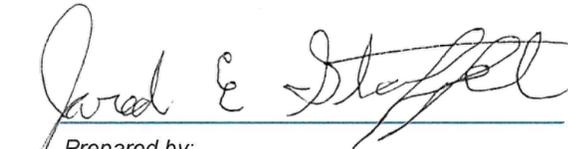




Remediation Summary and Closure Request

May 26, 2020



Prepared by:
Jared Stoffel, P.G.
Project Manager

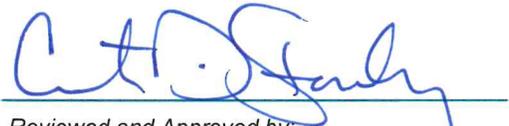
Sly Hawk State #001

Prepared For:

COG Operating, LLC.
600 W Illinois Avenue
Midland, TX 79701

Prepared By:

TRC Environmental Corporation
10 Desta Dr. STE 150E
Midland, TX 79705



Reviewed and Approved by:
Curt Stanley
Senior Project Manager



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Table 1: Summary of Sampling Analytical Results: Concentrations of Benzene, BTEX, TPH and Chloride in Soil

FIGURES

Figure 1: Site Location Topographic Map
Figure 2: Floodplain Map
Figure 3: Karst Potential Map
Figure 4: Site and Confirmation Sample Location Map

APPENDICES

Appendix A – NMOCD Correspondence
Appendix B – Photographic Documentation
Appendix C – Release Notification and Corrective Action (Form C-141)
Appendix D – Depth to Groundwater Data
Appendix E – Laboratory Analytical Reports



1.0 Introduction and Background Information

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG), has prepared this *Remediation Summary and Closure Request* for the Release Site known as the Sly Hawk State #001 (the Release Site). The legal description of the Site is Unit Letter “H”, Section 3, Township 25 South, Range 28 East, in Eddy County, New Mexico. The subject property is owned by the State of New Mexico and administered by New Mexico State Land Office (NMSLO). The GPS coordinates for the Site are N 32.15921°, W 104.06956°. A topographical map is provided as **Figure 1**. Photographs are provided in the photolog as **Appendix B**.

Please note, a Remediation Summary and Deferral Request date February 19, 2020 was previously submitted to the New Mexico Oil Conservation Division (NMOCD) for consideration. On April 15, 2020, the NMOCD denied the requested deferral of the impact remaining within the tank battery and requested additional remediation activities. Please reference the NMOCD Correspondence provided in **Appendix A** and **Section 3.0** of this report for additional information.

On November 3, 2019, COG discovered a crude oil and produced water release had occurred at the Release Site. The Release was attributed to a filter pot left in the wrong position, impacting the inside of the tank battery and the adjacent pastureland. On the discovery date, COG notified the NMOCD and the NMSLO of the Release. The Release was assigned NMOCD Incident number NRM2001534588. On November 19, 2019, the initial Release Notification and Corrective Action (Form C-141) was submitted to the NMOCD. The Form C-141 indicated one (1) barrel (bbl) of crude oil and eight (8) barrels (bbls) of produced water was released. During initial response activities, a vacuum truck was dispatched to recover all freestanding fluids. According to the initial C-141, no crude oil or produced water was recovered during initial response activities. The Release affected an area measuring approximately 1,350 square feet (sq. ft.). A copy of the submitted Form C-141 for the Release is provided in **Appendix C**.

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) did not identify any registered water wells in Section 17, Township 25 South, Range 28 East. A radius search conducted on the NMOSE website indicated there were no registered water wells within a 0.5-mile radius of the Site. There are two (2) water wells registered within 1.5 miles of the Site and the average depth to groundwater was listed at 35 feet below ground surface (bgs). The NMOSE search results are included in **Appendix D**. No water wells were observed within one-thousand (1,000) feet of the Site. No surface water was observed within one-thousand (1,000) feet of the Release. An aerial map of the Site location is provided as **Figure 2**.

Based on the depth to groundwater at the Release Site, the NMOCD *Closure Criteria for Soils Impacted by a Release* is the most stringent closure criteria listed. In addition, the Release Site is located in the ‘high karst’ area as outlined in the BLM publicly available Karst Potential Map, provided as **Figure 3**. Subsequently, COG will utilize the most stringent NMOCD Closure Criteria for Soils Impacted by a Release for the Release Site as follows:

- Benzene – 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) – 50 mg/kg



- Total Petroleum Hydrocarbons (TPH) –100 mg/kg
- Chloride – 600 mg/kg

2.0 Summary of Soil Remediation Activities

On December 3, 2019, remediation activities commenced at the Release Site. The excavation began in the north section of the impacted area within the earthen berm and continued to the east and south. The area within the berm was excavated to a depth of approximately two (2) feet bgs, and the area outside the berm was excavated to a depth of approximately three (3) feet bgs. Excavated soil was stockpiled on polyurethane liners pending final disposition at an NMOCD-approved disposal facility.

On December 3, 2019, two (2) five-point composite floor confirmation samples (FL-A1-2' and FL-B1-3') and five (5) five-point composite sidewall confirmation sample (ESW-A1-1', SSW-A1-1', SSW-B1-1', NSW-B1-1', and ESW-B1-1') were collected from the excavated area. Soil samples were submitted to Xenco Laboratories in Midland, Texas for chloride, TPH, and BTEX analyses. Analytical data for the collected confirmation soil samples indicated TPH and BTEX concentrations were below the NMOCD regulatory guidelines for each constituent, with the exception of soil sample ESW-B1-1', which exceeded the NMOCD regulatory guideline for TPH. In addition, three (3) confirmation soil samples (FL-A1-2', ESW-A1-1', and SSW-A1-1') exceeded the NMOCD regulatory guidelines for chloride concentrations.

Soil samples FL-A1-2' and ESW-A1-1' characterized the floor of the excavation inside the berm and the sidewall immediately adjacent to the tanks. Impacted soil represented by soil samples FL-A1-2' and ESW-A1-1' was removed to the maximum extent practicable within the facility. In an effort to delineate the impact for deferral within the facility, one (1) test trench was advanced within the excavation to a depth of approximately five (5) feet bgs. Three (3) delineation soil samples (TT-A1-3', TT-A1-4', and TT-A1-5') were collected and submitted to the laboratory for TPH, BTEX, and chloride analyses. A review of laboratory analytical results indicated delineation soil samples collected within the bermed facility exhibited TPH and BTEX concentrations below the NMOCD regulatory guidelines. The delineation soil samples exhibited chloride concentrations above the NMOCD regulatory guidelines, with the exception of TT-A1-5', which exhibited chloride concentrations below the NMOCD regulatory guidelines. Due to the proximity of production equipment within the bermed facility, this area was not excavated vertically to prevent potential de-stabilization of the active equipment and was not excavated laterally to the east, as the production tanks prevented access to the eastern extent.

Following a review of the analytical results from soil samples collected on December 3rd, excavation in the area represented by soil sample SSW-A1-1' continued to the south to connect excavated areas inside and outside the bermed facility. This in turn, created a continuous excavation. In addition, the excavation in the area represented by ESW-B1-1', outside the bermed facility, was extended to the east.

On December 5, 2019, four (4) five-point composite sidewall confirmation samples (NSW-A1-0.5', WSW-A1-0.5', ESW-B1-1'R, and WSW-B1-1') were collected from the excavated area.



Soil samples collected on December 5th were submitted to Xenco Laboratories in Midland, Texas, for chloride, TPH, and BTEX analyses. Analytical data for the collected soil samples indicated TPH, BTEX, and chloride concentrations were below the NMOCD regulatory guidelines for each constituent.

On December 5, 2019, the impacted soil was transported under manifest to the R360 Red Bluff Facility and the Site was returned to grade with locally sourced, non-impacted backfill material. Confirmation soil sample locations are depicted in **Figure 4**. A summary of the analytical data is provided in **Table 1**. Laboratory analytical reports are provided in **Appendix E**.

3.0 Deferral Request Denial and Summary of Subsequent Soil Remediation Activities

Remediation activities were conducted in accordance with NMOCD regulatory guidelines. Laboratory analytical results from excavation confirmation soil samples indicated TPH, BTEX, and/or chloride concentrations were below the NMOCD regulatory guidelines in the submitted confirmation soil samples, with the exception of soil samples FL-A1-2', ESW-A1-1', TT-A1-3', and TT-A1-4'. The soil samples which exhibited NMOCD regulatory guideline exceedances in the Remediation Summary Deferral Request dated February 19, 2020, were confined within the active production battery and were fully delineated vertically. The eastern extent of the impact within the facility was defined by the adjacent tank. COG requested deferral of the area within the berm until time of abandonment (TOA), at which time the impact would be removed in accordance with NMOCD regulatory guidelines.

On April 15, 2020, the NMOCD denied the requested deferral of the impact remaining within the tank battery and requested additional remediation activities. Please reference NMOCD Correspondence provided in **Appendix A**. In response to the NMOCD Deferral Denial, COG commenced additional remediation activities on May 6, 2020. The area within the tank battery characterized by soil samples FL-A1-2', TT-A1-3', TT-A1-4', TT-A1-5', and ESW-A1-1' was excavated to a depth of approximately five (5) feet bgs, and was advanced laterally as near to the adjacent transfer pump as possible without compromising the stability of the transfer pump pad. One (1) five-point composite confirmation sample (FL-A1-5') was collected from the base of the excavation and one (1) five-point composite soil sample (ESW-A1-2.5') was collected from the east sidewall of the excavation. Collected soil samples were submitted to the laboratory for TPH, BTEX, and chloride analysis. A review of the analytical results indicated each soil sample exhibited TPH, BTEX, and chloride concentrations below NMOCD regulatory guidelines. Excavated soil was transported under manifest to R360 Red Bluff Facility and was returned to grade with locally sourced, non-impacted backfill material. Confirmation soil sample locations are depicted in **Figure 4**. A summary of the analytical data is shown in **Table 1**. Laboratory analytical reports are provided in **Appendix E**.



4.0 Site Closure Request

Remediation activities were conducted in accordance with NMOCD guidelines. Laboratory analytical results from excavation confirmation soil samples indicated TPH, BTEX, and/or chloride concentrations were below the NMOCD regulatory guidelines in the submitted confirmation soil samples. The impacted soil was transported to an NMOCD approved disposal facility, and the Site was returned to grade with locally sourced non-impacted backfill material. Based on laboratory analytical results and field activities conducted to date, TRC recommends COG provide copies of this Remediation Summary and Site Closure Request to the NMOCD and NMSLO and request closure status for the Sly Hawk State #001.

5.0 Limitation

TRC has prepared this Remediation Summary and Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of COG Operating, LLC. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or COG Operating, LLC.

6.0 Distribution

Copy 1: Mike Bratcher
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 2
811 S. First Street
Artesia, NM 88210

Copy 2: Ryan Mann
New Mexico State Land Office
914 N. Liman Street
Hobbs, NM 88240

Copy 3: Ike Tavaréz
COG Operating, LLC
600 W. Illinois Avenue
Midland, Texas 79701



Copy 4: TRC Environmental Corporation
10 Desta Dr STE 150E
Midland, TX 79705

TABLE 1 Summary of Sampling Analytical Results Concentrations of Benzene, BTEX, TPH, and Chloride in Soil											
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					E 300
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₅ (mg/kg)	TPH C ₆ -C ₃₅ (mg/kg)	Chloride (mg/kg)
FL-A1-2'	12/3/19	2'	Excavated	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,030
TT-A1-3'	12/3/19	3'	Excavated	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	659
TT-A1-4'	12/3/19	4'	Excavated	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	727
TT-A1-5'	12/3/19	5'	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	292
FL-A1-5'	5/6/20	5'	In-Situ	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	386
ESW-A1-1'	12/3/19	1'	Excavated	<0.00200	<0.00200	<50.0	55.3	55.3	<50.0	55.3	2,190
ESW-A1-2.5'	5/6/20	2.5'	In-Situ	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	475
SSW-A1-1'	12/3/19	1'	Excavated	<0.00200	<0.00200	<50.0	70.2	70.2	<50.0	70.2	1,370
NSW-A1-0.5'	12/5/19	0.5'	In-Situ	<0.00198	0.0980	<49.8	<49.8	<49.8	<49.8	<49.8	351
WSW-A1-0.5'	12/5/19	0.5'	In-Situ	<0.00201	<0.00201	<50.0	60.4	60.4	<50.0	60.4	268
FL-B1-3'	12/3/19	3'	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	199
SSW-B1-1'	12/3/19	1'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	269
NSW-B1-1'	12/3/19	1'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	234
ESW-B1-1'	12/3/19	1'	Excavated	<0.00198	<0.00198	<49.9	108	108	<49.9	108	534
ESW-B1-1' R	12/5/19	1'	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	89.2
WSW-B1-1'	12/5/19	1'	In-Situ	<0.00202	0.00869	<50.0	<50.0	<50.0	<50.0	<50.0	224
NMOCD Closure Criteria				10	50	-	-	-	-	100	600

Notes:

1. TPH - Total Petroleum Hydrocarbons
2. GRO - Gasoline Range Hydrocarbons
3. DRO - Diesel Range Hydrocarbons
4. ORO - Oil Range Hydrocarbons
5. BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
6. Bold - Concentration exceeds NMOCD Closure Criteria
7. Green highlight - Sampled interval was excavated during remedial activities

TRC - GIS

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 F US (Foot US)
Map Rotation: 0

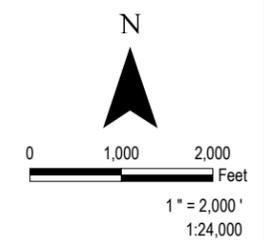
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LEGEND

 AREA INSIDE 100 YEAR FLOODPLAIN

SOURCE: AERIAL IMAGERY - GOOGLE AND THEIR DATA PARTNERS (3/12/2016)
FLOODPLAIN - FEMA FLOOD MAP SERVICE CENTER (MSC)

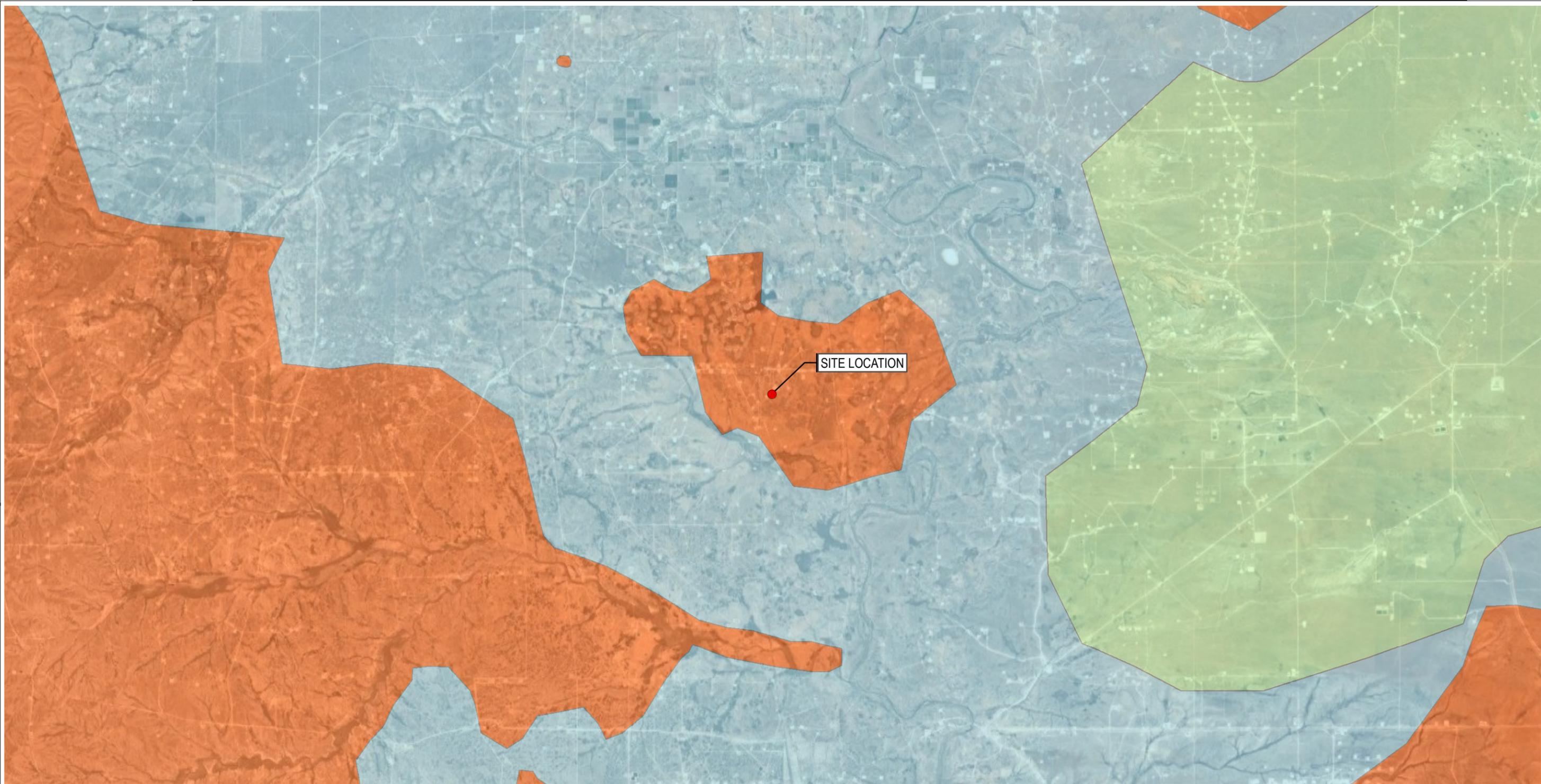


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TITLE:		FLOODPLAIN MAP	
DRAWN BY:	M. JAGOE	PROJ NO.:	373057
CHECKED BY:	J. STOFFEL	FIGURE 2	
APPROVED BY:	J. STOFFEL		
DATE:	JANUARY 2020		
		505 East Huntland Drive, Suite 250 Austin, TX 78752 Phone: 512.329.6080 www.trcsolutions.com	
FILE NO.:		373057_2.mxd	

TRC - GIS

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 FUS (Foot US)
Map Rotation: 0

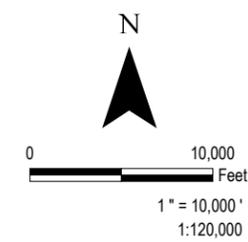
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LEGEND

- LOW KARST POTENTIAL
- MEDIUM KARST POTENTIAL
- HIGH KARST POTENTIAL

SOURCE: KARST DATA FROM NEW MEXICO BUREAU OF LAND MANAGEMENT



PROJECT:		COG SLY HAWK STATE #001 EDDY COUNTY, NM	
TITLE:		KARST POTENTIAL MAP	
DRAWN BY:	M. JAGOE	PROJ NO.:	373057
CHECKED BY:	J. STOFFEL	FIGURE 3	
APPROVED BY:	J. STOFFEL		
DATE:	JANUARY 2020		
		505 East Huntland Drive, Suite 250 Austin, TX 78752 Phone: 512.329.6080 www.trcsolutions.com	
FILE NO.:		373057_3.mxd	

TRC - GIS

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0

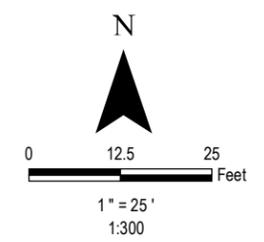
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Path: S:\1-PROJECTS\ConchoResources\373057_Sly_Hawk\MXD\373057_4.mxd



LEGEND

-  CONFIRMATION SOIL SAMPLE LOCATIONS
-  EXCAVATION

SOURCE: AERIAL IMAGERY - GOOGLE AND THEIR DATA PARTNERS (3/12/2016)



PROJECT:		COG SLY HAWK STATE #001 EDDY COUNTY, NM	
TITLE:			
SITE AND CONFIRMATION SAMPLE LOCATION MAP			
DRAWN BY:	M. JAGOE	PROJ NO.:	373057
CHECKED BY:	J. STOFFEL	FIGURE 4	
APPROVED BY:	J. STOFFEL		
DATE:	MAY 2020		
		505 East Huntland Drive, Suite 250 Austin, TX 78752 Phone: 512.329.6080 www.trcsolutions.com	
		FILE NO.: 373057_4.mxd	



Appendix A: NMOCD Correspondence

Incident ID	NRM2001534588
District RP	
Facility ID	
Application ID	

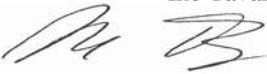
Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Ike Tavarez Title: Senior HSE Representative
 Signature:  Date: 6/4/2020
 email: itavarez@concho.com Telephone: 432-701-8630

OCD Only

Received by: Victoria Venegas Date: 03/02/2020

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: CLOSURE DENIED Date: 04/15/2020
 Printed Name: Victoria Venegas Title: Engineering Tech. III



Appendix B: Photographic Documentation

COG- Sly Hawk State #001

Date: 5/26/2020

Photographic Documentation

Photograph No. 1

Date:

11/18/2019

Direction:

South

Description:

View of the Release area prior to remediation activities.



Photograph No. 2

Date:

12/5/2019

Direction:

South

Description:

View of excavated area A1.



COG- Sly Hawk State #001

Date: 5/26/2020

Photographic Documentation

Photograph No. 3

Date:
12/5/2019

Direction:
Northwest

Description:
View of excavated
area B1.



05 Dec 2019, 14:57:03

Photograph No. 4

Date:
5/6/2020

Direction:
South

Description:
View of excavated
area A1.



Your Watermark - See Settings

Sly Hawk
06 May 2020, 13:51:26

COG- Sly Hawk State #001

Date: 5/26/2020

Photographic Documentation

Photograph No. 5

Date:
5/6/2020

Direction:
North

Description:
View of
excavated area
A1.



Photograph No. 6

Date:
12/6/2019

Direction:
Northwest

Description:
View of
remediated area
B1.





Appendix C: Release Notification and Corrective Action (Form C-141)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: State Federal Tribal Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name _____ Title: _____ Signature: <u></u> _____ Date: _____ email: _____ Telephone: _____
<u>OCD Only</u> Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>50 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

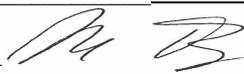
State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Ike Tavaréz Title: Senior HSE Representative

Signature:  Date: 6/4/2020

email: itavaréz@concho.com Telephone: 432-701-8630

OCD Only

Received by: _____ Date: _____



Appendix D: Depth to Groundwater Data



New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 587734.51

Northing (Y): 3558462.34

Radius: 804.67



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 01411	C	ED	4	4	2	04	25S	28E	586289	3558522*		1446	69	35	34
C 02668	C	ED	2	1	2	09	25S	28E	585890	3557525*		2069	150		

Average Depth to Water: **35 feet**
 Minimum Depth: **35 feet**
 Maximum Depth: **35 feet**

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 587734.51

Northing (Y): 3558462.34

Radius: 2414

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



Appendix E: Laboratory Analytical Reports



Certificate of Analysis Summary 644955

TRC Solutions, Inc, Midland, TX

Project Name: Sly Hawk State #001

Project Id:
Contact: Jared Stoffel
Project Location: New Mexico

Date Received in Lab: Wed Dec-04-19 08:54 am
Report Date: 05-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	644955-001	644955-002	644955-003	644955-004	644955-005	644955-006
	Field Id:	FL-A1-2	TT-A1-3	TT-A1-4	TT-A1-5	ESW-A1-1	SSW-A1-1
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Dec-03-19 13:30	Dec-03-19 13:35	Dec-03-19 13:40	Dec-03-19 13:45	Dec-03-19 13:50	Dec-03-19 13:55
BTEX by EPA 8021B	Extracted:	Dec-04-19 09:15					
	Analyzed:	Dec-04-19 13:38	Dec-04-19 14:06	Dec-04-19 14:26	Dec-04-19 14:46	Dec-04-19 15:06	Dec-04-19 15:26
	Units/RL:	mg/kg RL					
	Benzene	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Toluene	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	
Ethylbenzene	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	
m,p-Xylenes	<0.00401 0.00401	<0.00400 0.00400	<0.00397 0.00397	<0.00397 0.00397	<0.00400 0.00400	<0.00399 0.00399	
o-Xylene	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	
Total Xylenes	<0.002 0.002	<0.002 0.002	<0.00198 0.00198	<0.00198 0.00198	<0.002 0.002	<0.002 0.002	
Total BTEX	<0.002 0.002	<0.002 0.002	<0.00198 0.00198	<0.00198 0.00198	<0.002 0.002	<0.002 0.002	
Chloride by EPA 300	Extracted:	Dec-04-19 10:00					
	Analyzed:	Dec-04-19 10:37	Dec-04-19 11:05	Dec-04-19 11:14	Dec-04-19 11:24	Dec-04-19 11:33	Dec-04-19 12:01
	Units/RL:	mg/kg RL					
Chloride	1030 5.03	659 49.8	727 50.5	292 49.6	2190 50.4	1370 25.1	
TPH by SW8015 Mod	Extracted:	Dec-04-19 11:00					
	Analyzed:	Dec-04-19 11:04	Dec-04-19 12:01	Dec-04-19 12:20	Dec-04-19 12:38	Dec-04-19 12:57	Dec-04-19 13:16
	Units/RL:	mg/kg RL					
	Gasoline Range Hydrocarbons (GRO)	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	55.3 50.0	70.2 50.0	
Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	
Total TPH	<50 50	<50 50	<49.9 49.9	<49.8 49.8	55.3 50	70.2 50	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Version: 1.9%

Jessica Kramer
 Project Assistant



Certificate of Analysis Summary 644955

TRC Solutions, Inc, Midland, TX

Project Name: Sly Hawk State #001

Project Id:
Contact: Jared Stoffel
Project Location: New Mexico

Date Received in Lab: Wed Dec-04-19 08:54 am
Report Date: 05-DEC-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644955-007	644955-008	644955-009	644955-010		
	<i>Field Id:</i>	FL-B1-3	SSW-B1-1	NSW-B1-1	ESW-B1-1		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Dec-03-19 14:00	Dec-03-19 14:05	Dec-03-19 14:10	Dec-03-19 14:15		
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-04-19 09:15	Dec-04-19 09:15	Dec-04-19 09:15	Dec-04-19 09:15		
	<i>Analyzed:</i>	Dec-04-19 15:46	Dec-04-19 16:07	Dec-04-19 16:27	Dec-04-19 16:47		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198		
Toluene		<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198		
Ethylbenzene		<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198		
m,p-Xylenes		<0.00402 0.00402	<0.00398 0.00398	<0.00398 0.00398	<0.00397 0.00397		
o-Xylene		<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198		
Total Xylenes		<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198		
Total BTEX		<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198		
Chloride by EPA 300	<i>Extracted:</i>	Dec-04-19 10:00	Dec-04-19 10:00	Dec-04-19 10:00	Dec-04-19 10:00		
	<i>Analyzed:</i>	Dec-04-19 12:10	Dec-04-19 12:19	Dec-04-19 12:28	Dec-04-19 12:38		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		199 49.6	269 50.5	234 4.95	534 50.2		
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-04-19 11:00	Dec-04-19 11:00	Dec-04-19 11:00	Dec-04-19 11:00		
	<i>Analyzed:</i>	Dec-04-19 13:34	Dec-04-19 13:53	Dec-04-19 14:11	Dec-04-19 14:30		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9		
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	108 49.9		
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9		
Total TPH		<49.9 49.9	<50 50	<50 50	108 49.9		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.9%

Jessica Kramer

Jessica Kramer
 Project Assistant

Analytical Report 644955

for
TRC Solutions, Inc

Project Manager: Jared Stoffel

Sly Hawk State #001

05-DEC-19

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05-DEC-19

Project Manager: **Jared Stoffel**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **644955**
Sly Hawk State #001
Project Address: New Mexico

Jared Stoffel:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 644955. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 644955 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 644955

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL-A1-2	S	12-03-19 13:30		644955-001
TT-A1-3	S	12-03-19 13:35		644955-002
TT-A1-4	S	12-03-19 13:40		644955-003
TT-A1-5	S	12-03-19 13:45		644955-004
ESW-A1-1	S	12-03-19 13:50		644955-005
SSW-A1-1	S	12-03-19 13:55		644955-006
FL-B1-3	S	12-03-19 14:00		644955-007
SSW-B1-1	S	12-03-19 14:05		644955-008
NSW-B1-1	S	12-03-19 14:10		644955-009
ESW-B1-1	S	12-03-19 14:15		644955-010



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: Sly Hawk State #001

Project ID:
Work Order Number(s): 644955

Report Date: 05-DEC-19
Date Received: 12/04/2019

Sample receipt non conformances and comments:

CORRECTED SAMPLE 010 NAME TO REFLECT THE COC. NEW VERSION GENERATED. JK
12/05/19

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109394 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analytical Results 644955

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **FL-A1-2** Matrix: Soil Date Received: 12.04.19 08.54
 Lab Sample Id: 644955-001 Date Collected: 12.03.19 13.30
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 12.04.19 10.00 Basis: Wet Weight
 Seq Number: 3109331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1030	5.03	mg/kg	12.04.19 10.37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 12.04.19 11.00 Basis: Wet Weight
 Seq Number: 3109353

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.19 11.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.19 11.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.19 11.04	U	1
Total TPH	PHC635	<50	50	mg/kg	12.04.19 11.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.04.19 11.04	
o-Terphenyl	84-15-1	103	%	70-135	12.04.19 11.04	



Certificate of Analytical Results 644955

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **FL-A1-2**
 Lab Sample Id: 644955-001

Matrix: Soil
 Date Collected: 12.03.19 13.30

Date Received: 12.04.19 08.54

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.04.19 09.15

Basis: Wet Weight

Seq Number: 3109394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.19 13.38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.19 13.38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.19 13.38	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.04.19 13.38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.19 13.38	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	12.04.19 13.38	U	1
Total BTEX		<0.002	0.002	mg/kg	12.04.19 13.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	12.04.19 13.38		
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.04.19 13.38		



Certificate of Analytical Results 644955



TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **TT-A1-3** Matrix: Soil Date Received: 12.04.19 08.54
 Lab Sample Id: 644955-002 Date Collected: 12.03.19 13.35
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 12.04.19 10.00 Basis: Wet Weight
 Seq Number: 3109331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	659	49.8	mg/kg	12.04.19 11.05		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 12.04.19 11.00 Basis: Wet Weight
 Seq Number: 3109353

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.19 12.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.19 12.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.19 12.01	U	1
Total TPH	PHC635	<50	50	mg/kg	12.04.19 12.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.04.19 12.01	
o-Terphenyl	84-15-1	102	%	70-135	12.04.19 12.01	



Certificate of Analytical Results 644955

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **TT-A1-3**
 Lab Sample Id: 644955-002

Matrix: Soil
 Date Collected: 12.03.19 13.35

Date Received: 12.04.19 08.54

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.04.19 09.15

Basis: Wet Weight

Seq Number: 3109394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.19 14.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.19 14.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.19 14.06	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.04.19 14.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.19 14.06	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	12.04.19 14.06	U	1
Total BTEX		<0.002	0.002	mg/kg	12.04.19 14.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	12.04.19 14.06		
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.04.19 14.06		



Certificate of Analytical Results 644955



TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **TT-A1-4** Matrix: Soil Date Received: 12.04.19 08.54
 Lab Sample Id: 644955-003 Date Collected: 12.03.19 13.40
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 12.04.19 10.00 Basis: Wet Weight
 Seq Number: 3109331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	727	50.5	mg/kg	12.04.19 11.14		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 12.04.19 11.00 Basis: Wet Weight
 Seq Number: 3109353

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.04.19 12.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.04.19 12.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.04.19 12.20	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.04.19 12.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.04.19 12.20	
o-Terphenyl	84-15-1	103	%	70-135	12.04.19 12.20	



Certificate of Analytical Results 644955

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **TT-A1-4**
 Lab Sample Id: 644955-003

Matrix: Soil
 Date Collected: 12.03.19 13.40

Date Received: 12.04.19 08.54

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.04.19 09.15

Basis: Wet Weight

Seq Number: 3109394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.04.19 14.26	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.04.19 14.26	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.04.19 14.26	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.04.19 14.26	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.04.19 14.26	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.04.19 14.26	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.04.19 14.26	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99		%	70-130	12.04.19 14.26	
1,4-Difluorobenzene	540-36-3	111		%	70-130	12.04.19 14.26	



Certificate of Analytical Results 644955

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **TT-A1-5** Matrix: Soil Date Received: 12.04.19 08.54
 Lab Sample Id: 644955-004 Date Collected: 12.03.19 13.45
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 12.04.19 10.00 Basis: Wet Weight
 Seq Number: 3109331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	292	49.6	mg/kg	12.04.19 11.24		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 12.04.19 11.00 Basis: Wet Weight
 Seq Number: 3109353

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.04.19 12.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.04.19 12.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.04.19 12.38	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.04.19 12.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	12.04.19 12.38	
o-Terphenyl	84-15-1	114	%	70-135	12.04.19 12.38	



Certificate of Analytical Results 644955

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **TT-A1-5**
 Lab Sample Id: 644955-004

Matrix: Soil
 Date Collected: 12.03.19 13.45

Date Received: 12.04.19 08.54

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.04.19 09.15

Basis: Wet Weight

Seq Number: 3109394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.04.19 14.46	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.04.19 14.46	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.04.19 14.46	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.04.19 14.46	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.04.19 14.46	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.04.19 14.46	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.04.19 14.46	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114		%	70-130	12.04.19 14.46	
4-Bromofluorobenzene	460-00-4	105		%	70-130	12.04.19 14.46	



Certificate of Analytical Results 644955



TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **ESW-A1-1**
 Lab Sample Id: 644955-005

Matrix: Soil
 Date Collected: 12.03.19 13.50

Date Received: 12.04.19 08.54

Analytical Method: Chloride by EPA 300
 Tech: CHE
 Analyst: CHE
 Seq Number: 3109331

Date Prep: 12.04.19 10.00

Prep Method: E300P
 % Moisture:
 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2190	50.4	mg/kg	12.04.19 11.33		10

Analytical Method: TPH by SW8015 Mod
 Tech: DVM
 Analyst: ARM
 Seq Number: 3109353

Date Prep: 12.04.19 11.00

Prep Method: SW8015P
 % Moisture:
 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.19 12.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	55.3	50.0	mg/kg	12.04.19 12.57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.19 12.57	U	1
Total TPH	PHC635	55.3	50	mg/kg	12.04.19 12.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.04.19 12.57	
o-Terphenyl	84-15-1	104	%	70-135	12.04.19 12.57	



Certificate of Analytical Results 644955

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **ESW-A1-1**

Matrix: Soil

Date Received: 12.04.19 08.54

Lab Sample Id: 644955-005

Date Collected: 12.03.19 13.50

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.04.19 09.15

Basis: Wet Weight

Seq Number: 3109394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.19 15.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.19 15.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.19 15.06	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.04.19 15.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.19 15.06	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	12.04.19 15.06	U	1
Total BTEX		<0.002	0.002	mg/kg	12.04.19 15.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.04.19 15.06		
1,4-Difluorobenzene	540-36-3	115	%	70-130	12.04.19 15.06		



Certificate of Analytical Results 644955



TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **SSW-A1-1**

Matrix: Soil

Date Received: 12.04.19 08.54

Lab Sample Id: 644955-006

Date Collected: 12.03.19 13.55

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.04.19 10.00

Basis: Wet Weight

Seq Number: 3109331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1370	25.1	mg/kg	12.04.19 12.01		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.04.19 11.00

Basis: Wet Weight

Seq Number: 3109353

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.19 13.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	70.2	50.0	mg/kg	12.04.19 13.16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.19 13.16	U	1
Total TPH	PHC635	70.2	50	mg/kg	12.04.19 13.16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.04.19 13.16	
o-Terphenyl	84-15-1	105	%	70-135	12.04.19 13.16	



Certificate of Analytical Results 644955

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **SSW-A1-1**
 Lab Sample Id: 644955-006

Matrix: Soil
 Date Collected: 12.03.19 13.55

Date Received: 12.04.19 08.54

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.04.19 09.15

Basis: Wet Weight

Seq Number: 3109394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.19 15.26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.19 15.26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.19 15.26	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.04.19 15.26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.19 15.26	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	12.04.19 15.26	U	1
Total BTEX		<0.002	0.002	mg/kg	12.04.19 15.26	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106		%	70-130	12.04.19 15.26	
1,4-Difluorobenzene	540-36-3	113		%	70-130	12.04.19 15.26	



Certificate of Analytical Results 644955



TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **FL-B1-3**
 Lab Sample Id: 644955-007

Matrix: Soil
 Date Collected: 12.03.19 14.00

Date Received: 12.04.19 08.54

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.04.19 10.00

Basis: Wet Weight

Seq Number: 3109331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	199	49.6	mg/kg	12.04.19 12.10		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.04.19 11.00

Basis: Wet Weight

Seq Number: 3109353

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.04.19 13.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.04.19 13.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.04.19 13.34	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.04.19 13.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.04.19 13.34	
o-Terphenyl	84-15-1	104	%	70-135	12.04.19 13.34	



Certificate of Analytical Results 644955



TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **FL-B1-3**
 Lab Sample Id: 644955-007

Matrix: Soil
 Date Collected: 12.03.19 14.00

Date Received: 12.04.19 08.54

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.04.19 09.15

Basis: Wet Weight

Seq Number: 3109394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.04.19 15.46	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.04.19 15.46	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.04.19 15.46	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.04.19 15.46	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.04.19 15.46	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.04.19 15.46	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.04.19 15.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.04.19 15.46		
1,4-Difluorobenzene	540-36-3	113	%	70-130	12.04.19 15.46		



Certificate of Analytical Results 644955



TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **SSW-B1-1** Matrix: Soil Date Received: 12.04.19 08.54
 Lab Sample Id: 644955-008 Date Collected: 12.03.19 14.05
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 12.04.19 10.00 Basis: Wet Weight
 Seq Number: 3109331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	269	50.5	mg/kg	12.04.19 12.19		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 12.04.19 11.00 Basis: Wet Weight
 Seq Number: 3109353

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.19 13.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.19 13.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.19 13.53	U	1
Total TPH	PHC635	<50	50	mg/kg	12.04.19 13.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.04.19 13.53	
o-Terphenyl	84-15-1	97	%	70-135	12.04.19 13.53	



Certificate of Analytical Results 644955

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **SSW-B1-1**
 Lab Sample Id: 644955-008

Matrix: Soil
 Date Collected: 12.03.19 14.05

Date Received: 12.04.19 08.54

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.04.19 09.15

Basis: Wet Weight

Seq Number: 3109394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.04.19 16.07	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.04.19 16.07	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.04.19 16.07	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.04.19 16.07	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.04.19 16.07	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.04.19 16.07	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.04.19 16.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.04.19 16.07		
1,4-Difluorobenzene	540-36-3	84	%	70-130	12.04.19 16.07		



Certificate of Analytical Results 644955



TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **NSW-B1-1**

Matrix: Soil

Date Received: 12.04.19 08.54

Lab Sample Id: 644955-009

Date Collected: 12.03.19 14.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.04.19 10.00

Basis: Wet Weight

Seq Number: 3109331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	234	4.95	mg/kg	12.04.19 12.28		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.04.19 11.00

Basis: Wet Weight

Seq Number: 3109353

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.19 14.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.19 14.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.19 14.11	U	1
Total TPH	PHC635	<50	50	mg/kg	12.04.19 14.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.04.19 14.11	
o-Terphenyl	84-15-1	104	%	70-135	12.04.19 14.11	



Certificate of Analytical Results 644955

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **NSW-B1-1**

Matrix: Soil

Date Received: 12.04.19 08.54

Lab Sample Id: 644955-009

Date Collected: 12.03.19 14.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.04.19 09.15

Basis: Wet Weight

Seq Number: 3109394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.04.19 16.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.04.19 16.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.04.19 16.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.04.19 16.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.04.19 16.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.04.19 16.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.04.19 16.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	12.04.19 16.27		
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.04.19 16.27		



Certificate of Analytical Results 644955



TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **ESW-B1-1**

Matrix: Soil

Date Received: 12.04.19 08.54

Lab Sample Id: 644955-010

Date Collected: 12.03.19 14.15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.04.19 10.00

Basis: Wet Weight

Seq Number: 3109331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	534	50.2	mg/kg	12.04.19 12.38		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.04.19 11.00

Basis: Wet Weight

Seq Number: 3109353

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.04.19 14.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	108	49.9	mg/kg	12.04.19 14.30		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.04.19 14.30	U	1
Total TPH	PHC635	108	49.9	mg/kg	12.04.19 14.30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.04.19 14.30	
o-Terphenyl	84-15-1	99	%	70-135	12.04.19 14.30	



Certificate of Analytical Results 644955



TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **ESW-B1-1**

Matrix: Soil

Date Received: 12.04.19 08.54

Lab Sample Id: 644955-010

Date Collected: 12.03.19 14.15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.04.19 09.15

Basis: Wet Weight

Seq Number: 3109394

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.04.19 16.47	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.04.19 16.47	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.04.19 16.47	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.04.19 16.47	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.04.19 16.47	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.04.19 16.47	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.04.19 16.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	109	%	70-130	12.04.19 16.47		
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.04.19 16.47		



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **SQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



TRC Solutions, Inc
Sly Hawk State #001

Analytical Method: Chloride by EPA 300

Seq Number: 3109331

MB Sample Id: 7691624-1-BLK

Matrix: Solid

LCS Sample Id: 7691624-1-BKS

Prep Method: E300P

Date Prep: 12.04.19

LCSD Sample Id: 7691624-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	243	97	242	97	90-110	0	20	mg/kg	12.04.19 10:19	

Analytical Method: Chloride by EPA 300

Seq Number: 3109331

Parent Sample Id: 644955-001

Matrix: Soil

MS Sample Id: 644955-001 S

Prep Method: E300P

Date Prep: 12.04.19

MSD Sample Id: 644955-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1030	201	1250	109	1230	100	90-110	2	20	mg/kg	12.04.19 10:46	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109353

MB Sample Id: 7691630-1-BLK

Matrix: Solid

LCS Sample Id: 7691630-1-BKS

Prep Method: SW8015P

Date Prep: 12.04.19

LCSD Sample Id: 7691630-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1100	110	1060	106	70-135	4	20	mg/kg	12.04.19 10:26	
Diesel Range Organics (DRO)	<15.0	1000	1020	102	997	100	70-135	2	20	mg/kg	12.04.19 10:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		127		125		70-135	%	12.04.19 10:26
o-Terphenyl	109		109		105		70-135	%	12.04.19 10:26

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109353

Matrix: Solid
MB Sample Id: 7691630-1-BLK

Prep Method: SW8015P

Date Prep: 12.04.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.04.19 10:08	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result
MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



TRC Solutions, Inc
Sly Hawk State #001

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109353
Parent Sample Id: 644955-001

Matrix: Soil
MS Sample Id: 644955-001 S

Prep Method: SW8015P
Date Prep: 12.04.19
MSD Sample Id: 644955-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD	Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	1120	112	1150	115	70-135	3	20		mg/kg	12.04.19 11:24	
Diesel Range Organics (DRO)	30.6	997	1050	102	1090	106	70-135	4	20		mg/kg	12.04.19 11:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		129		70-135	%	12.04.19 11:24
o-Terphenyl	113		114		70-135	%	12.04.19 11:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109394
MB Sample Id: 7691595-1-BLK

Matrix: Solid
LCS Sample Id: 7691595-1-BKS

Prep Method: SW5030B
Date Prep: 12.04.19
LCSD Sample Id: 7691595-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD	Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.111	111	0.115	115	70-130	4	35		mg/kg	12.04.19 11:38	
Toluene	<0.00200	0.100	0.110	110	0.111	111	70-130	1	35		mg/kg	12.04.19 11:38	
Ethylbenzene	<0.00200	0.100	0.117	117	0.116	116	70-130	1	35		mg/kg	12.04.19 11:38	
m,p-Xylenes	<0.00400	0.200	0.239	120	0.238	119	70-130	0	35		mg/kg	12.04.19 11:38	
o-Xylene	<0.00200	0.100	0.117	117	0.119	119	70-130	2	35		mg/kg	12.04.19 11:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		107		111		70-130	%	12.04.19 11:38
4-Bromofluorobenzene	92		105		113		70-130	%	12.04.19 11:38

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109394
Parent Sample Id: 644955-001

Matrix: Soil
MS Sample Id: 644955-001 S

Prep Method: SW5030B
Date Prep: 12.04.19
MSD Sample Id: 644955-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD	Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0900	89	0.0834	84	70-130	8	35		mg/kg	12.04.19 12:19	
Toluene	<0.00202	0.101	0.0853	84	0.0782	78	70-130	9	35		mg/kg	12.04.19 12:19	
Ethylbenzene	<0.00202	0.101	0.0860	85	0.0787	79	70-130	9	35		mg/kg	12.04.19 12:19	
m,p-Xylenes	<0.00403	0.202	0.175	87	0.160	80	70-130	9	35		mg/kg	12.04.19 12:19	
o-Xylene	<0.00202	0.101	0.0873	86	0.0800	80	70-130	9	35		mg/kg	12.04.19 12:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		111		70-130	%	12.04.19 12:19
4-Bromofluorobenzene	109		105		70-130	%	12.04.19 12:19

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 565-3443 Lubbock, TX (806) 794-1296 Caspbad, NM (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 820-2000 West Palm Beach, FL (561) 689-5701

Chain of Custody

Work Order No: 10414955

Page 1 of 1

Project Manager:	Sue Stevan	Bill to: (if different)	Tru Tower
Company Name:	TRC	Company Name:	COG
Address:	10 West Dr STE 150E	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432-259-3009	Email:	jsk@trc.com; trc@trc.com; i.hackett@trc.com
Project Name:	SH Hawk State #001	Turn Around	
Project Number:		Routine	<input type="checkbox"/>
Project Location:	New Mexico	Rush:	Same Day
Sampler's Name:	J. Steffli	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Temperature (°C):	33	Thermometer ID	JE		
Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	0		
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Total Containers:	0		
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	ANALYSIS REQUEST	Preservative Codes	Sample Comments
FL-A1-2		Soil	12/21/19	1330		1			MeOH: Me None: NO HNO3: HN H2SO4: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn	TAT starts the day received by the lab, if received by 4:00pm
TT-A1-3				1335		X				TPH (8015)
TT-A1-4				1340		X				BTEX (8021)
TT-A1-5				1345		X				Chloride (F300)
ESW-A1-1				1350						
SW-A1-1				1355						
FL-B1-3				1400						
SW-B1-1				1405						
NSW-B1-1				1410						
PSW-B1-1				1415						

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 - Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12/19/19	<i>[Signature]</i>	<i>[Signature]</i>	8:09



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 12/04/2019 08:54:11 AM

Work Order #: 644955

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 12/04/2019
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 12/04/2019
Jessica Kramer



Certificate of Analysis Summary 645465

TRC Solutions, Inc, Midland, TX

Project Name: Sly Hawk State #1

Project Id:
Contact: Jared Stoffel
Project Location:

Date Received in Lab: Fri Dec-06-19 04:53 pm
Report Date: 10-DEC-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645465-001	645465-002	645465-003	645465-004		
	<i>Field Id:</i>	WSW-B1-1'	ESW-B1-1'R	NSW-A1-0.5'	WSW-A1-0.5'		
	<i>Depth:</i>	1- ft	1- ft	0.5- ft	0.5- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Dec-05-19 09:45	Dec-05-19 10:15	Dec-05-19 10:30	Dec-05-19 12:30		
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-07-19 15:15	Dec-07-19 15:15	Dec-07-19 15:15	Dec-07-19 15:15		
	<i>Analyzed:</i>	Dec-08-19 01:52	Dec-08-19 02:12	Dec-08-19 09:38	Dec-08-19 09:59		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201		
Toluene		<0.00202 0.00202	<0.00199 0.00199	0.0980 0.00198	<0.00201 0.00201		
Ethylbenzene		<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201		
m,p-Xylenes		0.00869 0.00403	<0.00398 0.00398	<0.00397 0.00397	<0.00402 0.00402		
o-Xylene		<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201		
Total Xylenes		0.00869 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201		
Total BTEX		0.00869 0.00202	<0.00199 0.00199	0.098 0.00198	<0.00201 0.00201		
Chloride by EPA 300	<i>Extracted:</i>	Dec-09-19 09:00	Dec-09-19 10:45	Dec-09-19 10:45	Dec-09-19 10:45		
	<i>Analyzed:</i>	Dec-09-19 11:48	Dec-09-19 12:26	Dec-09-19 12:42	Dec-09-19 12:48		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		224 49.9	89.2 5.02	351 4.96	268 5.00		
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-06-19 17:00	Dec-06-19 17:00	Dec-06-19 17:00	Dec-06-19 17:00		
	<i>Analyzed:</i>	Dec-07-19 08:12	Dec-07-19 08:31	Dec-07-19 08:50	Dec-07-19 09:09		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0		
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	60.4 50.0		
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0		
Total TPH		<50 50	<49.9 49.9	<49.8 49.8	60.4 50		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
 Project Assistant

Analytical Report 645465

for
TRC Solutions, Inc

Project Manager: Jared Stoffel

Sly Hawk State #1

10-DEC-19

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



10-DEC-19

Project Manager: **Jared Stoffel**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **645465**
Sly Hawk State #1
Project Address:

Jared Stoffel:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 645465. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 645465 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 645465

TRC Solutions, Inc, Midland, TX

Sly Hawk State #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
WSW-B1-1'	S	12-05-19 09:45	1 ft	645465-001
ESW-B1-1'R	S	12-05-19 10:15	1 ft	645465-002
NSW-A1-0.5'	S	12-05-19 10:30	0.5 ft	645465-003
WSW-A1-0.5'	S	12-05-19 12:30	0.5 ft	645465-004



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: Sly Hawk State #1

Project ID:
Work Order Number(s): 645465

Report Date: 10-DEC-19
Date Received: 12/06/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109770 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 645465-001.

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analytical Results 645465

TRC Solutions, Inc, Midland, TX

Sly Hawk State #1

Sample Id: **WSW-B1-1'** Matrix: Soil Date Received: 12.06.19 16.53
 Lab Sample Id: 645465-001 Date Collected: 12.05.19 09.45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 12.09.19 09.00 Basis: Wet Weight
 Seq Number: 3109876

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	224	49.9	mg/kg	12.09.19 11.48		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 12.06.19 17.00 Basis: Wet Weight
 Seq Number: 3109756

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.07.19 08.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.07.19 08.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.07.19 08.12	U	1
Total TPH	PHC635	<50	50	mg/kg	12.07.19 08.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	12.07.19 08.12	
o-Terphenyl	84-15-1	121	%	70-135	12.07.19 08.12	



Certificate of Analytical Results 645465

TRC Solutions, Inc, Midland, TX

Sly Hawk State #1

Sample Id: WSW-B1-1'	Matrix: Soil	Date Received: 12.06.19 16.53
Lab Sample Id: 645465-001	Date Collected: 12.05.19 09.45	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: KTL	Date Prep: 12.07.19 15.15	Basis: Wet Weight
Seq Number: 3109770		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.08.19 01.52	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.08.19 01.52	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.08.19 01.52	U	1
m,p-Xylenes	179601-23-1	0.00869	0.00403	mg/kg	12.08.19 01.52		1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.08.19 01.52	U	1
Total Xylenes	1330-20-7	0.00869	0.00202	mg/kg	12.08.19 01.52		1
Total BTEX		0.00869	0.00202	mg/kg	12.08.19 01.52		1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95		%	70-130	12.08.19 01.52	
4-Bromofluorobenzene	460-00-4	135		%	70-130	12.08.19 01.52	**



Certificate of Analytical Results 645465



TRC Solutions, Inc, Midland, TX

Sly Hawk State #1

Sample Id: ESW-B1-1'R	Matrix: Soil	Date Received: 12.06.19 16.53
Lab Sample Id: 645465-002	Date Collected: 12.05.19 10.15	Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 12.09.19 10.45	Basis: Wet Weight
Seq Number: 3109877		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	89.2	5.02	mg/kg	12.09.19 12.26		1

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DVM		% Moisture:
Analyst: ARM	Date Prep: 12.06.19 17.00	Basis: Wet Weight
Seq Number: 3109756		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.07.19 08.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.07.19 08.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.07.19 08.31	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.07.19 08.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.07.19 08.31	
o-Terphenyl	84-15-1	105	%	70-135	12.07.19 08.31	



Certificate of Analytical Results 645465

TRC Solutions, Inc, Midland, TX

Sly Hawk State #1

Sample Id: **ESW-B1-1'R**

Matrix: Soil

Date Received: 12.06.19 16.53

Lab Sample Id: 645465-002

Date Collected: 12.05.19 10.15

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.07.19 15.15

Basis: Wet Weight

Seq Number: 3109770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.08.19 02.12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.08.19 02.12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.08.19 02.12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.08.19 02.12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.08.19 02.12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.08.19 02.12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.08.19 02.12	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98		%	70-130	12.08.19 02.12	
4-Bromofluorobenzene	460-00-4	112		%	70-130	12.08.19 02.12	



Certificate of Analytical Results 645465

TRC Solutions, Inc, Midland, TX Sly Hawk State #1

Sample Id: NSW-A1-0.5'	Matrix: Soil	Date Received: 12.06.19 16.53
Lab Sample Id: 645465-003	Date Collected: 12.05.19 10.30	Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 12.09.19 10.45	Basis: Wet Weight
Seq Number: 3109877		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	351	4.96	mg/kg	12.09.19 12.42		1

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DVM		% Moisture:
Analyst: ARM	Date Prep: 12.06.19 17.00	Basis: Wet Weight
Seq Number: 3109756		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.07.19 08.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.07.19 08.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.07.19 08.50	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.07.19 08.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.07.19 08.50	
o-Terphenyl	84-15-1	107	%	70-135	12.07.19 08.50	



Certificate of Analytical Results 645465

TRC Solutions, Inc, Midland, TX

Sly Hawk State #1

Sample Id: NSW-A1-0.5'	Matrix: Soil	Date Received: 12.06.19 16.53
Lab Sample Id: 645465-003	Date Collected: 12.05.19 10.30	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: KTL	Date Prep: 12.07.19 15.15	Basis: Wet Weight
Seq Number: 3109770		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.08.19 09.38	U	1
Toluene	108-88-3	0.0980	0.00198	mg/kg	12.08.19 09.38		1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.08.19 09.38	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.08.19 09.38	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.08.19 09.38	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.08.19 09.38	U	1
Total BTEX		0.098	0.00198	mg/kg	12.08.19 09.38		1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93		%	70-130	12.08.19 09.38	
4-Bromofluorobenzene	460-00-4	90		%	70-130	12.08.19 09.38	



Certificate of Analytical Results 645465

TRC Solutions, Inc, Midland, TX
 Sly Hawk State #1

Sample Id: WSW-A1-0.5'	Matrix: Soil	Date Received: 12.06.19 16.53
Lab Sample Id: 645465-004	Date Collected: 12.05.19 12.30	Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 12.09.19 10.45	Basis: Wet Weight
Seq Number: 3109877		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	268	5.00	mg/kg	12.09.19 12.48		1

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DVM		% Moisture:
Analyst: ARM	Date Prep: 12.06.19 17.00	Basis: Wet Weight
Seq Number: 3109756		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.07.19 09.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	60.4	50.0	mg/kg	12.07.19 09.09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.07.19 09.09	U	1
Total TPH	PHC635	60.4	50	mg/kg	12.07.19 09.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.07.19 09.09	
o-Terphenyl	84-15-1	106	%	70-135	12.07.19 09.09	



Certificate of Analytical Results 645465

TRC Solutions, Inc, Midland, TX

Sly Hawk State #1

Sample Id: WSW-A1-0.5'	Matrix: Soil	Date Received: 12.06.19 16.53
Lab Sample Id: 645465-004	Date Collected: 12.05.19 12.30	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: KTL	Date Prep: 12.07.19 15.15	Basis: Wet Weight
Seq Number: 3109770		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.08.19 09.59	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.08.19 09.59	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.08.19 09.59	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.08.19 09.59	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.08.19 09.59	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.08.19 09.59	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.08.19 09.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.08.19 09.59		
4-Bromofluorobenzene	460-00-4	83	%	70-130	12.08.19 09.59		



TRC Solutions, Inc
Sly Hawk State #1

Analytical Method: Chloride by EPA 300

Seq Number: 3109876

MB Sample Id: 7691936-1-BLK

Matrix: Solid

LCS Sample Id: 7691936-1-BKS

Prep Method: E300P

Date Prep: 12.09.19

LCSD Sample Id: 7691936-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	262	105	265	106	90-110	1	20	mg/kg	12.09.19 09:13	

Analytical Method: Chloride by EPA 300

Seq Number: 3109877

MB Sample Id: 7691969-1-BLK

Matrix: Solid

LCS Sample Id: 7691969-1-BKS

Prep Method: E300P

Date Prep: 12.09.19

LCSD Sample Id: 7691969-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	263	105	266	106	90-110	1	20	mg/kg	12.09.19 12:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3109876

Parent Sample Id: 645426-007

Matrix: Soil

MS Sample Id: 645426-007 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645426-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	46.1	251	285	95	290	97	90-110	2	20	mg/kg	12.09.19 09:29	

Analytical Method: Chloride by EPA 300

Seq Number: 3109876

Parent Sample Id: 645426-017

Matrix: Soil

MS Sample Id: 645426-017 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645426-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	29.3	251	274	97	271	96	90-110	1	20	mg/kg	12.09.19 10:44	

Analytical Method: Chloride by EPA 300

Seq Number: 3109877

Parent Sample Id: 645405-001

Matrix: Soil

MS Sample Id: 645405-001 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645405-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.96	249	241	96	241	96	90-110	0	20	mg/kg	12.09.19 13:47	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



TRC Solutions, Inc
Sly Hawk State #1

Analytical Method: Chloride by EPA 300

Seq Number: 3109877
Parent Sample Id: 645465-002

Matrix: Soil
MS Sample Id: 645465-002 S

Prep Method: E300P
Date Prep: 12.09.19
MSD Sample Id: 645465-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	89.2	251	326	94	328	95	90-110	1	20	mg/kg	12.09.19 12:32	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109756
MB Sample Id: 7691874-1-BLK

Matrix: Solid
LCS Sample Id: 7691874-1-BKS

Prep Method: SW8015P
Date Prep: 12.06.19
LCSD Sample Id: 7691874-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1150	115	1170	117	70-135	2	20	mg/kg	12.07.19 01:26	
Diesel Range Organics (DRO)	<15.0	1000	1020	102	1120	112	70-135	9	20	mg/kg	12.07.19 01:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		127		129		70-135	%	12.07.19 01:26
o-Terphenyl	121		113		119		70-135	%	12.07.19 01:26

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109756

Matrix: Solid
MB Sample Id: 7691874-1-BLK

Prep Method: SW8015P
Date Prep: 12.06.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.07.19 01:07	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109756
Parent Sample Id: 645199-001

Matrix: Soil
MS Sample Id: 645199-001 S

Prep Method: SW8015P
Date Prep: 12.06.19
MSD Sample Id: 645199-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	1130	113	1120	112	70-135	1	20	mg/kg	12.07.19 02:24	
Diesel Range Organics (DRO)	<15.0	997	1050	105	1030	103	70-135	2	20	mg/kg	12.07.19 02:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		127		70-135	%	12.07.19 02:24
o-Terphenyl	110		105		70-135	%	12.07.19 02:24

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result
MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



TRC Solutions, Inc

Sly Hawk State #1

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109770

MB Sample Id: 7691901-1-BLK

Matrix: Solid

LCS Sample Id: 7691901-1-BKS

Prep Method: SW5030B

Date Prep: 12.07.19

LCSD Sample Id: 7691901-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.104	104	0.0975	98	70-130	6	35	mg/kg	12.07.19 21:51	
Toluene	<0.000456	0.100	0.0997	100	0.0974	97	70-130	2	35	mg/kg	12.07.19 21:51	
Ethylbenzene	<0.000565	0.100	0.0964	96	0.0956	96	70-130	1	35	mg/kg	12.07.19 21:51	
m,p-Xylenes	<0.00101	0.200	0.194	97	0.196	98	70-130	1	35	mg/kg	12.07.19 21:51	
o-Xylene	<0.000344	0.100	0.0965	97	0.0990	99	70-130	3	35	mg/kg	12.07.19 21:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		91		93		70-130	%	12.07.19 21:51
4-Bromofluorobenzene	92		100		113		70-130	%	12.07.19 21:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109770

Parent Sample Id: 645454-001

Matrix: Soil

MS Sample Id: 645454-001 S

Prep Method: SW5030B

Date Prep: 12.07.19

MSD Sample Id: 645454-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.0935	94	0.0899	91	70-130	4	35	mg/kg	12.07.19 22:31	
Toluene	<0.000456	0.100	0.0899	90	0.0868	88	70-130	4	35	mg/kg	12.07.19 22:31	
Ethylbenzene	<0.000565	0.100	0.0864	86	0.0842	85	70-130	3	35	mg/kg	12.07.19 22:31	
m,p-Xylenes	<0.00101	0.200	0.174	87	0.170	86	70-130	2	35	mg/kg	12.07.19 22:31	
o-Xylene	<0.000344	0.100	0.0878	88	0.0858	86	70-130	2	35	mg/kg	12.07.19 22:31	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		95		70-130	%	12.07.19 22:31
4-Bromofluorobenzene	108		113		70-130	%	12.07.19 22:31

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 12/06/2019 04:53:00 PM

Work Order #: 645465

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 12/06/2019
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 12/10/2019
Jessica Kramer



Certificate of Analysis Summary 660732

TRC Solutions, Inc, Midland, TX

Project Name: Sly Hawk State #001

Project Id:

Contact: Jared Stoffel

Project Location:

Date Received in Lab: Wed 05.06.2020 11:20

Report Date: 05.07.2020 14:31

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660732-001				
	Field Id:	ESW - A1-2.5'				
	Depth:	2.5- ft				
	Matrix:	SOIL				
	Sampled:	05.06.2020 09:30				
BTEX by EPA 8021B	Extracted:	05.06.2020 14:00				
	Analyzed:	05.06.2020 16:20				
	Units/RL:	mg/kg RL				
	Benzene	<0.00202 0.00202				
	Toluene	<0.00202 0.00202				
	Ethylbenzene	<0.00202 0.00202				
	m,p-Xylenes	<0.00404 0.00404				
	o-Xylene	<0.00202 0.00202				
Total Xylenes	<0.00202 0.00202					
Total BTEX	<0.00202 0.00202					
Chloride by EPA 300	Extracted:	05.06.2020 14:00				
	Analyzed:	05.06.2020 15:45				
Units/RL:	mg/kg RL					
Chloride	475 99.6					
TPH by SW8015 Mod	Extracted:	05.06.2020 17:00				
	Analyzed:	** ** ** **				
	Units/RL:	mg/kg RL				
	Gasoline Range Hydrocarbons (GRO)	<50.2 50.2				
	Diesel Range Organics (DRO)	<50.2 50.2				
Motor Oil Range Hydrocarbons (MRO)	<50.2 50.2					
Total TPH	<50.2 50.2					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Analytical Report 660732

for

TRC Solutions, Inc

Project Manager: Jared Stoffel

Sly Hawk State #001

05.07.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.07.2020

Project Manager: **Jared Stoffel**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **660732**

Sly Hawk State #001

Project Address:

Jared Stoffel:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 660732. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 660732 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, slightly slanted style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 660732

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
ESW - A1-2.5'	S	05.06.2020 09:30	2.5 ft	660732-001



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: Sly Hawk State #001

Project ID:
Work Order Number(s): 660732

Report Date: 05.07.2020
Date Received: 05.06.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 660732

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: ESW - A1-2.5'	Matrix: Soil	Date Received: 05.06.2020 11:20
Lab Sample Id: 660732-001	Date Collected: 05.06.2020 09:30	Sample Depth: 2.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 05.06.2020 14:00	Basis: Wet Weight
Seq Number: 3125246		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	475	99.6	mg/kg	05.06.2020 15:45		10

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DTH	% Moisture:
Analyst: DTH	Date Prep: 05.06.2020 17:00
Seq Number: 3125293	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.06.2020 16:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.06.2020 16:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.06.2020 16:52	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.06.2020 16:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.06.2020 16:52	
o-Terphenyl	84-15-1	122	%	70-135	05.06.2020 16:52	



Certificate of Analytical Results 660732

TRC Solutions, Inc, Midland, TX

Sly Hawk State #001

Sample Id: **ESW - A1-2.5'**

Matrix: Soil

Date Received: 05.06.2020 11:20

Lab Sample Id: 660732-001

Date Collected: 05.06.2020 09:30

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 14:00

Basis: Wet Weight

Seq Number: 3125244

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.06.2020 16:20	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.06.2020 16:20	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.06.2020 16:20	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.06.2020 16:20	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.06.2020 16:20	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.06.2020 16:20	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.06.2020 16:20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.06.2020 16:20		
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.06.2020 16:20		



TRC Solutions, Inc
Sly Hawk State #001

Analytical Method: Chloride by EPA 300

Seq Number: 3125246
MB Sample Id: 7702827-1-BLK

Matrix: Solid
LCS Sample Id: 7702827-1-BKS

Prep Method: E300P
Date Prep: 05.06.2020
LCSD Sample Id: 7702827-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	251	100	250	100	90-110	0	20	mg/kg	05.06.2020 15:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3125246
Parent Sample Id: 660711-008

Matrix: Soil
MS Sample Id: 660711-008 S

Prep Method: E300P
Date Prep: 05.06.2020
MSD Sample Id: 660711-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	180	199	369	95	369	95	90-110	0	20	mg/kg	05.06.2020 17:11	

Analytical Method: Chloride by EPA 300

Seq Number: 3125246
Parent Sample Id: 660732-001

Matrix: Soil
MS Sample Id: 660732-001 S

Prep Method: E300P
Date Prep: 05.06.2020
MSD Sample Id: 660732-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	475	200	661	93	659	92	90-110	0	20	mg/kg	05.06.2020 15:51	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125293
MB Sample Id: 7702869-1-BLK

Matrix: Solid
LCS Sample Id: 7702869-1-BKS

Prep Method: SW8015P
Date Prep: 05.06.2020
LCSD Sample Id: 7702869-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1160	116	1120	112	70-135	4	35	mg/kg	05.06.2020 16:11	
Diesel Range Organics (DRO)	<50.0	1000	1250	125	1210	121	70-135	3	35	mg/kg	05.06.2020 16:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		135		132		70-135	%	05.06.2020 16:11
o-Terphenyl	119		120		118		70-135	%	05.06.2020 16:11

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125293
MB Sample Id: 7702869-1-BLK

Matrix: Solid

Prep Method: SW8015P
Date Prep: 05.06.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.06.2020 15:51	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



TRC Solutions, Inc
Sly Hawk State #001

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125293

Parent Sample Id: 660732-001

Matrix: Soil

MS Sample Id: 660732-001 S

Prep Method: SW8015P

Date Prep: 05.06.2020

MSD Sample Id: 660732-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1150	115	1130	114	70-135	2	35	mg/kg	05.06.2020 17:12	
Diesel Range Organics (DRO)	<50.0	1000	1160	116	1170	118	70-135	1	35	mg/kg	05.06.2020 17:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		133		70-135	%	05.06.2020 17:12
o-Terphenyl	117		117		70-135	%	05.06.2020 17:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125244

MB Sample Id: 7702855-1-BLK

Matrix: Solid

LCS Sample Id: 7702855-1-BKS

Prep Method: SW5035A

Date Prep: 05.06.2020

LCSD Sample Id: 7702855-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.120	120	0.122	122	70-130	2	35	mg/kg	05.06.2020 14:12	
Toluene	<0.00200	0.100	0.110	110	0.112	112	70-130	2	35	mg/kg	05.06.2020 14:12	
Ethylbenzene	<0.00200	0.100	0.104	104	0.107	107	71-129	3	35	mg/kg	05.06.2020 14:12	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.208	104	70-135	2	35	mg/kg	05.06.2020 14:12	
o-Xylene	<0.00200	0.100	0.102	102	0.105	105	71-133	3	35	mg/kg	05.06.2020 14:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	115		107		108		70-130	%	05.06.2020 14:12
4-Bromofluorobenzene	106		100		99		70-130	%	05.06.2020 14:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125244

Parent Sample Id: 660566-004

Matrix: Soil

MS Sample Id: 660566-004 S

Prep Method: SW5035A

Date Prep: 05.06.2020

MSD Sample Id: 660566-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.120	121	0.125	124	70-130	4	35	mg/kg	05.06.2020 14:54	
Toluene	<0.00198	0.0992	0.117	118	0.112	111	70-130	4	35	mg/kg	05.06.2020 14:54	
Ethylbenzene	<0.00198	0.0992	0.109	110	0.101	100	71-129	8	35	mg/kg	05.06.2020 14:54	
m,p-Xylenes	<0.00397	0.198	0.211	107	0.195	97	70-135	8	35	mg/kg	05.06.2020 14:54	
o-Xylene	<0.00198	0.0992	0.107	108	0.0990	98	71-133	8	35	mg/kg	05.06.2020 14:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		70-130	%	05.06.2020 14:54
4-Bromofluorobenzene	102		101		70-130	%	05.06.2020 14:54

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Certificate of Analysis Summary 660733

TRC Solutions, Inc, Midland, TX

Project Name: Sky Hawk State #001

Project Id:

Contact: Jared Stoffel

Project Location:

Date Received in Lab: Wed 05.06.2020 11:20

Report Date: 05.07.2020 14:31

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660733-001				
	Field Id:	FL-A1-5'				
	Depth:	5- ft				
	Matrix:	SOIL				
	Sampled:	05.06.2020 09:40				
BTEX by EPA 8021B	Extracted:	05.06.2020 14:00				
	Analyzed:	05.06.2020 16:41				
	Units/RL:	mg/kg RL				
	Benzene	<0.00202 0.00202				
	Toluene	<0.00202 0.00202				
	Ethylbenzene	<0.00202 0.00202				
	m,p-Xylenes	<0.00403 0.00403				
	o-Xylene	<0.00202 0.00202				
Total Xylenes	<0.00202 0.00202					
Total BTEX	<0.00202 0.00202					
Chloride by EPA 300	Extracted:	05.06.2020 14:00				
	Analyzed:	05.06.2020 16:02				
Units/RL:	mg/kg RL					
Chloride	386 100					
TPH by SW8015 Mod	Extracted:	05.06.2020 17:00				
	Analyzed:	** ** ** **				
	Units/RL:	mg/kg RL				
	Gasoline Range Hydrocarbons (GRO)	<50.2 50.2				
	Diesel Range Organics (DRO)	<50.2 50.2				
Motor Oil Range Hydrocarbons (MRO)	<50.2 50.2					
Total TPH	<50.2 50.2					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Analytical Report 660733

for

TRC Solutions, Inc

Project Manager: Jared Stoffel

Sky Hawk State #001

05.07.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.07.2020

Project Manager: **Jared Stoffel**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **660733**

Sky Hawk State #001

Project Address:

Jared Stoffel:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 660733. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 660733 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, slightly slanted style.

Jessica Kramer

Project Manager

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Sample Cross Reference 660733

TRC Solutions, Inc, Midland, TX

Sky Hawk State #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL-A1-5'	S	05.06.2020 09:40	5 ft	660733-001



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: Sky Hawk State #001

Project ID:
Work Order Number(s): 660733

Report Date: 05.07.2020
Date Received: 05.06.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 660733

TRC Solutions, Inc, Midland, TX

Sky Hawk State #001

Sample Id: FL-A1-5'	Matrix: Soil	Date Received: 05.06.2020 11:20
Lab Sample Id: 660733-001	Date Collected: 05.06.2020 09:40	Sample Depth: 5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 05.06.2020 14:00	Basis: Wet Weight
Seq Number: 3125246		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	386	100	mg/kg	05.06.2020 16:02		10

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DTH	% Moisture:
Analyst: DTH	Date Prep: 05.06.2020 17:00
Seq Number: 3125289	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.06.2020 16:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.06.2020 16:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.06.2020 16:52	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.06.2020 16:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	05.06.2020 16:52	
o-Terphenyl	84-15-1	112	%	70-135	05.06.2020 16:52	



Certificate of Analytical Results 660733

TRC Solutions, Inc, Midland, TX

Sky Hawk State #001

Sample Id: **FL-A1-5'**
Lab Sample Id: 660733-001

Matrix: Soil
Date Collected: 05.06.2020 09:40

Date Received: 05.06.2020 11:20
Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 14:00

Basis: Wet Weight

Seq Number: 3125244

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.06.2020 16:41	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.06.2020 16:41	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.06.2020 16:41	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.06.2020 16:41	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.06.2020 16:41	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.06.2020 16:41	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.06.2020 16:41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.06.2020 16:41		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.06.2020 16:41		



TRC Solutions, Inc
Sky Hawk State #001

Analytical Method: Chloride by EPA 300

Seq Number: 3125246
MB Sample Id: 7702827-1-BLK

Matrix: Solid

LCS Sample Id: 7702827-1-BKS

Prep Method: E300P

Date Prep: 05.06.2020

LCSD Sample Id: 7702827-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	251	100	250	100	90-110	0	20	mg/kg	05.06.2020 15:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3125246
Parent Sample Id: 660711-008

Matrix: Soil

MS Sample Id: 660711-008 S

Prep Method: E300P

Date Prep: 05.06.2020

MSD Sample Id: 660711-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	180	199	369	95	369	95	90-110	0	20	mg/kg	05.06.2020 17:11	

Analytical Method: Chloride by EPA 300

Seq Number: 3125246
Parent Sample Id: 660732-001

Matrix: Soil

MS Sample Id: 660732-001 S

Prep Method: E300P

Date Prep: 05.06.2020

MSD Sample Id: 660732-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	475	200	661	93	659	92	90-110	0	20	mg/kg	05.06.2020 15:51	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125289
MB Sample Id: 7702864-1-BLK

Matrix: Solid

LCS Sample Id: 7702864-1-BKS

Prep Method: SW8015P

Date Prep: 05.06.2020

LCSD Sample Id: 7702864-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1140	114	1100	110	70-135	4	35	mg/kg	05.06.2020 16:11	
Diesel Range Organics (DRO)	<50.0	1000	1230	123	1140	114	70-135	8	35	mg/kg	05.06.2020 16:11	

Surrogate

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		117		128		70-135	%	05.06.2020 16:11
o-Terphenyl	90		107		101		70-135	%	05.06.2020 16:11

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125289

Matrix: Solid

MB Sample Id: 7702864-1-BLK

Prep Method: SW8015P

Date Prep: 05.06.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.06.2020 15:51	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



TRC Solutions, Inc
Sky Hawk State #001

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125289
Parent Sample Id: 660733-001

Matrix: Soil
MS Sample Id: 660733-001 S

Prep Method: SW8015P
Date Prep: 05.06.2020
MSD Sample Id: 660733-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1070	107	1040	104	70-135	3	35	mg/kg	05.06.2020 17:12	
Diesel Range Organics (DRO)	<50.1	1000	1140	114	1190	119	70-135	4	35	mg/kg	05.06.2020 17:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		71		70-135	%	05.06.2020 17:12
o-Terphenyl	100		76		70-135	%	05.06.2020 17:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125244
MB Sample Id: 7702855-1-BLK

Matrix: Solid
LCS Sample Id: 7702855-1-BKS

Prep Method: SW5035A
Date Prep: 05.06.2020
LCSD Sample Id: 7702855-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.120	120	0.122	122	70-130	2	35	mg/kg	05.06.2020 14:12	
Toluene	<0.00200	0.100	0.110	110	0.112	112	70-130	2	35	mg/kg	05.06.2020 14:12	
Ethylbenzene	<0.00200	0.100	0.104	104	0.107	107	71-129	3	35	mg/kg	05.06.2020 14:12	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.208	104	70-135	2	35	mg/kg	05.06.2020 14:12	
o-Xylene	<0.00200	0.100	0.102	102	0.105	105	71-133	3	35	mg/kg	05.06.2020 14:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	115		107		108		70-130	%	05.06.2020 14:12
4-Bromofluorobenzene	106		100		99		70-130	%	05.06.2020 14:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125244
Parent Sample Id: 660566-004

Matrix: Soil
MS Sample Id: 660566-004 S

Prep Method: SW5035A
Date Prep: 05.06.2020
MSD Sample Id: 660566-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.120	121	0.125	124	70-130	4	35	mg/kg	05.06.2020 14:54	
Toluene	<0.00198	0.0992	0.117	118	0.112	111	70-130	4	35	mg/kg	05.06.2020 14:54	
Ethylbenzene	<0.00198	0.0992	0.109	110	0.101	100	71-129	8	35	mg/kg	05.06.2020 14:54	
m,p-Xylenes	<0.00397	0.198	0.211	107	0.195	97	70-135	8	35	mg/kg	05.06.2020 14:54	
o-Xylene	<0.00198	0.0992	0.107	108	0.0990	98	71-133	8	35	mg/kg	05.06.2020 14:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		70-130	%	05.06.2020 14:54
4-Bromofluorobenzene	102		101		70-130	%	05.06.2020 14:54

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

