
P.O. Box 419173
Kansas City, MO 64114
TEL: (816) 333-9400
FAX: (816) 822-3494



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: 128487

WorkOrder: 21061102

Dear Justin Carter:

TEKLAB, INC received 2 samples on 6/16/2021 3:47:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

(b) (6)

Emily Pohlman
Project Manager
(618)344-1004 ex 44
epohlman@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	13
Dates Report	14
Quality Control Results	15
Receiving Check List	46
Chain of Custody	Appended

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

Abbr Definition

- * Analytes on report marked with an asterisk are not NELAP accredited
- CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
- CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
- DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
- DNI Did not ignite
- DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
- ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
- IDPH IL Dept. of Public Health
- LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
- LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
- MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
- MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
- MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MW Molecular weight
- NC Data is not acceptable for compliance purposes
- ND Not Detected at the Reporting Limit
- NELAP NELAP Accredited
- PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
- RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
- RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
- SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
- Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
- TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
- TNTC Too numerous to count (> 200 CFU)

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

Cooler Receipt Temp: 3.4 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415

Phone (217) 698-1004

Fax (217) 698-1005

Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515

Phone (630) 324-6855

Fax

Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214

Phone (913) 541-1998

Fax (913) 541-1998

Email jhriley@teklabinc.com



Accreditations

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

Lab ID: 21061102-001

Client Sample ID: TB-05

Matrix: TRIP BLANK

Collection Date: 06/16/2021 15:47

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	06/17/2021 15:20	178954
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	06/17/2021 15:20	178954
1,1-Dichloro-2-propanone	NELAP	30.0		ND	µg/L	1	06/17/2021 15:20	178954
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,2-Dichloroethene, Total	*	4.0		ND	µg/L	1	06/17/2021 15:20	178954
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1,3-Dichloropropene, Total	*	4.0		ND	µg/L	1	06/17/2021 15:20	178954
1,4-Dichloro-2-butene, Total	*	4.0		ND	µg/L	1	06/17/2021 15:20	178954
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
2-Butanone	NELAP	10.0		ND	µg/L	1	06/17/2021 15:20	178954
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
2-Hexanone	NELAP	10.0		ND	µg/L	1	06/17/2021 15:20	178954
2-Nitropropane	NELAP	10.0		ND	µg/L	1	06/17/2021 15:20	178954
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	06/17/2021 15:20	178954
Acetone	NELAP	10	J	2.6	µg/L	1	06/17/2021 15:20	178954
Acetonitrile	NELAP	10.0		ND	µg/L	1	06/17/2021 15:20	178954
Acrolein	NELAP	20.0		ND	µg/L	1	06/17/2021 15:20	178954
Acrylonitrile	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Allyl chloride	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Benzene	NELAP	0.5		ND	µg/L	1	06/17/2021 15:20	178954
Bromobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Bromochloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Bromoform	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Bromomethane	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Carbon disulfide	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

Lab ID: 21061102-001

Client Sample ID: TB-05

Matrix: TRIP BLANK

Collection Date: 06/16/2021 15:47

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Chlorobenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Chloroethane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Chloroform	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Chloromethane	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Chloroprene	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Cyclohexanone	*	20.0		ND	µg/L	1	06/17/2021 15:20	178954
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Dibromomethane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Diisopropyl ether	*	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Ethyl acetate	NELAP	10.0		ND	µg/L	1	06/17/2021 15:20	178954
Ethyl ether	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Ethylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Ethyl-tert-butyl ether	*	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Hexachloroethane	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Iodomethane	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Methylacrylate	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Methylene chloride	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Naphthalene	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
n-Butyl acetate	*	2.0		ND	µg/L	1	06/17/2021 15:20	178954
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
n-Heptane	*	5.0		ND	µg/L	1	06/17/2021 15:20	178954
n-Hexane	*	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Nitrobenzene	NELAP	50.0		ND	µg/L	1	06/17/2021 15:20	178954
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
o-Xylene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Pentachloroethane	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Propionitrile	NELAP	10.0		ND	µg/L	1	06/17/2021 15:20	178954
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Styrene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
tert-Amyl methyl ether	*	2.0		ND	µg/L	1	06/17/2021 15:20	178954
tert-Butyl alcohol	NELAP	10.0		ND	µg/L	1	06/17/2021 15:20	178954
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	06/17/2021 15:20	178954
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

Lab ID: 21061102-001

Client Sample ID: TB-05

Matrix: TRIP BLANK

Collection Date: 06/16/2021 15:47

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Toluene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
TPH - GRO (C6 - C10)	*	500		ND	µg/L	1	06/17/2021 15:20	178954
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Trichloroethene	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Vinyl acetate	NELAP	5.0		ND	µg/L	1	06/17/2021 15:20	178954
Vinyl chloride	NELAP	2.0		ND	µg/L	1	06/17/2021 15:20	178954
Xylenes, Total	NELAP	4.0		ND	µg/L	1	06/17/2021 15:20	178954
Surr: 1,2-Dichloroethane-d4	*	80-120		101.7	%REC	1	06/17/2021 15:20	178954
Surr: 4-Bromofluorobenzene	*	80-120		103.4	%REC	1	06/17/2021 15:20	178954
Surr: Toluene-d8	*	80-120		95.5	%REC	1	06/17/2021 15:20	178954

LCS recovered outside upper control limits for acetonitrile and n-heptane. Sample results are below the reporting limit. Data is reportable per the TNI Standard.

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

Lab ID: 21061102-002

Client Sample ID: S-1DW-001

Matrix: SOLID

Collection Date: 06/16/2021 14:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
ASTM D92								
Ignitability, Open Cup	*	60		>200	°F	1	06/17/2021 12:48	R293373
EPA SW846 3550C, 5035A, ASTM D2974								
Percent Moisture	*	0.1		10.9	%	1	06/18/2021 12:52	R293446
SW-846 9012A (TOTAL)								
Cyanide	NELAP	0.26		< 0.26	mg/Kg-dry	1	06/25/2021 8:54	179152
SW-846 9034 (REACTIVE)								
Sulfide, Reactive	NELAP	9.8		< 9.8	mg/Kg	1	06/23/2021 13:02	179124
SW-846 9036 (TOTAL)								
Sulfate	NELAP	110	J	97	mg/Kg-dry	1	06/24/2021 10:58	178979
SW-846 9045C								
pH (1:1)	NELAP	1.00		8.50		1	06/17/2021 14:52	R293374
SW-846 9065								
Phenols	NELAP	3.19		< 3.19	mg/Kg-dry	1	06/24/2021 14:32	179168
SW-846 9095								
Paint Filter	NELAP	0		Pass	Pass/Fail	1	06/18/2021 10:42	R293405
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP								
Arsenic	NELAP	0.250		< 0.250	mg/L	1	06/21/2021 16:51	179028
Barium	NELAP	0.450		1.01	mg/L	1	06/21/2021 16:51	179028
Cadmium	NELAP	0.0200		< 0.0200	mg/L	1	06/21/2021 16:51	179028
Chromium	NELAP	0.100		< 0.100	mg/L	1	06/21/2021 16:51	179028
Lead	NELAP	0.400		< 0.400	mg/L	1	06/21/2021 16:51	179028
Selenium	NELAP	0.500		< 0.500	mg/L	1	06/21/2021 16:51	179028
Silver	NELAP	0.0700		< 0.0700	mg/L	1	06/21/2021 16:51	179028
SW-846 1311, 7470A IN TCLP EXTRACT								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	06/22/2021 11:39	179033
SW-846 1311, 3510C, 8081B, CHLORINATED PESTICIDES IN TCLP EXTRACT BY GC/ECD								
alpha-Chlordane	NELAP	0.00100		ND	mg/L	1	06/22/2021 10:47	179042
Endrin	NELAP	0.00100		ND	mg/L	1	06/22/2021 10:47	179042
gamma-BHC	NELAP	0.00100		ND	mg/L	1	06/22/2021 10:47	179042
gamma-Chlordane	NELAP	0.00100		ND	mg/L	1	06/22/2021 10:47	179042
Heptachlor	NELAP	0.00100		ND	mg/L	1	06/22/2021 10:47	179042
Heptachlor epoxide	NELAP	0.00100		ND	mg/L	1	06/22/2021 10:47	179042
Methoxychlor	NELAP	0.00100		ND	mg/L	1	06/22/2021 10:47	179042
Toxaphene	NELAP	0.0100		ND	mg/L	1	06/22/2021 10:47	179042
Chlordane	NELAP	0.00200		ND	mg/L	1	06/22/2021 10:47	179042
Surr: Decachlorobiphenyl	*	13-162		102.8	%REC	1	06/22/2021 10:47	179042
Surr: Tetrachloro-m-xylene	*	24.5-144		109.1	%REC	1	06/22/2021 10:47	179042
SW-846 1311, 3510C, 8151A, CHLORINATED HERBICIDES IN TCLP EXTRACT BY GC/ECD								
2,4,5-TP (Silvex)	NELAP	0.040		ND	mg/L	1	06/24/2021 9:44	179132
2,4-D	NELAP	0.040		ND	mg/L	1	06/24/2021 9:44	179132
Surr: 2,4-Dichlorophenylacetic acid	*	35.9-152		90.5	%REC	1	06/24/2021 9:44	179132
SW-846 1311, 3510C, 8270C, SEMI-VOLATILES IN TCLP EXTRACT BY GC/MS								
1,4-Dichlorobenzene	*	0.100		ND	mg/L	1	06/22/2021 11:59	179043
2,4,5-Trichlorophenol	NELAP	0.100		ND	mg/L	1	06/22/2021 11:59	179043
2,4,6-Trichlorophenol	NELAP	0.100		ND	mg/L	1	06/22/2021 11:59	179043

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

Lab ID: 21061102-002

Client Sample ID: S-1DW-001

Matrix: SOLID

Collection Date: 06/16/2021 14:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 1311, 3510C, 8270C, SEMI-VOLATILES IN TCLP EXTRACT BY GC/MS								
2,4-Dinitrotoluene	NELAP	0.100		ND	mg/L	1	06/22/2021 11:59	179043
Hexachlorobenzene	NELAP	0.100		ND	mg/L	1	06/22/2021 11:59	179043
Hexachlorobutadiene	NELAP	0.100		ND	mg/L	1	06/22/2021 11:59	179043
Hexachloroethane	NELAP	0.100		ND	mg/L	1	06/22/2021 11:59	179043
m,p-Cresol	NELAP	0.100		ND	mg/L	1	06/22/2021 11:59	179043
Nitrobenzene	NELAP	0.100		ND	mg/L	1	06/22/2021 11:59	179043
o-Cresol	NELAP	0.100		ND	mg/L	1	06/22/2021 11:59	179043
Pentachlorophenol	NELAP	0.200		ND	mg/L	1	06/22/2021 11:59	179043
Pyridine	NELAP	0.200		ND	mg/L	1	06/22/2021 11:59	179043
Cresols, Total	NELAP	0.200		ND	mg/L	1	06/22/2021 11:59	179043
Surr: 2,4,6-Tribromophenol	*	51.9-130		88.0	%REC	1	06/22/2021 11:59	179043
Surr: 2-Fluorobiphenyl	*	47.8-111		80.4	%REC	1	06/22/2021 11:59	179043
Surr: 2-Fluorophenol	*	38.9-88.6		66.3	%REC	1	06/22/2021 11:59	179043
Surr: Nitrobenzene-d5	*	39.1-115		72.2	%REC	1	06/22/2021 11:59	179043
Surr: Phenol-d5	*	29-65.3		50.3	%REC	1	06/22/2021 11:59	179043
Surr: p-Terphenyl-d14	*	29.9-120		68.0	%REC	1	06/22/2021 11:59	179043
SW-846 3550B, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	41.2		ND	µg/Kg-dry	1	06/22/2021 17:03	179052
Aroclor 1221	NELAP	41.2		ND	µg/Kg-dry	1	06/22/2021 17:03	179052
Aroclor 1232	NELAP	41.2		ND	µg/Kg-dry	1	06/22/2021 17:03	179052
Aroclor 1242	NELAP	41.2		ND	µg/Kg-dry	1	06/22/2021 17:03	179052
Aroclor 1248	NELAP	41.2		ND	µg/Kg-dry	1	06/22/2021 17:03	179052
Aroclor 1254	NELAP	41.2		ND	µg/Kg-dry	1	06/22/2021 17:03	179052
Aroclor 1260	NELAP	41.2		ND	µg/Kg-dry	1	06/22/2021 17:03	179052
Surr: Decachlorobiphenyl	*	21.6-145		91.9	%REC	1	06/22/2021 17:03	179052
Surr: Tetrachloro-meta-xylene	*	19.8-124		91.4	%REC	1	06/22/2021 17:03	179052
<i>LCS recovered outside upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI Standard.</i>								
SW-846 3550B, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-T	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
2,4,5-TP (Silvex)	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
2,4-D	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
2,4-DB	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
3,5-Dichlorobenzoic Acid	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
4-Nitrophenol	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
Acifluorfen	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
Bentazon	NELAP	22.2		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
Chloramben	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
Dalapon	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
DCPA	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
Dicamba	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
Dichlorprop	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
MCPA	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
MCPP	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
Pentachlorophenol	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
Picloram	NELAP	11.1		ND	µg/Kg-dry	1	06/22/2021 12:12	179000
Surr: 2,4-Dichlorophenylacetic acid	*	19.4-123		68.5	%REC	1	06/22/2021 12:12	179000



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

Lab ID: 21061102-002

Client Sample ID: S-1DW-001

Matrix: SOLID

Collection Date: 06/16/2021 14:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 1311, 5030, 8260B, VOLATILE ORGANIC COMPOUNDS IN TCLP EXTRACT BY GC/MS								
1,1-Dichloroethene	NELAP	0.200		ND	mg/L	100	06/18/2021 23:16	179034
1,2-Dichloroethane	NELAP	0.200		ND	mg/L	100	06/18/2021 23:16	179034
1,4-Dichlorobenzene	NELAP	0.200		ND	mg/L	100	06/18/2021 23:16	179034
2-Butanone	NELAP	1.00		ND	mg/L	100	06/18/2021 23:16	179034
Benzene	NELAP	0.050		ND	mg/L	100	06/18/2021 23:16	179034
Carbon tetrachloride	NELAP	0.200		ND	mg/L	100	06/18/2021 23:16	179034
Chlorobenzene	NELAP	0.200		ND	mg/L	100	06/18/2021 23:16	179034
Chloroform	NELAP	0.200		ND	mg/L	100	06/18/2021 23:16	179034
Tetrachloroethene	NELAP	0.050		ND	mg/L	100	06/18/2021 23:16	179034
Trichloroethene	NELAP	0.200		ND	mg/L	100	06/18/2021 23:16	179034
Vinyl chloride	NELAP	0.200		ND	mg/L	100	06/18/2021 23:16	179034
Surr: 1,2-Dichloroethane-d4	*	80-120		99.6	%REC	100	06/18/2021 23:16	179034
Surr: 4-Bromofluorobenzene	*	80-120		104.1	%REC	100	06/18/2021 23:16	179034
Surr: Dibromofluoromethane	*	80-120		100.8	%REC	100	06/18/2021 23:16	179034
Surr: Toluene-d8	*	80-120		95.2	%REC	100	06/18/2021 23:16	179034
SW-846 9023								
Extractable Organic Halogens (EOX)	NELAP	48.1		< 48.1	mg/Kg	1	06/21/2021 10:39	179030



Sample Summary

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants
Client Project: 128487

Work Order: 21061102
Report Date: 25-Jun-21

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
21061102-001	TB-05	Trip Blank	1	06/16/2021 15:47
21061102-002	S-1DW-001	Solid	4	06/16/2021 14:30



Dates Report

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time	
Test Name						
21061102-001A	TB-05	06/16/2021 15:47	06/16/2021 15:47			
SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS						06/17/2021 15:20
21061102-002A	S-1DW-001	06/16/2021 14:30	06/16/2021 15:47			
SW-846 1311, 3010A, 6010B, Metals in TCLP Extract by ICP						06/21/2021 8:12 06/21/2021 16:51
SW-846 1311, 3510C, 8081B, Chlorinated Pesticides in TCLP Extract by GC/ECD						06/21/2021 10:21 06/22/2021 10:47
SW-846 1311, 3510C, 8151A, Chlorinated Herbicides in TCLP Extract by GC/ECD						06/23/2021 13:39 06/24/2021 9:44
SW-846 1311, 3510C, 8270C, Semi-Volatiles in TCLP Extract by GC/MS						06/21/2021 10:25 06/22/2021 11:59
SW-846 1311, 5030, 8260B, Volatile Organic Compounds in TCLP Extract by GC/MS						06/18/2021 23:16
SW-846 1311, 7470A in TCLP Extract						06/21/2021 9:13 06/22/2021 11:39
21061102-002B	S-1DW-001	06/16/2021 14:30	06/16/2021 15:47			
ASTM D92						06/17/2021 12:48
EPA SW846 3550C, 5035A, ASTM D2974						06/18/2021 12:52
SW-846 9012A (Total)						06/24/2021 12:40 06/25/2021 8:54
SW-846 9034 (Reactive)						06/23/2021 10:58 06/23/2021 13:02
SW-846 9036 (Total)						06/17/2021 18:23 06/24/2021 10:58
SW-846 9045C						06/17/2021 14:52
SW-846 9065						06/24/2021 11:30 06/24/2021 14:32
SW-846 9095						06/18/2021 10:42
21061102-002C	S-1DW-001	06/16/2021 14:30	06/16/2021 15:47			
SW-846 3550B, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD						06/21/2021 11:47 06/22/2021 17:03
SW-846 3550B, 8151A, Chlorinated Herbicides by GC/ECD						06/18/2021 10:27 06/22/2021 12:12
21061102-002D	S-1DW-001	06/16/2021 14:30	06/16/2021 15:47			
SW-846 9023						06/21/2021 10:39



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

ASTM D92

Batch R293373		SampType: DUP		Units °F		RPD Limit 5				
SampID: 21061102-002BDUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Ignitability, Open Cup	*	60		>200				0	0.00	06/17/2021

EPA SW846 3550C, 5035A, ASTM D2974

Batch R293446		SampType: LCS		Units %						
SampID: LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Percent Moisture	*	0.1		99.0	99.00	0	100.0	90	110	06/18/2021

Batch R293446 SampType: LCSQC Units %

SampID: LCSQC										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Percent Moisture	*	0.1		99.0	99.00	0	100.0	90	110	06/18/2021

SW-846 9012A (TOTAL)

Batch 179152		SampType: MBLK		Units mg/Kg						
SampID: MBLK 210624 TCN1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Cyanide		0.25		< 0.25	0.0735	0	0	-100	100	06/25/2021

Batch 179152 SampType: LCS Units mg/Kg

SampID: LCS 210624 TCN1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Cyanide		0.25		1.20	1.250	0	95.8	85	115	06/25/2021

SW-846 9034 (REACTIVE)

Batch 179124		SampType: MBLK		Units mg/Kg						
SampID: MBLK 210623 RSUL										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfide, Reactive		10.0		< 10.0	7.400	0	0	-100	100	06/23/2021

Batch 179124 SampType: LCS Units mg/Kg

SampID: LCS 210623 RSUL										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfide, Reactive		10.0		77.6	100.0	0	77.6	47.3	109	06/23/2021



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Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 9036 (TOTAL)

Batch 178979		SampType: MBLK		Units mg/Kg							Date Analyzed
SampID: MBLK 210617											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Sulfate		100		< 100	614.0	0	0	-100	100	06/20/2021	

Batch 178979		SampType: MBLK		Units mg/Kg							Date Analyzed
SampID: MB-R293456											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Sulfate		100		< 100	61.40	0	0	-100	100	06/20/2021	

Batch 178979		SampType: LCS		Units mg/Kg							Date Analyzed
SampID: LCS-R293456											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Sulfate		100		195	200.0	0	97.6	90	110	06/20/2021	

Batch 178979		SampType: MS		Units mg/Kg-dry							Date Analyzed
SampID: 21061102-002BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Sulfate		110		304	219.4	96.52	94.5	85	115	06/24/2021	

Batch 178979		SampType: MSD		Units mg/Kg-dry							RPD Limit 10	Date Analyzed
SampID: 21061102-002BMDS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Sulfate		110		305	219.4	96.52	95.2	303.7	0.54	06/24/2021		

SW-846 9045C

Batch R293374		SampType: DUP		Units							RPD Limit 10	Date Analyzed
SampID: 21061102-002BDUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
pH (1:1)		1.00		8.53				8.500	0.35	06/17/2021		

SW-846 9065

Batch 179168		SampType: MBLK		Units mg/Kg							Date Analyzed
SampID: MBLK 210624 OOH1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Phenols		2.93		< 2.93	0.8400	0	0	0	0	06/24/2021	



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 9065

Batch 179168 **SampType:** LCS **Units** mg/Kg
 SampID: LCS 210624 OOH1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Phenols		2.50		9.24	10.00	0	92.4	85	115	06/24/2021

SW-846 9095

Batch R293405 **SampType:** DUP **Units** Pass/Fail **RPD Limit** 0
 SampID: 21061102-002BDUP

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Paint Filter		0		Pass				0	0.00	06/18/2021

SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP

Batch 179028 **SampType:** MBLK **Units** mg/L
 SampID: MBLK-179028

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic		0.250		< 0.250	0.0870	0	0	-100	100	06/21/2021
Barium		0.450		< 0.450	0.1500	0	0	-100	100	06/21/2021
Cadmium		0.0200		< 0.0200	0.0050	0	0	-100	100	06/21/2021
Chromium		0.100		< 0.100	0.0340	0	0	-100	100	06/21/2021
Lead		0.400		< 0.400	0.0400	0	0	-100	100	06/21/2021
Selenium		0.500		< 0.500	0.1700	0	0	-100	100	06/21/2021
Silver		0.0700		< 0.0700	0.0270	0	0	-100	100	06/21/2021

Batch 179028 **SampType:** LCS **Units** mg/L
 SampID: LCS-179028

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic		0.250		5.56	5.000	0	111.2	85	115	06/21/2021
Barium		0.450		21.6	20.00	0	108.0	85	115	06/21/2021
Cadmium		0.0200		0.526	0.5000	0	105.2	85	115	06/21/2021
Chromium		0.100		2.08	2.000	0	104.0	85	115	06/21/2021
Lead		0.400		5.22	5.000	0	104.4	85	115	06/21/2021
Selenium		0.500		5.11	5.000	0	102.1	85	115	06/21/2021
Silver		0.0700		0.519	0.5000	0	103.8	85	115	06/21/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP

Batch 179028		SampType: MS		Units mg/L						
SampID: 21061102-002AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic		0.250		5.44	5.000	0	108.7	75	125	06/21/2021
Barium		0.450		21.6	20.00	1.011	102.9	75	125	06/21/2021
Cadmium		0.0200		0.509	0.5000	0	101.8	75	125	06/21/2021
Chromium		0.100		2.02	2.000	0	101.1	75	125	06/21/2021
Lead		0.400		5.06	5.000	0	101.2	75	125	06/21/2021
Selenium		0.500		5.00	5.000	0	100.0	75	125	06/21/2021
Silver		0.0700		0.511	0.5000	0	102.2	75	125	06/21/2021

SW-846 1311, 7470A IN TCLP EXTRACT

Batch 179033		SampType: MBLK		Units mg/L						
SampID: MBLK-179033										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	06/22/2021

Batch 179033		SampType: LCS		Units mg/L						
SampID: LCS-179033										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00529	0.0050	0	105.8	85	115	06/22/2021

Batch 179033		SampType: MS		Units mg/L						
SampID: 21061102-002AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00538	0.0050	0	107.7	75	125	06/22/2021

Batch 179033		SampType: MSD		Units mg/L						
SampID: 21061102-002AMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020		0.00528	0.0050	0	105.5	0.005384	2.02	06/22/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 1311, 3510C, 8081B, CHLORINATED PESTICIDES IN TCLP EXTRACT BY GC/ECD

Batch 179042		SampType: MBLK		Units µg/L							
SampID: MBLK-179042										Date Analyzed	
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
alpha-Chlordane	*	0.042		ND						06/22/2021	
alpha-Chlordane		0.05		ND						06/22/2021	
Endrin		0.018		ND						06/22/2021	
Endrin		0.05		ND						06/22/2021	
gamma-BHC		0.05		ND						06/22/2021	
gamma-Chlordane		0.05		ND						06/22/2021	
gamma-Chlordane	*	0.042		ND						06/22/2021	
Heptachlor		0.05		ND						06/22/2021	
Heptachlor		0.009		ND						06/22/2021	
Heptachlor epoxide		0.05		ND						06/22/2021	
Heptachlor epoxide		0.249		ND						06/22/2021	
Methoxychlor		0.042		ND						06/22/2021	
Methoxychlor		0.05		ND						06/22/2021	
Toxaphene		0.720		ND						06/22/2021	
Toxaphene		1.00		ND						06/22/2021	
Chlordane		0.084		ND						06/22/2021	
Chlordane		0.10		ND						06/22/2021	
Surr: Decachlorobiphenyl	*			0.08	0.1250		67.1	33.5	139	06/22/2021	
Surr: Decachlorobiphenyl	*			0.10	0.1250		77.9	27.5	143	06/22/2021	
Surr: Decachlorobiphenyl	*			0.09	0.1250		73.2	27.5	143	06/22/2021	
Surr: Tetrachloro-m-xylene	*			0.111	0.1250		89.0	54.2	130	06/22/2021	
Surr: Tetrachloro-m-xylene	*			0.099	0.1250		79.2	54.2	130	06/22/2021	
Surr: Tetrachloro-m-xylene	*			0.11	0.1250		85.3	45.8	130	06/22/2021	

Batch 179042		SampType: LCS		Units %REC							
SampID: LCSPCB-179042										Date Analyzed	
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Surr: Decachlorobiphenyl	*			0.08	0.1250		66.1	27.5	143	06/22/2021	
Surr: Tetrachloro-m-xylene	*			0.115	0.1250		91.8	54.2	130	06/22/2021	

Batch 179042		SampType: LCSD		Units %REC						RPD Limit 40		Date Analyzed
SampID: LCSPCBD-179042										Date Analyzed		
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Surr: Decachlorobiphenyl	*			0.07	0.1250		54.2			06/22/2021		
Surr: Tetrachloro-m-xylene	*			0.108	0.1250		86.5			06/22/2021		

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 1311, 3510C, 8081B, CHLORINATED PESTICIDES IN TCLP EXTRACT BY GC/ECD

Batch 179042		SampType: LCS		Units µg/L							Date Analyzed
SampID: LCSPST-179042											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
alpha-Chlordane	*	0.042		0.133	0.1250	0	106.7	45	140	06/22/2021	
alpha-Chlordane		0.05		0.14	0.1250	0	110.3	64.3	150	06/22/2021	
Endrin		0.018		0.136	0.1250	0	109.0	30	147	06/22/2021	
Endrin		0.05		0.14	0.1250	0	110.9	74.1	151	06/22/2021	
gamma-BHC		0.05		0.14	0.1250	0	112.3	56.5	153	06/22/2021	
gamma-Chlordane		0.05		0.13	0.1250	0	103.2	74.6	157	06/22/2021	
gamma-Chlordane	*	0.042		0.132	0.1250	0	105.5	45	140	06/22/2021	
Heptachlor		0.009		0.137	0.1250	0	109.2	34	140	06/22/2021	
Heptachlor		0.05		0.14	0.1250	0	112.0	61	154	06/22/2021	
Heptachlor epoxide		0.249	J	0.14	0.1250	0	113.9	37	142	06/22/2021	
Heptachlor epoxide		0.05		0.15	0.1250	0	118.6	73.7	156	06/22/2021	
Methoxychlor		0.042		0.127	0.1250	0	101.3	44.9	138	06/22/2021	
Methoxychlor		0.05		0.14	0.1250	0	108.1	74.7	170	06/22/2021	
Surr: Decachlorobiphenyl	*			0.11	0.1250		84.8	33.5	139	06/22/2021	
Surr: Tetrachloro-m-xylene	*			0.150	0.1250		119.6	54.2	130	06/22/2021	
Surr: Tetrachloro-m-xylene	*			0.14	0.1250		113.6	45.8	130	06/22/2021	

Batch 179042		SampType: LCSD		Units µg/L							RPD Limit 30	Date Analyzed
SampID: LCSPSTD-179042												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
alpha-Chlordane		0.05		0.14	0.1250	0	113.7	0.1378	3.04	06/22/2021		
alpha-Chlordane	*	0.042		0.141	0.1250	0	112.6	0.1334	5.37	06/22/2021		
Endrin		0.05		0.14	0.1250	0	114.9	0.1386	3.57	06/22/2021		
Endrin		0.018		0.146	0.1250	0	117.0	0.1362	7.08	06/22/2021		
gamma-BHC		0.05		0.15	0.1250	0	119.1	0.1403	5.93	06/22/2021		
gamma-Chlordane	*	0.042		0.140	0.1250	0	112.2	0.1319	6.15	06/22/2021		
gamma-Chlordane		0.05		0.13	0.1250	0	105.5	0.1290	2.17	06/22/2021		
Heptachlor		0.009		0.141	0.1250	0	112.5	0.1366	2.96	06/22/2021		
Heptachlor		0.05		0.15	0.1250	0	117.3	0.1400	4.55	06/22/2021		
Heptachlor epoxide		0.249	J	0.15	0.1250	0	118.4	0.1424	0.00	06/22/2021		
Heptachlor epoxide		0.05		0.15	0.1250	0	123.1	0.1482	3.75	06/22/2021		
Methoxychlor		0.042		0.133	0.1250	0	106.1	0.1266	4.71	06/22/2021		
Methoxychlor		0.05		0.14	0.1250	0	112.4	0.1352	3.88	06/22/2021		
Surr: Decachlorobiphenyl	*			0.11	0.1250		87.4			06/22/2021		
Surr: Tetrachloro-m-xylene	*			0.14	0.1250		111.4			06/22/2021		
Surr: Tetrachloro-m-xylene	*			0.146	0.1250		116.6			06/22/2021		

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 1311, 3510C, 8081B, CHLORINATED PESTICIDES IN TCLP EXTRACT BY GC/ECD

Batch 179042		SampType: MS		Units mg/L						
SampID: 21061102-002AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
alpha-Chlordane		0.00100		0.00285	0.0025	0	114.2	60.5	155	06/22/2021
Endrin		0.00100		0.00280	0.0025	0	112.0	57.9	164	06/22/2021
gamma-BHC		0.00100		0.00291	0.0025	0	116.3	45.9	153	06/22/2021
gamma-Chlordane		0.00100		0.00269	0.0025	0	107.8	52.2	183	06/22/2021
Heptachlor		0.00100		0.00294	0.0025	0	117.5	52.5	157	06/22/2021
Heptachlor epoxide		0.00100		0.00303	0.0025	0	121.2	58.4	163	06/22/2021
Methoxychlor		0.00100		0.00275	0.0025	0	110.0	53.5	186	06/22/2021
Surr: Decachlorobiphenyl	*			0.00254	0.0025		101.5	13	162	06/22/2021
Surr: Tetrachloro-m-xylene	*			0.00283	0.0025		113.2	24.5	144	06/22/2021

Batch 179042		SampType: MSD		Units mg/L							RPD Limit 30
SampID: 21061102-002AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
alpha-Chlordane		0.00100		0.00282	0.0025	0	112.7	0.002854	1.30	06/22/2021	
Endrin		0.00100		0.00275	0.0025	0	109.9	0.002801	1.87	06/22/2021	
gamma-BHC		0.00100		0.00275	0.0025	0	110.0	0.002908	5.58	06/22/2021	
gamma-Chlordane		0.00100		0.00255	0.0025	0	102.2	0.002695	5.32	06/22/2021	
Heptachlor		0.00100		0.00276	0.0025	0	110.3	0.002937	6.31	06/22/2021	
Heptachlor epoxide		0.00100		0.00295	0.0025	0	118.1	0.003029	2.60	06/22/2021	
Methoxychlor		0.00100		0.00272	0.0025	0	108.9	0.002750	1.04	06/22/2021	
Surr: Decachlorobiphenyl	*			0.00245	0.0025		98.0			06/22/2021	
Surr: Tetrachloro-m-xylene	*			0.00251	0.0025		100.3			06/22/2021	

SW-846 1311, 3510C, 8151A, CHLORINATED HERBICIDES IN TCLP EXTRACT BY GC/ECD

Batch 179044		SampType: MBLK		Units µg/L						
SampID: MBLK-179044										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
2,4,5-TP (Silvex)		0.20		ND						06/22/2021
2,4-D		0.20		ND						06/22/2021
Surr: 2,4-Dichlorophenylacetic acid	*			0.68	0.8000		85.2	46	112	06/22/2021



Quality Control Results

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Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 1311, 3510C, 8151A, CHLORINATED HERBICIDES IN TCLP EXTRACT BY GC/ECD

Batch 179044		SampType: LCSD		Units µg/L				RPD Limit 30			Date Analyzed
SampID: LCSD-179044											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
2,4,5-TP (Silvex)		0.20		0.81	0.8000	0	101.2	1.067	27.45	06/22/2021	
2,4-D		0.20		0.85	0.8000	0	105.9	1.062	22.58	06/22/2021	
Surr: 2,4-Dichlorophenylacetic acid	*			0.73	0.8000		91.8			06/22/2021	

Batch 179132		SampType: MBLK		Units µg/L				RPD Limit 30		Date Analyzed
SampID: MBLK-179132										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
2,4,5-TP (Silvex)		0.20		ND						06/24/2021
2,4-D		0.20		ND						06/24/2021
Surr: 2,4-Dichlorophenylacetic acid	*			0.64	0.8000		80.2	46	112	06/24/2021

Batch 179132		SampType: LCS		Units µg/L				RPD Limit 30		Date Analyzed
SampID: LCS-179132										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
2,4,5-TP (Silvex)		0.20		0.81	0.8000	0	100.7	67.3	122	06/24/2021
2,4-D		0.20		0.89	0.8000	0	111.8	63.1	135	06/24/2021
Surr: 2,4-Dichlorophenylacetic acid	*			0.69	0.8000		86.0	46	112	06/24/2021

Batch 179132		SampType: LCSD		Units µg/L				RPD Limit 30			Date Analyzed
SampID: LCSD-179132											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
2,4,5-TP (Silvex)		0.20		0.78	0.8000	0	98.1	0.8055	2.62	06/24/2021	
2,4-D		0.20		0.83	0.8000	0	103.3	0.8943	7.92	06/24/2021	
Surr: 2,4-Dichlorophenylacetic acid	*			0.65	0.8000		81.3			06/24/2021	

Batch 179132		SampType: MS		Units mg/L				RPD Limit 30		Date Analyzed
SampID: 21061102-002AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
2,4,5-TP (Silvex)		0.040		0.068	0.0800	0	85.4	40	160	06/24/2021
2,4-D		0.040		0.067	0.0800	0	83.8	40	160	06/24/2021
Surr: 2,4-Dichlorophenylacetic acid	*			0.070	0.0800		87.6	35.9	152	06/24/2021



Quality Control Results

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Work Order: 21061102

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Report Date: 25-Jun-21

SW-846 1311, 3510C, 8151A, CHLORINATED HERBICIDES IN TCLP EXTRACT BY GC/ECD

Batch 179132		SampType: MSD		Units mg/L				RPD Limit 30			Date Analyzed
SampID: 21061102-002AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
2,4,5-TP (Silvex)		0.040		0.075	0.0800	0	94.3	0.06835	9.90	06/24/2021	
2,4-D		0.040		0.075	0.0800	0	93.2	0.06704	10.65	06/24/2021	
Surr: 2,4-Dichlorophenylacetic acid	*			0.076	0.0800		95.0			06/24/2021	

SW-846 1311, 3510C, 8270C, SEMI-VOLATILES IN TCLP EXTRACT BY GC/MS

Batch 179043		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-179043											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
1,4-Dichlorobenzene		0.010		ND						06/23/2021	
2,4,5-Trichlorophenol		0.010		ND						06/23/2021	
2,4,6-Trichlorophenol		0.010		ND						06/23/2021	
2,4-Dinitrotoluene		0.010		ND						06/23/2021	
Hexachlorobenzene		0.010		ND						06/23/2021	
Hexachlorobutadiene		0.010		ND						06/23/2021	
Hexachloroethane		0.010		ND						06/23/2021	
m,p-Cresol		0.010		ND						06/23/2021	
Nitrobenzene		0.010		ND						06/23/2021	
o-Cresol		0.010		ND						06/23/2021	
Pentachlorophenol		0.020		ND						06/23/2021	
Pyridine		0.020		ND						06/23/2021	
Surr: 2,4,6-Tribromophenol	*			0.037	0.0500		73.3	53.5	126	06/23/2021	
Surr: 2-Fluorobiphenyl	*			0.017	0.0250		66.7	49.4	110	06/23/2021	
Surr: 2-Fluorophenol	*			0.028	0.0500		55.9	40	87.7	06/23/2021	
Surr: Nitrobenzene-d5	*			0.016	0.0250		62.0	44.7	115	06/23/2021	
Surr: Phenol-d5	*			0.021	0.0500		42.5	27.6	66.3	06/23/2021	
Surr: p-Terphenyl-d14	*			0.019	0.0250		75.2	10.5	141	06/23/2021	

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 1311, 3510C, 8270C, SEMI-VOLATILES IN TCLP EXTRACT BY GC/MS
Batch 179043 **SampType: LCS** **Units mg/L**
 SampID: LCS-179043

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,4-Dichlorobenzene		0.010		0.039	0.0500	0	78.4	46.8	97.3	06/22/2021
2,4,5-Trichlorophenol		0.010		0.043	0.0500	0	86.0	51	129	06/22/2021
2,4,6-Trichlorophenol		0.010		0.043	0.0500	0	86.5	48.5	124	06/22/2021
2,4-Dinitrotoluene		0.010		0.055	0.0500	0	109.3	65.3	114	06/22/2021
Hexachlorobenzene		0.010		0.052	0.0500	0	103.1	55.5	121	06/22/2021
Hexachlorobutadiene		0.010		0.040	0.0500	0	80.9	47	115	06/22/2021
Hexachloroethane		0.010		0.039	0.0500	0	77.2	50.4	103	06/22/2021
m,p-Cresol		0.010		0.036	0.0500	0	71.1	49.4	97.9	06/22/2021
Nitrobenzene		0.010		0.049	0.0500	0	97.5	53.9	107	06/22/2021
o-Cresol		0.010		0.039	0.0500	0	78.3	50.5	106	06/22/2021
Pentachlorophenol		0.020		0.033	0.0500	0	66.3	37.7	111	06/22/2021
Pyridine		0.020	J	0.017	0.0500	0	33.5	18.2	86.2	06/22/2021
Surr: 2,4,6-Tribromophenol	*			0.045	0.0500		90.5	53.5	126	06/22/2021
Surr: 2-Fluorobiphenyl	*			0.025	0.0250		100.7	49.4	110	06/22/2021
Surr: 2-Fluorophenol	*			0.033	0.0500		65.4	40	87.7	06/22/2021
Surr: Nitrobenzene-d5	*			0.026	0.0250		104.3	44.7	115	06/22/2021
Surr: Phenol-d5	*			0.028	0.0500		55.1	27.6	66.3	06/22/2021
Surr: p-Terphenyl-d14	*			0.017	0.0250		68.2	10.5	141	06/22/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 1311, 3510C, 8270C, SEMI-VOLATILES IN TCLP EXTRACT BY GC/MS

Batch	SampType:	Units	mg/L		RPD Limit 40					Date
SampID: LCSD-179043										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Analyzed
1,4-Dichlorobenzene		0.010		0.040	0.0500	0	80.8	0.03921	2.96	06/22/2021
2,4,5-Trichlorophenol		0.010		0.050	0.0500	0	99.2	0.04300	14.23	06/22/2021
2,4,6-Trichlorophenol		0.010		0.050	0.0500	0	100.0	0.04324	14.52	06/22/2021
2,4-Dinitrotoluene		0.010		0.054	0.0500	0	108.5	0.05466	0.72	06/22/2021
Hexachlorobenzene		0.010		0.050	0.0500	0	100.6	0.05155	2.49	06/22/2021
Hexachlorobutadiene		0.010		0.043	0.0500	0	85.8	0.04043	5.93	06/22/2021
Hexachloroethane		0.010		0.042	0.0500	0	83.4	0.03859	7.70	06/22/2021
m,p-Cresol		0.010		0.042	0.0500	0	84.7	0.03554	17.46	06/22/2021
Nitrobenzene		0.010		0.050	0.0500	0	99.2	0.04877	1.65	06/22/2021
o-Cresol		0.010		0.046	0.0500	0	92.7	0.03913	16.87	06/22/2021
Pentachlorophenol		0.020		0.036	0.0500	0	72.7	0.03317	9.12	06/22/2021
Pyridine		0.020		0.022	0.0500	0	43.8	0.01677	26.58	06/22/2021
Surr: 2,4,6-Tribromophenol	*			0.050	0.0500		100.4			06/22/2021
Surr: 2-Fluorobiphenyl	*			0.024	0.0250		97.8			06/22/2021
Surr: 2-Fluorophenol	*			0.037	0.0500		74.6			06/22/2021
Surr: Nitrobenzene-d5	*			0.026	0.0250		102.7			06/22/2021
Surr: Phenol-d5	*			0.030	0.0500		59.9			06/22/2021
Surr: p-Terphenyl-d14	*			0.019	0.0250		75.0			06/22/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 1311, 3510C, 8270C, SEMI-VOLATILES IN TCLP EXTRACT BY GC/MS

Batch 179043 **SampType:** MS

Units mg/L

SampleID: 21061102-002AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,4-Dichlorobenzene	*	0.100		0.375	0.5000	0	74.9	42.2	93.9	06/22/2021
2,4,5-Trichlorophenol		0.100		0.495	0.5000	0	98.9	48.8	135	06/22/2021
2,4,6-Trichlorophenol		0.100		0.494	0.5000	0	98.8	49.1	133	06/22/2021
2,4-Dinitrotoluene		0.100		0.524	0.5000	0	104.9	57.2	125	06/22/2021
Hexachlorobenzene		0.100		0.489	0.5000	0	97.9	53.3	118	06/22/2021
Hexachlorobutadiene		0.100		0.405	0.5000	0	81.0	36.1	121	06/22/2021
Hexachloroethane		0.100		0.387	0.5000	0	77.4	39.9	102	06/22/2021
m,p-Cresol		0.100		0.427	0.5000	0	85.4	47.1	101	06/22/2021
Nitrobenzene		0.100		0.475	0.5000	0	95.0	48.5	108	06/22/2021
o-Cresol		0.100		0.466	0.5000	0	93.3	45.8	106	06/22/2021
Pentachlorophenol		0.200		0.362	0.5000	0	72.4	33.1	125	06/22/2021
Pyridine		0.200		0.358	0.5000	0	71.7	23.2	79.4	06/22/2021
Cresols, Total		0.200		0.893	1.000	0	89.3	45.8	104	06/22/2021
Surr: 2,4,6-Tribromophenol	*			0.503	0.5000		100.6	51.9	130	06/22/2021
Surr: 2-Fluorobiphenyl	*			0.236	0.2500		94.2	47.8	111	06/22/2021
Surr: 2-Fluorophenol	*			0.375	0.5000		75.1	38.9	88.6	06/22/2021
Surr: Nitrobenzene-d5	*			0.248	0.2500		99.1	39.1	115	06/22/2021
Surr: Phenol-d5	*			0.298	0.5000		59.5	29	65.3	06/22/2021
Surr: p-Terphenyl-d14	*			0.171	0.2500		68.2	29.9	120	06/22/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 1311, 3510C, 8270C, SEMI-VOLATILES IN TCLP EXTRACT BY GC/MS

Batch 179043		SampType: MSD		Units mg/L				RPD Limit 40			Date Analyzed
SampID: 21061102-002AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
1,4-Dichlorobenzene	*	0.100		0.383	0.5000	0	76.6	0.3747	2.24	06/22/2021	
2,4,5-Trichlorophenol		0.100		0.491	0.5000	0	98.2	0.4946	0.75	06/22/2021	
2,4,6-Trichlorophenol		0.100		0.494	0.5000	0	98.8	0.4942	0.04	06/22/2021	
2,4-Dinitrotoluene		0.100		0.521	0.5000	0	104.2	0.5245	0.67	06/22/2021	
Hexachlorobenzene		0.100		0.484	0.5000	0	96.9	0.4894	1.05	06/22/2021	
Hexachlorobutadiene		0.100		0.407	0.5000	0	81.4	0.4049	0.47	06/22/2021	
Hexachloroethane		0.100		0.393	0.5000	0	78.6	0.3871	1.54	06/22/2021	
m,p-Cresol		0.100		0.435	0.5000	0	86.9	0.4270	1.79	06/22/2021	
Nitrobenzene		0.100		0.473	0.5000	0	94.7	0.4752	0.40	06/22/2021	
o-Cresol		0.100		0.472	0.5000	0	94.4	0.4664	1.24	06/22/2021	
Pentachlorophenol		0.200		0.360	0.5000	0	71.9	0.3620	0.67	06/22/2021	
Pyridine		0.200		0.382	0.5000	0	76.3	0.3584	6.24	06/22/2021	
Cresols, Total		0.200		0.907	1.000	0	90.7	0.8934	1.50	06/22/2021	
Surr: 2,4,6-Tribromophenol	*			0.484	0.5000		96.8			06/22/2021	
Surr: 2-Fluorobiphenyl	*			0.229	0.2500		91.6			06/22/2021	
Surr: 2-Fluorophenol	*			0.375	0.5000		75.1			06/22/2021	
Surr: Nitrobenzene-d5	*			0.242	0.2500		97.0			06/22/2021	
Surr: Phenol-d5	*			0.292	0.5000		58.4			06/22/2021	
Surr: p-Terphenyl-d14	*			0.172	0.2500		68.6			06/22/2021	

SW-846 3550B, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD

Batch 179042		SampType: MBLK		Units %REC						Date Analyzed
SampID: MBLK-179042										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: Decachlorobiphenyl	*			0.082	0.1250		65.8	31.2	141	06/22/2021
Surr: Decachlorobiphenyl	*			0.092	0.1250		73.2	31.2	141	06/22/2021

Batch 179042 SampType: LCS Units %REC

SampID: LCSPCB-179042										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: Decachlorobiphenyl	*			0.083	0.1250		66.1	31.2	141	06/22/2021

Batch 179042 SampType: LCSD Units %REC

SampID: LCSPCBD-179042										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Surr: Decachlorobiphenyl	*			0.068	0.1250		54.2			06/22/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 3550B, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD

Batch 179042 **SampType: LCS** Units %REC

SampID: LCSPST-179042

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: Decachlorobiphenyl	*			0.104	0.1250		83.5	31.2	141	06/22/2021

Batch 179042 **SampType: LCSD** Units %REC

RPD Limit 0

SampID: LCSPSTD-179042

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Surr: Decachlorobiphenyl	*			0.111	0.1250		88.6			06/22/2021

Batch 179052 **SampType: MBLK** Units µg/Kg

SampID: MBLK-179052

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		37.5		ND						06/22/2021
Aroclor 1016		37.5		ND						06/22/2021
Aroclor 1221		37.5		ND						06/22/2021
Aroclor 1221		37.5		ND						06/22/2021
Aroclor 1232		37.5		ND						06/22/2021
Aroclor 1232		37.5		ND						06/22/2021
Aroclor 1242		37.5		ND						06/22/2021
Aroclor 1242		37.5		ND						06/22/2021
Aroclor 1248		37.5		ND						06/22/2021
Aroclor 1248		37.5		ND						06/22/2021
Aroclor 1254		37.5		ND						06/22/2021
Aroclor 1254		37.5		ND						06/22/2021
Aroclor 1260		37.5		ND						06/22/2021
Aroclor 1260		37.5		ND						06/22/2021
Surr: Decachlorobiphenyl	*			9.3	8.300		112.3	60	143	06/22/2021
Surr: Decachlorobiphenyl	*			8.5	8.300		102.6	60	143	06/22/2021
Surr: Tetrachloro-meta-xylene	*			7.9	8.300		95.1	32.9	125	06/22/2021
Surr: Tetrachloro-meta-xylene	*			6.4	8.300		77.4	32.9	125	06/22/2021

Batch 179052 **SampType: LCS** Units µg/Kg

SampID: LCSPCB-179052

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		37.5	S	210	166.7	0	125.8	66.2	120	06/22/2021
Aroclor 1260		37.5		178	166.7	0	107.1	70.9	129	06/22/2021
Surr: Decachlorobiphenyl	*			8.5	8.300		102.4	60	143	06/22/2021
Surr: Tetrachloro-meta-xylene	*			10.0	8.300		120.5	32.9	125	06/22/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 3550B, 8151A, CHLORINATED HERBICIDES BY GC/ECD

Batch 179000 **SampType:** MBLK **Units** µg/Kg

SampID: MBLK-179000

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
2,4,5-T		10.0		ND						06/22/2021
2,4,5-TP (Silvex)		10.0		ND						06/22/2021
2,4-D		10.0		ND						06/22/2021
2,4-DB		10.0		ND						06/22/2021
3,5-Dichlorobenzoic Acid		10.0		ND						06/22/2021
4-Nitrophenol		10.0		ND						06/22/2021
Acifluorfen		10.0		ND						06/22/2021
Bentazon		20.0		ND						06/22/2021
Chloramben		10.0		ND						06/22/2021
Dalapon		100		ND						06/22/2021
DCPA		10.0		ND						06/22/2021
Dicamba		10.0		ND						06/22/2021
Dichlorprop		10.0		ND						06/22/2021
MCPA		1000		ND						06/22/2021
MCPP		1000		ND						06/22/2021
Pentachlorophenol		10.0		ND						06/22/2021
Picloram		10.0		ND						06/22/2021
Surr: 2,4-Dichlorophenylacetic acid *				11.6	13.33		86.9	10	131	06/22/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 3550B, 8151A, CHLORINATED HERBICIDES BY GC/ECD

Batch 179000 **SampType:** LCS **Units** µg/Kg

SampID: LCS-179000

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
2,4,5-T		10.0		25.1	33.32	0	75.3	53.5	103	06/22/2021
2,4,5-TP (Silvex)		10.0		24.5	33.32	0	73.6	58.2	95.2	06/22/2021
2,4-D		10.0		24.2	33.32	0	72.8	59.6	97.1	06/22/2021
2,4-DB		10.0		24.7	33.32	0	74.1	47.1	119	06/22/2021
3,5-Dichlorobenzoic Acid		10.0		22.6	33.32	0	67.8	40.7	88.1	06/22/2021
4-Nitrophenol		10.0		21.8	33.32	0	65.5	20.9	105	06/22/2021
Acifluorfen		10.0		23.1	33.32	0	69.2	28.8	139	06/22/2021
Bentazon		20.0		24.9	33.32	0	74.7	53.4	117	06/22/2021
Chloramben		10.0		22.8	33.32	0	68.5	33.9	115	06/22/2021
Dalapon		100	J	93	333.3	0	27.9	8.7	36.9	06/22/2021
DCPA		10.0		23.1	33.32	0	69.3	4.62	114	06/22/2021
Dicamba		10.0		22.8	33.32	0	68.3	46.5	87.3	06/22/2021
Dichlorprop		10.0		24.9	33.32	0	74.8	49.6	102	06/22/2021
MCPA		1000		2530	3333	0	75.8	42.4	90.4	06/22/2021
MCPP		1000		2740	3333	0	82.3	28	92	06/22/2021
Pentachlorophenol		10.0		16.0	33.32	0	48.1	11.7	103	06/22/2021
Picloram		10.0		22.5	33.32	0	67.5	42.7	128	06/22/2021
Surr: 2,4-Dichlorophenylacetic acid *				10.4	13.33		78.2	10	131	06/22/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 3550B, 8151A, CHLORINATED HERBICIDES BY GC/ECD

Batch 179000 **SampType:** MS

Units $\mu\text{g/Kg-dry}$

SampID: 21061102-002CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
2,4,5-T		11.2		29.3	37.16	0	78.9	20	115	06/22/2021
2,4,5-TP (Silvex)		11.2		26.2	37.16	0	70.5	22.3	105	06/22/2021
2,4-D		11.2		33.3	37.16	0	89.6	41.9	104	06/22/2021
2,4-DB		11.2		23.1	37.16	0	62.2	21.6	128	06/22/2021
3,5-Dichlorobenzoic Acid		11.2		24.8	37.16	0	66.8	25.8	90.5	06/22/2021
4-Nitrophenol		11.2		23.7	37.16	0	63.7	3.98	108	06/22/2021
Acifluorfen		11.2		23.7	37.16	0	63.8	1	172	06/22/2021
Bentazon		22.3		26.2	37.16	0	70.5	1	226	06/22/2021
Chloramben		11.2		19.3	37.16	0	51.9	1	134	06/22/2021
Dalapon		112		128	371.8	0	34.3	1	42.1	06/22/2021
DCPA		11.2		24.9	37.16	0	67.1	1	121	06/22/2021
Dicamba		11.2		27.6	37.16	0	74.3	19.4	99.1	06/22/2021
Dichlorprop		11.2		28.0	37.16	0	75.4	26.1	108	06/22/2021
MCPA		1120		2570	3718	0	69.1	5.2	101	06/22/2021
MCPP		1120		2390	3718	0	64.2	9.76	85.9	06/22/2021
Pentachlorophenol		11.2	J	7.8	37.16	0	21.1	4.62	90.8	06/22/2021
Picloram		11.2		22.5	37.16	0	60.5	1	182	06/22/2021
Surr: 2,4-Dichlorophenylacetic acid *				12.1	14.87		81.4	19.4	123	06/22/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 3550B, 8151A, CHLORINATED HERBICIDES BY GC/ECD

Batch 179000		SampType: MSD		Units µg/Kg-dry				RPD Limit 30		
SampID: 21061102-002CMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
2,4,5-T		11.0		29.2	36.57	0	79.8	29.33	0.47	06/22/2021
2,4,5-TP (Silvex)		11.0		26.7	36.57	0	73.1	26.19	2.09	06/22/2021
2,4-D		11.0		33.5	36.57	0	91.5	33.31	0.50	06/22/2021
2,4-DB		11.0		24.6	36.57	0	67.2	23.13	6.11	06/22/2021
3,5-Dichlorobenzoic Acid		11.0		24.5	36.57	0	67.1	24.81	1.14	06/22/2021
4-Nitrophenol		11.0		24.0	36.57	0	65.7	23.66	1.58	06/22/2021
Acifluorfen		11.0		23.9	36.57	0	65.5	23.70	1.01	06/22/2021
Bentazon		22.0		28.1	36.57	0	76.9	26.19	7.09	06/22/2021
Chloramben		11.0		19.7	36.57	0	54.0	19.29	2.31	06/22/2021
Dalapon		110	J	110	365.8	0	29.6	127.7	0.00	06/22/2021
DCPA		11.0		25.4	36.57	0	69.3	24.92	1.71	06/22/2021
Dicamba		11.0		27.0	36.57	0	73.9	27.62	2.12	06/22/2021
Dichlorprop		11.0		27.9	36.57	0	76.2	28.01	0.51	06/22/2021
MCPA		1100		2760	3659	0	75.4	2570	7.07	06/22/2021
MCPP		1100		2450	3659	0	67.0	2388	2.61	06/22/2021
Pentachlorophenol		11.0	J	8.9	36.57	0	24.4	7.849	0.00	06/22/2021
Picloram		11.0		23.2	36.57	0	63.4	22.50	3.06	06/22/2021
Surr: 2,4-Dichlorophenylacetic acid	*			11.6	14.63		79.4			06/22/2021

Batch 179044		SampType: MBLK		Units µg/L						
SampID: MBLK-179044										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
2,4,5-TP (Silvex)		0.20		ND						06/22/2021
2,4-D		0.20		ND						06/22/2021
Surr: 2,4-Dichlorophenylacetic acid	*			0.68	0.8000		85.2	20.2	121	06/22/2021

Batch 179044		SampType: LCSD		Units µg/L				RPD Limit 30		
SampID: LCSD-179044										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
2,4,5-TP (Silvex)		0.20		0.81	0.8000	0	101.2	1.067	27.45	06/22/2021
2,4-D		0.20		0.85	0.8000	0	105.9	1.062	22.58	06/22/2021
Surr: 2,4-Dichlorophenylacetic acid	*			0.73	0.8000		91.8			06/22/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 3550B, 8151A, CHLORINATED HERBICIDES BY GC/ECD

Batch 179132		SampType: MBLK		Units µg/L						
SampID: MBLK-179132										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
2,4,5-TP (Silvex)		0.20		ND						06/24/2021
2,4-D		0.20		ND						06/24/2021
Surr: 2,4-Dichlorophenylacetic acid	*			0.64	0.8000		80.2	20.2	121	06/24/2021

Batch 179132		SampType: LCS		Units µg/L						
SampID: LCS-179132										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
2,4,5-TP (Silvex)		0.20		0.81	0.8000	0	100.7	67.2	114	06/24/2021
2,4-D		0.20		0.89	0.8000	0	111.8	70.6	119	06/24/2021
Surr: 2,4-Dichlorophenylacetic acid	*			0.69	0.8000		86.0	20.2	121	06/24/2021

Batch 179132		SampType: LCSD		Units µg/L							RPD Limit 30
SampID: LCSD-179132											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
2,4,5-TP (Silvex)		0.20		0.78	0.8000	0	98.1	0.8055	2.62	06/24/2021	
2,4-D		0.20		0.83	0.8000	0	103.3	0.8943	7.92	06/24/2021	
Surr: 2,4-Dichlorophenylacetic acid	*			0.65	0.8000		81.3			06/24/2021	

SW-846 1311, 5030, 8260B, VOLATILE ORGANIC COMPOUNDS IN TCLP EXTRACT BY GC/MS

Batch 179034		SampType: MBLK		Units %REC						
SampID: MBLK-AM210618A-2										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: Dibromofluoromethane	*			50.8	50.00		101.7	80	120	06/18/2021

Batch 179034		SampType: LCS		Units %REC						
SampID: LCS-AM210618A-2										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: Dibromofluoromethane	*			50.1	50.00		100.2	80	120	06/18/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 1311, 5030, 8260B, VOLATILE ORGANIC COMPOUNDS IN TCLP EXTRACT BY GC/MS

Batch 179034 SampType: MS Units mg/L

SampID: 21061102-002AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1-Dichloroethene		0.200		5.36	5.000	0	107.1	69.3	133	06/18/2021
1,2-Dichloroethane		0.200		5.06	5.000	0	101.3	79	117	06/18/2021
1,4-Dichlorobenzene		0.200		4.90	5.000	0	97.9	78.3	109	06/18/2021
2-Butanone		1.00		5.42	5.000	0	108.4	71.6	129	06/18/2021
Benzene		0.050		5.44	5.000	0	108.8	78.9	118	06/18/2021
Carbon tetrachloride		0.200		5.29	5.000	0	105.9	78.6	125	06/18/2021
Chlorobenzene		0.200		5.02	5.000	0	100.4	84.7	110	06/18/2021
Chloroform		0.200		5.40	5.000	0	108.0	80.9	117	06/18/2021
Tetrachloroethene		0.050		4.72	5.000	0	94.4	75.2	112	06/18/2021
Trichloroethene		0.200		5.34	5.000	0	106.7	80.4	121	06/18/2021
Vinyl chloride		0.200		4.30	5.000	0	85.9	44.3	144	06/18/2021
Surr: 1,2-Dichloroethane-d4	*			5.03	5.000		100.6	80	120	06/18/2021
Surr: 4-Bromofluorobenzene	*			5.11	5.000		102.2	80	120	06/18/2021
Surr: Dibromofluoromethane	*			5.09	5.000		101.8	80	120	06/18/2021
Surr: Toluene-d8	*			4.75	5.000		95.0	80	120	06/18/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954 **SampType: MBLK** **Units µg/L**

SampID: MBLK-AM210617a-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		ND						06/17/2021
1,1,1-Trichloroethane	*	2.0		ND						06/17/2021
1,1,2,2-Tetrachloroethane	*	2.0		ND						06/17/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND						06/17/2021
1,1,2-Trichloroethane	*	0.5		ND						06/17/2021
1,1-Dichloro-2-propanone	*	30.0		ND						06/17/2021
1,1-Dichloroethane	*	2.0		ND						06/17/2021
1,1-Dichloroethene	*	2.0		ND						06/17/2021
1,1-Dichloropropene	*	2.0		ND						06/17/2021
1,2,3-Trichlorobenzene	*	2.0		ND						06/17/2021
1,2,3-Trichloropropane	*	2.0		ND						06/17/2021
1,2,3-Trimethylbenzene	*	2.0		ND						06/17/2021
1,2,4-Trichlorobenzene	*	2.0		ND						06/17/2021
1,2,4-Trimethylbenzene	*	2.0		ND						06/17/2021
1,2-Dibromo-3-chloropropane	*	5.0		ND						06/17/2021
1,2-Dibromoethane	*	2.0		ND						06/17/2021
1,2-Dichlorobenzene	*	2.0		ND						06/17/2021
1,2-Dichloroethane	*	2.0		ND						06/17/2021
1,2-Dichloropropane	*	2.0		ND						06/17/2021
1,3,5-Trimethylbenzene	*	2.0		ND						06/17/2021
1,3-Dichlorobenzene	*	2.0		ND						06/17/2021
1,3-Dichloropropane	*	2.0		ND						06/17/2021
1,4-Dichlorobenzene	*	2.0		ND						06/17/2021
1-Chlorobutane	*	5.0		ND						06/17/2021
2,2-Dichloropropane	*	2.0		ND						06/17/2021
2-Butanone	*	10.0		ND						06/17/2021
2-Chloroethyl vinyl ether	*	5.0		ND						06/17/2021
2-Chlorotoluene	*	2.0		ND						06/17/2021
2-Hexanone	*	10.0		ND						06/17/2021
2-Nitropropane	*	10.0		ND						06/17/2021
4-Chlorotoluene	*	2.0		ND						06/17/2021
4-Methyl-2-pentanone	*	10.0		ND						06/17/2021
Acetone	*	10.0		ND						06/17/2021
Acetonitrile	*	10.0		ND						06/17/2021
Acrolein	*	20.0		ND						06/17/2021
Acrylonitrile	*	5.0		ND						06/17/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954 **SampType:** MBLK **Units** µg/L

SampID: MBLK-AM210617a-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		ND						06/17/2021
Benzene	*	0.5		ND						06/17/2021
Bromobenzene	*	2.0		ND						06/17/2021
Bromochloromethane	*	2.0		ND						06/17/2021
Bromodichloromethane	*	2.0		ND						06/17/2021
Bromoform	*	2.0		ND						06/17/2021
Bromomethane	*	5.0		ND						06/17/2021
Carbon disulfide	*	2.0		ND						06/17/2021
Carbon tetrachloride	*	2.0		ND						06/17/2021
Chlorobenzene	*	2.0		ND						06/17/2021
Chloroethane	*	2.0		ND						06/17/2021
Chloroform	*	2.0		ND						06/17/2021
Chloromethane	*	5.0		ND						06/17/2021
Chloroprene	*	5.0		ND						06/17/2021
cis-1,2-Dichloroethene	*	2.0		ND						06/17/2021
cis-1,3-Dichloropropene	*	2.0		ND						06/17/2021
cis-1,4-Dichloro-2-butene	*	2.0		ND						06/17/2021
Cyclohexanone	*	20.0		ND						06/17/2021
Dibromochloromethane	*	2.0		ND						06/17/2021
Dibromomethane	*	2.0		ND						06/17/2021
Dichlorodifluoromethane	*	2.0		ND						06/17/2021
Diisopropyl ether	*	2.0		ND						06/17/2021
Ethyl acetate	*	10.0		ND						06/17/2021
Ethyl ether	*	5.0		ND						06/17/2021
Ethyl methacrylate	*	5.0		ND						06/17/2021
Ethylbenzene	*	2.0		ND						06/17/2021
Ethyl-tert-butyl ether	*	2.0		ND						06/17/2021
Hexachlorobutadiene	*	5.0		ND						06/17/2021
Hexachloroethane	*	5.0		ND						06/17/2021
Iodomethane	*	5.0		ND						06/17/2021
Isopropylbenzene	*	2.0		ND						06/17/2021
m,p-Xylenes	*	2.0		ND						06/17/2021
Methacrylonitrile	*	5.0		ND						06/17/2021
Methyl Methacrylate	*	5.0		ND						06/17/2021
Methyl tert-butyl ether	*	2.0		ND						06/17/2021
Methylacrylate	*	5.0		ND						06/17/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954 **SampType:** MBLK **Units** µg/L
SampID: MBLK-AM210617a-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Methylene chloride	*	2.0		ND						06/17/2021
Naphthalene	*	5.0		ND						06/17/2021
n-Butyl acetate	*	2.0		ND						06/17/2021
n-Butylbenzene	*	2.0		ND						06/17/2021
n-Heptane	*	5.0		ND						06/17/2021
n-Hexane	*	5.0		ND						06/17/2021
Nitrobenzene	*	50.0		ND						06/17/2021
n-Propylbenzene	*	2.0		ND						06/17/2021
o-Xylene	*	2.0		ND						06/17/2021
Pentachloroethane	*	5.0		ND						06/17/2021
p-Isopropyltoluene	*	2.0		ND						06/17/2021
Propionitrile	*	10.0		ND						06/17/2021
sec-Butylbenzene	*	2.0		ND						06/17/2021
Styrene	*	2.0		ND						06/17/2021
tert-Amyl methyl ether	*	2.0		ND						06/17/2021
tert-Butyl alcohol	*	10.0		ND						06/17/2021
tert-Butylbenzene	*	2.0		ND						06/17/2021
Tetrachloroethene	*	0.5		ND						06/17/2021
Tetrahydrofuran	*	5.0		ND						06/17/2021
Toluene	*	2.0		ND						06/17/2021
trans-1,2-Dichloroethene	*	2.0		ND						06/17/2021
trans-1,3-Dichloropropene	*	2.0		ND						06/17/2021
trans-1,4-Dichloro-2-butene	*	2.0		ND						06/17/2021
Trichloroethene	*	2.0		ND						06/17/2021
Trichlorofluoromethane	*	5.0		ND						06/17/2021
Vinyl acetate	*	5.0		ND						06/17/2021
Vinyl chloride	*	2.0		ND						06/17/2021
Xylenes, Total	*	4.0		ND						06/17/2021
1,2-Dichloroethene, Total	*	4.0		ND						06/17/2021
1,3-Dichloropropene, Total	*	4.0		ND						06/17/2021
1,4-Dichloro-2-butene, Total	*	4.0		ND						06/17/2021
TPH - GRO (C6 - C10)	*	500		ND						06/17/2021
Surr: 1,2-Dichloroethane-d4	*			50.3	50.00		100.6	80	120	06/17/2021
Surr: 4-Bromofluorobenzene	*			51.6	50.00		103.1	80	120	06/17/2021
Surr: Toluene-d8	*			48.3	50.00		96.6	80	120	06/17/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954 **SampType:** LCS

Units µg/L

SampID: LCS-AM210617A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		53.5	50.00	0	107.0	82	113	06/17/2021
1,1,1-Trichloroethane	*	2.0		53.8	50.00	0	107.5	76.9	128	06/17/2021
1,1,2,2-Tetrachloroethane	*	2.0		48.1	50.00	0	96.3	76.7	113	06/17/2021
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		52.4	50.00	0	104.7	69.5	127	06/17/2021
1,1,2-Trichloroethane	*	0.5		51.1	50.00	0	102.2	83.8	111	06/17/2021
1,1-Dichloro-2-propanone	*	30.0		130	125.0	0	104.1	74.9	117	06/17/2021
1,1-Dichloroethane	*	2.0		54.4	50.00	0	108.8	77	129	06/17/2021
1,1-Dichloroethene	*	2.0		52.8	50.00	0	105.5	69.4	127	06/17/2021
1,1-Dichloropropene	*	2.0		54.3	50.00	0	108.5	75.1	123	06/17/2021
1,2,3-Trichlorobenzene	*	2.0		55.0	50.00	0	110.1	77.3	121	06/17/2021
1,2,3-Trichloropropane	*	2.0		47.9	50.00	0	95.8	75.3	109	06/17/2021
1,2,3-Trimethylbenzene	*	2.0		52.1	50.00	0	104.1	77	115	06/17/2021
1,2,4-Trichlorobenzene	*	2.0		55.1	50.00	0	110.1	76.8	124	06/17/2021
1,2,4-Trimethylbenzene	*	2.0		52.7	50.00	0	105.4	75	115	06/17/2021
1,2-Dibromo-3-chloropropane	*	5.0		51.5	50.00	0	102.9	71.9	119	06/17/2021
1,2-Dibromoethane	*	2.0		51.9	50.00	0	103.8	83.6	110	06/17/2021
1,2-Dichlorobenzene	*	2.0		50.1	50.00	0	100.1	72.1	113	06/17/2021
1,2-Dichloroethane	*	2.0		50.0	50.00	0	100.0	72.3	117	06/17/2021
1,2-Dichloropropane	*	2.0		57.2	50.00	0	114.4	76.5	119	06/17/2021
1,3,5-Trimethylbenzene	*	2.0		52.1	50.00	0	104.1	75.2	117	06/17/2021
1,3-Dichlorobenzene	*	2.0		51.2	50.00	0	102.3	75.2	115	06/17/2021
1,3-Dichloropropane	*	2.0		51.0	50.00	0	102.0	80.9	110	06/17/2021
1,4-Dichlorobenzene	*	2.0		50.9	50.00	0	101.7	73.9	112	06/17/2021
1-Chlorobutane	*	5.0		55.6	50.00	0	111.2	74.9	130	06/17/2021
2,2-Dichloropropane	*	2.0		63.5	50.00	0	127.1	66.5	138	06/17/2021
2-Butanone	*	10.0		143	125.0	0	114.4	68.8	134	06/17/2021
2-Chloroethyl vinyl ether	*	5.0		57.7	50.00	0	115.4	17.8	163	06/17/2021
2-Chlorotoluene	*	2.0		50.1	50.00	0	100.2	74.9	115	06/17/2021
2-Hexanone	*	10.0		144	125.0	0	115.0	73.2	117	06/17/2021
2-Nitropropane	*	10.0		519	500.0	0	103.7	67.1	140	06/17/2021
4-Chlorotoluene	*	2.0		51.8	50.00	0	103.6	75.7	113	06/17/2021
4-Methyl-2-pentanone	*	10.0		137	125.0	0	109.7	77	113	06/17/2021
Acetone	*	10.0		140	125.0	0	111.8	61.4	130	06/17/2021
Acetonitrile	*	10.0	S	683	500.0	0	136.7	68.8	136	06/17/2021
Acrolein	*	20.0		646	500.0	0	129.3	28.4	168	06/17/2021
Acrylonitrile	*	5.0		56.9	50.00	0	113.7	77.9	124	06/17/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954 **SampType:** LCS

Units µg/L

SampID: LCS-AM210617A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		58.5	50.00	0	117.1	75.8	130	06/17/2021
Benzene	*	0.5		54.0	50.00	0	108.0	78.5	119	06/17/2021
Bromobenzene	*	2.0		50.1	50.00	0	100.2	77.5	113	06/17/2021
Bromochloromethane	*	2.0		53.1	50.00	0	106.3	71.5	123	06/17/2021
Bromodichloromethane	*	2.0		54.6	50.00	0	109.3	75.7	123	06/17/2021
Bromoform	*	2.0		54.4	50.00	0	108.8	78.9	121	06/17/2021
Bromomethane	*	5.0		37.7	50.00	0	75.4	30.5	192	06/17/2021
Carbon disulfide	*	2.0		51.7	50.00	0	103.4	66.7	121	06/17/2021
Carbon tetrachloride	*	2.0		54.2	50.00	0	108.4	70.9	127	06/17/2021
Chlorobenzene	*	2.0		51.0	50.00	0	101.9	80	111	06/17/2021
Chloroethane	*	2.0		40.2	50.00	0	80.4	69.6	135	06/17/2021
Chloroform	*	2.0		53.6	50.00	0	107.1	76.2	120	06/17/2021
Chloromethane	*	5.0		46.8	50.00	0	93.5	50.9	138	06/17/2021
Chloroprene	*	5.0		55.3	50.00	0	110.5	68.4	127	06/17/2021
cis-1,2-Dichloroethene	*	2.0		54.8	50.00	0	109.5	79.5	121	06/17/2021
cis-1,3-Dichloropropene	*	2.0		59.4	50.00	0	118.7	79.8	123	06/17/2021
cis-1,4-Dichloro-2-butene	*	2.0		54.2	50.00	0	108.4	64.6	130	06/17/2021
Cyclohexanone	*	20.0		511	500.0	0	102.2	70.5	114	06/17/2021
Dibromochloromethane	*	2.0		53.2	50.00	0	106.3	84.5	114	06/17/2021
Dibromomethane	*	2.0		52.9	50.00	0	105.8	76	119	06/17/2021
Dichlorodifluoromethane	*	2.0		42.3	50.00	0	84.6	46.6	142	06/17/2021
Diisopropyl ether	*	2.0		58.6	50.00	0	117.3	72	128	06/17/2021
Ethyl acetate	*	10.0		51.3	50.00	0	102.5	70.3	115	06/17/2021
Ethyl ether	*	5.0		55.7	50.00	0	111.5	74.6	120	06/17/2021
Ethyl methacrylate	*	5.0		52.7	50.00	0	105.4	81.4	116	06/17/2021
Ethylbenzene	*	2.0		52.6	50.00	0	105.2	78.2	114	06/17/2021
Ethyl-tert-butyl ether	*	2.0		55.2	50.00	0	110.5	74.6	124	06/17/2021
Hexachlorobutadiene	*	5.0		55.5	50.00	0	111.0	73.9	129	06/17/2021
Hexachloroethane	*	5.0		53.3	50.00	0	106.7	78.3	123	06/17/2021
Iodomethane	*	5.0		50.1	50.00	0	100.3	50	151	06/17/2021
Isopropylbenzene	*	2.0		54.7	50.00	0	109.5	79.3	115	06/17/2021
m,p-Xylenes	*	2.0		107	100.0	0	106.8	77.2	116	06/17/2021
Methacrylonitrile	*	5.0		57.3	50.00	0	114.5	73.9	127	06/17/2021
Methyl Methacrylate	*	5.0		57.4	50.00	0	114.7	70.7	129	06/17/2021
Methyl tert-butyl ether	*	2.0		53.7	50.00	0	107.4	80.3	122	06/17/2021
Methylacrylate	*	5.0		57.2	50.00	0	114.4	75.2	124	06/17/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954 **SampType: LCS**

Units µg/L

SampID: LCS-AM210617A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Methylene chloride	*	2.0		51.9	50.00	0	103.8	71.8	115	06/17/2021
Naphthalene	*	5.0		54.6	50.00	0	109.1	75.6	121	06/17/2021
n-Butyl acetate	*	2.0		55.3	50.00	0	110.7	72.4	118	06/17/2021
n-Butylbenzene	*	2.0		52.6	50.00	0	105.1	70.8	118	06/17/2021
n-Heptane	*	5.0	S	71.6	50.00	0	143.1	50.4	143	06/17/2021
n-Hexane	*	5.0		60.2	50.00	0	120.5	60.6	139	06/17/2021
Nitrobenzene	*	50.0		549	500.0	0	109.8	49.4	129	06/17/2021
n-Propylbenzene	*	2.0		51.2	50.00	0	102.5	74	119	06/17/2021
o-Xylene	*	2.0		52.6	50.00	0	105.2	79.2	112	06/17/2021
Pentachloroethane	*	5.0		54.5	50.00	0	109.1	71.8	124	06/17/2021
p-Isopropyltoluene	*	2.0		51.4	50.00	0	102.8	74.4	119	06/17/2021
Propionitrile	*	10.0		611	500.0	0	122.2	76.2	127	06/17/2021
sec-Butylbenzene	*	2.0		52.4	50.00	0	104.8	74.4	119	06/17/2021
Styrene	*	2.0		54.3	50.00	0	108.6	80.4	117	06/17/2021
tert-Amyl methyl ether	*	2.0		55.5	50.00	0	111.1	80.8	125	06/17/2021
tert-Butyl alcohol	*	10.0		287	250.0	0	114.9	64.9	118	06/17/2021
tert-Butylbenzene	*	2.0		51.7	50.00	0	103.5	74	115	06/17/2021
Tetrachloroethene	*	0.5		52.4	50.00	0	104.8	70.1	120	06/17/2021
Tetrahydrofuran	*	5.0		55.0	50.00	0	110.1	63.5	122	06/17/2021
Toluene	*	2.0		51.5	50.00	0	102.9	78.6	112	06/17/2021
trans-1,2-Dichloroethene	*	2.0		54.3	50.00	0	108.6	75.7	130	06/17/2021
trans-1,3-Dichloropropene	*	2.0		49.3	50.00	0	98.5	80.3	116	06/17/2021
trans-1,4-Dichloro-2-butene	*	2.0		51.9	50.00	0	103.7	65.5	124	06/17/2021
Trichloroethene	*	2.0		53.3	50.00	0	106.6	76.2	121	06/17/2021
Trichlorofluoromethane	*	5.0		49.9	50.00	0	99.8	71.1	131	06/17/2021
Vinyl acetate	*	5.0		56.8	50.00	0	113.6	79.8	129	06/17/2021
Vinyl chloride	*	2.0		51.8	50.00	0	103.5	58.6	141	06/17/2021
Xylenes, Total	*	4.0		159	150.0	0	106.3	78.3	114	06/17/2021
1,2-Dichloroethene, Total	*	4.0		109	100.0	0	109.0	78.5	125	06/17/2021
1,3-Dichloropropene, Total	*	4.0		109	100.0	0	108.6	82.3	117	06/17/2021
1,4-Dichloro-2-butene, Total	*	4.0		106	100.0	0	106.1	65.9	126	06/17/2021
Surr: 1,2-Dichloroethane-d4	*			48.9	50.00		97.8	80	120	06/17/2021
Surr: 4-Bromofluorobenzene	*			47.8	50.00		95.6	80	120	06/17/2021
Surr: Toluene-d8	*			48.0	50.00		95.9	80	120	06/17/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954		SampType: LCSD		Units µg/L				RPD Limit 15.4			Date
SampID: LCSD-AM210617A-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Analyzed	
1,1,1,2-Tetrachloroethane	*	2.0		52.8	50.00	0	105.7	53.50	1.26	06/17/2021	
1,1,1-Trichloroethane	*	2.0		53.1	50.00	0	106.2	53.77	1.27	06/17/2021	
1,1,2,2-Tetrachloroethane	*	2.0		48.5	50.00	0	97.0	48.13	0.81	06/17/2021	
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		51.2	50.00	0	102.4	52.37	2.30	06/17/2021	
1,1,2-Trichloroethane	*	0.5		50.7	50.00	0	101.4	51.12	0.86	06/17/2021	
1,1-Dichloro-2-propanone	*	30.0		134	125.0	0	107.3	130.1	3.00	06/17/2021	
1,1-Dichloroethane	*	2.0		53.5	50.00	0	107.0	54.41	1.67	06/17/2021	
1,1-Dichloroethene	*	2.0		51.7	50.00	0	103.3	52.75	2.07	06/17/2021	
1,1-Dichloropropene	*	2.0		53.6	50.00	0	107.1	54.26	1.32	06/17/2021	
1,2,3-Trichlorobenzene	*	2.0		55.2	50.00	0	110.3	55.05	0.20	06/17/2021	
1,2,3-Trichloropropane	*	2.0		47.5	50.00	0	95.0	47.91	0.82	06/17/2021	
1,2,3-Trimethylbenzene	*	2.0		52.1	50.00	0	104.2	52.07	0.08	06/17/2021	
1,2,4-Trichlorobenzene	*	2.0		55.1	50.00	0	110.2	55.06	0.07	06/17/2021	
1,2,4-Trimethylbenzene	*	2.0		52.4	50.00	0	104.8	52.69	0.59	06/17/2021	
1,2-Dibromo-3-chloropropane	*	5.0		51.3	50.00	0	102.6	51.46	0.33	06/17/2021	
1,2-Dibromoethane	*	2.0		51.2	50.00	0	102.4	51.92	1.36	06/17/2021	
1,2-Dichlorobenzene	*	2.0		49.6	50.00	0	99.3	50.06	0.86	06/17/2021	
1,2-Dichloroethane	*	2.0		49.5	50.00	0	99.1	49.98	0.90	06/17/2021	
1,2-Dichloropropane	*	2.0		56.2	50.00	0	112.5	57.22	1.75	06/17/2021	
1,3,5-Trimethylbenzene	*	2.0		51.6	50.00	0	103.2	52.07	0.87	06/17/2021	
1,3-Dichlorobenzene	*	2.0		51.2	50.00	0	102.5	51.17	0.16	06/17/2021	
1,3-Dichloropropane	*	2.0		50.6	50.00	0	101.3	51.02	0.75	06/17/2021	
1,4-Dichlorobenzene	*	2.0		50.7	50.00	0	101.3	50.87	0.39	06/17/2021	
1-Chlorobutane	*	5.0		55.1	50.00	0	110.1	55.60	0.98	06/17/2021	
2,2-Dichloropropane	*	2.0		62.1	50.00	0	124.3	63.54	2.23	06/17/2021	
2-Butanone	*	10.0		140	125.0	0	112.2	143.0	1.94	06/17/2021	
2-Chloroethyl vinyl ether	*	5.0		56.9	50.00	0	113.9	57.68	1.31	06/17/2021	
2-Chlorotoluene	*	2.0		49.7	50.00	0	99.4	50.11	0.84	06/17/2021	
2-Hexanone	*	10.0		143	125.0	0	114.3	143.8	0.66	06/17/2021	
2-Nitropropane	*	10.0		512	500.0	0	102.4	518.7	1.30	06/17/2021	
4-Chlorotoluene	*	2.0		51.7	50.00	0	103.5	51.80	0.14	06/17/2021	
4-Methyl-2-pentanone	*	10.0		136	125.0	0	108.6	137.1	0.97	06/17/2021	
Acetone	*	10.0		139	125.0	0	111.1	139.7	0.61	06/17/2021	
Acetonitrile	*	10.0		595	500.0	0	119.0	683.3	13.80	06/17/2021	
Acrolein	*	20.0		641	500.0	0	128.2	646.3	0.83	06/17/2021	
Acrylonitrile	*	5.0		55.3	50.00	0	110.5	56.86	2.84	06/17/2021	

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch	SampType:	Units		RPD Limit							Date
178954	LCSD	µg/L		15.4							Analyzed
SampID: LCSD-AM210617A-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date	
Allyl chloride	*	5.0		57.9	50.00	0	115.8	58.53	1.05	06/17/2021	
Benzene	*	0.5		53.1	50.00	0	106.2	54.00	1.64	06/17/2021	
Bromobenzene	*	2.0		50.2	50.00	0	100.5	50.09	0.28	06/17/2021	
Bromochloromethane	*	2.0		53.3	50.00	0	106.6	53.14	0.28	06/17/2021	
Bromodichloromethane	*	2.0		53.9	50.00	0	107.7	54.65	1.46	06/17/2021	
Bromoform	*	2.0		53.9	50.00	0	107.9	54.39	0.85	06/17/2021	
Bromomethane	*	5.0		38.8	50.00	0	77.7	37.70	2.98	06/17/2021	
Carbon disulfide	*	2.0		50.7	50.00	0	101.4	51.68	1.88	06/17/2021	
Carbon tetrachloride	*	2.0		53.5	50.00	0	107.1	54.21	1.24	06/17/2021	
Chlorobenzene	*	2.0		50.3	50.00	0	100.5	50.95	1.34	06/17/2021	
Chloroethane	*	2.0		48.2	50.00	0	96.3	40.19	18.02	06/17/2021	
Chloroform	*	2.0		52.7	50.00	0	105.4	53.55	1.60	06/17/2021	
Chloromethane	*	5.0		42.6	50.00	0	85.3	46.76	9.24	06/17/2021	
Chloroprene	*	5.0		53.7	50.00	0	107.4	55.27	2.86	06/17/2021	
cis-1,2-Dichloroethene	*	2.0		53.9	50.00	0	107.7	54.77	1.68	06/17/2021	
cis-1,3-Dichloropropene	*	2.0		59.0	50.00	0	117.9	59.35	0.68	06/17/2021	
cis-1,4-Dichloro-2-butene	*	2.0		52.8	50.00	0	105.5	54.20	2.69	06/17/2021	
Cyclohexanone	*	20.0		508	500.0	0	101.6	511.1	0.59	06/17/2021	
Dibromochloromethane	*	2.0		52.9	50.00	0	105.8	53.17	0.53	06/17/2021	
Dibromomethane	*	2.0		52.0	50.00	0	104.0	52.89	1.72	06/17/2021	
Dichlorodifluoromethane	*	2.0		41.4	50.00	0	82.7	42.32	2.29	06/17/2021	
Diisopropyl ether	*	2.0		57.6	50.00	0	115.2	58.65	1.84	06/17/2021	
Ethyl acetate	*	10.0		50.6	50.00	0	101.3	51.26	1.20	06/17/2021	
Ethyl ether	*	5.0		54.9	50.00	0	109.7	55.74	1.59	06/17/2021	
Ethyl methacrylate	*	5.0		52.5	50.00	0	105.0	52.70	0.34	06/17/2021	
Ethylbenzene	*	2.0		51.6	50.00	0	103.2	52.58	1.92	06/17/2021	
Ethyl-tert-butyl ether	*	2.0		55.3	50.00	0	110.6	55.25	0.09	06/17/2021	
Hexachlorobutadiene	*	5.0		55.3	50.00	0	110.6	55.48	0.34	06/17/2021	
Hexachloroethane	*	5.0		53.2	50.00	0	106.4	53.34	0.24	06/17/2021	
Iodomethane	*	5.0		54.5	50.00	0	109.1	50.14	8.39	06/17/2021	
Isopropylbenzene	*	2.0		53.6	50.00	0	107.1	54.73	2.18	06/17/2021	
m,p-Xylenes	*	2.0		105	100.0	0	105.0	106.8	1.77	06/17/2021	
Methacrylonitrile	*	5.0		56.3	50.00	0	112.7	57.26	1.62	06/17/2021	
Methyl Methacrylate	*	5.0		57.6	50.00	0	115.3	57.36	0.47	06/17/2021	
Methyl tert-butyl ether	*	2.0		54.1	50.00	0	108.2	53.70	0.78	06/17/2021	
Methylacrylate	*	5.0		56.0	50.00	0	112.1	57.19	2.03	06/17/2021	

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954	SampType: LCSD	Units µg/L								RPD Limit 15.4
SampID: LCSD-AM210617A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Methylene chloride	*	2.0		50.7	50.00	0	101.5	51.91	2.28	06/17/2021
Naphthalene	*	5.0		54.6	50.00	0	109.2	54.55	0.13	06/17/2021
n-Butyl acetate	*	2.0		55.3	50.00	0	110.6	55.34	0.04	06/17/2021
n-Butylbenzene	*	2.0		51.7	50.00	0	103.4	52.55	1.61	06/17/2021
n-Heptane	*	5.0		70.7	50.00	0	141.4	71.57	1.19	06/17/2021
n-Hexane	*	5.0		58.9	50.00	0	117.7	60.25	2.33	06/17/2021
Nitrobenzene	*	50.0		550	500.0	0	110.1	549.0	0.24	06/17/2021
n-Propylbenzene	*	2.0		50.7	50.00	0	101.4	51.23	1.04	06/17/2021
o-Xylene	*	2.0		51.5	50.00	0	103.0	52.61	2.09	06/17/2021
Pentachloroethane	*	5.0		54.6	50.00	0	109.2	54.53	0.16	06/17/2021
p-Isopropyltoluene	*	2.0		51.9	50.00	0	103.9	51.40	1.03	06/17/2021
Propionitrile	*	10.0		603	500.0	0	120.6	611.1	1.34	06/17/2021
sec-Butylbenzene	*	2.0		52.0	50.00	0	104.0	52.40	0.77	06/17/2021
Styrene	*	2.0		53.3	50.00	0	106.6	54.30	1.82	06/17/2021
tert-Amyl methyl ether	*	2.0		55.6	50.00	0	111.2	55.54	0.09	06/17/2021
tert-Butyl alcohol	*	10.0		289	250.0	0	115.6	287.3	0.60	06/17/2021
tert-Butylbenzene	*	2.0		51.2	50.00	0	102.3	51.74	1.11	06/17/2021
Tetrachloroethene	*	0.5		51.8	50.00	0	103.6	52.41	1.19	06/17/2021
Tetrahydrofuran	*	5.0		55.8	50.00	0	111.6	55.04	1.41	06/17/2021
Toluene	*	2.0		50.7	50.00	0	101.4	51.46	1.51	06/17/2021
trans-1,2-Dichloroethene	*	2.0		53.1	50.00	0	106.1	54.28	2.25	06/17/2021
trans-1,3-Dichloropropene	*	2.0		49.2	50.00	0	98.4	49.26	0.12	06/17/2021
trans-1,4-Dichloro-2-butene	*	2.0		51.3	50.00	0	102.5	51.86	1.16	06/17/2021
Trichloroethene	*	2.0		52.5	50.00	0	105.0	53.30	1.51	06/17/2021
Trichlorofluoromethane	*	5.0		49.6	50.00	0	99.3	49.90	0.52	06/17/2021
Vinyl acetate	*	5.0		56.6	50.00	0	113.1	56.78	0.39	06/17/2021
Vinyl chloride	*	2.0		45.6	50.00	0	91.2	51.77	12.67	06/17/2021
Xylenes, Total	*	4.0		156	150.0	0	104.3	159.4	1.87	06/17/2021
1,2-Dichloroethene, Total	*	4.0		107	100.0	0	106.9	109.0	1.96	06/17/2021
1,3-Dichloropropene, Total	*	4.0		108	100.0	0	108.2	108.6	0.42	06/17/2021
1,4-Dichloro-2-butene, Total	*	4.0		104	100.0	0	104.0	106.1	1.94	06/17/2021
Surr: 1,2-Dichloroethane-d4	*			49.2	50.00		98.3			06/17/2021
Surr: 4-Bromofluorobenzene	*			48.0	50.00		95.9			06/17/2021
Surr: Toluene-d8	*			47.9	50.00		95.9			06/17/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 178954 **SampType: LCSG** Units $\mu\text{g/L}$

SampID: LCSG-AM210617A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
TPH - GRO (C6 - C10)	*	500		1790	2000	0	89.7	70	130	06/17/2021
Surr: 1,2-Dichloroethane-d4	*			49.0	50.00		98.0	80	120	06/17/2021
Surr: 4-Bromofluorobenzene	*			49.9	50.00		99.9	80	120	06/17/2021
Surr: Toluene-d8	*			48.4	50.00		96.8	80	120	06/17/2021

Batch 178954 **SampType: LCSGD** Units $\mu\text{g/L}$

SampID: LCSGD-AM210617A-1

RPD Limit **20**

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
TPH - GRO (C6 - C10)	*	500		1790	2000	0	89.5	1794	0.20	06/17/2021
Surr: 1,2-Dichloroethane-d4	*			48.9	50.00		97.7			06/17/2021
Surr: 4-Bromofluorobenzene	*			49.8	50.00		99.7			06/17/2021
Surr: Toluene-d8	*			48.6	50.00		97.2			06/17/2021

Batch 179034 **SampType: MBLK** Units $\mu\text{g/L}$

SampID: MBLK-AM210618A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1-Dichloroethene	*	2.0		ND						06/18/2021
1,2-Dichloroethane	*	2.0		ND						06/18/2021
1,4-Dichlorobenzene	*	2.0		ND						06/18/2021
2-Butanone	*	10.0		ND						06/18/2021
Benzene	*	0.5		ND						06/18/2021
Carbon tetrachloride	*	2.0		ND						06/18/2021
Chlorobenzene	*	2.0		ND						06/18/2021
Chloroform	*	2.0		ND						06/18/2021
Tetrachloroethene	*	0.5		ND						06/18/2021
Trichloroethene	*	2.0		ND						06/18/2021
Vinyl chloride	*	2.0		ND						06/18/2021
Surr: 1,2-Dichloroethane-d4	*			49.8	50.00		99.6	80	120	06/18/2021
Surr: 4-Bromofluorobenzene	*			51.4	50.00		102.9	80	120	06/18/2021
Surr: Toluene-d8	*			47.4	50.00		94.8	80	120	06/18/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179034		SampType: LCS		Units µg/L							
SampID: LCS-AM210618A-2											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
1,1-Dichloroethene	*	2.0		49.0	50.00	0	98.0	69.4	127	06/18/2021	
1,2-Dichloroethane	*	2.0		48.8	50.00	0	97.5	72.3	117	06/18/2021	
1,4-Dichlorobenzene	*	2.0		47.2	50.00	0	94.4	73.9	112	06/18/2021	
2-Butanone	*	10.0		137	125.0	0	109.2	68.8	134	06/18/2021	
Benzene	*	0.5		51.3	50.00	0	102.7	78.5	119	06/18/2021	
Carbon tetrachloride	*	2.0		50.6	50.00	0	101.2	70.9	127	06/18/2021	
Chlorobenzene	*	2.0		48.1	50.00	0	96.2	80	111	06/18/2021	
Chloroform	*	2.0		51.2	50.00	0	102.4	76.2	120	06/18/2021	
Tetrachloroethene	*	0.5		48.4	50.00	0	96.9	70.1	120	06/18/2021	
Trichloroethene	*	2.0		49.9	50.00	0	99.9	76.2	121	06/18/2021	
Vinyl chloride	*	2.0		37.9	50.00	0	75.9	58.6	141	06/18/2021	
Surr: 1,2-Dichloroethane-d4	*			49.4	50.00		98.8	80	120	06/18/2021	
Surr: 4-Bromofluorobenzene	*			48.1	50.00		96.3	80	120	06/18/2021	
Surr: Toluene-d8	*			47.8	50.00		95.7	80	120	06/18/2021	

SW-846 9023

Batch 179030		SampType: MBLK		Units mg/Kg							
SampID: MBLK-179030											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Extractable Organic Halogens (EOX)		50.0		< 50.0						06/21/2021	

Batch 179030		SampType: LCS		Units mg/Kg							
SampID: LCS-179030											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Extractable Organic Halogens (EOX)		50.0		267	250.0	0	106.7	74	141	06/21/2021	

Batch 179030		SampType: MS		Units mg/Kg							
SampID: 21061102-002DMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Extractable Organic Halogens (EOX)		47.2		230	235.8	0	97.4	55.8	137	06/21/2021	

Batch 179030		SampType: MSD		Units mg/Kg							
SampID: 21061102-002DMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Extractable Organic Halogens (EOX)		48.5		234	242.7	0	96.4	229.6	1.92	06/21/2021	



Receiving Check List

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21061102

Client Project: 128487

Report Date: 25-Jun-21

Carrier: Employee

Received By: PRY

Completed by: (b) (6)

Reviewed by: (b) (6)

On:

On:

16-Jun-21

16-Jun-21

Mary E. Kemp

Emily Pohlman

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes No Not Present Temp °C **3.4**
- Type of thermal preservation? None Ice Blue Ice Dry Ice
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Reported field parameters measured: Field Lab NA
- Container/Temp Blank temperature in compliance? Yes No

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- Water – at least one vial per sample has zero headspace? Yes No No VOA vials
- Water - TOX containers have zero headspace? Yes No No TOX containers
- Water - pH acceptable upon receipt? Yes No NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes No NA

Any No responses must be detailed below or on the COC.

Trip Blank collection date and time will be reported as the received date and time (end of trip). - MKemp - 6/16/2021 4:57:40 PM

Samples requiring pH should be analyzed as soon as possible after collection. Samples submitted for pH analysis are analyzed as soon as practicable upon arrival at the laboratory. - MKemp - 6/16/2021 4:57:44 PM

July 20, 2021

Justin Carter
Burns & McDonnell Waste Consultants
9400 Ward Parkway
P.O. Box 419173
Kansas City, MO 64114
TEL: (816) 333-9400
FAX: (816) 822-3494



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: 128487 GSA

WorkOrder: 21070649

Dear Justin Carter:

TEKLAB, INC received 3 samples on 7/12/2021 4:00:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

(b) (6)

Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	14
Dates Report	15
Quality Control Results	16
Receiving Check List	35
Chain of Custody	Appended

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

Abbr Definition

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



Case Narrative

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

Cooler Receipt Temp: 1.8 °C

Per Justin Carter, do not analyze W-IDW-001. EEP 7/13/2021

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425

Phone (618) 344-1004

Fax (618) 344-1005

Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
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Phone (618) 344-1004

Fax (618) 344-1005

Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415

Phone (217) 698-1004

Fax (217) 698-1005

Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515

Phone (630) 324-6855

Fax

Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214

Phone (913) 541-1998

Fax (913) 541-1998

Email jhriley@teklabinc.com

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

Lab ID: 21070649-001

Client Sample ID: TB-11

Matrix: TRIP BLANK

Collection Date: 07/12/2021 16:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	07/14/2021 16:51	179754
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	07/14/2021 16:51	179754
1,1-Dichloro-2-propanone	*	30.0		ND	µg/L	1	07/14/2021 16:51	179754
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
2-Butanone	NELAP	10.0		ND	µg/L	1	07/14/2021 16:51	179754
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
2-Hexanone	NELAP	10.0		ND	µg/L	1	07/14/2021 16:51	179754
2-Nitropropane	NELAP	10.0		ND	µg/L	1	07/14/2021 16:51	179754
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	07/14/2021 16:51	179754
Acetone	NELAP	10.0		ND	µg/L	1	07/14/2021 16:51	179754
Acetonitrile	NELAP	10.0		ND	µg/L	1	07/14/2021 16:51	179754
Acrolein	NELAP	20.0		ND	µg/L	1	07/14/2021 16:51	179754
Acrylonitrile	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Allyl chloride	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Benzene	NELAP	0.5		ND	µg/L	1	07/14/2021 16:51	179754
Bromobenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Bromochloromethane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Bromoform	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Bromomethane	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Carbon disulfide	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Chlorobenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Chloroethane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

Lab ID: 21070649-001

Client Sample ID: TB-11

Matrix: TRIP BLANK

Collection Date: 07/12/2021 16:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Chloroform	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Chloromethane	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Chloroprene	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Cyclohexanone	*	20.0		ND	µg/L	1	07/14/2021 16:51	179754
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Dibromomethane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Ethyl acetate	NELAP	10.0		ND	µg/L	1	07/14/2021 16:51	179754
Ethyl ether	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Ethylbenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Hexachloroethane	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Iodomethane	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Methylacrylate	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Methylene chloride	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Naphthalene	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
n-Butyl acetate	*	2.0		ND	µg/L	1	07/14/2021 16:51	179754
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
n-Heptane	*	5.0		ND	µg/L	1	07/14/2021 16:51	179754
n-Hexane	*	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Nitrobenzene	NELAP	50.0		ND	µg/L	1	07/14/2021 16:51	179754
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
o-Xylene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Pentachloroethane	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Propionitrile	NELAP	10.0		ND	µg/L	1	07/14/2021 16:51	179754
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Styrene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	07/14/2021 16:51	179754
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Toluene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Trichloroethene	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754
Vinyl acetate	NELAP	5.0		ND	µg/L	1	07/14/2021 16:51	179754

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

Lab ID: 21070649-001

Client Sample ID: TB-11

Matrix: TRIP BLANK

Collection Date: 07/12/2021 16:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Vinyl chloride	NELAP	2.0		ND	µg/L	1	07/14/2021 16:51	179754
Surr: 1,2-Dichloroethane-d4	*	80-120		103.8	%REC	1	07/14/2021 16:51	179754
Surr: 4-Bromofluorobenzene	*	80-120		99.1	%REC	1	07/14/2021 16:51	179754
Surr: Dibromofluoromethane	*	80-120		100.8	%REC	1	07/14/2021 16:51	179754
Surr: Toluene-d8	*	80-120		99.6	%REC	1	07/14/2021 16:51	179754



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

Lab ID: 21070649-002

Client Sample ID: W-1DW-001

Matrix: GROUNDWATER

Collection Date: 07/09/2021 18:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 375.2 REV 2.0 1993 (TOTAL)								
Sulfate	NELAP	50		72	mg/L	5	07/15/2021 20:52	R294481
STANDARD METHODS 4500-S D (TOTAL) 2000								
Sulfide, Total - Colorimetric	NELAP	0.05		< 0.05	mg/L	1	07/14/2021 14:22	R294375
SW-846 1020B								
Ignitability, Closed Cup	NELAP	60		>200	°F	1	07/13/2021 14:56	R294330
SW-846 9014 (REACTIVE)								
Cyanide, Reactive	NELAP	2.46		< 2.46	mg/Kg	1	07/16/2021 14:28	179821
SW-846 9040B, LABORATORY ANALYZED								
Lab pH	NELAP	1.00		7.87		1	07/13/2021 13:59	R294319
SW-846 9066 (TOTAL)								
Phenols	NELAP	0.005	S	0.012	mg/L	1	07/14/2021 10:08	R294368
<i>Matrix spike did not recover within control limits due to matrix interference.</i>								
SW-846 9095								
Paint Filter	NELAP	0		Fail	Pass/Fail	1	07/13/2021 7:37	R294258
SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD								
Aroclor 1016	NELAP	1.37		ND	µg/L	1	07/16/2021 14:10	179817
Aroclor 1221	NELAP	1.37		ND	µg/L	1	07/16/2021 14:10	179817
Aroclor 1232	NELAP	1.37		ND	µg/L	1	07/16/2021 14:10	179817
Aroclor 1242	NELAP	1.37		ND	µg/L	1	07/16/2021 14:10	179817
Aroclor 1248	NELAP	1.37		ND	µg/L	1	07/16/2021 14:10	179817
Aroclor 1254	NELAP	1.37		ND	µg/L	1	07/16/2021 14:10	179817
Aroclor 1260	NELAP	1.37		ND	µg/L	1	07/16/2021 14:10	179817
Surr: Decachlorobiphenyl	*	10-152		71.8	%REC	1	07/16/2021 14:10	179817
Surr: Tetrachloro-meta-xylene	*	9.73-128		124.3	%REC	1	07/16/2021 14:10	179817
<i>Elevated reporting limit due to sample composition.</i>								
SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD								
2,4,5-T	NELAP	0.40		ND	µg/L	1	07/15/2021 20:45	179766
2,4,5-TP (Silvex)	NELAP	0.40		ND	µg/L	1	07/15/2021 20:45	179766
2,4-D	NELAP	0.40		2.94	µg/L	1	07/15/2021 20:45	179766
2,4-DB	NELAP	0.40		ND	µg/L	1	07/15/2021 20:45	179766
3,5-Dichlorobenzoic Acid	NELAP	0.40		ND	µg/L	1	07/15/2021 20:45	179766
4-Nitrophenol	NELAP	0.60		ND	µg/L	1	07/15/2021 20:45	179766
Acifluorfen	NELAP	0.40		ND	µg/L	1	07/15/2021 20:45	179766
Bentazon	NELAP	0.60		ND	µg/L	1	07/15/2021 20:45	179766
Chloramben	NELAP	0.40		ND	µg/L	1	07/15/2021 20:45	179766
Dalapon	NELAP	2.60		ND	µg/L	1	07/15/2021 20:45	179766
DCPA	NELAP	0.40		ND	µg/L	1	07/16/2021 13:05	179766
Dicamba	NELAP	0.40		ND	µg/L	1	07/15/2021 20:45	179766
Dichlorprop	NELAP	0.40		ND	µg/L	1	07/15/2021 20:45	179766
Dinoseb	NELAP	0.40		ND	µg/L	1	07/15/2021 20:45	179766
MCPA	NELAP	90.0		ND	µg/L	1	07/15/2021 20:45	179766
MCPP	NELAP	60.0		ND	µg/L	1	07/15/2021 20:45	179766
Pentachlorophenol	NELAP	0.20		ND	µg/L	1	07/15/2021 20:45	179766
Picloram	NELAP	0.40		ND	µg/L	1	07/15/2021 20:45	179766
Surr: 2,4-Dichlorophenylacetic acid	*	18.4-136		74.7	%REC	1	07/15/2021 20:45	179766
<i>Elevated reporting limit due to sample composition.</i>								



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

Lab ID: 21070649-002

Client Sample ID: W-1DW-001

Matrix: GROUNDWATER

Collection Date: 07/09/2021 18:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 9020B								
Total Organic Halides (TOX)	NELAP	20.0		< 20.0	µg/L	1	07/19/2021 10:40	R294564

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

Lab ID: 21070649-003

Client Sample ID: W-1DW-001/DUP

Matrix: GROUNDWATER

Collection Date: 07/09/2021 18:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP								
Arsenic	NELAP	0.250		< 0.250	mg/L	1	07/16/2021 8:05	179785
Barium	NELAP	0.450		< 0.450	mg/L	1	07/16/2021 8:05	179785
Cadmium	NELAP	0.0200		< 0.0200	mg/L	1	07/16/2021 8:05	179785
Chromium	NELAP	0.100		< 0.100	mg/L	1	07/16/2021 8:05	179785
Lead	NELAP	0.400		< 0.400	mg/L	1	07/16/2021 8:05	179785
Selenium	NELAP	0.500		< 0.500	mg/L	1	07/16/2021 8:05	179785
Silver	NELAP	0.0700		< 0.0700	mg/L	1	07/16/2021 8:05	179785
SW-846 1311, 7470A IN TCLP EXTRACT								
Mercury	NELAP	0.00020		< 0.00020	mg/L	1	07/15/2021 10:30	179751
SW-846 1311, 3510C, 8081B, CHLORINATED PESTICIDES IN TCLP EXTRACT BY GC/ECD								
alpha-Chlordane	NELAP	0.00050		ND	mg/L	1	07/19/2021 12:57	179817
Endrin	NELAP	0.00050		ND	mg/L	1	07/19/2021 12:57	179817
gamma-BHC	NELAP	0.00050		ND	mg/L	1	07/19/2021 12:57	179817
gamma-Chlordane	NELAP	0.00050		ND	mg/L	1	07/19/2021 12:57	179817
Heptachlor	NELAP	0.00050		ND	mg/L	1	07/19/2021 12:57	179817
Heptachlor epoxide	NELAP	0.00050		ND	mg/L	1	07/19/2021 12:57	179817
Methoxychlor	NELAP	0.00050		ND	mg/L	1	07/19/2021 12:57	179817
Toxaphene	NELAP	0.00500		ND	mg/L	1	07/19/2021 12:57	179817
Chlordane	NELAP	0.00100		ND	mg/L	1	07/19/2021 12:57	179817
Surr: Decachlorobiphenyl	*	13-162		55.7	%REC	1	07/19/2021 12:57	179817
Surr: Tetrachloro-m-xylene	*	24.5-144		94.0	%REC	1	07/19/2021 12:57	179817
SW-846 1311, 3510C, 8270C, SEMI-VOLATILES IN TCLP EXTRACT BY GC/MS								
1,4-Dichlorobenzene	*	0.100		ND	mg/L	1	07/15/2021 16:44	179786
2,4,5-Trichlorophenol	NELAP	0.100		ND	mg/L	1	07/15/2021 16:44	179786
2,4,6-Trichlorophenol	NELAP	0.100		ND	mg/L	1	07/15/2021 16:44	179786
2,4-Dinitrotoluene	NELAP	0.100		ND	mg/L	1	07/15/2021 16:44	179786
Hexachlorobenzene	NELAP	0.100		ND	mg/L	1	07/15/2021 16:44	179786
Hexachlorobutadiene	NELAP	0.100		ND	mg/L	1	07/15/2021 16:44	179786
Hexachloroethane	NELAP	0.100		ND	mg/L	1	07/15/2021 16:44	179786
m,p-Cresol	NELAP	0.100		ND	mg/L	1	07/15/2021 16:44	179786
Nitrobenzene	NELAP	0.100		ND	mg/L	1	07/15/2021 16:44	179786
o-Cresol	NELAP	0.100		ND	mg/L	1	07/15/2021 16:44	179786
Pentachlorophenol	NELAP	0.200		ND	mg/L	1	07/15/2021 16:44	179786
Pyridine	NELAP	0.200		ND	mg/L	1	07/15/2021 16:44	179786
Cresols, Total	NELAP	0.200		ND	mg/L	1	07/15/2021 16:44	179786
Surr: 2,4,6-Tribromophenol	*	59.5-128		101.5	%REC	1	07/15/2021 16:44	179786
Surr: 2-Fluorobiphenyl	*	48.7-121		85.4	%REC	1	07/15/2021 16:44	179786
Surr: 2-Fluorophenol	*	34.5-88.2		69.0	%REC	1	07/15/2021 16:44	179786
Surr: Nitrobenzene-d5	*	36-119		81.9	%REC	1	07/15/2021 16:44	179786
Surr: Phenol-d5	*	27.4-65.7		51.1	%REC	1	07/15/2021 16:44	179786
Surr: p-Terphenyl-d14	*	34.8-130		93.9	%REC	1	07/15/2021 16:44	179786
SW-846 1311, 5030, 8260B, VOLATILE ORGANIC COMPOUNDS IN TCLP EXTRACT BY GC/MS								
1,1-Dichloroethene	NELAP	0.200		ND	mg/L	100	07/14/2021 15:31	179754
1,2-Dichloroethane	NELAP	0.200		ND	mg/L	100	07/14/2021 15:31	179754
1,4-Dichlorobenzene	NELAP	0.200		ND	mg/L	100	07/14/2021 15:31	179754
2-Butanone	NELAP	1.00		ND	mg/L	100	07/14/2021 15:31	179754
Benzene	NELAP	0.050		ND	mg/L	100	07/14/2021 15:31	179754



Laboratory Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

Lab ID: 21070649-003

Client Sample ID: W-1DW-001/DUP

Matrix: GROUNDWATER

Collection Date: 07/09/2021 18:35

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 1311, 5030, 8260B, VOLATILE ORGANIC COMPOUNDS IN TCLP EXTRACT BY GC/MS								
Carbon tetrachloride	NELAP	0.200		ND	mg/L	100	07/14/2021 15:31	179754
Chlorobenzene	NELAP	0.200		ND	mg/L	100	07/14/2021 15:31	179754
Chloroform	NELAP	0.200		ND	mg/L	100	07/14/2021 15:31	179754
Tetrachloroethene	NELAP	0.050		ND	mg/L	100	07/14/2021 15:31	179754
Trichloroethene	NELAP	0.200		ND	mg/L	100	07/14/2021 15:31	179754
Vinyl chloride	NELAP	0.200		ND	mg/L	100	07/14/2021 15:31	179754
Surr: 1,2-Dichloroethane-d4	*	80-120		102.9	%REC	100	07/14/2021 15:31	179754
Surr: 4-Bromofluorobenzene	*	80-120		98.2	%REC	100	07/14/2021 15:31	179754
Surr: Dibromofluoromethane	*	80-120		101.5	%REC	100	07/14/2021 15:31	179754
Surr: Toluene-d8	*	80-120		97.7	%REC	100	07/14/2021 15:31	179754

Allowable Marginal Exceedance of Tetrachloroethene in the laboratory control sample is verified per the TNI Standard.



Sample Summary

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
21070649-001	TB-11	Trip Blank	1	07/12/2021 16:00
21070649-002	W-1DW-001	Groundwater	8	07/09/2021 18:35
21070649-003	W-1DW-001/DUP	Groundwater	8	07/09/2021 18:35



Dates Report

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
21070649-001A	TB-11	07/12/2021 16:00	07/12/2021 16:00		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				07/14/2021 16:51
21070649-002A	W-1DW-001	07/09/2021 18:35	07/12/2021 16:00		
	SW-846 3510C, 8151A, Chlorinated Herbicides by GC/ECD			07/14/2021 19:34	07/15/2021 20:45
	SW-846 3510C, 8151A, Chlorinated Herbicides by GC/ECD			07/14/2021 19:34	07/16/2021 13:05
21070649-002B	W-1DW-001	07/09/2021 18:35	07/12/2021 16:00		
	SW-846 3510C, 8082, PolyChlorinated Biphenyls (PCBs) by GC/ECD			07/15/2021 18:46	07/16/2021 14:10
21070649-002C	W-1DW-001	07/09/2021 18:35	07/12/2021 16:00		
	EPA 600 375.2 Rev 2.0 1993 (Total)				07/15/2021 20:52
	SW-846 1020B				07/13/2021 14:56
	SW-846 9014 (Reactive)			07/16/2021 10:42	07/16/2021 14:28
	SW-846 9040B, Laboratory Analyzed				07/13/2021 13:59
	SW-846 9095				07/13/2021 7:37
21070649-002D	W-1DW-001	07/09/2021 18:35	07/12/2021 16:00		
	SW-846 9020B				07/19/2021 10:40
21070649-002E	W-1DW-001	07/09/2021 18:35	07/12/2021 16:00		
	SW-846 9066 (Total)				07/14/2021 10:08
21070649-002H	W-1DW-001	07/09/2021 18:35	07/12/2021 16:00		
	Standard Methods 4500-S D (Total) 2000				07/14/2021 14:22
21070649-003A	W-1DW-001/DUP	07/09/2021 18:35	07/12/2021 16:00		
	SW-846 1311, 3010A, 6010B, Metals in TCLP Extract by ICP			07/15/2021 11:54	07/16/2021 8:05
	SW-846 1311, 3510C, 8081B, Chlorinated Pesticides in TCLP Extract by GC/ECD			07/16/2021 15:43	07/19/2021 12:57
	SW-846 1311, 3510C, 8270C, Semi-Volatiles in TCLP Extract by GC/MS			07/15/2021 12:30	07/15/2021 16:44
	SW-846 1311, 5030, 8260B, Volatile Organic Compounds in TCLP Extract by GC/MS				07/14/2021 15:31
	SW-846 1311, 7470A in TCLP Extract			07/14/2021 15:38	07/15/2021 10:30



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

EPA 600 375.2 REV 2.0 1993 (TOTAL)

Batch R294481 SampType: **MBLK** Units **mg/L**

SampID: ICB/MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		< 10	6.140	0	0	-100	100	07/15/2021

Batch R294481 SampType: **LCS** Units **mg/L**

SampID: ICB/LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		19	20.00	0	96.2	90	110	07/15/2021

Batch R294481 SampType: **MS** Units **mg/L**

SampID: 21070649-002CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		50		170	100.0	72.19	97.9	90	110	07/15/2021

Batch R294481 SampType: **MSD** Units **mg/L**

SampID: 21070649-002CMSD

RPD Limit 10

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		50		173	100.0	72.19	100.5	170.1	1.50	07/15/2021

STANDARD METHODS 4500-S D (TOTAL) 2000

Batch R294375 SampType: **MBLK** Units **mg/L**

SampID: MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfide, Total - Colorimetric		0.05		< 0.05	0.0080	0	0	-100	100	07/14/2021

Batch R294375 SampType: **LCS** Units **mg/L**

SampID: LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfide, Total - Colorimetric		0.05		0.07	0.0670	0	100.0	90	110	07/14/2021

Batch R294375 SampType: **MS** Units **mg/L**

SampID: 21070649-002HMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfide, Total - Colorimetric		0.05		0.06	0.0670	0	97.0	85	115	07/14/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

STANDARD METHODS 4500-S D (TOTAL) 2000

Batch R294375		SampType: MSD		Units mg/L			RPD Limit 15			
SampID: 21070649-002HMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfide, Total - Colorimetric		0.05		0.06	0.0670	0	97.0	0.06500	0.00	07/14/2021

SW-846 1020B

Batch R294330		SampType: LCS		Units °F			RPD Limit 5			
SampID: LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ignitability, Closed Cup		60		82	81.00	0	101.2	97	103	07/13/2021

Batch R294330		SampType: DUP		Units °F			RPD Limit 5			
SampID: 21070649-002CDUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Ignitability, Closed Cup		60		>200				0	0.00	07/13/2021

SW-846 9014 (REACTIVE)

Batch 179821		SampType: MBLK		Units mg/Kg			RPD Limit 5			
SampID: MBLK 210716 RCN										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Cyanide, Reactive		2.50		< 2.50	1.790	0	0	-100	100	07/16/2021

Batch 179821		SampType: LCS		Units mg/Kg			RPD Limit 5			
SampID: LCS 210716 RCN										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Cyanide, Reactive		5.00		7.50	10.00	0	75.0	38.7	116	07/16/2021

Batch 179821		SampType: DUP		Units mg/Kg			RPD Limit 15			
SampID: 21070649-002CDUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Cyanide, Reactive		2.50		< 2.50				0	0.00	07/16/2021

SW-846 9040B, LABORATORY ANALYZED

Batch R294319		SampType: LCS		Units			RPD Limit 5			
SampID: LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Lab pH		1.00		6.98	7.000	0	99.7	99.1	100.8	07/13/2021



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Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 9040B, LABORATORY ANALYZED

Batch R294319		SampType: DUP		Units		RPD Limit 10				
SampID: 21070649-002CDUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Lab pH		1.00		7.88				7.870	0.13	07/13/2021

SW-846 9066 (TOTAL)

Batch R294368		SampType: MBLK		Units mg/L						
SampID: ICB/MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Phenols		0.005		< 0.005	0.0028	0	0	-100	100	07/14/2021

Batch R294368		SampType: LCS		Units mg/L						
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Phenols		0.005		0.045	0.0500	0	90.4	90	110	07/14/2021

Batch R294368		SampType: MS		Units mg/L						
SampID: 21070649-002EMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Phenols		0.005	S	0.053	0.0500	0.01153	83.2	85	115	07/14/2021

Batch R294368		SampType: MSD		Units mg/L		RPD Limit 15				
SampID: 21070649-002EMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Phenols		0.005		0.055	0.0500	0.01153	86.8	0.05315	3.31	07/14/2021

Batch R294432		SampType: MBLK		Units mg/L						
SampID: ICB/MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Phenols		0.005		< 0.005	0.0028	0	0	-100	100	07/15/2021

Batch R294432		SampType: LCS		Units mg/L						
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Phenols		0.005		0.050	0.0500	0	99.3	90	110	07/15/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 9095

Batch R294258	SampType: DUP	Units Pass/Fail				RPD Limit 0				Date Analyzed
SampID: 21070649-002CDUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Paint Filter		0		Fail				0	0.00	07/13/2021

Batch R294258	SampType: DUP	Units Pass/Fail				RPD Limit 0				Date Analyzed
SampID: 21070649-003CDUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Paint Filter		0		Fail				0	0.00	07/13/2021

SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP

Batch 179785	SampType: MBLK	Units mg/L								Date Analyzed
SampID: MBLK-179785										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	
Arsenic		0.250		< 0.250	0.0870	0	0	-100	100	07/16/2021
Barium		0.450		< 0.450	0.1500	0	0	-100	100	07/16/2021
Cadmium		0.0200		< 0.0200	0.0050	0	0	-100	100	07/16/2021
Chromium		0.100		< 0.100	0.0340	0	0	-100	100	07/16/2021
Lead		0.400		< 0.400	0.0400	0	0	-100	100	07/16/2021
Selenium		0.500		< 0.500	0.1700	0	0	-100	100	07/16/2021
Silver		0.0700		< 0.0700	0.0270	0	0	-100	100	07/16/2021

Batch 179785	SampType: LCS	Units mg/L								Date Analyzed
SampID: LCS-179785										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	
Arsenic		0.250		5.52	5.000	0	110.5	85	115	07/16/2021
Barium		0.450		21.9	20.00	0	109.5	85	115	07/16/2021
Cadmium		0.0200		0.521	0.5000	0	104.2	85	115	07/16/2021
Chromium		0.100		2.07	2.000	0	103.7	85	115	07/16/2021
Lead		0.400		5.25	5.000	0	105.0	85	115	07/16/2021
Selenium		0.500		5.08	5.000	0	101.6	85	115	07/16/2021
Silver		0.0700		0.530	0.5000	0	106.0	85	115	07/16/2021



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Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP

Batch 179785		SampType: MS		Units mg/L						
SampID: 21070649-003AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic		0.250		5.49	5.000	0	109.9	75	125	07/16/2021
Barium		0.450		21.6	20.00	0	108.0	75	125	07/16/2021
Cadmium		0.0200		0.517	0.5000	0	103.4	75	125	07/16/2021
Chromium		0.100		2.05	2.000	0	102.4	75	125	07/16/2021
Lead		0.400		5.17	5.000	0	103.3	75	125	07/16/2021
Selenium		0.500		4.88	5.000	0	97.5	75	125	07/16/2021
Silver		0.0700		0.519	0.5000	0	103.8	75	125	07/16/2021

Batch 179785		SampType: MSD		Units mg/L							RPD Limit 20
SampID: 21070649-003AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Arsenic		0.250		5.33	5.000	0	106.5	5.493	3.11	07/16/2021	
Barium		0.450		20.9	20.00	0	104.5	21.60	3.29	07/16/2021	
Cadmium		0.0200		0.497	0.5000	0	99.4	0.5170	3.94	07/16/2021	
Chromium		0.100		1.98	2.000	0	99.0	2.048	3.33	07/16/2021	
Lead		0.400		4.98	5.000	0	99.6	5.165	3.61	07/16/2021	
Selenium		0.500		4.78	5.000	0	95.7	4.875	1.91	07/16/2021	
Silver		0.0700		0.499	0.5000	0	99.8	0.5190	3.93	07/16/2021	

SW-846 1311, 7470A IN TCLP EXTRACT

Batch 179751		SampType: MBLK		Units mg/L						
SampID: MBLK-179751										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	07/15/2021

Batch 179751		SampType: LCS		Units mg/L						
SampID: LCS-179751										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00522	0.0050	0	104.3	85	115	07/15/2021

Batch 179751		SampType: MS		Units mg/L						
SampID: 21070649-003AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		0.00503	0.0050	0	100.5	75	125	07/15/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 1311, 7470A IN TCLP EXTRACT

Batch 179751		SampType: MSD		Units mg/L			RPD Limit 15			
SampID: 21070649-003AMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020		0.00506	0.0050	0	101.2	0.005025	0.73	07/15/2021

SW-846 1311, 3510C, 8081B, CHLORINATED PESTICIDES IN TCLP EXTRACT BY GC/ECD

Batch 179817		SampType: MBLK		Units µg/L						
SampID: MBLK-179817										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
alpha-Chlordane		0.05		ND						07/19/2021
Endrin		0.05		ND						07/19/2021
gamma-BHC		0.05		ND						07/19/2021
gamma-Chlordane		0.05		ND						07/19/2021
Heptachlor		0.05		ND						07/19/2021
Heptachlor epoxide		0.05		ND						07/19/2021
Methoxychlor		0.05		ND						07/19/2021
Toxaphene		1.00		ND						07/19/2021
Chlordane		0.10		ND						07/19/2021
Surr: Decachlorobiphenyl	*			0.09	0.1250		75.7	33.5	139	07/19/2021
Surr: Tetrachloro-m-xylene	*			0.13	0.1250		102.0	45.8	130	07/19/2021

Batch 179817		SampType: LCS		Units µg/L						
SampID: LCSPST-179817										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
alpha-Chlordane		0.05		0.12	0.1250	0	99.8	64.3	150	07/19/2021
Endrin		0.05		0.11	0.1250	0	86.2	74.1	151	07/19/2021
gamma-BHC		0.05		0.11	0.1250	0	84.8	56.5	153	07/19/2021
gamma-Chlordane		0.05		0.12	0.1250	0	93.1	74.6	157	07/19/2021
Heptachlor		0.05		0.11	0.1250	0	85.2	61	154	07/19/2021
Heptachlor epoxide		0.05		0.11	0.1250	0	91.8	73.7	156	07/19/2021
Methoxychlor		0.05		0.13	0.1250	0	103.9	74.7	170	07/19/2021
Surr: Decachlorobiphenyl	*			0.10	0.1250		80.5	33.5	139	07/19/2021
Surr: Tetrachloro-m-xylene	*			0.13	0.1250		102.0	45.8	130	07/19/2021



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Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 1311, 3510C, 8081B, CHLORINATED PESTICIDES IN TCLP EXTRACT BY GC/ECD

Batch 179817		SampType: LCSD		Units µg/L				RPD Limit 30			Date Analyzed
SampID: LCSPSTD-179817											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
alpha-Chlordane		0.05		0.13	0.1250	0	106.7	0.1248	6.67	07/19/2021	
Endrin		0.05		0.12	0.1250	0	92.3	0.1078	6.77	07/19/2021	
gamma-BHC		0.05		0.11	0.1250	0	88.1	0.1061	3.80	07/19/2021	
gamma-Chlordane		0.05		0.12	0.1250	0	99.6	0.1164	6.73	07/19/2021	
Heptachlor		0.05		0.11	0.1250	0	91.5	0.1065	7.15	07/19/2021	
Heptachlor epoxide		0.05		0.12	0.1250	0	96.5	0.1148	4.96	07/19/2021	
Methoxychlor		0.05		0.14	0.1250	0	110.6	0.1299	6.17	07/19/2021	
Surr: Decachlorobiphenyl	*			0.11	0.1250		88.9			07/19/2021	
Surr: Tetrachloro-m-xylene	*			0.14	0.1250		108.0			07/19/2021	

Batch 179817		SampType: MS		Units mg/L				RPD Limit 30		Date Analyzed
SampID: 21070649-003AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
alpha-Chlordane		0.00050		0.00096	0.0012	0	76.7	60.5	155	07/19/2021
Endrin		0.00050		0.00082	0.0012	0	65.5	57.9	164	07/19/2021
gamma-BHC		0.00050		0.00101	0.0012	0	81.1	45.9	153	07/19/2021
gamma-Chlordane		0.00050		0.00088	0.0012	0	70.4	52.2	183	07/19/2021
Heptachlor		0.00050		0.00081	0.0012	0	64.5	52.5	157	07/19/2021
Heptachlor epoxide		0.00050		0.00089	0.0012	0	71.0	58.4	163	07/19/2021
Methoxychlor		0.00050		0.00098	0.0012	0	78.8	53.5	186	07/19/2021
Surr: Decachlorobiphenyl	*			0.00081	0.0012		65.1	13	162	07/19/2021
Surr: Tetrachloro-m-xylene	*			0.00120	0.0012		96.1	24.5	144	07/19/2021

Batch 179817		SampType: MSD		Units mg/L				RPD Limit 30			Date Analyzed
SampID: 21070649-003AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
alpha-Chlordane		0.00050		0.00094	0.0012	0	75.3	0.0009586	1.77	07/19/2021	
Endrin		0.00050		0.00084	0.0012	0	67.5	0.0008188	2.99	07/19/2021	
gamma-BHC		0.00050		0.00102	0.0012	0	81.7	0.001014	0.66	07/19/2021	
gamma-Chlordane		0.00050		0.00085	0.0012	0	67.7	0.0008795	3.89	07/19/2021	
Heptachlor		0.00050		0.00079	0.0012	0	63.3	0.0008062	1.81	07/19/2021	
Heptachlor epoxide		0.00050		0.00093	0.0012	0	74.7	0.0008871	5.17	07/19/2021	
Methoxychlor		0.00050		0.00099	0.0012	0	79.2	0.0009848	0.58	07/19/2021	
Surr: Decachlorobiphenyl	*			0.00101	0.0012		80.5			07/19/2021	
Surr: Tetrachloro-m-xylene	*			0.00120	0.0012		95.6			07/19/2021	



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Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 1311, 3510C, 8270C, SEMI-VOLATILES IN TCLP EXTRACT BY GC/MS

Batch 179786 **SampType: MBLK** **Units mg/L**
 SampID: MBLK-179786

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,4-Dichlorobenzene		0.010		ND						07/15/2021
1,4-Dichlorobenzene	*	0.010		ND						07/15/2021
2,4,5-Trichlorophenol		0.010		ND						07/15/2021
2,4,6-Trichlorophenol		0.010		ND						07/15/2021
2,4,6-Trichlorophenol		0.008		ND						07/15/2021
2,4-Dinitrotoluene		0.010		ND						07/15/2021
2,4-Dinitrotoluene		0.017		ND						07/15/2021
Hexachlorobenzene		0.010		ND						07/15/2021
Hexachlorobenzene		0.006		ND						07/15/2021
Hexachlorobutadiene		0.010		ND						07/15/2021
Hexachlorobutadiene		0.003		ND						07/15/2021
Hexachloroethane		0.010		ND						07/15/2021
Hexachloroethane		0.005		ND						07/15/2021
m,p-Cresol		0.010		ND						07/15/2021
m,p-Cresol	*	0.010		ND						07/15/2021
Nitrobenzene		0.010		ND						07/15/2021
Nitrobenzene		0.006		ND						07/15/2021
o-Cresol		0.010		ND						07/15/2021
o-Cresol	*	0.010		ND						07/15/2021
Pentachlorophenol		0.020		ND						07/15/2021
Pentachlorophenol		0.011		ND						07/15/2021
Pyridine		0.020		ND						07/15/2021
Pyridine	*	0.020		ND						07/15/2021
Surr: 2,4,6-Tribromophenol	*			0.052	0.0500		103.3	53.5	126	07/15/2021
Surr: 2,4,6-Tribromophenol	*			0.052	0.0500		103.3	53.5	126	07/15/2021
Surr: 2-Fluorobiphenyl	*			0.022	0.0250		89.6	49.4	110	07/15/2021
Surr: 2-Fluorobiphenyl	*			0.022	0.0250		89.6	49.4	110	07/15/2021
Surr: 2-Fluorophenol	*			0.038	0.0500		76.7	40	87.7	07/15/2021
Surr: 2-Fluorophenol	*			0.038	0.0500		76.7	40	87.7	07/15/2021
Surr: Nitrobenzene-d5	*			0.022	0.0250		89.0	44.7	115	07/15/2021
Surr: Nitrobenzene-d5	*			0.022	0.0250		89.0	15	314	07/15/2021
Surr: Phenol-d5	*			0.028	0.0500		55.2	27.6	66.3	07/15/2021
Surr: Phenol-d5	*			0.028	0.0500		55.2	8	424	07/15/2021
Surr: p-Terphenyl-d14	*			0.028	0.0250		111.1	10.5	141	07/15/2021
Surr: p-Terphenyl-d14	*			0.028	0.0250		111.1	10.5	141	07/15/2021



Quality Control Results

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Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 1311, 3510C, 8270C, SEMI-VOLATILES IN TCLP EXTRACT BY GC/MS

Batch 179786 **SampType: LCS** **Units mg/L**
 SampID: LCS-179786

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,4-Dichlorobenzene		0.010		0.042	0.0500	0	83.0	46.8	97.3	07/15/2021
1,4-Dichlorobenzene	*	0.010		0.042	0.0500	0	83.0	27.7	130	07/15/2021
2,4,5-Trichlorophenol		0.010		0.047	0.0500	0	94.6	51	129	07/15/2021
2,4,6-Trichlorophenol		0.010		0.051	0.0500	0	101.0	48.5	124	07/15/2021
2,4,6-Trichlorophenol		0.008		0.051	0.0500	0	101.0	52	129	07/15/2021
2,4-Dinitrotoluene		0.010		0.051	0.0500	0	102.1	65.3	114	07/15/2021
2,4-Dinitrotoluene		0.017		0.051	0.0500	0	102.1	48	127	07/15/2021
Hexachlorobenzene		0.010		0.050	0.0500	0	99.1	55.5	121	07/15/2021
Hexachlorobenzene		0.006		0.050	0.0500	0	99.1	8	142	07/15/2021
Hexachlorobutadiene		0.010		0.046	0.0500	0	92.4	47	115	07/15/2021
Hexachlorobutadiene		0.003		0.046	0.0500	0	92.4	38	120	07/15/2021
Hexachloroethane		0.005		0.046	0.0500	0	92.5	55	120	07/15/2021
Hexachloroethane		0.010		0.046	0.0500	0	92.5	50.4	103	07/15/2021
m,p-Cresol	*	0.010		0.045	0.0500	0	89.2	50.2	95.9	07/15/2021
m,p-Cresol		0.010		0.045	0.0500	0	89.2	49.4	97.9	07/15/2021
Nitrobenzene		0.010		0.046	0.0500	0	91.5	53.9	107	07/15/2021
Nitrobenzene		0.006		0.046	0.0500	0	91.5	54	158	07/15/2021
o-Cresol	*	0.010		0.043	0.0500	0	86.3	33.7	119	07/15/2021
o-Cresol		0.010		0.043	0.0500	0	86.3	50.5	106	07/15/2021
Pentachlorophenol		0.011		0.039	0.0500	0	78.5	38	152	07/15/2021
Pentachlorophenol		0.020		0.039	0.0500	0	78.5	37.7	111	07/15/2021
Pyridine		0.020		0.025	0.0500	0	50.2	18.2	86.2	07/15/2021
Pyridine	*	0.020		0.025	0.0500	0	50.2	19.9	83.4	07/15/2021
Surr: 2,4,6-Tribromophenol	*			0.054	0.0500		108.9	53.5	126	07/15/2021
Surr: 2,4,6-Tribromophenol	*			0.054	0.0500		108.9	53.5	126	07/15/2021
Surr: 2-Fluorobiphenyl	*			0.024	0.0250		96.4	49.4	110	07/15/2021
Surr: 2-Fluorobiphenyl	*			0.024	0.0250		96.4	49.4	110	07/15/2021
Surr: 2-Fluorophenol	*			0.039	0.0500		77.9	40	87.7	07/15/2021
Surr: 2-Fluorophenol	*			0.039	0.0500		77.9	40	87.7	07/15/2021
Surr: Nitrobenzene-d5	*			0.027	0.0250		109.1	44.7	115	07/15/2021
Surr: Nitrobenzene-d5	*			0.027	0.0250		109.1	15	314	07/15/2021
Surr: Phenol-d5	*			0.029	0.0500		57.5	8	424	07/15/2021
Surr: Phenol-d5	*			0.029	0.0500		57.5	27.6	66.3	07/15/2021
Surr: p-Terphenyl-d14	*			0.026	0.0250		104.3	10.5	141	07/15/2021
Surr: p-Terphenyl-d14	*			0.026	0.0250		104.3	10.5	141	07/15/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 1311, 3510C, 8270C, SEMI-VOLATILES IN TCLP EXTRACT BY GC/MS

Batch 179786	SampType: LCSD	Units mg/L		RPD Limit 40							
SampID: LCSD-179786											Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
1,4-Dichlorobenzene	*	0.010		0.045	0.0500	0	89.1	0.04150	0.00	07/15/2021	
1,4-Dichlorobenzene		0.010		0.045	0.0500	0	89.1	0.04150	7.07	07/15/2021	
2,4,5-Trichlorophenol		0.010		0.050	0.0500	0	99.6	0.04731	5.11	07/15/2021	
2,4,6-Trichlorophenol		0.010		0.053	0.0500	0	105.9	0.05052	4.66	07/15/2021	
2,4,6-Trichlorophenol		0.008		0.053	0.0500	0	105.9	0.05052	4.66	07/15/2021	
2,4-Dinitrotoluene		0.017		0.053	0.0500	0	105.4	0.05105	3.20	07/15/2021	
2,4-Dinitrotoluene		0.010		0.053	0.0500	0	105.4	0.05105	3.20	07/15/2021	
Hexachlorobenzene		0.010		0.052	0.0500	0	103.1	0.04956	3.90	07/15/2021	
Hexachlorobenzene		0.006		0.052	0.0500	0	103.1	0.04956	3.90	07/15/2021	
Hexachlorobutadiene		0.010		0.049	0.0500	0	97.9	0.04619	5.82	07/15/2021	
Hexachlorobutadiene		0.003		0.049	0.0500	0	97.9	0.04619	5.82	07/15/2021	
Hexachloroethane		0.010		0.049	0.0500	0	98.8	0.04623	6.61	07/15/2021	
Hexachloroethane		0.005		0.049	0.0500	0	98.8	0.04623	6.61	07/15/2021	
m,p-Cresol		0.010		0.048	0.0500	0	95.2	0.04462	6.44	07/15/2021	
m,p-Cresol	*	0.010		0.048	0.0500	0	95.2	0.04462	6.44	07/15/2021	
Nitrobenzene		0.010		0.049	0.0500	0	98.3	0.04576	7.16	07/15/2021	
Nitrobenzene		0.006		0.049	0.0500	0	98.3	0.04576	7.16	07/15/2021	
o-Cresol		0.010		0.046	0.0500	0	92.3	0.04313	6.81	07/15/2021	
o-Cresol	*	0.010		0.046	0.0500	0	92.3	0.04313	0.00	07/15/2021	
Pentachlorophenol		0.020		0.041	0.0500	0	82.3	0.03924	4.78	07/15/2021	
Pentachlorophenol		0.011		0.041	0.0500	0	82.3	0.03924	4.78	07/15/2021	
Pyridine	*	0.020		0.035	0.0500	0	69.1	0.02509	31.70	07/15/2021	
Pyridine		0.020		0.035	0.0500	0	69.1	0.02509	31.70	07/15/2021	
Surr: 2,4,6-Tribromophenol	*			0.053	0.0500		105.7			07/15/2021	
Surr: 2,4,6-Tribromophenol	*			0.053	0.0500		105.7			07/15/2021	
Surr: 2-Fluorobiphenyl	*			0.024	0.0250		96.9			07/15/2021	
Surr: 2-Fluorobiphenyl	*			0.024	0.0250		96.9			07/15/2021	
Surr: 2-Fluorophenol	*			0.041	0.0500		81.5			07/15/2021	
Surr: 2-Fluorophenol	*			0.041	0.0500		81.5			07/15/2021	
Surr: Nitrobenzene-d5	*			0.028	0.0250		111.0			07/15/2021	
Surr: Nitrobenzene-d5	*			0.028	0.0250		111.0			07/15/2021	
Surr: Phenol-d5	*			0.030	0.0500		60.1			07/15/2021	
Surr: Phenol-d5	*			0.030	0.0500		60.1			07/15/2021	
Surr: p-Terphenyl-d14	*			0.026	0.0250		102.0			07/15/2021	
Surr: p-Terphenyl-d14	*			0.026	0.0250		102.0			07/15/2021	

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 1311, 3510C, 8270C, SEMI-VOLATILES IN TCLP EXTRACT BY GC/MS

Batch 179786 **SampType:** MS

Units mg/L

SampID: 21070649-003AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,4-Dichlorobenzene	*	0.100		0.401	0.5000	0	80.2	42.2	93.9	07/15/2021
2,4,5-Trichlorophenol		0.100		0.476	0.5000	0	95.1	48.8	135	07/15/2021
2,4,6-Trichlorophenol		0.100		0.488	0.5000	0	97.5	49.1	133	07/15/2021
2,4-Dinitrotoluene		0.100		0.494	0.5000	0	98.7	57.2	125	07/15/2021
Hexachlorobenzene		0.100		0.479	0.5000	0	95.7	53.3	118	07/15/2021
Hexachlorobutadiene		0.100		0.449	0.5000	0	89.8	36.1	121	07/15/2021
Hexachloroethane		0.100		0.459	0.5000	0	91.7	39.9	102	07/15/2021
m,p-Cresol		0.100		0.438	0.5000	0	87.7	47.1	101	07/15/2021
Nitrobenzene		0.100		0.446	0.5000	0	89.1	48.5	108	07/15/2021
o-Cresol		0.100		0.432	0.5000	0	86.3	45.8	106	07/15/2021
Pentachlorophenol		0.200		0.355	0.5000	0	71.1	33.1	125	07/15/2021
Pyridine		0.200		0.317	0.5000	0	63.5	23.2	79.4	07/15/2021
Cresols, Total		0.200		0.870	1.000	0	87.0	45.8	104	07/15/2021
Surr: 2,4,6-Tribromophenol	*			0.495	0.5000		98.9	59.5	128	07/15/2021
Surr: 2-Fluorobiphenyl	*			0.220	0.2500		88.0	48.7	121	07/15/2021
Surr: 2-Fluorophenol	*			0.370	0.5000		74.0	34.5	88.2	07/15/2021
Surr: Nitrobenzene-d5	*			0.253	0.2500		101.1	36	119	07/15/2021
Surr: Phenol-d5	*			0.271	0.5000		54.3	27.4	65.7	07/15/2021
Surr: p-Terphenyl-d14	*			0.220	0.2500		88.1	34.8	130	07/15/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 1311, 3510C, 8270C, SEMI-VOLATILES IN TCLP EXTRACT BY GC/MS

Batch 179786		SampType: MSD		Units mg/L				RPD Limit 40			Date Analyzed
SampID: 21070649-003AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
1,4-Dichlorobenzene	*	0.100		0.382	0.5000	0	76.4	0.4008	4.78	07/15/2021	
2,4,5-Trichlorophenol		0.100		0.448	0.5000	0	89.6	0.4755	5.96	07/15/2021	
2,4,6-Trichlorophenol		0.100		0.457	0.5000	0	91.4	0.4876	6.46	07/15/2021	
2,4-Dinitrotoluene		0.100		0.481	0.5000	0	96.2	0.4937	2.59	07/15/2021	
Hexachlorobenzene		0.100		0.458	0.5000	0	91.7	0.4787	4.33	07/15/2021	
Hexachlorobutadiene		0.100		0.419	0.5000	0	83.8	0.4488	6.89	07/15/2021	
Hexachloroethane		0.100		0.437	0.5000	0	87.3	0.4587	4.94	07/15/2021	
m,p-Cresol		0.100		0.417	0.5000	0	83.4	0.4384	4.96	07/15/2021	
Nitrobenzene		0.100		0.422	0.5000	0	84.5	0.4457	5.34	07/15/2021	
o-Cresol		0.100		0.415	0.5000	0	83.0	0.4316	3.95	07/15/2021	
Pentachlorophenol		0.200		0.348	0.5000	0	69.7	0.3553	1.93	07/15/2021	
Pyridine		0.200		0.249	0.5000	0	49.8	0.3173	24.04	07/15/2021	
Cresols, Total		0.200		0.832	1.000	0	83.2	0.8700	4.45	07/15/2021	
Surr: 2,4,6-Tribromophenol	*			0.478	0.5000		95.5			07/15/2021	
Surr: 2-Fluorobiphenyl	*			0.210	0.2500		84.2			07/15/2021	
Surr: 2-Fluorophenol	*			0.356	0.5000		71.3			07/15/2021	
Surr: Nitrobenzene-d5	*			0.241	0.2500		96.5			07/15/2021	
Surr: Phenol-d5	*			0.260	0.5000		52.0			07/15/2021	
Surr: p-Terphenyl-d14	*			0.213	0.2500		85.0			07/15/2021	

SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD

Batch 179817		SampType: MBLK		Units µg/L						Date Analyzed
SampID: MBLK-179817										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		1.00		ND						07/16/2021
Aroclor 1221		1.00		ND						07/16/2021
Aroclor 1232		1.00		ND						07/16/2021
Aroclor 1242		1.00		ND						07/16/2021
Aroclor 1248		1.00		ND						07/16/2021
Aroclor 1254		1.00		ND						07/16/2021
Aroclor 1260		1.00		ND						07/16/2021
Surr: Decachlorobiphenyl	*			0.11	0.1250		88.6	27.5	143	07/16/2021
Surr: Tetrachloro-meta-xylene	*			0.14	0.1250		108.3	35.2	135	07/16/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 3510C, 8082, POLYCHLORINATED BIPHENYLS (PCBS) BY GC/ECD

Batch 179817 **SampType:** LCS **Units** µg/L
 SampID: LCSPCB-179817

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Aroclor 1016		1.00		2.24	2.500	0	89.5	56.2	136	07/16/2021
Aroclor 1260		1.00		2.23	2.500	0	89.2	42.1	125	07/16/2021
Surr: Decachlorobiphenyl	*			0.10	0.1250		81.5	27.5	143	07/16/2021
Surr: Tetrachloro-meta-xylene	*			0.13	0.1250		101.3	35.2	135	07/16/2021

Batch 179817 **SampType:** LCSD **Units** µg/L
 SampID: LCSPCBD-179817

RPD Limit 40

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Aroclor 1016		1.00		2.51	2.500	0	100.6	2.239	11.60	07/16/2021
Aroclor 1260		1.00		2.41	2.500	0	96.5	2.231	7.81	07/16/2021
Surr: Decachlorobiphenyl	*			0.11	0.1250		90.5			07/16/2021
Surr: Tetrachloro-meta-xylene	*			0.13	0.1250		105.0			07/16/2021

SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD

Batch 179766 **SampType:** MBLK **Units** µg/L
 SampID: MBLK-179766

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
2,4,5-T		0.20		ND						07/15/2021
2,4,5-TP (Silvex)		0.20		ND						07/15/2021
2,4-D		0.20		ND						07/15/2021
2,4-DB		0.20		ND						07/15/2021
3,5-Dichlorobenzoic Acid		0.20		ND						07/15/2021
4-Nitrophenol		0.30		ND						07/15/2021
Acifluorfen		0.20		ND						07/15/2021
Bentazon		0.30		ND						07/15/2021
Chloramben		0.20		ND						07/15/2021
Dalapon		1.30		ND						07/15/2021
DCPA		0.20		ND						07/16/2021
Dicamba		0.20		ND						07/15/2021
Dichlorprop		0.20		ND						07/15/2021
Dinoseb		0.20		ND						07/15/2021
MCPA		45.0		ND						07/15/2021
MCPP		30.0		ND						07/15/2021
Pentachlorophenol		0.10		ND						07/15/2021
Picloram		0.20		ND						07/15/2021
Surr: 2,4-Dichlorophenylacetic acid	*			0.57	0.8000		71.5	46	112	07/15/2021

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD

Batch 179766 **SampType:** LCS **Units** µg/L
SampID: LCS-179766

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
2,4,5-T		0.20		0.86	0.8000	0	107.9	72	130	07/15/2021
2,4,5-TP (Silvex)		0.20		0.79	0.8000	0	99.2	67.3	122	07/15/2021
2,4-D		0.20		0.78	0.8000	0	97.0	63.1	135	07/15/2021
2,4-DB		0.20		0.86	0.8000	0	107.7	67.5	140	07/15/2021
3,5-Dichlorobenzoic Acid		0.20		0.66	0.8000	0	82.2	46.3	107	07/15/2021
4-Nitrophenol		0.30		0.75	0.8000	0	93.9	58.3	120	07/15/2021
Acifluorfen		0.20		0.70	0.8000	0	86.9	57.7	107	07/15/2021
Bentazon		0.30		0.83	0.8000	0	103.1	74.7	139	07/15/2021
Chloramben		0.20		0.52	0.8000	0	65.5	9.53	113	07/15/2021
Dalapon		1.30		2.25	8.000	0	28.1	7.98	45.1	07/15/2021
D CPA		0.20		0.72	0.8000	0	90.3	66.1	128	07/16/2021
Dicamba		0.20		0.72	0.8000	0	90.1	58.2	111	07/15/2021
Dichlorprop		0.20		0.75	0.8000	0	94.2	63.5	121	07/15/2021
Dinoseb		0.20		0.70	0.8000	0	87.0	31.9	93.6	07/15/2021
M CPA		45.0		73.3	80.00	0	91.6	66.3	119	07/15/2021
M CPP		30.0		78.0	80.00	0	97.5	53.8	143	07/15/2021
Pentachlorophenol		0.10		0.72	0.8000	0	90.3	50.3	112	07/15/2021
Picloram		0.20		0.82	0.8000	0	102.2	59.8	132	07/15/2021
Surr: 2,4-Dichlorophenylacetic acid *				0.70	0.8000		86.9	46	112	07/15/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 3510C, 8151A, CHLORINATED HERBICIDES BY GC/ECD

Batch 179766		SampType: LCSD		Units µg/L			RPD Limit 30			
SampID: LCSD-179766										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
2,4,5-T		0.20		0.76	0.8000	0	94.5	0.8632	13.23	07/15/2021
2,4,5-TP (Silvex)		0.20		0.69	0.8000	0	86.2	0.7938	14.00	07/15/2021
2,4-D		0.20		0.70	0.8000	0	87.0	0.7762	10.96	07/15/2021
2,4-DB		0.20		0.74	0.8000	0	92.7	0.8617	15.03	07/15/2021
3,5-Dichlorobenzoic Acid		0.20		0.63	0.8000	0	78.6	0.6575	4.50	07/15/2021
4-Nitrophenol		0.30		0.67	0.8000	0	84.1	0.7510	11.04	07/15/2021
Acifluorfen		0.20		0.57	0.8000	0	71.5	0.6956	19.44	07/15/2021
Bentazon		0.30		0.72	0.8000	0	89.7	0.8251	13.97	07/15/2021
Chloramben		0.20		0.54	0.8000	0	67.7	0.5243	3.20	07/15/2021
Dalapon		1.30		2.39	8.000	0	29.9	2.247	6.25	07/15/2021
D CPA		0.20		0.76	0.8000	0	94.4	0.7221	4.47	07/16/2021
Dicamba		0.20		0.66	0.8000	0	82.9	0.7208	8.27	07/15/2021
Dichlorprop		0.20		0.68	0.8000	0	85.1	0.7536	10.14	07/15/2021
Dinoseb		0.20		0.60	0.8000	0	74.6	0.6963	15.37	07/15/2021
MCPA		45.0		69.3	80.00	0	86.6	73.27	5.58	07/15/2021
M CPP		30.0		74.4	80.00	0	93.0	77.99	4.75	07/15/2021
Pentachlorophenol		0.10		0.66	0.8000	0	83.0	0.7221	8.44	07/15/2021
Picloram		0.20		0.72	0.8000	0	90.3	0.8178	12.38	07/15/2021
Surr: 2,4-Dichlorophenylacetic acid *				0.65	0.8000		81.8			07/15/2021



Quality Control Results

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Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 1311, 5030, 8260B, VOLATILE ORGANIC COMPOUNDS IN TCLP EXTRACT BY GC/MS

Batch 179754		SampType: MS		Units mg/L							Date Analyzed
SampID: 21070649-003AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
1,1-Dichloroethene		0.200		5.18	5.000	0	103.5	69.3	133	07/14/2021	
1,2-Dichloroethane		0.200		4.85	5.000	0	96.9	79	117	07/14/2021	
1,4-Dichlorobenzene		0.200		4.87	5.000	0	97.4	78.3	109	07/14/2021	
2-Butanone		1.00		4.77	5.000	0	95.4	71.6	129	07/14/2021	
Benzene		0.050		4.94	5.000	0	98.8	78.9	118	07/14/2021	
Carbon tetrachloride		0.200		5.43	5.000	0	108.7	78.6	125	07/14/2021	
Chlorobenzene		0.200		5.11	5.000	0	102.1	84.7	110	07/14/2021	
Chloroform		0.200		5.19	5.000	0	103.8	80.9	117	07/14/2021	
Tetrachloroethene		0.050		5.05	5.000	0	101.0	75.2	112	07/14/2021	
Trichloroethene		0.200		5.07	5.000	0	101.3	80.4	121	07/14/2021	
Vinyl chloride		0.200		3.74	5.000	0	74.8	44.3	144	07/14/2021	
Surr: 1,2-Dichloroethane-d4	*			5.07	5.000		101.3	80	120	07/14/2021	
Surr: 4-Bromofluorobenzene	*			4.88	5.000		97.7	80	120	07/14/2021	
Surr: Dibromofluoromethane	*			5.11	5.000		102.2	80	120	07/14/2021	
Surr: Toluene-d8	*			4.92	5.000		98.4	80	120	07/14/2021	

Batch 179754		SampType: MSD		Units mg/L							RPD Limit 20	Date Analyzed
SampID: 21070649-003AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
1,1-Dichloroethene		0.200		4.99	5.000	0	99.8	5.176	3.70	07/14/2021		
1,2-Dichloroethane		0.200		4.74	5.000	0	94.7	4.846	2.30	07/14/2021		
1,4-Dichlorobenzene		0.200		4.76	5.000	0	95.3	4.869	2.20	07/14/2021		
2-Butanone		1.00		4.72	5.000	0	94.3	4.770	1.12	07/14/2021		
Benzene		0.050		4.76	5.000	0	95.2	4.939	3.67	07/14/2021		
Carbon tetrachloride		0.200		5.20	5.000	0	103.9	5.433	4.44	07/14/2021		
Chlorobenzene		0.200		4.96	5.000	0	99.1	5.107	3.02	07/14/2021		
Chloroform		0.200		5.04	5.000	0	100.7	5.192	3.03	07/14/2021		
Tetrachloroethene		0.050		4.92	5.000	0	98.4	5.049	2.63	07/14/2021		
Trichloroethene		0.200		4.91	5.000	0	98.1	5.067	3.21	07/14/2021		
Vinyl chloride		0.200		3.57	5.000	0	71.4	3.742	4.68	07/14/2021		
Surr: 1,2-Dichloroethane-d4	*			5.07	5.000		101.4			07/14/2021		
Surr: 4-Bromofluorobenzene	*			4.95	5.000		99.0			07/14/2021		
Surr: Dibromofluoromethane	*			5.10	5.000		102.0			07/14/2021		
Surr: Toluene-d8	*			4.92	5.000		98.4			07/14/2021		



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179754		SampType: MBLK		Units µg/L						
SampID: MBLK-AE210714A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1-Dichloroethene	*	2.0		ND						07/14/2021
1,2-Dichloroethane	*	2.0		ND						07/14/2021
1,4-Dichlorobenzene	*	2.0		ND						07/14/2021
2-Butanone	*	10.0		ND						07/14/2021
Benzene	*	0.5		ND						07/14/2021
Carbon tetrachloride	*	2.0		ND						07/14/2021
Chlorobenzene	*	2.0		ND						07/14/2021
Chloroform	*	2.0		ND						07/14/2021
Tetrachloroethene	*	0.5		ND						07/14/2021
Trichloroethene	*	2.0		ND						07/14/2021
Vinyl chloride	*	2.0		ND						07/14/2021
Surr: 1,2-Dichloroethane-d4	*			51.2	50.00		102.3	80	120	07/14/2021
Surr: 4-Bromofluorobenzene	*			48.6	50.00		97.3	80	120	07/14/2021
Surr: Dibromofluoromethane	*			50.5	50.00		100.9	80	120	07/14/2021
Surr: Toluene-d8	*			49.1	50.00		98.2	80	120	07/14/2021

Batch 179754		SampType: LCS		Units µg/L						
SampID: LCS-AE210714A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1-Dichloroethene	*	2.0		53.8	50.00	0	107.6	69.4	127	07/14/2021
1,2-Dichloroethane	*	2.0		51.4	50.00	0	102.9	72.3	117	07/14/2021
1,4-Dichlorobenzene	*	2.0		50.5	50.00	0	101.0	73.9	112	07/14/2021
2-Butanone	*	10.0		119	125.0	0	94.8	68.8	134	07/14/2021
Benzene	*	0.5		51.5	50.00	0	103.0	78.5	119	07/14/2021
Carbon tetrachloride	*	2.0		56.8	50.00	0	113.6	70.9	127	07/14/2021
Chlorobenzene	*	2.0		52.9	50.00	0	105.8	80	111	07/14/2021
Chloroform	*	2.0		58.1	50.00	0	116.3	76.2	120	07/14/2021
Tetrachloroethene	*	0.5	S	61.0	50.00	0	121.9	70.1	120	07/14/2021
Trichloroethene	*	2.0		55.7	50.00	0	111.3	76.2	121	07/14/2021
Vinyl chloride	*	2.0		46.1	50.00	0	92.2	58.6	141	07/14/2021
Surr: 1,2-Dichloroethane-d4	*			50.7	50.00		101.5	80	120	07/14/2021
Surr: 4-Bromofluorobenzene	*			49.1	50.00		98.3	80	120	07/14/2021
Surr: Dibromofluoromethane	*			51.2	50.00		102.3	80	120	07/14/2021
Surr: Toluene-d8	*			48.9	50.00		97.8	80	120	07/14/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 179754	SampType: LCSD	Units µg/L								RPD Limit 30.5	Date Analyzed
SampID: LCSD-AE210714A-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
1,1-Dichloroethene	*	2.0		52.1	50.00	0	104.2	53.82	3.27	07/14/2021	
1,2-Dichloroethane	*	2.0		50.5	50.00	0	101.0	51.44	1.86	07/14/2021	
1,4-Dichlorobenzene	*	2.0		49.7	50.00	0	99.4	50.48	1.54	07/14/2021	
2-Butanone	*	10.0		120	125.0	0	96.0	118.6	1.21	07/14/2021	
Benzene	*	0.5		50.0	50.00	0	100.0	51.49	2.96	07/14/2021	
Carbon tetrachloride	*	2.0		55.8	50.00	0	111.5	56.79	1.85	07/14/2021	
Chlorobenzene	*	2.0		51.7	50.00	0	103.4	52.90	2.26	07/14/2021	
Chloroform	*	2.0		57.4	50.00	0	114.9	58.14	1.23	07/14/2021	
Tetrachloroethene	*	0.5		57.6	50.00	0	115.2	60.95	5.69	07/14/2021	
Trichloroethene	*	2.0		54.0	50.00	0	107.9	55.67	3.10	07/14/2021	
Vinyl chloride	*	2.0		44.6	50.00	0	89.3	46.11	3.24	07/14/2021	
Surr: 1,2-Dichloroethane-d4	*			50.5	50.00		101.0			07/14/2021	
Surr: 4-Bromofluorobenzene	*			48.1	50.00		96.3			07/14/2021	
Surr: Dibromofluoromethane	*			51.5	50.00		102.9			07/14/2021	
Surr: Toluene-d8	*			48.9	50.00		97.8			07/14/2021	

SW-846 9020B

Batch R294564	SampType: MBLK	Units µg/L								Date Analyzed
SampID: 210719MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	
Total Organic Halides (TOX)		20.0		< 20.0						07/19/2021

Batch R294564	SampType: LCS	Units µg/L								Date Analyzed
SampID: 2107192LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	
Total Organic Halides (TOX)		20.0		51.4	50.00	0	102.9	60.2	147	07/19/2021

Batch R294564	SampType: LCS	Units µg/L								Date Analyzed
SampID: 210719LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	
Total Organic Halides (TOX)		20.0		49.4	50.00	0	98.7	60.2	147	07/19/2021

Batch R294564	SampType: MS	Units µg/L								Date Analyzed
SampID: 21070649-002DMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	
Total Organic Halides (TOX)		20.0		61.4	50.00	14.56	93.6	30.2	138	07/19/2021



Quality Control Results

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

SW-846 9020B

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Organic Halides (TOX)		20.0		< 20.0				14.56	0.00	07/19/2021



Receiving Check List

<http://www.teklabinc.com/>

Client: Burns & McDonnell Waste Consultants

Work Order: 21070649

Client Project: 128487 GSA

Report Date: 20-Jul-21

Carrier: Alec Rebbe

Received By: ERH

Completed by: (b) (6)

Reviewed by: (b) (6)

On:

On:

12-Jul-21

12-Jul-21

Mary E. Kemp

Shelly A. Hennessy

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes No Not Present Temp °C **1.8**
- Type of thermal preservation? None Ice Blue Ice Dry Ice
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Reported field parameters measured: Field Lab NA

Sample analyses to be measured in the field and/or within 15 minutes of collection were analyzed in the lab as soon as practicable. These analyses include Chlorine (demand, free and/or residual), Carbon Dioxide, Dissolved Oxygen, Ferrous Iron, pH, and Sulfite.

Container/Temp Blank temperature in compliance? Yes No

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

- Water – at least one vial per sample has zero headspace? Yes No No VOA vials
- Water - TOX containers have zero headspace? Yes No No TOX containers
- Water - pH acceptable upon receipt? Yes No NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes No NA

Any No responses must be detailed below or on the COC.

pH strip #75145. - MKemp - 7/12/2021 5:05:47 PM

Samples were split and preserved with nitric acid (77481) and sodium hydroxide/Zn acetate (76312/75536) upon arrival at the laboratory. - MKemp - 7/12/2021 5:05:59 PM

Trip Blank collection date and time will be reported as the received date and time (end of trip). - MKemp - 7/12/2021 5:07:05 PM

APPENDIX G – WASTE PROFILES, MANIFESTS, AND SCALE TICKETS



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of 1	x30
3. Generator's Mailing Address: GENERAL SERVICES ADMINISTRATION 4300 GOODFELLOW BLVD ST LOUIS MO 63120		Generator's Site Address (if different than mailing): GENERAL SERVICES ADMINISTRATION 4300 GOODFELLOW BLVD ST LOUIS MO 63120		A. Manifest Number WMNA	
4. Generator's Phone 816-391-8462		ST LOUIS CITY COUNTY		B. State Generator's ID	
5. Transporter 1 Company Name MIDWEST SANITARY SERVICES		6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 618-254-0171	
9. Designated Facility Name and Site Address NORTH / MILAM LANDFILL 597 / 601 MADISON RD EAST ST. LOUIS, IL 62201		10. US EPA ID Number		E. State Transporter's ID	
				F. Transporter's Phone	
				G. State Facility ID	
				H. State Facility Phone	
GENERATOR	11. Description of Waste Materials		12. Containers		13. Total Quantity
			No.	Type	14. Unit Wt./Vol.
	a. IDW SOIL CUTTINGS		01		
	WM Profile # 629841L				
	b.				
c.					
d.					
J. Additional Descriptions for Materials Listed Above		K. Disposal Location			
BILL TO: O6 ENVIRONMENTAL		Cell		Level	
15. Special Handling Instructions and Additional Information		Grid			
		Box# 20994			
Purchase Order # 15851		EMERGENCY CONTACT / PHONE NO.: 314-862-6671			
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.					
Printed Name		Signature "On behalf of"		Month	Day
NO SIGNATURE REQUIRED		NO SIGNATURE REQUIRED		8	9
				21	
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials		Signature		Month
	Printed Name Tyler Gresham	(b) (6)		8	9
				21	
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Month	Day
Printed Name					
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.				
Printed Name		Signature		Month	Day
NO SIGNATURE REQUIRED		NO SIGNATURE REQUIRED			
				8	9
				21	

TWO COPIES PER LOAD
Jerita Wright

(b) (6)



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of 1	1048					
3. Generator's Mailing Address: GENERAL SERVICES ADMINISTRATION 4300 GOODFELLOW BLVD ST LOUIS MO 63120		Generator's Site Address (If different than mailing): GENERAL SERVICES ADMINISTRATION 4300 GOODFELLOW BLVD ST LOUIS MO 63120		A. Manifest Number WMNA	B. State Generator's ID					
4. Generator's Phone 816-391-8462		ST LOUIS CITY COUNTY		C. State Transporter's ID			D. Transporter's Phone 618-254-0171			
5. Transporter 1 Company Name MIDWEST SANITARY SERVICES		6. US EPA ID Number		E. State Transporter's ID			F. Transporter's Phone			
7. Transporter 2 Company Name		8. US EPA ID Number		G. State Facility ID			H. State Facility Phone			
9. Designated Facility Name and Site Address NORTH / MILAM LANDFILL 597 / 601 MADISON RD EAST ST. LOUIS, IL 62201		10. US EPA ID Number								
11. Description of Waste Materials		12. Containers		13. Total Quantity	14. Unit Wt./Vol.	1. Misc. Comments				
a. IDW SOIL CUTTINGS WM Profile # 6298411L		No.	Type							
b.		01								
c.										
d.										
J. Additional Descriptions for Materials Listed Above		K. Disposal Location								
BILL TO: 06 ENVIRONMENTAL		Cell		Level						
Grid										
15. Special Handling Instructions and Additional Information										
Purchase Order # 15851 EMERGENCY CONTACT / PHONE NO.: 314-862-6671 <i>Box # 20977</i>										
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.										
Printed Name NO SIGNATURE REQUIRED		Signature "On behalf of" NO SIGNATURE REQUIRED			Month	Day	Year			
					8	9	21			
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed Name Tyler Gresham			Signature (b) (6)	Month	Day	Year		
					8	9	21			
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed Name			Signature	Month	Day	Year		
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.										
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.		Printed Name NO SIGNATURE REQUIRED TWO COPIES PER LOAD Jobita Wurst			Signature NO SIGNATURE REQUIRED (b) (6)			Month	Day	Year
					8	9	21			

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Milam RDF 1630450001
 601 Madison
 East St Louis, IL, 62201
 Ph: (618) 857-7167

Reprint
 Ticket# 1771601

Customer Name O6 ENVIRONMENTAL O6 ENVIRONME Carrier MW MIDWEST SANITARY SERVICE, INC.
 Ticket Date 08/09/2021 Vehicle# 6520L Volume 20.0
 Payment Type Credit Account Container
 Manual Ticket# Driver
 Hauling Ticket# Check#
 Route Billing # 0002321
 State Waste Code Gen EPA ID
 Manifest 830 Grid
 Destination NORTH MILAM 11946550
 PO
 Profile 629841IL (IDW SOIL CUTTINGS (WM012))
 Generator 180-GENERAL SVCS ST LOUIS MO GENERAL SERVICES ADM 4300 GOODFELLOW BLVD

	Time	Scale	Operator	Inbound	Gross	53900 lb
In	08/09/2021 08:30:26	SCALE 3	jwrigh27		Tare	33660 lb
Out	08/09/2021 08:56:57	SCALE 3	jwrigh27		Net	20240 lb
					Tons	10.12

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Declass Soil-Tons-	100	10.12	Tons			MO
2	EVF-P-Standard Env	100	%				MO
3	FUEL-Fuel Surcharg	100	%				MO
4	RCR-P-Regulatory C	100	%				MO
5	WWM-P-Waste Water	100	%				MO

Total Fees
 Total Ticket

Driver`s Signature



Milam RDF 1630450001
 601 Madison
 East St Louis, IL, 62201
 Ph: (618) 857-7167

Reprint
 Ticket# 1771690

Customer Name O6 ENVIRONMENTAL O6 ENVIRONME Carrier MW MIDWEST SANITARY SERVICE, INC.
 Ticket Date 08/09/2021 Vehicle# 6520L Volume 20.0
 Payment Type Credit Account Container
 Manual Ticket# Driver
 Hauling Ticket# Check#
 Route Billing # 0002321
 State Waste Code Gen EPA ID
 Manifest 1048 Grid
 Destination NORTH MILAM 11946550
 PO
 Profile 629841IL (IDW SOIL CUTTINGS (WM012))
 Generator 180-GENERAL SVCS ST LOUIS MO GENERAL SERVICES ADM 4300 GOODFELLOW BLVD

	Time	Scale	Operator	Inbound	Gross	46520 lb
In	08/09/2021 10:48:51	SCALE 3	jwrigh27		Tare	33660 lb
Out	08/09/2021 10:48:51		jwrigh27		Net	12860 lb
					Tons	6.43

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Declass Soil-Tons-	100	6.43	Tons			MO
2	EVF-P-Standard Env	100	%				MO
3	FUEL-Fuel Surcharg	100	%				MO
4	RCR-P-Regulatory C	100	%				MO
5	WWM-P-Waste Water	100	%				MO

Total Fees
 Total Ticket

Driver`s Signature



Requested Facility: Milam Landfill, North Milam Unsure Profile Number: _____
 Multiple Generator Locations (Attach Locations) Request Certificate of Disposal Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

- 1. Generator Name: General Services Administration
- 2. Site Address: 4300 Goodfellow Blvd
(City, State, ZIP) St. Louis, MO 63120
- 3. County: St. Louis City
- 4. Contact Name: Eric Gorman
- 5. Email: eric.gorman@gsa.gov
- 6. Phone: 816-391-8462 7. Fax: _____
- 8. Generator EPA ID: _____ N/A
- 9. State ID: _____ N/A

C. MATERIAL INFORMATION

- 1. Common Name: IDW Soil Cuttings
Describe Process(es) Generating Material: See Attached
Investigative Derived Waste from drilling operations.
- 2. Material Composition and Contaminants: See Attached

1. Soil	80-90
2. Poly Sheeting, PPE	10-20
3.	
4.	
Total comp. must be equal to or greater than 100% ≥100%	
- 3. State Waste Codes: _____ N/A
- 4. Color: Grey/Brown
- 5. Physical State at 70°F: Solid Liquid Other: _____
- 6. Free Liquid Range Percentage: _____ to _____ N/A
- 7. pH: 8.5 to 8.5 N/A
- 8. Strong Odor: Yes No Describe: _____
- 9. Flash Point: <140°F 140°-199°F ≥200° N/A

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

- 1. Analytical attached Yes
Please identify applicable samples and/or lab reports:
Teklab Work Order 21061102
- 2. Other information attached (such as MSDS)? Yes

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

I am an Authorized Agent signing on behalf of the Generator, and I have confirmed with the Generator that information contained in this profile, as well as supporting documents provided, are accurate and complete.

Name (Print): as agent of GSA, Eric Gorman Date: 6/30/2021
Title: Regional Environmental Manager
Company: GSA - General Services Administration

THINK GREEN®

B. BILLING INFORMATION

SAME AS GENERATOR

- 1. Billing Name: O6 Environmental LLC
- 2. Billing Address: 6311 Bartmer Industrial Drive
(City, State, ZIP) St. Louis, MO 63130
- 3. Contact Name: Andrew Polizzi
- 4. Email: a.polizzi@o6env.com
- 5. Phone: 314-210-6228 6. Fax: 314-862-6672
- 7. WM Hauled? Yes No
- 8. P.O. Number: 15851
- 9. Payment Method: Credit Account Cash Credit Card

D. REGULATORY INFORMATION

- 1. EPA Hazardous Waste? Yes* No
Code: _____
- 2. State Hazardous Waste? Yes No
Code: _____
- 3. Is this material non-hazardous due to Treatment, Delisting, or an Exclusion? Yes* No
- 4. Contains Underlying Hazardous Constituents? Yes* No
- 5. From an industry regulated under Benzene NESHAP? Yes* No
- 6. Facility remediation subject to 40 CFR 63 GGGGG? Yes* No
- 7. CERCLA or State-mandated clean-up? Yes* No
- 8. NRC or State-regulated radioactive or NORM waste? Yes* No
***If Yes, see Addendum (page 2) for additional questions and space.**
- 9. Contains PCBs? → If Yes, answer a, b and c. Yes No
 - a. Regulated by 40 CFR 761? Yes No
 - b. Remediation under 40 CFR 761.61 (a)? Yes No
 - c. Were PCB imported into the US? Yes No
- 10. Regulated and/or Untreated Medical/Infectious Waste? Yes No
- 11. Contains Asbestos? Yes No
→ If Yes: Non-Friable Non-Friable - Regulated Friable

F. SHIPPING AND DOT INFORMATION

- 1. One-Time Event Repeat Event/Ongoing Business
- 2. Estimated Quantity/Unit of Measure: 30
 Tons Yards Drums Gallons Other: _____
- 3. Container Type and Size: Roll Off
- 4. USDOT Proper Shipping Name: _____ N/A

Certification Signature

(b) (6)



Only complete this Addendum if prompted by responses on EZ Profile™ (page 1) or to provide additional information. Sections and question numbers correspond to EZ Profile™.

Profile Number: _____

C. MATERIAL INFORMATION

Describe Process Generating Material (Continued from page 1):

If more space is needed, please attach additional pages.

Material Composition and Contaminants (Continued from page 1):

If more space is needed, please attach additional pages.

5.	
6.	
7.	
8.	
9.	
Total composition must be equal to or greater than 100%	
	≥100%

D. REGULATORY INFORMATION

Only questions with a "Yes" response in Section D on the EZ Profile™ form (page 1) need to be answered here.

1. EPA Hazardous Waste

a. Please list all USEPA listed and characteristic waste code numbers:

b. Is the material subject to the Alternative Debris standards (40 CFR 268.45)? Yes No

c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)? → If Yes, complete question 4. Yes No

d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083)? Yes No

→ If Yes, please check **one** of the following:

Waste meets LDR or treatment exemptions for organics (40 CFR 264.1082(c)(2) or (c)(4))

Waste contains VOCs that average <500 ppmw (CFR 264.1082(c)(1)) – will require annual update.

2. State Hazardous Waste → Please list all state waste codes: _____

3. For material that is Treated, Delisted, or Excluded → Please indicate the category, below:

Delisted Hazardous Waste Excluded Waste under 40 CFR 261.4 → Specify Exclusion: _____

Treated Hazardous Waste Debris Treated Characteristic Hazardous Waste → If checked, complete question 4.

4. Underlying Hazardous Constituents → Please list all Underlying Hazardous Constituents:

5. Industries regulated under Benzene NESHAP include petroleum refineries, chemical manufacturing plants, coke by-product recovery plants, and TSDFs.

a. Are you a TSDF? → If yes, please complete Benzene NESHAP questionnaire. If not, continue. Yes No

b. Does this material contain benzene? Yes No

1. If yes, what is the flow weighted average concentration? _____ ppmw

c. What is your facility's current total annual benzene quantity in Megagrams? <1 Mg 1–9.99 Mg ≥10 Mg

d. Is this waste soil from a remediation? Yes No

1. If yes, what is the benzene concentration in remediation waste? _____ ppmw

e. Does the waste contain >10% water/moisture? Yes No

f. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw? Yes No

g. Is material exempt from controls in accordance with 40 CFR 61.342? Yes No

→ If yes, specify exemption: _____

h. Based on your knowledge of your waste and the BWON regulations, do you believe that this waste stream is subject to treatment and control requirements at an off-site TSDF? Yes No

6. 40 CFR 63 GGGGG → Does the material contain <500 ppmw VOHAPs at the point of determination? Yes No

7. CERCLA or State-Mandated clean up → Please submit the Record of Decision or other documentation with process information to assist others in the evaluation for proper disposal. A "Determination of Acceptability" may be needed for CERCLA wastes not going to a CERCLA approved facility.

8. NRC or state regulated radioactive or NORM Waste → Please identify Isotopes and pCi/g: _____

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Please print or type.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number <i>N/A</i>	2. Page 1 of <i>1</i>	3. Emergency Response Phone <i>844-862-6671</i>	4. Manifest Tracking Number 015911518 FLE				
5. Generator's Name and Mailing Address <i>Gen'l Servs. Administration 2300 Main St. FWD 7th Floor Kansas City, MO 64108</i>				Generator's Site Address (if different than mailing address) <i>4300 Goodfellow Blvd. St. Louis, MO 63120</i>					
Generator's Phone: <i>816-391-8462</i>		6. Transporter 1 Company Name <i>06 Environmental</i>		U.S. EPA ID Number <i>MOR000558734</i>					
7. Transporter 2 Company Name				U.S. EPA ID Number					
8. Designated Facility Name and Site Address <i>Illin. Environmental 8895 California Dr. Cokerville, IL</i>				U.S. EPA ID Number <i>ILR000107086</i>					
Facility's Phone: <i>618-397-1234</i>									
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		1. Non-RCRA Non-DOP, Non-Regulated Material (ION water)		No.	Type				
		2.		<i>01</i>	<i>TT</i>	<i>1,400</i>	<i>G</i>	<i>IL18</i>	
		3.							
		4.							
14. Special Handling Instructions and Additional Information <i>Invoice 06ENV SWH-5518-2 Approval 21-217-2</i>									
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.									
Generator's/Officer's Printed/Typed Name <i>Tracy Ann L. Wood</i>				Signature <i>(b) (6)</i>		Month Day Year <i>2 11 21</i>			
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____									
17. Transporter Acknowledgment of Receipt of Materials									
Transporter 1 Printed/Typed Name <i>Bass Sade</i>				Signature <i>(b) (6)</i>		Month Day Year <i>8 11 21</i>			
Transporter 2 Printed/Typed Name				Signature		Month Day Year			
18. Discrepancy									
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection									
18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number _____									
18c. Signature of Alternate Facility (or Generator) Month Day Year									
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)									
1. _____ 2. _____ 3. _____ 4. _____									
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a									
Printed/Typed Name <i>Bradley Klaus</i>				Signature <i>(b) (6)</i>		Month Day Year <i>8 11 21</i>			



ILLINI
Environmental, Inc.

8895 California Drive, PO Box 387
Caseyville, IL 62232
Phone: 618-397-1234
Fax: 618-397-3234

For Office Use Only	MGMT Code: LFB
Rec'd By: Jim	
Approved By: Tyler	(b) (6)
Approval Date: 8/4/2021	
Recert Date:	
Approval #: 21-217-2	

V.112019

GENERATOR INFORMATION (Material Origin)	
Generator Name:	General Services Administration
Generator Address:	2300 Main St., FMD 7th Floor - 6PM
Generator City:	Kansas City
Generator State:	MO
Generator Zipcode:	64108
Is the waste generated at the above address?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
If No, Please List Address:	4300 Goodfellow Blvd, St. Louis, MO 63120
Hours of Operation:	N/A
Contact Name:	Eric Gorman
Work Phone #:	816-391-8462
Cell Phone #:	
Fax Number:	
Email:	eric.gorman@gsa.gov
Generator EPA ID:	N/A
Generator State ID:	N/A
Site Location ID Number (if different from above):	

BILLING INFORMATION (same as above) <input type="checkbox"/>	TRANSPORTER INFORMATION
Billing Name: O6 Environmental Services LLC	Name: O6 Environmental Services LLC
Address: 6311 Bartmer Industrial Drive	Address: 6311 Bartmer Industrial Drive
City: St. Louis State: MO Zip: 63130	City: St. Louis State: MO Zip: 63130
Contact Name: Andrew Polizzi	US EPA Hauler ID #: MOR000558734
Phone Number: 314-862-6671	IL SWH ID#: 5518-1
Fax Number: 314-862-6672	Sales Representative: Andrew Polizzi
Email: a.polizzi@o6env.com	Contact Number: 314-862-6671
P.O. Number: 177063 N/A <input type="checkbox"/>	Email: a.polizzi@o6env.com

CHARACTERIZATION OF MATERIAL / WASTE (Material Information)	
Name of Material / Waste:	IDW Water
Process Generating Material / Waste:	Sampling
Physical State: Liquid: <input checked="" type="checkbox"/> Solid: <input type="checkbox"/> Sludge: <input type="checkbox"/> Powder: <input type="checkbox"/> Other: <input type="checkbox"/>	
Viscosity: Low: <input checked="" type="checkbox"/> Med: <input type="checkbox"/> High: <input type="checkbox"/> N/A: <input type="checkbox"/>	Odor: Mild <input type="checkbox"/> Strong <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Free Liquids: Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> Free Liquids: 100	Is the pH within Illini's 3 - 11 range?
Specific Gravity:	Total Solids: 0
Layering: Single: <input checked="" type="checkbox"/> Bi-layer: <input type="checkbox"/> Multi: <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No (please explain) <input type="checkbox"/>
Color: Brown	Flash Point: Exact: _____
	<73°: <input type="checkbox"/> 73° - <140°: <input type="checkbox"/> >140°: <input checked="" type="checkbox"/>

NON-HAZARDOUS WASTE CODES	
Each waste stream itemized on the e-manifest is to be accompanied by a waste code. Non-hazardous special waste codes to be used are identified below. Please check which code applies to the waste stream being identified above.	
IL01 - Leaking underground storage tank contaminated soil, sand and clay	<input type="checkbox"/>
IL02 - Other contaminated soil, sand and clay	<input type="checkbox"/>
IL03 - Other contaminated materials	<input type="checkbox"/>
IL04 - PCB solids such as capacitors/carcasses	<input type="checkbox"/>
IL05 - PCB liquids such as transformer & capacitor oils	<input type="checkbox"/>
IL06 - Lab packs	<input type="checkbox"/>
IL07 - Leachate	<input type="checkbox"/>
IL08 - Ashes, incinerator or boiler	<input type="checkbox"/>
IL09 - Municipal WW treatment sludges	<input type="checkbox"/>
IL10 - Industrial WW treatment sludges	<input type="checkbox"/>
IL11 - Food processing waste, off-spec food products	<input type="checkbox"/>
IL12 - Antifreeze	<input type="checkbox"/>
IL13 - Waste/used oil	<input type="checkbox"/>
IL14 - Other organic liquids	<input type="checkbox"/>
IL15 - Other organic solids or sludges	<input type="checkbox"/>
IL16 - Liquids with other metals	<input type="checkbox"/>
IL17 - Solids or sludges with other metals	<input type="checkbox"/>
IL18 - Other inorganic liquids	<input checked="" type="checkbox"/>
IL19 - Other inorganic solids or sludges	<input type="checkbox"/>
IL20 - Containerized gas	<input type="checkbox"/>
IL21 - Household hazardous waste from collections	<input type="checkbox"/>

GENERATOR CERTIFICATION:		
Does this waste contain any of the following? (Check All That Apply):		
PCBs <input type="checkbox"/>	Radioactive <input type="checkbox"/>	Benzene <input type="checkbox"/>
Asbestos <input type="checkbox"/>	Listed Waste <input type="checkbox"/>	Reactive Cyanide/Sulfide <input type="checkbox"/>
Explosives <input type="checkbox"/>	Pesticide <input type="checkbox"/>	Infectious/Sanitation Waste <input type="checkbox"/>

Halogens <input type="checkbox"/>	Herbicide <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>
Phenolics <input type="checkbox"/>	TCLP Toxics <input type="checkbox"/>	
Is the waste represented by the profile a Hazardous Waste? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
How has the generator determined this waste material? (Check all that apply)		
Generator Knowledge <input checked="" type="checkbox"/>	MSDS (attached) <input type="checkbox"/>	Analytical (Attached) <input checked="" type="checkbox"/> No Attachments <input type="checkbox"/>
Are there any specific disposal restrictions / handling requirements / requests / exemptions? Explain.		
<p>I hereby confirm that I am familiar with the information contained in this and attached documents. The information contained herein is true, accurate and complete. No material fact has been omitted as to make this information misleading. I understand that others may rely on these representations for the safe and legal handling and processing of the materials described herein. I certify that the sample (if submitted) is representative of the actual material in all respects. I will notify Illini Environmental, Inc, in writing, of any waste generating process changes and/or changes to the aboved profiled material prior to shipment. As Generator or Generator's representative, I understand there may be significant penalties for misrepresenting or failure to correctly identify a waste's characteristics.</p>		
<small>DocuSigned by:</small> <div style="background-color: black; color: red; padding: 2px;">(b) (6)</div> <small>E271CF3D6C8E42E</small>	8/3/2021	
SIGNATURE (type name for e-signature)	DATE	
On behalf of GSA, Eric Gorman	GSA - General Services Administration	
PRINT NAME	COMPANY / TITLE	

NOTES

- * All fields are required to be completed before an approval is granted.
- * A sample with all profiles is preferred, but not required. The only time a sample would be required is at the Technical Service Manager's request.
- * A complete and executed copy of the profile must be obtained prior to delivering material to Illini Environmental, Inc.
- * Profiles cannot be approved without all necessary federal and state ID #s issued.
- * This profile will expire one year from the day that it is approved at Illini Environmental, Inc.
- * THE INFORMATION CONTAINED HEREIN SHALL BE INCORPORATED BY REFERENCE IN AND SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED IN THE SIGNED, APPROVED "PROPOSAL".



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