

Site Investigation Report
Fort Collins Tank Battery
Fort Collins, Colorado

September 16, 2015

Prepared for:

Memorial Resource Development

Prepared by:

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1 Introduction

Talon/LPE (Talon) was contracted by Memorial Resource Development (Memorial) to perform a site investigation including installing soil borings and groundwater monitoring wells. The Site, known as Fort Collins Tank Battery facility (Site) is located in the northwest quarter of the northwest quarter, Section 30 of Township 8 North and Range 68 West in Larimer County, Colorado.

2 Objective

The primary objective of this document is to report on Site activities which occurred during August 2015, including drilling soil borings, installing monitoring wells, and groundwater monitoring. This site investigation is to determine the nature and extent of a release which occurred in May 2015.

3 Site Characteristics

3.1 Geography

The Site is located in the Larimer County, which is the north-central part of Colorado. The Site topography is relatively flat with the exception of an open excavation from previous investigation and remediation activities.

3.2 Geologic Summary

Surficial geology surrounding the area consists of Tertiary age fluvial deposits of the lower Ogallala Formation. More specifically, these deposits are Miocene in age and are composed of gray to brown and semi-consolidated, ashy sands and silt beds with volcanic ash beds. Deposited material hardened into sandstone and siltstone which are grouped into three formations: White River, Arikaree, and Ogallala.

3.3 Groundwater

Based on the newly installed groundwater monitoring wells, groundwater flow has been measured to flow to the south. Once static water levels were achieved, depth to water was observed between 19.00 ft bgs in MW-07 to 25.00 ft bgs in MW-03.

4 Site History

According to COGCC Form 19, an oil stain was discovered on the ground surface on May 16, 2015 during a daily site inspection. The leak was determined to be from the 3-inch diameter production flowline, located near the oil production tanks of the Site. All wells connected to the flowline were shut in, stopping any active flow in the line. On May 17, 2015, line locates were performed, followed by excavation activities on May 18, 2015. Excavation activities exposed a leak due to corrosion in a 3-inch threaded pipe connection. A hydrovac truck evacuated liquids and slurry. An estimated five barrels (bbls) were spilled. The Form 19 reports that additional soil is planned to be removed and the section of flowline will be replaced.

On May 26, 2015, a supplemental Form 19 was received by the COGCC. This Form noted that during excavation activities associated with the spill, a backhoe pierced a 3-inch diameter poly flowline containing produced water and oil. Approximately 9.8 bbls of produced water and 0.2 bbls of oil were released into the existing excavation. A hydrovac truck was able to recover the fluids and wash down the oil film left on the floor and wall of the excavation. Production of the affected portion of the field was shut in and a 3-inch diameter compression clamp was installed. On May 22, 2015, soil samples were collected from the excavation from the west wall at 6 ft bgs, north wall at 6.5 ft bgs, south wall at 7 ft bgs, east wall at 7 ft bgs, and the bottom at 11 ft bgs. The collected soil samples were submitted to Technology Laboratory, Inc. in Fort Collins, Colorado for analysis of Total Petroleum Hydrocarbons (TPH) via Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) method SW8015, and benzene, ethylbenzene, toluene, and total xylenes (BTEX) via method SW8260.

Analytical results are summarized in Table 2 in Attachment 2. Analytical results for benzene were above COGCC Table 910-1 concentration levels in soil samples collected from the south wall (1.22 mg/kg), east wall (1.92 mg/kg), and bottom of the excavation (0.49 mg/kg). Analytical results for TPH were above COGCC Table 910-1 concentration levels in soil samples collected from the south wall (980 mg/kg), west wall (1,148 mg/kg), north wall (1,576 mg/kg) and bottom of the excavation (7,976 mg/kg). All remaining analytical results were below COGCC Table 910-1 concentration levels.

On May 28, 2015, COGCC received another Form 19 which describes another release. During a daily site visit, the Production Superintendent noted steam at the location. Upon further inspection, he observed production water in the excavation described above, which was now measuring 20 ft by 20 ft by 11 ft (depth). The production water filled the extent of excavation and had overflowed to the southeast side of the location. The wells associated with the flowline were shut in. A vacuum truck recovered the approximately 440 bbls of the estimated 450 bbls of produced water, including 0.1 bbls of oil. All fluid was disposed at an off-site disposal facility. It was determined that a 3-inch diameter connection on the produced water production line had failed.

5 Field Activities Performed by Talon

Talon was contracted by Memorial to further delineate any remaining impacts from the incidents above. The original scope of work included six soil borings, with three of those borings being converted to monitoring wells. Talon performed a search of nearby water wells and estimated the anticipated depth to water to be approximately 25 ft bgs.

5.1 Drilling and Well Installation

On August 11 through August 13, 2015, Talon personnel performed drilling and well installation activities for nine monitoring wells as shown on Figure 1 in Attachment 1.

Prior to drilling activities, borehole clearance was performed by SafeSite Utility Field Services of Loveland, Colorado via hydrovac technology. Each boring was cleared to a minimum depth of six ft bgs and visually inspected for the presence of utilities.

Each boring was drilled using hollow-stem auger (HSA) technology with a 8.25-inch diameter

auger. During field drilling activities, soil samples were field screened for volatile organic compounds (VOCs) using a photoionization detector (PID) to determine any areas of impacts. Boring logs detailing observed lithology and PID values are included in Attachment 3. Well completion logs are included in Attachment 3 and summarized on Table 1. Based on observations and PID readings, it was determined in the field that the locations of the original six soil borings would not completely delineate the extent of impacts. Therefore, three additional soil borings were added to the scope of work. Additionally, all nine borings were converted to groundwater monitoring wells.

Following drilling activities, each monitoring well was constructed using 2-inch Schedule (Sch) 40 PVC, with a 0.001-inch slotted screen. The casing and screen were centered in the borehole and the annular space was filled with 8/16 silica sand to 2 ft above the top of screen, followed by bentonite chips to 2 ft bgs, then concrete to the surface. Each surface completion was constructed with a flush-mounted well vault in a concrete pad to prevent impedance of vehicle traffic.

5.2 Soil Sampling

Up to five soil samples were collected at depths ranging from 5-10 ft bgs to 25-30 ft bgs from each of the nine borings based on PID readings and field observations. The collected samples were analyzed for TPH via GRO and DRO method SW8015, and BTEX via method SW8260 at ALS Environmental (ALS) in Fort Collins, Colorado. A copy of the laboratory report and chain of custody documentation is included in Attachment 4.

All soil sample analytical results (Table 2 in Attachment 2) for BTEX and TPH were below laboratory reporting limits or COGCC Table 910-1 concentration levels with the exception of the following:

- SB-02 (MW-02) at 20-25 ft bgs: Benzene (0.22 mg/kg) and TPH (2,180 mg/kg) were above COGCC Table 910-1 concentration levels.
- SB-02 (MW-02) at 25-30 ft bgs: TPH (1,638 mg/kg) was above COGCC Table 910-1 concentration levels
- SB-05 (MW-05): TPH at 10-15 ft bgs (1,724 mg/kg) and 15-20 ft bgs (706 mg/kg) were above COGCC Table 910-1 concentration levels.

5.3 Monitoring Well Development and Groundwater Sampling

On August 17, 2015, Talon personnel performed well development on the nine monitoring wells using pump and purge technique. Monitoring wells MW-02 and MW-03 were purged utilizing a dedicated disposable bailer due to the presence of free product in the wells. For the remaining wells, a submersible pump was used to overpurge the wells until the water is running clear with low turbidity readings, or until the well became dry.

On August 18, 2015, Talon personnel collected groundwater samples from each of the monitoring wells except MW-02 and MW-03 due to the presence of free product. Since wells were sampled within 24 hours of well development, the wells were not purged prior to sampling as the recharge water is representative of the formation. The collected samples were analyzed for BTEX via method SW8260 at ALS. All analytical results for the groundwater samples were below laboratory detection limits. A copy of the laboratory report and chain of custody

documentation is included in Attachment 4.

5.4 Surveying

Talon contracted King Surveyors of Fort Collins, Colorado to perform the professional survey of the newly installed monitoring wells. King Surveyors performed the survey by measuring latitude, longitude, elevation of ground surface, and elevation of the top of casing of each observation well (Table 1 in Attachment 2).

5.5 Product Removal

Due to the presence of product in monitoring wells MW-02 and MW-03, Talon recommended to Memorial to perform active product removal activities. On August 27, 2015, Talon oversaw Basic Energy Services (Basic) during a well vacuum event. Talon personnel utilized an interface probe to measure the depth to product and depth to water in each of the monitoring wells. A flexible tube was inserted into the wells and connected to the vacuum truck. The vacuum was turned on and removed product and water from the well. Each well was vacuumed dry then allowed to recover. The process was repeated in each well until the amount of product recovery was minimized.

Memorial personnel continued product removal on MW-02 and MW-03 via hand-bailing daily. All waste produced by hand-bailing was stored onsite in 55-gallon drums within a containment unit. Talon personnel utilized an interface probe to measure the amount of product in the drum(s) on a weekly basis.

On September 16, 2015, Talon personnel oversaw Basic for a second well vacuum event. Talon personnel measured depth to product and depth to water in MW-02 and MW-03 prior to the product removal activities. A flexible tube was then inserted into MW-03 at the approximate product-groundwater interface. The vacuum was left in the well for one hour then the process was repeated on MW-02. Basic also removed the product and groundwater which was stored onsite in drums.

Memorial personnel will continue product removal via daily hand-bailing.

6 Investigative-Derived Waste

Soil waste produced during the investigation was placed in a stockpile onsite. Talon will perform soil shredding on this soil to remediate it to below COGCC Table 910-1 concentration levels.

All purge water generated from well development activities was collected in 55-gallon drums and stored onsite pending laboratory analysis of the groundwater.

During the vacuum event, the product and water was removed into the vacuum truck. At the end of the first vacuum event, the vacuum truck also removed all the purge water generated during the well development activities. The vacuum truck was then evacuated into the Memorial process facility for treatment.

All waste produced by hand-bailing will be stored onsite in 55-gallon drums within a

containment unit until it was vacuumed out and evacuated into the Memorial facility.

7 Summary and Recommendations

During August 2015, Talon installed nine soil borings and monitoring wells, and collected soil and groundwater samples from the Fort Collins Tank Battery facility.

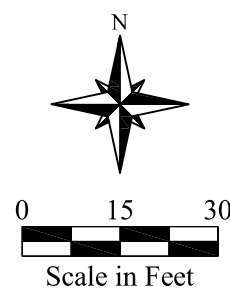
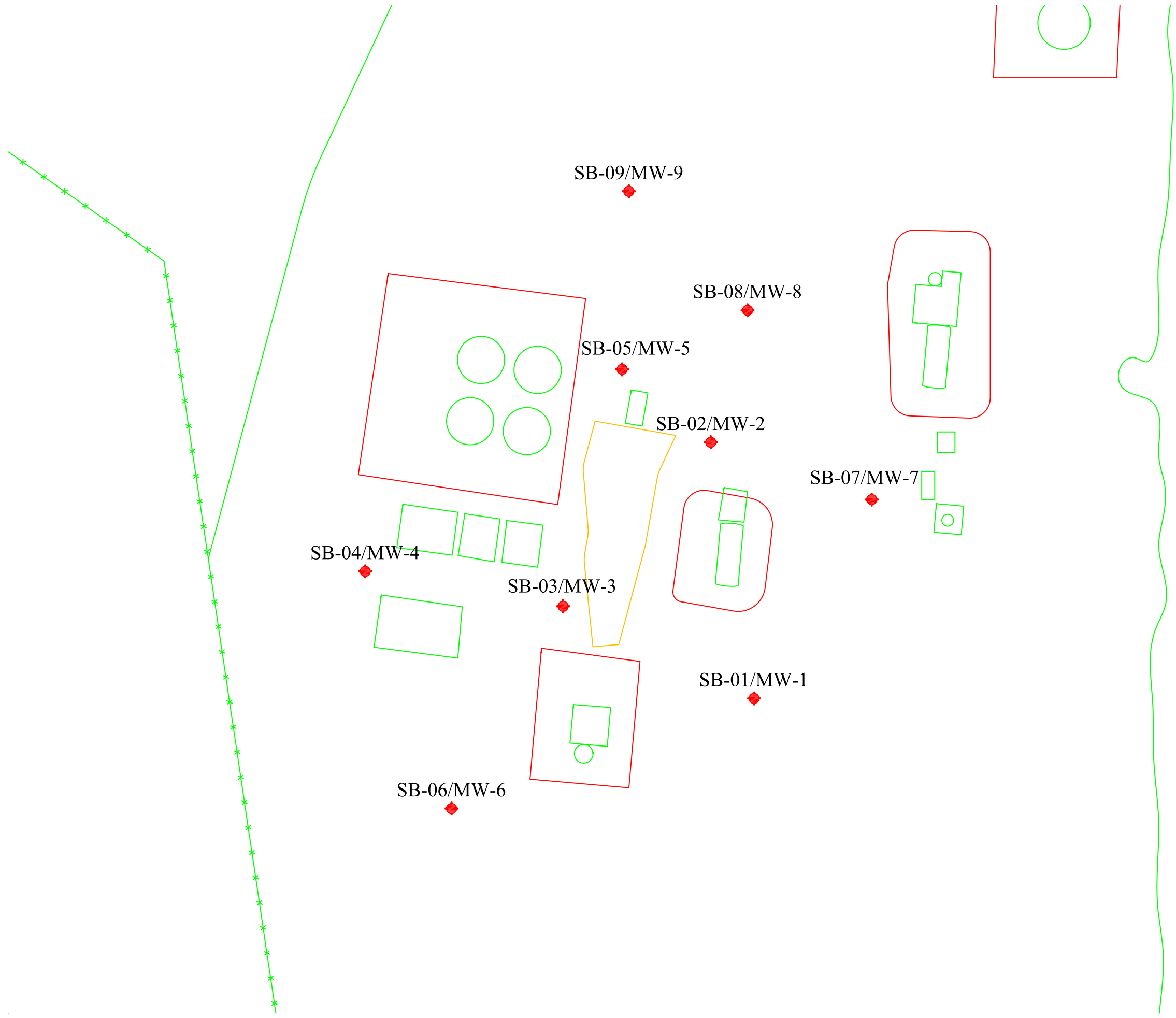
Analytical results for benzene were above COGCC Table 910-1 concentration level in the soil sample collected from SB-02 (MW-02) at 20-25 ft bgs with a benzene concentration of 0.22 mg/kg. Analytical results for TPH were above COGCC Table 910-1 concentration level in the soil samples collected from SB-02 at 20-25 ft bgs (2,180 mg/kg) and 25-30 ft bgs (1,638 mg/kg) as well as SB-05 at 10-15 ft bgs (1,724 mg/kg) and 15-20 ft bgs (706 mg/kg). All remaining soil analytical results were below either laboratory detection limits or COGCC Table 910-1 concentration levels.

All wells were professionally surveyed by a licensed surveyor. Groundwater samples were not collected from monitoring wells MW-02 and MW-03 due to the presence of free product. All groundwater samples collected from the remaining wells exhibited concentrations below laboratory reporting limits, or COGCC Table 910-1 concentration levels.

Free product removal was performed on monitoring wells MW-02 and MW-03 and will continue daily as needed. Talon recommends continuing product removal activities until product levels are no longer measurable within the wells.

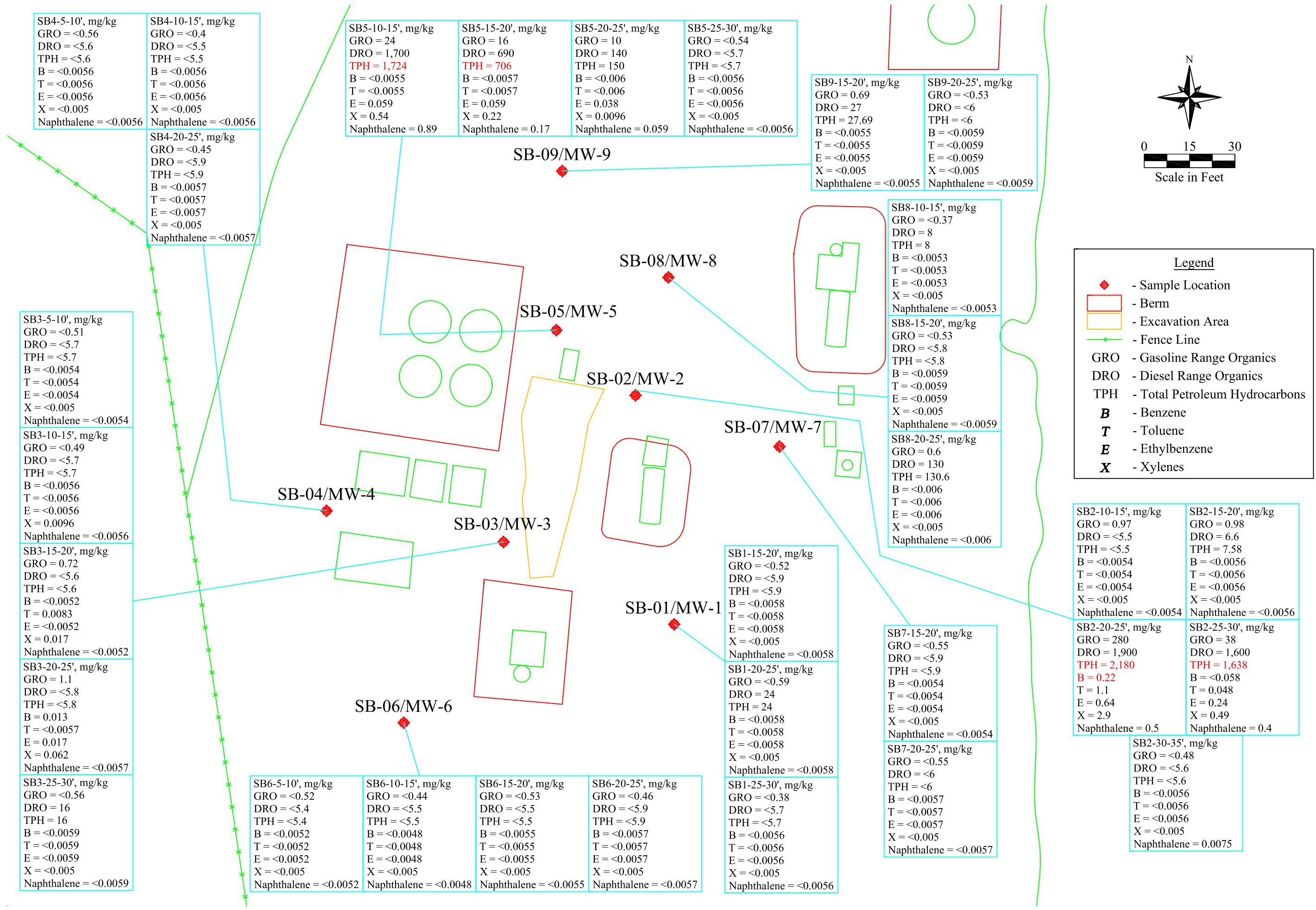
Talon will continue quarterly monitoring at the Site. The next sampling event is anticipated to occur in November 2015.

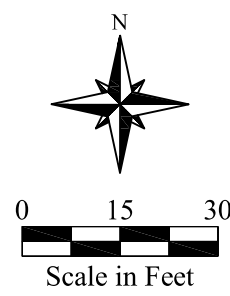
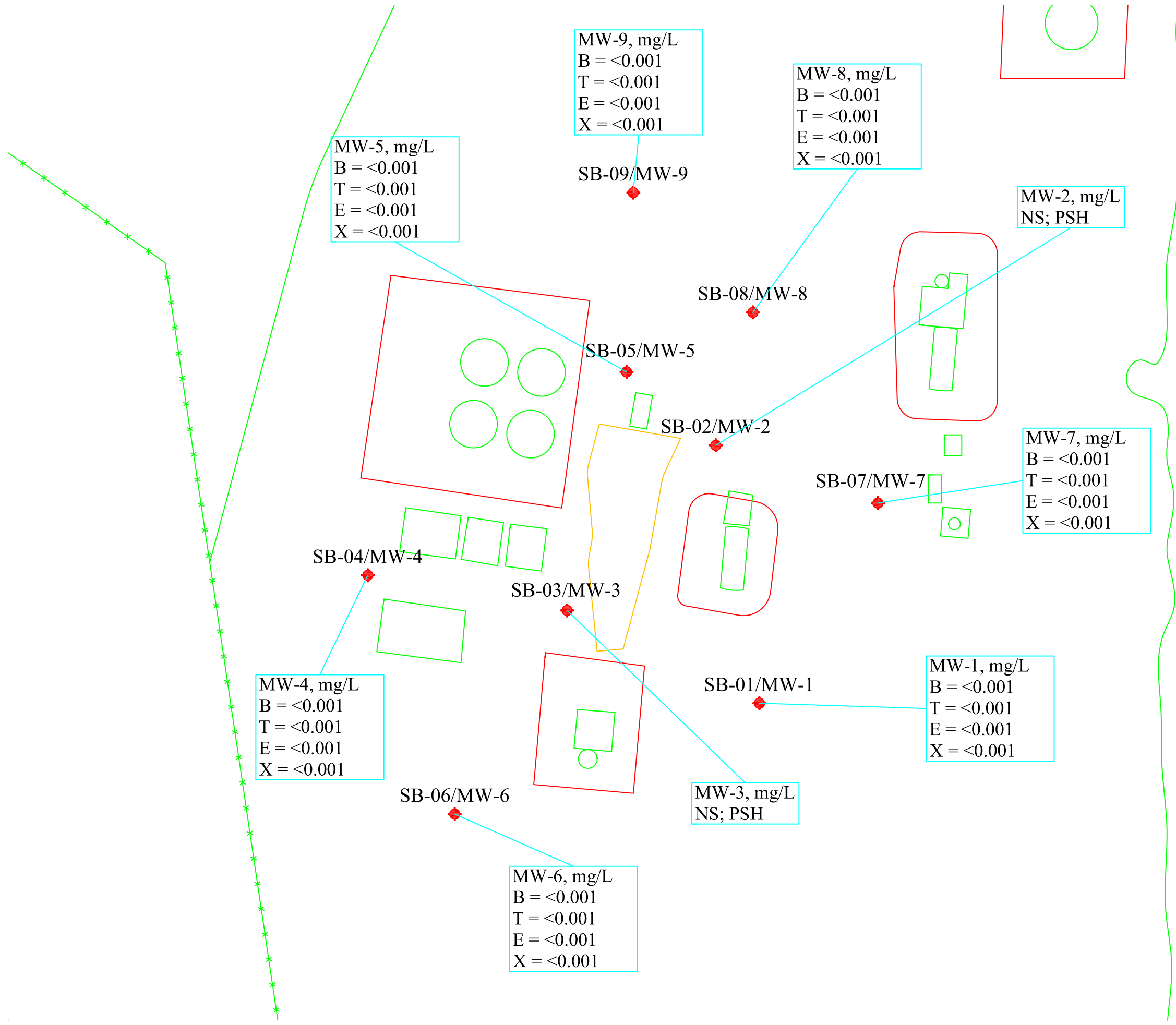
Attachment 1
Figures



Legend


- Sample Location
- Berm
- Excavation Area
- Fence Line





Legend

- Sample Location
- Berm
- Excavation Area
- Fence Line
- NS - Not Sampled
- PSH - Phase Separated Hydrocarbons
- B** - Benzene
- T** - Toluene
- E** - Ethylbenzene
- X** - Xylenes

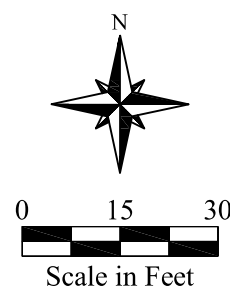
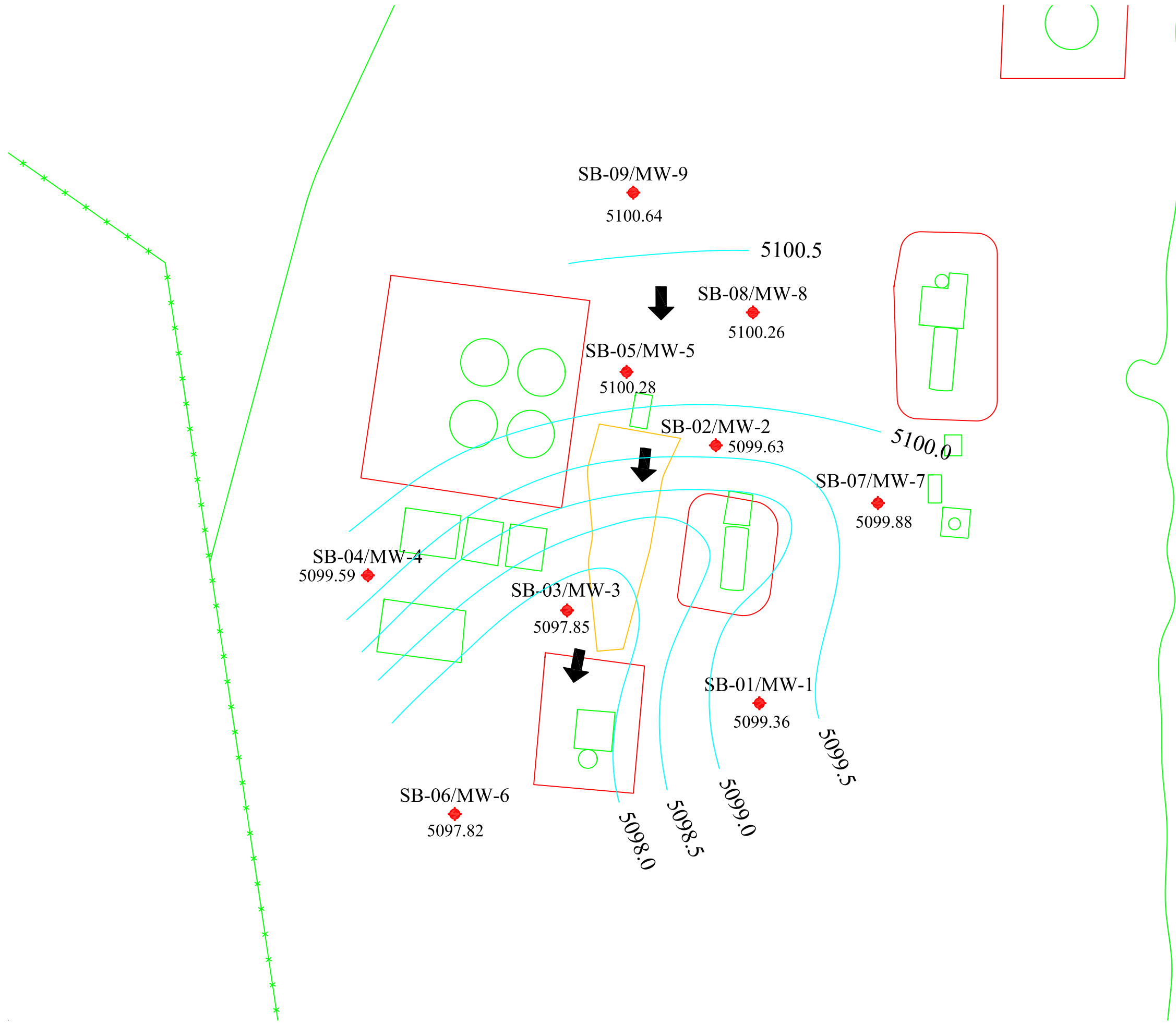


TALON LPE

FTC Battery
Memorial Resource Development
Larimer County, Colorado

Figure 3 - Groundwater Contaminant Concentration Map (08/18/2015)

Date: 09/16/2015
Scale: 1" = 30'
Drawn By: SMM



Legend

- Sample Location
- Berm
- Excavation Area
- Fence Line
- Groundwater Gradient Contour Line
- Groundwater Gradient Elevation
- Groundwater Flow Direction

FTC Battery
 Memorial Resource Development
 Larimer County, Colorado

Figure 4 - Groundwater Gradient Map (08/18/2015)

Date: 09/16/2015
 Scale: 1" = 30'
 Drawn By: SMM

Attachment 2
Analytical Tables



Table 1 - Well Information

**Memorial Resource Development
Fort Collins Tank Battery
Fort Collins, Colorado**

Well ID	Latitude	Longitude	Ground Surface Elevation	TOC Elevation	Screen Interval (ft bgs)	Date Gauged	Depth to Product (ft bgs)	DTW (ft bgs)	Groundwater Elevation (ft amsl)	Total Depth (ft)
MW-01	40.63705045	-105.0534241	5120.067	5119.772	19.5-34.5	8/18/2015	NA	20.41	5099.36	33.21
MW-02	40.63724527	-105.0534773	5122.973	5122.606	19.5-34.5	8/18/2015	22.58	22.98	5099.63	NM
MW-03	40.63712825	-105.0536249	5123.213	5122.846	14.5-29.5	8/18/2015	22.89	25.00	5097.85	NM
MW-04	40.63714891	-105.053837	5123.485	5123.166	14.5-29.5	8/18/2015	NA	23.58	5099.59	29.34
MW-05	40.63731007	-105.0535692	5123.095	5122.812	14.5-29.5	8/18/2015	NA	22.53	5100.28	29.3
MW-06	40.63696229	-105.053745	5122.668	5122.315	14.5-29.5	8/18/2015	NA	24.50	5097.82	29.34
MW-07	40.63720573	-105.0533057	5119.228	5118.879	14.5-29.5	8/18/2015	NA	19.00	5099.88	28.00
MW-08	40.6373559	-105.0534332	5121.08	5120.612	14.5-29.5	8/18/2015	NA	20.35	5100.26	28.83
MW-09	40.63745316	-105.0535617	5121.236	5120.816	14.5-29.5	8/18/2015	NA	20.18	5100.64	29.20

NA - Not Applicable

NM - Not Measured

TOC - Top of Casing

DTW - Depth to Water

ft bgs - Feet Below Ground Surface

ft amsl - Feet Above Mean Sea Level



Table 2 - Historical Soil Analytical Data

Memorial Resource Development
Fort Collins Tank Battery
Fort Collins, Colorado

Sample ID	Lab ID	Date Sampled	Concentration (mg/kg)						
			Benzene	Toluene	Ethyl-Benzene	Total Xylenes	GRO	DRO	TPH
COGCC Table 910-1 Concentration Levels (mg/kg)			0.17	85	100	175	NA	NA	500
S001	B3198-01	5/22/2015	1.22	11.8	5.62	25.1	278	702	980
E001	B3198-02	5/22/2015	1.92	20.2	7.38	35.4	441	14.5	456
W001	B3198-03	5/22/2015	0.07	0.03	2.2	0.2	500	648	1148
B001	B3198-04	5/22/2015	0.49	10.0	6.76	32.0	785	7191	7976
N001	B3198-05	5/22/2015	0.01	0.02	0.09	0.03	127	1449	1576

Note: Soil Samples were collected by Memorial

mg/kg - milligrams per kilogram

< - Analytical result is less than the reporting limit

COGCC - Colorado Oil and Gas Conservation Commission

GRO - Gasoline Range Organics

DRO - Diesel Range Organics

TPH - Total Petroleum Hydrocarbons (Combined GRO/DRO)

NS - Not sampled

NA - Not applicable



Table 3 - Soil Analytical Data

Memorial Resource Development
Fort Collins Tank Battery
Fort Collins, Colorado

Sample ID	Lab ID	Date Sampled	Concentration (mg/kg)							
			Benzene	Toluene	Ethyl-Benzene	Total Xylenes	Naphthalene	GRO	DRO	TPH
COGCC Table 910-1 Concentration Levels (mg/kg)			0.17	85	100	175	23	NA	NA	500
SB-01 15-20	1508244-1	8/11/2015	<0.0058	<0.0058	<0.0058	<0.005	<0.0058	<0.52	<5.9	<5.9
SB-01 20-25	1508244-2	8/11/2015	<0.0058	<0.0058	<0.0058	<0.005	<0.0058	<0.59	24	24
SB-01 25-30	1508244-3	8/11/2015	<0.0056	<0.0056	<0.0056	<0.005	<0.0056	<0.38	<5.7	<5.7
SB-02 10-15	1508244-4	8/11/2015	<0.0054	<0.0054	<0.0054	<0.005	<0.0054	0.97	<5.5	<5.5
SB-02 15-20	1508244-5	8/11/2015	<0.0056	<0.0056	<0.0056	<0.005	<0.0056	0.98	6.6	7.58
SB-02 20-25	1508244-6	8/11/2015	0.22	1.1	0.64	2.9	0.5	280	1900	2180
SB-02 25-30	1508244-7	8/11/2015	<0.058	0.048	0.24	0.49	0.4	38	1600	1638
SB-02 30-35	1508244-8	8/11/2015	<0.0056	<0.0056	<0.0056	<0.005	0.0075	<0.48	<5.6	<5.6
SB-03 5-10	1508244-9	8/12/2015	<0.0054	<0.0054	<0.0054	<0.005	<0.0054	<0.51	<5.7	<5.7
SB-03 10-15	1508244-10	8/12/2015	<0.0056	<0.0056	<0.0056	0.0096	<0.0056	<0.49	<5.7	<5.7
SB-03 15-20	1508244-11	8/12/2015	<0.0052	0.0083	<0.0052	0.017	<0.0052	0.72	<5.6	<5.6
SB-03 20-25	1508244-12	8/12/2015	0.013	<0.0057	0.017	0.062	<0.0057	1.1	<5.8	<5.8
SB-03 25-30	1508244-13	8/12/2015	<0.0059	<0.0059	<0.0059	<0.005	<0.0059	<0.56	16	16
SB-04 5-10	1508244-14	8/12/2015	<0.0056	<0.0056	<0.0056	<0.005	<0.0056	<0.56	<5.6	<5.6
SB-04 10-15	1508244-15	8/12/2015	<0.0056	<0.0056	<0.0056	<0.005	<0.0056	<0.4	<5.5	<5.5
SB-04 20-25	1508244-16	8/12/2015	<0.0057	<0.0057	<0.0057	<0.005	<0.0057	<0.45	<5.9	<5.9
SB-05 10-15	1508244-17	8/12/2015	<0.0055	<0.0055	0.059	0.54	0.89	24	1700	1724
SB-05 15-20	1508244-18	8/12/2015	<0.0057	<0.0057	0.059	0.22	0.17	16	690	706
SB-05 20-25	1508244-19	8/12/2015	<0.006	<0.006	0.038	0.0096	0.059	10	140	150
SB-05 25-30	1508244-20	8/12/2015	<0.0056	<0.0056	<0.0056	<0.005	<0.0056	<0.54	<5.7	<5.7
SB-06 5-10	1508244-21	8/13/2015	<0.0052	<0.0052	<0.0052	<0.005	<0.0052	<0.52	<5.4	<5.4
SB-06 10-15	1508244-22	8/13/2015	<0.0048	<0.0048	<0.0048	<0.005	<0.0048	<0.44	<5.5	<5.5
SB-06 15-20	1508244-23	8/13/2015	<0.0055	<0.0055	<0.0055	<0.005	<0.0055	<0.53	<5.5	<5.5
SB-06 20-25	1508244-24	8/13/2015	<0.0057	<0.0057	<0.0057	<0.005	<0.0057	<0.46	<5.9	<5.9
SB-07 15-20	1508244-25	8/13/2015	<0.0054	<0.0054	<0.0054	<0.005	<0.0054	<0.55	<5.9	<5.9
SB-07 20-25	1508244-26	8/13/2015	<0.0057	<0.0057	<0.0057	<0.005	<0.0057	<0.55	<6	<6
SB-08 10-15	1508244-27	8/13/2015	<0.0053	<0.0053	<0.0053	<0.005	<0.0053	<0.37	8	8
SB-08 15-20	1508244-28	8/13/2015	<0.0059	<0.0059	<0.0059	<0.005	<0.0059	<0.53	<5.8	<5.8
SB-08 20-25	1508244-29	8/13/2015	<0.006	<0.006	<0.006	<0.005	<0.006	0.6	130	130.6
SB-09 15-20	1508244-30	8/13/2015	<0.0055	<0.0055	<0.0055	<0.005	<0.0055	0.69	27	27.69
SB-09 20-25	1508244-31	8/13/2015	<0.0059	<0.0059	<0.0059	<0.005	<0.0059	<0.53	<6	<6

mg/kg - milligrams per kilogram

< - Analytical result is less than the reporting limit

COGCC - Colorado Oil and Gas Conservation Commission

GRO - Gasoline Range Organics

DRO - Diesel Range Organics

TPH - Total Petroleum Hydrocarbons (Combined GRO/DRO)

NS - Not sampled

NA - Not applicable



Table 4 - Groundwater Analytical Data

**Memorial Resource Development
Fort Collins Tank Battery
Fort Collins, Colorado**

Sample ID	Lab ID	Date Sampled	Concentration (mg/L)			
			Benzene	Toluene	Ethyl- Benzene	Xylenes
COGCC Table 910-1 Concentration Levels			0.005	1	0.7	10
MW-1	1508286-1	8/18/2015	<0.001	<0.001	<0.001	<0.001
MW-2	Not Analyzed - Product Present					
MW-3	Not Analyzed - Product Present					
MW-4	1508286-2	8/18/2015	<0.001	<0.001	<0.001	<0.001
MW-5	1508286-3	8/18/2015	<0.001	<0.001	<0.001	<0.001
MW-6	1508286-4	8/18/2015	<0.001	<0.001	<0.001	<0.001
MW-7	1508286-5	8/18/2015	<0.001	<0.001	<0.001	<0.001
MW-8	1508286-6	8/18/2015	<0.001	<0.001	<0.001	<0.001
MW-9	1508286-7	8/18/2015	<0.001	<0.001	<0.001	<0.001

mg/L - milligrams per liter

µg/L - micrograms per liter

< - Analytical result is less than the reporting limit

COGCC - Colorado Oil and Gas Conservation Commission

TDS - Total Dissolved Solids

NS - Not sampled

NA - Not applicable



Table 5 - Groundwater Quality Data

**Memorial Resource Development
Fort Collins Tank Battery
Fort Collins, Colorado**

Well ID	Date Sampled	Depth to Water (ft)	Temperature (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	pH	ORP
MW-1	08/18/15	20.41	16.43	2102	2.61	7.23	78.6
MW-2	08/18/15	22.98	NA	NA	NA	NA	NA
MW-3	08/18/15	25.00	NA	NA	NA	NA	NA
MW-4	08/18/15	23.58	16.54	2025	3.81	7.05	105.6
MW-5	08/18/15	22.53	14.93	1992	1.48	7.11	42.0
MW-6	08/18/15	24.50	14.93	1894	1.48	7.16	102.7
MW-7	08/18/15	19.00	17.46	2317	3.17	7.15	83.7
MW-8	08/18/15	20.35	17.52	2028	2.20	7.20	26.7
MW-9	08/18/15	20.18	15.14	1779	2.58	7.18	37.2

NA - Not Analyzed

Data were collected after stabilization

mg/L - milligrams per liter

ft - feet

µS/cm - microsiemens per centimeter

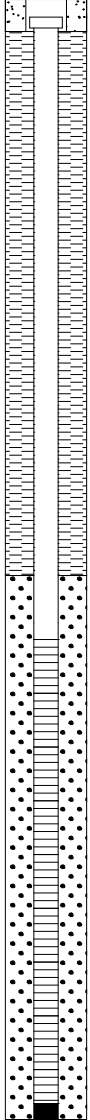
NTU - Nephelometric Turbidity Unit

Attachment 3
Boring Logs and Well Completion Details

SOIL BORING / MONITORING WELL LOG

PROJECT: <u>ETC Battery</u>	DRILLING COMPANY: <u>Talon/LPE</u>
PROJECT NUMBER: <u>701959.001.01</u>	DRILLER: <u>Ronnie Rodriguez</u>
CLIENT: <u>Memorial Resource Development</u>	DRILLING METHOD: <u>HSA</u>
BORING / WELL NUMBER: <u>SB-01/MW-1</u>	BORE HOLE DIAMETER: <u>8 1/4"</u>
TOTAL DEPTH: <u>35'</u>	SCREEN: Diam. <u>2"</u> Length <u>15'</u> Slot Size <u>0.010</u>
SURFACE ELEVATION: _____	CASING: Diam. <u>2"</u> Length <u>20'</u> Type <u>Sch. 40 PVC</u>
GEOLOGIST: <u>Tyrell Grisel</u>	DATE DRILLED: <u>August 11, 2015</u>

PAGE 1 of 1

Depth (FT.)	Soil Symbol	Well Construction	PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
0							No Sample Collected due to Pot Holing	0
6			0.0			5'	Silty Clay w/Fine Sand, Brown, Moist, Soft, Plastic, 10YR 4/3 Brown	6
12			0.0					12
18			0.0			20'	Silty Clay w/Fine Sand, Brown, Moist, Soft, Plastic, Grades of Olive Gray, Wet, *Outside of Spoon had Water in it, Gley 1 3/5G Very Dark Greenish Gray	18
24			1.2			25'	Silty Clay w/Fine Sand, Grades to Fine-Medium Grains, Saturated Grades to Brown, Soft, Plastic, 10YR 4/3 Brown	24
30			0.0			30'	Silty Sand, Saturated, Brown, Fine Grains, Loose Sand, 10YR 4/3 Brown	30
36			0.0			35'	Bottom of Hole	36

REMARKS:

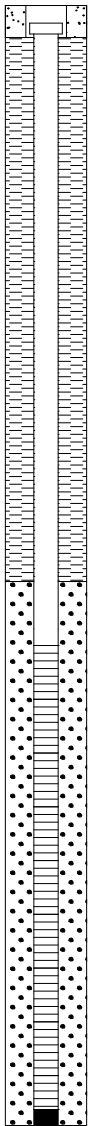
THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT



SOIL BORING / MONITORING WELL LOG

PROJECT: <u>ETC Battery</u>	DRILLING COMPANY: <u>Talon/LPE</u>
PROJECT NUMBER: <u>701959.001.01</u>	DRILLER: <u>Ronnie Rodriguez</u>
CLIENT: <u>Memorial Resource Development</u>	DRILLING METHOD: <u>HSA</u>
BORING / WELL NUMBER: <u>SB-02/MW-2</u>	BORE HOLE DIAMETER: <u>8 1/4"</u>
TOTAL DEPTH: <u>35</u>	SCREEN: Diam. <u>2"</u> Length <u>15'</u> Slot Size <u>0.010</u>
SURFACE ELEVATION: _____	CASING: Diam. <u>2"</u> Length <u>20'</u> Type <u>Sch. 40 PVC</u>
GEOLOGIST: <u>Tyrell Grisel</u>	DATE DRILLED: <u>August 11, 2015</u>

PAGE 1 of 1

Depth (FT.)	Soil Symbol	Well Construction	PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
0							No Sample due to being Hydro Vatted	0
6						5'	Silty Clay, Dark Grey w/Fine Sand, Plastic, Moist, Soft, 10YR 3/1, Very Dark Grey	6
12			22.2			10'	Silty Clay, Dark Grey w/Fine Sand, Plastic, Moist, Soft, Grades to Greenish Grey, Gley 1 4/10Y Greenish Grey	12
18			16.2			15'	Silty Clay, Dark Grey w/Fine Sand, Plastic, Moist, Soft, Grades to Black, Gley 1 2.5/N	18
24			29.3			20'	Silty Clay, Dark Grey w/Fine Sand, Plastic, Grades to Wet, Soft, Grades to Black, Gley 1 2.5/N	24
30			890.3			25'	Silty Clay, Dark Grey, Grades to Fine-Medium Grains, Saturated, Plastic, Soft, Grades to Black, Gley 1 2.5/N, @29' Grades to Sand, Saturated, Fine Grain, Loose, Gley 1 5/10y Greenish Grey	30
36			1,720			30'	Silty Sand, Tan, Fine Grains, Saturatred, Loose, 10YR 4/4 Dark Yellowish Brown	30
			2.3			35'	Bottom of Hole	36

REMARKS:

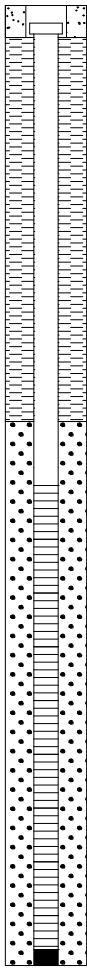
THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT



SOIL BORING / MONITORING WELL LOG

PROJECT: <u>ETC Battery</u>	DRILLING COMPANY: <u>Talon/LPE</u>
PROJECT NUMBER: <u>701959.001.01</u>	DRILLER: <u>Ronnie Rodriguez</u>
CLIENT: <u>Memorial Resource Development</u>	DRILLING METHOD: <u>HSA</u>
BORING / WELL NUMBER: <u>SB-03/MW-3</u>	BORE HOLE DIAMETER: <u>8 1/4"</u>
TOTAL DEPTH: <u>30'</u>	SCREEN: Diam. <u>2"</u> Length <u>15'</u> Slot Size <u>0.010</u>
SURFACE ELEVATION: _____	CASING: Diam. <u>2"</u> Length <u>15'</u> Type <u>Sch. 40 PVC</u>
GEOLOGIST: <u>Tyrell Grisel</u>	DATE DRILLED: <u>August 12, 2015</u>

PAGE 1 of 1

Depth (FT.)	Soil Symbol	Well Construction	PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
0							No Sample	0
6			77.6			5'	Silty Clay w/Fine Grained Sand, Dark Grey, Moist, Plastic, Soft, Gley 1 4/10y Dark Greenish Grey	6
12			96.2					12
18			106.4			20'	Silty Clay w/Fine Grained Sand, Dark Grey, Grades to Wet @24', Plastic, Soft, Gley 1 4/10y Dark Greenish Grey	18
24			123.1					24
30			19.3			29'	Silty Sand, Tan, Saturated, Fine Grains, Loose	30
						30'	Bottom of Hole	30
36								36

REMARKS:

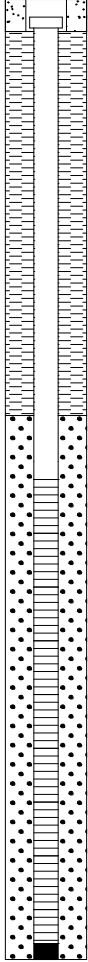
THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT



SOIL BORING / MONITORING WELL LOG

PROJECT: <u>ETC Battery</u>	DRILLING COMPANY: <u>Talon/LPE</u>
PROJECT NUMBER: <u>701959.001.01</u>	DRILLER: <u>Ronnie Rodriguez</u>
CLIENT: <u>Memorial Resource Development</u>	DRILLING METHOD: <u>HSA</u>
BORING / WELL NUMBER: <u>SB-04/MW-4</u>	BORE HOLE DIAMETER: <u>8 1/4"</u>
TOTAL DEPTH: <u>30'</u>	SCREEN: Diam. <u>2"</u> Length <u>15'</u> Slot Size <u>0.010</u>
SURFACE ELEVATION: _____	CASING: Diam. <u>2"</u> Length <u>15'</u> Type <u>Sch. 40 PVC</u>
GEOLOGIST: <u>Tyrell Grisel</u>	DATE DRILLED: <u>August 12, 2015</u>

PAGE 1 of 1

Depth (FT.)	Soil Symbol	Well Construction	PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
0							No Sample	0
6			76.8			5'	Silty Clay w/Fine Sand, Brown, Moist, Plastic, Soft, 10YR 5/4 Yellowish Brown	6
12			2.1					12
18			0.3			20'	Silty Clay w/Fine Sand, Brown, Grades to Wet, Plastic, Soft, 10YR 5/4 Yellowish Brown	18
24			0.0					24
30						30'	Bottom of Hole	30
36								36

REMARKS:

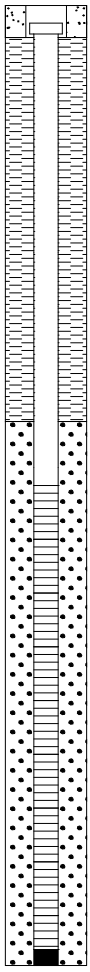
THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT



SOIL BORING / MONITORING WELL LOG

PROJECT: <u>ETC Battery</u>	DRILLING COMPANY: <u>Talon/LPE</u>
PROJECT NUMBER: <u>701959.001.01</u>	DRILLER: <u>Ronnie Rodriguez</u>
CLIENT: <u>Memorial Resource Development</u>	DRILLING METHOD: <u>HSA</u>
BORING / WELL NUMBER: <u>SB-05/MW-5</u>	BORE HOLE DIAMETER: <u>8 1/4"</u>
TOTAL DEPTH: <u>30'</u>	SCREEN: Diam. <u>2"</u> Length <u>15'</u> Slot Size <u>0.010</u>
SURFACE ELEVATION: _____	CASING: Diam. <u>2"</u> Length <u>15'</u> Type <u>Sch. 40 PVC</u>
GEOLOGIST: <u>Tyrell Grisel</u>	DATE DRILLED: <u>August 12, 2015</u>

PAGE 1 of 1

Depth (FT.)	Soil Symbol	Well Construction	PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
0							No Sample	0
6						5'	Silty Clay w/Fine Sand, Brown, Moist, Plastic, Soft, 10YR 4/3 Brown	6
12			14.5			10'	Silty Clay w/Fine Sand, Grades to Dark Grey, Grades to Wet, Plastic, Soft, Gley 1 4/N	12
18			630					18
24			335.9					24
30			104.2			29'		30
			0.7			30'	Silty Sand, Wet, Tan, Fine Grains, Loose, 10YR 4/4 Dark Yellowish Brown	
							Bottom of Hole	
36								36

REMARKS:

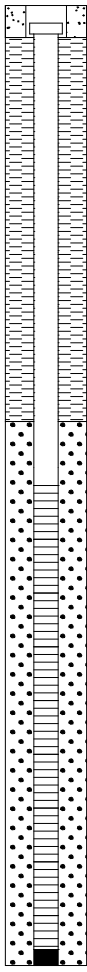
THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT



SOIL BORING / MONITORING WELL LOG

PROJECT: <u>ETC Battery</u>	DRILLING COMPANY: <u>Talon/LPE</u>
PROJECT NUMBER: <u>701959.001.01</u>	DRILLER: <u>Ronnie Rodriguez</u>
CLIENT: <u>Memorial Resource Development</u>	DRILLING METHOD: <u>HSA</u>
BORING / WELL NUMBER: <u>SB-06/MW-6</u>	BORE HOLE DIAMETER: <u>8 1/4"</u>
TOTAL DEPTH: <u>30'</u>	SCREEN: Diam. <u>2"</u> Length <u>15'</u> Slot Size <u>0.010</u>
SURFACE ELEVATION: _____	CASING: Diam. <u>2"</u> Length <u>15'</u> Type <u>Sch. 40 PVC</u>
GEOLOGIST: <u>Tyrell Grisel</u>	DATE DRILLED: <u>August 12, 2015</u>

PAGE 1 of 1

Depth (FT.)	Soil Symbol	Well Construction	PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
0							Pot Holed	0
6			358			5'	Silty Clay w/Fine Sand, Tan, Moist, Plastic, Soft, 10YR 4/4 Dark Yellowish Brown	6
12			466					12
18			24.6			20'	Silty Clay w/Fine Sand, Brown, Grades to Wet, Plastic, Soft, 10YR 4/4 Dark Yellowish Brown	18
24			1.6					24
30			14.6			29'	Silty Sand, Tan, Moist, Fine Grains, Loose, 10YR 5/4 Yellowish Brown	30
36						30'	Bottom of Hole	36

REMARKS:

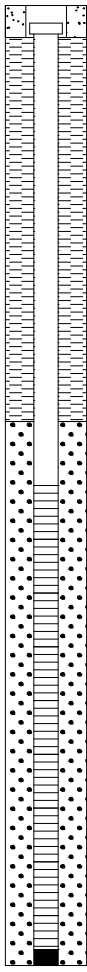
THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT



SOIL BORING / MONITORING WELL LOG

PROJECT: <u>ETC Battery</u>	DRILLING COMPANY: <u>Talon/LPE</u>
PROJECT NUMBER: <u>701959.001.01</u>	DRILLER: <u>Ronnie Rodriguez</u>
CLIENT: <u>Memorial Resource Development</u>	DRILLING METHOD: <u>HSA</u>
BORING / WELL NUMBER: <u>SB-07/MW-7</u>	BORE HOLE DIAMETER: <u>8 1/4"</u>
TOTAL DEPTH: <u>30'</u>	SCREEN: Diam. <u>2"</u> Length <u>15'</u> Slot Size <u>0.010</u>
SURFACE ELEVATION: _____	CASING: Diam. <u>2"</u> Length <u>15'</u> Type <u>Sch. 40 PVC</u>
GEOLOGIST: <u>Tyrell Grisel</u>	DATE DRILLED: <u>August 13, 2015</u>

PAGE 1 of 1

Depth (FT.)	Soil Symbol	Well Construction	PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
0							Pot Holed	0
6			1.3			5'	Silty Clay w/Fine Sand, Brown, Moist, Plastic, Soft, 10YR 4/4 Dark Yellowish Brown	6
12			1.6					12
18			2.2			20'	Silty Clay w/Fine Sand, Brown, Grades to Wet, Plastic, Soft, 10YR 4/4 Dark Yellowish Brown	18
24			2.8					24
30			0.7			29'	Silty Sand, Brown, Saturated, Fine Grains, Loose, 10YR 4/4 Dark Yellowish Brown	30
36						30'	Bottom of Hole	36

REMARKS:

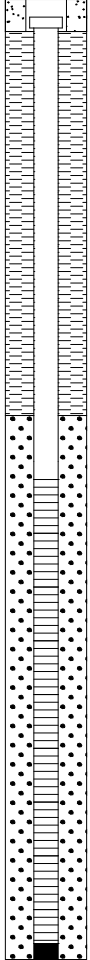
THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT



SOIL BORING / MONITORING WELL LOG

PROJECT: <u>ETC Battery</u>	DRILLING COMPANY: <u>Talon/LPE</u>
PROJECT NUMBER: <u>701959.001.01</u>	DRILLER: <u>Ronnie Rodriguez</u>
CLIENT: <u>Memorial Resource Development</u>	DRILLING METHOD: <u>HSA</u>
BORING / WELL NUMBER: <u>SB-08/MW-8</u>	BORE HOLE DIAMETER: <u>8 1/4"</u>
TOTAL DEPTH: <u>30'</u>	SCREEN: Diam. <u>2"</u> Length <u>15'</u> Slot Size <u>0.010</u>
SURFACE ELEVATION: _____	CASING: Diam. <u>2"</u> Length <u>15'</u> Type <u>Sch. 40 PVC</u>
GEOLOGIST: <u>Tyrell Grisel</u>	DATE DRILLED: <u>August 13, 2015</u>

PAGE 1 of 1

Depth (FT.)	Soil Symbol	Well Construction	PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
0							Pot Holed	0
6						5'	Silty Clay w/Fine Sand, Greenish Black, Moist, Plastic, Soft, Gley 1 2.5/5GY	6
12			7.5					12
18			11.1					18
24			22.9			20'	Silty Clay w/Fine Sand, Greenish Black, Grades to Wet, Plastic, Soft, Gley 1 2.5/5GY	24
30			1.6					
			0.4			29'	Silty Sand, Brown, Moist to Wet, Fine Grains, Loose, 10YR 5/3	30
						30'	Bottom of Hole	30
36								36

REMARKS:

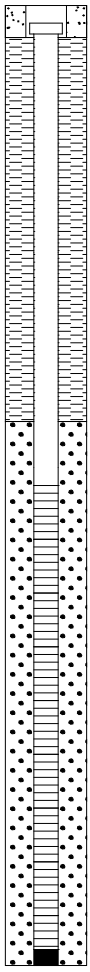
THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT



SOIL BORING / MONITORING WELL LOG

PROJECT: <u>ETC Battery</u>	DRILLING COMPANY: <u>Talon/LPE</u>
PROJECT NUMBER: <u>701959.001.01</u>	DRILLER: <u>Ronnie Rodriguez</u>
CLIENT: <u>Memorial Resource Development</u>	DRILLING METHOD: <u>HSA</u>
BORING / WELL NUMBER: <u>SB-09/MW-9</u>	BORE HOLE DIAMETER: <u>8 1/4"</u>
TOTAL DEPTH: <u>30'</u>	SCREEN: Diam. <u>2"</u> Length <u>15'</u> Slot Size <u>0.010</u>
SURFACE ELEVATION: _____	CASING: Diam. <u>2"</u> Length <u>15'</u> Type <u>Sch. 40 PVC</u>
GEOLOGIST: <u>Tyrell Grisel</u>	DATE DRILLED: <u>August 13, 2015</u>

PAGE 1 of 1

Depth (FT.)	Soil Symbol	Well Construction	PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
0							Pot Holed	0
6			1.9			5'	Silty Clay w/Fine Sand, Brown, Moist, Plastic, Soft, 10YR 4/3	6
12								12
18			1.9			15'	Silty Clay w/Fine Sand, Brown, Grades to Wet @20', Plastic, Soft, 10YR 4/3	18
24			2.5					24
30			2.2					30
			0.9			29'		
						30'	Silty Sand, Tan, Moist, Fine Grains, Loose	30
							Bottom of Hole	
36								36

REMARKS:


THIS BORING LOG AND WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT




KEY TO SYMBOLS


Symbol Description

Strata symbols


 Low plasticity
clay


 Silty sand

Misc. Symbols


 Water table at
boring completion

Monitor Well Details

 Recessed cover
set in concrete

 Bentonite pellets

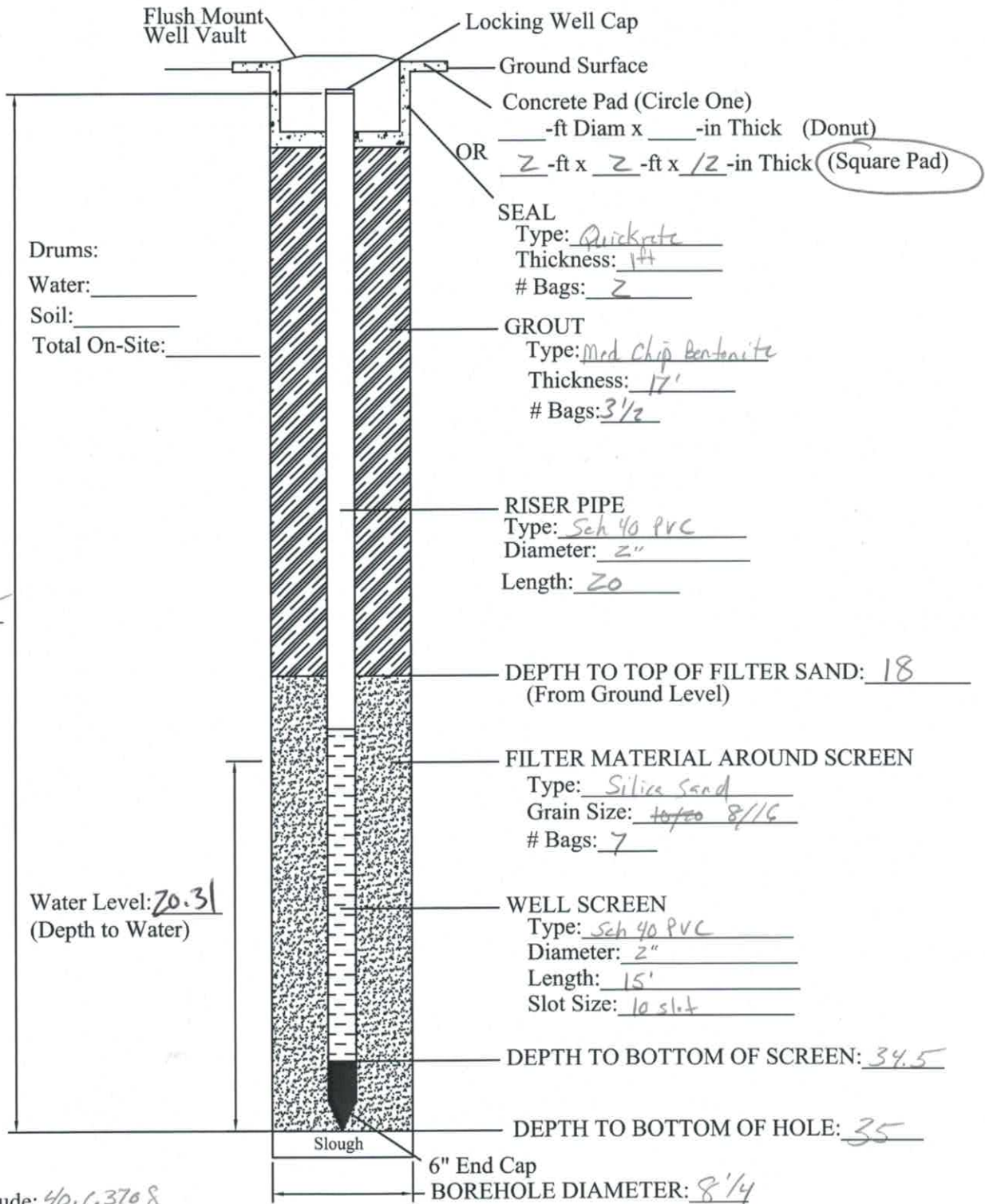
 Silica sand, blank PVC

 Slotted pipe w/ sand

 Endcap on pipe
Packed in sand

MONITOR WELL DETAIL

MW # 1



TD: 35

Drums:

Water: _____

Soil: _____

Total On-Site: _____

Water Level: 20.31
(Depth to Water)

Longitude: 40.63708

Latitude: 105.05344



Geologist: TJ Grise

Driller: Rennie B

Date: 8-11-15

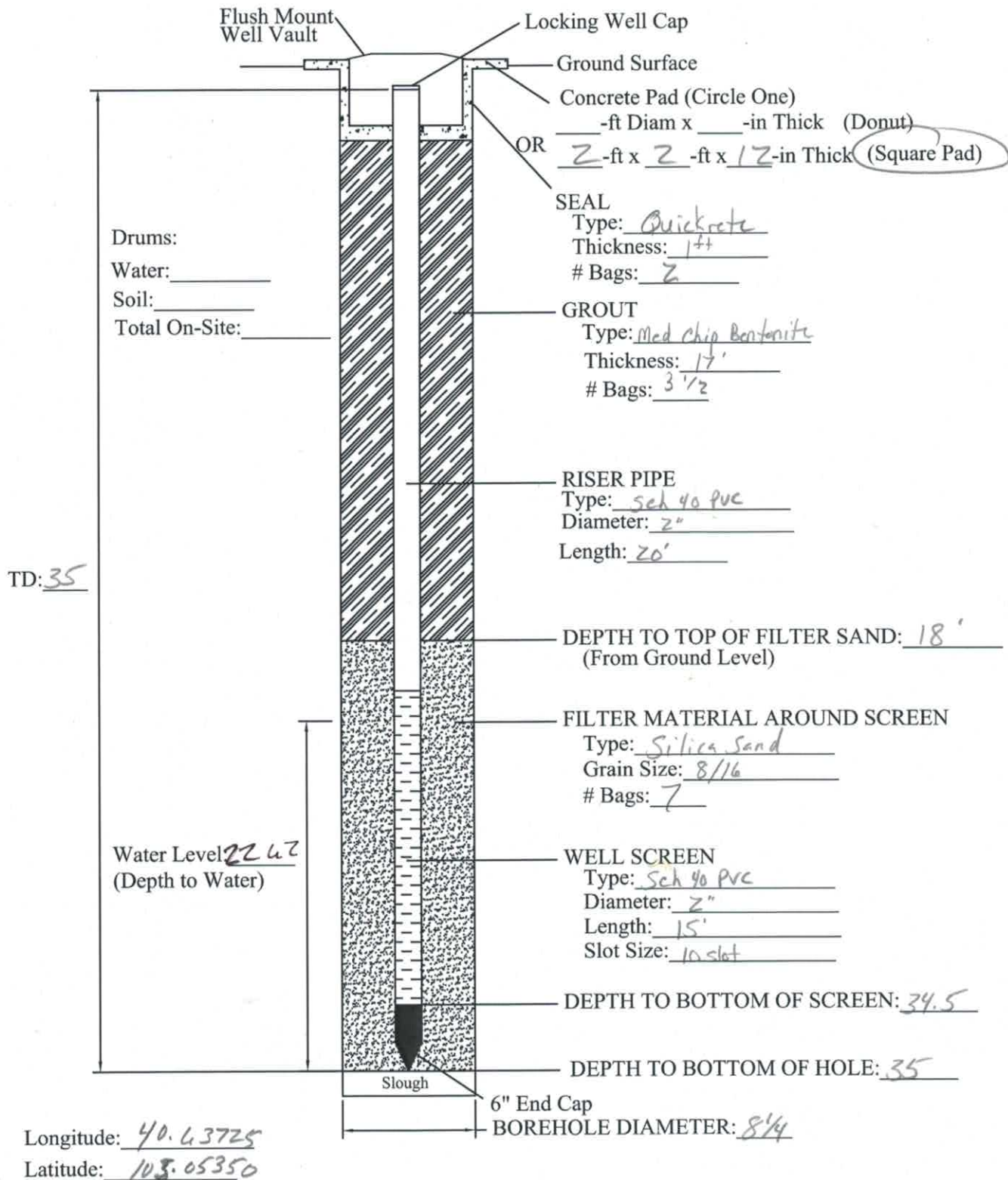
Project No.: 761959-001.01 LPST # N/A

Facility Name: FTC Tank Battery

Location: FT Collins, CO

MONITOR WELL DETAIL

MW # 2

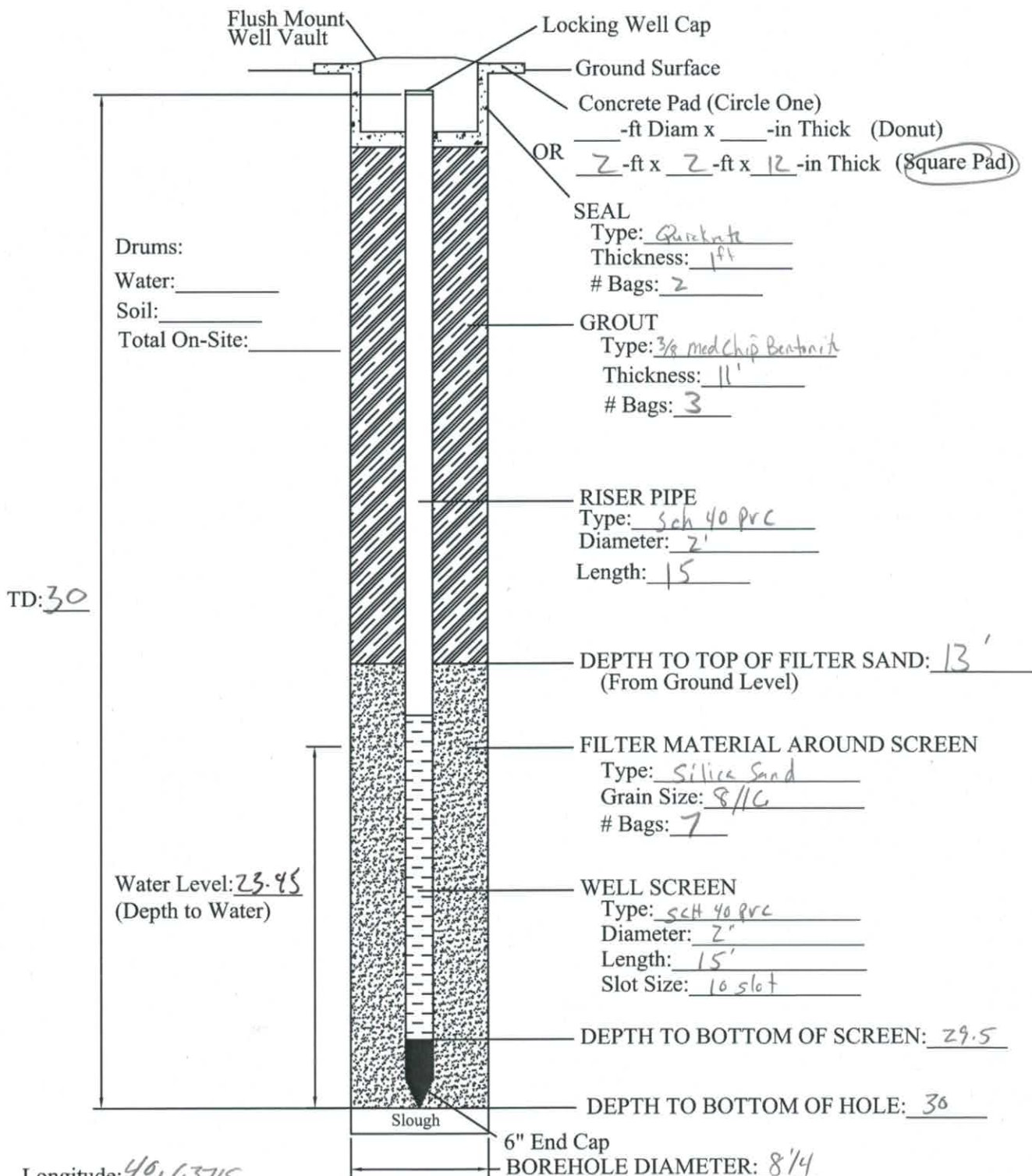


Geologist: JJ Guise
 Driller: Rennie R
 Date: 8-11-15

Project No.: 20155.001.01 LPST # NA
 Facility Name: FTC Tank Battery
 Location: FT Collins, CO

MONITOR WELL DETAIL

MW # 3



Geologist: TJ Grisel

Driller: Ronnie R

Date: 8-12-15

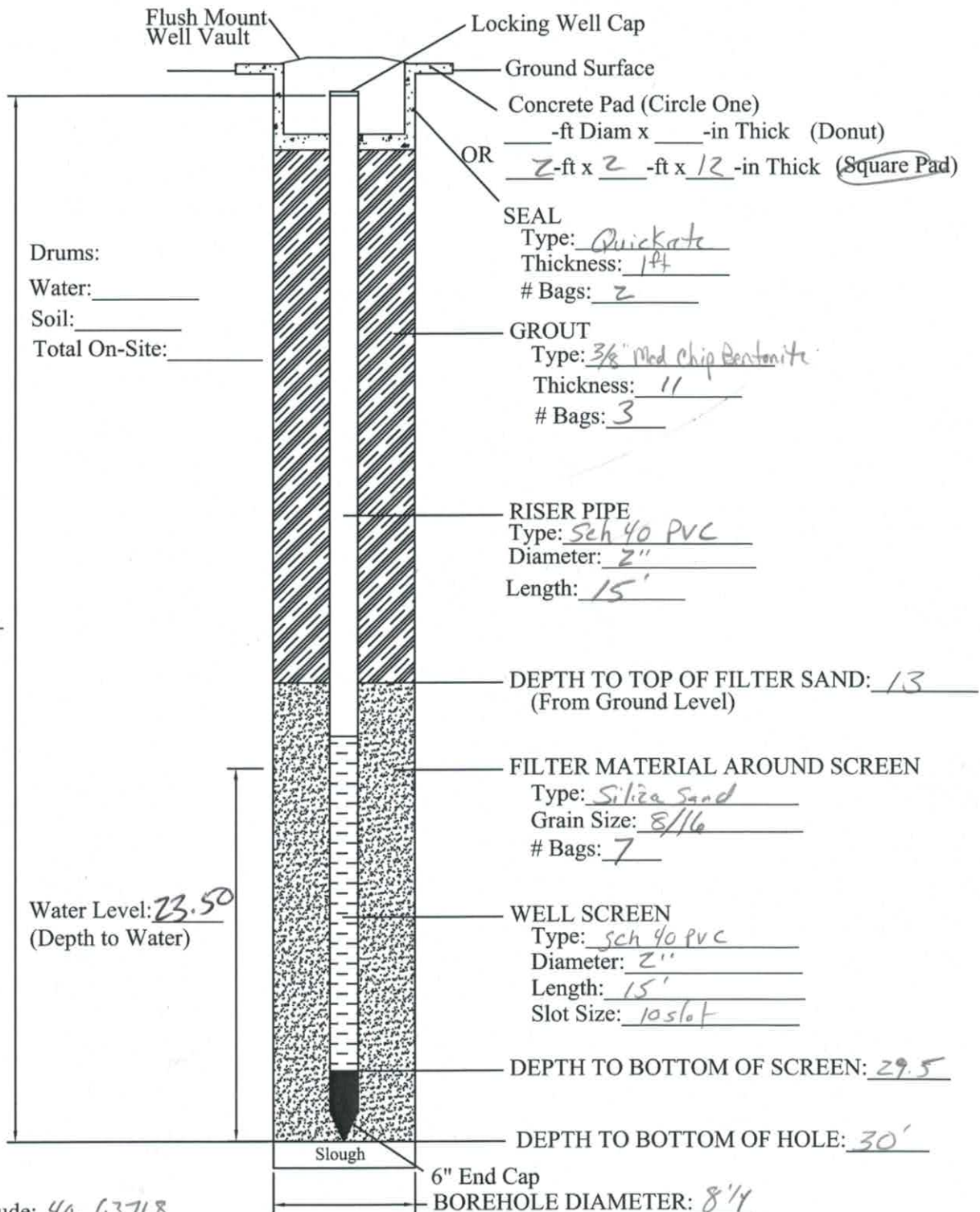
Project No.: 701958.001.01 LPST # NA

Facility Name: ETC Tank Battery

Location: FT Collins, CO

MONITOR WELL DETAIL

MW # 4



Longitude: 40.63718

Latitude: 105.05385



Geologist: IT Grisel

Driller: Rennie R

Date: 8-12-15

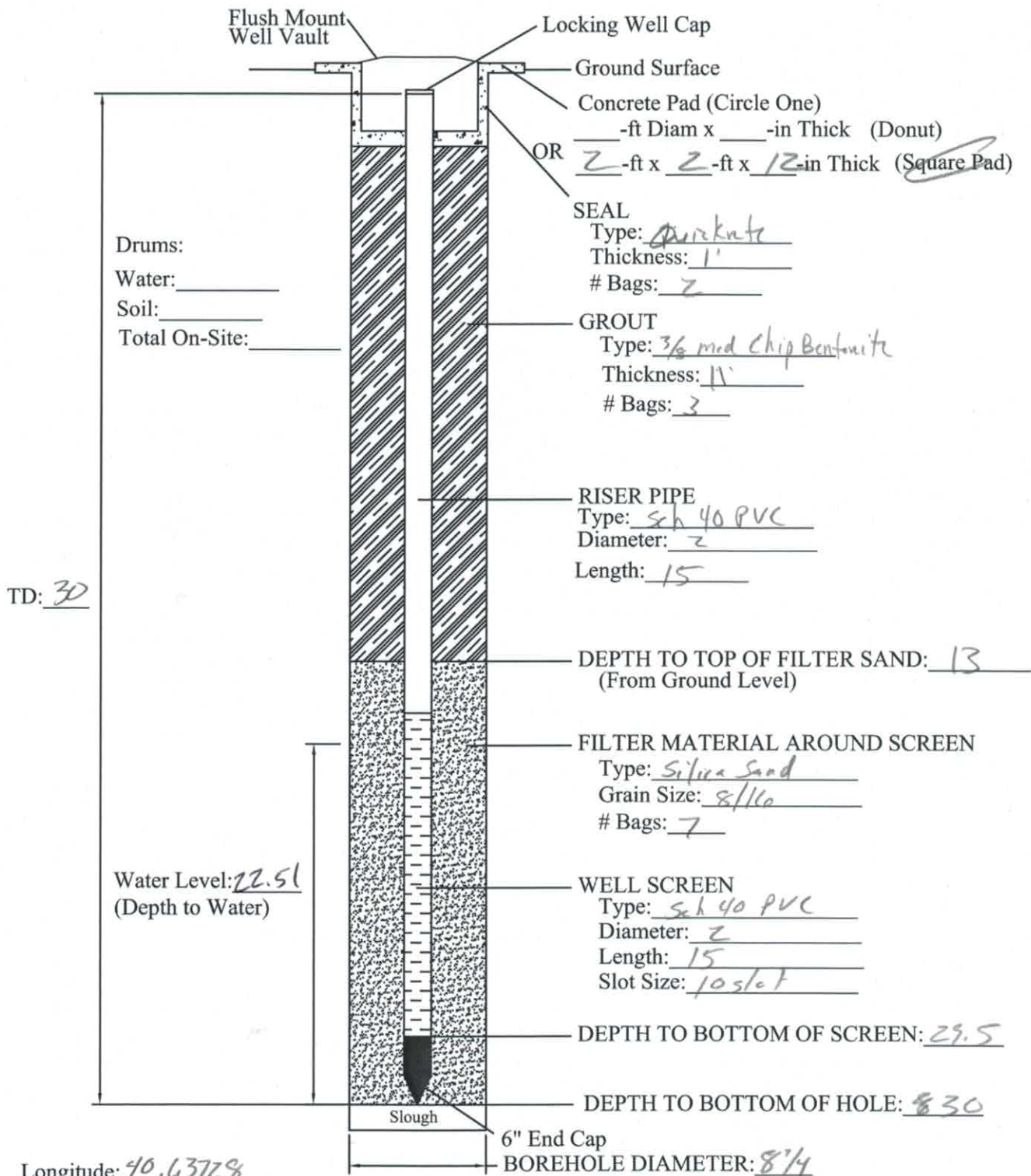
Project No.: 701959.001.01 LPST # NA

Facility Name: FTC Tank Battery

Location: FT Collins, CO

MONITOR WELL DETAIL

MW # 5



Longitude: 40.63728

Latitude: 41.05.05352



Geologist: TSC

Driller: Kenneth K

Date: 8-12-15

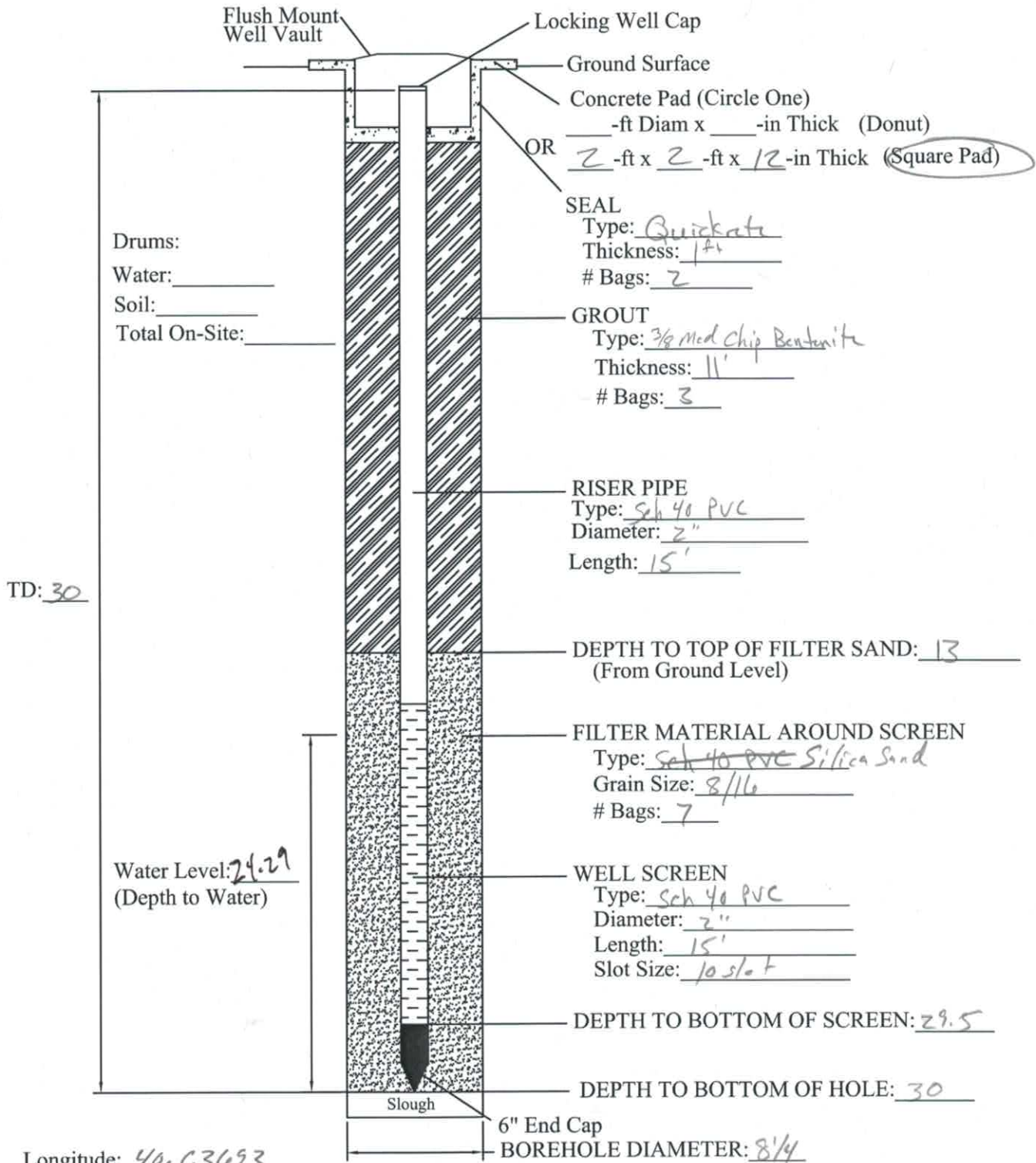
Project No.: 761959.001.01 LPST # _____

Facility Name: FTC Tank Battery

Location: FTC Lines

MONITOR WELL DETAIL

MW # 6



Longitude: 40.03693

Latitude: 105.05383



Geologist: TIGRE

Driller: Rennie R

Date: 8-13-15

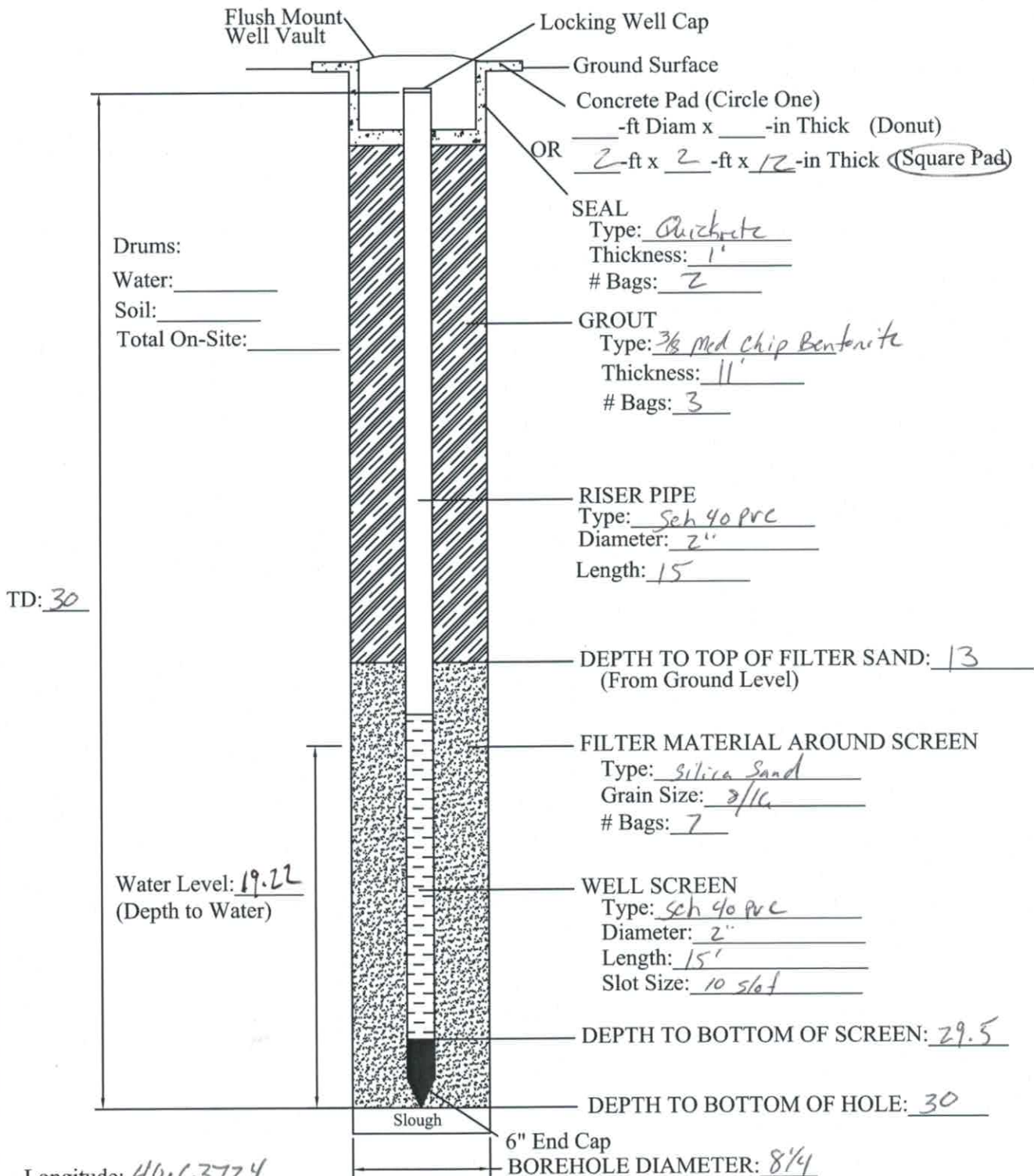
Project No.: 201551.001.01 LPST # NA

Facility Name: FTC Tank Batching

Location: FT Collins, CO

MONITOR WELL DETAIL

MW # 7



Longitude: 40.63724

Latitude: 105.05378



Geologist: TJ Grise

Driller: Bennie B

Date: 8-13-15

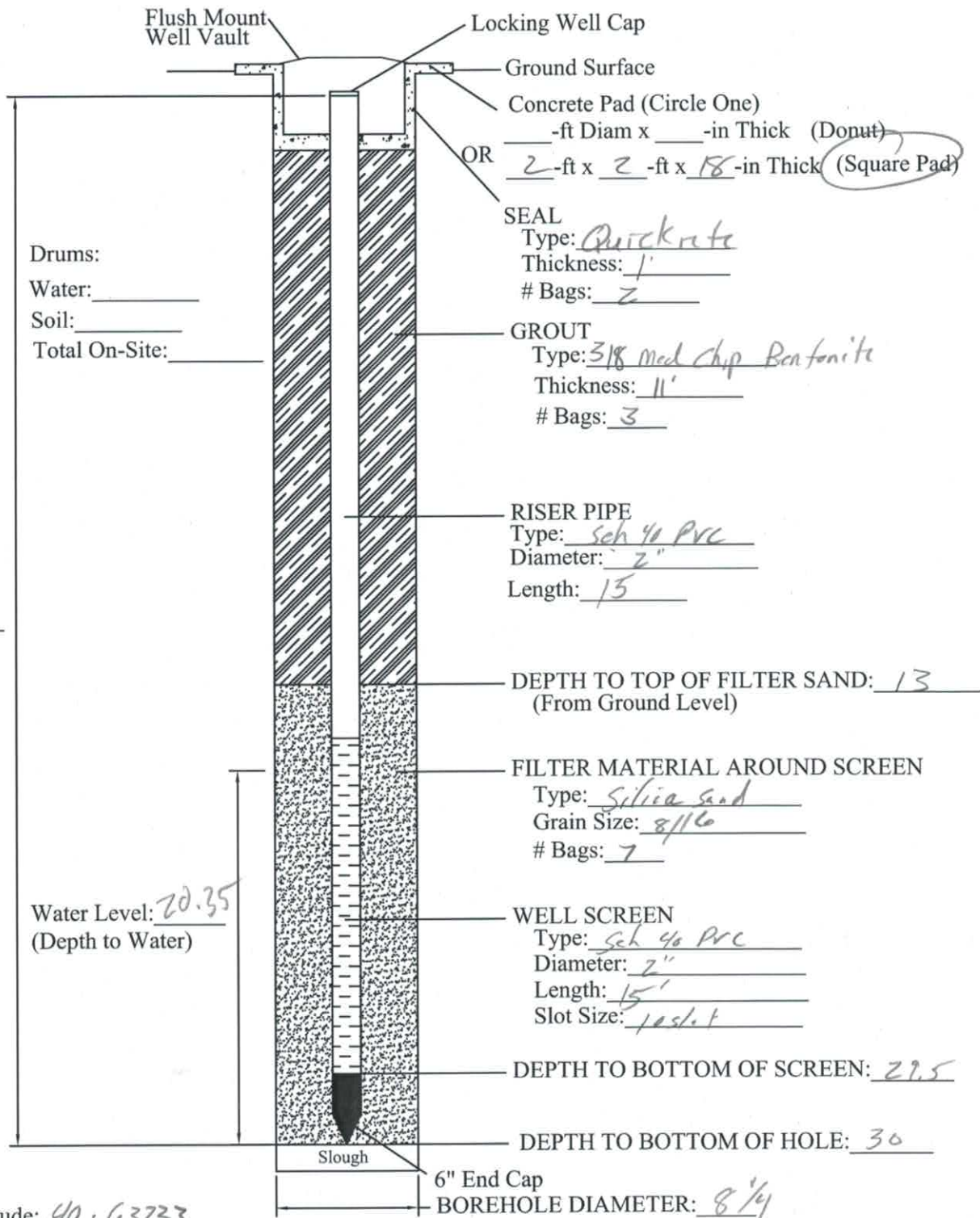
Project No.: 701959.001.01 LPST # _____

Facility Name: FTC Tank Battery

Location: Ft Collins, CO

MONITOR WELL DETAIL

MW # 8



TD: 30

Longitude: 40.63733

Latitude: 105.05345

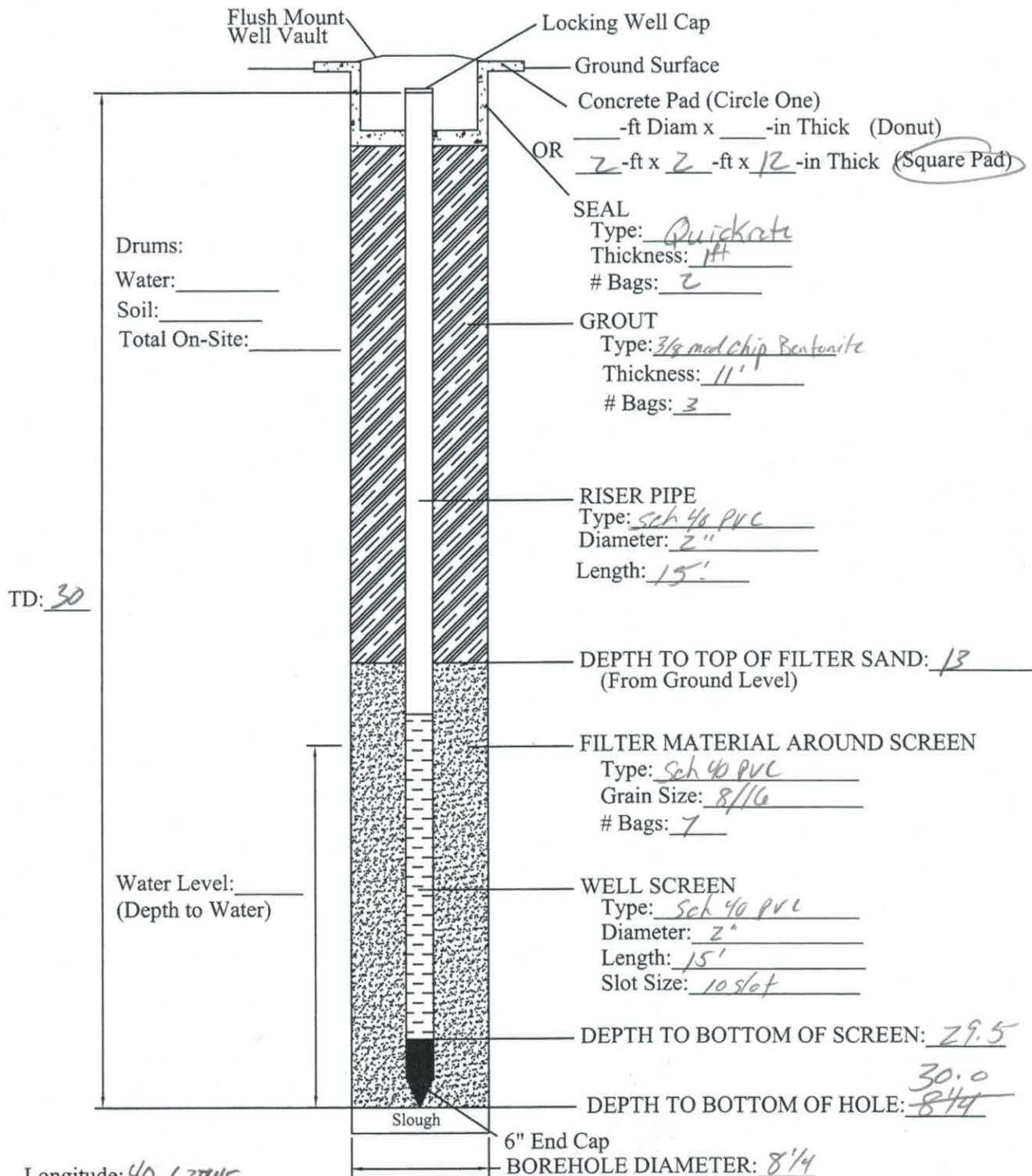


Geologist: T. J. Grisel
 Driller: Rennick
 Date: 8-13-15

Project No.: 70959.001.d LPST #
 Facility Name: FTC Tank Battery
 Location: FT Collins, CO

MONITOR WELL DETAIL

MW # 8



Longitude: 40.63445

Latitude: 105.05357



Geologist: TIGGERS

Driller: Rennie B

Date: 8-13-15

Project No.: 701859.001.01 LPST # _____

Facility Name: FTC Tank Battery

Location: FT Collins, CO

Attachment 4
Laboratory Reports

Wednesday, August 26, 2015

Colby Sterling
Talon LPE
921 N Bivins
Amarillo, TX 79107

Re: ALS Workorder: 1508286
Project Name: FTC Tank Battery
Project Number: 701959.001.01

Dear Mr. Sterling:

Seven water samples were received from Talon LPE, on 8/18/2015. The samples were scheduled for the following analysis:

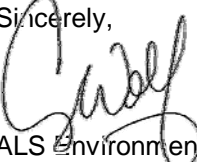
GC/MS Volatiles

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,


ALS Environmental
Amy R. Wolf
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Louisiana (LA)	05057
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1508286

GC/MS Volatiles:

The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

The samples had a pH > 2 at the time of analysis.

All acceptance criteria were met.

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1508286

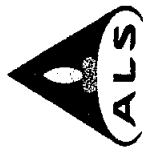
Client Name: Talon LPE

Client Project Name: FTC Tank Battery

Client Project Number: 701959.001.01

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
MW-1	1508286-1		WATER	18-Aug-15	8:50
MW-4	1508286-2		WATER	18-Aug-15	8:20
MW-5	1508286-3		WATER	18-Aug-15	9:55
MW-6	1508286-4		WATER	18-Aug-15	8:35
MW-7	1508286-5		WATER	18-Aug-15	9:05
MW-8	1508286-6		WATER	18-Aug-15	9:20
MW-9	1508286-7		WATER	18-Aug-15	9:35



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (970) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202a

PROJECT NAME FRT Tank Battery		SAMPLER T-Grise		DATE 8-18-15		WORKORDER # 1508286	
PROJECT NO. 701959.001.01		SITE ID		TURNAROUND Standard		PAGE 1 of 1	
COMPANY NAME Talon/PE		EDD FORMAT		DISPOSAL		By Lab or Return to Client	
SEND REPORT TO Jennifer Galles		PURCHASE ORDER					
ADDRESS Talon/PE		BILL TO COMPANY					
CITY/STATE/ZIP		INVOICE ATTN TO					
PHONE		ADDRESS					
FAX		CITY/STATE/ZIP					
E-MAIL jgalles@talonpe.com		PHONE					
		FAX					
		E-MAIL					
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
①	MW-1	Water	8-18-15	0850	4	-	-
②	MW-4			0820		-	-
③	MW-5			0955		-	-
④	MW-6			0835		-	-
⑤	MW-7			0905		-	-
⑥	MW-8			0920		-	-
⑦	MW-9	↓	↓	0935	↓	-	-

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments: 5 of 16 2.0 cc	QC PACKAGE (check below)			
	LEVEL II (Standard OC)	LEVEL III (Std OC + ions)	LEVEL IV (Std OC + ions + raw data)	
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035				

SIGNATURE <i>[Signature]</i>	PRINTED NAME T. Grise	DATE 8-18-15	TIME 1450
RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: TALON
 Project Manager: AW

Workorder No: 1508286
 Initials: CDT Date: 8-18-15

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<u>NO</u>
2. Are custody seals on shipping containers intact?	<u>NONE</u>	YES	NO
3. Are Custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<u>YES</u>	NO
5. Are the COC and bottle labels complete and legible?		<u>YES</u>	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
7. Were airbills / shipping documents present and/or removable?	<u>DROP OFF</u>	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	<u>N/A</u>	YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<u>YES</u>	NO
10. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
11. Were all samples placed in the proper containers for the requested analyses?		<u>YES</u>	NO
12. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<u>YES</u>	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: _____ < green pea _____ > green pea	N/A	<u>YES</u>	NO
15. Do any water samples contain sediment? Amount of sediment: _____ dusting _____ moderate <u>X</u> heavy	N/A	<u>YES</u>	NO
16. Were the samples shipped on ice?		<u>YES</u>	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <u>#2</u> #4	RAD ONLY	<u>YES</u>	NO
Cooler #: <u>1</u>			
Temperature (°C): <u>2.0</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>NA</u>			
Background µR/hr reading: <u>NA</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO <u>NA</u> (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

TDS, Cl, and SO4 on hold per Colby
aw 8/18/15

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 8/18/15

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: MW-1
Legal Location:
Collection Date: 8/18/2015 08:50

Date: 26-Aug-15
Work Order: 1508286
Lab ID: 1508286-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS Volatiles						
			SW8260_25		Prep Date: 8/22/2015	PrepBy: JXK
BENZENE	ND		0.001	MG/L	1	8/22/2015 18:46
TOLUENE	ND		0.001	MG/L	1	8/22/2015 18:46
ETHYLBENZENE	ND		0.001	MG/L	1	8/22/2015 18:46
M+P-XYLENE	ND		0.001	MG/L	1	8/22/2015 18:46
O-XYLENE	ND		0.001	MG/L	1	8/22/2015 18:46
TOTAL XYLENES	ND		0.001	MG/L	1	8/22/2015 18:46
Surr: 4-BROMOFLUOROBENZENE	104		85-115	%REC	1	8/22/2015 18:46
Surr: DIBROMOFLUOROMETHANE	99		84-118	%REC	1	8/22/2015 18:46
Surr: TOLUENE-D8	99		85-115	%REC	1	8/22/2015 18:46

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: MW-4
Legal Location:
Collection Date: 8/18/2015 08:20

Date: 26-Aug-15
Work Order: 1508286
Lab ID: 1508286-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS Volatiles						
			SW8260_25		Prep Date: 8/22/2015	PrepBy: JXK
BENZENE	ND		0.001	MG/L	1	8/22/2015 19:08
TOLUENE	ND		0.001	MG/L	1	8/22/2015 19:08
ETHYLBENZENE	ND		0.001	MG/L	1	8/22/2015 19:08
M+P-XYLENE	ND		0.001	MG/L	1	8/22/2015 19:08
O-XYLENE	ND		0.001	MG/L	1	8/22/2015 19:08
TOTAL XYLENES	ND		0.001	MG/L	1	8/22/2015 19:08
Surr: 4-BROMOFLUOROBENZENE	103		85-115	%REC	1	8/22/2015 19:08
Surr: DIBROMOFLUOROMETHANE	98		84-118	%REC	1	8/22/2015 19:08
Surr: TOLUENE-D8	100		85-115	%REC	1	8/22/2015 19:08

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: MW-5
Legal Location:
Collection Date: 8/18/2015 09:55

Date: 26-Aug-15
Work Order: 1508286
Lab ID: 1508286-3
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS Volatiles			SW8260_25		Prep Date: 8/22/2015	PrepBy: JXK
BENZENE	ND		0.001	MG/L	1	8/22/2015 19:29
TOLUENE	ND		0.001	MG/L	1	8/22/2015 19:29
ETHYLBENZENE	ND		0.001	MG/L	1	8/22/2015 19:29
M+P-XYLENE	ND		0.001	MG/L	1	8/22/2015 19:29
O-XYLENE	ND		0.001	MG/L	1	8/22/2015 19:29
TOTAL XYLENES	ND		0.001	MG/L	1	8/22/2015 19:29
Surr: 4-BROMOFLUOROBENZENE	102		85-115	%REC	1	8/22/2015 19:29
Surr: DIBROMOFLUOROMETHANE	99		84-118	%REC	1	8/22/2015 19:29
Surr: TOLUENE-D8	100		85-115	%REC	1	8/22/2015 19:29

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: MW-6
Legal Location:
Collection Date: 8/18/2015 08:35

Date: 26-Aug-15
Work Order: 1508286
Lab ID: 1508286-4
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS Volatiles			SW8260_25		Prep Date: 8/22/2015	PrepBy: JXK
BENZENE	ND		0.001	MG/L	1	8/22/2015 19:50
TOLUENE	ND		0.001	MG/L	1	8/22/2015 19:50
ETHYLBENZENE	ND		0.001	MG/L	1	8/22/2015 19:50
M+P-XYLENE	ND		0.001	MG/L	1	8/22/2015 19:50
O-XYLENE	ND		0.001	MG/L	1	8/22/2015 19:50
TOTAL XYLENES	ND		0.001	MG/L	1	8/22/2015 19:50
Surr: 4-BROMOFLUOROBENZENE	103		85-115	%REC	1	8/22/2015 19:50
Surr: DIBROMOFLUOROMETHANE	99		84-118	%REC	1	8/22/2015 19:50
Surr: TOLUENE-D8	100		85-115	%REC	1	8/22/2015 19:50

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: MW-7
Legal Location:
Collection Date: 8/18/2015 09:05

Date: 26-Aug-15
Work Order: 1508286
Lab ID: 1508286-5
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS Volatiles						
			SW8260_25		Prep Date: 8/22/2015	PrepBy: JXK
BENZENE	ND		0.001	MG/L	1	8/22/2015 20:12
TOLUENE	ND		0.001	MG/L	1	8/22/2015 20:12
ETHYLBENZENE	ND		0.001	MG/L	1	8/22/2015 20:12
M+P-XYLENE	ND		0.001	MG/L	1	8/22/2015 20:12
O-XYLENE	ND		0.001	MG/L	1	8/22/2015 20:12
TOTAL XYLENES	ND		0.001	MG/L	1	8/22/2015 20:12
Surr: 4-BROMOFLUOROBENZENE	104		85-115	%REC	1	8/22/2015 20:12
Surr: DIBROMOFLUOROMETHANE	99		84-118	%REC	1	8/22/2015 20:12
Surr: TOLUENE-D8	100		85-115	%REC	1	8/22/2015 20:12

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: MW-8
Legal Location:
Collection Date: 8/18/2015 09:20

Date: 26-Aug-15
Work Order: 1508286
Lab ID: 1508286-6
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS Volatiles			SW8260_25		Prep Date: 8/22/2015	PrepBy: JXK
BENZENE	ND		0.001	MG/L	1	8/22/2015 20:33
TOLUENE	ND		0.001	MG/L	1	8/22/2015 20:33
ETHYLBENZENE	ND		0.001	MG/L	1	8/22/2015 20:33
M+P-XYLENE	ND		0.001	MG/L	1	8/22/2015 20:33
O-XYLENE	ND		0.001	MG/L	1	8/22/2015 20:33
TOTAL XYLENES	ND		0.001	MG/L	1	8/22/2015 20:33
Surr: 4-BROMOFLUOROBENZENE	103		85-115	%REC	1	8/22/2015 20:33
Surr: DIBROMOFLUOROMETHANE	99		84-118	%REC	1	8/22/2015 20:33
Surr: TOLUENE-D8	101		85-115	%REC	1	8/22/2015 20:33

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: MW-9
Legal Location:
Collection Date: 8/18/2015 09:35

Date: 26-Aug-15
Work Order: 1508286
Lab ID: 1508286-7
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS Volatiles			SW8260_25		Prep Date: 8/22/2015	PrepBy: JXK
BENZENE	ND		0.001	MG/L	1	8/22/2015 20:54
TOLUENE	ND		0.001	MG/L	1	8/22/2015 20:54
ETHYLBENZENE	ND		0.001	MG/L	1	8/22/2015 20:54
M+P-XYLENE	ND		0.001	MG/L	1	8/22/2015 20:54
O-XYLENE	ND		0.001	MG/L	1	8/22/2015 20:54
TOTAL XYLENES	ND		0.001	MG/L	1	8/22/2015 20:54
Surr: 4-BROMOFLUOROBENZENE	103		85-115	%REC	1	8/22/2015 20:54
Surr: DIBROMOFLUOROMETHANE	99		84-118	%REC	1	8/22/2015 20:54
Surr: TOLUENE-D8	100		85-115	%REC	1	8/22/2015 20:54

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: MW-9
Legal Location:
Collection Date: 8/18/2015 09:35

Date: 26-Aug-15
Work Order: 1508286
Lab ID: 1508286-7
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers

Radiochemistry:

U or ND - Result is less than the sample specific MDC.
 Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
 Y2 - Chemical Yield outside default limits.
 W - DER is greater than Warning Limit of 1.42
 * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
 # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
 G - Sample density differs by more than 15% of LCS density.
 D - DER is greater than Control Limit
 M - Requested MDC not met.
 LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
 L - LCS Recovery below lower control limit.
 H - LCS Recovery above upper control limit.
 P - LCS, Matrix Spike Recovery within control limits.
 N - Matrix Spike Recovery outside control limits
 NC - Not Calculated for duplicate results less than 5 times MDC
 B - Analyte concentration greater than MDC.
 B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
 U or ND - Indicates that the compound was analyzed for but not detected.
 E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
 M - Duplicate injection precision was not met.
 N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
 Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
 * - Duplicate analysis (relative percent difference) not within control limits.
 S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.
 B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
 E - Analyte concentration exceeds the upper level of the calibration range.
 J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
 A - A tentatively identified compound is a suspected aldol-condensation product.
 X - The analyte was diluted below an accurate quantitation level.
 * - The spike recovery is equal to or outside the control criteria used.
 + - The relative percent difference (RPD) equals or exceeds the control criteria.
 G - A pattern resembling gasoline was detected in this sample.
 D - A pattern resembling diesel was detected in this sample.
 M - A pattern resembling motor oil was detected in this sample.
 C - A pattern resembling crude oil was detected in this sample.
 4 - A pattern resembling JP-4 was detected in this sample.
 5 - A pattern resembling JP-5 was detected in this sample.
 H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
 L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
 Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS Environmental -- FC

Date: 8/26/2015 10:24

Client: Talon LPE

QC BATCH REPORT

Work Order: 1508286

Project: 701959.001.01 FTC Tank Battery

Batch ID: VL150822-3-1

Instrument ID HPV1

Method: SW8260_25

LCS		Sample ID: VL150822-3			Units: %REC		Analysis Date: 8/22/2015 11:55				
Client ID:		Run ID: VL150822-3A			Prep Date: 8/22/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	0.025		0.025		100	85-115					
Surr: DIBROMOFLUOROMETHANE	0.0252		0.025		101	84-118					
Surr: TOLUENE-D8	0.0248		0.025		99	85-115					
BENZENE	0.00952	0.001	0.01		95	83-117				20	
TOLUENE	0.00961	0.001	0.01		96	82-113				20	
ETHYLBENZENE	0.00947	0.001	0.01		95	81-113				20	
M+P-XYLENE	0.0189	0.001	0.02		94	82-115				20	
O-XYLENE	0.00944	0.001	0.01		94	81-115				20	

LCSD		Sample ID: VL150822-3			Units: %REC		Analysis Date: 8/22/2015 12:16				
Client ID:		Run ID: VL150822-3A			Prep Date: 8/22/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	0.0247		0.025		99	85-115			1		
Surr: DIBROMOFLUOROMETHANE	0.0252		0.025		101	84-118			0		
Surr: TOLUENE-D8	0.0248		0.025		99	85-115			0		
BENZENE	0.00936	0.001	0.01		94	83-117		0.00952	2	20	
TOLUENE	0.00933	0.001	0.01		93	82-113		0.00961	3	20	
ETHYLBENZENE	0.00912	0.001	0.01		91	81-113		0.00947	4	20	
M+P-XYLENE	0.0182	0.001	0.02		91	82-115		0.0189	4	20	
O-XYLENE	0.00916	0.001	0.01		92	81-115		0.00944	3	20	

MB		Sample ID: VL150822-3			Units: %REC		Analysis Date: 8/22/2015 13:02				
Client ID:		Run ID: VL150822-3A			Prep Date: 8/22/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	0.0261		0.025		104	85-115					
Surr: DIBROMOFLUOROMETHANE	0.0253		0.025		101	84-118					
Surr: TOLUENE-D8	0.0251		0.025		100	85-115					
BENZENE	ND	0.001									
TOLUENE	ND	0.001									
ETHYLBENZENE	ND	0.001									
M+P-XYLENE	ND	0.001									
O-XYLENE	ND	0.001									
TOTAL XYLENES	ND	0.001									

Client: Talon LPE
Work Order: 1508286
Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

The following samples were analyzed in this batch:

1508286-1	1508286-2	1508286-3
1508286-4	1508286-5	1508286-6
1508286-7		

Friday, August 21, 2015

Colby Sterling
Talon LPE
921 N Bivins
Amarillo, TX 79107

Re: ALS Workorder: 1508244
Project Name: FTC Tank Battery
Project Number: 701959.001.01

Dear Mr. Sterling:

Thirty one soil samples were received from Talon LPE, on 8/14/2015. The samples were scheduled for the following analyses:

GC/MS Volatiles

Total Extractable Petroleum Hydrocarbons (Diesel)

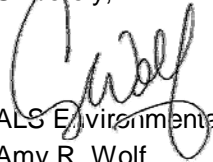
Total Volatile Petroleum Hydrocarbons (Gasoline)

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,



ALS Environmental
Amy R. Wolf
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Louisiana (LA)	05057
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1508244

GC/MS Volatiles:

The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

All matrix spike and matrix spike duplicate recoveries and RPDs were within acceptance criteria with the following exceptions:

Spiked Compound	QC Sample	Direction
Several Compounds	-6MS, -6MSD, -19MS & -19MSD	Low

The recoveries of these compounds in the laboratory control sample and laboratory control sample duplicate were within control limits, which suggest the outliers in the matrix spikes may have been due to matrix effects. No further action was taken.

Due to the concentration of target analytes, samples were analyzed at a dilution. The reporting limits have been adjusted accordingly.

All remaining acceptance criteria were met.

GRO:

The samples were analyzed following the current revision of SOP 425 generally based on SW-846 Methods 8000C and 8015D. TVPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C6 to C10.

The surrogate recoveries for samples 1508244-6, -7, -17, -18, and -19 were outside control limits (high). Inspection of the chromatograms indicated co-elution of the surrogate peaks with target component peaks, biasing the surrogate results high. No further action was taken.

The GRO recoveries in the matrix spike duplicate associated with sample 1508244-11 and the matrix spike associated with sample 1508244-20 were low outside of acceptance criteria. The GRO recoveries in the laboratory control samples and laboratory control sample duplicates were within control limits, which suggests the outliers in the matrix spikes may have been due to matrix effects. No further action was taken.

All remaining acceptance criteria were met.

**DRO:**

The samples were analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

The surrogate recovery for sample -7 was outside control limits (high). Inspection of the chromatogram indicated co-elution of the surrogate peak with target component peak(s), biasing the surrogate result high. No further action was taken.

All remaining acceptance criteria were met.

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1508244

Client Name: Talon LPE

Client Project Name: FTC Tank Battery

Client Project Number: 701959.001.01

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
SB-1 15-20	1508244-1		SOIL	11-Aug-15	12:30
SB-1 20-25	1508244-2		SOIL	11-Aug-15	12:37
SB-1 25-30	1508244-3		SOIL	11-Aug-15	12:56
SB-2 10-15	1508244-4		SOIL	11-Aug-15	17:11
SB-2 15-20	1508244-5		SOIL	11-Aug-15	17:20
SB-2 20-25	1508244-6		SOIL	11-Aug-15	17:33
SB-2 25-30	1508244-7		SOIL	11-Aug-15	17:45
SB-2 30-35	1508244-8		SOIL	11-Aug-15	16:00
SB-3 5-10	1508244-9		SOIL	12-Aug-15	18:50
SB-3 10-15	1508244-10		SOIL	12-Aug-15	18:56
SB-3 15-20	1508244-11		SOIL	12-Aug-15	9:11
SB-3 20-25	1508244-12		SOIL	12-Aug-15	9:16
SB-3 25-30	1508244-13		SOIL	12-Aug-15	9:30
SB-4 5-10	1508244-14		SOIL	12-Aug-15	10:56
SB-4 10-15	1508244-15		SOIL	12-Aug-15	11:00
SB-4 20-25	1508244-16		SOIL	12-Aug-15	11:12
SB-5 10-15	1508244-17		SOIL	12-Aug-15	15:33
SB-5 15-20	1508244-18		SOIL	12-Aug-15	15:38
SB-5 20-25	1508244-19		SOIL	12-Aug-15	15:42
SB-5 25-30	1508244-20		SOIL	12-Aug-15	15:55
SB-6 5-10	1508244-21		SOIL	13-Aug-15	9:35
SB-6 10-15	1508244-22		SOIL	13-Aug-15	9:40
SB-6 15-20	1508244-23		SOIL	13-Aug-15	9:50
SB-6 20-25	1508244-24		SOIL	13-Aug-15	9:52
SB-7 15-20	1508244-25		SOIL	13-Aug-15	11:28
SB-7 20-25	1508244-26		SOIL	13-Aug-15	11:38
SB-8 10-15	1508244-27		SOIL	13-Aug-15	14:31
SB-8 15-20	1508244-28		SOIL	13-Aug-15	14:40
SB-8 20-25	1508244-29		SOIL	13-Aug-15	14:50
SB-9 15-20	1508244-30		SOIL	13-Aug-15	15:55

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1508244

Client Name: Talon LPE

Client Project Name: FTC Tank Battery

Client Project Number: 701959.001.01

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
SB-9 20-25	1508244-31		SOIL	13-Aug-15	16:03



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202/8

PROJECT NAME FIC Tank Battery		SAMPLER TSG-0321		DATE 8-14-15		PAGE 1 of 4		WORKORDER # 1508244	
PROJECT No. 701959.001.01		SITE ID		TURNAROUND		DISPOSAL		By Lab or Return to Client	
COMPANY NAME Tetra/Life		EDD FORMAT							
SEND REPORT TO Tetra/Life		PURCHASE ORDER							
ADDRESS Tetra/Life		BILL TO COMPANY							
CITY / STATE / ZIP		INVOICE ATTN TO							
PHONE		ADDRESS							
FAX		CITY / STATE / ZIP							
E-MAIL		PHONE							
E-MAIL		FAX							
E-MAIL		E-MAIL							
Field ID		Matrix		Sample Date		Sample Time		# Bottles	
SB-1 15-20		Soil		8-11-15		1230		1	
SB-1 20-25				8-11-15		1237			
SB-1 25-30				8-11-15		1252			
SB-2 10-15				8-11-15		1711			
SB-2 15-20				8-11-15		1720			
SB-2 20-25				8-11-15		1733			
SB-2 25-30				8-11-15		1745			
SB-2 30-35				8-11-15		1600			
SB-3 5-10				8-12-15		0850			
SB-3 10-15				8-12-15		0856			
Lab ID		Matrix		Sample Date		Sample Time		# Bottles	
①		Soil		8-11-15		1230		1	
②				8-11-15		1237			
③				8-11-15		1252			
④				8-11-15		1711			
⑤				8-11-15		1720			
⑥				8-11-15		1733			
⑦				8-11-15		1745			
⑧				8-11-15		1600			
⑨				8-12-15		0850			
⑩				8-12-15		0856			

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments: 3.0°C	QC PACKAGE (check below)			
	LEVEL II (Standard QC)			
	LEVEL III (Std QC + forms)			
	LEVEL IV (Std QC + forms + raw data)			
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035				

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY		TSG-0321	8-14-15	1040
RELINQUISHED BY		Scott Mallory	8-14-15	1040
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



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Chain-of-Custody

Form 202/6

PROJECT NAME FIC Tank Battery		SAMPLER T. Grisel		DATE 8-14-15		WORKORDER # 1508244	
PROJECT No. 701959.cad.0.1		SITE ID		TURNAROUND		PAGE 2 of 4	
COMPANY NAME Talon/LPE		EDD FORMAT		DATE		By Lab or Return to Client	
SEND REPORT TO Jennifer Galles		PURCHASE ORDER		TURNAROUND		DISPOSAL	
ADDRESS		BILL TO COMPANY		TURNAROUND		DISPOSAL	
CITY / STATE / ZIP		INVOICE ATTN TO		TURNAROUND		DISPOSAL	
PHONE		ADDRESS		TURNAROUND		DISPOSAL	
FAX		CITY / STATE / ZIP		TURNAROUND		DISPOSAL	
E-MAIL jgalles@talonlpe.com		PHONE		TURNAROUND		DISPOSAL	
E-MAIL		FAX		TURNAROUND		DISPOSAL	
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
11	SB-3 15-20	Soil	8-12-15	0911	1	-	-
12	SB-3 20-25	Soil	8-12-15	0916	1	-	-
13	SB-3 25-30	Soil	8-12-15	0930	1	-	-
14	SB-4 5-10	Soil	8-12-15	1052	1	-	-
15	SB-4 10-15	Soil	8-12-15	1100	1	-	-
16	SB-4 20-25	Soil	8-12-15	1112	1	-	-
17	SB-5 10-15	Soil	8-12-15	1533	1	-	-
18	SB-5 15-20	Soil	8-12-15	1538	1	-	-
19	SB-5 20-25	Soil	8-12-15	1542	1	-	-
20	SB-5 25-30	Soil	8-12-15	1555	1	-	-

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filler

For metals or anions, please detail analytes below.

Comments: 3.02	QC PACKAGE (check below)	
	LEVEL II (Standard QC)	
	LEVEL III (Std QC + forms)	
	LEVEL IV (Std QC + forms + raw data)	
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035		

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY		RGZC1	8/14/15	1040
RELINQUISHED BY		Sgt Maling	8-14-15	1040
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



ALS Laboratory Group

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Chain-of-Custody

Form 2022a

PROJECT NAME	FTC Tank Battery	SAMPLER	TF Gisel	WORKORDER #	1508244		
PROJECT NO.	741959.col.01	SITE ID		PAGE	3 of 4		
COMPANY NAME	Talen/LLP	EDD FORMAT		DISPOSAL	By Lab or Return to Client		
SEND REPORT TO	Jennifer Gales	PURCHASE ORDER		TURNAROUND	8-14-15 Standard		
ADDRESS		BILL TO COMPANY					
CITY / STATE / ZIP		INVOICE ATTN TO					
PHONE		ADDRESS					
FAX		CITY / STATE / ZIP					
E-MAIL	jgales@talencol.com	PHONE					
		FAX					
		E-MAIL					
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
21	SB-6 5-10	Soil	8-13-15	0935	1	-	-
22	SB-6 10-15			0940	1	-	-
23	SB-6 15-20			0950	1	-	-
24	SB-6 20-25			0952	1	-	-
25	SB-7 15-20			1128	1	-	-
26	SB-7 20-25			1138	1	-	-
27	SB-8 10-15			1431	1	-	-
28	SB-8 15-20			1440	1	-	-
29	SB-8 20-25			1450	1	-	-
30	SB-9 15-20			1555	1	-	-

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filler

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)			
	LEVEL II (Standard QC)			
	LEVEL III (Std QC + forms)			
	LEVEL IV (Std QC + forms + raw data)			
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035				

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY		TF Gisel	8-14-15	1040
RELINQUISHED BY		Scott Melling	8-14-15	1040
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

Chain-of-Custody

Form 202r8

[illegible]

Time Zone (Circle):	EST	CST	MST	PST	Matrix: O = oil S = soil	NS = non-soil solid	W = water	L = liquid	E = extract	F = filter
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For metals or anions, please detail analytes below.

Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filler										
For metals or anions, please detail analytes below.										
Comments:		QC PACKAGE (check below)								
		LEVEL II (Standard QC)								
		LEVEL III (Std QC + forms)								
		LEVEL IV (Std QC + forms + raw data)								
Preservative Key:		1-HCl	2-HNO3	3-H2SO4	4-NaOH	5-NaHSO4	6-Na2S2O8	7-Other	8-4 degrees C	9-5035
RELINQUISHED BY		SIGNATURE		PRINTED NAME		DATE		TIME		
RECEIVED BY		SIGNATURE		PRINTED NAME		DATE		TIME		
RELINQUISHED BY		SIGNATURE		PRINTED NAME		DATE		TIME		
RECEIVED BY		SIGNATURE		PRINTED NAME		DATE		TIME		
RELINQUISHED BY		SIGNATURE		PRINTED NAME		DATE		TIME		
RECEIVED BY		SIGNATURE		PRINTED NAME		DATE		TIME		



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Talon

Workorder No: 1508244

Project Manager: AW

Initials: CDT Date: 8-14-15

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	<input checked="" type="radio"/> NONE	YES	NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	<input checked="" type="radio"/> DROP OFF	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	<input checked="" type="radio"/> N/A	YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	<input checked="" type="radio"/> N/A	YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ____ < green pea ____ > green pea	<input checked="" type="radio"/> N/A	YES	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ____ dusting ____ moderate ____ heavy	<input checked="" type="radio"/> N/A	YES	NO
16. Were the samples shipped on ice?		<input checked="" type="radio"/> YES	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <input checked="" type="radio"/> #2 #4 RAD ONLY		<input checked="" type="radio"/> YES	NO
Cooler #: <u>1</u>			
Temperature (°C): <u>3.0</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>NA</u>			
Background µR/hr reading: <u>NA</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / <input checked="" type="radio"/> NA (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? YES / NO / ☒ NA Contact: C. Way Date/Time: 8/17/15

Project Manager Signature / Date: C. Way 8/17/15

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-1 15-20
Legal Location:
Collection Date: 8/11/2015 12:30

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-1
Matrix: SOIL
Percent Moisture: 14.8

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	ND		5.9	MG/KG	1	8/17/2015 20:26
Surr: O-TERPHENYL	102		49-114	%REC	1	8/17/2015 20:26
Gasoline Range Organics			SW8015		Prep Date: 8/17/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.52	MG/KG	1	8/17/2015 16:27
Surr: 2,3,4-TRIFLUOROTOLUENE	95		76-126	%REC	1	8/17/2015 16:27
GC/MS Volatiles			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0058	MG/KG	1	8/17/2015 14:05
TOLUENE	ND		0.0058	MG/KG	1	8/17/2015 14:05
ETHYLBENZENE	ND		0.0058	MG/KG	1	8/17/2015 14:05
M+P-XYLENE	ND		0.0058	MG/KG	1	8/17/2015 14:05
O-XYLENE	ND		0.0058	MG/KG	1	8/17/2015 14:05
NAPHTHALENE	ND		0.0058	MG/KG	1	8/17/2015 14:05
TOTAL XYLENES	ND		0.005	MG/KG	1	8/17/2015 14:05
Surr: DIBROMOFLUOROMETHANE	104		61-134	%REC	1	8/17/2015 14:05
Surr: TOLUENE-D8	88		57-135	%REC	1	8/17/2015 14:05
Surr: 4-BROMOFLUOROBENZENE	102		52-151	%REC	1	8/17/2015 14:05

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-1 20-25
Legal Location:
Collection Date: 8/11/2015 12:37

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-2
Matrix: SOIL
Percent Moisture: 18.1

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
Diesel Range Organics	24	DM	SW8015M	6 MG/KG	1	Prep Date: 8/17/2015 PrepBy: JFN
Surr: O-TERPHENYL	103		49-114	%REC	1	8/17/2015 20:57 8/17/2015 20:57
Gasoline Range Organics						
Gasoline Range Organics	ND		SW8015	0.59 MG/KG	1	Prep Date: 8/17/2015 PrepBy: JFN
Surr: 2,3,4-TRIFLUOROTOLUENE	100		76-126	%REC	1	8/17/2015 16:47 8/17/2015 16:47
GC/MS Volatiles						
GC/MS Volatiles	ND		SW8260	0.0058 MG/KG	1	Prep Date: 8/17/2015 PrepBy: SDW
BENZENE	ND		0.0058	MG/KG	1	8/17/2015 14:27
TOLUENE	ND		0.0058	MG/KG	1	8/17/2015 14:27
ETHYLBENZENE	ND		0.0058	MG/KG	1	8/17/2015 14:27
M+P-XYLENE	ND		0.0058	MG/KG	1	8/17/2015 14:27
O-XYLENE	ND		0.0058	MG/KG	1	8/17/2015 14:27
NAPHTHALENE	ND		0.0058	MG/KG	1	8/17/2015 14:27
TOTAL XYLENES	ND		0.005	MG/KG	1	8/17/2015 14:27
Surr: DIBROMOFLUOROMETHANE	99		61-134	%REC	1	8/17/2015 14:27
Surr: TOLUENE-D8	89		57-135	%REC	1	8/17/2015 14:27
Surr: 4-BROMOFLUOROBENZENE	97		52-151	%REC	1	8/17/2015 14:27

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-1 25-30
Legal Location:
Collection Date: 8/11/2015 12:56

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-3
Matrix: SOIL
Percent Moisture: 16.6

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	ND		5.7	MG/KG	1	8/17/2015 21:28
Surr: O-TERPHENYL	100		49-114	%REC	1	8/17/2015 21:28
Gasoline Range Organics			SW8015		Prep Date: 8/17/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.38	MG/KG	1	8/17/2015 17:08
Surr: 2,3,4-TRIFLUOROTOLUENE	92		76-126	%REC	1	8/17/2015 17:08
GC/MS Volatiles			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0056	MG/KG	1	8/17/2015 14:51
TOLUENE	ND		0.0056	MG/KG	1	8/17/2015 14:51
ETHYLBENZENE	ND		0.0056	MG/KG	1	8/17/2015 14:51
M+P-XYLENE	ND		0.0056	MG/KG	1	8/17/2015 14:51
O-XYLENE	ND		0.0056	MG/KG	1	8/17/2015 14:51
NAPHTHALENE	ND		0.0056	MG/KG	1	8/17/2015 14:51
TOTAL XYLENES	ND		0.005	MG/KG	1	8/17/2015 14:51
Surr: DIBROMOFLUOROMETHANE	99		61-134	%REC	1	8/17/2015 14:51
Surr: TOLUENE-D8	89		57-135	%REC	1	8/17/2015 14:51
Surr: 4-BROMOFLUOROBENZENE	97		52-151	%REC	1	8/17/2015 14:51

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-2 10-15
Legal Location:
Collection Date: 8/11/2015 17:11

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-4
Matrix: SOIL
Percent Moisture: 14.5

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	ND		5.5	MG/KG	1	8/17/2015 21:59
Surr: O-TERPHENYL	102		49-114	%REC	1	8/17/2015 21:59
Gasoline Range Organics						
			SW8015		Prep Date: 8/17/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	0.97	LZ	0.4	MG/KG	1	8/17/2015 17:30
Surr: 2,3,4-TRIFLUOROTOLUENE	104		76-126	%REC	1	8/17/2015 17:30
GC/MS Volatiles						
			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0054	MG/KG	1	8/17/2015 15:15
TOLUENE	ND		0.0054	MG/KG	1	8/17/2015 15:15
ETHYLBENZENE	ND		0.0054	MG/KG	1	8/17/2015 15:15
M+P-XYLENE	ND		0.0054	MG/KG	1	8/17/2015 15:15
O-XYLENE	ND		0.0054	MG/KG	1	8/17/2015 15:15
NAPHTHALENE	ND		0.0054	MG/KG	1	8/17/2015 15:15
TOTAL XYLENES	ND		0.005	MG/KG	1	8/17/2015 15:15
Surr: DIBROMOFLUOROMETHANE	103		61-134	%REC	1	8/17/2015 15:15
Surr: TOLUENE-D8	89		57-135	%REC	1	8/17/2015 15:15
Surr: 4-BROMOFLUOROBENZENE	99		52-151	%REC	1	8/17/2015 15:15

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-2 15-20
Legal Location:
Collection Date: 8/11/2015 17:20

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-5
Matrix: SOIL
Percent Moisture: 14.8

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	6.6	LH	5.6	MG/KG	1	8/17/2015 22:29
<i>Surr: O-TERPHENYL</i>	<i>102</i>		<i>49-114</i>	<i>%REC</i>	1	8/17/2015 22:29
Gasoline Range Organics						
			SW8015		Prep Date: 8/17/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	0.98	LZ	0.53	MG/KG	1	8/17/2015 17:50
<i>Surr: 2,3,4-TRIFLUOROTOLUENE</i>	<i>101</i>		<i>76-126</i>	<i>%REC</i>	1	8/17/2015 17:50
GC/MS Volatiles						
			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0056	MG/KG	1	8/17/2015 15:39
TOLUENE	ND		0.0056	MG/KG	1	8/17/2015 15:39
ETHYLBENZENE	ND		0.0056	MG/KG	1	8/17/2015 15:39
M+P-XYLENE	ND		0.0056	MG/KG	1	8/17/2015 15:39
O-XYLENE	ND		0.0056	MG/KG	1	8/17/2015 15:39
NAPHTHALENE	ND		0.0056	MG/KG	1	8/17/2015 15:39
TOTAL XYLENES	ND		0.005	MG/KG	1	8/17/2015 15:39
<i>Surr: DIBROMOFLUOROMETHANE</i>	<i>103</i>		<i>61-134</i>	<i>%REC</i>	1	8/17/2015 15:39
<i>Surr: TOLUENE-D8</i>	<i>89</i>		<i>57-135</i>	<i>%REC</i>	1	8/17/2015 15:39
<i>Surr: 4-BROMOFLUOROBENZENE</i>	<i>99</i>		<i>52-151</i>	<i>%REC</i>	1	8/17/2015 15:39

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-2 20-25
Legal Location:
Collection Date: 8/11/2015 17:33

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-6
Matrix: SOIL
Percent Moisture: 17.4

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
Diesel Range Organics	1900	LDM	71	MG/KG	12	8/18/2015 15:44
<i>Surr: O-TERPHENYL</i>	106		49-114	%REC	12	8/18/2015 15:44
Gasoline Range Organics						
GASOLINE RANGE ORGANICS	280	Z	5.9	MG/KG	50	8/18/2015 11:57
<i>Surr: 2,3,4-TRIFLUOROTOLUENE</i>	154	*	76-126	%REC	50	8/18/2015 11:57
GC/MS Volatiles						
BENZENE	0.22		0.056	MG/KG	1	8/19/2015 12:29
TOLUENE	1.1		0.056	MG/KG	1	8/19/2015 12:29
ETHYLBENZENE	0.64		0.056	MG/KG	1	8/19/2015 12:29
M+P-XYLENE	2		0.056	MG/KG	1	8/19/2015 12:29
O-XYLENE	0.89		0.056	MG/KG	1	8/19/2015 12:29
NAPHTHALENE	0.5		0.056	MG/KG	1	8/19/2015 12:29
TOTAL XYLENES	2.9		0.005	MG/KG	1	8/17/2015 16:04
<i>Surr: DIBROMOFLUOROMETHANE</i>	99		61-134	%REC	1	8/19/2015 12:29
<i>Surr: TOLUENE-D8</i>	89		57-135	%REC	1	8/19/2015 12:29
<i>Surr: 4-BROMOFLUOROBENZENE</i>	99		52-151	%REC	1	8/19/2015 12:29

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-2 25-30
Legal Location:
Collection Date: 8/11/2015 17:45

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-7
Matrix: SOIL
Percent Moisture: 16.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	1600	LDM	55	MG/KG	10	8/18/2015 16:15
Surr: O-TERPHENYL	113		49-114	%REC	10	8/18/2015 16:15
Gasoline Range Organics						
			SW8015		Prep Date: 8/17/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	38	Z	1.2	MG/KG	1	8/17/2015 19:15
Surr: 2,3,4-TRIFLUOROTOLUENE	130	*	76-126	%REC	1	8/17/2015 19:15
GC/MS Volatiles						
			SW8260		Prep Date: 8/19/2015	PrepBy: SDW
BENZENE	ND		0.058	MG/KG	1	8/19/2015 12:07
TOLUENE	0.048		0.0059	MG/KG	1	8/17/2015 16:33
ETHYLBENZENE	0.24		0.058	MG/KG	1	8/19/2015 12:07
M+P-XYLENE	0.49		0.058	MG/KG	1	8/19/2015 12:07
O-XYLENE	0.12		0.058	MG/KG	1	8/19/2015 12:07
NAPHTHALENE	0.4		0.058	MG/KG	1	8/19/2015 12:07
TOTAL XYLENES	0.49		0.005	MG/KG	1	8/19/2015 14:04
Surr: DIBROMOFLUOROMETHANE	99		61-134	%REC	1	8/19/2015 12:07
Surr: TOLUENE-D8	92		57-135	%REC	1	8/19/2015 12:07
Surr: 4-BROMOFLUOROBENZENE	98		52-151	%REC	1	8/19/2015 12:07

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-2 30-35
Legal Location:
Collection Date: 8/11/2015 16:00

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-8
Matrix: SOIL
Percent Moisture: 11.6

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	ND		5.6	MG/KG	1	8/18/2015 15:14
Surr: O-TERPHENYL	95		49-114	%REC	1	8/18/2015 15:14
Gasoline Range Organics			SW8015		Prep Date: 8/17/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.48	MG/KG	1	8/17/2015 20:21
Surr: 2,3,4-TRIFLUOROTOLUENE	97		76-126	%REC	1	8/17/2015 20:21
GC/MS Volatiles			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0056	MG/KG	1	8/17/2015 16:59
TOLUENE	ND		0.0056	MG/KG	1	8/17/2015 16:59
ETHYLBENZENE	ND		0.0056	MG/KG	1	8/17/2015 16:59
M+P-XYLENE	ND		0.0056	MG/KG	1	8/17/2015 16:59
O-XYLENE	ND		0.0056	MG/KG	1	8/17/2015 16:59
NAPHTHALENE	0.0075		0.0056	MG/KG	1	8/17/2015 16:59
TOTAL XYLENES	ND		0.005	MG/KG	1	8/17/2015 16:59
Surr: DIBROMOFLUOROMETHANE	100		61-134	%REC	1	8/17/2015 16:59
Surr: TOLUENE-D8	89		57-135	%REC	1	8/17/2015 16:59
Surr: 4-BROMOFLUOROBENZENE	97		52-151	%REC	1	8/17/2015 16:59

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-3 5-10
Legal Location:
Collection Date: 8/12/2015 18:50

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-9
Matrix: SOIL
Percent Moisture: 15.6

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	ND		5.7	MG/KG	1	8/18/2015 01:04
Surr: O-TERPHENYL	101		49-114	%REC	1	8/18/2015 01:04
Gasoline Range Organics						
			SW8015		Prep Date: 8/17/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.51	MG/KG	1	8/17/2015 20:43
Surr: 2,3,4-TRIFLUOROTOLUENE	96		76-126	%REC	1	8/17/2015 20:43
GC/MS Volatiles						
			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0054	MG/KG	1	8/17/2015 17:28
TOLUENE	ND		0.0054	MG/KG	1	8/17/2015 17:28
ETHYLBENZENE	ND		0.0054	MG/KG	1	8/17/2015 17:28
M+P-XYLENE	ND		0.0054	MG/KG	1	8/17/2015 17:28
O-XYLENE	ND		0.0054	MG/KG	1	8/17/2015 17:28
NAPHTHALENE	ND		0.0054	MG/KG	1	8/17/2015 17:28
TOTAL XYLENES	ND		0.005	MG/KG	1	8/17/2015 17:28
Surr: DIBROMOFLUOROMETHANE	101		61-134	%REC	1	8/17/2015 17:28
Surr: TOLUENE-D8	90		57-135	%REC	1	8/17/2015 17:28
Surr: 4-BROMOFLUOROBENZENE	99		52-151	%REC	1	8/17/2015 17:28

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-3 10-15
Legal Location:
Collection Date: 8/12/2015 18:56

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-10
Matrix: SOIL
Percent Moisture: 12.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	ND		5.7	MG/KG	1	8/18/2015 01:35
Surr: O-TERPHENYL	100		49-114	%REC	1	8/18/2015 01:35
Gasoline Range Organics			SW8015		Prep Date: 8/17/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.49	MG/KG	1	8/17/2015 21:04
Surr: 2,3,4-TRIFLUOROTOLUENE	98		76-126	%REC	1	8/17/2015 21:04
GC/MS Volatiles			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0056	MG/KG	1	8/17/2015 17:54
TOLUENE	ND		0.0056	MG/KG	1	8/17/2015 17:54
ETHYLBENZENE	ND		0.0056	MG/KG	1	8/17/2015 17:54
M+P-XYLENE	0.0096		0.0056	MG/KG	1	8/17/2015 17:54
O-XYLENE	ND		0.0056	MG/KG	1	8/17/2015 17:54
NAPHTHALENE	ND		0.0056	MG/KG	1	8/17/2015 17:54
TOTAL XYLENES	0.0096		0.005	MG/KG	1	8/17/2015 17:54
Surr: DIBROMOFLUOROMETHANE	99		61-134	%REC	1	8/17/2015 17:54
Surr: TOLUENE-D8	91		57-135	%REC	1	8/17/2015 17:54
Surr: 4-BROMOFLUOROBENZENE	98		52-151	%REC	1	8/17/2015 17:54

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-3 15-20
Legal Location:
Collection Date: 8/12/2015 09:11

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-11
Matrix: SOIL
Percent Moisture: 13.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	ND		5.6	MG/KG	1	8/18/2015 02:06
Surr: O-TERPHENYL	100		49-114	%REC	1	8/18/2015 02:06
Gasoline Range Organics						
			SW8015		Prep Date: 8/17/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	0.72	Z	0.43	MG/KG	1	8/17/2015 21:26
Surr: 2,3,4-TRIFLUOROTOLUENE	100		76-126	%REC	1	8/17/2015 21:26
GC/MS Volatiles						
			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0052	MG/KG	1	8/17/2015 18:20
TOLUENE	0.0083		0.0052	MG/KG	1	8/17/2015 18:20
ETHYLBENZENE	ND		0.0052	MG/KG	1	8/17/2015 18:20
M+P-XYLENE	0.012		0.0052	MG/KG	1	8/17/2015 18:20
O-XYLENE	0.0056		0.0052	MG/KG	1	8/17/2015 18:20
NAPHTHALENE	ND		0.0052	MG/KG	1	8/17/2015 18:20
TOTAL XYLENES	0.017		0.005	MG/KG	1	8/17/2015 18:20
Surr: DIBROMOFLUOROMETHANE	104		61-134	%REC	1	8/17/2015 18:20
Surr: TOLUENE-D8	89		57-135	%REC	1	8/17/2015 18:20
Surr: 4-BROMOFLUOROBENZENE	102		52-151	%REC	1	8/17/2015 18:20

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-3 20-25
Legal Location:
Collection Date: 8/12/2015 09:16

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-12
Matrix: SOIL
Percent Moisture: 17.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	ND		5.8	MG/KG	1	8/18/2015 02:36
Surr: O-TERPHENYL	104		49-114	%REC	1	8/18/2015 02:36
Gasoline Range Organics						
			SW8015		Prep Date: 8/17/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	1.1	Z	0.49	MG/KG	1	8/17/2015 22:30
Surr: 2,3,4-TRIFLUOROTOLUENE	103		76-126	%REC	1	8/17/2015 22:30
GC/MS Volatiles						
			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	0.013		0.0057	MG/KG	1	8/17/2015 18:46
TOLUENE	ND		0.0057	MG/KG	1	8/17/2015 18:46
ETHYLBENZENE	0.017		0.0057	MG/KG	1	8/17/2015 18:46
M+P-XYLENE	0.051		0.0057	MG/KG	1	8/17/2015 18:46
O-XYLENE	0.011		0.0057	MG/KG	1	8/17/2015 18:46
NAPHTHALENE	ND		0.0057	MG/KG	1	8/17/2015 18:46
TOTAL XYLENES	0.062		0.005	MG/KG	1	8/17/2015 18:46
Surr: DIBROMOFLUOROMETHANE	101		61-134	%REC	1	8/17/2015 18:46
Surr: TOLUENE-D8	90		57-135	%REC	1	8/17/2015 18:46
Surr: 4-BROMOFLUOROBENZENE	99		52-151	%REC	1	8/17/2015 18:46

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-3 25-30
Legal Location:
Collection Date: 8/12/2015 09:30

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-13
Matrix: SOIL
Percent Moisture: 18.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	16	LDM	5.9	MG/KG	1	8/18/2015 03:07
Surr: O-TERPHENYL	102		49-114	%REC	1	8/18/2015 03:07
Gasoline Range Organics			SW8015		Prep Date: 8/17/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.56	MG/KG	1	8/17/2015 22:52
Surr: 2,3,4-TRIFLUOROTOLUENE	95		76-126	%REC	1	8/17/2015 22:52
GC/MS Volatiles			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0059	MG/KG	1	8/17/2015 19:10
TOLUENE	ND		0.0059	MG/KG	1	8/17/2015 19:10
ETHYLBENZENE	ND		0.0059	MG/KG	1	8/17/2015 19:10
M+P-XYLENE	ND		0.0059	MG/KG	1	8/17/2015 19:10
O-XYLENE	ND		0.0059	MG/KG	1	8/17/2015 19:10
NAPHTHALENE	ND		0.0059	MG/KG	1	8/17/2015 19:10
TOTAL XYLENES	ND		0.005	MG/KG	1	8/17/2015 19:10
Surr: DIBROMOFLUOROMETHANE	104		61-134	%REC	1	8/17/2015 19:10
Surr: TOLUENE-D8	89		57-135	%REC	1	8/17/2015 19:10
Surr: 4-BROMOFLUOROBENZENE	101		52-151	%REC	1	8/17/2015 19:10

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-4 5-10
Legal Location:
Collection Date: 8/12/2015 10:56

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-14
Matrix: SOIL
Percent Moisture: 12.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	ND		5.6	MG/KG	1	8/18/2015 03:38
Surr: O-TERPHENYL	96		49-114	%REC	1	8/18/2015 03:38
Gasoline Range Organics			SW8015		Prep Date: 8/17/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.56	MG/KG	1	8/17/2015 23:13
Surr: 2,3,4-TRIFLUOROTOLUENE	94		76-126	%REC	1	8/17/2015 23:13
GC/MS Volatiles			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0056	MG/KG	1	8/17/2015 19:34
TOLUENE	ND		0.0056	MG/KG	1	8/17/2015 19:34
ETHYLBENZENE	ND		0.0056	MG/KG	1	8/17/2015 19:34
M+P-XYLENE	ND		0.0056	MG/KG	1	8/17/2015 19:34
O-XYLENE	ND		0.0056	MG/KG	1	8/17/2015 19:34
NAPHTHALENE	ND		0.0056	MG/KG	1	8/17/2015 19:34
TOTAL XYLENES	ND		0.005	MG/KG	1	8/17/2015 19:34
Surr: DIBROMOFLUOROMETHANE	103		61-134	%REC	1	8/17/2015 19:34
Surr: TOLUENE-D8	88		57-135	%REC	1	8/17/2015 19:34
Surr: 4-BROMOFLUOROBENZENE	102		52-151	%REC	1	8/17/2015 19:34

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-4 10-15
Legal Location:
Collection Date: 8/12/2015 11:00

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-15
Matrix: SOIL
Percent Moisture: 12.5

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	ND		5.5	MG/KG	1	8/18/2015 04:09
Surr: O-TERPHENYL	97		49-114	%REC	1	8/18/2015 04:09
Gasoline Range Organics			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.4	MG/KG	1	8/18/2015 11:14
Surr: 2,3,4-TRIFLUOROTOLUENE	106		76-126	%REC	1	8/18/2015 11:14
GC/MS Volatiles			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0056	MG/KG	1	8/17/2015 19:59
TOLUENE	ND		0.0056	MG/KG	1	8/17/2015 19:59
ETHYLBENZENE	ND		0.0056	MG/KG	1	8/17/2015 19:59
M+P-XYLENE	ND		0.0056	MG/KG	1	8/17/2015 19:59
O-XYLENE	ND		0.0056	MG/KG	1	8/17/2015 19:59
NAPHTHALENE	ND		0.0056	MG/KG	1	8/17/2015 19:59
TOTAL XYLENES	ND		0.005	MG/KG	1	8/17/2015 19:59
Surr: DIBROMOFLUOROMETHANE	102		61-134	%REC	1	8/17/2015 19:59
Surr: TOLUENE-D8	87		57-135	%REC	1	8/17/2015 19:59
Surr: 4-BROMOFLUOROBENZENE	100		52-151	%REC	1	8/17/2015 19:59

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-4 20-25
Legal Location:
Collection Date: 8/12/2015 11:12

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-16
Matrix: SOIL
Percent Moisture: 16.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	ND		5.9	MG/KG	1	8/18/2015 04:40
Surr: O-TERPHENYL	98		49-114	%REC	1	8/18/2015 04:40
Gasoline Range Organics			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.45	MG/KG	1	8/18/2015 11:36
Surr: 2,3,4-TRIFLUOROTOLUENE	99		76-126	%REC	1	8/18/2015 11:36
GC/MS Volatiles			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0057	MG/KG	1	8/17/2015 20:25
TOLUENE	ND		0.0057	MG/KG	1	8/17/2015 20:25
ETHYLBENZENE	ND		0.0057	MG/KG	1	8/17/2015 20:25
M+P-XYLENE	ND		0.0057	MG/KG	1	8/17/2015 20:25
O-XYLENE	ND		0.0057	MG/KG	1	8/17/2015 20:25
NAPHTHALENE	ND		0.0057	MG/KG	1	8/17/2015 20:25
TOTAL XYLENES	ND		0.005	MG/KG	1	8/17/2015 20:25
Surr: DIBROMOFLUOROMETHANE	102		61-134	%REC	1	8/17/2015 20:25
Surr: TOLUENE-D8	89		57-135	%REC	1	8/17/2015 20:25
Surr: 4-BROMOFLUOROBENZENE	103		52-151	%REC	1	8/17/2015 20:25

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-5 10-15
Legal Location:
Collection Date: 8/12/2015 15:33

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-17
Matrix: SOIL
Percent Moisture: 13.3

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	1700	LDM	34	MG/KG	6	8/18/2015 05:11
<i>Surr: O-TERPHENYL</i>	<i>113</i>		<i>49-114</i>	<i>%REC</i>	6	8/18/2015 05:11
Gasoline Range Organics						
			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	24	Z	1	MG/KG	1	8/18/2015 12:52
<i>Surr: 2,3,4-TRIFLUOROTOLUENE</i>	<i>154</i>	*	<i>76-126</i>	<i>%REC</i>	1	8/18/2015 12:52
GC/MS Volatiles						
			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0055	MG/KG	1	8/17/2015 20:50
TOLUENE	ND		0.0055	MG/KG	1	8/17/2015 20:50
ETHYLBENZENE	0.059		0.0055	MG/KG	1	8/17/2015 20:50
M+P-XYLENE	0.54		0.18	MG/KG	50	8/18/2015 15:36
O-XYLENE	ND		0.0055	MG/KG	1	8/17/2015 20:50
NAPHTHALENE	0.89		0.18	MG/KG	50	8/18/2015 15:36
TOTAL XYLENES	0.54		0.005	MG/KG	1	8/17/2015 20:50
<i>Surr: DIBROMOFLUOROMETHANE</i>	<i>102</i>		<i>61-134</i>	<i>%REC</i>	50	8/18/2015 15:36
<i>Surr: DIBROMOFLUOROMETHANE</i>	<i>103</i>		<i>61-134</i>	<i>%REC</i>	1	8/17/2015 20:50
<i>Surr: TOLUENE-D8</i>	<i>92</i>		<i>57-135</i>	<i>%REC</i>	1	8/17/2015 20:50
<i>Surr: TOLUENE-D8</i>	<i>90</i>		<i>57-135</i>	<i>%REC</i>	50	8/18/2015 15:36
<i>Surr: 4-BROMOFLUOROBENZENE</i>	<i>103</i>		<i>52-151</i>	<i>%REC</i>	50	8/18/2015 15:36
<i>Surr: 4-BROMOFLUOROBENZENE</i>	<i>87</i>		<i>52-151</i>	<i>%REC</i>	1	8/17/2015 20:50

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-5 15-20
Legal Location:
Collection Date: 8/12/2015 15:38

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-18
Matrix: SOIL
Percent Moisture: 13.5

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	690	LDM	23	MG/KG	4	8/18/2015 05:41
Surr: O-TERPHENYL	99		49-114	%REC	4	8/18/2015 05:41
Gasoline Range Organics						
			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	16	Z	0.78	MG/KG	1	8/18/2015 13:34
Surr: 2,3,4-TRIFLUOROTOLUENE	163	*	76-126	%REC	1	8/18/2015 13:34
GC/MS Volatiles						
			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.0057	MG/KG	1	8/17/2015 21:15
TOLUENE	ND		0.0057	MG/KG	1	8/17/2015 21:15
ETHYLBENZENE	0.059		0.0057	MG/KG	1	8/17/2015 21:15
M+P-XYLENE	0.22		0.0057	MG/KG	1	8/17/2015 21:15
O-XYLENE	ND		0.0057	MG/KG	1	8/17/2015 21:15
NAPHTHALENE	0.17		0.0057	MG/KG	1	8/17/2015 21:15
TOTAL XYLENES	0.22		0.005	MG/KG	1	8/17/2015 21:15
Surr: DIBROMOFLUOROMETHANE	102		61-134	%REC	1	8/17/2015 21:15
Surr: TOLUENE-D8	90		57-135	%REC	1	8/17/2015 21:15
Surr: 4-BROMOFLUOROBENZENE	104		52-151	%REC	1	8/17/2015 21:15

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-5 20-25
Legal Location:
Collection Date: 8/12/2015 15:42

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-19
Matrix: SOIL
Percent Moisture: 19.4

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	140	LDM	6	MG/KG	1	8/18/2015 06:12
Surr: O-TERPHENYL	101		49-114	%REC	1	8/18/2015 06:12
Gasoline Range Organics						
			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	10	Z	0.56	MG/KG	1	8/18/2015 14:17
Surr: 2,3,4-TRIFLUOROTOLUENE	160	*	76-126	%REC	1	8/18/2015 14:17
GC/MS Volatiles						
			SW8260		Prep Date: 8/17/2015	PrepBy: SDW
BENZENE	ND		0.006	MG/KG	1	8/17/2015 21:39
TOLUENE	ND		0.006	MG/KG	1	8/17/2015 21:39
ETHYLBENZENE	0.038		0.006	MG/KG	1	8/17/2015 21:39
M+P-XYLENE	0.0096		0.006	MG/KG	1	8/17/2015 21:39
O-XYLENE	ND		0.006	MG/KG	1	8/17/2015 21:39
NAPHTHALENE	0.059		0.006	MG/KG	1	8/17/2015 21:39
TOTAL XYLENES	0.0096		0.005	MG/KG	1	8/17/2015 21:39
Surr: DIBROMOFLUOROMETHANE	102		61-134	%REC	1	8/17/2015 21:39
Surr: TOLUENE-D8	88		57-135	%REC	1	8/17/2015 21:39
Surr: 4-BROMOFLUOROBENZENE	100		52-151	%REC	1	8/17/2015 21:39

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-5 25-30
Legal Location:
Collection Date: 8/12/2015 15:55

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-20
Matrix: SOIL
Percent Moisture: 13.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/17/2015	PrepBy: JFN
Diesel Range Organics	ND		5.7	MG/KG	1	8/18/2015 06:43
Surr: O-TERPHENYL	97		49-114	%REC	1	8/18/2015 06:43
Gasoline Range Organics			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.54	MG/KG	1	8/18/2015 15:00
Surr: 2,3,4-TRIFLUOROTOLUENE	100		76-126	%REC	1	8/18/2015 15:00
GC/MS Volatiles			SW8260		Prep Date: 8/18/2015	PrepBy: SDW
BENZENE	ND		0.0056	MG/KG	1	8/18/2015 16:56
TOLUENE	ND		0.0056	MG/KG	1	8/18/2015 16:56
ETHYLBENZENE	ND		0.0056	MG/KG	1	8/18/2015 16:56
M+P-XYLENE	ND		0.0056	MG/KG	1	8/18/2015 16:56
O-XYLENE	ND		0.0056	MG/KG	1	8/18/2015 16:56
NAPHTHALENE	ND		0.0056	MG/KG	1	8/18/2015 16:56
TOTAL XYLENES	ND		0.005	MG/KG	1	8/18/2015 16:56
Surr: DIBROMOFLUOROMETHANE	102		61-134	%REC	1	8/18/2015 16:56
Surr: TOLUENE-D8	92		57-135	%REC	1	8/18/2015 16:56
Surr: 4-BROMOFLUOROBENZENE	99		52-151	%REC	1	8/18/2015 16:56

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-6 5-10
Legal Location:
Collection Date: 8/13/2015 09:35

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-21
Matrix: SOIL
Percent Moisture: 11.8

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/19/2015	PrepBy: TWK
Diesel Range Organics	ND		5.4	MG/KG	1	8/19/2015 14:12
Surr: O-TERPHENYL	102		49-114	%REC	1	8/19/2015 14:12
Gasoline Range Organics			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.52	MG/KG	1	8/18/2015 16:26
Surr: 2,3,4-TRIFLUOROTOLUENE	97		76-126	%REC	1	8/18/2015 16:26
GC/MS Volatiles			SW8260		Prep Date: 8/18/2015	PrepBy: SDW
BENZENE	ND		0.0052	MG/KG	1	8/18/2015 17:22
TOLUENE	ND		0.0052	MG/KG	1	8/18/2015 17:22
ETHYLBENZENE	ND		0.0052	MG/KG	1	8/18/2015 17:22
M+P-XYLENE	ND		0.0052	MG/KG	1	8/18/2015 17:22
O-XYLENE	ND		0.0052	MG/KG	1	8/18/2015 17:22
NAPHTHALENE	ND		0.0052	MG/KG	1	8/18/2015 17:22
TOTAL XYLENES	ND		0.005	MG/KG	1	8/18/2015 17:22
Surr: DIBROMOFLUOROMETHANE	104		61-134	%REC	1	8/18/2015 17:22
Surr: TOLUENE-D8	87		57-135	%REC	1	8/18/2015 17:22
Surr: 4-BROMOFLUOROBENZENE	102		52-151	%REC	1	8/18/2015 17:22

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-6 10-15
Legal Location:
Collection Date: 8/13/2015 09:40

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-22
Matrix: SOIL
Percent Moisture: 11.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/19/2015	PrepBy: TWK
Diesel Range Organics	ND		5.5	MG/KG	1	8/19/2015 14:43
Surr: O-TERPHENYL	98		49-114	%REC	1	8/19/2015 14:43
Gasoline Range Organics			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.44	MG/KG	1	8/18/2015 16:47
Surr: 2,3,4-TRIFLUOROTOLUENE	92		76-126	%REC	1	8/18/2015 16:47
GC/MS Volatiles			SW8260		Prep Date: 8/18/2015	PrepBy: SDW
BENZENE	ND		0.0048	MG/KG	1	8/18/2015 17:46
TOLUENE	ND		0.0048	MG/KG	1	8/18/2015 17:46
ETHYLBENZENE	ND		0.0048	MG/KG	1	8/18/2015 17:46
M+P-XYLENE	ND		0.0048	MG/KG	1	8/18/2015 17:46
O-XYLENE	ND		0.0048	MG/KG	1	8/18/2015 17:46
NAPHTHALENE	ND		0.0048	MG/KG	1	8/18/2015 17:46
TOTAL XYLENES	ND		0.005	MG/KG	1	8/18/2015 17:46
Surr: DIBROMOFLUOROMETHANE	102		61-134	%REC	1	8/18/2015 17:46
Surr: TOLUENE-D8	91		57-135	%REC	1	8/18/2015 17:46
Surr: 4-BROMOFLUOROBENZENE	102		52-151	%REC	1	8/18/2015 17:46

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-6 15-20
Legal Location:
Collection Date: 8/13/2015 09:50

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-23
Matrix: SOIL
Percent Moisture: 12.4

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/19/2015	PrepBy: TWK
Diesel Range Organics	ND		5.5	MG/KG	1	8/19/2015 15:14
Surr: O-TERPHENYL	99		49-114	%REC	1	8/19/2015 15:14
Gasoline Range Organics			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.53	MG/KG	1	8/18/2015 17:09
Surr: 2,3,4-TRIFLUOROTOLUENE	96		76-126	%REC	1	8/18/2015 17:09
GC/MS Volatiles			SW8260		Prep Date: 8/18/2015	PrepBy: SDW
BENZENE	ND		0.0055	MG/KG	1	8/18/2015 18:11
TOLUENE	ND		0.0055	MG/KG	1	8/18/2015 18:11
ETHYLBENZENE	ND		0.0055	MG/KG	1	8/18/2015 18:11
M+P-XYLENE	ND		0.0055	MG/KG	1	8/18/2015 18:11
O-XYLENE	ND		0.0055	MG/KG	1	8/18/2015 18:11
NAPHTHALENE	ND		0.0055	MG/KG	1	8/18/2015 18:11
TOTAL XYLENES	ND		0.005	MG/KG	1	8/18/2015 18:11
Surr: DIBROMOFLUOROMETHANE	103		61-134	%REC	1	8/18/2015 18:11
Surr: TOLUENE-D8	90		57-135	%REC	1	8/18/2015 18:11
Surr: 4-BROMOFLUOROBENZENE	98		52-151	%REC	1	8/18/2015 18:11

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-6 20-25
Legal Location:
Collection Date: 8/13/2015 09:52

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-24
Matrix: SOIL
Percent Moisture: 16.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/19/2015	PrepBy: TWK
Diesel Range Organics	ND		5.9	MG/KG	1	8/19/2015 15:44
Surr: O-TERPHENYL	104		49-114	%REC	1	8/19/2015 15:44
Gasoline Range Organics			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.46	MG/KG	1	8/18/2015 17:31
Surr: 2,3,4-TRIFLUOROTOLUENE	96		76-126	%REC	1	8/18/2015 17:31
GC/MS Volatiles			SW8260		Prep Date: 8/18/2015	PrepBy: SDW
BENZENE	ND		0.0057	MG/KG	1	8/18/2015 18:38
TOLUENE	ND		0.0057	MG/KG	1	8/18/2015 18:38
ETHYLBENZENE	ND		0.0057	MG/KG	1	8/18/2015 18:38
M+P-XYLENE	ND		0.0057	MG/KG	1	8/18/2015 18:38
O-XYLENE	ND		0.0057	MG/KG	1	8/18/2015 18:38
NAPHTHALENE	ND		0.0057	MG/KG	1	8/18/2015 18:38
TOTAL XYLENES	ND		0.005	MG/KG	1	8/18/2015 18:38
Surr: DIBROMOFLUOROMETHANE	103		61-134	%REC	1	8/18/2015 18:38
Surr: TOLUENE-D8	88		57-135	%REC	1	8/18/2015 18:38
Surr: 4-BROMOFLUOROBENZENE	99		52-151	%REC	1	8/18/2015 18:38

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-7 15-20
Legal Location:
Collection Date: 8/13/2015 11:28

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-25
Matrix: SOIL
Percent Moisture: 16.1

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/19/2015	PrepBy: TWK
Diesel Range Organics	ND		5.9	MG/KG	1	8/19/2015 16:16
Surr: O-TERPHENYL	104		49-114	%REC	1	8/19/2015 16:16
Gasoline Range Organics			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.55	MG/KG	1	8/18/2015 17:52
Surr: 2,3,4-TRIFLUOROTOLUENE	90		76-126	%REC	1	8/18/2015 17:52
GC/MS Volatiles			SW8260		Prep Date: 8/18/2015	PrepBy: SDW
BENZENE	ND		0.0054	MG/KG	1	8/18/2015 18:59
TOLUENE	ND		0.0054	MG/KG	1	8/18/2015 18:59
ETHYLBENZENE	ND		0.0054	MG/KG	1	8/18/2015 18:59
M+P-XYLENE	ND		0.0054	MG/KG	1	8/18/2015 18:59
O-XYLENE	ND		0.0054	MG/KG	1	8/18/2015 18:59
NAPHTHALENE	ND		0.0054	MG/KG	1	8/18/2015 18:59
TOTAL XYLENES	ND		0.005	MG/KG	1	8/18/2015 18:59
Surr: DIBROMOFLUOROMETHANE	100		61-134	%REC	1	8/18/2015 18:59
Surr: TOLUENE-D8	92		57-135	%REC	1	8/18/2015 18:59
Surr: 4-BROMOFLUOROBENZENE	96		52-151	%REC	1	8/18/2015 18:59

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-7 20-25
Legal Location:
Collection Date: 8/13/2015 11:38

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-26
Matrix: SOIL
Percent Moisture: 17.4

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/19/2015	PrepBy: TWK
Diesel Range Organics	ND		6	MG/KG	1	8/19/2015 16:46
Surr: O-TERPHENYL	100		49-114	%REC	1	8/19/2015 16:46
Gasoline Range Organics			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.55	MG/KG	1	8/18/2015 18:12
Surr: 2,3,4-TRIFLUOROTOLUENE	98		76-126	%REC	1	8/18/2015 18:12
GC/MS Volatiles			SW8260		Prep Date: 8/18/2015	PrepBy: SDW
BENZENE	ND		0.0057	MG/KG	1	8/18/2015 19:25
TOLUENE	ND		0.0057	MG/KG	1	8/18/2015 19:25
ETHYLBENZENE	ND		0.0057	MG/KG	1	8/18/2015 19:25
M+P-XYLENE	ND		0.0057	MG/KG	1	8/18/2015 19:25
O-XYLENE	ND		0.0057	MG/KG	1	8/18/2015 19:25
NAPHTHALENE	ND		0.0057	MG/KG	1	8/18/2015 19:25
TOTAL XYLENES	ND		0.005	MG/KG	1	8/18/2015 19:25
Surr: DIBROMOFLUOROMETHANE	101		61-134	%REC	1	8/18/2015 19:25
Surr: TOLUENE-D8	88		57-135	%REC	1	8/18/2015 19:25
Surr: 4-BROMOFLUOROBENZENE	99		52-151	%REC	1	8/18/2015 19:25

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-8 10-15
Legal Location:
Collection Date: 8/13/2015 14:31

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-27
Matrix: SOIL
Percent Moisture: 13.1

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/19/2015	PrepBy: TWK
Diesel Range Organics	8	DH	5.7	MG/KG	1	8/19/2015 17:17
Surr: O-TERPHENYL	95		49-114	%REC	1	8/19/2015 17:17
Gasoline Range Organics			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.37	MG/KG	1	8/18/2015 18:34
Surr: 2,3,4-TRIFLUOROTOLUENE	102		76-126	%REC	1	8/18/2015 18:34
GC/MS Volatiles			SW8260		Prep Date: 8/18/2015	PrepBy: SDW
BENZENE	ND		0.0053	MG/KG	1	8/18/2015 19:52
TOLUENE	ND		0.0053	MG/KG	1	8/18/2015 19:52
ETHYLBENZENE	ND		0.0053	MG/KG	1	8/18/2015 19:52
M+P-XYLENE	ND		0.0053	MG/KG	1	8/18/2015 19:52
O-XYLENE	ND		0.0053	MG/KG	1	8/18/2015 19:52
NAPHTHALENE	ND		0.0053	MG/KG	1	8/18/2015 19:52
TOTAL XYLENES	ND		0.005	MG/KG	1	8/18/2015 19:52
Surr: DIBROMOFLUOROMETHANE	106		61-134	%REC	1	8/18/2015 19:52
Surr: TOLUENE-D8	89		57-135	%REC	1	8/18/2015 19:52
Surr: 4-BROMOFLUOROBENZENE	101		52-151	%REC	1	8/18/2015 19:52

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-8 15-20
Legal Location:
Collection Date: 8/13/2015 14:40

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-28
Matrix: SOIL
Percent Moisture: 15.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/19/2015	PrepBy: TWK
Diesel Range Organics	ND		5.8	MG/KG	1	8/19/2015 17:48
Surr: O-TERPHENYL	97		49-114	%REC	1	8/19/2015 17:48
Gasoline Range Organics			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.53	MG/KG	1	8/18/2015 18:55
Surr: 2,3,4-TRIFLUOROTOLUENE	90		76-126	%REC	1	8/18/2015 18:55
GC/MS Volatiles			SW8260		Prep Date: 8/18/2015	PrepBy: SDW
BENZENE	ND		0.0059	MG/KG	1	8/18/2015 20:17
TOLUENE	ND		0.0059	MG/KG	1	8/18/2015 20:17
ETHYLBENZENE	ND		0.0059	MG/KG	1	8/18/2015 20:17
M+P-XYLENE	ND		0.0059	MG/KG	1	8/18/2015 20:17
O-XYLENE	ND		0.0059	MG/KG	1	8/18/2015 20:17
NAPHTHALENE	ND		0.0059	MG/KG	1	8/18/2015 20:17
TOTAL XYLENES	ND		0.005	MG/KG	1	8/18/2015 20:17
Surr: DIBROMOFLUOROMETHANE	100		61-134	%REC	1	8/18/2015 20:17
Surr: TOLUENE-D8	96		57-135	%REC	1	8/18/2015 20:17
Surr: 4-BROMOFLUOROBENZENE	97		52-151	%REC	1	8/18/2015 20:17

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-8 20-25
Legal Location:
Collection Date: 8/13/2015 14:50

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-29
Matrix: SOIL
Percent Moisture: 18.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
			SW8015M		Prep Date: 8/19/2015	PrepBy: TWK
Diesel Range Organics	130	DM	6.1	MG/KG	1	8/19/2015 18:19
<i>Surr: O-TERPHENYL</i>	<i>101</i>		<i>49-114</i>	<i>%REC</i>	1	8/19/2015 18:19
Gasoline Range Organics						
			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	0.6	Z	0.55	MG/KG	1	8/18/2015 19:17
<i>Surr: 2,3,4-TRIFLUOROTOLUENE</i>	<i>103</i>		<i>76-126</i>	<i>%REC</i>	1	8/18/2015 19:17
GC/MS Volatiles						
			SW8260		Prep Date: 8/18/2015	PrepBy: SDW
BENZENE	ND		0.006	MG/KG	1	8/18/2015 20:38
TOLUENE	ND		0.006	MG/KG	1	8/18/2015 20:38
ETHYLBENZENE	ND		0.006	MG/KG	1	8/18/2015 20:38
M+P-XYLENE	ND		0.006	MG/KG	1	8/18/2015 20:38
O-XYLENE	ND		0.006	MG/KG	1	8/18/2015 20:38
NAPHTHALENE	ND		0.006	MG/KG	1	8/18/2015 20:38
TOTAL XYLENES	ND		0.005	MG/KG	1	8/18/2015 20:38
<i>Surr: DIBROMOFLUOROMETHANE</i>	<i>103</i>		<i>61-134</i>	<i>%REC</i>	1	8/18/2015 20:38
<i>Surr: TOLUENE-D8</i>	<i>89</i>		<i>57-135</i>	<i>%REC</i>	1	8/18/2015 20:38
<i>Surr: 4-BROMOFLUOROBENZENE</i>	<i>100</i>		<i>52-151</i>	<i>%REC</i>	1	8/18/2015 20:38

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-9 15-20
Legal Location:
Collection Date: 8/13/2015 15:55

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-30
Matrix: SOIL
Percent Moisture: 13.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics						
			SW8015M		Prep Date: 8/19/2015	PrepBy: TWK
Diesel Range Organics	27	DM	5.7	MG/KG	1	8/19/2015 18:49
Surr: O-TERPHENYL	98		49-114	%REC	1	8/19/2015 18:49
Gasoline Range Organics						
			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	0.69	Z	0.49	MG/KG	1	8/18/2015 19:39
Surr: 2,3,4-TRIFLUOROTOLUENE	101		76-126	%REC	1	8/18/2015 19:39
GC/MS Volatiles						
			SW8260		Prep Date: 8/18/2015	PrepBy: SDW
BENZENE	ND		0.0055	MG/KG	1	8/18/2015 21:05
TOLUENE	ND		0.0055	MG/KG	1	8/18/2015 21:05
ETHYLBENZENE	ND		0.0055	MG/KG	1	8/18/2015 21:05
M+P-XYLENE	ND		0.0055	MG/KG	1	8/18/2015 21:05
O-XYLENE	ND		0.0055	MG/KG	1	8/18/2015 21:05
NAPHTHALENE	ND		0.0055	MG/KG	1	8/18/2015 21:05
TOTAL XYLENES	ND		0.005	MG/KG	1	8/18/2015 21:05
Surr: DIBROMOFLUOROMETHANE	99		61-134	%REC	1	8/18/2015 21:05
Surr: TOLUENE-D8	91		57-135	%REC	1	8/18/2015 21:05
Surr: 4-BROMOFLUOROBENZENE	97		52-151	%REC	1	8/18/2015 21:05

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-9 20-25
Legal Location:
Collection Date: 8/13/2015 16:03

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-31
Matrix: SOIL
Percent Moisture: 16.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Diesel Range Organics			SW8015M		Prep Date: 8/19/2015	PrepBy: TWK
Diesel Range Organics	ND		6	MG/KG	1	8/19/2015 19:20
Surr: O-TERPHENYL	105		49-114	%REC	1	8/19/2015 19:20
Gasoline Range Organics			SW8015		Prep Date: 8/18/2015	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.53	MG/KG	1	8/18/2015 20:01
Surr: 2,3,4-TRIFLUOROTOLUENE	95		76-126	%REC	1	8/18/2015 20:01
GC/MS Volatiles			SW8260		Prep Date: 8/18/2015	PrepBy: SDW
BENZENE	ND		0.0059	MG/KG	1	8/18/2015 21:31
TOLUENE	ND		0.0059	MG/KG	1	8/18/2015 21:31
ETHYLBENZENE	ND		0.0059	MG/KG	1	8/18/2015 21:31
M+P-XYLENE	ND		0.0059	MG/KG	1	8/18/2015 21:31
O-XYLENE	ND		0.0059	MG/KG	1	8/18/2015 21:31
NAPHTHALENE	ND		0.0059	MG/KG	1	8/18/2015 21:31
TOTAL XYLENES	ND		0.005	MG/KG	1	8/18/2015 21:31
Surr: DIBROMOFLUOROMETHANE	99		61-134	%REC	1	8/18/2015 21:31
Surr: TOLUENE-D8	89		57-135	%REC	1	8/18/2015 21:31
Surr: 4-BROMOFLUOROBENZENE	98		52-151	%REC	1	8/18/2015 21:31

Client: Talon LPE
Project: 701959.001.01 FTC Tank Battery
Sample ID: SB-9 20-25
Legal Location:
Collection Date: 8/13/2015 16:03

Date: 21-Aug-15
Work Order: 1508244
Lab ID: 1508244-31
Matrix: SOIL
Percent Moisture: 16.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers

Radiochemistry:

U or ND - Result is less than the sample specific MDC.
 Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
 Y2 - Chemical Yield outside default limits.
 W - DER is greater than Warning Limit of 1.42
 * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
 # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
 G - Sample density differs by more than 15% of LCS density.
 D - DER is greater than Control Limit
 M - Requested MDC not met.
 LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
 L - LCS Recovery below lower control limit.
 H - LCS Recovery above upper control limit.
 P - LCS, Matrix Spike Recovery within control limits.
 N - Matrix Spike Recovery outside control limits
 NC - Not Calculated for duplicate results less than 5 times MDC
 B - Analyte concentration greater than MDC.
 B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
 U or ND - Indicates that the compound was analyzed for but not detected.
 E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
 M - Duplicate injection precision was not met.
 N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
 Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
 * - Duplicate analysis (relative percent difference) not within control limits.
 S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.
 B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
 E - Analyte concentration exceeds the upper level of the calibration range.
 J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
 A - A tentatively identified compound is a suspected aldol-condensation product.
 X - The analyte was diluted below an accurate quantitation level.
 * - The spike recovery is equal to or outside the control criteria used.
 + - The relative percent difference (RPD) equals or exceeds the control criteria.
 G - A pattern resembling gasoline was detected in this sample.
 D - A pattern resembling diesel was detected in this sample.
 M - A pattern resembling motor oil was detected in this sample.
 C - A pattern resembling crude oil was detected in this sample.
 4 - A pattern resembling JP-4 was detected in this sample.
 5 - A pattern resembling JP-5 was detected in this sample.
 H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
 L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
 Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS Environmental -- FC

Date: 8/21/2015 10:56

Client: Talon LPE

QC BATCH REPORT

Work Order: 1508244

Project: 701959.001.01 FTC Tank Battery

Batch ID: HC150817-62-1

Instrument ID: FUELS-1

Method: SW8015

LCS	Sample ID: HC150817-62				Units: MG/KG		Analysis Date: 8/17/2015 15:56				
Client ID:	Run ID: HC150817-66A				Prep Date: 8/17/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.42	0.5	2.5		97	79-118				20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.537		0.5		107	76-126					

LCSD	Sample ID: HC150817-62				Units: MG/KG		Analysis Date: 8/17/2015 23:35				
Client ID:	Run ID: HC150817-66A				Prep Date: 8/17/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.25	0.5	2.5		90	79-118		2.42	7	20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.539		0.5		108	76-126			0		

MB	Sample ID: HC150817-62				Units: MG/KG		Analysis Date: 8/17/2015 12:17				
Client ID:	Run ID: HC150817-66A				Prep Date: 8/17/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	0.5									
Surr: 2,3,4-TRIFLUOROTOLUENE	0.481		0.5		96	76-126					

MS	Sample ID: 1508244-11				Units: MG/KG		Analysis Date: 8/17/2015 21:47				
Client ID: SB-3 15-20			Run ID: HC150817-66A			Prep Date: 8/17/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	4.48	0.476	4.76	0.72	79	79-118				40	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.536		0.476		113	76-126					

MSD	Sample ID: 1508244-11				Units: MG/KG		Analysis Date: 8/17/2015 22:09				
Client ID: SB-3 15-20		Run ID: HC150817-66A				Prep Date: 8/17/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	4.57	0.524	5.24	0.72	74	79-118		4.48	2	40	*
Surr: 2,3,4-TRIFLUOROTOLUENE	0.586		0.524		112	76-126			9		

The following samples were analyzed in this batch:

1508244-1	1508244-2	1508244-3
1508244-4	1508244-5	1508244-7
1508244-8	1508244-9	1508244-10
1508244-11	1508244-12	1508244-13
1508244-14		

Client: Talon LPE
Work Order: 1508244
Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **HC150817-100-1** Instrument ID: **FUELS-1** Method: **SW8015M**

MS		Sample ID: 1508244-20				Units: MG/KG		Analysis Date: 8/18/2015 07:14			
Client ID: SB-5 25-30		Run ID: HC150817-77A				Prep Date: 8/17/2015		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	147	5.69	142	5.7	101	76-124				20	
Surr: O-TERPHENYL	6.69		7.12		94	49-114					

MSD		Sample ID: 1508244-20				Units: MG/KG		Analysis Date: 8/18/2015 07:45			
Client ID: SB-5 25-30			Run ID: HC150817-77A				Prep Date: 8/17/2015			DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	151	5.73	143	5.7	103	76-124		147	3	20	
Surr: O-TERPHENYL	6.82		7.17		95	49-114			2		

The following samples were analyzed in this batch:

1508244-9	1508244-10	1508244-11
1508244-12	1508244-13	1508244-14
1508244-15	1508244-16	1508244-17
1508244-18	1508244-19	1508244-20

Client: Talon LPE
Work Order: 1508244
Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **HC150817-100-1** Instrument ID: **FUELS-1** Method: **SW8015M**

MB Sample ID: **HC150817-100** Units: **MG/KG** Analysis Date: **8/17/2015 19:03**

Client ID: Run ID: **HC150817-7A** Prep Date: **8/17/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	ND	5									
Surr: O-TERPHENYL	5.81		6.25		93	49-114					

The following samples were analyzed in this batch:

1508244-1	1508244-2	1508244-3
1508244-4	1508244-5	

Client: Talon LPE
 Work Order: 1508244
 Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **HC150818-61-1** Instrument ID: **FUELS-1** Method: **SW8015**

LCS	Sample ID: HC150818-61				Units: MG/KG		Analysis Date: 8/18/2015 09:49				
Client ID:	Run ID: HC150818-6A				Prep Date: 8/18/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.36	0.5	2.5		94	79-118				20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.541		0.5		108	76-126					

LCSD	Sample ID: HC150818-61				Units: MG/KG			Analysis Date: 8/18/2015 16:04			
Client ID:	Run ID: HC150818-6A				Prep Date: 8/18/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.32	0.5	2.5		93	79-118		2.36	2	20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.509		0.5		102	76-126			6		

MB	Sample ID: HC150818-61				Units: MG/KG			Analysis Date: 8/18/2015 10:10			
Client ID:		Run ID: HC150818-6A				Prep Date: 8/18/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	0.5									
Surr: 2,3,4-TRIFLUOROTOLUENE	0.48		0.5		96	76-126					

MB	Sample ID: HC150818-61M					Units: MG/KG		Analysis Date: 8/18/2015 10:32			
Client ID:		Run ID: HC150818-6A					Prep Date: 8/18/2015			DF: 50	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	5									
Surr: 2,3,4-TRIFLUOROTOLUENE	4.9		5		98	76-126					

MS	Sample ID: 1508244-20				Units: MG/KG		Analysis Date: 8/18/2015 15:22				
Client ID: SB-5 25-30			Run ID: HC150818-6A			Prep Date: 8/18/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.16	0.558	2.79	0.54	78	79-118				40	*
Surr: 2,3,4-TRIFLUOROTOLUENE	0.589		0.558		106	76-126					

Client: Talon LPE
Work Order: 1508244
Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **HC150818-61-1** Instrument ID: **FUELS-1** Method: **SW8015**

MSD Sample ID: **1508244-20** Units: **MG/KG** Analysis Date: **8/18/2015 15:43**

Client ID: **SB-5 25-30** Run ID: **HC150818-6A** Prep Date: **8/18/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.2	0.548	2.74	0.54	80	79-118		2.16	2	40	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.573		0.548		105	76-126			3		

The following samples were analyzed in this batch:

1508244-6	1508244-15	1508244-16
1508244-17	1508244-18	1508244-19
1508244-20	1508244-21	1508244-22
1508244-23	1508244-24	1508244-25
1508244-26	1508244-27	1508244-28
1508244-29	1508244-30	1508244-31

Client: Talon LPE
Work Order: 1508244
Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **HC150817-100-1** Instrument ID: **FUELS-1** Method: **SW8015M**

LCS Sample ID: **HC150817-100** Units: **MG/KG** Analysis Date: **8/18/2015 14:43**

Client ID: Run ID: **HC150818-7A** Prep Date: **8/17/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	137	5	125		110	76-124				20	
Surr: O-TERPHENYL	5.17		6.25		83	49-114					

The following samples were analyzed in this batch:

1508244-6	1508244-7	1508244-8
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Client: Talon LPE
 Work Order: 1508244
 Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **HC150819-200-1** Instrument ID: **FUELS-1** Method: **SW8015M**

LCS	Sample ID: HC150819-200				Units: MG/KG			Analysis Date: 8/19/2015 13:41			
Client ID:	Run ID: HC150819-7A				Prep Date: 8/19/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	71.1	5	62.5		114	76-124				20	
Surr: O-TERPHENYL	5.4		6.25		86	49-114					

MB	Sample ID: HC150819-200				Units: MG/KG			Analysis Date: 8/19/2015 13:10			
Client ID:		Run ID: HC150819-7A				Prep Date: 8/19/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	ND	5									
Surr: O-TERPHENYL	5.49		6.25		88	49-114					

MS		Sample ID: 1508244-21				Units: MG/KG		Analysis Date: 8/19/2015 19:51			
Client ID: SB-6 5-10			Run ID: HC150819-7A				Prep Date: 8/19/2015		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	75.8	5.62	70.3	5.4	108	76-124				20	
Surr: O-TERPHENYL	6.9		7.03		98	49-114					

MSD	Sample ID: 1508244-21				Units: MG/KG			Analysis Date: 8/19/2015 20:21			
Client ID: SB-6 5-10			Run ID: HC150819-7A			Prep Date: 8/19/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
Diesel Range Organics	73.2	5.65	70.7	5.4	104	76-124		75.8	4	20	
Surr: O-TERPHENYL	6.79		7.07		96	49-114			2		

The following samples were analyzed in this batch:

1508244-21	1508244-22	1508244-23
1508244-24	1508244-25	1508244-26
1508244-27	1508244-28	1508244-29
1508244-30	1508244-31	

Client: Talon LPE
 Work Order: 1508244
 Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **VL150817-2-1** Instrument ID: **HPV1** Method: **SW8260**

LCS	Sample ID: VL150817-2			Units: MG/KG			Analysis Date: 8/17/2015 11:40				
Client ID:		Run ID: VL150817-5A				Prep Date: 8/17/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	0.0489	0.005	0.04		122	73-126				30	
TOLUENE	0.0427	0.005	0.04		107	71-127				30	
ETHYLBENZENE	0.0425	0.005	0.04		106	74-127				30	
M+P-XYLENE	0.0873	0.005	0.08		109	79-126				30	
O-XYLENE	0.0436	0.005	0.04		109	77-125				30	
NAPHTHALENE	0.0465	0.005	0.04		116	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.0505		0.05		101	61-134					
Surr: TOLUENE-D8	0.0444		0.05		89	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0493		0.05		99	52-151					

LCSD	Sample ID: VL150817-2			Units: MG/KG		Analysis Date: 8/17/2015 12:05					
Client ID:	Run ID: VL150817-5A			Prep Date: 8/17/2015				DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	0.0463	0.005	0.04		116	73-126		0.0489	5	30	
TOLUENE	0.0403	0.005	0.04		101	71-127		0.0427	6	30	
ETHYLBENZENE	0.0399	0.005	0.04		100	74-127		0.0425	6	30	
M+P-XYLENE	0.0831	0.005	0.08		104	79-126		0.0873	5	30	
O-XYLENE	0.0408	0.005	0.04		102	77-125		0.0436	7	30	
NAPHTHALENE	0.0426	0.005	0.04		107	64-141		0.0465	9	30	
Surr: DIBROMOFLUOROMETHANE	0.0518		0.05		104	61-134			3		
Surr: TOLUENE-D8	0.0447		0.05		89	57-135			1		
Surr: 4-BROMOFLUOROBENZENE	0.0507		0.05		101	52-151			3		

Client: Talon LPE
Work Order: 1508244
Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **VL150817-2-1** Instrument ID: **HPV1** Method: **SW8260**

MB		Sample ID: VL150817-2		Units: MG/KG		Analysis Date: 8/17/2015 12:31					
Client ID:		Run ID: VL150817-5A		Prep Date: 8/17/2015		DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	ND	0.005									
TOLUENE	ND	0.005									
ETHYLBENZENE	ND	0.005									
M+P-XYLENE	ND	0.005									
O-XYLENE	ND	0.005									
NAPHTHALENE	ND	0.005									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	0.0492		0.05		98	61-134					
Surr: TOLUENE-D8	0.0454		0.05		91	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0489		0.05		98	52-151					

MS		Sample ID: 1508244-19		Units: MG/KG		Analysis Date: 8/17/2015 22:03					
Client ID: SB-5 20-25		Run ID: VL150817-5A		Prep Date: 8/17/2015		DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	0.0392	0.00609	0.0487	0.006	80	73-126				30	
TOLUENE	0.035	0.00609	0.0487	0.006	72	71-127				30	
ETHYLBENZENE	0.0756	0.00609	0.0487	0.038	78	74-127				30	
M+P-XYLENE	0.0723	0.00609	0.0975	0.0096	64	79-126				30	*
O-XYLENE	0.0322	0.00609	0.0487	0.006	66	77-125				30	*
NAPHTHALENE	0.0932	0.00609	0.0487	0.059	70	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.0615		0.0609		101	61-134					
Surr: TOLUENE-D8	0.0541		0.0609		89	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0601		0.0609		99	52-151					

Client: Talon LPE
Work Order: 1508244
Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **VL150817-2-1** Instrument ID: **HPV1** Method: **SW8260**

MSD		Sample ID: 1508244-19		Units: MG/KG			Analysis Date: 8/17/2015 22:25				
Client ID: SB-5 20-25		Run ID: VL150817-5A			Prep Date: 8/17/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	0.0399	0.00591	0.0473	0.006	85	73-126		0.0392	2	30	
TOLUENE	0.0344	0.00591	0.0473	0.006	73	71-127		0.035	2	30	
ETHYLBENZENE	0.0588	0.00591	0.0473	0.038	45	74-127		0.0756	25	30	*
M+P-XYLENE	0.0687	0.00591	0.0945	0.0096	63	79-126		0.0723	5	30	*
O-XYLENE	0.0319	0.00591	0.0473	0.006	67	77-125		0.0322	1	30	*
NAPHTHALENE	0.0728	0.00591	0.0473	0.059	29	64-141		0.0932	24	30	*
Surr: DIBROMOFLUOROMETHANE	0.0584		0.0591		99	61-134			5		
Surr: TOLUENE-D8	0.0501		0.0591		85	57-135			8		
Surr: 4-BROMOFLUOROBENZENE	0.0586		0.0591		99	52-151			2		

The following samples were analyzed in this batch:

1508244-1	1508244-2	1508244-3
1508244-4	1508244-5	1508244-6
1508244-7	1508244-8	1508244-9
1508244-10	1508244-11	1508244-12
1508244-13	1508244-14	1508244-15
1508244-16	1508244-17	1508244-18
1508244-19		

Client: Talon LPE
 Work Order: 1508244
 Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **VL150818-2-1** Instrument ID: **HPV1** Method: **SW8260**

LCS	Sample ID: VL150818-2			Units: MG/KG		Analysis Date: 8/18/2015 10:39					
Client ID:		Run ID: VL150818-2A			Prep Date: 8/18/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	0.0494	0.005	0.04		124	73-126				30	
TOLUENE	0.0443	0.005	0.04		111	71-127				30	
ETHYLBENZENE	0.0438	0.005	0.04		109	74-127				30	
M+P-XYLENE	0.091	0.005	0.08		114	79-126				30	
O-XYLENE	0.0452	0.005	0.04		113	77-125				30	
NAPHTHALENE	0.0468	0.005	0.04		117	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.0518		0.05		104	61-134					
Surr: TOLUENE-D8	0.0451		0.05		90	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.051		0.05		102	52-151					

LCSD		Sample ID: VL150818-2			Units: MG/KG		Analysis Date: 8/18/2015 11:29				
Client ID:		Run ID: VL150818-2A			Prep Date: 8/18/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	0.0479	0.005	0.04		120	73-126		0.0494	3	30	
TOLUENE	0.0442	0.005	0.04		110	71-127		0.0443	0	30	
ETHYLBENZENE	0.044	0.005	0.04		110	74-127		0.0438	0	30	
M+P-XYLENE	0.092	0.005	0.08		115	79-126		0.091	1	30	
O-XYLENE	0.0453	0.005	0.04		113	77-125		0.0452	0	30	
NAPHTHALENE	0.0477	0.005	0.04		119	64-141		0.0468	2	30	
Surr: DIBROMOFLUOROMETHANE	0.0497		0.05		99	61-134			4		
Surr: TOLUENE-D8	0.0457		0.05		91	57-135			1		
Surr: 4-BROMOFLUOROBENZENE	0.0511		0.05		102	52-151			0		

Client: Talon LPE
 Work Order: 1508244
 Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **VL150818-2-1** Instrument ID: **HPV1** Method: **SW8260**

MB		Sample ID: VL150818-2			Units: MG/KG			Analysis Date: 8/18/2015 11:54			
Client ID:		Run ID: VL150818-2A				Prep Date: 8/18/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	ND	0.005									
TOLUENE	ND	0.005									
ETHYLBENZENE	ND	0.005									
M+P-XYLENE	ND	0.005									
O-XYLENE	ND	0.005									
NAPHTHALENE	ND	0.005									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	0.05		0.05		100	61-134					
Surr: TOLUENE-D8	0.0449		0.05		90	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0503		0.05		101	52-151					

MB		Sample ID: VL150818-2M			Units: MG/KG		Analysis Date: 8/18/2015 14:21				
Client ID:		Run ID: VL150818-2A			Prep Date: 8/18/2015			DF: 50			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	ND	0.25									
TOLUENE	ND	0.25									
ETHYLBENZENE	ND	0.25									
M+P-XYLENE	ND	0.25									
O-XYLENE	ND	0.25									
NAPHTHALENE	ND	0.25									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	2.49		2.5		100	61-134					
Surr: TOLUENE-D8	2.21		2.5		88	57-135					
Surr: 4-BROMOFLUOROBENZENE	2.57		2.5		103	52-151					

Client: Talon LPE
Work Order: 1508244
Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **VL150818-2-1** Instrument ID: **HPV1** Method: **SW8260**

MS Sample ID: **1508244-31** Units: **MG/KG** Analysis Date: **8/18/2015 21:56**

Client ID: **SB-9 20-25** Run ID: **VL150818-2A** Prep Date: **8/18/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	0.0472	0.00571	0.0457	0.0059	103	73-126				30	
TOLUENE	0.0406	0.00571	0.0457	0.0059	89	71-127				30	
ETHYLBENZENE	0.0382	0.00571	0.0457	0.0059	84	74-127				30	
M+P-XYLENE	0.0774	0.00571	0.0914	0.0059	85	79-126				30	
O-XYLENE	0.0394	0.00571	0.0457	0.0059	86	77-125				30	
NAPHTHALENE	0.0308	0.00571	0.0457	0.0059	67	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.0585		0.0571		102	61-134					
Surr: TOLUENE-D8	0.0509		0.0571		89	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0565		0.0571		99	52-151					

The following samples were analyzed in this batch:

1508244-6	1508244-7	1508244-17
1508244-20	1508244-21	1508244-22
1508244-23	1508244-24	1508244-25
1508244-26	1508244-27	1508244-28
1508244-29	1508244-30	1508244-31

Client: Talon LPE
 Work Order: 1508244
 Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **VL150819-2-1** Instrument ID: **HPV1** Method: **SW8260**

LCS		Sample ID: VL150819-2			Units: MG/KG		Analysis Date: 8/19/2015 10:56				
Client ID:		Run ID: VL150819-2A				Prep Date: 8/19/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	0.0471	0.005	0.04		118	73-126				30	
TOLUENE	0.0437	0.005	0.04		109	71-127				30	
ETHYLBENZENE	0.0431	0.005	0.04		108	74-127				30	
M+P-XYLENE	0.0889	0.005	0.08		111	79-126				30	
O-XYLENE	0.0433	0.005	0.04		108	77-125				30	
NAPHTHALENE	0.0469	0.005	0.04		117	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.0483		0.05		97	61-134					
Surr: TOLUENE-D8	0.0442		0.05		88	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0513		0.05		103	52-151					

LCSD	Sample ID: VL150819-2			Units: MG/KG		Analysis Date: 8/19/2015 11:17					
Client ID:	Run ID: VL150819-2A			Prep Date: 8/19/2015				DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	0.0456	0.005	0.04		114	73-126		0.0471	3	30	
TOLUENE	0.0437	0.005	0.04		109	71-127		0.0437	0	30	
ETHYLBENZENE	0.0437	0.005	0.04		109	74-127		0.0431	1	30	
M+P-XYLENE	0.0899	0.005	0.08		112	79-126		0.0889	1	30	
O-XYLENE	0.0447	0.005	0.04		112	77-125		0.0433	3	30	
NAPHTHALENE	0.0484	0.005	0.04		121	64-141		0.0469	3	30	
Surr: DIBROMOFLUOROMETHANE	0.0476		0.05		95	61-134			2		
Surr: TOLUENE-D8	0.0452		0.05		90	57-135			2		
Surr: 4-BROMOFLUOROBENZENE	0.0513		0.05		103	52-151			0		

Client: Talon LPE
 Work Order: 1508244
 Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **VL150819-2-1** Instrument ID: **HPV1** Method: **SW8260**

MB	Sample ID: VL150819-2			Units: MG/KG			Analysis Date: 8/19/2015 11:45				
Client ID:	Run ID: VL150819-2A			Prep Date: 8/19/2015			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	ND	0.005									
TOLUENE	ND	0.005									
ETHYLBENZENE	ND	0.005									
M+P-XYLENE	ND	0.005									
O-XYLENE	ND	0.005									
NAPHTHALENE	ND	0.005									
TOTAL XYLENES	ND	0.005									
Surr: DIBROMOFLUOROMETHANE	0.0494		0.05		99	61-134					
Surr: TOLUENE-D8	0.0455		0.05		91	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.0499		0.05		100	52-151					

MS	Sample ID: 1508244-6			Units: MG/KG			Analysis Date: 8/19/2015 12:53				
Client ID: SB-2 20-25			Run ID: VL150819-2A			Prep Date: 8/19/2015			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	0.658	0.055	0.44	0.22	99	73-126				30	
TOLUENE	1.08	0.055	0.44	1.1	6	71-127				30	*
ETHYLBENZENE	0.868	0.055	0.44	0.64	51	74-127				30	*
M+P-XYLENE	2.21	0.055	0.88	2	28	79-126				30	*
O-XYLENE	1.03	0.055	0.44	0.89	31	77-125				30	*
NAPHTHALENE	0.831	0.055	0.44	0.5	74	64-141				30	
Surr: DIBROMOFLUOROMETHANE	0.565		0.55		103	61-134					
Surr: TOLUENE-D8	0.503		0.55		91	57-135					
Surr: 4-BROMOFLUOROBENZENE	0.555		0.55		101	52-151					

Client: Talon LPE
Work Order: 1508244
Project: 701959.001.01 FTC Tank Battery

QC BATCH REPORT

Batch ID: **VL150819-2-1** Instrument ID: **HPV1** Method: **SW8260**

MSD		Sample ID: 1508244-6		Units: MG/KG			Analysis Date: 8/19/2015 13:19				
Client ID: SB-2 20-25		Run ID: VL150819-2A			Prep Date: 8/19/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	0.618	0.054	0.432	0.22	91	73-126		0.658	6	30	
TOLUENE	0.976	0.054	0.432	1.1	-18	71-127		1.08	10	30	*
ETHYLBENZENE	0.765	0.054	0.432	0.64	28	74-127		0.868	13	30	*
M+P-XYLENE	1.95	0.054	0.865	2	-2	79-126		2.21	12	30	*
O-XYLENE	0.905	0.054	0.432	0.89	3	77-125		1.03	13	30	*
NAPHTHALENE	0.72	0.054	0.432	0.5	50	64-141		0.831	14	30	*
Surr: DIBROMOFLUOROMETHANE	0.554		0.54		103	61-134			2		
Surr: TOLUENE-D8	0.484		0.54		90	57-135			4		
Surr: 4-BROMOFLUOROBENZENE	0.548		0.54		101	52-151			1		

The following samples were analyzed in this batch:

1508244-6	1508244-7
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Attachment 5
Survey Report

Point ID	Latitude (Global)	Longitude (Global)	Elevation	Feature Code
100	40.62550026	-105.0477306	5067.521	WELL
1001	40.62550022	-105.0477305	5067.24	100
1002	40.63745316	-105.0535617	5120.816	MW CASING 9
1003	40.63745337	-105.0535615	5121.236	MW LID 9
1004	40.63730989	-105.0535691	5123.095	MW LID 5
1005	40.63731007	-105.0535692	5122.812	MW CASING 5
1006	40.63724522	-105.0534771	5122.973	MW LID 2
1007	40.63724527	-105.0534773	5122.606	MW CASING 2
1008	40.6373563	-105.0534329	5121.08	MW LID 8
1009	40.6373559	-105.0534332	5120.612	MW CASING 8
1010	40.63720538	-105.0533054	5119.228	MW LID 7
1011	40.63720573	-105.0533057	5118.879	MW CASING 7
1012	40.63705047	-105.0534242	5120.067	MW LID 1
1013	40.63705045	-105.0534241	5119.772	MW CASING 1
1014	40.63696229	-105.053745	5122.315	MW CASING 6
1015	40.63696199	-105.0537451	5122.668	MW LID 6
1016	40.63714891	-105.053837	5123.166	MW CASING 4
1017	40.63714907	-105.0538368	5123.485	MW LID 4
1018	40.63712827	-105.0536249	5123.213	MW LID 3
1019	40.63712825	-105.0536249	5122.846	MW CASING 3

Attachment 6
Field Forms

Project #: 701959.001.01

Location: FT Collins, CO

Date: 8/1/15

Site: Muddy Lands from Mine 4

Objective: Soil Borings / Well Installation

Weather: 83°F / Sunny

Personnel: TJC, K. B. H. TJC

PPE: Goggles / D

1100-Trans

1115-on-site

↳ Drilling crew on-site; Check in w/ Butch &

get Driller set up

1200-Begin drilling

↳ see bore log for all details pertaining to

lithology data

1320-Set monitoring well

↳ see well completion form for all info

1420-Set up on a location to try & core through

asphalt / concrete

1630-Set up & drill SB-2

↳ see Bore log for soil descriptions &

data

1830-Set well

↳ see well log for all info

1915-off-site / Trans

1930-office



Project #: 701959.001.01

Location: FT Collins, CO

Date: 8/12/15

Site: FTR Tank Battery

Objective: Soil Borings / Well Installation

Weather: 90°F / Sunny

Personnel: TJC

PPE: Level D

0720-Trans

0745-on-site

↳ Fuel / Jack machine

0800-Begin Drilling, SB-3

↳ see bore log for soil descriptions

* Fix bearings on a part for center rods

1245-Set well

↳ see well completion form for data

1500-Set up on SB-5

↳ see bore log for details

1600-Finish well

↳ see well completion form for details

1700-off-site / Trans

1715-office



Project #: 701959.001 d

Location: FT Collins, Co

Date: 8/13/15

Site: FTR Tank Battery

Objective: Well Installation

Weather: 90°/Sunny

Personnel: TIG

P P E: hard D

0630-Trans

↳ stop by office to get supplies

0700-on-site

↳ wait for drillers to pick up bearings & arrive on-site; Can not find any

0730-Drillers on-site → continue search for bearings

by calling around; Helpers concentrating in manways

0900-Getting set up on SB-6

too ↳ See bore log for details

1000-Set well

↳ see well completion form for details

1045-Well completed

1100-Set BOP on SB-7

↳ see Bore log for details

1140-Set up SB-8

↳ see bore log for details

1515-Set well

↳ see well completion form for details



1530-Set up on SB-9

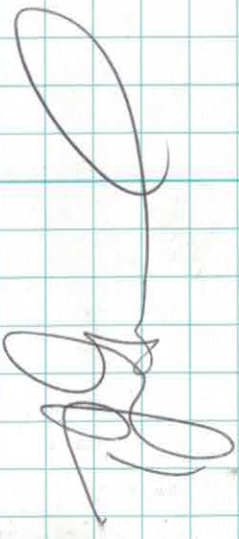
↳ see Bore log for details

1620-Set well

↳ see well completion form for details

1700-off-site / Home

1715-office



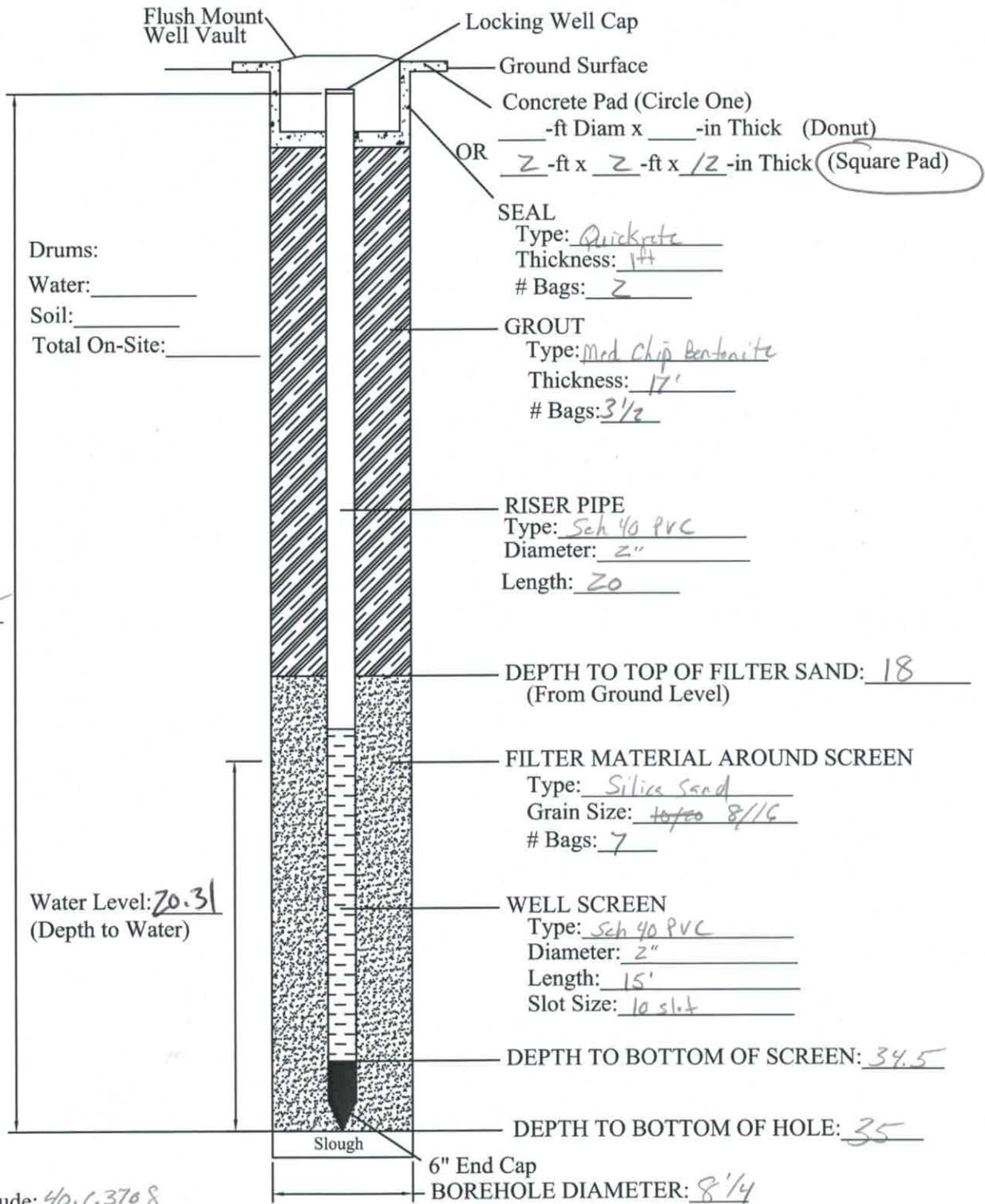


Boring Number: SB-01	Job Number: 701959.001.01	Driller/Co.: Talcen/LPE
Site Name: FRO Tank Battery	LPST # NA	Bit Size: 7 7/8
Location: Ft Collins, CO	Weather: 85° F / Sunny	Rig Type: CME-85
Date: 8-11-15	Sample Retrieval Method: Split Spoon	Drilling Method: HSA

Page / of /

MONITOR WELL DETAIL

MW # 1



Longitude: 40.63708

Latitude: 105.05344



Geologist: TJ Grise

Driller: Rennie B

Date: 8-11-15

Project No.: 761959-001.01 LPST # N/A

Facility Name: FTC Tank Battery

Location: FT Collins, CO



Amarillo, TX - Artesia, NM
Midland, TX - Oklahoma City, OK
San Antonio, TX - Fort Collins, CO

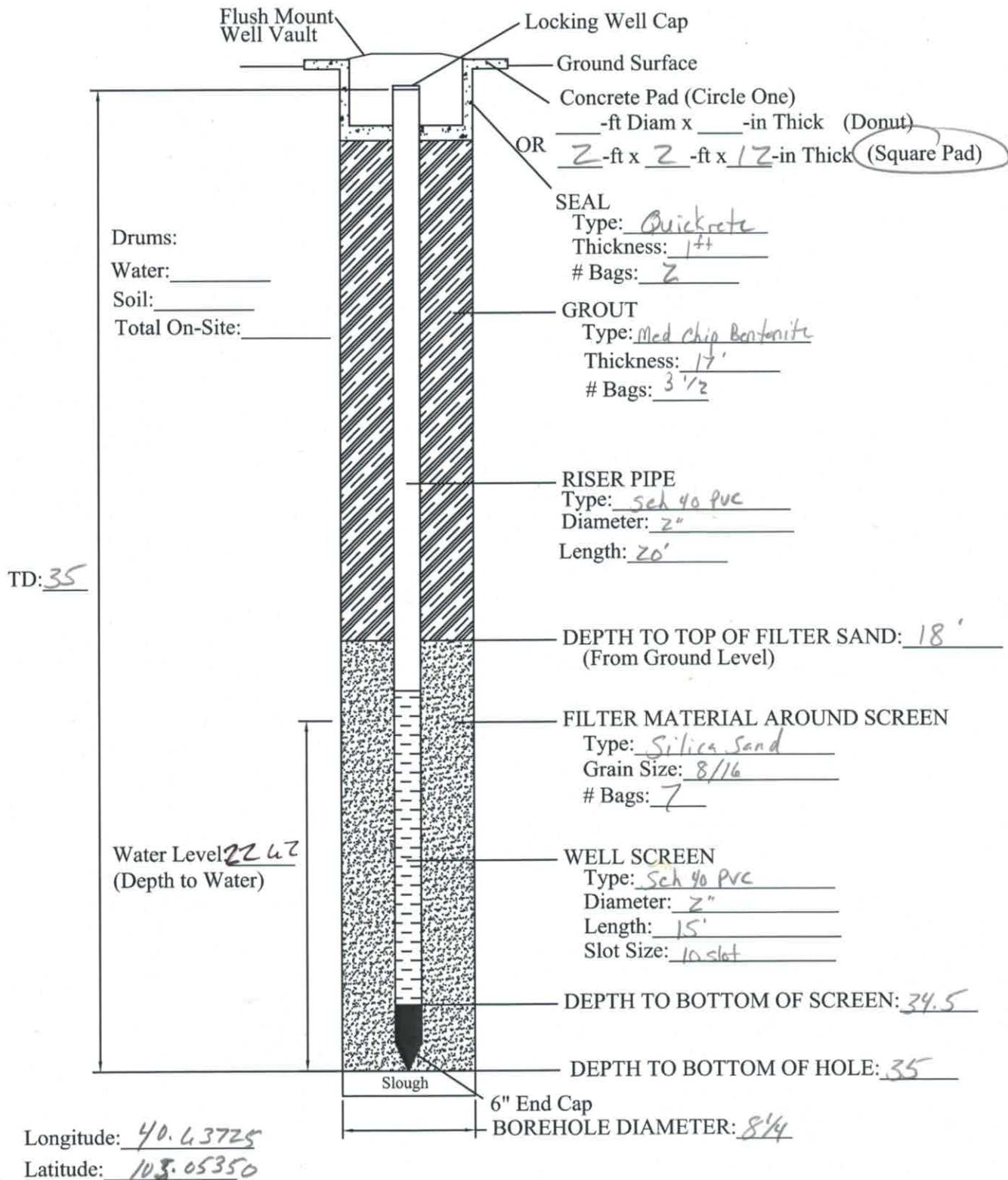
BORING LOG

Boring Number: SB-02	Job Number: 761959.001.01	Driller/Co.: Talon/LPE
Site Name: FIC Tank Battery	LPST # N/A	Logger: TIG
Location: Ft Collins, CO	Weather: 85°F Sunny	Bit Size: 7 7/8
Date: 8-11-15	Sample Retrieval Method: Split-Spoon	Rig Type: 778 CME 85
		Drilling Method: HSA

Time	Sample Number	Sample Interval (ft)	Sample Recovery (ft)	USCS	Sample Material/Comments Include odor, composition, color, grain size, moisture, hardness	ODOR	PID (ppm)
—	1	0-5	—	—	No sample b/c 0-5 was hydro-racked	—	—
1705	2	5-10	0.5	CL	SILTY CLAY, dark gray, w/ fine sand, plastic, moist, soft 10yr 3/1 very dark gray	No	22.2
1711	3	10-15	0.5	CL	No change, grades to greenish-gray Glex 1 4/10x greenish-gray	No	16.2
1720	4	15-20	0.5	CL	No change, grades to black Glex 1 2.5/N	Yes	29.3
1733	5	20-25	0.5	CL	No change, grades to wet	Yes	890.3
1745	6	25-30	3'	CL	No change, grades to f-m grains, saturated 29.3 grades to SAND, saturated, fine grain, loose, Glex 1 4/10x greenish-gray	Yes	1720
1600	7	30-35	4'	Sm	SILTY SAND, tan, fine grains, saturated, loose 10yr 4/4 Dark yellowish brown	No	2.3
					END OF BORING		
					TD = 35'		
					N 40.63 725		
					W 143.05 350		

MONITOR WELL DETAIL

MW # 2



Geologist: JJ Guise
 Driller: Rennie R
 Date: 8-11-15

Project No.: 20155.001.01 LPST # NA
 Facility Name: FTC Tank Battery
 Location: FT Collins, CO



Amarillo, TX - Artesia, NM
Midland, TX - Oklahoma City, OK
San Antonio, TX - Fort Collins, CO

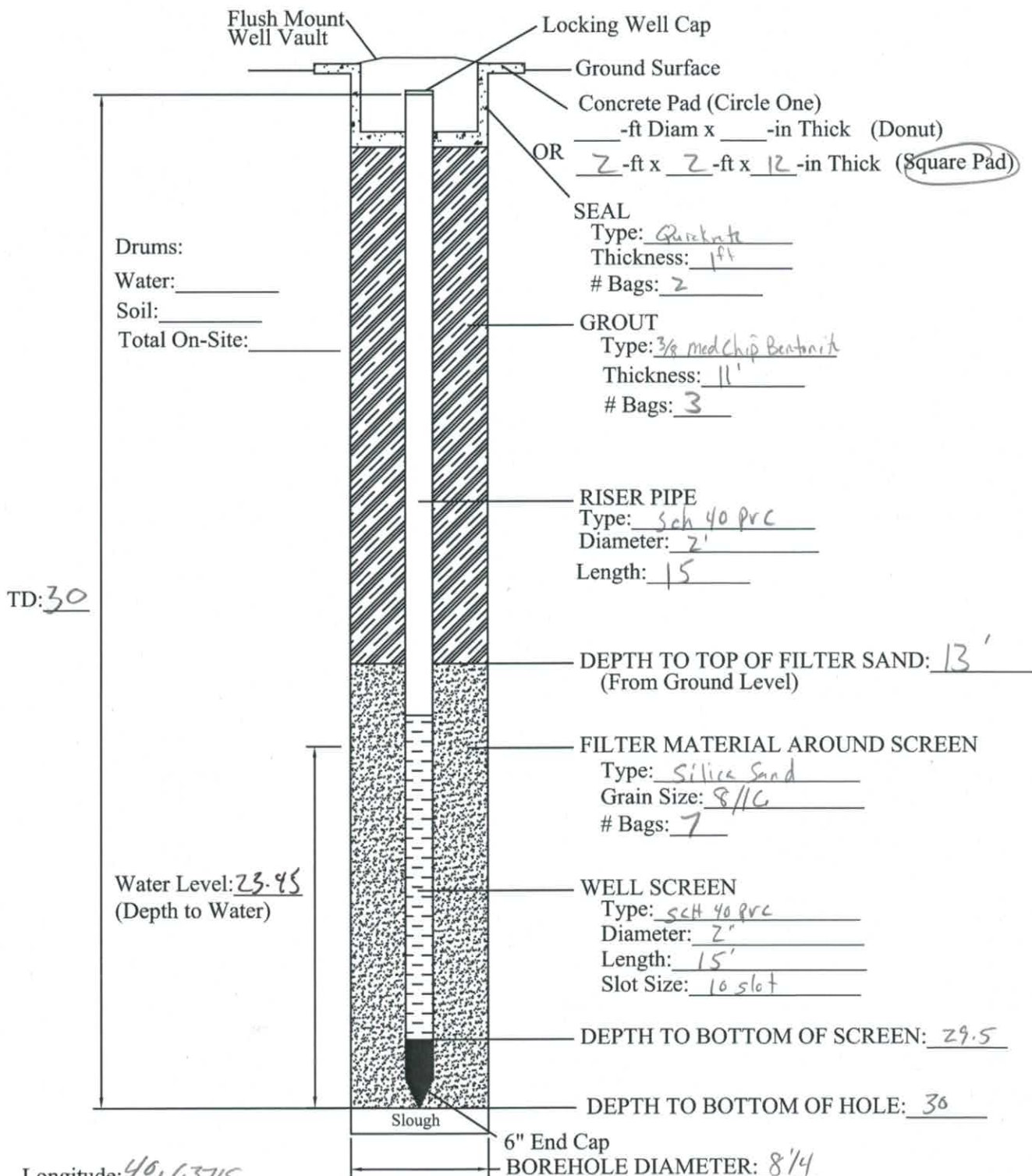
BORING LOG

Boring Number: <u>SB-3</u>	Job Number: <u>70/959.001.01</u>	Driller/Co.: <u>Talon/LPE</u>
Site Name: <u>FTC Tank Battery</u>	LPST #: _____	Bit Size: <u>7 7/8</u>
Location: <u>FT Collins CO</u>	Weather: <u>90°F / Sunny</u>	EF _____ Rig Type: <u>OME-85</u>
Date: <u>8-12-15</u>	Sample Retrieval Method: <u>Split Spun</u>	Drilling Method: <u>HSA</u>

Time	Sample Number	Sample Interval (ft)	Sample Recovery (ft)	USCS	Sample Material/Comments Include odor, composition, color, grain size, moisture, hardness	ODOR	PID (ppm)
	1	0-5	—	—			
0850	2	5-10	0.5	CL	SILTY CLAY, dark gray, moist, plastic, soft, w/ fine grain sand Gley / 4/10x dark grayish gray	No	77.6
0856	3	10-15	0.5	CL	No change	No	96.2
0911	4	15-20	1.5	CL	No change	No	106.4
0916	5	20-25	1.0	CL	No change, grades to wet @ 24'	No	123.1
0930	6	25-30	2.0	CL SM	No Change @ 30' silty sand, tan & 15 saturated, fine grains, loose,	No	19.3
	7	30-35			END OF BORING		
					TD = 30'		
					N 40-63715		
					W 105.05361		

MONITOR WELL DETAIL

MW # 3



Geologist: TJ Grisel

Driller: Ronnie R

Date: 8-12-15

Project No.: 701958.001.01 LPST # NA

Facility Name: ETC Tank Battery

Location: FT Collins, CO

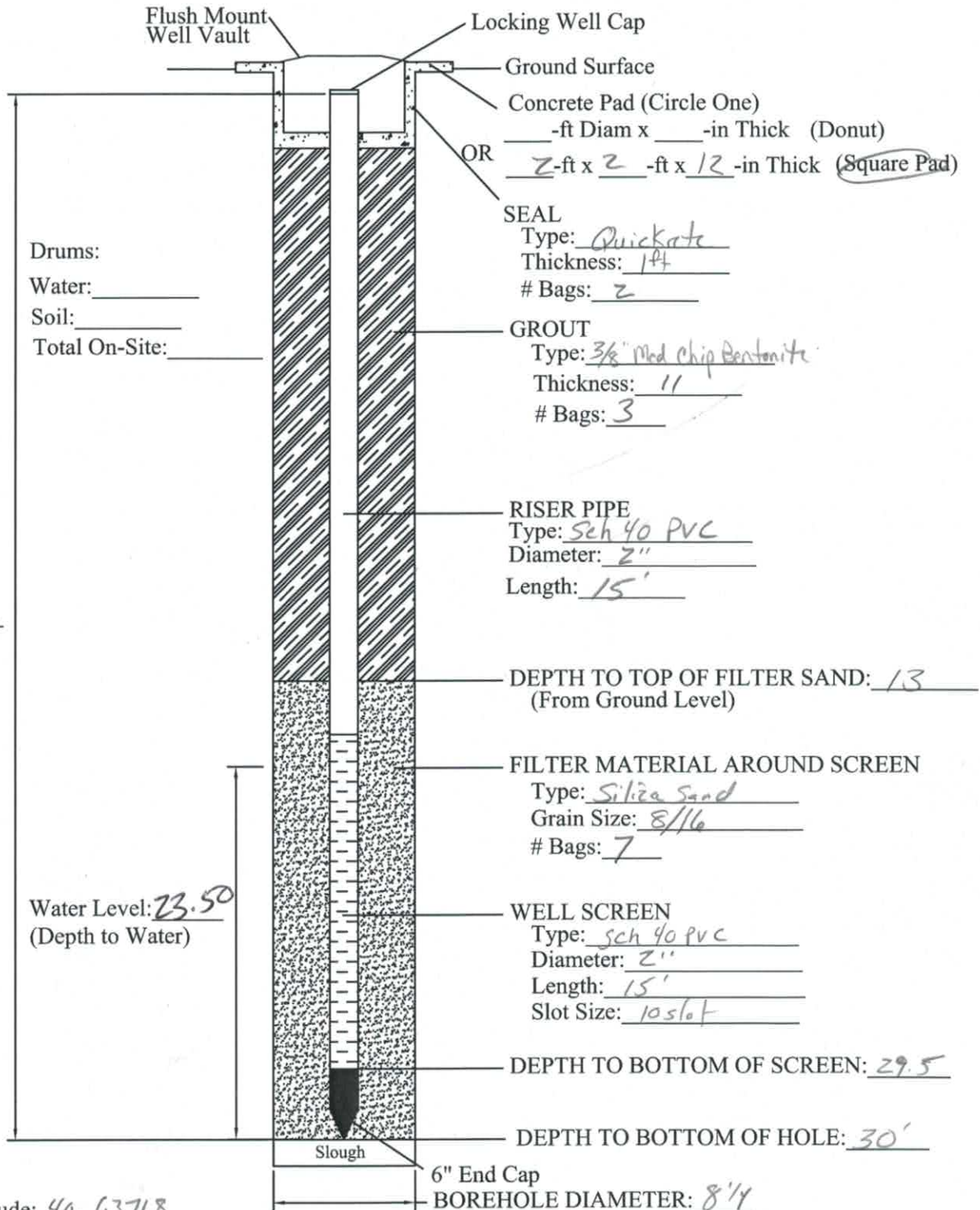


Boring Number: <i>SB-4</i>	Job Number: <i>711959.001.01</i>	Driller/Co.: <i>Talen/LPE</i>
Site Name: <i>FT Tank Battery</i>	LPST #	Bit Size: <i>7 1/8</i>
Location: <i>FT Collins, CO</i>	Weather: <i>90°/sunny</i>	Rig Type: <i>CME-85</i>
Date: <i>8-12-15</i>	Sample Retrieval Method: <i>Split Spoon</i>	Drilling Method: <i>HSA</i>

Page 1 of 1

MONITOR WELL DETAIL

MW # 4



Longitude: 40.63718

Latitude: 105.05385



Geologist: IT Grisel

Driller: Rennie R

Date: 8-12-15

Project No.: 701959.001.01 LPST # NA

Facility Name: FTC Tank Battery

Location: FT Collins, CO



Amarillo, TX - Artesia, NM
Midland, TX - Oklahoma City, OK
San Antonio, TX - Fort Collins, CO

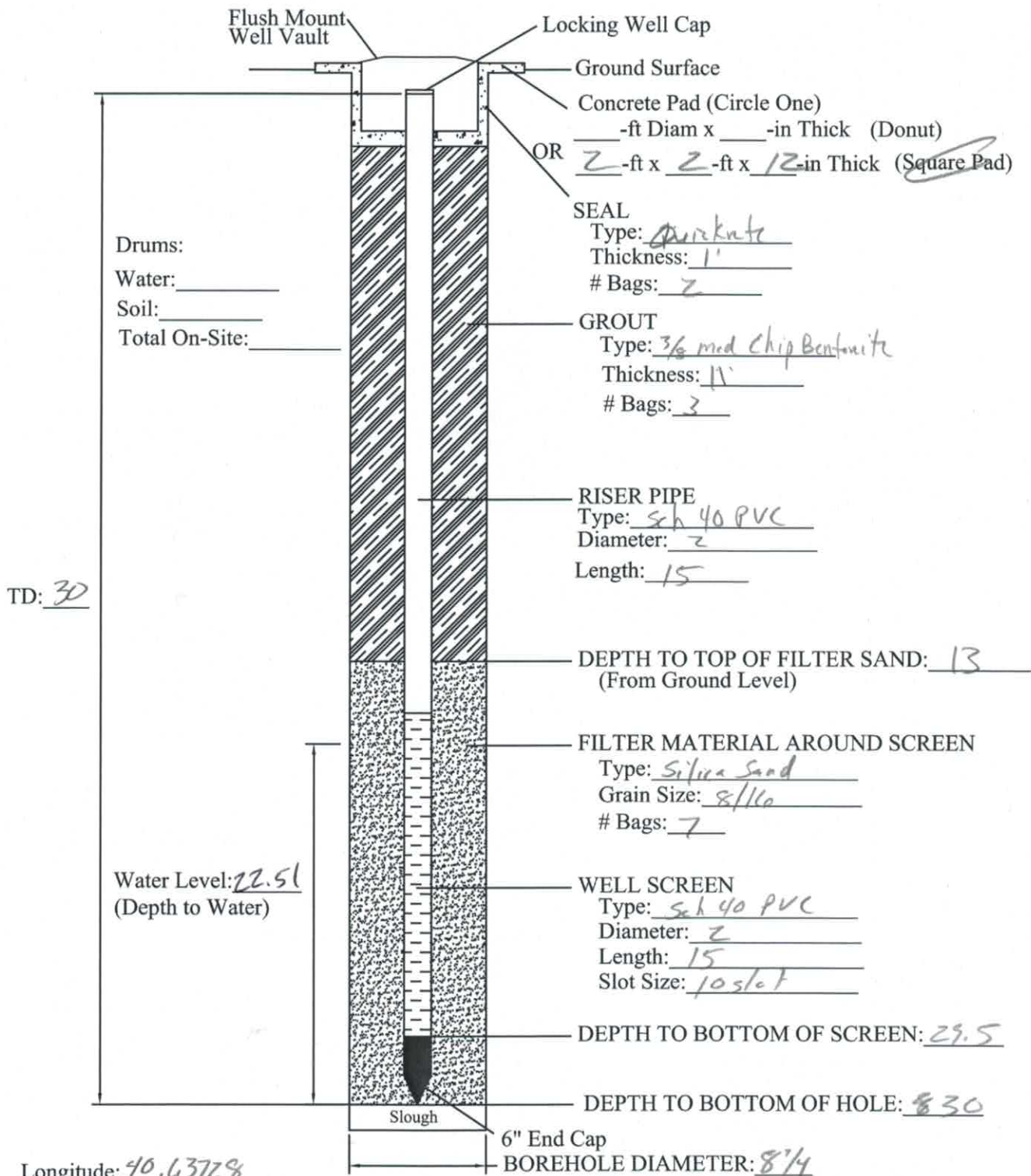
BORING LOG

Boring Number: <u>SB-5</u>	Job Number: <u>701959.col.01</u>	Driller/Co.: <u>Talon/LPE</u>
Site Name: <u>FTC Tank Battery</u>	LPST #	Logger: <u>TIG</u>
Location:	Weather: <u>partly sunny</u>	EF
Date: <u>8-12-15</u>	Sample Retrieval Method: <u>split spoon</u>	Drilling Method: <u>HSA</u>

Time	Sample Number	Sample Interval (ft)	Sample Recovery (ft)	USCS	Sample Material/Comments Include odor, composition, color, grain size, moisture, hardness	ODOR	PID (ppm)
-	1	0-5	-	-		-	-
1525	2	5-10	2	CL	SILTY CLAY, brown, moist, w/ fine sand, plastic, soft 10yr 4/3 brown	NO	14.5
1533	3	10-15	3	CL	No change, grades to dark grey GREY 4IN	Yes	630
1538	4	15-20	3	CL	No Change	Yes	335.9
1542	5	20-25	3	CL	No change, grades to wet	Yes	104.2
1555	6	25-30	4	SM	29' SILTY SAND, wet, tan, fine grains, loose, 10yr 4/4 dark yellowish brown	NO	0.7
					END OF BORING		
					TD = 30		
					N 40.63728 W 105.65356		

MONITOR WELL DETAIL

MW # 5



Longitude: 40.63728

Latitude: 41.05.05352



Geologist: TSC

Driller: Kenneth

Date: 8-12-15

Project No.: 761959.001.01 LPST #

Facility Name: FTC Tank Battery

Location: FTC Lines

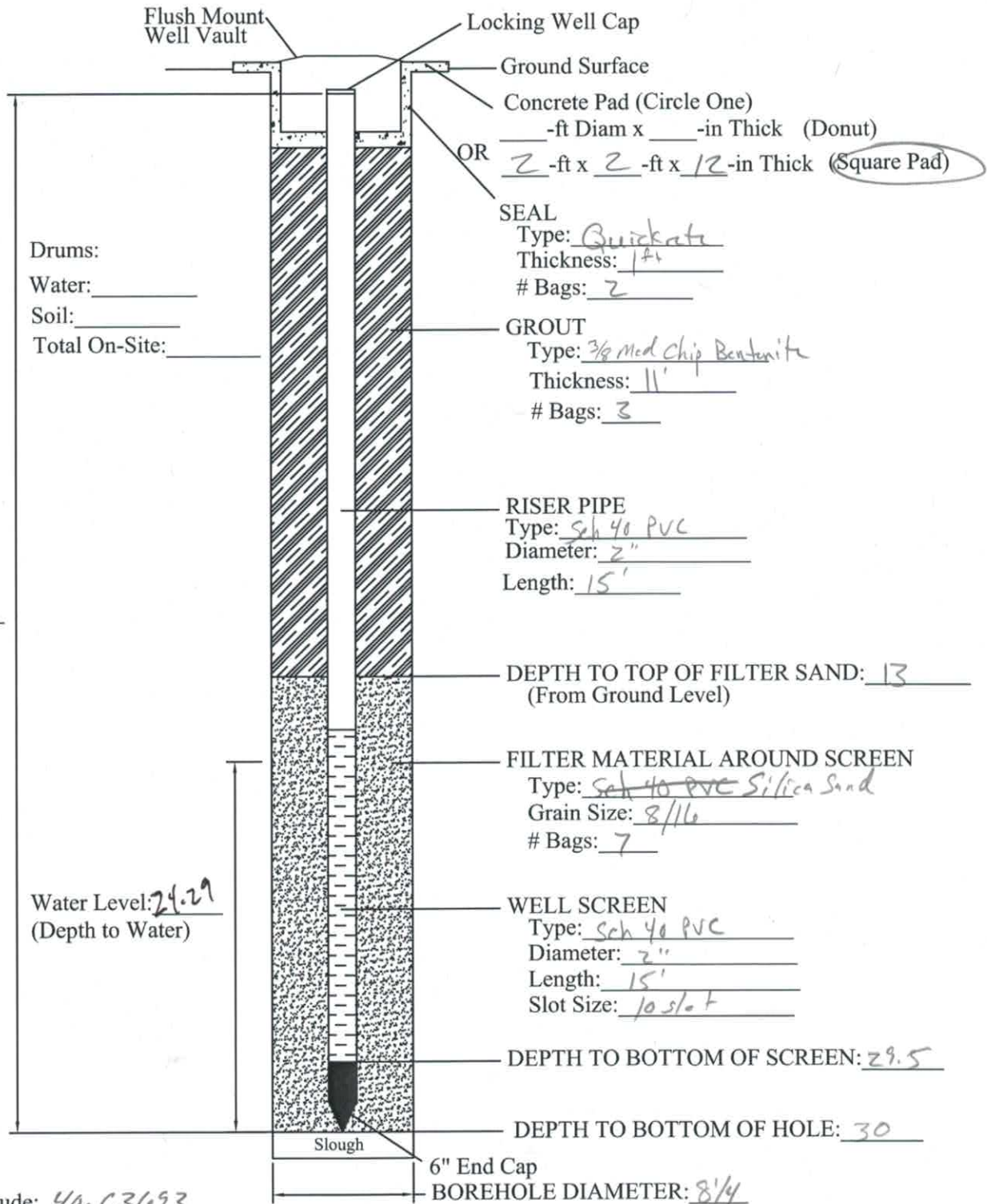


Boring Number: SB-06	Job Number: 701959.001.01	Driller/Co.: Talen/CPE
Site Name: FTE Tank Battery	LPST #	Logger: TIG
Location: Ft Collins, CO	Weather: 90°F/Sunny	Bit Size: 7 7/8
Date: 8-13-15	Sample Retrieval Method: SPLIT SPOON	Rig Type: CME-85
		Drilling Method: HSA

Page 1 of 1

MONITOR WELL DETAIL

MW # 6



Drums:

Water: _____

Soil: _____

Total On-Site: _____

TD: 30

Water Level: 24.29
(Depth to Water)

Longitude: 40.03693

Latitude: 105.05383



Geologist: TIGRE

Driller: Rennie R

Date: 8-13-15

Project No.: 201957.001.01 LPST # NA

Facility Name: FTC Tank Batching

Location: FT Collins, CO



Amarillo, TX - Artesia, NM
Midland, TX - Oklahoma City, OK
San Antonio, TX - Fort Collins, CO

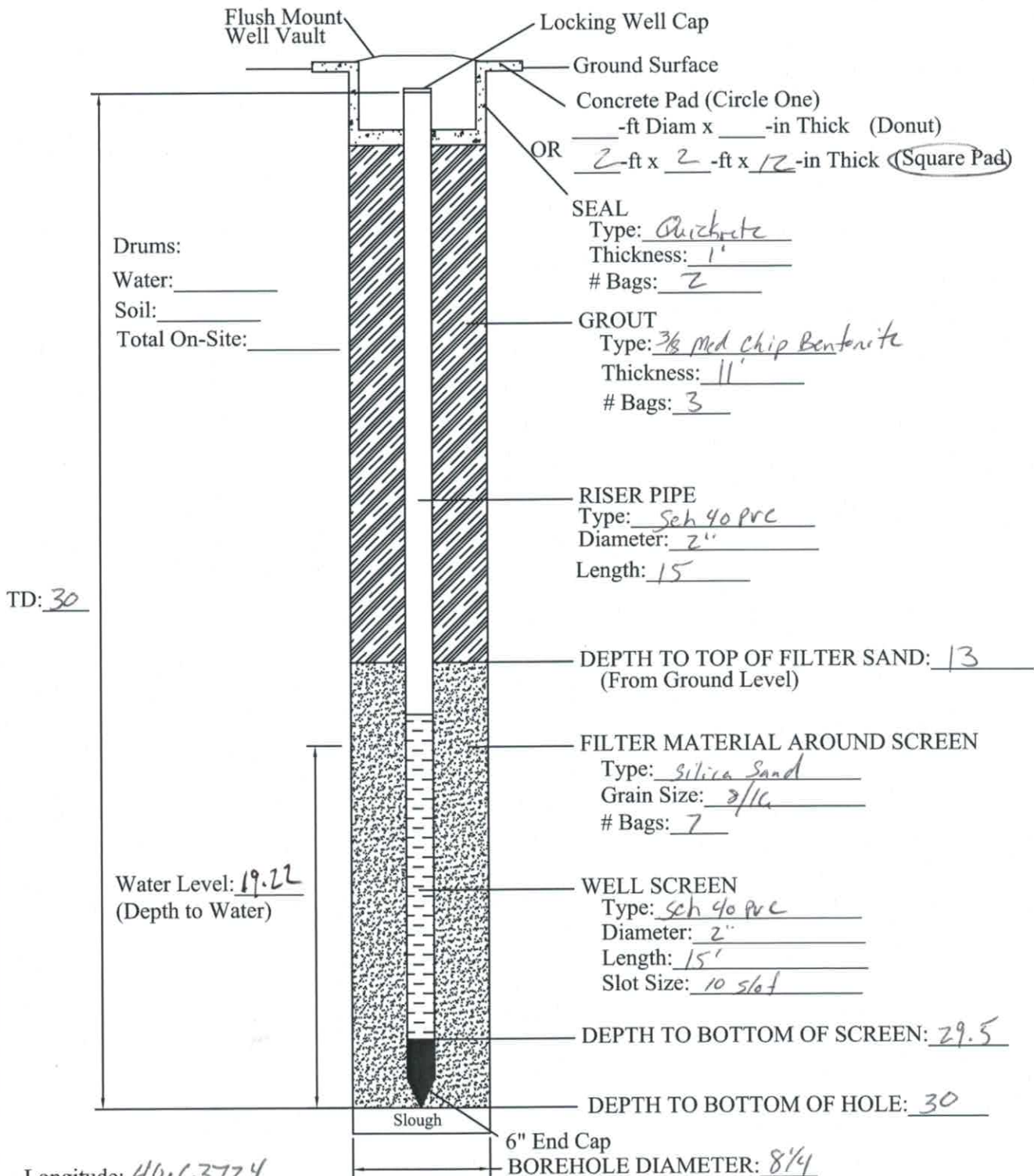
BORING LOG

Boring Number: SB-7	Job Number: 701959.001-01	Driller/Co.: Talon/LPE
Site Name: FTC Tank Battery	LPST #	Logger: TIG
Location: FT Collins, CO	Weather: 90°F/Sunny	EF
Date: 8-13-15	Sample Retrieval Method: Split Spoon	Bit Size: 7 7/8
		Rig Type: CMG-85
		Drilling Method: HSA

Time	Sample Number	Sample Interval (ft)	Sample Recovery (ft)	USCS	Sample Material/Comments Include odor, composition, color, grain size, moisture, hardness	ODOR	PID (ppm)
-	1	0-5	-	-	Potholed	-	-
1112	2	5-10	2.0	CL	SILTY CLAY, brown, moist, w/ fine sand, plastic soft 10yr 4/4 dark yellowish brown	NO	1.3
1120	3	10-15	2.0	CL	No change	NO	1.6
1128	4	15-20	1.5	CL	No change	NO	2.2
1138	5	20-25	1.0	CL	No change, grades finer	NO	2.8
1145	6	25-30	1.5	CL/SM	No change SILTY SAND, brown, saturated, loose, fine grains 10yr 4/4 dark yellowish brown	NO	0.7
					END OF BORING		
					TD = 30		
					N 40.63724 W 105.05328		

MONITOR WELL DETAIL

MW # 7



Longitude: 40.63724
 Latitude: 105.05378



Geologist: TJ Grisel
 Driller: Bennie B
 Date: 8-13-15

Project No.: 701959.001.01 LPST # _____
 Facility Name: FTC Tank Battery
 Location: Ft Collins, CO



Amarillo, TX - Artesia, NM
Midland, TX - Oklahoma City, OK
San Antonio, TX - Fort Collins, CO

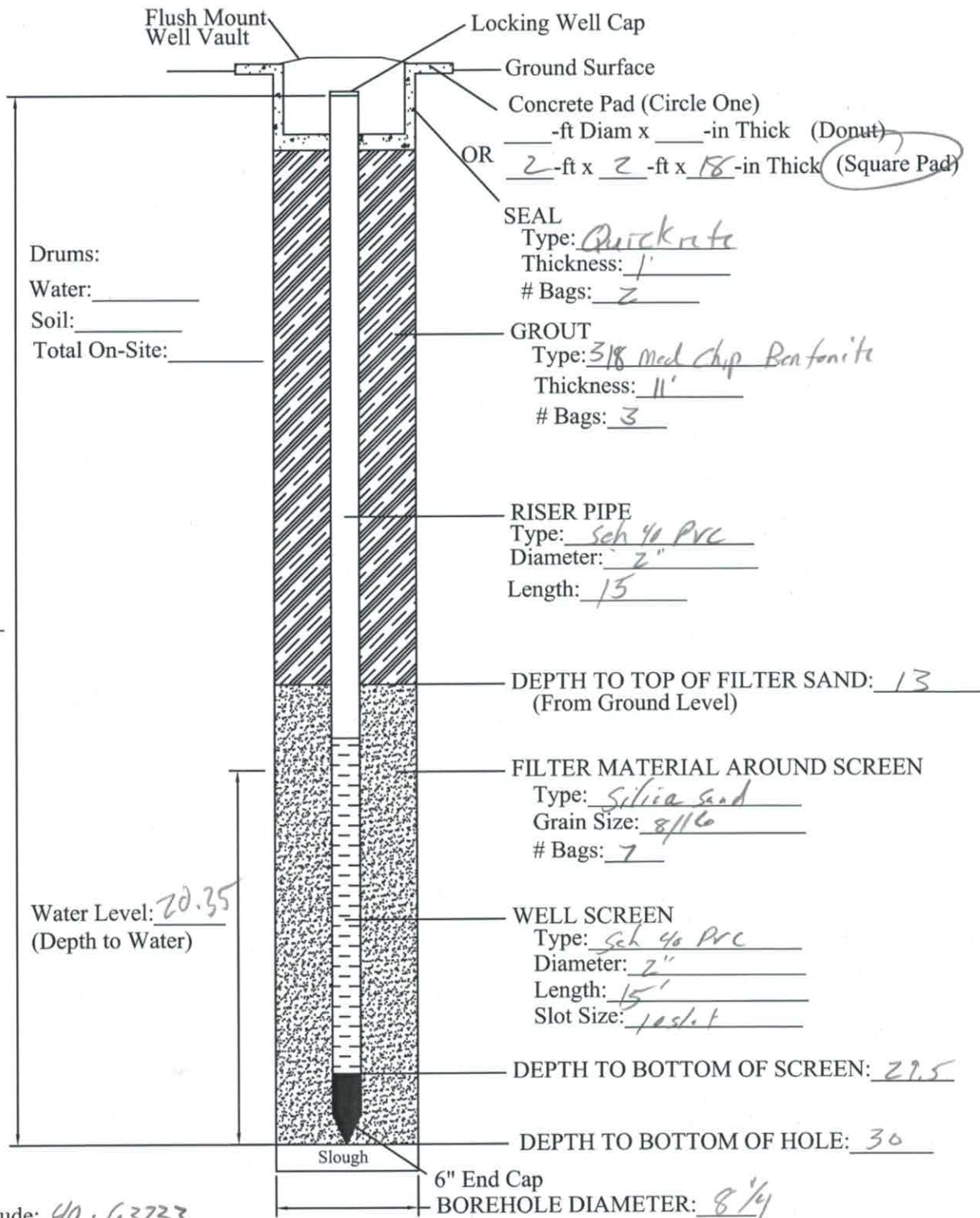
BORING LOG

Boring Number: SB-8	Job Number: 761959.001.01	Driller/Co.: Talon/LPE
Site Name: FIC Tank Battery	LPST #	Bit Size: 7 1/8
Location: Ft Collins, CO	Weather: 90°F/sunny	EF
Date: 8-13-15	Sample Retrieval Method: split spoon	Rig Type: 7 1/8 CME-85
		Drilling Method: HSA

Time	Sample Number	Sample Interval (ft)	Sample Recovery (ft)	USCS	Sample Material/Comments Include odor, composition, color, grain size, moisture, hardness	ODOR	PID (ppm)
-	1	0-5	-	-	Patholed	-	-
1420	2	5-10	1.5	CL	SILTY CLAY, greenish black, moist, w/ fine sand, soft plastic GLEY 1 2.5/50Y	No	7.5
1431	3	10-15	2.0	CL	No Change	No	11.1
1446	4	15-20	2.0	CL	No Change	No	22.9
1450	5	20-25	2.5	CL	No Change, grades to wet	No	1.6
1500	6	25-30	2.0	CL / Sm	No change SILTY SAND, brown, moist to wet, fine grains, loose, 10yr 5/3	No	0.4
					END OF BORING		
					TD=30		
					N 40.63733		
					W 105.65345		

MONITOR WELL DETAIL

MW # 8



Longitude: 40.63733

Latitude: 105.05345



Geologist: T. J. Grisel

Driller: Rennick

Date: 8-13-15

Project No.: 70959.001.d LPST # _____

Facility Name: FTC Tank Battery

Location: FT Collins, CO

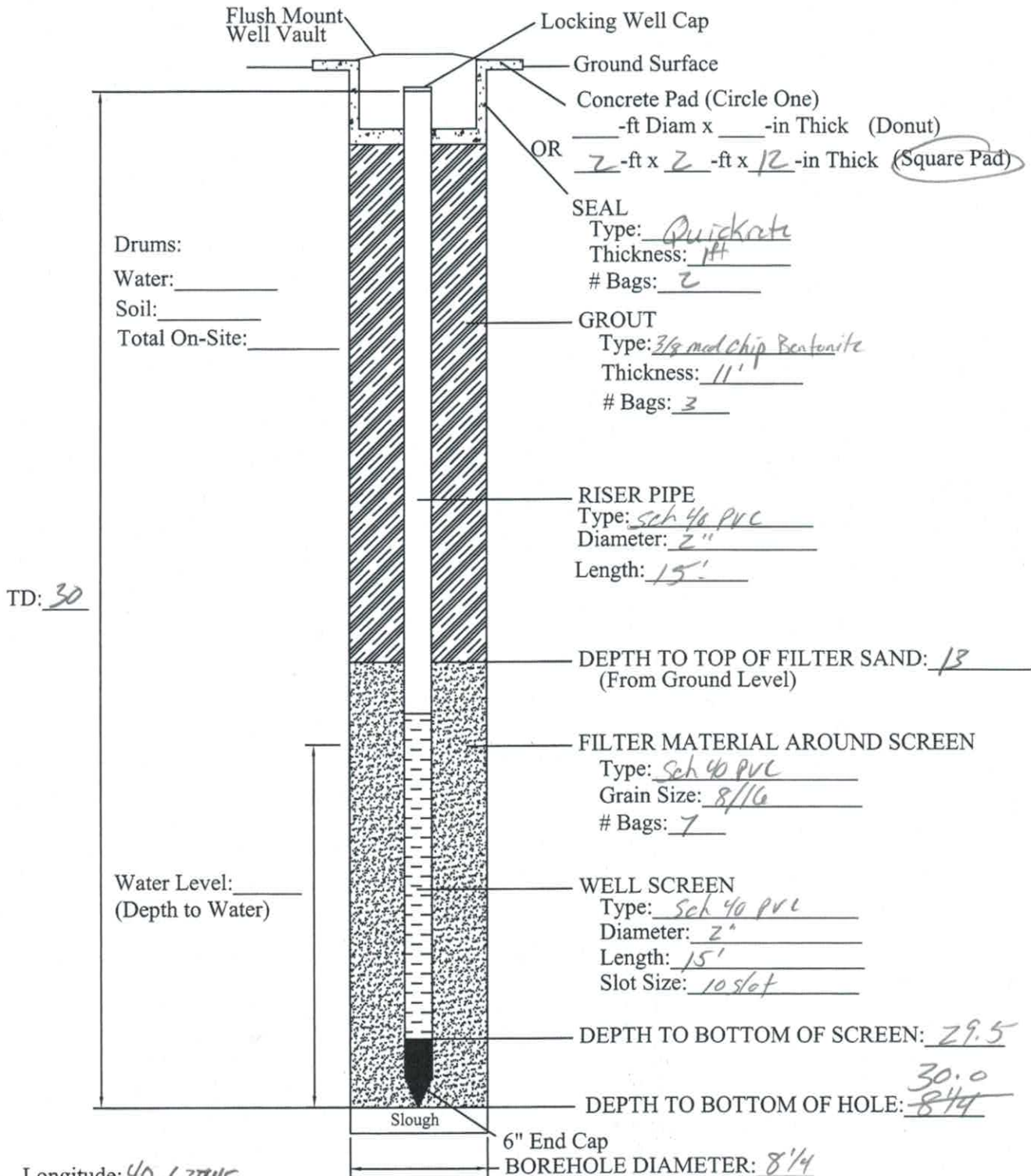


Boring Number: SB-8	Job Number: 761959.001.01	Driller/Co.: Talon/CPE
Site Name: FTC Tank Battery	LPST #	Logger: TIG
Location: FT Collins, CO	Weather: 90°F / Sunny	Bit Size: 7 7/8
Date: 8-13-15	Sample Retrieval Method: Split spoon	EF Rig Type: CME-85
		Drilling Method: HSA

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MONITOR WELL DETAIL

MW # 8



Longitude: 40.63445

Latitude: 105.05357



Geologist: TIGGERS

Driller: Rennie B

Date: 8-13-15

Project No.: 701859.001.01 LPST # _____

Facility Name: FTC Tank Battery

Location: FT Collins, CO

Project #: 701959.001.01

Location:

Site: Fire Tank B-Shop

Date: 8-17-15

Objective: Develop wells

Weather:

Personnel: TAC

P. P. E. and S

Site Fieldwork prep

0715 - Travel to Gotech & pick up equipment

1015 - on-site

1st Develop MW-1 then MW-9

1st Use pump to over-purge well until water is running clear w/ low turbidity

1020 - start pumping

MW-1

Before

DTW = 20.41

TD = 32.20

After

TD = 33.47

Total Gallons purged = 3 1/2 gallons

* Well ran dry

1040 - stop pumping

1050 - start pumping

MW-6

initial

DTW = 24.51

TD = 29.20

Final

TD = 29.20

Total Gallons purged = 2.5 gallons

- Water is running clear; continue purging until dry

1057 - stop pumping; well = dry

TPH

1107 - start pumping

MW-9

Initial

DTW = 23.52

TD = 29.32

Final

TD = 29.34

Total Gallons purged = 6.5 gallons

- Water is running clear; continue to purge until dry

1120 - stop pumping

MW-3

Initial

DTW = 22.98

TD = 29.42

Final

TD = 29.53

Total Gallons purged = 4.0

- Use a bailer to develop b/c of FP

1204 - start pumping

MW-9

Initial

DTW = 20.20

TD = 26.00

Final

TD = 29.77

Total Gallons purged =

25.11 too thick for pump - use a bailer

MW-8

Initial

DTW = 20.45

TD = 28.88

Final

TD = 28.90

Total Gallons purged = 6

- Use bailers instead of pump

- Purge dry

TPH

MW-7

Initial

Final

DTP = 19.09 TD = 28.58 TD = 28.58

Total Gallons purged = 10

- Well purged dry

MW-5

Initial

Final

DTP = 22.57 TD = 29.40 TD = 29.40

Total Gallons purged = 7.5

- Purged dry

MW-2

DTP = 22.62 DTP = 23.00 TD = 34.53 TD = 34.53

Total Gallons purged = 10 gallons

1400 - off site / farml to office

1415 - office



Project #: 701959.001.01

Location: Ft Collins

Date: 8-18-75

Site: FTR Tank Battery

Objective: Sample Wells

Weather: 70°F Sunny

Personnel: ~~AC~~

PPE: con/d

0795-17211

0800-on-site

↳ Collect all samples; No purging 3 wells volumes due to development 24 hrs ago

↳ Collect 2-40ml vials, 2-250 pol bottles

↳ Analyze for BEX, sulfates, chlorides, TDS

MW-4 0800

DTU = 23.58 TD = 29.34

MW-6 0835

DTU = 24.50 TD = 29.17

MW-1 0850

DTU = 20.41 TD = 33.21

MW-2 0905

DTU = 19.00 TD = 28.00

MW-8 0920

DTU = 20.35 TD = 28.83

MW-5 0935

DTU = 20.18 TD = 29.20

[Signature]

MLW-5 0955

DTW = 22.53 TD = 29.30

MLW-2

DTW = 22.58 DTW = 22.98

MLW-3

~~DTW~~ = 22.89 DTW = 25.00

1015-Collect MNAs using a YSF-555

Well	pH	DO	mg/L	Aspen	MV	Temp
MLW-1	7.23	2.61	2102		78.6	16.43
4	7.05	3.81	2025		105.6	13.54
5	7.11	1.48	1992		92.0	14.93
6	7.16	5.29	1894		102.7	14.93
7	7.15	3.17	2317		83.7	17.46
8	7.20	2.20	2028		26.7	17.52
9	7.18	2.58	1779		37.2	15.14

1130-off-site/Trial
1500-office





ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202/8

PROJECT NAME	FTC Tank Battery	SAMPLER	T. Grisel	DATE	8-18-15	WORKORDER #	
PROJECT No.	701959.001-01	SITE ID		TURNAROUND	Standard	PAGE	1 of 1
COMPANY NAME	Talon/KPE	EDD FORMAT				DISPOSAL	By Lab or Return to Client
SEND REPORT TO	Jennifer Galks	PURCHASE ORDER					
ADDRESS		BILL TO COMPANY	Talon/KPE				
CITY / STATE / ZIP		INVOICE ATTN TO	Jennifer Galks				
PHONE		ADDRESS					
FAX		CITY / STATE / ZIP					
E-MAIL	jgalks@talonkpe.com	PHONE					
		FAX					
		E-MAIL					
Lab ID		Matrix	Water	Sample Date	8-18-15		
	MW-1			Sample Time	0850		
	MW-4				0820		
	MW-5				0955		
	MW-6				0835		
	MW-7				0905		
	MW-8				0920		
	MW-9				0935		

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filler

For metals or anions, please detail analytes below.

Comments:	2.0°C
QC PACKAGE (check below)	
LEVEL II (Standard QC)	
LEVEL III (Std QC + forms)	
LEVEL IV (Std QC + forms + raw data)	
Preservative Key:	1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY		RT Grisel	8-18-15	1450
RELINQUISHED BY		Sgt Melly	8-18-15	1450
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

8/27/15 Memorial Product Removal

Pg. 1

- Jennifer Galles/Talon

- Matt, Ken/Vac Crew = Basic Energy Services

0850 Leave office for site

0900 Arrive onsite, Vac crew onsite
- JSA

0910 pop open well - NE well (MW-2)
- measure DTP/DTW

DTP = 22.59

DTW = 24.49

PID at well head = 8.0 ppm

0925 Turn on vac on NE well (MW-2)

0940 Well dry

1009 Turn off vac MW-2
Open MW-3

1009 DTP = 22.60 MW-3

DTW = 27.77, PID = 20.9 ppm

1021 MW-4 DTW = 23.69

1023 MW-6 DTW = 24.65

1025 MW-1 DTW = 20.62

1027 MW-7 DTW = 19.22

1029 MW-8 DTW = 20.62

1030 MW-9 DTW = 20.34

1031 MW-5 DTW = 22.76

1032 MW-2 DTP = 22.89 DTW = 22.94

1037 Turn off vac MW-3

1038 MW-2 DTP = 22.88 DTW = 23.00

Jennifer Galles 8/27/15

P.2 Memorial Product Removal (cont.)

8/27/15

- 1045 MW-3 DTP=25.50 DTW=25.90
 1050 DTP=24.97 DTW=25.25
 1055 DTP=~~24.87~~ DTW=24.79
 24.67
 1058 start vac MW-3 again (Round 2)
 1100 MW-4 DTW=23.70
 1103 MW-3 dry, turn off vac
 -no change in WL in MW-4
 1107 MW-2 DTP=22.81 DTW=23.14
 1109 Turn on vac MW-2 (Round 2)
 1112 MW-2 Dry
 1117 turn off vac MW-2
 1119 MW-2 DTP=— DTW=25.0
 1120 — DTW=24.0
 1124 — DTW=23.0
 — ~~DTW=22.5~~
 1130 DTP=22.9 DTW=22.99
 1137 MW-3 DTP=23.43 DTW=24.22
 1140 turn on vac MW-3 (round 3)
 1150 turn off vac MW-3
 1151 DTW=29.02
 1153 DTW=28.00
 1154 DTW=27.00
 1156 DTW=26.00
 1159 DTP=25.00 DTW=25.04

Jennifer Gallas 8/27/15

8/21/15 Memorial Product

- 1207 MW-3 D
 1211 D
 Close up
 Clean up
 1224 Done clean
 1230 Demdo to
 1243 Arrive at o
 1253 Finished

Jennifer Gallas

nt.)

25.90

25.25

24.79

ound 2)

= 23.14

d 2)

25.0

4.0

3.0

~~2.5~~

2.99

24.22

3)

Jennifer Gallus 8/27/15

8/27/15

Memorial Product Removal (cont.)

P.3

1207 MW-3 DTP = 24.36 DTW = 24.54

1211 DTP = 23.93 DTW = 24.32

Close up MW-3

Clean up site

1224 Done cleaning up site - finish with vac crew.

1230 Demob to office

1243 Arrive at office, unload truck

1253 Finished

JG

Jennifer Gallus 8/27/15

9/4/15 Memorial Product Gauging

1357 Mobilize to site

1415 Arrive at site, check in at office
- mob to MW-2
- open MW-2

MW-2 DTP = 22.76 DTW = 24.13

1430 open MW-3

MW-3 DTP = 23.37 DTW = 25.19

1440 open drum for MW-2 waste
- approximately $\frac{1}{4}$ full of 55-gal drum
- DTP = 2.15 DTW = 2.24

1450 open drum for MW-3 waste
- approx $\frac{1}{4}$ full
- DTP = 2.05 DTW = 2.24

1455 Demob

1510 Arrive at office

JG

Jennifer Gallus 9/4/15

9-11-15

Memorial Resources Fo Co Battery

	<u>DTP</u>	<u>DTW</u>	<u>PSH Thickness</u>
MW-2	22.88	24.21	1.33
MW-3	23.36	25.13	1.77
MW-2's Drum	1.28	1.46	0.18
MW-3's Drum	1.53	1.86	0.33

Project #: 701959.001.03 Lexington, FT Collins

Date: 9/16/15 Site: Ft. Collins Tank Battery

Objective: EFR Event

Weather: Nice ☺

Personnel: TIG, JG

PER: Level 1

0845 - Field work prep

0900 - on-site

MW-02

DTP = 23.08 DTW = 23.71

place sifter at 24.5' bgs

Sum TD = 2.75, Product Thickness = 0.5'

Diameter of Drum = 2'

0930 - Begin EFR on MW-2

1030 - Stop EFR

MW-2

DTP = NE

DTW = 23.70

1130 - MW-2 → DTP = 23.35 DTW = 23.44

1038 - Begin EFR on MW-3

1138 - Stop EFR

DTP = 18.38 DTW = 18.39

MW-03

DTP = 23.58 DTW = 24.51

Drum TD = 2.75 Product Thickness = 0.60

1000 - Meet with client (Dene).

Decide to sample Stockpile

- collect 7 Stockpile soil

Samples. SP-1 through SP-7

- Both drums been sucked out

1200 - off-site / Travel

1215 - office

