Remediation Summary and Site Closure Request

November 11, 2019

White Federal Com #001H (2RP-5470)

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

Prepared by:
Jared Stoffel, PG
Project Manager

Reviewed and Approved by:
Curt Stanley
Senior Project Manager

1QKU0-191115-C-1410

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1.0 Introduction and Background Information

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG), has prepared this *Remediation Summary and Site Closure Request* for the Release at the Site known as the White Federal Com #001H (the Site). The legal description of the Site is Unit Letter "I", Section 28, Township 25 South, Range 29 East, in Eddy County, New Mexico. The subject property is owned by the Federal government and administered by Bureau of Land Management (BLM). The GPS coordinates for the Site are N 32.0981°, W 103.9818°. A topographical map is provided as **Figure 1**. Photographs are provided in the photolog as **Appendix A**.

On May 19, 2019, COG discovered a produced water release had occurred at the Site. The Release was attributed to a flowline failure, which impacted pastureland. On the discovery date, COG notified the New Mexico Oil and Conservation Division (NMOCD) and Bureau of Land Management (BLM) of the Release and the Release was assigned an NMOCD Reference number of 2RP-5470. During the initial response activities, a vacuum truck was dispatched to recover all freestanding fluids. On June 4, 2019, the initial Release Notification and Corrective Action (Form C-141) was submitted to the NMOCD. The Form C-141 indicated twenty (20) barrels (bbls) of produced water was released. No produced water was recovered during the initial response activities. The release affected an area measuring approximately nineteen-hundred (1,900) square feet (sq. ft.). A copy of the submitted Form C-141 for the Release is provided in **Appendix D**.

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) did not identify any registered water wells in Section 28, Township 25 South, Range 29 East. A reference map utilized by the NMOCD indicates groundwater should be encountered at less than twenty-five (25) feet below ground surface (bgs). 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 White Federal Com #001H Release Site, the NMOCD *Closure Criteria for Soils Impacted by a Release* are the most stringent closure criteria listed. In addition, the White Federal Com #001H is located in the 'medium 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 White Federal Com #001H 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 Initial Delineation Investigation

On July 30, 2019, an initial investigation was conducted at the Release Site. During the initial investigation activities, three (3) test trenches (TT-1, TT-2, and TT-3) were advanced within the

Release margins with an excavator, due to the hard rock layer located approximately one (1) foot bgs. The Release area was inferred from GPS data obtained from COG, as there was little hydrocarbon staining or chloride crusting observed in the Release area. Nine (9) soil samples (TT-1 @ 0-1', TT-1 @ 2', TT-1 @ 3', TT-2 @ 0-1', TT-2 @ 2', TT-2 @ 3', TT-3 @ 0-1', TT-3 @ 2', and TT-3 @ 3') were collected from the three (3) trench locations and submitted to Xenco Laboratories in Midland, TX for chloride analysis. Each soil sample exhibited chloride concentrations below NMOCD regulatory guidelines, with the exception of soil samples TT-1 @ 0-1' and TT-3 @ 0-1', which exhibited chloride concentrations of 1,010 mg/kg and 2,820 mg/kg, respectively. Please reference **Figure 4 – Excavation & Sample Location Map** for sample and release location information. Please reference **Table 1- Concentrations of Benzene, BTEX, TPH and Chloride in Soil** for a summary of the analytical data.

3.0 Remediation Activities

On August 2, 2019, remediation activities commenced at the Release Site. The area represented by test trench location TT-1 was excavated to a depth of approximately thirty (30) inches bgs. The northern portion of the area represented by test trench TT-2 was excavated to a depth of approximately twelve (12) inches bgs. Excavated soil was stockpiled on a plastic liner, pending disposition at an NMOCD approved disposal facility. Seven (7) five-point composite floor confirmation soil samples (FL-1-2.5, FL-2-2.5, FL-3-2.5, FL-4-2.5, FL-5-2.5, FL-6-2.5, FL-7-1) were collected from the base of the excavation. Five (5) five-point composite sidewall confirmation soil samples (SW-N1-1.25, SW-E1-1.25, SW-W1-1.25, SW-W2-0.5, and SW-E2-0.5) were collected from the excavation walls. The sidewall represented by soil sample SW-E1-1.25 was advanced to the east to the maximum extent practicable without interfering with the adjacent surface flowlines and a high traffic lease road. To characterize the area between the sidewall and the lease road, two (2) grab samples (SW-E1B-1.25 and SW-E1C-1.25) were collected adjacent to SW-E1-1.25 at 1.25 feet bgs. Collected soil samples were submitted to Xenco Laboratories in Midland, TX for chloride and/or TPH and BTEX analyses. TPH and BTEX concentrations were below laboratory reporting limits in each sample submitted for TPH and BTEX analyses. Chloride concentrations were below NMOCD regulatory guidelines in each submitted soil sample, with the exception of soil samples SW-E1-1.25, SW-E1B-1.25, and SW-E1C-1.25. Excavation continued to the south and the remainder of the area represented by soil sample TT-2 was excavated to twelve (12) inches bgs and the area represented by soil sample TT-3 was excavated to eighteen (18) inches bgs.

On August 5, 2019, seven (7) five-point composite floor confirmation soil samples (FL-8-1, FL-9-1.5, FL-10-1.5, FL-11-1.5, FL-12-1.5, FL-13-1.5, and FL-14-1.5) were collected from the base of the excavation. Five (5) five-point composite sidewall confirmation soil samples (SW-W3-0.5, SW-E3-0.5, SW-W4-0.75, SW-E4-0.75, and SW-S1-0.75) were collected from the excavation sidewalls. Collected soil samples were submitted to Xenco Laboratories for chloride and/or TPH and BTEX analyses. Each soil sample submitted for BTEX analysis exhibited BTEX concentrations below the laboratory reporting limit. Each soil sample submitted for TPH analysis exhibited TPH concentrations below the NMCOD regulatory guidelines. Each soil sample submitted for chloride analysis exhibited chloride concentrations below NMOCD regulatory

guidelines, with the exception of soil sample SW-E4-0.75. Following review of the analytical data, the sidewall represented by soil sample SW-E4-0.75 was advanced laterally to the east.

On August 6, 2019, one (1) five-point composite sidewall confirmation soil sample (SW-E4R-0.75) was collected from the sidewall, which was laterally advanced due to the exceedance of NMOCD regulatory guidelines in soil sample SW-E4-0.75. The soil sample was submitted to Xenco Laboratories for chloride analysis. The analytical results indicated the soil sample exhibited a chloride concentration below NMOCD regulatory guidelines.

The excavated material was transported under manifest to the R360 Red Bluff Facility for final disposition. The excavation was backfilled to grade with locally sourced, non-impacted 'like' material. A review of the analytical results indicated the collected soil samples exhibited concentrations below NMOCD regulatory guidelines for each constituent of concern, with the exception of soil samples SW-E1-1.25, SW-E1B-1.25, and SW-E1C-1.25. A deferral request was submitted to the BLM and NMOCD to allow the area represented by soil samples SW-E1-1.25, SW-E1B-1.25 and SW-E1C-1.25 in place.

4.0 Additional Remediation Activities

The deferral request was denied by both the BLM and the NMOCD. The BLM and NMOCD requested the area represented by soil samples SW-E1-1.25, SW-E1B-1.25 and SW-E1C-1.25 be excavated.

On October 23, 2019, the area underlying the surface flowlines and represented by soil samples SW-E1-1.25, SW-E1B-1.25, and SW-E1C-1.25 was excavated to a depth of approximately three (3) feet bgs, spanning from the previous excavation to the edge of the lease road. Following the excavation activities, two (2) five-point composite soil samples (FL-15-3 and FL-16-3) were collected from the base of the excavation. Three (3) five-point composite soil samples (SW-N1-1.5, SW-S1-1.5, and SW-E1D-1.5) were collected from the sidewalls of the excavation. The soil samples were submitted to the laboratory for chloride analysis. Each submitted soil sample exhibited chloride concentrations below NMOCD regulatory guidelines, with the exception of SW-E1D-1.5, which exhibited a chloride concentration of 695 mg/kg. The excavation could not be laterally advanced to the east, as the sidewall was at the margin of the lease road. Subsequently, the area represented by SW-E1D-1.5 was left in-situ.

The additional excavated material was transported under manifest to the R360 Red Bluff Facility for final disposition. The excavation was backfilled to grade with locally sourced, non-impacted 'like' material. A review of the analytical results indicated the collected soil samples exhibited concentrations below NMOCD regulatory guidelines for each constituent of concern, with the exception of SW-E1D-1.5. Please reference **Figure 4 – Excavation & Sample Location Map** for sample and release location information. Please reference **Table 1- Concentrations of Benzene, BTEX, TPH and Chloride in Soil** for a summary of the analytical data.

5.0 Site Closure Request

The laboratory analytical results from confirmation soil samples indicated TPH, BTEX, and/or chloride concentrations were below the NMOCD regulatory guidelines in the submitted soil samples, with the exception of SW-E1D-1.5, which was located at the edge of the lease road and could not be excavated further. 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 BLM and request closure status to the White Federal Com #001H.

6.0 Limitation

TRC has prepared this Remediation Summary and Site 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.

7.0 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: Jim Amos
U.S. Department of the Interior
Carlsbad Field Office
620 E Greene Street
Carlsbad, New Mexico 88220

Copy 3: Ike Tavarez
COG Operating, LLC

600 W. Illinois Avenue
Midland, Texas 79701

Copy4: TRC Environmental Corporation
10 Desta Dr STE 150E
Midland, TX 79705

Table 1: Concentrations of BTEX, TPH and/or 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)
TT-1 @ 0-1'	7/30/19	0-1'	Excavated	-	-	-	-	-	-	-	**1,010**
TT-1 @ 2'	7/30/19	2'	Excavated	-	-	-	-	-	-	-	344
TT-1 @ 3'	7/30/19	3'	In-Situ	-	-	-	-	-	-	-	120
TT-2 @ 0-1'	7/30/19	0-1'	Excavated	-	-	-	-	-	-	-	504
TT-2 @ 2'	7/30/19	2'	In-Situ	-	-	-	-	-	-	-	150
TT-2 @ 3'	7/30/19	3'	In-Situ	-	-	-	-	-	-	-	240
TT-3 @ 0-1'	7/30/19	0-1'	Excavated	-	-	-	-	-	-	-	**2,820**
TT-3 @ 2'	7/30/19	2'	In-Situ	-	-	-	-	-	-	-	206
TT-3 @ 3'	7/30/19	3'	In-Situ	-	-	-	-	-	-	-	50.0
SW-N1-1.25	8/2/19	1.25	In-Situ	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15	241
SW-E1-1.25	8/2/19	1.25	Excavated	-	-	-	-	-	-	-	**10,200**
SW-E1B-1.25	8/2/19	1.25	Excavated	-	-	-	-	-	-	-	**11,600**
SW-E1C-1.25	8/2/19	1.25	Excavated	-	-	-	-	-	-	-	**6,090**
SW-W1-1.25	8/2/19	1.25	In-Situ	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15	179
FL-1-2.5	8/2/19	2.5	In-Situ	-	-	-	-	-	-	-	280
FL-2-2.5	8/2/19	2.5	In-Situ	-	-	-	-	-	-	-	288
FL-3-2.5	8/2/19	2.5	In-Situ	-	-	-	-	-	-	-	317
FL-4-2.5	8/2/19	2.5	In-Situ	<0.00200	<0.002	<15.0	<15.0	<15.0	<15.0	<15	411
FL-5-2.5	8/2/19	2.5	In-Situ	-	-	-	-	-	-	-	501
FL-6-2.5	8/2/19	2.5	In-Situ	-	-	-	-	-	-	-	296
FL-7-1	8/2/19	1	In-Situ	-	-	-	-	-	-	-	324
SW-W2-0.5	8/2/19	0.5	In-Situ	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15	122
SW-E2-0.5	8/2/19	0.5	In-Situ	-	-	-	-	-	-	-	375
FL-8-1	8/5/19	1	In-Situ	<0.00199	0.02612	<15.0	<15.0	<15.0	<15.0	<15	72.7
FL-9-1.5	8/5/19	1.5	In-Situ	-	-	-	-	-	-	-	333
FL-10-1.5	8/5/19	1.5	In-Situ	-	-	-	-	-	-	-	210
NMOCD Closure Criteria				**10**	**50**	**-**	**-**	**-**	**-**	**100**	**600**

Green highlight indicates soil status of excavated

Table 1: Concentrations of BTEX, TPH and/or 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-11-1.5	8/5/19	1.5	In-Situ	-	-	-	-	-	-	-	313
FL-12-1.5	8/5/19	1.5	In-Situ	<0.00200	<0.002	<15.0	43.9	43.9	<15.0	43.9	114
FL-13-1.5	8/5/19	1.5	In-Situ	-	-	-	-	-	-	-	270
FL-14-1.5	8/5/19	1.5	In-Situ	-	-	-	-	-	-	-	422
SW-W3-0.5	8/5/19	0.5	In-Situ	-	-	-	-	-	-	-	589
SW-E3-0.5	8/5/19	0.5	In-Situ	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15	117
SW-W4-0.75	8/5/19	0.75	In-Situ	-	-	-	-	-	-	-	173
SW-E4-0.75	8/5/19	0.75	Excavated	-	-	-	-	-	-	-	**1,180**
SW-S1-0.75	8/5/19	0.75	In-Situ	-	-	-	-	-	-	-	186
SW-E4R-0.75	8/6/19	0.75	In-Situ	-	-	-	-	-	-	-	247
SW-N1-1.5	10/23/19	1.5	In-Situ	-	-	-	-	-	-	-	451
SW-S1-1.5	10/23/19	1.5	In-Situ	-	-	-	-	-	-	-	353
SW-E1D-1.5	10/23/19	1.5	In-Situ	-	-	-	-	-	-	-	**695**
FL-15-3	10/23/19	3	In-Situ	-	-	-	-	-	-	-	234
FL-16-3	10/23/19	3	In-Situ	-	-	-	-	-	-	-	305
NMOCD Closure Criteria				**10**	**50**	**-**	**-**	**-**	**-**	**100**	**600**

Green highlight indicates soil status of excavated

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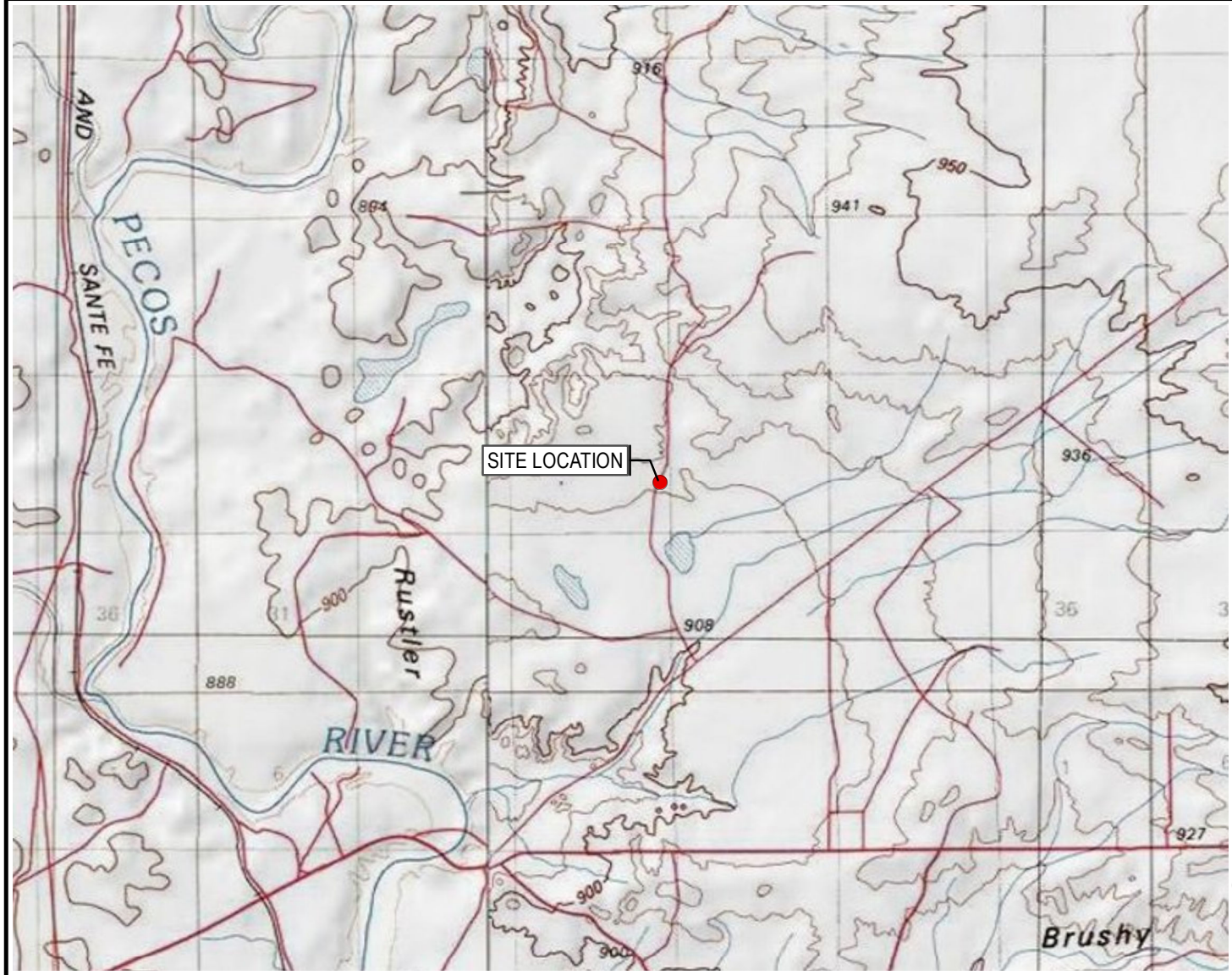

LEGEND

Site Location

BASEMAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES - ROSS RANCH, NM.

N

0 0.5 1 MILES

1 " = 1 MILES

1:63,360

TRC
505 East Huntland Drive
Suite #250
Austin, TX 78752
Phone: 512.329.6080
TRC - GIS

PROJECT:

WHITE FEDERAL COM #001H
EDDY COUNTY, NM

TITLE:

TOPOGRAPHIC MAP

DRAWN BY:	S. RAY
CHECKED BY:	
APPROVED BY:	
DATE:	AUGUST 2019
PROJ. NO.:	347261
FILE:	347261_1.mxd

FIGURE 1

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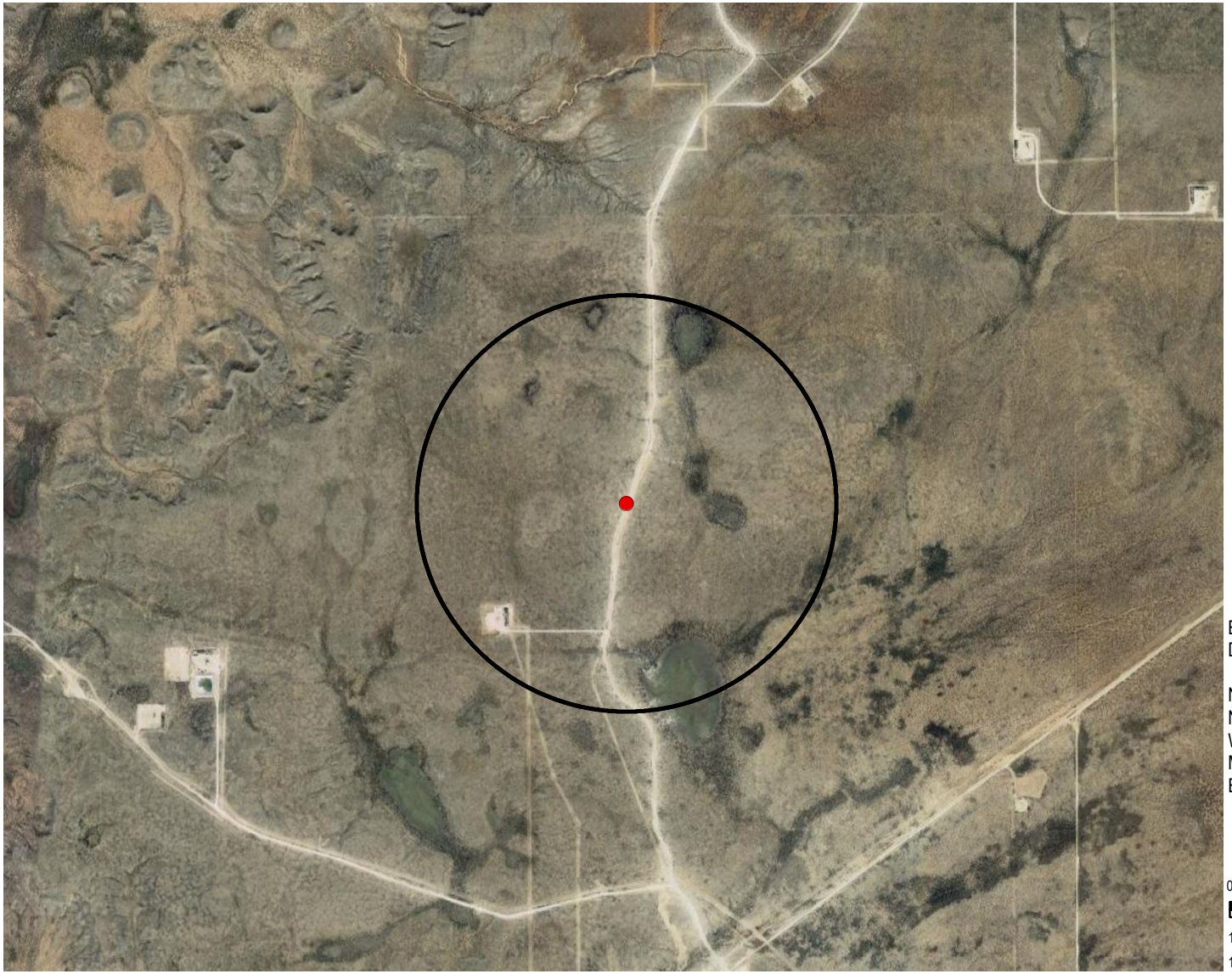

LEGEND

- Site Location
- 1/2 Mile Radius

BASEMAP FROM GOOGLE AND THEIR DATA PARTNERS (2/21/2019).

NO FLOODPLAINS, WATER WELLS, NON-INDUSTRIAL BUILDINGS, MUNICIPAL WELL FIELDS OR SUBSURFACE MINES FOUND IN THIS LOCATION AT THIS EXTENT.

N

0 1,000 2,000

FEET

1 " = 2,000 FEET

1:24,000

TRC

505 East Huntland Drive
Suite #250
Austin, TX 78752
Phone: 512.329.6080

TRC - GIS

PROJECT:

WHITE FEDERAL COM #001H
EDDY COUNTY, NM

TITLE:

AERIAL MAP

DRAWN BY:	S. RAY
CHECKED BY:	
APPROVED BY:	
DATE:	AUGUST 2019
PROJ. NO.:	347261
FILE:	347261_2.mxd

FIGURE 2

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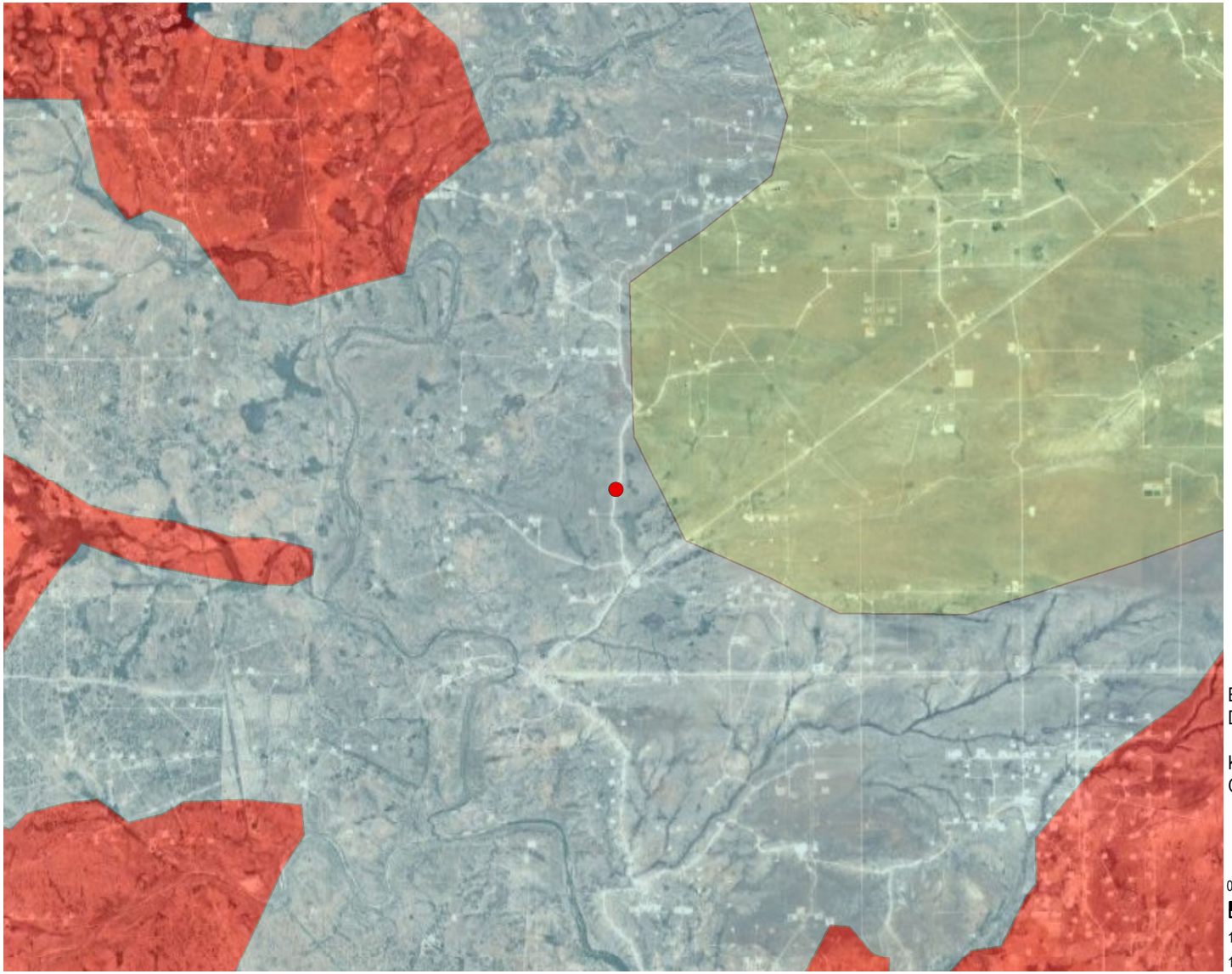

LEGEND

- SITE LOCATION
- HIGH KARST POTENTIAL
- MEDIUM KARST POTENTIAL
- LOW KARST POTENTIAL

BASEMAP FROM GOOGLE AND THEIR DATA PARTNERS (2/21/2019).

KARST DATA FROM NEW MEXICO BUREAU OF LAND MANAGEMENT.

N

0 1 2 MILES

1 " = 2 MILES

1:126,720

TRC
505 East Huntland Drive
Suite #250
Austin, TX 78752
Phone: 512.329.6080
TRC - GIS

PROJECT:

WHITE FEDERAL COM #001H
EDDY COUNTY, NM

TITLE:

KARST POTENTIAL MAP

DRAWN BY:	S. RAY
CHECKED BY:	
APPROVED BY:	
DATE:	SEPTEMBER 2019
PROJ. NO.:	347261
FILE:	347261_3.mxd

FIGURE 3

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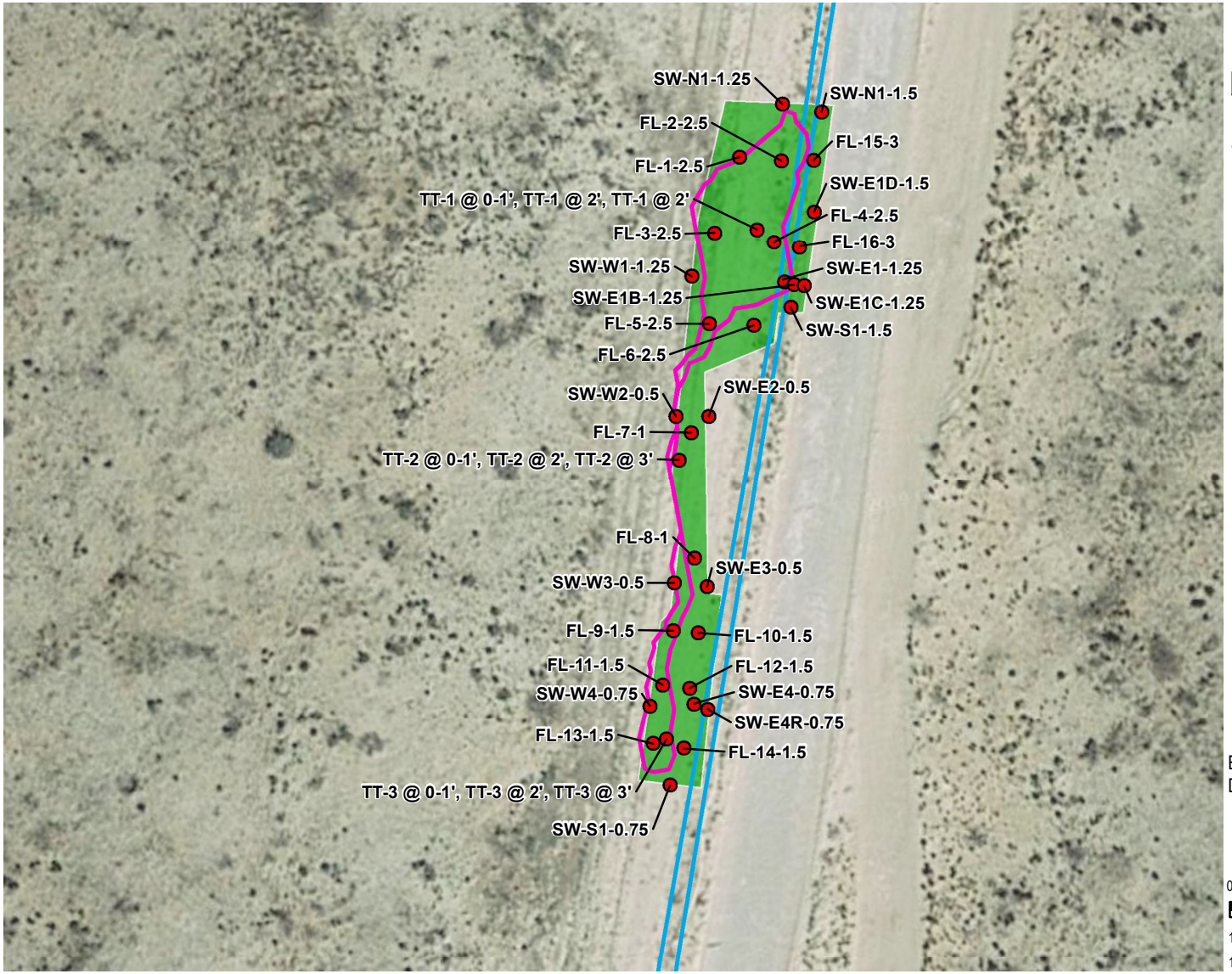

LEGEND

- Sample Location
- Release Area
- Excavation Area
- Surface Flowline

BASEMAP FROM GOOGLE AND THEIR DATA PARTNERS (2/21/2019).

N

0 50 100 FEET

1 " = 50 FEET

1:600

TRC
505 East Huntland Drive
Suite #250
Austin, TX 78752
Phone: 512.329.6080
TRC - GIS

PROJECT:

WHITE FEDERAL COM #001H
EDDY COUNTY, NM

TITLE:

EXCAVATION AND SAMPLE LOCATION MAP

DRAWN BY:	S. RAY
CHECKED BY:	
APPROVED BY:	
DATE:	OCTOBER 2019
PROJ. NO.:	347261
FILE:	347261_4.mxd

FIGURE 4

Appendix A: 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)

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

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ 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

- ☐ The source of the release has been stopped.
- ☐ The impacted area has been secured to protect human health and the environment.
- ☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☐ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not 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: DeLinn Grant _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

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?	_____ (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☐ 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)?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ 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?	☐ Yes ☐ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☐ 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 ½-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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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: _____ Date: _____

Printed Name: _____ Title: _____

Appendix B: Depth to Groundwater Data

New Mexico Office of the State Engineer
Wells with Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 595999.25 **Northing (Y):** 3551295.63 **Radius:** 805

Appendix C: Photographic Documentation

COG- White Federal Com #001H
Date: 9/16/19

Photographic Documentation

Photograph No. 1 **Date:** **7/30/2019** **Direction:** **North** **Description:** **View of the Release area prior to remediation.**	
Photograph No. 2 **Date:** **7/30/2019** **Direction:** **North** **Description:** **View of delineation trench prior to remediation.**	

COG- White Federal Com #001H
Date: 9/16/19

Photographic Documentation

Photograph No. 3 **Date:** **8/6/2019** **Direction:** **Northwest** **Description:** **View of excavated area.**	
Photograph No. 4 **Date:** **8/6/2019** **Direction:** **North** **Description:** **View of excavated area.**	

COG- White Federal Com #001H
Date: 9/16/19

Photographic Documentation

Photograph No. 5 **Date:** **8/6/2019** **Direction:** **North** **Description:** **View of excavated area.**	
Photograph No. 6 **Date:** **8/8/2019** **Direction:** **Northeast** **Description:** **View of the remediated area.**	

COG- White Federal Com #001H
Date: 9/16/19

Photographic Documentation

Photograph No. 7 **Date:** **8/6/2019** **Direction:** **North** **Description:** **View of excavated area adjacent to requested deferral area.**	
Photograph No. 8 **Date:** **8/6/2019** **Direction:** **Northeast** **Description:** **View of excavated area adjacent to requested deferral area.**	

Appendix D: Laboratory Analytical Reports

Analytical Report 632558

for

TRC Solutions, Inc

Project Manager: Jared Stoffel

White Federal Com #001H

01-AUG-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

01-AUG-19

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

Reference: XENCO Report No(s): **632558**
White Federal Com #001H
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) 632558. 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. 632558 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

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 632558

TRC Solutions, Inc, Midland, TX

White Federal Com #001H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TT-1 @ 0-1'	S	07-30-19 11:15	0 - 1 ft	632558-001
TT-1 @ 2'	S	07-30-19 11:20	2 ft	632558-002
TT-1 @ 3'	S	07-30-19 11:25	3 ft	632558-003
TT-2 @ 0-1'	S	07-30-19 11:35	0 - 1 ft	632558-004
TT-2@ 2'	S	07-30-19 11:40	2 ft	632558-005
TT-2 @3'	S	07-30-19 11:45	3 ft	632558-006
TT-3 @ 0-1'	S	07-30-19 11:50	0 - 1 ft	632558-007
TT-3 @ 2'	S	07-30-19 12:00	2 ft	632558-008
TT-3 @ 3'	S	07-30-19 12:05	3 ft	632558-009

CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: White Federal Com #001H

Project ID:
Work Order Number(s): *632558*

Report Date: *01-AUG-19*
Date Received: *07/31/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 632558

TRC Solutions, Inc, Midland, TX

Project Name: White Federal Com #001H

Project Id:

Contact: Jared Stoffel

Project Location:

Date Received in Lab: Wed Jul-31-19 09:59 am

Report Date: 01-AUG-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	632558-001		632558-002		632558-003		632558-004		632558-005		632558-006	
	Field Id:	TT-1 @ 0-1'		TT-1 @ 2'		TT-1 @ 3'		TT-2 @ 0-1'		TT-2@ 2'		TT-2 @3'	
	Depth:	0-1 ft		2- ft		3- ft		0-1 ft		2- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-30-19 11:15		Jul-30-19 11:20		Jul-30-19 11:25		Jul-30-19 11:35		Jul-30-19 11:40		Jul-30-19 11:45	
Chloride by EPA 300	***Extracted:***	Aug-01-19 08:30		Aug-01-19 08:30		Aug-01-19 08:30		Aug-01-19 08:30		Aug-01-19 08:30		Aug-01-19 08:30	
	Analyzed:	Aug-01-19 11:11		Aug-01-19 10:52		Aug-01-19 11:18		Aug-01-19 11:24		Aug-01-19 11:30		Aug-01-19 11:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1010	4.98	344	4.99	120	4.98	504	4.96	150	5.00	240	4.95

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 632558

TRC Solutions, Inc, Midland, TX

Project Name: White Federal Com #001H

Project Id:

Contact: Jared Stoffel

Project Location:

Date Received in Lab: Wed Jul-31-19 09:59 am

Report Date: 01-AUG-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	632558-007		632558-008		632558-009							
	Field Id:	TT-3 @ 0-1'		TT-3 @ 2'		TT-3 @ 3'							
	Depth:	0-1 ft		2- ft		3- ft							
	Matrix:	SOIL		SOIL		SOIL							
	Sampled:	Jul-30-19 11:50		Jul-30-19 12:00		Jul-30-19 12:05							
Chloride by EPA 300	***Extracted:***	Aug-01-19 08:30		Aug-01-19 08:30		Aug-01-19 08:30							
	Analyzed:	Aug-01-19 11:55		Aug-01-19 12:02		Aug-01-19 12:08							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Chloride		2820	25.0	206	5.00	50.0	4.95						

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

Version: 1.%

Jessica Kramer
Project Assistant

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 **MQL** 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

BS / BSD Recoveries

Project Name: White Federal Com #001H

Work Order #: 632558 **Project ID:**

Analyst: SPC **Date Prepared:** 08/01/2019 **Date Analyzed:** 08/01/2019

Lab Batch ID: 3097154 **Sample:** 7683285-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	254	102	250	255	102	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

XENCO LABORATORIES

Chain of Custody

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)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 632556

www.xenco.com Page 1 of 1

Project Manager:	Jared Stoffel	Bill to: (if different)	Ike Tavarez
Company Name:	TRC	Company Name:	COG
Address:	10 Desta Dr. STE 150 E	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(432) 238-3003	Email:	JStoffel@trccompanies.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

		Turn Around
Project Name:	White Federal Com #001H	Routine ☒
Project Number:		Rush: 24hrs
P.O. Number:		
Sampler's Name:	Tania Babu	Due Date:

SAMPLE RECEIPT

Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.4/0.4	Thermometer ID:	[illegible]
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chloride (E300)	Sample Comments
TT-1 @ 0-1'	ss	7/30/2019	11:15	0-1'	1	x	
TT-1 @ 2'	ss	7/30/2019	11:20	2'	1	x	
TT-1 @ 3'	ss	7/30/2019	11:25	3'	1	x	
TT-2 @ 0-1'	ss	7/30/2019	11:35	0-1'	1	x	
TT-2 @ 2'	ss	7/30/2019	11:40	2'	1	x	
TT-2 @ 3'	ss	7/30/2019	11:45	3'	1	x	
TT-3 @ 0-1'	ss	7/30/2019	11:55	0-1'	1	x	
TT-3 @ 2'	ss	7/30/2019	12:00	2'	1	x	
TT-3 @ 3'	ss	7/30/2019	12:05	3'	1	x	

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

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 Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl 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
1 [signature]	[signature]	7/31/19 0958	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 07/31/2019 09:59:00 AM

Work Order #: 632558

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
#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: 07/31/2019
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 07/31/2019
Jessica Kramer

Analytical Report 632964

for

TRC Solutions, Inc

Project Manager: Jared Stoffel

White Federal Com #001H

13-AUG-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

13-AUG-19

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

Reference: XENCO Report No(s): **632964**
White Federal Com #001H
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) 632964. 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. 632964 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

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 632964

TRC Solutions, Inc, Midland, TX

White Federal Com #001H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW-N1-1.25	S	08-02-19 10:00	1.25	632964-001
SW-E1-1.25	S	08-02-19 10:05	1.25	632964-002
SW-E1B-1.25	S	08-02-19 10:10	1.25	632964-003
SW-ECC-1.25	S	08-02-19 10:15	1.25	632964-004
SW-W1-1.25	S	08-02-19 10:20	1.25	632964-005
FL-1-2.5	S	08-02-19 10:25	2.5	632964-006
FL-2-2.5	S	08-02-19 10:30	2.5	632964-007
FL-3-2.5	S	08-02-19 10:35	2.5	632964-008
FL-4-2.5	S	08-02-19 10:40	2.5	632964-009
FL-5-2.5	S	08-02-19 10:45	2.5	632964-010
FL-6-2.5	S	08-02-19 10:50	2.5	632964-011
FL-7-1	S	08-02-19 12:00	1	632964-012
SW-W2-0.5	S	08-02-19 12:05	0.5	632964-013
SW-E2-0.5	S	08-02-19 12:10	0.5	632964-014

CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: White Federal Com #001H

Project ID:
Work Order Number(s): *632964*

Report Date: *13-AUG-19*
Date Received: *08/05/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3097573 Inorganic Anions by EPA 300
Lab Sample ID 632970-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 632964-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3097581 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered below QC limits. Matrix interferences is suspected.
Samples affected are: 632964-014.

Batch: LBA-3097798 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3098311 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 632964

TRC Solutions, Inc, Midland, TX

Project Name: White Federal Com #001H

Project Id:

Contact: Jared Stoffel

Project Location:

Date Received in Lab: Mon Aug-05-19 10:02 am

Report Date: 13-AUG-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	632964-001		632964-002		632964-003		632964-004		632964-005		632964-006	
	Field Id:	SW-N1-1.25		SW-E1-1.25		SW-E1B-1.25		SW-ECC-1.25		SW-W1-1.25		FL-1-2.5	
	Depth:	1.25-		1.25-		1.25-		1.25-		1.25-		2.5-	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-02-19 10:00		Aug-02-19 10:05		Aug-02-19 10:10		Aug-02-19 10:15		Aug-02-19 10:20		Aug-02-19 10:25	
BTEX by EPA 8021B	Extracted:	Aug-09-19 10:30								Aug-05-19 11:00			
	Analyzed:	Aug-11-19 13:20								Aug-06-19 04:33			
	Units/RL:	mg/kg	RL							mg/kg	RL		
Benzene		<0.00200	0.00200							<0.00199	0.00199		
Toluene		<0.00200	0.00200							<0.00199	0.00199		
Ethylbenzene		<0.00200	0.00200							<0.00199	0.00199		
m,p-Xylenes		<0.00399	0.00399							<0.00398	0.00398		
o-Xylene		<0.00200	0.00200							<0.00199	0.00199		
Total Xylenes		<0.002	0.002							<0.00199	0.00199		
Total BTEX		<0.002	0.002							<0.00199	0.00199		
Chloride by EPA 300	Extracted:	Aug-05-19 15:30		Aug-05-19 15:30		Aug-05-19 15:30		Aug-05-19 15:30		Aug-05-19 15:30		Aug-05-19 15:30	
	Analyzed:	Aug-05-19 17:27		Aug-05-19 17:16		Aug-05-19 17:22		Aug-05-19 17:43		Aug-05-19 17:49		Aug-05-19 18:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		241	5.01	10200	49.8	11600	50.2	6090	49.9	179	4.97	280	5.03
TPH by SW8015 Mod	Extracted:	Aug-05-19 17:00								Aug-05-19 17:00			
	Analyzed:	Aug-06-19 03:43								Aug-06-19 04:06			
	Units/RL:	mg/kg	RL							mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0							<15.0	15.0		
Diesel Range Organics (DRO)		<15.0	15.0							<15.0	15.0		
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0							<15.0	15.0		
Total TPH		<15	15							<15	15		

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 632964

TRC Solutions, Inc, Midland, TX

Project Name: White Federal Com #001H

Project Id:

Contact: Jared Stoffel

Project Location:

Date Received in Lab: Mon Aug-05-19 10:02 am

Report Date: 13-AUG-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	632964-007		632964-008		632964-009		632964-010		632964-011		632964-012	
	Field Id:	FL-2-2.5		FL-3-2.5		FL-4-2.5		FL-5-2.5		FL-6-2.5		FL-7-1	
	Depth:	2.5-		2.5-		2.5-		2.5-		2.5-		1-	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-02-19 10:30		Aug-02-19 10:35		Aug-02-19 10:40		Aug-02-19 10:45		Aug-02-19 10:50		Aug-02-19 12:00	
BTEX by EPA 8021B	***Extracted:***					Aug-05-19 11:00							
	Analyzed:					Aug-06-19 04:55							
	Units/RL:					mg/kg	RL						
Benzene						<0.00200	0.00200						
Toluene						<0.00200	0.00200						
Ethylbenzene						<0.00200	0.00200						
m,p-Xylenes						<0.00399	0.00399						
o-Xylene						<0.00200	0.00200						
Total Xylenes						<0.002	0.002						
Total BTEX						<0.002	0.002						
Chloride by EPA 300	***Extracted:***	Aug-05-19 15:30		Aug-05-19 15:30		Aug-05-19 15:30		Aug-05-19 15:30		Aug-05-19 15:30		Aug-05-19 15:30	
	Analyzed:	Aug-05-19 18:11		Aug-05-19 18:16		Aug-05-19 18:21		Aug-05-19 18:27		Aug-05-19 18:32		Aug-05-19 18:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		288	5.02	317	5.01	411	4.99	501	5.04	296	5.02	324	5.05
TPH by SW8015 Mod	***Extracted:***					Aug-05-19 17:00							
	Analyzed:					Aug-06-19 04:29							
	Units/RL:					mg/kg	RL						
Gasoline Range Hydrocarbons (GRO)						<15.0	15.0						
Diesel Range Organics (DRO)						<15.0	15.0						
Motor Oil Range Hydrocarbons (MRO)						<15.0	15.0						
Total TPH						<15	15						

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 632964

TRC Solutions, Inc, Midland, TX

Project Name: White Federal Com #001H

Project Id:

Contact: Jared Stoffel

Project Location:

Date Received in Lab: Mon Aug-05-19 10:02 am

Report Date: 13-AUG-19

Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	632964-013		632964-014				
	Field Id:	SW-W2-0.5		SW-E2-0.5				
	Depth:	0.5-		0.5-				
	Matrix:	SOIL		SOIL				
	Sampled:	Aug-02-19 12:05		Aug-02-19 12:10				
BTEX by EPA 8021B	***Extracted:***	Aug-05-19 11:00						
	Analyzed:	Aug-06-19 05:20						
	Units/RL:	mg/kg	RL					
Benzene		<0.00199	0.00199					
Toluene		<0.00199	0.00199					
Ethylbenzene		<0.00199	0.00199					
m,p-Xylenes		<0.00398	0.00398					
o-Xylene		<0.00199	0.00199					
Total Xylenes		<0.00199	0.00199					
Total BTEX		<0.00199	0.00199					
Chloride by EPA 300	***Extracted:***	Aug-05-19 17:30		Aug-06-19 16:00				
	Analyzed:	Aug-05-19 23:55		Aug-07-19 00:50				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Chloride		122	4.96	375	4.98			
TPH by SW8015 Mod	***Extracted:***	Aug-09-19 12:00						
	Analyzed:	Aug-11-19 01:10						
	Units/RL:	mg/kg	RL					
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0					
Diesel Range Organics (DRO)		<15.0	15.0					
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0					
Total TPH		<15	15					

Jessica Kramer
Project Assistant

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 **MQL** 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

Form 2 - Surrogate Recoveries

Project Name: White Federal Com #001H

Work Orders : 632964, 632964 **Project ID:**

Lab Batch #: 3097581 **Sample:** 632964-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/06/19 03:43

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.4	99.8	92	70-135	
o-Terphenyl	39.0	49.9	78	70-135	

Lab Batch #: 3097581 **Sample:** 632964-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/06/19 04:06

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.3	100	85	70-135	
o-Terphenyl	35.0	50.0	70	70-135	

Lab Batch #: 3097581 **Sample:** 632964-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/06/19 04:29

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.3	99.9	88	70-135	
o-Terphenyl	36.0	50.0	72	70-135	

Lab Batch #: 3097798 **Sample:** 632964-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/06/19 04:33

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	70-130	
4-Bromofluorobenzene	0.0375	0.0300	125	70-130	

Lab Batch #: 3097798 **Sample:** 632964-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/06/19 04:55

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	70-130	
4-Bromofluorobenzene	0.0388	0.0300	129	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: White Federal Com #001H

Work Orders : 632964, 632964 **Project ID:**

Lab Batch #: 3097798 **Sample:** 632964-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/06/19 05:20

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	70-130	
4-Bromofluorobenzene	0.0359	0.0300	120	70-130	

Lab Batch #: 3098132 **Sample:** 632964-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/11/19 01:10

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.3	99.9	89	70-135	
o-Terphenyl	42.7	50.0	85	70-135	

Lab Batch #: 3098311 **Sample:** 632964-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/11/19 13:20

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	70-130	
4-Bromofluorobenzene	0.0316	0.0300	105	70-130	

Lab Batch #: 3097798 **Sample:** 7683491-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/05/19 11:34

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	70-130	
4-Bromofluorobenzene	0.0301	0.0300	100	70-130	

Lab Batch #: 3097581 **Sample:** 7683530-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/05/19 19:53

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.3	100	97	70-135	
o-Terphenyl	44.2	50.0	88	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: White Federal Com #001H

Work Orders : 632964, 632964 **Project ID:**

Lab Batch #: 3098132 **Sample:** 7683939-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/10/19 17:19

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.1	100	91	70-135	
o-Terphenyl	46.5	50.0	93	70-135	

Lab Batch #: 3098311 **Sample:** 7683893-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/11/19 06:19

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0321	0.0300	107	70-130	

Lab Batch #: 3097798 **Sample:** 7683491-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/05/19 09:53

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	70-130	
4-Bromofluorobenzene	0.0318	0.0300	106	70-130	

Lab Batch #: 3097581 **Sample:** 7683530-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/05/19 20:17

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	44.1	50.0	88	70-135	

Lab Batch #: 3098132 **Sample:** 7683939-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/10/19 17:38

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	50.1	50.0	100	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: White Federal Com #001H

Work Orders : 632964, 632964 **Project ID:**

Lab Batch #: 3098311 **Sample:** 7683893-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/11/19 04:40

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	70-130	
4-Bromofluorobenzene	0.0310	0.0300	103	70-130	

Lab Batch #: 3097798 **Sample:** 7683491-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/05/19 10:13

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	70-130	
4-Bromofluorobenzene	0.0360	0.0300	120	70-130	

Lab Batch #: 3097581 **Sample:** 7683530-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/05/19 20:40

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.4	100	90	70-135	
o-Terphenyl	42.4	50.0	85	70-135	

Lab Batch #: 3098132 **Sample:** 7683939-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/10/19 17:57

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	48.3	50.0	97	70-135	

Lab Batch #: 3098311 **Sample:** 7683893-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/11/19 05:00

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	70-130	
4-Bromofluorobenzene	0.0326	0.0300	109	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: White Federal Com #001H

Work Orders : 632964, 632964 **Project ID:**

Lab Batch #: 3097798 **Sample:** 632966-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/05/19 10:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	70-130	
4-Bromofluorobenzene	0.0352	0.0300	117	70-130	

Lab Batch #: 3097581 **Sample:** 632825-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/05/19 21:28

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.5	99.6	96	70-135	
o-Terphenyl	45.0	49.8	90	70-135	

Lab Batch #: 3098132 **Sample:** 633553-021 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/10/19 18:35

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.8	112	70-135	
o-Terphenyl	45.4	49.9	91	70-135	

Lab Batch #: 3098311 **Sample:** 633355-036 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/11/19 05:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	70-130	
4-Bromofluorobenzene	0.0342	0.0300	114	70-130	

Lab Batch #: 3097798 **Sample:** 632966-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/05/19 10:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	70-130	
4-Bromofluorobenzene	0.0343	0.0300	114	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: White Federal Com #001H

Work Orders : 632964, 632964 **Project ID:**

Lab Batch #: 3097581 **Sample:** 632825-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/05/19 21:51

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.6	99.9	96	70-135	
o-Terphenyl	43.4	50.0	87	70-135	

Lab Batch #: 3098132 **Sample:** 633553-021 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/10/19 18:54

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	99.7	114	70-135	
o-Terphenyl	46.5	49.9	93	70-135	

Lab Batch #: 3098311 **Sample:** 633355-036 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/11/19 05:40

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	70-130	
4-Bromofluorobenzene	0.0328	0.0300	109	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: White Federal Com #001H

Work Order #: 632964, 632964 **Project ID:**

Analyst: ALG **Date Prepared:** 08/05/2019 **Date Analyzed:** 08/05/2019

Lab Batch ID: 3097798 **Sample:** 7683491-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.100	0.0970	97	0.100	0.113	113	15	70-130	35	
Toluene	<0.00200	0.100	0.0959	96	0.100	0.110	110	14	70-130	35	
Ethylbenzene	<0.00200	0.100	0.110	110	0.100	0.127	127	14	70-130	35	
m,p-Xylenes	<0.00400	0.200	0.224	112	0.200	0.258	129	14	70-130	35	
o-Xylene	<0.00200	0.100	0.105	105	0.100	0.125	125	17	70-130	35	

Analyst: ALG **Date Prepared:** 08/09/2019 **Date Analyzed:** 08/11/2019

Lab Batch ID: 3098311 **Sample:** 7683893-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000385	0.100	0.0884	88	0.100	0.103	103	15	70-130	35	
Toluene	0.000620	0.100	0.0835	84	0.100	0.0957	96	14	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0836	84	0.100	0.0951	95	13	70-130	35	
m,p-Xylenes	<0.00101	0.200	0.166	83	0.200	0.189	95	13	70-130	35	
o-Xylene	<0.000344	0.100	0.0876	88	0.100	0.100	100	13	70-130	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: White Federal Com #001H

Work Order #: 632964, 632964 **Project ID:**

Analyst: SPC **Date Prepared:** 08/05/2019 **Date Analyzed:** 08/05/2019

Lab Batch ID: 3097573 **Sample:** 7683559-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	272	109	250	262	105	4	90-110	20	

Analyst: SPC **Date Prepared:** 08/05/2019 **Date Analyzed:** 08/05/2019

Lab Batch ID: 3097576 **Sample:** 7683561-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	264	106	250	265	106	0	90-110	20	

Analyst: CHE **Date Prepared:** 08/06/2019 **Date Analyzed:** 08/06/2019

Lab Batch ID: 3097709 **Sample:** 7683630-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.858	250	250	100	250	250	100	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: White Federal Com #001H

Work Order #: 632964, 632964 **Project ID:**

Analyst: ARM **Date Prepared:** 08/05/2019 **Date Analyzed:** 08/05/2019

Lab Batch ID: 3097581 **Sample:** 7683530-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1140	114	1000	1060	106	7	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	1180	118	1000	1100	110	7	70-135	20	

Analyst: ARM **Date Prepared:** 08/09/2019 **Date Analyzed:** 08/10/2019

Lab Batch ID: 3098132 **Sample:** 7683939-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1110	111	1000	1100	110	1	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	1070	107	1000	1020	102	5	70-135	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: White Federal Com #001H

Work Order # : 632964 **Project ID:**

Lab Batch ID: 3097798 **QC- Sample ID:** 632966-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/05/2019 **Date Prepared:** 08/05/2019 **Analyst:** ALG

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.100	0.0982	98	0.0996	0.0967	97	2	70-130	35	
Toluene	<0.00200	0.100	0.0974	97	0.0996	0.0968	97	1	70-130	35	
Ethylbenzene	<0.00200	0.100	0.112	112	0.0996	0.110	110	2	70-130	35	
m,p-Xylenes	<0.00400	0.200	0.227	114	0.199	0.223	112	2	70-130	35	
o-Xylene	<0.00200	0.100	0.110	110	0.0996	0.108	108	2	70-130	35	

Lab Batch ID: 3098311 **QC- Sample ID:** 633355-036 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/11/2019 **Date Prepared:** 08/09/2019 **Analyst:** ALG

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00199	0.0996	0.0610	61	0.0994	0.0756	76	21	70-130	35	X
Toluene	<0.00199	0.0996	0.0536	54	0.0994	0.0585	59	9	70-130	35	X
Ethylbenzene	<0.00199	0.0996	0.0534	54	0.0994	0.0636	64	17	70-130	35	X
m,p-Xylenes	<0.00398	0.199	0.0825	41	0.199	0.0700	35	16	70-130	35	X
o-Xylene	<0.00199	0.0996	0.0605	61	0.0994	0.0713	72	16	70-130	35	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: White Federal Com #001H

Work Order # : 632964 **Project ID:**

Lab Batch ID: 3097573 **QC- Sample ID:** 632964-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/05/2019 **Date Prepared:** 08/05/2019 **Analyst:** SPC

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	241	251	519	111	251	517	110	0	90-110	20	X

Lab Batch ID: 3097573 **QC- Sample ID:** 632970-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/05/2019 **Date Prepared:** 08/05/2019 **Analyst:** SPC

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	6.11	249	266	104	249	262	103	2	90-110	20	

Lab Batch ID: 3097576 **QC- Sample ID:** 632928-009 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/06/2019 **Date Prepared:** 08/05/2019 **Analyst:** SPC

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	27.5	250	286	103	250	287	104	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: White Federal Com #001H

Work Order # : 632964 **Project ID:**

Lab Batch ID: 3097576 **QC- Sample ID:** 632964-013 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/06/2019 **Date Prepared:** 08/05/2019 **Analyst:** SPC

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	122	248	373	101	248	372	101	0	90-110	20	

Lab Batch ID: 3097709 **QC- Sample ID:** 632672-011 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/06/2019 **Date Prepared:** 08/06/2019 **Analyst:** CHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	535	250	782	99	250	774	96	1	90-110	20	

Lab Batch ID: 3097709 **QC- Sample ID:** 633051-011 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/07/2019 **Date Prepared:** 08/06/2019 **Analyst:** CHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	350	250	591	96	250	591	96	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: White Federal Com #001H

Work Order # : 632964 **Project ID:**

Lab Batch ID: 3097581 **QC- Sample ID:** 632825-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/05/2019 **Date Prepared:** 08/05/2019 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	9.21	996	1090	109	999	1080	107	1	70-135	20	
Diesel Range Organics (DRO)	13.5	996	1110	110	999	1110	110	0	70-135	20	

Lab Batch ID: 3098132 **QC- Sample ID:** 633553-021 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/10/2019 **Date Prepared:** 08/09/2019 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	9.06	998	968	96	997	975	97	1	70-135	20	
Diesel Range Organics (DRO)	256	998	1220	97	997	1210	96	1	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Chain of Custody

Work Order No: 1B29164

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)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
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Project Manager:	Jared Stoffel	Bill to: (if different)	Becky Haskell
Company Name:	TRC	Company Name:	COG
Address:	10 Desta Dr STE 150E	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(432)-238-3003	Email:	jstoffel@trcsolutions.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	White Federal Com #001H	Turn Around	
Project Number:		Routine ☐	
P.O. Number:		Rush: 24 hr	
Sampler's Name:	J. Stoffel	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.3 3.3	Thermometer ID	IR
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (6015)	BTEX (8021B)	Chloride (E300)	Work Order Notes
SW-N1-1.25	soil	8/2/19	1000	1.25	1	x	x	x	TAT starts the day recevied by the lab, if received by 4:30pm
SW-E1-1.25			1005	1.25					Sample Comments
SW-E1B-1.25			1010	1.25					
SW-E1C-1.25			1015	1.25					
SW-W1-1.25			1020	1.25		x	x		
FL-1-2.5			1025	2.5					
FL-2-2.5			1030	2.5					
FL-3-2.5			1035	2.5					
FL-4-2.5			1040	2.5		x	x		
FL-5-2.5			1045	2.5					

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 Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8/5/19 1047	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: E329604

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)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
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Project Manager:	Jared Stoffel	Bill to: (if different)	Becky Haskell
Company Name:	TRC	Company Name:	COG
Address:	10 Desta Dr STE 150E	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432 238 3003	Email:	jstoffel@trcsolutions.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	White Federal Com #001H	Turn Around	
Project Number:		Routine ☐	
P.O. Number:		Rush: 24 hr	
Sampler's Name:	J. Stoffel	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.5/3.3	Thermometer ID	
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (8015)	BTEX (8021B)	Chloride (E300)
FL-6-2.5	soil	8/2/19	1050	2.5	1			x
FL-7-1			1200	1	1			x
SW-W2-0.5			1205	0.5	1	x	x	x
SW-E2-0.5			1210	0.5	1			x

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

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 Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8/5/19 1007	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 08/05/2019 10:02:00 AM

Work Order #: 632964

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: 08/05/2019
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 08/05/2019
Jessica Kramer

Analytical Report 633109

for

TRC Solutions, Inc

Project Manager: Jared Stoffel

White Federal Com #001H

09-AUG-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

09-AUG-19

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

Reference: XENCO Report No(s): **633109**
White Federal Com #001H
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) 633109. 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. 633109 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

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 633109

TRC Solutions, Inc, Midland, TX

White Federal Com #001H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL-8-1	S	08-05-19 09:20	1 ft	633109-001
FL-9-1.5	S	08-05-19 09:30	1.5 ft	633109-002
FL-10-1.5	S	08-05-19 09:40	1.5 ft	633109-003
FL-11-1.5	S	08-05-19 09:50	15 ft	633109-004
FL-12-1.5	S	08-05-19 10:00	1.5 ft	633109-005
FL-13-1.5	S	08-05-19 10:10	1.5 ft	633109-006
FL-14-1.5	S	08-05-19 10:20	1.5 ft	633109-007
SW-W3-0.5	S	08-05-19 10:40	0.5 ft	633109-008
SW-E3-0.5	S	08-05-19 10:45	0.5 ft	633109-009
SW-W4-0.75	S	08-05-19 10:55	0.75 ft	633109-010
SW-E4-0.75	S	08-05-19 11:00	0.75 ft	633109-011
SW-S1-0.75	S	08-05-19 11:05	0.75 ft	633109-012

CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: White Federal Com #001H

Project ID:
Work Order Number(s): *633109*

Report Date: *09-AUG-19*
Date Received: *08/06/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3097738 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered below QC limits. Matrix interferences is suspected.
Samples affected are: 632995-001 SD, 633109-009.

Batch: LBA-3097944 BTEX by EPA 8021B
Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 633109-001, -005, -009

Lab Sample ID 633109-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 633109-001, -005, -009.
The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 633109

TRC Solutions, Inc, Midland, TX

Project Name: White Federal Com #001H

Project Id:

Contact: Jared Stoffel

Project Location:

Date Received in Lab: Tue Aug-06-19 12:10 pm

Report Date: 09-AUG-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	633109-001		633109-002		633109-003		633109-004		633109-005		633109-006	
	Field Id:	FL-8-1		FL-9-1.5		FL-10-1.5		FL-11-1.5		FL-12-1.5		FL-13-1.5	
	Depth:	1- ft		1.5- ft		1.5- ft		15- ft		1.5- ft		1.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-05-19 09:20		Aug-05-19 09:30		Aug-05-19 09:40		Aug-05-19 09:50		Aug-05-19 10:00		Aug-05-19 10:10	
BTEX by EPA 8021B	Extracted:	Aug-06-19 14:00								Aug-06-19 14:00			
	Analyzed:	Aug-07-19 15:43								Aug-07-19 16:03			
	Units/RL:	mg/kg	RL							mg/kg	RL		
Benzene		<0.00199	0.00199							<0.00200	0.00200		
Toluene		0.00357	0.00199							<0.00200	0.00200		
Ethylbenzene		<0.00199	0.00199							<0.00200	0.00200		
m,p-Xylenes		0.0151	0.00398							<0.00399	0.00399		
o-Xylene		0.00745	0.00199							<0.00200	0.00200		
Total Xylenes		0.02255	0.00199							<0.002	0.002		
Total BTEX		0.02612	0.00199							<0.002	0.002		
Chloride by EPA 300	Extracted:	Aug-06-19 12:45		Aug-06-19 12:45		Aug-06-19 12:45		Aug-06-19 12:45		Aug-06-19 12:45		Aug-06-19 12:45	
	Analyzed:	Aug-06-19 14:23		Aug-06-19 14:07		Aug-06-19 14:29		Aug-06-19 14:35		Aug-06-19 14:40		Aug-06-19 14:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		72.7	49.6	333	4.96	210	5.04	313	4.98	114	5.00	270	5.02
TPH by SW8015 Mod	Extracted:	Aug-06-19 16:48								Aug-06-19 16:48			
	Analyzed:	Aug-07-19 04:15								Aug-07-19 04:39			
	Units/RL:	mg/kg	RL							mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0							<15.0	15.0		
Diesel Range Organics (DRO)		<15.0	15.0							43.9	15.0		
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0							<15.0	15.0		
Total TPH		<15	15							43.9	15		

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 633109

TRC Solutions, Inc, Midland, TX

Project Name: White Federal Com #001H

Project Id:

Contact: Jared Stoffel

Project Location:

Date Received in Lab: Tue Aug-06-19 12:10 pm

Report Date: 09-AUG-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	633109-007		633109-008		633109-009		633109-010		633109-011		633109-012	
	Field Id:	FL-14-1.5		SW-W3-0.5		SW-E3-0.5		SW-W4-0.75		SW-E4-0.75		SW-S1-0.75	
	Depth:	1.5- ft		0.5- ft		0.5- ft		0.75- ft		0.75- ft		0.75- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-05-19 10:20		Aug-05-19 10:40		Aug-05-19 10:45		Aug-05-19 10:55		Aug-05-19 11:00		Aug-05-19 11:05	
BTEX by EPA 8021B	***Extracted:***					Aug-06-19 14:00							
	Analyzed:					Aug-07-19 16:23							
	Units/RL:					mg/kg	RL						
Benzene						<0.00198	0.00198						
Toluene						<0.00198	0.00198						
Ethylbenzene						<0.00198	0.00198						
m,p-Xylenes						<0.00397	0.00397						
o-Xylene						<0.00198	0.00198						
Total Xylenes						<0.00198	0.00198						
Total BTEX						<0.00198	0.00198						
Chloride by EPA 300	***Extracted:***	Aug-06-19 12:45		Aug-06-19 12:45		Aug-06-19 12:45		Aug-06-19 12:45		Aug-06-19 12:45		Aug-06-19 12:45	
	Analyzed:	Aug-06-19 15:02		Aug-06-19 15:08		Aug-06-19 15:13		Aug-06-19 15:19		Aug-06-19 15:25		Aug-06-19 15:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		422	4.97	589	4.99	117	5.03	173	5.00	1180	5.00	186	5.00
TPH by SW8015 Mod	***Extracted:***					Aug-06-19 16:48							
	Analyzed:					Aug-07-19 05:02							
	Units/RL:					mg/kg	RL						
Gasoline Range Hydrocarbons (GRO)						<15.0	15.0						
Diesel Range Organics (DRO)						<15.0	15.0						
Motor Oil Range Hydrocarbons (MRO)						<15.0	15.0						
Total TPH						<15	15						

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

Version: 1.%

Jessica Kramer
Project Assistant

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 **MQL** 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

Form 2 - Surrogate Recoveries

Project Name: White Federal Com #001H

Work Orders : 633109, **Project ID:**

Lab Batch #: 3097738 **Sample:** 633109-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/07/19 04:15

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.0	100	91	70-135	
o-Terphenyl	37.3	50.0	75	70-135	

Lab Batch #: 3097738 **Sample:** 633109-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/07/19 04:39

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.5	99.8	91	70-135	
o-Terphenyl	35.1	49.9	70	70-135	

Lab Batch #: 3097738 **Sample:** 633109-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/07/19 05:02

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.7	99.7	89	70-135	
o-Terphenyl	33.6	49.9	67	70-135	**

Lab Batch #: 3097944 **Sample:** 633109-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/07/19 15:43

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	70-130	
4-Bromofluorobenzene	0.0374	0.0300	125	70-130	

Lab Batch #: 3097944 **Sample:** 633109-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/07/19 16:03

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	70-130	
4-Bromofluorobenzene	0.0334	0.0300	111	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: White Federal Com #001H

Work Orders : 633109, **Project ID:**

Lab Batch #: 3097944 **Sample:** 633109-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/07/19 16:23

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0320	0.0300	107	70-130	
4-Bromofluorobenzene	0.0380	0.0300	127	70-130	

Lab Batch #: 3097738 **Sample:** 7683636-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/06/19 19:57

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.4	100	97	70-135	
o-Terphenyl	38.9	50.0	78	70-135	

Lab Batch #: 3097944 **Sample:** 7683634-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/07/19 15:02

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	70-130	
4-Bromofluorobenzene	0.0295	0.0300	98	70-130	

Lab Batch #: 3097738 **Sample:** 7683636-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/06/19 20:21

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.0	100	99	70-135	
o-Terphenyl	48.1	50.0	96	70-135	

Lab Batch #: 3097944 **Sample:** 7683634-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/07/19 13:28

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	70-130	
4-Bromofluorobenzene	0.0317	0.0300	106	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: White Federal Com #001H

Work Orders : 633109, **Project ID:**

Lab Batch #: 3097738 **Sample:** 7683636-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/06/19 20:44

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.8	100	94	70-135	
o-Terphenyl	46.5	50.0	93	70-135	

Lab Batch #: 3097944 **Sample:** 7683634-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/07/19 22:55

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	70-130	
4-Bromofluorobenzene	0.0326	0.0300	109	70-130	

Lab Batch #: 3097738 **Sample:** 632995-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/06/19 21:32

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.7	99.7	80	70-135	
o-Terphenyl	35.2	49.9	71	70-135	

Lab Batch #: 3097944 **Sample:** 633109-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/07/19 14:10

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	70-130	
4-Bromofluorobenzene	0.0305	0.0300	102	70-130	

Lab Batch #: 3097738 **Sample:** 632995-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/06/19 21:56

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.7	99.8	77	70-135	
o-Terphenyl	33.4	49.9	67	70-135	**

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: White Federal Com #001H

Work Orders : 633109,
Project ID:
Lab Batch #: 3097944 **Sample:** 633109-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/07/19 18:44

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0314	0.0300	105	70-130	
4-Bromofluorobenzene	0.0329	0.0300	110	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

BS / BSD Recoveries

Project Name: White Federal Com #001H

Work Order #: 633109 **Project ID:**

Analyst: ALG **Date Prepared:** 08/06/2019 **Date Analyzed:** 08/07/2019

Lab Batch ID: 3097944 **Sample:** 7683634-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000385	0.100	0.105	105	0.100	0.107	107	2	70-130	35	
Toluene	<0.000456	0.100	0.0923	92	0.100	0.0985	99	6	70-130	35	
Ethylbenzene	<0.000565	0.100	0.0893	89	0.100	0.0976	98	9	70-130	35	
m,p-Xylenes	<0.00101	0.200	0.176	88	0.200	0.194	97	10	70-130	35	
o-Xylene	<0.000344	0.100	0.0932	93	0.100	0.103	103	10	70-130	35	

Analyst: CHE **Date Prepared:** 08/06/2019 **Date Analyzed:** 08/06/2019

Lab Batch ID: 3097648 **Sample:** 7683622-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	264	106	250	275	110	4	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

BS / BSD Recoveries

Project Name: White Federal Com #001H

Work Order #: 633109 **Project ID:**

Analyst: ARM **Date Prepared:** 08/06/2019 **Date Analyzed:** 08/06/2019

Lab Batch ID: 3097738 **Sample:** 7683636-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	12.0	1000	1140	114	1000	1110	111	3	70-135	20	
Diesel Range Organics (DRO)	13.7	1000	1190	119	1000	1150	115	3	70-135	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

Form 3 - MS / MSD Recoveries

Project Name: White Federal Com #001H

Work Order # : 633109 **Project ID:**

Lab Batch ID: 3097944 **QC- Sample ID:** 633109-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/07/2019 **Date Prepared:** 08/06/2019 **Analyst:** ALG

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.000448	0.0992	0.0775	78	0.0998	0.115	115	39	70-130	35	F
Toluene	0.00357	0.0992	0.0665	63	0.0998	0.104	101	44	70-130	35	XF
Ethylbenzene	0.00184	0.0992	0.0633	62	0.0998	0.104	102	49	70-130	35	XF
m,p-Xylenes	0.0151	0.198	0.123	54	0.200	0.206	95	50	70-130	35	XF
o-Xylene	0.00745	0.0992	0.0650	58	0.0998	0.104	97	46	70-130	35	XF

Lab Batch ID: 3097648 **QC- Sample ID:** 633109-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/06/2019 **Date Prepared:** 08/06/2019 **Analyst:** CHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	333	248	584	101	248	585	102	0	90-110	20	

Lab Batch ID: 3097648 **QC- Sample ID:** 633109-011 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/06/2019 **Date Prepared:** 08/06/2019 **Analyst:** CHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1180	250	1420	96	250	1410	92	1	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: White Federal Com #001H

Work Order # : 633109 **Project ID:**

Lab Batch ID: 3097738 **QC- Sample ID:** 632995-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/06/2019 **Date Prepared:** 08/06/2019 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	14.8	997	1010	100	998	1000	99	1	70-135	20	
Diesel Range Organics (DRO)	56.5	997	1060	101	998	996	94	6	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 1 Of 2

Stafford,Texas (281-240-4200)

Dallas, Texas (214-902-0300)

Service Center - San Antonio, Texas (210-509-3334)

Odessa, Texas (432-563-1800)

Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

www.xenco.com

Xenco Quote #

Xenco Job # 1033109

Client / Reporting Information

Company Name / Branch: TRC

Company Address: 10 Desta Dr STE 150E

Email: jstoffel@trcompanies.com Phone No: (432) 238-3003

Project Contact: Jared Stoffel

Samplers's Name: Tania Babu

Project Information

Project Name/Number: White Federal Com #001H

Project Location:

Invoice To: Becky Haskell COG

PO Number:

Analytical Information

Matrix Codes

A= Air
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
WW= Waste Water
W = Wipe
O = Oil

WW= Waste Water

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH (8015)	BTEX (8021B)	Chloride (E300)	Field Comments
1	FL-8-1	1'	8/5/19	0920	Soil	1								X	X	X	X	
2	FL-9-1.5	1.5'		0930														
3	FL-10-1.5	1.5'		0940														
4	FL-11-1.5	1.5'		0950														
5	FL-12-1.5	1.5'		1000											X	X		
6	FL-13-1.5	1.5'		1010														
7	FL-14-1.5	1.5'		1020														
8	SW-W3-0.5	0.5'		1040														
9	SW-E3-0.5	0.5'		1045											X	X		
10	SW-W4-0.75	0.75'		1055														

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [x] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 3:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		8/6/19 1305		2		2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp: 1.9 1.7 Thermo. Corr. Factor: -0.2

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 2 Of 2

Revision 2016.1

Stafford, TX (281) 240-4200 | El Paso, TX (915) 585-3443 | Midland, TX (432) 704-5440 | Phoenix, AZ (480) 355-0900 | Service Center- Amarillo, TX (806)678-4514
Dallas, TX (214) 902-0300 | Lubbock, TX (806) 794-1296 | San Antonio, TX (210) 509-3334 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Hobbs, NM (575) 392-7550
www.xenco.com

Xenco Quote # | Xenco Job # 433109

Client / Reporting Information

Company Name / Branch: TRC
Company Address: 10 Desta Dr STE 150E Midland, Tx 79705
Email: jstoffel@trcompanies.com Phone No: (432) 238-3063
Project Contact: Jacce Stoffel
Samplers's Name: Tania Babu

Project Information

Project Name/Number: White Federal Com #001H
Project Location:
Invoice To: Becky Haskell COG
PO Number:

Analytical Information

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH (8015)	BTEX (8021B)	Chloride (E300)	Field Comments
1	SW-E4-0.75	0.75'	9/5/19	1100	soil	1								X			X	
2	SW-S1-0.75	0.75'	9/5/19	1105	soil	1								X			X	
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [x] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		9/6/19 1105		2		2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: Y / N; Cooler Temp.: 1.9 / 1.7; Thermo. Corr. Factor: -0.2

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 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 08/06/2019 12:10:36 PM

Work Order #: 633109

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)?	1.7
#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: 08/06/2019
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 08/06/2019
Jessica Kramer

Analytical Report 633232

for

TRC Solutions, Inc

Project Manager: Jared Stoffel

White Federal Com #001h

08-AUG-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

08-AUG-19

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

Reference: XENCO Report No(s): **633232**
White Federal Com #001h
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) 633232. 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. 633232 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

Jessica Kramer
Project Assistant

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

Sample Cross Reference 633232

TRC Solutions, Inc, Midland, TX

White Federal Com #001h

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW-E4R-0.75'	S	08-06-19 10:00	0.75	633232-001
SW-E2R-0.5'	S	08-06-19 10:40	0.5	Not Analyzed
SW-E2B-1'	S	08-06-19 10:50	1 ft	Not Analyzed
SW-E2C-0.75	S	08-06-19 11:00	0.75	Not Analyzed

CASE NARRATIVE

Client Name: TRC Solutions, Inc
Project Name: White Federal Com #001h

Project ID:
Work Order Number(s): *633232*

Report Date: *08-AUG-19*
Date Received: *08/07/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 633232

TRC Solutions, Inc, Midland, TX

Project Name: White Federal Com #001h

Project Id:

Contact: Jared Stoffel

Project Location:

Date Received in Lab: Wed Aug-07-19 08:42 am

Report Date: 08-AUG-19

Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	633232-001					
	Field Id:	SW-E4R-0.75'					
	Depth:	0.75-					
	Matrix:	SOIL					
	Sampled:	Aug-06-19 10:00					
Chloride by EPA 300	***Extracted:***	Aug-07-19 09:00					
	Analyzed:	Aug-07-19 11:19					
	Units/RL:	mg/kg	RL				
Chloride		247	4.96				

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

Version: 1.%

Jessica Kramer
Project Assistant

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 **MQL** 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

BS / BSD Recoveries

Project Name: White Federal Com #001h

Work Order #: 633232 **Project ID:**

Analyst: CHE **Date Prepared:** 08/07/2019 **Date Analyzed:** 08/07/2019

Lab Batch ID: 3097726 **Sample:** 7683628-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	262	105	250	262	105	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

Form 3 - MS / MSD Recoveries

Project Name: White Federal Com #001h

Work Order # : 633232 **Project ID:**

Lab Batch ID: 3097726 **QC- Sample ID:** 633147-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/07/2019 **Date Prepared:** 08/07/2019 **Analyst:** CHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	520	253	768	98	253	769	98	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Chain of Custody

Work Order No: 1033732

XENCO LABORATORIES

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)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com Page _____ of _____

Project Manager:	Jared Stoffel	Bill to: (if different)	Ike Tavarez
Company Name:	TRC	Company Name:	COG
Address:	10 Desta Dr. STE 150 E	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(432) 238-3003 Email:		JStoffel@trccompanies.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	White Federal Com #001H	Turn Around	
Project Number:		Routine ☐	
P.O. Number:		Rush: 24hrs	
Sampler's Name:	Tania Babu	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	3.5 | 3.3	Thermometer ID		
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides (E300)	Hold	Sample Comments
SW-E4R-0.75'	ss	8/6/2019	10:00	0.75	1	x		
SW-E2R-0.5'	ss	8/6/2019	10:40	0.5	1	x	x	
SW-E2B-1'	ss	8/6/2019	10:50	1'	1	x	x	
SW-E2C-0.75	ss	8/6/2019	11:00	0.75'	1	x	x	

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

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 Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl 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
1		8/7/19	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 08/07/2019 08:42:00 AM

Work Order #: 633232

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: 08/07/2019
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 08/08/2019
Jessica Kramer