Form C-141
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State of New Mexico
Oil Conservation Division

Incident ID	nAB1729754125
District RP	2RP-4454
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: Charles R. Beauvais II Title: Senior Environmental Engineer

Signature: Charles R. Beauvais II Date: 4/5/2023

email: charles.r.beauvais@conocophillips.com Telephone: 575-988-2043

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: Brittany Hall Date: 5/2/2023

Printed Name: Brittany Hall Title: Environmental Specialist

Results you can rely on

REMEDIATION SUMMARY AND

RISK-BASED SITE CLOSURE REQUEST

COG Operating, LLC
GJ West Coop Unit #108
Eddy County, New Mexico
Unit Letter "E", Section 28, Township 17 South, Range 29 East
Latitude 32.8073502° North, Longitude 104.0862198° West
NMOCD Reference No. 2RP-4351

COG Operating, LLC
GJ West Coop Unit #011
Eddy County, New Mexico
Unit Letter "E", Section 28, Township 17 South, Range 29 East
Latitude 32.8073502° North, Longitude 104.0862198° West
NMOCD Reference No. 2RP-4454

Prepared For:

COG Operating, LLC
600 W Illinois Avenue
Midland, Texas 79701

Prepared By:

TRC Environmental Corporation
10 Desta Drive, Suite 150E
Midland, Texas 79705

April 2019

Jared E. Stoffel, PG
Staff Geologist

Curt Stanley
Senior Project Manager

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APPENDICES

INTRODUCTION & BACKGROUND INFORMATION

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG), has prepared this *Remediation Summary and Risk-Based Soil Closure Request* for the Release Sites known as GJ West Coop Unit #108 (2RP-4351) and GJ West Coop Unit #011 (2RP-4454). The legal description of the Sites is Unit Letter "E", Section 28, Township 17 South, Range 29 East, in Eddy County, New Mexico. The subject property is owned by the State of New Mexico and administered by New Mexico State Land Office (NMSLO). Based on the proximity, cause and current status of each of the Release Sites, the Sites were remediated concurrently under one (1) Approved Workplan. A "Site Location Map" is provided as Figure 1. General Photographs are provided in Appendix B.

GJ West Coop Unit #108 (2RP-4351)

On August 7, 2017, COG discovered a release had occurred from the previously plugged and abandoned GJ West Coop Unit #108 well. During initial response activities, the affected portion of the well casing was exhumed and the Release was mitigated. The initial Release Notification and Corrective Action (Form C-141) indicated approximately three thousand, seventy-five (3,075) barrels (bbls) of produced water was released with approximately three thousand, fifty-five (3,055) bbls of produced water recovered. After the completion of recovery efforts it was determined seven thousand, seven hundred eleven (7,711) bbls of produced water was recovered, which will be reflected on the Final C-141. During initial response activities, released fluids were diverted into a makeshift containment in an effort to minimize the affected area and assist in fluid recovery. In an effort to exhume the casing, isolate the release, and re-plug the well, an approximate twenty-eight (28) ft. excavation was conducted around the affected well. After completion of excavation and sloping activities, approximately 7,847 cubic yards (cy) of affected soil was excavated from an area measuring approximately twenty-two thousand (22,000) sq. ft. Excavated soil was transported to an NMOCD-approved disposal facility. A copy of the initial Form C-141 for the GJ West Coop Unit #108 (2RP-4351) is provided in Appendix C.

GJ West Coop Unit #011 (2RP-4454)

On October 15, 2017, a similar release occurred on an adjacent plugged and abandoned well, the GJ West Coop Unit #011 (2RP-4454). During initial response activities, the release was mitigated and the affected well was re-plugged. The initial Release Notification and Corrective Action (Form C-141) indicated an unknown volume of produced water was released with approximately eight thousand, seven hundred forty (8,740) bbls of produced water recovered. After completion of recovery efforts it was determined eleven thousand, four hundred thirty (11,430) bbls of produced water was recovered, which will be reflected on the Final C-141. The Release affected an area measuring approximately sixteen thousand (16,000) sq. ft. A majority of the Release was limited to the former well pad location and the adjacent well pad to the south of the subject well. Portions of the release affected the caliche access road and an area within the pasture north of the subject well. A copy of the initial Form C-141 for the GJ West Coop Unit #011 is provided in Appendix C.

NMOCD SITE CLASSIFICATION

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 17 South, Range 29 East. A

reference map utilized by the NMOCD indicates groundwater should be encountered at approximately one hundred seventy-five (175) feet (ft.) below ground surface (bgs). Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion. No water wells were observed within one-thousand (1,000) feet of the Release Site. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion. No surface water was observed within one-thousand (1,000) feet of the release. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion. Based on the NMOCD Site Classification criteria, the Recommended Remediation Action Levels (RRAL) are 10 mg/kg for benzene, 50 mg/kg for benzene, toluene, ethylbenzene and xylenes (BTEX), and 5,000 mg/kg for total petroleum hydrocarbons (TPH). As per the NMOCD, the Recommended Remediation Action Levels for chloride will be 600 mg/kg.

INITIAL INVESTIGATION AND PROPOSED REMEDIATION WORKPLAN

GJ West Coop Unit #108 (2RP-4351)

On August 17, 2017, during initial response activities and exhumation of the affected well casing, a COG representative collected four (4) soil samples (S1 3'-4', S1 5'-6', S1 13'-14', and S1 16'-17') southwest of the affected casing. The collected soil samples were submitted to Cardinal Laboratories in Hobbs, New Mexico for analysis of chloride concentrations using method 4500 Cl-B. Laboratory analytical results indicated chloride concentrations ranged from 28,000 mg/kg in soil sample S1 5'-6' to 992 mg/kg in soil sample S1 3'-4'. Impacted soil represented by soil samples S1 3'-4', S1 5'-6', S1 13'-14', and S1 16'-17' was excavated and transported to an NMOCD-approved disposal facility during initial response activities. Please reference Figure 2A – Site & Sample Location Map – Initial Investigation (2RP-4351).

On March 22 and 23, 2018, TRC conducted an initial soil investigation at the Release Site. During the initial soil investigation, eight (8) test trenches (NE-1, SE-2, SE-1, S-2, S-1, SW-1, NW-1, and N-1) were advanced at the Release Site in an effort to characterize the affected area. The test trenches were advanced vertically and horizontally to the maximum extent practicable, or until chloride field test results suggested soil was no longer affected above the NMOCD regulatory guidelines for chloride concentrations.

Test trench NE-1 was advanced radially toward the northeast from the affected well. During the advancement of the test trench, six (6) soil samples (NE-1A @ 18', NE-1B @ 10', NE-1B @ 20', NE-1C @ 3', NE-1C @ 12', and NE-1C @ 20') were collected from three (3) sample points and submitted to Xenco Laboratories in Midland, Texas for analysis of chloride concentrations using Method E300. Laboratory analytical results indicated chloride concentrations ranged from 723 mg/kg in soil sample NE-1A @ 18' to 72.4 mg/kg in soil sample NE-1C @ 20'. Soil samples collected from sample points NE-1A and NE-1B were analyzed for concentrations of BTEX using Method SW 846-8021B and TPH using Method SW 846-8015M. Analytical results indicated BTEX and TPH concentrations were less than the applicable laboratory reporting limit (RL) in each of the submitted soil samples. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride horizontally toward the northeast beyond sample point NE-1B.

Test trench SE-2 was advanced radially toward the east-southeast from the affected well. During the advancement of the test trench, thirteen (13) soil samples (SE-2A @ 18', SE-2B @ 10', SE-2B @ 20', SE-2C @ 3', SE-2C @ 6', SE-2C @ 12', SE-2C @ 20', SE-2D @ 3', SE-2D @ 9', SE-2D @ 12', SE-2D @ 20', SE-2E @ 3', and SE-2E @ 6') were collected from five (5) sample points and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 20,600 mg/kg in soil sample SE-2D @ 3' to 48.7 mg/kg in soil sample SE-2B @ 20'. Soil samples collected from sample points SE-2A and SE-2B were analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory RL in each of the submitted soil samples. Laboratory analytical results indicated soil was not affected above the NMOCD regulatory guidelines for chloride beyond eighteen (18) ft. bgs in the area characterized by sample point SE-2A, ten (10) ft. bgs in the area characterized by sample point SE-2B, six (6) ft. bgs in the area characterized by sample point SE-2C, twelve (12) ft. bgs in the area characterized by sample point SE-2D and six (6) ft. bgs in the area characterized by sample point SE-2E. Review of laboratory analytical results suggests impacted soil affected above the NMOCD regulatory guidelines for chloride concentrations in the areas characterized by sample points SE-2A and SE-2B was removed during initial response activities. Impacted soil affected above the NMOCD regulatory guidelines remaining in-situ in the areas characterized by sample points SE-2C, SE-2D, and SE-2E was limited to the top six (6) ft. to twelve (12) ft bgs.

Test trench SE-1 was advanced radially toward the southeast from the affected well. During the advancement of the test trench, six (6) soil samples (SE-1A @ 18', SE-1B @ 10', SE-1B @ 20', SE-1C @ 3', SE-1C @ 12' and SE-1C @ 20') were collected from three (3) sample points and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 2,940 mg/kg in soil sample SE-1B @ 10' to 65.7 mg/kg in soil sample SE-2C @ 20'. Soil samples collected from sample points SE-1A and SE-1B were analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory RL in each of the submitted soil samples. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride concentrations horizontally toward the southeast beyond sample point SE-1C.

Test trench S-2 was advanced on the southern edge of the existing excavation. During the advancement of the test trench, three (3) soil samples (S-2 @ 3', S-2 @ 12', and S-2 @ 20') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 169 mg/kg in soil sample S-2 @ 3' to less than the laboratory RL in soil sample S-2 @ 20'. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride concentrations horizontally toward the south beyond test trench S-2.

Test trench S-1 was advanced radially toward the south-southwest from the affected well. During the advancement of the test trench, six (6) soil samples (S-1A @ 18', S-1B @ 10', S-1B @ 20', S-1C @ 3', S-1C @ 12', and SE-1C @ 20') were collected from three (3) sample points and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 18,500 mg/kg in soil sample S-1B @ 10' to less than the laboratory RL in soil sample S-1C @ 20'. Soil samples collected from sample points S-1A and S-1B were analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory RL in each of the submitted soil samples. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride

concentrations horizontally toward the south-southwest beyond sample point S-1C. Impacted soil in the areas characterized by sample points S-1A and S-1B was excavated in an effort to increase the stability of the southern portion of the excavation. Excavated soil was stockpiled on-site, atop an impermeable liner pending final disposition.

Test trench SW-1 was advanced radially toward the southwest from the affected well. During the advancement of the test trench, six (6) soil samples (SW-1A @ 18', SW-1B @ 10', SW-1B @ 20', SW-1C @ 3', SW-1C @ 12', and SW-1C @ 20') were collected from three (3) sample points and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 257 mg/kg in soil sample SW-1C @ 3' to 25.8 mg/kg in soil sample SW-1C @ 20'. Soil samples collected from sample points SW-1A and SW-1B were analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory RL in each of the submitted soil samples. Review of laboratory analytical results suggests impacted soil affected above the NMOCD regulatory guidelines for chloride concentrations in the areas characterized by test trench SW-1 was removed during initial response activities.

Test trench NW-1 was advanced radially toward the northwest from the affected well. During the advancement of the test trench, eleven (11) soil samples (NW-1A @ 18', NW-1B @ 10', NW-1B @ 20', NW-1C @ 3', NW-1C @ 6', NW-1C @ 9', NW-1C @ 20', NW-1D @ 3', NW-1D @ 6', NW-1D @ 9', and NW-1D @ 20') were collected from four (4) sample points and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 5,700 mg/kg in soil sample NW-1C @ 20' to 29.5 mg/kg in soil sample NW-1D @ 3'. Soil samples collected from sample points NW-1A and NW-1B were analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory RL in each of the submitted soil samples. During the advancement of the test trench, evidence of a historical drilling reserve pit were discovered. Based on the presence of a historical drilling reserve pit, further horizontal advancement of test trench NW-1 was precluded.

Test trench N-1 was advanced radially toward the north from the affected well. During the advancement of the test trench, four (4) soil samples (N-1A @ 18', N-1B @ 10', N-1B @ 20', and N-1C @ 3') were collected from three (3) sample points and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,260 mg/kg in soil sample N-1A @ 18' to 583 mg/kg in soil sample N-1C @ 3'. Soil samples collected from sample points N-1A and N-1B were analyzed for concentrations of BTEX and TPH, which were determined to be less than the applicable laboratory RL in each of the submitted soil samples, with the exception of soil sample N-1B @ 10', which exhibited a TPH concentration of 245.3 mg/kg. During the advancement of the test trench N-1, evidence of a historical drilling reserve pit was discovered. Based on the presence of the historical drilling reserve pit, further advancement of test trench N-1 was precluded.

Following the advancement of test trenches NE-1, SE-2, SE-1, S-2, S-1, SW-1, NW-1, N-1, and stabilizing portions of the open excavation, the excavated area was backfilled to approximately nineteen (19') ft. bgs with locally sourced, non-impacted material, in an effort to mitigate safety hazards and facilitate further investigation of soil impact from within the open excavation.

On March 29, 2018, following the backfilling of the excavated area to nineteen (19) ft. bgs, two (2) test trenches (RP-N and RP-S) were advanced adjacent to the release point in an effort to determine the vertical extent of soil impact.

Test trench RP-N was advanced approximately ten (10) ft. north of the affected well. During the advancement of the test trench, two (2) soil samples (RP-N @ 28' and RP-N @ 37') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil samples RP-N @ 28' and RP-N @ 37' exhibited chloride concentrations of 3,440 mg/kg and 8,560 mg/kg, respectively. Further advancement of test trench RP-N was precluded due to the limitations of the heavy equipment. Based on laboratory analytical results, further delineation was required in the area characterized by test trench RP-N.

Test trench RP-S was advanced approximately ten (10) ft. south of the affected well. During the advancement of the test trench, three (3) soil samples (RP-S @ 28', RP-S @ 31', and RP-S @ 34') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,830 mg/kg in soil sample RP-S @ 28' to 853 mg/kg in soil sample RP-S @ 34'.

Additionally, soil samples were collected from deeper intervals in the areas characterized by sample points N-1A and NW-1A in an effort to further characterize soil impacts in the vicinity of the inferred historic drilling reserve pit. During the advancement of the test trenches, six (6) soil samples (N-1A @ 20', N-1A @ 23', N-1A @ 26',NW-A @ 20', NW-A @ 23', and NW-A @ 29') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 564 mg/kg in soil sample N-1A @ 20' to 179 mg/kg in soil sample NW-A @ 20'. Laboratory analytical results indicated chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted soil samples.

On April 24, 2018, TRC collected one (1) soil sample (S-3) from soil remaining in-situ beneath the former makeshift containment utilized to contain the release and assist in fluid recovery. The collected soil sample was submitted to the laboratory for analysis of chloride concentrations, which were determined to be 10,000 mg/kg. Please reference Table 1 – Concentrations of Benzene, BTEX, TPH and Chloride in Soil (2RP-4454). Laboratory analytical results are provided as Appendix A.

GJ West Coop Unit #011 (2RP-4454)

On March 30, 2018, an initial investigation was conducted at the adjacent Release Site. During the initial investigation, six (6) test trenches (RP, RP-2, DT-1, DT-2, DT-3 and N) were advanced at the Release Site in an effort to characterize the vertical extent of soil impacts. Please reference Figure 2B – Site & Sample Location Map – Initial Investigation (2RP-4454).

Test trench RP was advanced approximately ten (10) ft. south of the affected well. During the advancement of the test trench, three (3) soil samples (RP @ 3', RP @ 9', and RP @ 18') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,890 mg/kg in soil sample RP @ 9' to 241 mg/kg in soil sample RP @ 18'. Soil samples RP @ 3' and RP @ 18' were analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable

laboratory RL in each of the analyzed soil samples. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride concentrations beyond eighteen (18) ft. bgs in the area characterized by test trench RP.

Test trench RP-2 was advanced approximately ten (10) ft. north of the affected well. During the advancement of the test trench, three (3) soil samples (RP-2 @ 3', RP-2 @ 6', and RP-2 @ 18') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,410 mg/kg in soil sample RP-2 @ 3' to 105 mg/kg in soil sample RP-2 @ 18'. Soil samples RP-2 @ 3' and RP-2 @ 18' were also analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable laboratory RL in each of the analyzed soil samples. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride concentrations beyond six (6) ft. bgs in the area characterized by test trench RP-2.

Test trench DT-1 was advanced in the central portion of the release flow path. During the advancement of the test trench, three (3) soil samples (DT-1 @ 3', DT-1 @ 6', and DT-1 @ 18') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 2,900 mg/kg in soil sample DT-1 @ 3' to 101 mg/kg in soil sample DT-1 @ 6'. Soil samples DT-1 @ 3' and DT-1 @ 18' were analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable laboratory RL in each of the analyzed soil samples. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride beyond six (6) ft. bgs in the area characterized by test trench DT-1.

Test trench DT-2 was advanced in the south-central portion of the release flow path. During the advancement of the test trench, three (3) soil samples (DT-2 @ Surface, DT-2 @ 4', and DT-2 @ 8') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 53,100 mg/kg in soil sample DT-2 @ Surface to 16.4 mg/kg in soil sample DT-2 @ 4'. Soil samples DT-2 @ Surface and DT-2 @ 8' were analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable laboratory RL in each of the analyzed soil samples, with the exception of soil sample DT-2 @ SURFACE, which exhibited a TPH concentration of 26.1 mg/kg. Based on laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride concentrations beyond four (4) ft. bgs in the area characterized by test trench DT-2.

Test trench DT-3 was advanced in the southern portion of the release flow path. During the advancement of the test trench, three (3) soil samples (DT-3 @ Surface, DT-3 @ 4', and DT-3 @ 8') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 15,600 mg/kg in soil sample DT-3 @ Surface to 7.10 mg/kg in soil sample DT-3 @ 4'. Soil samples DT-3 @ Surface and DT-3 @ 8' were analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable laboratory RL in each of the analyzed soil samples, with the exception of soil sample DT-3 @ SURFACE, which exhibited a TPH concentration of 66.1 mg/kg. Based upon laboratory analytical results, soil was not affected above the NMOCD regulatory guidelines for chloride concentrations beyond four (4) ft. bgs in the area characterized by test trench DT-3.

Test trench N was advanced in the northern portion of the release flow path, adjacent to the affected well. During the advancement of the test trench, three (3) soil samples (N @ 3', N @ 6',

and N @ 18') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,390 mg/kg in soil sample N @ 6' to 178 mg/kg in soil sample N @ 3'. Soil samples N @ 3' and N @ 18' were analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable laboratory RL in each of the analyzed soil samples. Based on laboratory analytical results, further delineation was required in the area characterized by test trench N.

Additionally, TRC advanced six (6) test trenches (N-2, E, E-2, W, W-2 and S) at the inferred margins of the affected area in an effort to characterize the horizontal extent of soil impact. During the advancement of the test trenches, eighteen (18) soil samples (N-2 @ 3', N-2 @ 6', N-2 @ 18', E @ 3', E @ 9', E @ 18', E-2 @ 3', E-2 @ 9', E-2 @ 18', W @ 3', W @ 6', W @ 18', W-2 @ Surface, W-2 @ 2', W-2 @ 8', S @ Surface, S @ 2', and S @ 8') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,840 mg/kg in soil sample S @ Surface to below the applicable laboratory RL in soil sample W-2 @ 8'. Chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted soil samples, with the exception of soil sample S @ Surface, which exhibited a chloride concentration of 1,840 mg/kg. Soil samples N-2 @ 3', N-2 @ 18', E @ 3', E @ 18', E-2 @ 3', E-2 @ 18', W @ 3', W @ 18', W-2 @ Surface, W-2 @ 8', S @ Surface, and S @ 8' were analyzed for concentrations of BTEX and/or TPH, which were determined to be below the applicable laboratory RL in each of the analyzed soil samples, with the exception of soil sample S @ Surface, which exhibited a TPH concentration of 36.3 mg/kg. BTEX and TPH concentrations were below the NMOCD regulatory guidelines for TPH and BTEX concentrations in each of the analyzed soil samples. Based on laboratory analytical results, further delineation and excavation was required south of the area characterized by soil sample S @ Surface. Please reference Table 2 – Concentrations of Benzene, BTEX, TPH and Chloride in Soil (2RP-4454).

On July 19, 2018, COG submitted a *Soil Investigation Summary and Proposed Remediation Workplan (Workplan)* to the NMOCD and NMSLO, proposing the following remediation activities designed to advance the Sites toward an approved closure:

GJ West Coop Unit #108 (2RP-4351)

- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by test trench SE-2 to beyond sample point SE-2E. Excavated soil will be stockpiled on-site, atop an impermeable liner pending final disposition.
- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by test trench NE-1 to sample point NE-1C. Excavated soil will be placed into a separate soil stockpile, pending laboratory analysis for potential use as "clean" backfill.
- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by test trench N-1 to beyond sample point N-1C. Excavated soil will be placed into a separate soil stockpile, pending laboratory analysis for potential use as "clean" backfill.
- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by test trench NW-1 to sample point NW-1C. Excavated soil will be placed

into a separate soil stockpile, pending laboratory analysis for potential use as "clean" backfill.

- Laboratory analytical results indicated further excavation is not required in the area represented by test trench SW.
- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by test trench S-1 to sample point S-1C. Excavated soil will be placed into a separate soil stockpile, pending laboratory analysis for potential use as "clean" backfill.
- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by soil sample S-3 @ 4' to beyond sample point S-2. Excavated soil will be stockpiled on-site, atop an impermeable liner pending final disposition.
- Advance the upper four (4) ft. of the current open excavation sidewall in the area characterized by test trench SE-1 to beyond sample point SE-1C. Excavated soil will stockpiled on-site, atop an impermeable liner pending final disposition.
- After advancing the excavation sidewalls horizontally at four (4) ft. bgs, effectively "benching" the open excavation, and receiving laboratory analytical results from confirmation soil samples, install a bentonite or polyurethane liner on the floor of the excavated area at approximately nineteen (19) ft. bgs. This engineering control is designed to mitigate the vertical migration of contaminants. During the installation of the liner an approximate six (6)-inch layer of "pad sand" will be installed above and below the liner in an effort to maintain its integrity during backfilling activities.
- After installing the liner on the floor of the excavated area, an eight (8)-inch PVC conduit will be installed, and extended vertically to the surface, in the area requiring additional vertical delineation, represented by test trench RP-N.
- After receiving laboratory analytical results from confirmation soil samples and installing the bentonite or polyurethane liner and associated PVC casing, backfill the excavated area to approximately four (4) ft. bgs utilizing stockpiled soil generated from "benching" the subject excavation, excavation activities associated with the remediation of GJ West Coop Unit #011 and locally sourced non-impacted material.
- After backfilling the excavated area to four (4) ft. bgs, install a second bentonite or polyurethane liner at four (4) ft. bgs atop impacted soil exhibiting chloride concentrations above the NMOCD regulatory guidelines. The liner will be extended vertically along the excavation sidewalls in the area of the inferred historical drilling reserve pit in an effort to limit the amount of moisture shed toward the north in the vicinity of the historical drilling reserve pit. This engineering control is designed to mitigate the vertical migration of contaminants left in-situ along with contaminants within portions of the proposed fill material. During the installation of the liner an approximate six (6)-inch layer of "pad sand" will be installed above and below the liner in an effort to maintain its integrity during backfilling activities.
- The eight (8)-inch PVC conduit will be extended through the second bentonite or polyurethane liner, to the surface for the advancement of a proposed investigative soil boring.
- After installing the second bentonite or polyurethane liner, backfill the remaining excavated area with locally sourced, non-impacted topsoil.
- Utilizing mechanical equipment, advance one (1) investigative soil bore through the established PVC casing in an effort to determine the vertical extent of chloride impact. The investigative soil bore will be advanced until chloride field screen results suggests two consecutive soil samples collected at five (5) ft. intervals exhibit chloride

concentrations below the NMOCD regulatory guidelines; soil samples will also be collected for confirmation laboratory analysis.

GJ West Coop Unit #011 (2RP-4454)

- Utilizing mechanical equipment, excavate impacted soil within the release margins in the area characterized by test trench DT-1 to a depth of approximately four (4) to six (6) ft. bgs or until laboratory analytical results from confirmation soil samples indicate chloride concentrations are below the NMOCD regulatory guidelines. Advance the excavation sidewalls until laboratory analytical results indicate chloride concentrations are below the NMOCD regulatory guidelines. Excavated soil will be stockpiled on-site, atop an impermeable liner pending final disposition.
- Excavate impacted soil within the release margins in the areas characterized by test trenches DT-2 and DT-3 to a depth of approximately one (1) to four (4) ft. bgs or until laboratory analytical results from confirmation soil samples indicate chloride concentrations are below the NMOCD regulatory guidelines. Advance the excavation sidewalls until laboratory analytical results indicate chloride concentrations are below the NMOCD regulatory guidelines. Excavated soil will be stockpiled on-site, atop an impermeable liner pending final disposition.
- Excavate impacted soil within the release margins in the areas characterized by test trenches RP, RP-2 and N to a depth of approximately four (4) ft. bgs. Advance the excavation sidewalls until laboratory analytical results indicate chloride concentrations are below the NMOCD regulatory guidelines. Excavated soil will be stockpiled on-site, atop an impermeable liner pending final disposition.
- Install a bentonite or polyurethane liner on the floor of the excavation at approximately four (4) ft bgs in the areas characterized by test trenches RP, RP-2 and N. This engineering control is designed to mitigate the vertical migration of contaminants left in-situ. During the installation of the liner an approximate six (6)-inch layer of "pad sand" will be installed above and below the liner in an effort to maintain its integrity during backfilling activities.
- After installing the liner on the floor of the excavated area, an eight (8)-inch PVC conduit will be installed, and extended vertically to the surface, in the area requiring additional vertical delineation, represented by test trench N.
- After receiving laboratory analytical results from confirmation soil samples and installing the bentonite or polyurethane liner and associated PVC casing, backfill the excavated area with locally sourced, non-impacted "like" material.
- Utilizing mechanical equipment, advance one (1) investigative soil bore through the established PVC casing in an effort to determine the vertical extent of chloride impact. The investigative soil bore will be advanced until chloride field screen results suggests two (2) consecutive soil samples collected at five (5) ft. intervals exhibit chloride concentrations below the NMOCD regulatory guidelines; soil samples will also be collected for confirmation laboratory analysis.

The *Workplan* was subsequently approved.

SUMMARY OF SOIL REMEDIATION ACTIVITIES

GJ West Coop Unit #108 (2RP-4351)

On August 14, 2018, excavation activities commenced at the Release Site. As per the approved *Workplan*, the open excavation was 'benched' to increase sidewall stability for the nineteen (19) ft. open excavation. On August 15, 2018, a twenty (20) mil polyurethane liner was placed at the base of the open nineteen (19) ft. bgs excavation, and an eight (8) inch PVC conduit was installed through the liner. The excavation was subsequently backfilled with locally sourced non-impacted soil to a depth of four (4) feet bgs. Excavated soil was stockpiled on-site pending final disposition.

On August 22, 2018, six (6) confirmation soil samples (RP NSW-1 @ 2', RP NSW-2 @ 2', RP ESW-1 @ 2', RP ESW-2 @ 2', RP WSW-1 @ 2', and RP WSW-2 @ 2') were collected from the sidewalls of the remaining excavation, which had a depth of approximately four (4) feet bgs. The collected soil samples were submitted for chloride analysis. The concentrations of chloride in the submitted soil samples were below NMOCD regulatory guidelines for chlorides. The excavation was subsequently advanced laterally to remove the remaining impacts above NMOCD regulatory guidelines.

On September 25, 2018, ten (10) confirmation soil samples (108-SSW#1, 108-SSW#3, 108-SSW#4, 108-NSW#1, 108-NSW#2, 108-NSW#3, 108-ESW#1, 108-SSW#2, 108-SSW#5, and 108-ESW#2) were collected from the sidewalls of the excavation and were submitted to the laboratory for chloride analysis. The concentrations of chloride in the submitted soil samples were below NMOCD regulatory guidelines for chlorides.

On October 8, 2018, as per the approved *Workplan*, a 20-mil polyurethane liner was installed in the entirety of the excavated area atop impacted soil affected above the NMOCD regulatory guidelines remaining in-situ. An approximate six (6)-inch layer of "pad sand" was installed above and below the liner in an effort to maintain the integrity of the liner during backfilling activities. This engineering control is designed to minimize the vertical migration of impact left in-situ. In accordance with the approved *Workplan,* an eight (8)-inch PVC conduit was installed to allow for the advancement of an investigative soil boring.

Following the installation of the liner atop the impacted soil affected above the NMOCD regulatory guidelines remaining in-situ, the excavated area was backfilled with locally sourced, non-impacted "like" material. Affected areas not on active oilfield production pads and/or lease roads were contoured to fit the surrounding topography and will be reseeded in accordance with NMSLO guidelines at a time more conducive to seed germination.

Prior to backfilling, the final dimensions of the excavated area were approximately two hundred and fifty (250) ft. in length, one hundred and fifty (150) ft. in width, and four (4) to nineteen (19) ft. in depth.

On March 21, 2019, in accordance with the NMOCD-approved *Workplan,* TRC advanced one (1) investigative soil boring (SB-1) through the PVC conduit installed above the affected area requiring additional vertical delineation. During the advancement of the soil boring, two (2) soil samples (SB-1 @ 35' and SB-1 @ 40') were collected and submitted to the laboratory for

analyses of TPH, BTEX, and chloride. Laboratory analytical results indicated TPH and BTEX concentrations were below the applicable laboratory RL for each constituent, with the exception of BTEX constituents in SB-1 @ 35', which were below NMOCD regulatory guidelines. Chloride concentrations were below NMOCD guidelines in both submitted soil samples. Soil boring samples SB-1 @ 35' and SB-1 @ 40' are representative of the chloride concentrations at depths ranging from thirty-five (35) to forty (40) ft. bgs. The elevated chloride concentration at thirty-seven (37) feet bgs in soil sample RP-N @ 37' was likely due to 'sluff' from impacted soil stratigraphically above thirty-seven (37) ft. bgs. Based on laboratory analytical results from delineation soil samples collected from the investigation soil boring, soil was not affected above the NMOCD regulatory guidelines beyond 35 ft. bgs in the area represented by soil boring SB-1. The soil boring conduit was filled with bentonite, capped with concrete, and cut to below grade.

GJ West Coop Unit #011 (2RP-4454)

On August 14, 2018, excavation activities commenced at the Release Site. As per the approved *Workplan*, the northern portion of the Release Site, in the areas characterized by delineation trenches RP, RP-2, and N were excavated to a depth of approximately four (4) ft. bgs. The floor of the excavation in the areas characterized by delineation trenches DT-1, DT-2, and DT-3 were advanced until chloride field test results suggested concentrations of chloride were below the NMOCD regulatory guidelines. Excavation sidewalls were advanced until chloride field test results suggested concentrations of chloride were below the NMOCD regulatory guidelines. Excavated soil was stockpiled on-site pending final disposition.

On August 22, 2018, following the excavation of the impacted soil from within the northern portion of the Release Site, TRC collected six (6) excavation confirmation soil samples (RP NSW-1 @ 2', RP NSW-2 @ 2', RP ESW-1 @ 2', RP ESW-2 @ 2', RP WSW-1 @ 2', and RP WSW-2 @ 2') from sidewalls of the excavated area and submitted the soil samples to the laboratory for analysis of chloride. Laboratory analytical results indicated chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted soil samples. Excavation activities continued toward the south. Please reference Figure 3B – Site & Confirmation Sample Location Map (2RP-4454).

On September 5, 2018, TRC collected eleven (11) excavation confirmation soil samples (DT-1 SSW-1 @ 3', DT-1 SSW-2 @ 3', DT-1 SSW-3 @ 3', DT-1 ESW @ 3', DT-1 ESW-2 @ 3', DT-1 ESW-3 @ 1.5', DT-1 WSW-1 @ 3', DT-1 WSW-2 @ 1.5' DT-1 FL-1 @ 6', DT-1 FL-2 @ 6' and DT-3 SSW @ 1') from the floor and sidewalls of the excavated area and submitted to the laboratory for analysis of chloride. Laboratory analytical results indicated chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted soil samples. Excavation activities continued toward the south.

On September 12, 2018, TRC collected nine (9) excavation confirmation soil samples (DT-2 SSW-1 @ 1', DT-2 SSW-2 @ 1', DT-2 WSW @ 1', DT-2 FL-1 @ 2', DT-2 FL-2 @ 2', DT-3 WSW @ 1.5', DT-3 ESW-1 @ 1.5', DT-3 ESW-2 @ 1.5', and DT-3 FL @ 3') from the floor and sidewalls of the excavated area and submitted the soil samples to the laboratory for analysis of chloride. Laboratory analytical results indicated chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted soil samples. Excavation activities continued toward the south.

On September 17, 2018, TRC collected ten (10) excavation confirmation soil samples (DT-2 FL-3 @ 2', DT-2 NSW-1 @ 1', DT-2 NSW-2 @ 1', DT-2 WSW-2 @ 1', DT-2 ESW-1 @ 1', DT-2 ESW-2 @ 1', DT-2 SSW @ 1', DT-3 FL-2 @ 3', DT-3 NSW @ 1.5', and DT-3 WSW-2 @ 1.5') from the floor and sidewalls of the excavated area and submitted the soil samples to the laboratory for analysis of chloride. Laboratory analytical results indicated chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted soil samples.

On September 25, 2018, as per the approved *Workplan*, a 20-mil polyurethane liner was installed in the northern portion of the excavated area atop impacted soil affected above the NMOCD regulatory guidelines remaining in-situ. An approximate six (6)-inch layer of "pad sand" was installed above and below the liner in an effort to maintain the integrity of the liner during backfilling activities. This engineering control is designed to minimize the vertical migration of impact left in-situ. In accordance with the approved *Workplan,* an eight (8)-inch PVC conduit was installed in the area represented by test trench N to allow for the advancement of an investigative soil boring.

After installing the liner atop impacted soil affected above the NMOCD regulatory guidelines remaining in-situ, the excavated area was backfilled with locally sourced, non-impacted "like" material. Affected areas not on active oilfield production pads and/or lease roads were contoured to fit the surrounding topography and will be reseeded in accordance with NMSLO guidelines at a time more conducive to seed germination.

Prior to backfilling, the final dimensions of the excavated area were approximately three hundred (300) ft. in length, thirty-five (35) ft. to one hundred (100) ft. in width, and two (2) to six (6) ft. in depth.

On March 21, 2019, in accordance with the NMOCD-approved *Workplan,* TRC advanced one (1) investigative soil boring (SB-2) through the PVC conduit installed above the affected area requiring additional vertical delineation. During the advancement of the soil boring, four (4) soil samples (SB-2 @ 20', SB-2 @ 25', SB-2 @ 30', and SB-2 @ 35') were collected and submitted to the laboratory for analyses of TPH, BTEX, and chloride. Laboratory analytical results indicated chloride concentrations ranged from 337 mg/kg in soil sample SB-2 @ 20' to 50.3 mg/kg in soil sample SB-2 @ 30'. TPH and BTEX concentrations were below the applicable laboratory RL for each constituent. Based on laboratory analytical results from delineation soil samples collected from the investigation soil boring, soil was not affected above the NMOCD regulatory limits beyond 20 ft. bgs in the area represented by soil boring SB-2. The soil boring conduit was filled with bentonite, capped with concrete, and cut to below grade.

SITE CLOSURE REQUEST

Remediation activities were conducted in accordance with an NMOCD-approved *Workplan*. Laboratory analytical results from excavation confirmation soil samples indicated chloride concentrations were below the NMOCD regulatory guidelines in each of the submitted confirmation soil samples. Impacted soil affected above the NMOD regulatory guidelines remaining in-situ was capped with an NMOCD approved 20-mil polyurethane liner. This engineering control is designed to minimize the vertical migration of impact remaining in-situ. Approximately, two thousand, seven hundred forty (2,740) cy of impacted soil was transported

to an approved disposal facility; the remaining portion of the excavated soil was reused in conjunction with the two (2) Release Sites.

Based on laboratory analytical results and field activities conducted to date, TRC recommends COG provide copies of this Remediation Summary and Risk-Based Site Closure Request to the NMOCD and NMSLO and request closure status to the GJ West Coop Unit #108 (2RP-4351) and GJ West Coop Unit #011 (2RP-4454).

LIMITATIONS

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.

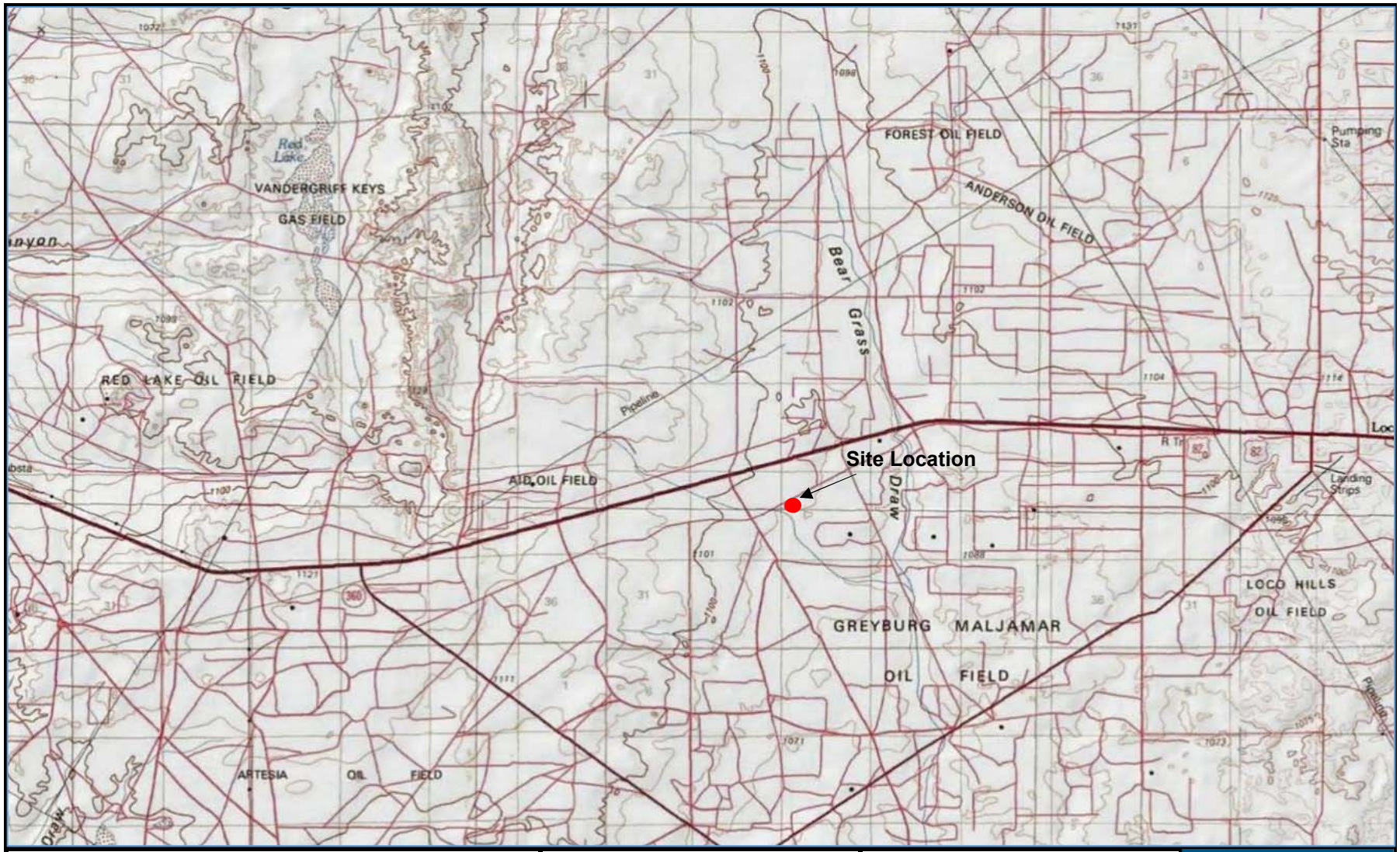
DISTRIBUTION

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

Copy 2: Ryan Mann
Hobbs Field Office
New Mexico State Land Office
2827 North Dal Paso St., Suite 117
Hobbs, New Mexico 88240

Copy 3: Rebecca Haskell
COG Operating, LLC
600 W. Illinois Avenue
Midland, Texas 79701

Copy4: TRC Environmental Corporation
10 Desta Drive STE 150E
Midland, Texas 79705



LEGEND:

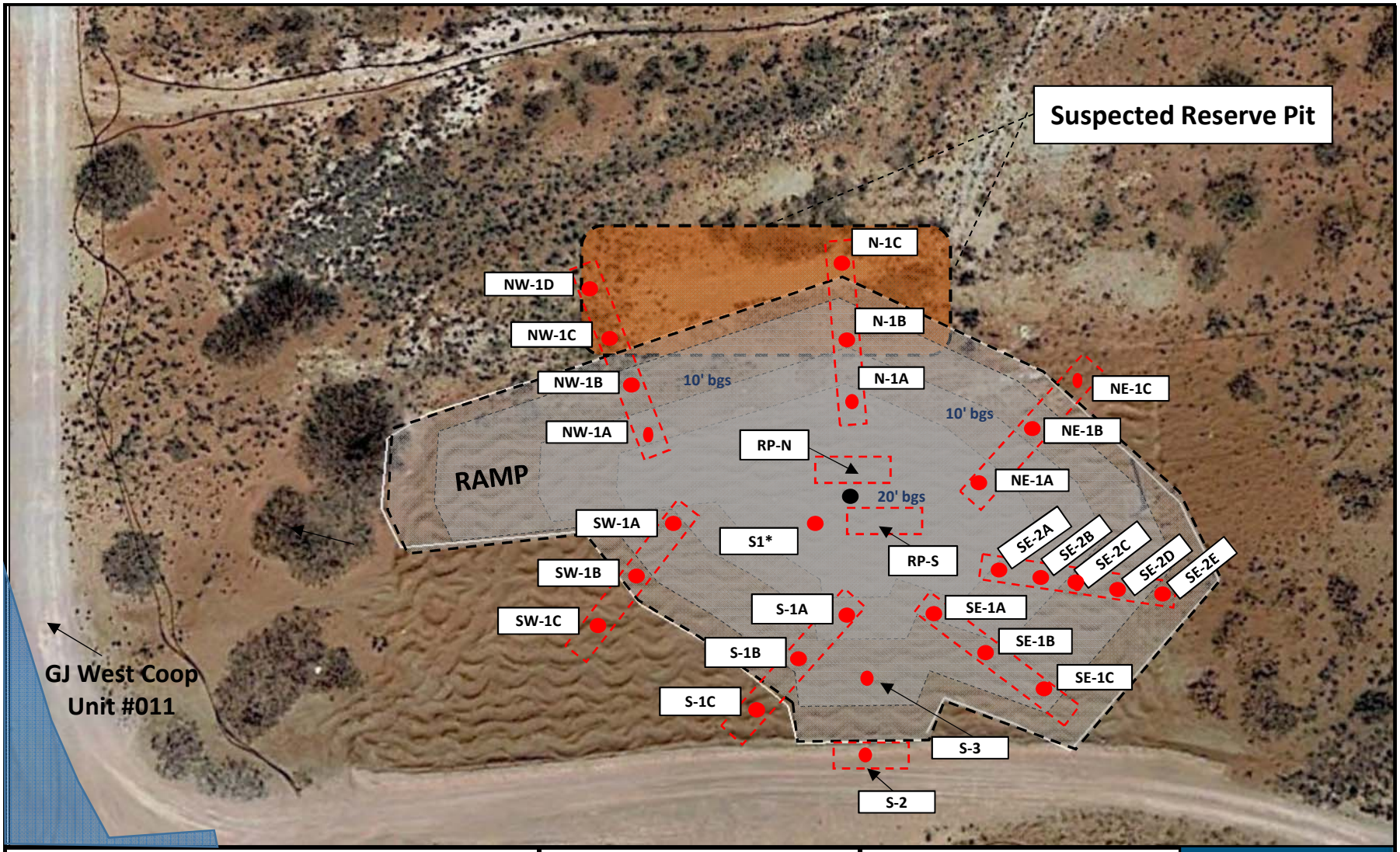
Site Location

Figure 1

Site Location Map
COG Operating, LLC
GJ West Coop Unit #108 and #011
Eddy Co, NM

Scale 1" = 2,000'	
Drafted by: ZC | Checked by: JL	
Draft: March 26, 2018	
GPS: 32.8073502, -104.0862198	
UL "E", Sec. 28, T17S, R29E	
TRC Proj. No:	291390

TRC
Results you can rely on



LEGEND:

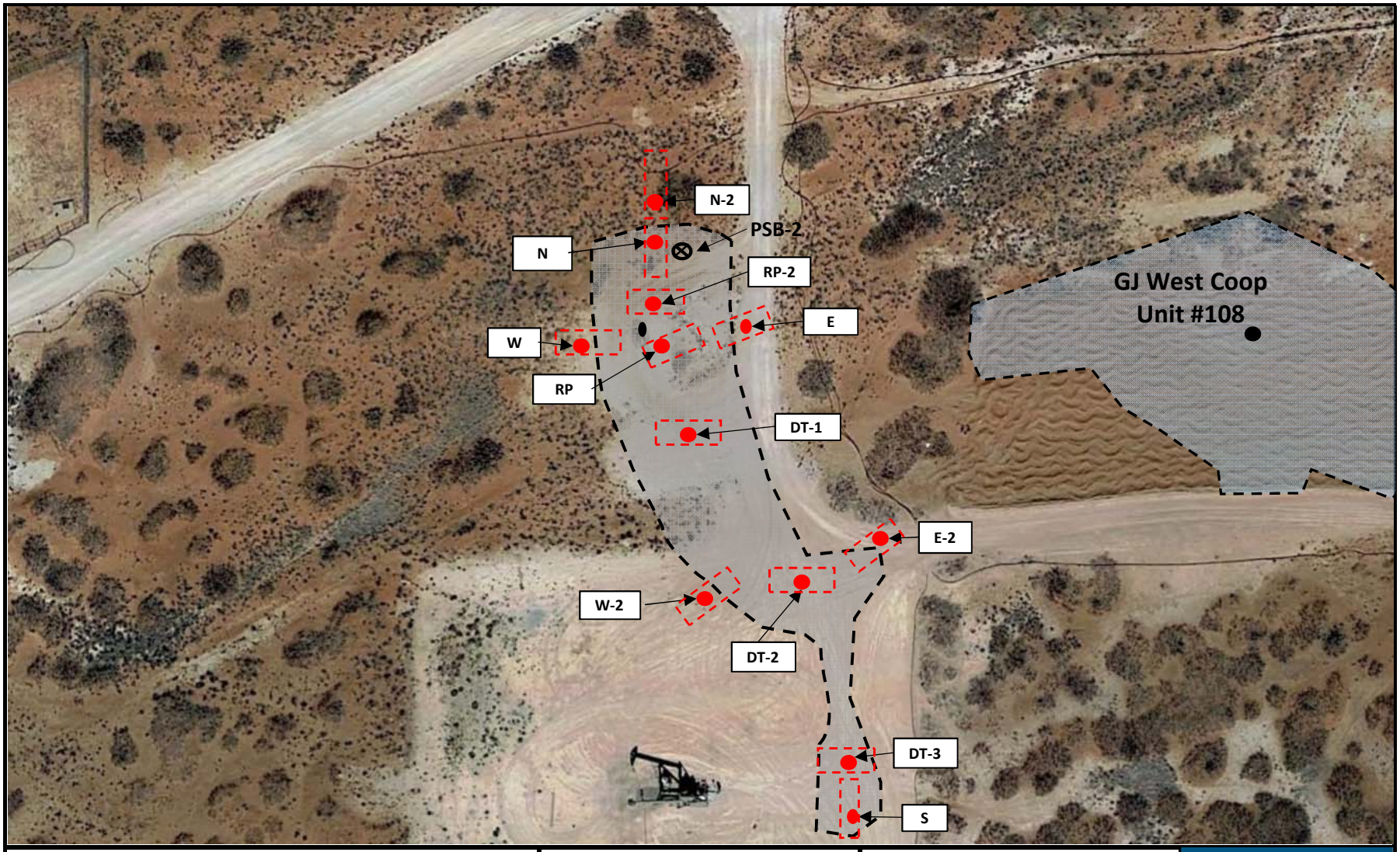
- Former Excavation
- Soil Sample Location
- Plugged Well
- Test Trench
- Reserve Pit

Figure 2A
Site & Sample Location Map
Initial Investigation (2RP-4351)
COG Operating, LLC
GJ West Coop Unit #108
Eddy Co, NM

Scale 1" = 50'	
Drafted by: ZC | Checked by: JL	
Draft: October 22, 2018	
GPS: 32.8073502, -104.0862198	
UL "E", Sec. 28, T17S, R29E	
TRC Proj. No:	291390

TRC
Results you can rely on

* - Samples at this location collected by COG personnel



LEGEND:

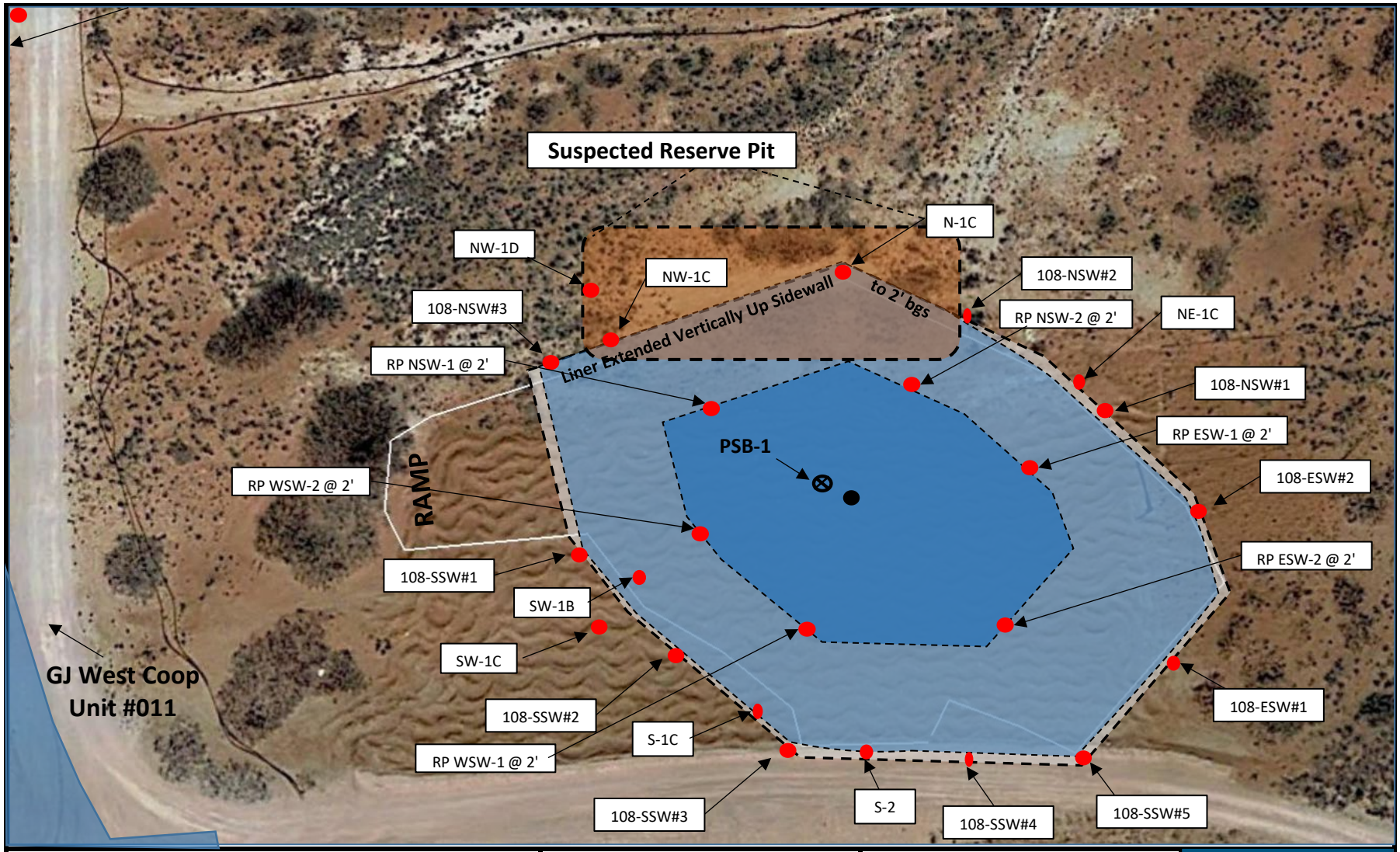
- Proposed Excavation
- Soil Sample Location
- Plugged Well
- Test Trench
- Proposed Soil Boring
- Open Excavation

Figure 2B

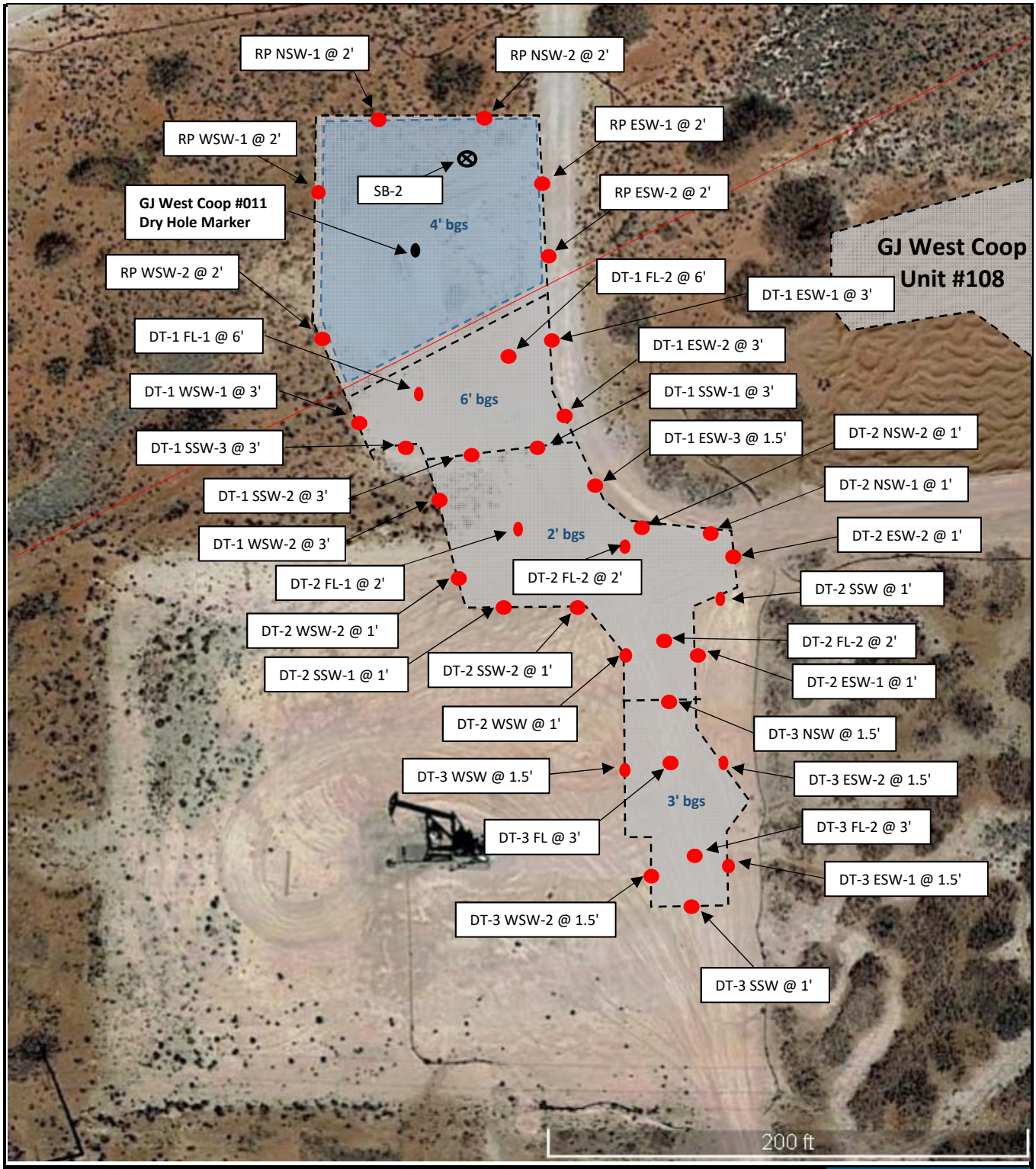
Site & Sample Location Map
Initial Investigation (2RP-4454)
COG Operating, LLC
GJ West Coop Unit #011
Eddy Co, NM

Scale 1" = 70'	
Drafted by: ZC | Checked by: JL	
Draft: April 4, 2018	
GPS: 32.8073502, -104.0872955	
UL "E", Sec. 28, T17S, R29E	
TRC Proj. No:	291388

TRC
Results you can rely on



* - Samples at this location collected by COG personnel



LEGEND:

- Excavated Area
- Soil Sample Location
- Dry Hole Marker
- Lined Area
- Buried Pipeline

Figure 3B

Site & Confirmation Sample Location Map (2RP-4454)

COG Operating, LLC

GJ West Coop Unit #011

Eddy Co, NM

Scale 1" = 70'	
Drafted by: ZC | Checked by: JL	
Draft: April 4, 2018	
GPS: 32.8073502, -104.0872955	
UL "A", Sec., T25S, R28E	
TRC Proj. No: 291390	

TRC Results you can rely on

TABLE 1
Concentrations of BTEX, TPH and Chloride in Soil (2RP-4351)
COG OPERATING, LLC
GJ WEST COOP UNIT #108
EDDY COUNTY, NEW MEXICO

All concentrations are reported in mg/kg

SAMPLE LOCATION	DEPTH	SAMPLE DATE	SOIL STATUS	METHODS: SW 846-8021b					METHOD: SW 8015M				E 300.1/4500 Cl b
				BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C_6-C_{10}	TPH DRO C_{10}-C_{28}	TPH ORO C_{28}-C_{35}	TOTAL TPH C_6-C_{35}	CHLORIDE
S1 3'-4'	3'-4'	8/14/2017	Excavated	-	-	-	-	-	-	-	-	-	**992**
S1 5'-6'	5'-6'	8/14/2017	Excavated	-	-	-	-	-	-	-	-	-	**28,000**
S 13'-14'	13-14'	8/14/2017	Excavated	-	-	-	-	-	-	-	-	-	**7,200**
S 16'-17'	16'-17'	8/14/2017	Excavated	-	-	-	-	-	-	-	-	-	**21,200**
RP-N @ 28'	28'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	**3,440**
RP-N @ 37'	37'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	**8,560**
RP-S @ 28'	28'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	**1,830**
RP-S @ 31'	31'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	**1,030**
RP-S @ 34'	34'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	**853**
SE-1A @ 18'	18'	3/22/2018	Lined	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	**791**
SE-1B @ 10'	10'	3/22/2018	Lined	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	**2,940**
SE-1B @ 20'	20'	3/22/2018	Lined	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	96.5
SE-1C @ 3'	3'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	255
SE-1C @ 12'	12'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	73.5
SE-1C @ 20'	20'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	65.7
SE-2A @ 18'	18'	3/22/2018	Lined	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	409
SE-2B @ 10'	10'	3/22/2018	In-Situ	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	491
SE-2B @ 20'	20'	3/22/2018	In-Situ	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<14.9	<14.9	<14.9	<14.9	48.7
SE-2C @ 3'	3'	3/22/2018	Excavated	-	-	-	-	-	-	-	-	-	**4,570**
SE-2C @ 6'	6'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	96.8
SE-2C @ 12'	12'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	267
SE-2C @ 20'	20'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	423
SE-2D @ 3'	3'	3/22/2018	Excavated	-	-	-	-	-	-	-	-	-	**20,600**
SE-2D @ 9'	9'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	**8,210**
SE-2D @ 12'	12'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	443
SE-2D @ 20'	20'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	374
SE-2E @ 3'	3'	3/22/2018	Excavated	-	-	-	-	-	-	-	-	-	**687**
SE-2E @ 6'	6'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	135
NE-1A @ 18'	18'	3/22/2018	Lined	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	**723**
NE-1B @ 10'	10'	3/22/2018	Lined	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	302
NE-1B @ 20'	20'	3/22/2018	Lined	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	77.1
NE-1C @ 3'	3'	3/22/2018	Excavated	-	-	-	-	-	-	-	-	-	139
NE-1C @ 12'	12'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	84.0
NE-1C @ 20'	20'	3/22/2018	Lined	-	-	-	-	-	-	-	-	-	72.4
N-1A @ 18'	18'	3/22/2018	Lined	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	**1,260**
N-1A @ 20'	20'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	564
N-1A @ 23'	23'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	486
N-1A @ 26'	26'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	412
N-1B @ 10'	10'	3/22/2018	Lined	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	216	29.3	245.3	593
N-1B @ 20'	20'	3/22/2018	Lined	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	**866**
N-1C @ 3'	3'	3/22/2018	In-Situ	-	-	-	-	-	-	-	-	-	583
NW-1A @ 18'	18'	3/23/2018	Lined	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	**769**
NMOCD Recommended Remediation Action Level				**10**	**-**	**-**	**-**	**50**	**-**	**-**	**-**	**5,000**	**600**

TABLE 1
Concentrations of BTEX, TPH and Chloride in Soil (2RP-4351)
COG OPERATING, LLC
GJ WEST COOP UNIT #108
EDDY COUNTY, NEW MEXICO

All concentrations are reported in mg/kg

SAMPLE LOCATION	DEPTH	SAMPLE DATE	SOIL STATUS	METHODS: SW 846-8021b					METHOD: SW 8015M				E 300.1/4500 Clb
				BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C_6-C_{10}	TPH DRO C_{10}-C_{28}	TPH ORO C_{28}-C_{35}	TOTAL TPH C_6-C_{35}	CHLORIDE
NW-A @ 20'	20'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	179
NW-A @ 23'	23'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	375
NW-A @ 29'	29'	3/29/2018	Lined	-	-	-	-	-	-	-	-	-	265
NW-1B @ 10'	10'	3/23/2018	Lined	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	38.8
NW-1B @ 20'	20'	3/23/2018	Lined	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	**1,300**
NW-1C @ 3'	3'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	259
NW-1C @ 6'	6'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	414
NW-1C @ 9'	9'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	**1,570**
NW-1C @ 20'	20'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	**5,700**
NW-1D @ 3'	3'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	29.5
NW-1D @ 6'	6'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	**704**
NW-1D @ 9'	9'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	**1,090**
NW-1D @ 20'	20'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	**2,280**
SW-1A @ 18'	18'	3/23/2018	Lined	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	62.1
SW-1B @ 10'	10'	3/23/2018	In-Situ	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	76.4
SW-1B @ 20'	20'	3/23/2018	In-Situ	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	29.6
SW-1C @ 3'	3'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	257
SW-1C @ 12'	12'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	50.9
SW-1C @ 20'	20'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	25.8
S-1A @ 18'	18'	3/23/2018	Excavated	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	**7,660**
S-1B @ 10'	10'	3/23/2018	Excavated	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	**18,500**
S-1B @ 20'	20'	3/23/2018	Excavated	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	**4,300**
S-1C @ 3'	3'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	421
S-1C @ 12'	12'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	26.7
S-1C @ 20'	20'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	<5.00
S-2 @ 3'	3'	3/23/2018	Excavated	-	-	-	-	-	-	-	-	-	169
S-2 @ 12'	12'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	14.9
S-2 @ 20'	20'	3/23/2018	In-Situ	-	-	-	-	-	-	-	-	-	<4.92
S-3	4'	4/24/2018	Excavated	-	-	-	-	-	-	-	-	-	**10,000**
RP NSW-1 @ 2'	2'	8/22/2018	Excavated	-	-	-	-	-	-	-	-	-	<4.99
RP NSW-2 @ 2'	2'	8/22/2018	Excavated	-	-	-	-	-	-	-	-	-	235
RP ESW-1 @ 2'	2'	8/22/2018	Excavated	-	-	-	-	-	-	-	-	-	12.9
RP ESW-2 @ 2'	2'	8/22/2018	Excavated	-	-	-	-	-	-	-	-	-	210
RP WSW-1 @ 2'	2'	8/22/2018	Excavated	-	-	-	-	-	-	-	-	-	153
RP-WSW-2 @ 2'	2'	8/22/2018	Excavated	-	-	-	-	-	-	-	-	-	97.8
108- SSW#1	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	26.2
108- SSW#3	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	35.9
108- SSW#4	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	47.8
108- NSW#1	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	199
108- NSW#2	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	287
108- NSW#3	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
108- ESW#1	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	224
108-SSW#2	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	<25.0
108- SSW#5	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	312
108- ESW#2	3.5'	9/25/2018	In-Situ	-	-	-	-	-	-	-	-	-	361
SB-1 @ 35'	35'	3/21/2019	Lined	<0.00202	0.00267	<0.00202	0.00513	0.0078	<15.0	<15.0	<15.0	<15	205
SB-1 @ 40'	40'	3/21/2019	Lined	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15	103
NMOCD Recommended Remediation Action Level				**10**	**-**	**-**	**-**	**50**	**-**	**-**	**-**	**5,000**	**600**

TABLE 2

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL (2RP-4454)

COG OPERATING, LLC
GJ WEST COOP UNIT #011
EDDY COUNTY, NEW MEXICO

All concentrations are reported in mg/kg

SAMPLE LOCATION	DEPTH	SAMPLE DATE	SOIL STATUS	METHODS: SW 846-8021b					METHOD: SW 8015M				E 300.1
				BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C_6-C_{10}	TPH DRO C_{10}-C_{28}	TPH ORO C_{28}-C_{35}	TOTAL TPH C_6-C_{35}	CHLORIDE
RP @ 3'	3'	3/30/2018	Excavated	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	**977**
RP @ 9'	9'	3/30/2018	Risked	-	-	-	-	-	-	-	-	-	**1,890**
RP @ 18'	18'	3/30/2018	Risked	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	241
RP-2 @ 3'	3'	3/30/2018	Excavated	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	**1,410**
RP-2 @ 6'	6'	3/30/2018	Risked	-	-	-	-	-	-	-	-	-	145
RP-2 @ 18'	18'	3/30/2018	Risked	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	105
DT -1 @ 3'	3'	4/2/2018	In-Situ	<0.00200	<0.00200	<0.00200	<0.002	<0.002	<15.0	<15.0	<15.0	<15.0	**2,900**
DT -1 @ 6'	6'	4/2/2018	In-Situ	-	-	-	-	-	-	-	-	-	101
DT -1 @ 18'	18'	4/2/2018	In-Situ	-	-	-	-	-	<14.9	<14.9	<14.9	<14.9	124
DT -2 @ SURFACE	Surface	4/2/2018	Excavated	<0.00200	<0.00200	<0.00200	<0.002	<0.002	<15.0	26.1	<15.0	26.1	**53,100**
DT -2 @ 4'	4'	4/2/2018	In-Situ	-	-	-	-	-	-	-	-	-	16.4
DT -2 @ 8'	8'	4/2/2018	In-Situ	-	-	-	-	-	<14.9	<14.9	<14.9	<14.9	19.4
DT -3 @ SURFACE	Surface	4/2/2018	Excavated	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	46.2	19.9	66.1	**15,600**
DT -3 @ 4'	4'	4/2/2018	In-Situ	-	-	-	-	-	-	-	-	-	7.10
DT -3 @ 8'	8'	4/2/2018	In-Situ	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	7.30
N @ 3'	3'	3/30/2018	Excavated	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	178
N @ 6'	6'	3/30/2018	Risked	-	-	-	-	-	-	-	-	-	**1,390**
N @ 18'	18'	3/30/2018	Risked	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	**1,310**
N-2 @ 3'	3'	3/30/2018	In-Situ	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	21.6
N-2 @ 6'	6'	3/30/2018	In-Situ	-	-	-	-	-	-	-	-	-	322
N-2 @ 18'	18'	3/30/2018	In-Situ	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	119
E @ 3'	3'	3/30/2018	In-Situ	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	214
E @ 9'	9'	3/30/2018	In-Situ	-	-	-	-	-	-	-	-	-	84.1
E @ 18'	18'	3/30/2018	In-Situ	-	-	-	-	-	<14.9	<14.9	<14.9	<14.9	36.0
E-2 @ 3'	3'	3/30/2018	In-Situ	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	82.7
E-2 @ 9'	9'	3/30/2018	In-Situ	-	-	-	-	-	-	-	-	-	54.6
E-2 @ 18'	18'	3/30/2018	In-Situ	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	23.8
W @ 3'	3'	3/30/2018	In-Situ	<0.00200	<0.00200	<0.00200	<0.002	<0.002	<15.0	<15.0	<15.0	<15.0	78.7
W @ 6'	6'	3/30/2018	In-Situ	-	-	-	-	-	-	-	-	-	245
W @ 18'	18'	3/30/2018	In-Situ	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	73.4
W-2 @ SURFACE	Surface	3/30/2018	In-Situ	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	253
W-2 @ 2'	2'	3/30/2018	In-Situ	-	-	-	-	-	-	-	-	-	9.55
W-2 @ 8'	8'	3/30/2018	In-Situ	-	-	-	-	-	<15.0	<15.0	<15.0	<15.0	<4.95
S @ SURFACE	Surface	4/2/2018	Excavated	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	36.3	<15.0	36.3	**1,840**
S @ 2'	2'	4/2/2018	In-Situ	-	-	-	-	-	-	-	-	-	34.4
S @ 8'	8'	4/2/2018	In-Situ	-	-	-	-	-	<14.9	<14.9	<14.9	<14.9	11.8
RP NSW-1 @ 2'	2'	8/22/2018	In-Situ	-	-	-	-	-	-	-	-	-	<4.99
RP NSW-2 @ 2'	2'	8/22/2018	In-Situ	-	-	-	-	-	-	-	-	-	235
RP ESW-1 @ 2'	2'	8/22/2018	In-Situ	-	-	-	-	-	-	-	-	-	12.9
RP ESW-2 @ 2'	2'	8/22/2018	In-Situ	-	-	-	-	-	-	-	-	-	210
RP WSW-1 @ 2'	2'	8/22/2018	In-Situ	-	-	-	-	-	-	-	-	-	153
RP WSW-2 @ 2'	2'	8/22/2018	In-Situ	-	-	-	-	-	-	-	-	-	97.8
DT-1 SSW-1 @ 3'	3'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	82.5
DT-1 SSW-2 @ 3'	3'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	121
DT-1 SSW-3 @ 3'	3'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	193
DT-1 ESW-1 @ 3'	3'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	104
DT-1 ESW-2 @ 3'	3'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	179
DT-1 ESW-3 @ 1.5'	1.5'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	23.0
DT-1 WSW-1 @ 3'	3'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	156
DT-1 WSW-2 @ 1.5'	1.5'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	169
DT-1 FL-1 @ 6'	6'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	50.2
DT-1 FL-2 @ 6'	6'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	247
DT-3 SSW @ 1'	1'	9/5/2018	In-Situ	-	-	-	-	-	-	-	-	-	252
DT-2 SSW-1 @ 1'	1'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	36.4
DT-2 SSW-2 @ 1'	1'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	30.5
DT-2 WSW @ 1'	1'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	156
DT-2 FL-1 @ 2'	2'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	71.5
DT-2 FL-2 @ 2'	2'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	33.5
DT-3 WSW @ 1.5'	1.5'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	30.7
DT-3 ESW-1 @ 1.5'	1.5'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	319
DT-3 ESW-2 @ 1.5'	1.5'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	96.5
DT-3 FL @ 3'	3'	9/12/2018	In-Situ	-	-	-	-	-	-	-	-	-	20.2
DT-2 FL-3 @ 2'	2'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	59.9
DT-2 NSW-1 @ 1'	1'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	290
DT-2 NSW-2 @ 1'	1'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	4.97
DT-2 WSW-2 @ 1'	1'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	58.3
DT-2 ESW-1 @ 1'	1'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	234
DT-2 ESW-2 @ 1'	1'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	264
DT-2 SSW @ 1'	1'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	406
DT-3 FL-2 @ 3'	3'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	4.99
DT-3 NSW @ 1.5'	1.5'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	51.8
DT-3 WSW-2 @ 1.5'	1.5'	9/17/2018	In-Situ	-	-	-	-	-	-	-	-	-	<5.00
SB-2 @ 20'	20'	9/17/2018	Risked	<0.00200	<0.00200	<0.00200	<0.002	<0.002	<15.0	<15.0	<15.0	<15.0	337
SB-2 @ 25'	25'	9/17/2018	Risked	<0.00200	<0.00200	<0.00200	<0.002	<0.002	<15.0	<15.0	<15.0	<15.0	142
SB-2 @ 30'	30'	9/17/2018	Risked	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	50.3
SB-2 @ 35'	35'	9/17/2018	Risked	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	61.6
NMOCD Recommended Remediation Action Level				**10**	**-**	**-**	**-**	**50**	**-**	**-**	**-**	**5,000**	**600**

Analytical Report 597000

for

TRC Solutions, Inc

Project Manager: Joel Lowry

GJ West Coop Unit #108

12-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

12-SEP-18

Project Manager: **Joel Lowry**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **597000**
GJ West Coop Unit #108
Project Address: Lea County,NM

Joel Lowry:

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) 597000. 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. 597000 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,

Kelsey Brooks
Project Manager

Sample Cross Reference 597000

TRC Solutions, Inc, Midland, TX

GJ West Coop Unit #108

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
RP NSW-1 @ 2'	S	08-22-18 09:00	2 ft	597000-001
RP NSW-2 @ 2'	S	08-22-18 09:15	2 ft	597000-002
RP ESW-1 @ 2'	S	08-22-18 09:30	2 ft	597000-003
RP ESW-2 @ 2'	S	08-22-18 09:45	2 ft	597000-004
RP WSW-1 @ 2'	S	08-22-18 10:00	2 ft	597000-005
RP WSW-2 @ 2'	S	08-22-18 10:15	2 ft	597000-006

CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: GJ West Coop Unit #108

Project ID:
Work Order Number(s): *597000*

Report Date: *12-SEP-18*
Date Received: *08/24/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 597000

TRC Solutions, Inc, Midland, TX

Project Name: GJ West Coop Unit #108

Project Id:

Contact: Joel Lowry

Project Location: Lea County,NM

Date Received in Lab: Fri Aug-24-18 12:29 pm

Report Date: 12-SEP-18

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	597000-001		597000-002		597000-003		597000-004		597000-005		597000-006	
	Field Id:	RP NSW-1 @ 2'		RP NSW-2 @ 2'		RP ESW-1 @ 2'		RP ESW-2 @ 2'		RP WSW-1 @ 2'		RP WSW-2 @ 2'	
	Depth:	2- ft		2- ft		2- ft		2- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-22-18 09:00		Aug-22-18 09:15		Aug-22-18 09:30		Aug-22-18 09:45		Aug-22-18 10:00		Aug-22-18 10:15	
Chloride by EPA 300	***Extracted:***	Aug-28-18 10:00		Aug-28-18 10:00		Aug-28-18 10:00		Aug-28-18 10:00		Aug-28-18 10:00		Aug-28-18 10:00	
	Analyzed:	Aug-28-18 12:23		Aug-28-18 12:39		Aug-28-18 12:45		Aug-28-18 13:01		Aug-28-18 13:06		Aug-28-18 13:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.99	4.99	235	4.97	12.9	4.98	210	4.99	153	4.98	97.8	4.98

Kelsey Brooks
Project Manager

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 3 - MS / MSD Recoveries

Project Name: GJ West Coop Unit #108

Work Order # : 597000 **Project ID:**

Lab Batch ID: 3061452 **QC- Sample ID:** 596609-025 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/28/2018 **Date Prepared:** 08/28/2018 **Analyst:** SCM

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	324	283	599	97	283	599	97	0	90-110	20	

Lab Batch ID: 3061452 **QC- Sample ID:** 597000-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/28/2018 **Date Prepared:** 08/28/2018 **Analyst:** SCM

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	<4.99	250	243	97	250	243	97	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.

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 1 Of 1

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

Xenco Job # 597000

Client / Reporting Information

Company Name / Branch: TRC Environmental Corporation
Company Address: 2057 Commerce Drive, Midland, TX 79703
Email: jlowry@trcsolutions.com
Phone No: 432-466-4450
Project Contact: Joel Lowry
Samplers's Name Becky Griffin

Project Information

Project Name/Number: GJ West Coop Unit #108
Project Location: Lea County, NM
Invoice To: COG Operating C/O Becky Haskell
Invoice:

Analytical Information

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

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH 8015 M Ext	Chloride E 300	BTEX 8021B	Field Comments
1	RP NSW-1 @2'	2ft	8/22/2018	9:00	s	1										X		
2	RP NSW-2 @2'	2ft	8/22/2018	9:15	s	1										X		
3	RP ESW-1 @2'	2ft	8/22/2018	9:30	s	1										X		
4	RP ESW-2 @2'	2ft	8/22/2018	9:45	s	1										X		
5	RP WSW-1 @2'	2ft	8/22/2018	10:00	s	1										X		
6	RP WSW-2 @2'	2ft	8/22/2018	10:15	s	1										X		
7																		
8																		
9																		
10																		

Data Deliverable Information

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY
- [ ] Level II Std QC
- [ ] Level III Std QC+ Forms
- [ ] Level 3 (CLP Forms)
- [ ] TRRP Checklist
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] TRRP Level IV
- [ ] UST / RG -411

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

Notes:

jlowry@trcsolutions.com bcooper@trcsolutions.com
rhaskell@concho.com
zconder@trcsolutions.com
dneel2@concho.com
FED-EX / UPS: Tracking #

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

	Relinquished by Samplers	Date Time	Received By	Relinquished By	Date Time	Received By
1	Becky Griffin	8-23-18 3:53	Esperanza Gonzalez	2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4	8-24-18 12:25	4
6	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: X
			5			Cooler Temp. 0.8 Thermo. Corr. Factor 0.0

Notice: 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 loses 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: 08/24/2018 12:29:00 PM

Work Order #: 597000

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)?	.8
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**No**
#6*Custody Seals Signed and dated?	**No**
#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)?	**No**
#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: Shawnee Gomez Date: 08/24/2018

Checklist reviewed by: Kelsey Brooks Date: 08/27/2018

Analytical Report 598350

for

TRC Solutions, Inc

Project Manager: Joel Lowry

GJ West Coop Unit #011

13-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

13-SEP-18

Project Manager: **Joel Lowry**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **598350**
GJ West Coop Unit #011
Project Address: Eddy Co,NM

Joel Lowry:

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) 598350. 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. 598350 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,

Kelsey Brooks
Project Manager

Sample Cross Reference 598350

TRC Solutions, Inc, Midland, TX

GJ West Coop Unit #011

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
DT-1 SSW-1 @ 3'	S	09-05-18 09:00	3 ft	598350-001
DT-1 SSW-2 @ 3'	S	09-05-18 09:10	3 ft	598350-002
DT-1 SSW-3 @ 3'	S	09-05-18 09:20	3 ft	598350-003
DT-1 ESW-1 @ 3'	S	09-05-18 09:30	3 ft	598350-004
DT-1 ESW-2 @ 3'	S	09-05-18 09:35	3 ft	598350-005
DT-1 ESW-3 @ 1.5'	S	09-05-18 09:50	1.5 ft	598350-006
DT-1 WSW-1 @ 3'	S	09-05-18 10:00	3 ft	598350-007
DT-1 WSW-2 @ 1.5'	S	09-05-18 10:10	1.5 ft	598350-008
DT-1 FL-1@ 6'	S	09-05-18 10:20	6 ft	598350-009
DT-1 FL-2 @ 6'	S	09-05-18 10:30	6 ft	598350-010
DT-3 SSW @ 1'	S	09-05-18 10:40	1 ft	598350-011

CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: GJ West Coop Unit #011

Project ID:
Work Order Number(s): *598350*

Report Date: *13-SEP-18*
Date Received: *09/07/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 598350

TRC Solutions, Inc, Midland, TX

Project Name: GJ West Coop Unit #011

Project Id:

Contact: Joel Lowry

Project Location: Eddy Co,NM

Date Received in Lab: Fri Sep-07-18 01:15 pm

Report Date: 13-SEP-18

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	598350-001		598350-002		598350-003		598350-004		598350-005		598350-006	
	Field Id:	DT-1 SSW-1 @ 3'		DT-1 SSW-2 @ 3'		DT-1 SSW-3 @ 3'		DT-1 ESW-1 @ 3'		DT-1 ESW-2 @ 3'		DT-1 ESW-3 @ 1.5'	
	Depth:	3- ft		3- ft		3- ft		3- ft		3- ft		1.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-05-18 09:00		Sep-05-18 09:10		Sep-05-18 09:20		Sep-05-18 09:30		Sep-05-18 09:35		Sep-05-18 09:50	
Chloride by EPA 300	***Extracted:***	Sep-11-18 12:15		Sep-11-18 12:15		Sep-10-18 16:30		Sep-11-18 12:15		Sep-11-18 12:15		Sep-11-18 12:15	
	Analyzed:	Sep-11-18 13:25		Sep-11-18 13:43		Sep-10-18 18:48		Sep-11-18 13:50		Sep-11-18 13:56		Sep-11-18 14:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		82.5	4.99	121	4.95	193	4.98	104	4.95	179	4.95	23.0	4.96

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 598350

TRC Solutions, Inc, Midland, TX

Project Name: GJ West Coop Unit #011

Project Id:
Contact: Joel Lowry
Project Location: Eddy Co,NM

Date Received in Lab: Fri Sep-07-18 01:15 pm
Report Date: 13-SEP-18
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	598350-007		598350-008		598350-009		598350-010		598350-011	
	Field Id:	DT-1 WSW-1 @ 3'		DT-1 WSW-2 @ 1.5'		DT-1 FL-1@ 6'		DT-1 FL-2 @ 6'		DT-3 SSW @ 1'	
	Depth:	3- ft		1.5- ft		6- ft		6- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-05-18 10:00		Sep-05-18 10:10		Sep-05-18 10:20		Sep-05-18 10:30		Sep-05-18 10:40	
Chloride by EPA 300	***Extracted:***	Sep-10-18 16:30		Sep-11-18 12:15		Sep-11-18 12:15		Sep-11-18 12:15		Sep-11-18 12:15	
	Analyzed:	Sep-10-18 20:14		Sep-11-18 14:21		Sep-11-18 14:27		Sep-11-18 14:33		Sep-11-18 14:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		156	5.02	169	4.96	50.2	5.00	247	4.94	252	4.99

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

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: GJ West Coop Unit #011

Work Order #: 598350 **Project ID:**

Analyst: SCM **Date Prepared:** 09/10/2018 **Date Analyzed:** 09/10/2018

Lab Batch ID: 3062687 **Sample:** 7661993-1-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	255	102	250	254	102	0	90-110	20	

Analyst: SCM **Date Prepared:** 09/11/2018 **Date Analyzed:** 09/11/2018

Lab Batch ID: 3062836 **Sample:** 7662038-1-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

Form 3 - MS / MSD Recoveries

Project Name: GJ West Coop Unit #011

Work Order # : 598350 **Project ID:**

Lab Batch ID: 3062687 **QC- Sample ID:** 598350-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/10/2018 **Date Prepared:** 09/10/2018 **Analyst:** SCM

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	193	249	435	97	249	437	98	0	90-110	20	

Lab Batch ID: 3062687 **QC- Sample ID:** 598350-007 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/10/2018 **Date Prepared:** 09/10/2018 **Analyst:** SCM

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	156	251	407	100	251	403	98	1	90-110	20	

Lab Batch ID: 3062836 **QC- Sample ID:** 598340-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/11/2018 **Date Prepared:** 09/11/2018 **Analyst:** SCM

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	322	250	558	94	250	556	94	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: GJ West Coop Unit #011

Work Order # : 598350 **Project ID:**

Lab Batch ID: 3062836 **QC- Sample ID:** 598350-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/11/2018 **Date Prepared:** 09/11/2018 **Analyst:** SCM

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	82.5	250	330	99	250	331	99	0	90-110	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)
San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

Xenco Quote #

Xenco Job # 598350

Client / Reporting Information

Company Name / Branch: TRC Environmental Corporation
Company Address: 10 Desta Dr. Suite 150E, Midland, TX 79705
Email: jlowry@trcsolutions.com
Phone No: 432-466-4450
Project Contact: Joel Lowry
Samplers's Name: BECKY GRIFFIN

Project Information

Project Name/Number: QJ WEST COOP UNIT #011
Project Location: EDDY Co, NM
Invoice To: COG OPERATING & BECKY HASKELL
Invoice:

Analytical Information

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

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH TX1005	Chloride E 300	NORM	RCI	TCLP Benzene	TCLP RCRA 8 Metals	Chloride	TPH 8015 M Ext (NM)			Field Comments
1	DT-1 SSW-1 @ 3'	3FT	9-5-18	9:00	S	1										X									
2	DT-1 SSW-2 @ 3'	3FT	9-5-18	9:10	S	1										X									
3	DT-1 SSW-3 @ 3'	3FT	9-5-18	9:20	S	1										X									
4	DT-1 ESW-1 @ 3'	3 FT	9-5-18	9:30	S	1										X									
5	DT-1 ESW-2 @ 3'	3FT	9-5-18	9:35	S	1										X									
6	DT-1 ESW-3 @ 1½'	1.5FT	9-5-18	9:50	S	1										X									
7	DT-1 WSW-1 @ 3'	3FT	9-5-18	10:00	S	1										X									
8	DT-1 WSW-2 @ 1½'	1.5FT	9-5-18	10:10	S	1										X									
9	DT-1 FL-1 @ 6'	6 FT	9-5-18	10:20	S	1										X									
10	DT-1 FL-2 @ 6'	6 FT	9-5-18	10:30	S	1										X									

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] 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
- [ ] TRRP Checklist

Notes:

jlowry@trcsolutions.com
zconder@trcsolutions.com
bcooper@trcsolutions.com
FHASKELL@CONCHO.COM
FED-EX / UPS: Tracking # 660039177480

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	Becky Griffin	9-6-18 3:32				
2					9/6/18 4:25	9/7/18
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						135
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
						-0.4 RP 0.0

Notice: 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 loses 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.

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Dallas Texas (214-902-0300)
San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

CHAIN OF CUSTODY

Page 2 Of 2

Xenco Quote #

Xenco Job # 590350

Client / Reporting Information

Company Name / Branch: TRC Environmental Corporation
Company Address: 10 Desta Dr. Suite 150E, Midland, TX 79705
Email: jlowry@trcsolutions.com
Phone No: 432-466-4450
Project Contact: Joel Lowry
Samplers's Name:

Project Information

Project Name/Number: GJ WEST COOP UNIT #211
Project Location: EDDY CO, NM
Invoice To: COG OPERATING C/O BECKY HASKELL
Invoice:

Analytical Information

TPH TX1005	Chloride E 300	NORM	RCI	TCLP Benzene	TCLP RCRA 8 Metals	Chloride	TPH 8015 M Ext (NM)			

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

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH TX1005	Chloride E 300	NORM	RCI	TCLP Benzene	TCLP RCRA 8 Metals	Chloride	TPH 8015 M Ext (NM)			Field Comments
1	BT-3 SSW @ 1'	1ft	9-5-18	10:45	S	1										X									
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									

Turnaround Time (Business days)

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

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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:

jlowry@trcsolutions.com
zconder@trcsolutions.com
bcooper@trcsolutions.com
FHASKELL@CONCHO.COM
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	Becky Haskell	9-6-18 3:32			9/6/18 4:23	
2						9/7/18 1315
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
						-0.4 0.0

Notice: 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 loses 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: 09/07/2018 01:15:00 PM

Work Order #: 598350

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: 09/07/2018

Brianna Teel

Checklist reviewed by: Kelsey Brooks Date: 09/07/2018

Kelsey Brooks

Analytical Report 598987

for

TRC Solutions, Inc

Project Manager: Joel Lowry

GJ West Coop Unit 011

19-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

19-SEP-18

Project Manager: **Joel Lowry**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **598987**
GJ West Coop Unit 011
Project Address: Eddy Co, NM

Joel Lowry:

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) 598987. 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. 598987 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,

Kelsey Brooks
Project Manager

Sample Cross Reference 598987

TRC Solutions, Inc, Midland, TX

GJ West Coop Unit 011

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
DT-3 FL @3'	S	09-12-18 09:00	3 ft	598987-001
DT-3-WSW @1.5'	S	09-12-18 09:10	1.5 ft	598987-002
DT-3 ESW-1 @1.5'	S	09-12-18 09:20	1.5 ft	598987-003
DT-3 ESW-2 @ 1.5'	S	09-12-18 09:30	1.5 ft	598987-004
DT-2 SSW-1 @1'	S	09-12-18 09:40	1 ft	598987-005
DT-2 SSW-2 @1'	S	09-12-18 09:50	1 ft	598987-006
DT-2 WSW @1'	S	09-12-18 10:00	1 ft	598987-007
DT-2 FL-1 @2'	S	09-12-18 10:10	2 ft	598987-008
DT-2 FL-2 @2'	S	09-12-18 10:20	2 ft	598987-009

CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: GJ West Coop Unit 011

Project ID:
Work Order Number(s): *598987*

Report Date: *19-SEP-18*
Date Received: *09/13/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 598987

TRC Solutions, Inc, Midland, TX

Project Name: GJ West Coop Unit 011

Project Id:
Contact: Joel Lowry
Project Location: Eddy Co, NM

Date Received in Lab: Thu Sep-13-18 12:51 pm
Report Date: 19-SEP-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	598987-001		598987-002		598987-003		598987-004		598987-005		598987-006	
	Field Id:	DT-3 FL @3'		DT-3-WSW @1.5'		DT-3 ESW-1 @1.5'		DT-3 ESW-2 @ 1.5'		DT-2 SSW-1 @1'		DT-2 SSW-2 @1'	
	Depth:	3- ft		1.5- ft		1.5- ft		1.5- ft		1- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-12-18 09:00		Sep-12-18 09:10		Sep-12-18 09:20		Sep-12-18 09:30		Sep-12-18 09:40		Sep-12-18 09:50	
Chloride by EPA 300	***Extracted:***	Sep-17-18 16:45		Sep-17-18 16:45		Sep-17-18 16:45		Sep-17-18 16:45		Sep-17-18 16:45		Sep-17-18 16:45	
	Analyzed:	Sep-17-18 19:07		Sep-17-18 19:17		Sep-17-18 19:27		Sep-17-18 19:38		Sep-18-18 09:09		Sep-18-18 09:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		20.2	4.98	30.7	4.96	319	4.98	96.5	4.97	36.4	4.95	30.5	4.99

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 598987

TRC Solutions, Inc, Midland, TX

Project Name: GJ West Coop Unit 011

Project Id:
Contact: Joel Lowry
Project Location: Eddy Co, NM

Date Received in Lab: Thu Sep-13-18 12:51 pm
Report Date: 19-SEP-18
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	598987-007		598987-008		598987-009					
	Field Id:	DT-2 WSW @1'		DT-2 FL-1 @2'		DT-2 FL-2 @2'					
	Depth:	1- ft		2- ft		2- ft					
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	Sep-12-18 10:00		Sep-12-18 10:10		Sep-12-18 10:20					
Chloride by EPA 300	***Extracted:***	Sep-17-18 16:45		Sep-17-18 16:45		Sep-17-18 16:45					
	Analyzed:	Sep-18-18 09:50		Sep-18-18 10:00		Sep-18-18 10:11					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		156	4.96	71.5	4.98	33.5	4.97				

Kelsey Brooks
Project Manager

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: GJ West Coop Unit 011

Work Order #: 598987 **Project ID:**

Analyst: SCM **Date Prepared:** 09/17/2018 **Date Analyzed:** 09/17/2018

Lab Batch ID: 3063649 **Sample:** 7662457-1-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	<4.99	250	249	100	250	248	99	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

Form 3 - MS / MSD Recoveries

Project Name: GJ West Coop Unit 011

Work Order # : 598987 **Project ID:**

Lab Batch ID: 3063649 **QC- Sample ID:** 598987-004 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/18/2018 **Date Prepared:** 09/17/2018 **Analyst:** SCM

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	96.5	249	336	96	249	333	95	1	90-110	20	

Lab Batch ID: 3063649 **QC- Sample ID:** 599223-028 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/17/2018 **Date Prepared:** 09/17/2018 **Analyst:** SCM

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	76.8	249	351	110	249	352	111	0	90-110	20	X

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

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CHAIN OF CUSTODY

Page 1 Of 1

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

Xenco Quote #

Xenco Job # 599987

Client / Reporting Information

Company Name / Branch: TRC Environmental Corporation
Company Address: 10 Desta Dr. Suite 150E, Midland, TX 79705
Email: jlowry@trcsolutions.com
Phone No: 432-466-4450
Project Contact: Joel Lowry
Samplers's Name: Becky Griffin

Project Information

Project Name/Number: GJ WEST COOP UNIT #011
Project Location: EDDY CO, NM
Invoice To: COG OPERATING & BECKY HASKELL
Invoice:

Analytical Information

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

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH TX1005	Chloride E 300	NORM	RCI	TCLP Benzene	TCLP RCRA 8 Metals	Chloride	TPH 8015 M Ext (NM)			Field Comments
1	DT-3 FL@ 3'	3FT	9-12-18	9:00	S	1										X									
2	~~DT-3~~ DT3-WSW@ 1 1/2	1.5FT		9:10	S	1										X									
3	DT-3 ESW-1@ 1 1/2'	1.5FT		9:20	S	1										X									
4	DT-3 ESW-2@ 1 1/2'	1.5FT		9:30	S	1										X									
5	DT-2 SSW-1 @ 1'	1FT		9:40	S	1										X									
6	DT-2 SSW-2 @ 1'	1FT		9:50	S	1										X									
7	DT-2 WSW @ 1'	1FT		10:00	S	1										X									
8	DT-2 FL-1 @ 2'	2FT		10:10	S	1										X									
9	DT-2 FL-2 @ 2'	2FT		10:20	S	1										X									
10																									

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
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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:

jlowry@trcsolutions.com
zconder@trcsolutions.com
bcooper@trcsolutions.com
RHASKELL@CONCHO.COM
FED-EX / UPS: Tracking # 6266391 77918

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	Becky Griffin	9-12-18	Brittany Cox	Brittany Cox	9-12-18 3:00	9/13/18 1751
2	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3						
4	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
5						-1.4 / 0.0

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 09/13/2018 12:51:00 PM

Work Order #: 598987

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)?	1.4
#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: 09/13/2018

Brianna Teel

Checklist reviewed by: Kelsey Brooks Date: 09/14/2018

Kelsey Brooks

Analytical Report 599392

for

TRC Solutions, Inc

Project Manager: Joel Lowry

GJ West Coop Unit #011

25-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

25-SEP-18

Project Manager: **Joel Lowry**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **599392**
GJ West Coop Unit #011
Project Address:

Joel Lowry:

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) 599392. 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. 599392 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,

Kelsey Brooks
Project Manager

Sample Cross Reference 599392

TRC Solutions, Inc, Midland, TX

GJ West Coop Unit #011

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
DT-2 FL-3 @2'	S	09-17-18 08:00	2 ft	599392-001
DT-2 NSW- 1@1'	S	09-17-18 08:10	1 ft	599392-002
DT-2 NSW-2 @1'	S	09-17-18 08:20	1 ft	599392-003
DT-2 WSW-2 @1'	S	09-17-18 08:30	1 ft	599392-004
DT-2 ESW-1 @1'	S	09-17-18 08:40	1 ft	599392-005
DT-2 ESW-2@1'	S	09-17-18 08:50	1 ft	599392-006
DT-2 SSW @1'	S	09-17-18 09:00	1 ft	599392-007
DT-3 FL-2 @3'	S	09-17-18 10:00	1 ft	599392-008
DT-3 NSW- @1.5	S	09-17-18 10:10	1.5 ft	599392-009
DT-3 WSW-2 @1.5	S	09-17-18 10:20	1.5 ft	599392-010

CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: GJ West Coop Unit #011

Project ID:
Work Order Number(s): *599392*

Report Date: *25-SEP-18*
Date Received: *09/18/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 599392

TRC Solutions, Inc, Midland, TX

Project Name: GJ West Coop Unit #011

Project Id:
Contact: Joel Lowry
Project Location:

Date Received in Lab: Tue Sep-18-18 09:47 am
Report Date: 25-SEP-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	599392-001		599392-002		599392-003		599392-004		599392-005		599392-006	
	Field Id:	DT-2 FL-3 @2'		DT-2 NSW- 1@1'		DT-2 NSW-2 @1'		DT-2 WSW-2 @1'		DT-2 ESW-1 @1'		DT-2 ESW-2@1'	
	Depth:	2- ft		1- ft		1- ft		1- ft		1- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-17-18 08:00		Sep-17-18 08:10		Sep-17-18 08:20		Sep-17-18 08:30		Sep-17-18 08:40		Sep-17-18 08:50	
Chloride by EPA 300	***Extracted:***	Sep-21-18 10:50		Sep-21-18 10:50		Sep-21-18 10:50		Sep-21-18 10:50		Sep-21-18 10:50		Sep-21-18 10:50	
	Analyzed:	Sep-21-18 16:34		Sep-21-18 16:51		Sep-21-18 16:56		Sep-21-18 16:00		Sep-21-18 17:22		Sep-21-18 17:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		59.9	4.95	290	4.95	<4.97	4.97	58.3	4.97	234	5.00	264	5.00

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 599392

TRC Solutions, Inc, Midland, TX

Project Name: GJ West Coop Unit #011

Project Id:

Contact: Joel Lowry

Project Location:

Date Received in Lab: Tue Sep-18-18 09:47 am

Report Date: 25-SEP-18

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	599392-007		599392-008		599392-009		599392-010					
	Field Id:	DT-2 SSW @1'		DT-3 FL-2 @3'		DT-3 NSW- @1.5		DT-3 WSW-2 @1.5					
	Depth:	1- ft		1- ft		1.5- ft		1.5- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Sep-17-18 09:00		Sep-17-18 10:00		Sep-17-18 10:10		Sep-17-18 10:20					
Chloride by EPA 300	***Extracted:***	Sep-21-18 10:50		Sep-21-18 10:50		Sep-21-18 10:50		Sep-21-18 10:50					
	Analyzed:	Sep-21-18 17:33		Sep-21-18 17:56		Sep-21-18 18:02		Sep-21-18 18:19					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		406	4.95	<4.99	4.99	51.8	4.95	<5.00	5.00				

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

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: GJ West Coop Unit #011

Work Order #: 599392 **Project ID:**

Analyst: SCM **Date Prepared:** 09/21/2018 **Date Analyzed:** 09/21/2018

Lab Batch ID: 3064137 **Sample:** 7662774-1-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	250	100	250	252	101	1	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

Form 3 - MS / MSD Recoveries

Project Name: GJ West Coop Unit #011

Work Order # : 599392 **Project ID:**

Lab Batch ID: 3064137 **QC- Sample ID:** 599392-004 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/21/2018 **Date Prepared:** 09/21/2018 **Analyst:** SCM

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	58.3	249	325	107	249	326	108	0	90-110	20	

Lab Batch ID: 3064137 **QC- Sample ID:** 599508-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/21/2018 **Date Prepared:** 09/21/2018 **Analyst:** SCM

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	674	248	896	90	248	898	90	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.

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

XENCO Laboratories

☐ 4143 Greenbriar Drive, Stafford, TX 77477 **281-240-4200**
☐ 5332, Blackberry Drive, San Antonio, TX 78238 **210-509-3334**
☐ 9701 Harry Hines Blvd., Dallas, TX 75220 **214-902-0300**
☐ 12600 West I-20 East, Odessa, TX 79765 **432-563-1800**

Serial #: 330939 Page 1 of 1

Lab Only: 590392

Company-City	**Phone**
TRC SOLUTIONS	432-466-4450
Project Name-Location ☐ Previously done at XENCO	**Project ID**
QJ WEST COOP UNIT #011	
Proj. State: TX, AL, FL, GA, LA, MS, NC, NJ, PA, SC, TN, UT Other	**Proj. Manager (PM)** JOEL LOWRY
E-mail Results to ☐ PM and FHASKELL@CONCHO.COM, 3COOPER@TRCSOLUTIONS.COM, 2CONDER@TRCSOLUTIONS.COM	**Fax No:**
Invoice to ☐ Accounting ☐ Inc. Invoice with Final Report ☐ Invoice must have a P.O.	
Bill to: CONOCOPHILLIPS/BECKY HASKELL	
Quote/Pricing:	**P.O. No:** ☐ Call for P.O.

TAT: ASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d Standard TAT is project specific.
It is typically 5-7 Working Days for level II and 10+ Working days for level III and IV data.

Reg Program: UST DRY-CLEAN Land-Fill Waste-Disp NPDES DW **TRRP**

QAPP Per-Contract CLP AGCEE NAVY DOE DOD USACE OTHER:

Special DLs (GW DW QAPP MDLs RLs See Lab PM Included Call PM)

Sampler Name: BECKY GRIFFIN **Signature:**

	Sample ID	Sampling Date	Time	Depth ft' In" m	Matrix	Composite	Grab	# Containers	Container Size	Container Type	Preservatives	VOA: Full-List BTEX-MTBE EtOH Oxyg VOHs VOAs	VOA: PP TCL DW Appdx-1 Appdx-2 CALL Other:	PAHs SIM 8310 8270	TX-1005 DRO GRO MA EPH MA VPH	SVOCs: Full-List DW BN&AE TCLP PP Appdx-2 CALL	OC Pesticides PCBs Herbicides OP Pesticides	Metals: RCRA-8 RCRA-4 Pb 13PP 23TAL Appdx 1 Appdx2	SPLP - TCLP (Metals VOCs SVOCs Pest. Herb. PCBs)	EDB / DBCP	CHLORIDE E300	TATASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d	Addn: PAH above mg/L W, mg/Kg S Highest Hit	Hold Samples (Surcharges will apply and are pre-approved)	Sample Clean-ups are pre-approved as needed	Addn: Date Rcv. by: From:
1	DT-2FL-3@2'	9-17-18	8:00	2FT	S			1			I										X					1
2	DT-2NSW-1@1'	9-17-18	8:10	1FT	S			1			I										X					2
3	DT-2NSW-2@1'	9-17-18	8:20	1FT	S			1			I										X					3
4	DT-2WSW-2@1'	9-17-18	8:30	1FT	S			1			I										X					4
5	DT-2ESW-1@1'	9-17-18	8:40	1FT	S			1			I										X					5
6	DT-2ESW-2@1'	9-17-18	8:50	1FT	S			1			I										X					6
7	DT-2SSW@1'	9-17-18	9:00	1FT	S			1			I										X					7
8	DT-3FL-2@3'	9-17-18	10:00	3FT	S			1			I										X					8
9	DT-3NSW-1@1½'	9-17-18	10:10	1.5FT	S			1			I										X					9
10	DT-3WSW-2@1½'	9-17-18	10:20	1.5FT	S			1			I										X					10

Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time
1) BECKY	9-17-18 2:38	2) Maricruz Carrillo	9-17-18 2:38
3) Maricruz Carrillo	9-17-18 3:14	4)	9-16-18 0947
5)		6)	

Total Containers per COC: Cooler Temp: 0.2 °C

Otherwise agreed on writing. Reports are the [illegible]tual Property of XENCO until paid. Samples will be held 30 days af[illegible] report is e-mailed unless hereby requested. Rush Charges and Colle[illegible]es are pre-approved if needed.

Preservatives: Various (**V**), HCl pH<2 (**H**), H2SO4 pH<2 (**S**), HNO3 pH<2 (**N**), Asbc Acid&NaOH (**A**), ZnAc&NaOH (**Z**), (Cool, <4C) (**C**), None (**NA**),See Label (**L**), Other (**O**).
Cont. Size: 4oz (**4**), 8oz (**8**), 32oz (**32**), 40ml VOA (**40**), 1L (**1**), 500ml (**5**), Tedlar Bag (**B**), Various (**V**), Other _____ **Cont. Type:** Glass Amb (**A**), Glass C[illegible] Plastic (**P**), Various (**V**)

Matrix: Air (**A**), Product (**P**), Solid (**S**), Water (**W**), Liquid (**L**)

Committed to Excellence in Service and Quality www.xenco.com

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

ORIGIN ID:HOBA (575) 392-7550
**
MAIL SERVICES ETC, LLC
4008 N GRIMES

HOBBS, NM 88240
UNITED STATES US

SHIP DATE: 17SEP18
ACTWGT: 20.00 LB MAN
CAD: 0909328/CAFE3210
DIMS: 16x14x11 IN

BILL RECIPIENT

TO XENCO LABORATORIES
FEDEX EXPRESS SHIP CENTER
FEDEX SHIP CENTER
3600 COUNTY RD 1276 S

MIDLAND TX 79711
(432) 563-1800 REF:
INV:
PO: DEPT:

551C1/F78C/1B4C

FedEx
Express
E

J181118042001uv

TUE - 18 SEP HOLD
STANDARD OVERNIGHT
HLD

TRK# 6606 3917 8384
0201

MAFA
TX-US LBB

41 MAFA

Part # 156148-434 RIT EXP 03/19

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 09/18/2018 09:47:00 AM

Work Order #: 599392

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)?	.2
#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: 09/18/2018

Brianna Teel

Checklist reviewed by: Kelsey Brooks Date: 09/19/2018

Kelsey Brooks

Certificate of Analysis Summary 600459

TRC Solutions, Inc, Midland, TX

Project Name: GJ West #108

Project Id: GJ West #108
Contact: Joel Lowry
Project Location: Loco Hiss, NM

Date Received in Lab: Thu Sep-27-18 03:05 pm
Report Date: 03-OCT-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	600459-001		600459-002		600459-003		600459-004		600459-005		600459-006	
	Field Id:	108 - SSW #1		108 - SSW #3		108 - SSW #4		108 - NSW #1		108 - NSW #2		108 - NSW #3	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-25-18 08:45		Sep-25-18 09:00		Sep-25-18 09:05		Sep-25-18 09:10		Sep-25-18 09:15		Sep-25-18 09:20	
Chloride by EPA 300	***Extracted:***	Oct-01-18 11:00		Oct-01-18 11:00		Oct-01-18 11:00		Oct-01-18 11:00		Oct-01-18 11:00		Oct-01-18 11:00	
	Analyzed:	Oct-01-18 14:34		Oct-01-18 15:11		Oct-01-18 15:23		Oct-01-18 15:36		Oct-01-18 15:48		Oct-01-18 16:00	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		26.2	25.0	35.9	25.0	47.8	25.0	199	25.0	287	25.0	<25.0	25.0

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 600459

TRC Solutions, Inc, Midland, TX

Project Name: GJ West #108

Project Id: GJ West #108
Contact: Joel Lowry
Project Location: Loco Hiss, NM

Date Received in Lab: Thu Sep-27-18 03:05 pm
Report Date: 03-OCT-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	600459-007		600459-008		600459-009		600459-010					
	Field Id:	108 - ESW #1		108 - SSW #2		108 - SSW #5		108 - ESW #2					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Sep-25-18 09:25		Sep-25-18 09:30		Sep-25-18 09:35		Sep-25-18 09:40					
Chloride by EPA 300	***Extracted:***	Oct-01-18 11:00		Oct-01-18 11:00		Oct-01-18 11:00		Oct-01-18 11:00					
	Analyzed:	Oct-01-18 16:13		Oct-01-18 16:25		Oct-01-18 16:38		Oct-01-18 16:50					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		224	25.0	<25.0	25.0	312	25.0	361	25.0				

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Analytical Report 600459

for

TRC Solutions, Inc

Project Manager: Joel Lowry

GJ West #108

GJ West #108

03-OCT-18

Collected By: Client

6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

03-OCT-18

Project Manager: **Joel Lowry**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: XENCO Report No(s): **600459**
GJ West #108
Project Address: Loco Hiss, NM

Joel Lowry:

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) 600459. 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. 600459 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 600459

TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
108 - SSW #1	S	09-25-18 08:45		600459-001
108 - SSW #3	S	09-25-18 09:00		600459-002
108 - SSW #4	S	09-25-18 09:05		600459-003
108 - NSW #1	S	09-25-18 09:10		600459-004
108 - NSW #2	S	09-25-18 09:15		600459-005
108 - NSW #3	S	09-25-18 09:20		600459-006
108 - ESW #1	S	09-25-18 09:25		600459-007
108 - SSW #2	S	09-25-18 09:30		600459-008
108 - SSW #5	S	09-25-18 09:35		600459-009
108 - ESW #2	S	09-25-18 09:40		600459-010

Version: 1.%

CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: GJ West #108

Project ID: *GJ West #108*
Work Order Number(s): *600459*

Report Date: *03-OCT-18*
Date Received: *09/27/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 600459

TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	**108 - SSW #1**	Matrix:	Soil	Date Received:	09.27.18 15.05
Lab Sample Id:	600459-001	Date Collected:	09.25.18 08.45		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.01.18 11.00	Basis:	Wet Weight
Seq Number:	3064981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26.2**	25.0	mg/kg	10.01.18 14.34		1

Certificate of Analytical Results 600459

TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	**108 - SSW #3**	Matrix:	Soil	Date Received:	09.27.18 15.05
Lab Sample Id:	600459-002	Date Collected:	09.25.18 09.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.01.18 11.00	Basis:	Wet Weight
Seq Number:	3064981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**35.9**	25.0	mg/kg	10.01.18 15.11		1

Certificate of Analytical Results 600459

TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	**108 - SSW #4**	Matrix:	Soil	Date Received:	09.27.18 15.05
Lab Sample Id:	600459-003	Date Collected:	09.25.18 09.05		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.01.18 11.00	Basis:	Wet Weight
Seq Number:	3064981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**47.8**	25.0	mg/kg	10.01.18 15.23		1

Certificate of Analytical Results 600459

TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	**108 - NSW #1**	Matrix:	Soil	Date Received:	09.27.18 15.05
Lab Sample Id:	600459-004	Date Collected:	09.25.18 09.10		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.01.18 11.00	Basis:	Wet Weight
Seq Number:	3064981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**199**	25.0	mg/kg	10.01.18 15.36		1

Certificate of Analytical Results 600459

TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	**108 - NSW #2**	Matrix:	Soil	Date Received:	09.27.18 15.05
Lab Sample Id:	600459-005	Date Collected:	09.25.18 09.15		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.01.18 11.00	Basis:	Wet Weight
Seq Number:	3064981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**287**	25.0	mg/kg	10.01.18 15.48		1

Certificate of Analytical Results 600459

TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	**108 - NSW #3**	Matrix:	Soil	Date Received:	09.27.18 15.05
Lab Sample Id:	600459-006	Date Collected:	09.25.18 09.20		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.01.18 11.00	Basis:	Wet Weight
Seq Number:	3064981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	10.01.18 16.00	U	1

Certificate of Analytical Results 600459

TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	**108 - ESW #1**	Matrix:	Soil	Date Received:	09.27.18 15.05
Lab Sample Id:	600459-007	Date Collected:	09.25.18 09.25		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.01.18 11.00	Basis:	Wet Weight
Seq Number:	3064981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**224**	25.0	mg/kg	10.01.18 16.13		1

Certificate of Analytical Results 600459

TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	**108 - SSW #2**	Matrix:	Soil	Date Received:	09.27.18 15.05
Lab Sample Id:	600459-008	Date Collected:	09.25.18 09.30		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.01.18 11.00	Basis:	Wet Weight
Seq Number:	3064981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	10.01.18 16.25	U	1

Certificate of Analytical Results 600459

TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	**108 - SSW #5**	Matrix:	Soil	Date Received:	09.27.18 15.05
Lab Sample Id:	600459-009	Date Collected:	09.25.18 09.35		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.01.18 11.00	Basis:	Wet Weight
Seq Number:	3064981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**312**	25.0	mg/kg	10.01.18 16.38		1

Certificate of Analytical Results 600459

TRC Solutions, Inc, Midland, TX

GJ West #108

Sample Id:	**108 - ESW #2**	Matrix:	Soil	Date Received:	09.27.18 15.05
Lab Sample Id:	600459-010	Date Collected:	09.25.18 09.40		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.01.18 11.00	Basis:	Wet Weight
Seq Number:	3064981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**361**	25.0	mg/kg	10.01.18 16.50		1

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

QC Summary 600459

TRC Solutions, Inc

GJ West #108

Analytical Method: **Chloride by EPA 300** Prep Method: E300P

Seq Number: 3064981 Matrix: Solid Date Prep: 10.01.18

MB Sample Id: 7663353-1-BLK LCS Sample Id: 7663353-1-BKS LCSD Sample Id: 7663353-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.18	250	257	103	251	100	90-110	2	20	mg/kg	10.01.18 14:09	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P

Seq Number: 3064981 Matrix: Soil Date Prep: 10.01.18

Parent Sample Id: 600459-001 MS Sample Id: 600459-001 S MSD Sample Id: 600459-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	26.2	250	277	100	277	100	80-120	0	20	mg/kg	10.01.18 14:46	

MS/MSD Percent Recovery [D] = 100*(C-A) / B

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

LCS/LCSD Recovery [D] = 100 * (C) / [B]

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample

A = Parent Result

C = MS/LCS Result

E = MSD/LCSD Result

MS = Matrix Spike

B = Spike Added

D = MSD/LCSD % Rec

CHAIN OF CUSTODY

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Dallas Texas (214-902-0300)
San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

600459

Xenco Quote #

Xenco Job # 600459

Client / Reporting Information

Company Name / Branch: TRC Environmental Corporation
Company Address: 10 Desta Dr. Suite 150E, Midland, TX 79705
Email: jlowry@trcsolutions.com
Phone No: 432-466-4450
Project Contact: Joel Lowry
Samplers's Name:

Project Information

Project Name/Number: GJ West #108
Project Location: Loco Hills, NM
Invoice To: COG Operating, C/O Becky Haskell
Invoice:

Analytical Information

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

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH TX1005	Chloride E 300	NORM	RCI	TCLP Benzene	TCLP RCRA 8 Metals	Chloride	TPH 8015 M Ext (NM)			Field Comments
1	108 - SSW #1	4'	9/25/2018	845	s	1										x									1
2	108 - SSW #3	4'	9/25/2018	900	s	1										x									2
3	108 - SSW #4	4'	9/25/2018	905	s	1										x									3
4	108 - NSW #1	4'	9/25/2018	910	s	1										x									4
5	108 - NSW #2	4'	9/25/2018	915	s	1										x									5
6	108 - NSW #3	4'	9/25/2018	920	s	1										x									6
7	108 - ESW #1	4'	9/25/2018	925	s	1										x									7
8	108 - SSW #2	4'	9-25-18	930	S	1										X									8
9	108 - SSW #5	4'	9-25-18	935	S	1										X									9
10	108 - ESW #2	4'	9-25-18	940	S	1										X									10

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] 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
- [ ] TRRP Checklist

Notes:

jlowry@trcsolutions.com
zconder@trcsolutions.com
bcooper@trcsolutions.com

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		9/26/18		2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
			5			4.4 / 4.4

Notice: 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 loses 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: 09/27/2018 03:05:00 PM

Work Order #: 600459

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-3

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.4
#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: Brenda Ward Date: 09/27/2018
Brenda Ward

Checklist reviewed by: Kelsey Brooks Date: 09/27/2018
Kelsey Brooks

Analytical Report 618678

for

TRC Solutions, Inc

Project Manager: Jared Stoffel

GJ West

30-MAR-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

30-MAR-19

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

Reference: XENCO Report No(s): **618678**
GJ West
Project Address: Loco Hills, NM

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) 618678. 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. 618678 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,

Mike Kimmel
Client Services Manager

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 618678

TRC Solutions, Inc, Midland, TX

GJ West

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1 @ 35'	S	03-21-19 10:00		618678-001
SB-1 @ 40'	S	03-21-19 10:10		618678-002
SB-2 @ 20'	S	03-21-19 13:50		618678-003
SB-2 @ 25'	S	03-21-19 14:00		618678-004
SB-2 @ 30'	S	03-21-19 14:10		618678-005
SB-2 @ 35'	S	03-21-19 14:20		618678-006

Version: 1.%

CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: GJ West

Project ID:
Work Order Number(s): *618678*

Report Date: *30-MAR-19*
Date Received: *03/22/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3083758 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 618678-003,618678-001.

Batch: LBA-3083865 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 618678-006.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 618678

TRC Solutions, Inc, Midland, TX

Project Name: GJ West

Project Id:
Contact: Jared Stoffel
Project Location: Loco Hills, NM

Date Received in Lab: Fri Mar-22-19 04:18 pm
Report Date: 30-MAR-19
Project Manager: Mike Kimmel

Analysis Requested													
	Lab Id:	618678-001		618678-002		618678-003		618678-004		618678-005		618678-006	
	Field Id:	SB-1 @ 35'		SB-1 @ 40'		SB-2 @ 20'		SB-2 @ 25'		SB-2 @ 30'		SB-2 @ 35'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-21-19 10:00		Mar-21-19 10:10		Mar-21-19 13:50		Mar-21-19 14:00		Mar-21-19 14:10		Mar-21-19 14:20	
BTEX by EPA 8021B	*Extracted:*	Mar-27-19 17:00		Mar-27-19 17:00		Mar-27-19 17:00		Mar-28-19 13:00		Mar-28-19 13:00		Mar-28-19 13:00	
	Analyzed:	Mar-28-19 14:55		Mar-28-19 15:14		Mar-28-19 15:33		Mar-28-19 19:31		Mar-28-19 19:50		Mar-28-19 20:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Toluene		0.00267	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Ethylbenzene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
m,p-Xylenes		0.00513	0.00403	<0.00398	0.00398	<0.00400	0.00400	<0.00401	0.00401	<0.00402	0.00402	<0.00398	0.00398
o-Xylene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Total Xylenes		0.00513	0.00202	<0.00199	0.00199	<0.002	0.002	<0.002	0.002	<0.00201	0.00201	<0.00199	0.00199
Total BTEX		0.0078	0.00202	<0.00199	0.00199	<0.002	0.002	<0.002	0.002	<0.00201	0.00201	<0.00199	0.00199
Chloride by EPA 300	*Extracted:*	Mar-25-19 15:20		Mar-25-19 15:20		Mar-25-19 15:20		Mar-25-19 15:20		Mar-25-19 15:20		Mar-25-19 15:20	
	Analyzed:	Mar-25-19 19:12		Mar-25-19 18:33		Mar-25-19 20:10		Mar-25-19 20:20		Mar-25-19 20:30		Mar-25-19 20:40	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		205	5.01	103	4.97	337	4.99	142	4.98	50.3	4.95	61.6	5.00
TPH by SW8015 Mod	*Extracted:*	Mar-25-19 17:00		Mar-25-19 17:00		Mar-25-19 17:00		Mar-25-19 17:00		Mar-25-19 17:00		Mar-25-19 17:00	
	Analyzed:	Mar-26-19 03:47		Mar-26-19 04:06		Mar-26-19 04:25		Mar-26-19 04:44		Mar-26-19 05:03		Mar-26-19 05:22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15	15	<15	15	<15	15	<15	15	<15	15	<15	15

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

Version: 1.%

Mike Kimmel
Client Services Manager

Final 1.000

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: GJ West

Work Orders : 618678,

Project ID:

Lab Batch #: 3083357 **Sample:** 618678-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/26/19 03:47

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.9	99.7	91	70-135	
o-Terphenyl	44.7	49.9	90	70-135	

Lab Batch #: 3083357 **Sample:** 618678-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/26/19 04:06

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.4	99.9	92	70-135	
o-Terphenyl	44.8	50.0	90	70-135	

Lab Batch #: 3083357 **Sample:** 618678-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/26/19 04:25

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	52.3	50.0	105	70-135	

Lab Batch #: 3083357 **Sample:** 618678-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/26/19 04:44

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.9	99.8	92	70-135	
o-Terphenyl	45.7	49.9	92	70-135	

Lab Batch #: 3083357 **Sample:** 618678-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/26/19 05:03

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.6	99.7	92	70-135	
o-Terphenyl	45.2	49.9	91	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: GJ West

Work Orders : 618678,

Project ID:

Lab Batch #: 3083357 **Sample:** 618678-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/26/19 05:22

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.6	99.8	93	70-135	
o-Terphenyl	45.9	49.9	92	70-135	

Lab Batch #: 3083758 **Sample:** 618678-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/28/19 14:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	70-130	
4-Bromofluorobenzene	0.0407	0.0300	136	70-130	**

Lab Batch #: 3083758 **Sample:** 618678-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/28/19 15:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	0.0300	116	70-130	
4-Bromofluorobenzene	0.0370	0.0300	123	70-130	

Lab Batch #: 3083758 **Sample:** 618678-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/28/19 15:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0338	0.0300	113	70-130	
4-Bromofluorobenzene	0.0412	0.0300	137	70-130	**

Lab Batch #: 3083865 **Sample:** 618678-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/28/19 19:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0349	0.0300	116	70-130	
4-Bromofluorobenzene	0.0372	0.0300	124	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: GJ West

Work Orders : 618678,

Project ID:

Lab Batch #: 3083865 **Sample:** 618678-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/28/19 19:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	0.0300	116	70-130	
4-Bromofluorobenzene	0.0368	0.0300	123	70-130	

Lab Batch #: 3083865 **Sample:** 618678-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/28/19 20:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0343	0.0300	114	70-130	
4-Bromofluorobenzene	0.0393	0.0300	131	70-130	**

Lab Batch #: 3083357 **Sample:** 7674328-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/25/19 21:25

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	54.0	50.0	108	70-135	

Lab Batch #: 3083758 **Sample:** 7674521-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/28/19 07:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0352	0.0300	117	70-130	
4-Bromofluorobenzene	0.0339	0.0300	113	70-130	

Lab Batch #: 3083865 **Sample:** 7674624-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/28/19 18:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0348	0.0300	116	70-130	
4-Bromofluorobenzene	0.0327	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.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: GJ West

Work Orders : 618678,

Project ID:

Lab Batch #: 3083357 **Sample:** 7674328-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/25/19 21:44

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	56.7	50.0	113	70-135	

Lab Batch #: 3083758 **Sample:** 7674521-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/28/19 06:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0333	0.0300	111	70-130	
4-Bromofluorobenzene	0.0335	0.0300	112	70-130	

Lab Batch #: 3083865 **Sample:** 7674624-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/28/19 17:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	70-130	
4-Bromofluorobenzene	0.0324	0.0300	108	70-130	

Lab Batch #: 3083357 **Sample:** 7674328-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/25/19 22:03

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	56.3	50.0	113	70-135	

Lab Batch #: 3083758 **Sample:** 7674521-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/28/19 06:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0327	0.0300	109	70-130	
4-Bromofluorobenzene	0.0330	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.%

Form 2 - Surrogate Recoveries

Project Name: GJ West

Work Orders : 618678,

Project ID:

Lab Batch #: 3083865 **Sample:** 7674624-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/28/19 17:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0335	0.0300	112	70-130	
4-Bromofluorobenzene	0.0320	0.0300	107	70-130	

Lab Batch #: 3083357 **Sample:** 618713-021 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/25/19 22:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	54.0	50.0	108	70-135	

Lab Batch #: 3083758 **Sample:** 619201-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/28/19 06:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	70-130	
4-Bromofluorobenzene	0.0390	0.0300	130	70-130	

Lab Batch #: 3083865 **Sample:** 619284-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/28/19 17:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0339	0.0300	113	70-130	
4-Bromofluorobenzene	0.0339	0.0300	113	70-130	

Lab Batch #: 3083357 **Sample:** 618713-021 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/25/19 23:00

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	48.8	50.0	98	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: GJ West

Work Orders : 618678,

Project ID:

Lab Batch #: 3083758 **Sample:** 619201-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/28/19 07:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0332	0.0300	111	70-130	
4-Bromofluorobenzene	0.0365	0.0300	122	70-130	

Lab Batch #: 3083865 **Sample:** 619284-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/28/19 18:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0339	0.0300	113	70-130	
4-Bromofluorobenzene	0.0338	0.0300	113	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: GJ West

Work Order #: 618678 **Project ID:**

Analyst: SCM **Date Prepared:** 03/27/2019 **Date Analyzed:** 03/28/2019

Lab Batch ID: 3083758 **Sample:** 7674521-1-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	<0.00199	0.0996	0.122	122	0.0998	0.119	119	2	70-130	35	
Toluene	<0.00199	0.0996	0.120	120	0.0998	0.117	117	3	70-130	35	
Ethylbenzene	<0.000563	0.0996	0.102	102	0.0998	0.100	100	2	70-130	35	
m,p-Xylenes	<0.00101	0.199	0.198	99	0.200	0.196	98	1	70-130	35	
o-Xylene	<0.00199	0.0996	0.101	101	0.0998	0.0997	100	1	70-130	35	

Analyst: ALJ **Date Prepared:** 03/28/2019 **Date Analyzed:** 03/28/2019

Lab Batch ID: 3083865 **Sample:** 7674624-1-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	<0.00198	0.0992	0.122	123	0.0996	0.129	130	6	70-130	35	
Toluene	<0.00198	0.0992	0.118	119	0.0996	0.126	127	7	70-130	35	
Ethylbenzene	<0.000560	0.0992	0.101	102	0.0996	0.107	107	6	70-130	35	
m,p-Xylenes	<0.00101	0.198	0.197	99	0.199	0.209	105	6	70-130	35	
o-Xylene	<0.00198	0.0992	0.0990	100	0.0996	0.104	104	5	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

Version: 1.%

BS / BSD Recoveries

Project Name: GJ West

Work Order #: 618678 **Project ID:**

Analyst: SPC **Date Prepared:** 03/25/2019 **Date Analyzed:** 03/25/2019

Lab Batch ID: 3083312 **Sample:** 7674297-1-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	256	102	250	256	102	0	90-110	20	

Analyst: ARM **Date Prepared:** 03/25/2019 **Date Analyzed:** 03/25/2019

Lab Batch ID: 3083357 **Sample:** 7674328-1-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	1120	112	1000	1100	110	2	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	1100	110	1000	1050	105	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

Version: 1.%

Form 3 - MS / MSD Recoveries

Project Name: GJ West

Work Order # : 618678 **Project ID:**

Lab Batch ID: 3083758 **QC- Sample ID:** 619201-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/28/2019 **Date Prepared:** 03/27/2019 **Analyst:** SCM

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	0.000481	0.0992	0.0942	94	0.100	0.114	114	19	70-130	35	
Toluene	0.00906	0.0992	0.102	94	0.100	0.116	107	13	70-130	35	
Ethylbenzene	0.0786	0.0992	0.0851	7	0.100	0.0959	17	12	70-130	35	X
m,p-Xylenes	0.0665	0.198	0.188	61	0.201	0.211	72	12	70-130	35	X
o-Xylene	0.0339	0.0992	0.0971	64	0.100	0.107	73	10	70-130	35	X

Lab Batch ID: 3083865 **QC- Sample ID:** 619284-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/28/2019 **Date Prepared:** 03/28/2019 **Analyst:** ALJ

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	<0.000383	0.0996	0.102	102	0.100	0.113	113	10	70-130	35	
Toluene	<0.000454	0.0996	0.0985	99	0.100	0.108	108	9	70-130	35	
Ethylbenzene	<0.000563	0.0996	0.0829	83	0.100	0.0914	91	10	70-130	35	
m,p-Xylenes	<0.00101	0.199	0.163	82	0.201	0.179	89	9	70-130	35	
o-Xylene	0.000349	0.0996	0.0816	82	0.100	0.0896	89	9	70-130	35	

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: GJ West

Work Order # : 618678 **Project ID:**

Lab Batch ID: 3083312 **QC- Sample ID:** 618678-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/25/2019 **Date Prepared:** 03/25/2019 **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	103	249	364	105	249	364	105	0	90-110	20	

Lab Batch ID: 3083312 **QC- Sample ID:** 618757-004 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/25/2019 **Date Prepared:** 03/25/2019 **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	24.8	250	283	103	250	284	104	0	90-110	20	

Lab Batch ID: 3083357 **QC- Sample ID:** 618713-021 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/25/2019 **Date Prepared:** 03/25/2019 **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)	<8.00	1000	1160	116	1000	1020	102	13	70-135	20	
Diesel Range Organics (DRO)	12.3	1000	1140	113	1000	1010	100	12	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.

Final 1.000

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 1 Of 1

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 # 618678

Client / Reporting Information

Company Name / Branch: TRC Midland
Company Address: 10 Desta Dr STE 150E
Email: jstoffel@trcsolutions.com | Phone No:
Project Contact: Jared Stoffel
Samplers's Name: Jared Stoffel

Project Information

Project Name/Number: GJ West
Project Location: Loco Hills, NM
Invoice To: COG
PO Number:

Analytical Information

No.	Field ID / Point of Collection	Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOHZn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	SW 846-8021B (BTEX)	SW 8015M (TPH)	E300 (Chloride)	Hold
1	SB-1 @ 35'		3/21/19	1000	Soil	1								X	X	X	X	
2	SB-1 @ 40'		3/21/19	1010	Soil	1								X	X	X	X	
3	SB-2 @ 20'		3/21/19	1350	Soil	1								X	X	X	X	
4	SB-2 @ 25'		3/21/19	1400	Soil	1								X	X	X	X	
5	SB-2 @ 30'		3/21/19	1410	Soil	1								X	X	X	X	
6	SB-2 @ 35'		3/21/19	1420	Soil	1								X	X	X	X	
7																		
8																		
9																		
10																		

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

Field Comments

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] 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		3/22/19	1	2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
			5			-0.2 / 0.1 / -0.1

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

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 03/22/2019 04:18:00 PM

Work Order #: 618678

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
#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: 03/22/2019

Brianna Teel

Checklist reviewed by: Mike Kimmel Date: 03/27/2019

Mike Kimmel

COG- GJ West #108 (2RP-4351)
Date: 4/12/2019

Photographic Documentation

Photograph No. 1 **Date:** **8/22/2019** **Direction:** **Southwest** **Description:** **View of excavated area.**	
Photograph No. 2 **Date:** **8/15/2018** **Direction:** **Southwest** **Description:** **Partially buried liner.**	

COG- GJ West #108 (2RP-4351)
Date: 4/12/2019

Photographic Documentation

Photograph No. 3 **Date: 10/8/2018** **Direction: Northeast** **Description:** **Liner installation.**	
Photograph No. 4 **Date: 3/10/2019** **Direction: Northeast** **Description: View of backfilled area with boring conduit.**	

COG- GJ West #011 (2RP-4454)
Date: 4/12/2019

Photographic Documentation

Photograph No. 5 **Date: 9/17/2018** **Direction: North** **Description:** **View of excavated area.**	
Photograph No. 6 **Date: 9/17/2018** **Direction: South** **Description:** **View of excavated area.**	

COG- GJ West #011 (2RP-4454)
Date: 4/12/2019

Photographic Documentation

Photograph No. 7 **Date:** **9/25/2018** **Direction:** **West** **Description:** **View of liner installation.**	
Photograph No. 8 **Date:** **9/25/2018** **Direction:** **North** **Description:** **View of liner installation.**	

COG- GJ West #011 (2RP-4454)
Date: 4/12/2019

Photographic Documentation

Photograph No. 9 **Date: 10/15/2018** **Direction: West** **Description:** **View of backfilled area.**	
Photograph No. 10 **Date: 10/15/2018** **Direction: Southwest** **Description:** **View of backfilled area.**	

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 17 2017
RECEIVED

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

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1723329504

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: COG Operating LLC OGRID # 229137	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-683-7443
Facility Name: G J West Coop Unit #108	Facility Type: Well

Surface Owner: State	Mineral Owner: State	API No. 30-015-20192

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	28	17S	29E	1980	North	660	West	Eddy

Latitude 32.8073502 **Longitude** -104.0862198

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 3,075 bbl.	Volume Recovered: 3,055 bbl.
Source of Release: Plugged Well	Date and Hour of Occurrence: August 7, 2017 12:00 pm	Date and Hour of Discovery: August 7, 2017 12:00 pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Ms. Weaver – NMOCD / Ms. Groves – SLO	
By Whom? Rebecca Haskell	Date and Hour: August 9, 2017 8:42 am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The release was from a well that was previously plugged in 2015. The release was discovered by air patrol and immediate actions were taken to regain control of the well. The well will be re-plugged. The release is currently under control, if additional fluids are lost subsequent to the filling of this Initial C-141 a revised C-141 will be submitted with updated volumes.

Describe Area Affected and Cleanup Action Taken.*

The release was on location. A liner was installed to capture produced water and limit impact to soil. Vacuum trucks were dispatched to remove all freestanding fluids. Approximately 1,008 cubic yards of impacted soil was excavated and taken to a NMOCD approved disposal facility. Concho will have the spill area sampled to delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant 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 NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Rebecca Haskell	OIL CONSERVATION DIVISION
Printed Name: Rebecca Haskell	Approved by Environmental Specialist:
Title: Senior HSE Coordinator	Approval Date: 8/18/17 Expiration Date: N/A
E-mail Address: rhaskell@concho.com	Conditions of Approval: see attached - Attached ☒ 2RP-4351
Date: August 17, 2017 Phone: 432-683-7443	

* Attach Additional Sheets If Necessary

Please refer to the New Mexico Oil Conservation Division Website for updated form(s) at: http://www.emnrd.state.nm.us/OCD/forms.html Thank you

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 23 2017
RECEIVED

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

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

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1729754125

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: COG Operating, LLC OGRID #229137	Contact: Robert McNeil
Address: 600 West Illinois Avenue, Midland, TX 79701	Telephone No. 432-683-7443
Facility Name: G J West Coop Unit #011	Facility Type: Injection Well

Surface Owner: State	Mineral Owner: State	API No. 30-015-10827

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	28	17S	29E	1980	North	330	West	Eddy

Latitude 32.8073502 Longitude -104.0872955 NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: Unknown TBD	Volume Recovered: 8,740 bbls as of 6:00 am October 23, 2017
Source of Release: Injection Well	Date and Hour of Occurrence: October 15, 2017 10:20 am	Date and Hour of Discovery: October 15, 2017 10:20 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Ms. Weaver – NMOCD / Ms. Groves - SLO	
By Whom? Rebecca Haskell	Date and Hour: October 15, 2017 12:50 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The release is from an injection well. Produced water is coming up to the surface. Immediate actions were taken to regain control of the well and are still ongoing. The well will be plugged. A berm was constructed around the well to capture the produced water and is being recovered and disposed of. The Initial C-141 will be revised with a corrected volume once the release is stopped.

Describe Area Affected and Cleanup Action Taken.*

The release is on location. A berm was constructed to capture the produced water and limit impact to soil. Vacuum trucks were dispatched to remove all freestanding fluids. Concho will have the spill area sampled to delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant 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 NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Rebecca Haskell	OIL CONSERVATION DIVISION
Printed Name: Rebecca Haskell	Approved by Environmental Specialist:
Title: Senior HSE Coordinator	Approval Date: 10/24/17 Expiration Date: N/A
E-mail Address: rhaskell@concho.com	Conditions of Approval: see attached Attached ☒ 2RP-4154
Date: October 23, 2017 Phone: 432-683-7443	

* Attach Additional Sheets If Necessary

10/24/17 AB

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 205120

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 205120
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	5/2/2023