Kegan W. Boyer, P.G.
Project Manager

Upstream Business Unit
Environmental Management Company
1400 Smith Street
Room 07076
Houston, Texas 77002
Tel 713-372-7705
kegan.boyer@chevron.com

January 17, 2017

RECEIVED
By OCD Dr Oberding at 7:15 am, Jan 19, 2017

Ms. Kristen Lynch
Environmental Specialist, District 1
Oil Conservation Division, EMNRD
1625 N. French Drive
Hobbs, New Mexico 88240

APPROVED
By OCD Dr Oberding at 12:20 pm, Jan 19, 2017

Re: Remediation Summary Report
Howse 1(API 30-025-36226)
RP No. 4311

Ms. Lynch,

Chevron Environmental Management Company (CEMC) is submitting the attached report entitled: *Remediation Summary Report, Howse #1 (API #30-025-36226), OCD RP #4311, Section 17, Township 20-S, Range 39-E, Latitude N 32.571190°, Longitude W -103.075300°, Lea County, New Mexico* dated January 11, 2017.

This report documents the results of the remediation and final site closure activities performed at the former tank battery location associated with the plugged Howse 1 well location (API 30-025-36226). This report was prepared for CEMC by GHD Services, Inc. (GHD, formerly Conestoga-Rovers & Associates). This report is submitted as an attachment to the included final C-141 for the site.

CEMC now considers remedial activities at this site to be complete and respectfully requests that the NMOCD grant a no further action status to the site. Should you have any questions regarding the content of the report, please do not hesitate to contact me by phone at 713-372-7705 or via e-mail at kegan.boyer@chevron.com.

Sincerely,

Kegan W. Boyer, P.G.
Environmental Project Manager

encl: *Final C-141* and *Remediation Summary Report*

cc: Bernie Bockisch, GHD
Leslie Lehrman, GHD

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

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Chevron U.S.A.	Contact Kegan Boyer, Chevron EMC
2401 Avenue O, Eunice, NM 88231	Telephone No. 713-372-7705
Facility Name Howse #1	Facility Type Former Saltwater Disposal Well

Surface Owner Chevron U.S.A.	Mineral Owner	API No. 30-025-36226

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	17	20-S	39-E	1960	South	390	West	Lea

Latitude 32.571190° **Longitude** -103.075300°

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release Unknown	Volume Recovered None
Source of Release Unknown	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 5/6/2016
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
During decommissioning and demolition activities in March 2016, soils beneath the former tank battery location were removed to a depth ranging from 1 to 3 feet below ground surface in an approximately 50 ft x 120 ft area. Three 3 ft x 6 ft x 10 ft test pits were advanced down the center of the excavation and a soil sample was collected from the bottom of each pit. Analytical data results indicate that chloride concentrations exceeded the New Mexico RRAL's in all three soil samples.

Describe Area Affected and Cleanup Action Taken.*
The affected area is located below the pad of a former tank battery. The site is a former oil production and salt water disposal well site that contained a tank battery. The tank battery was removed and the well was plugged. Following the results of the assessment in March 2016, two additional soils investigations occurred in April and June 2016 to assess impacted soil. Approximately 325 cy of impacted soil was removed from the excavation to 4 feet below ground surface in November 2016. A 20-mil polyethylene liner was placed in the bottom of the excavation. Impacted soil was stockpiled into three stockpiles on-site and a 5-point composite sample was collected from each. Sample results were below 600 mg/kg (NMOCD approved concentration for backfilling) so material was used as backfill along with additional material from a Chevron borrow pit. Following completion of backfilling, the area was wheel compacted to grade, and re-vegetated with a BLM- approved seed mix.

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: AS AGENT FOR CUSA	OIL CONSERVATION DIVISION
Printed Name: Kegan Boyer	Approved by ~~Environmental Specialist~~: Hydrologist
Title: Environmental Project Manager, Chevron EMC	Approval Date: 01/19/2017 Expiration Date: ////
E-mail Address: Kegan.Boyer@chevron.com	Conditions of Approval: //// Attached ☐
Date: JANUARY 9, 2017 Phone: 713-372-7705	1RP-4311

* Attach Additional Sheets If Necessary

nJXK1616554410 pJXK1616554532

January 11, 2017 Reference No. 11121230(4)

Mr. Kegan Boyer
Chevron Environmental Management Company
1400 Smith Street, Room 07086
Houston, Texas 77002

Re: Remediation Summary Report
Howse #1 (API #30-025-36226)
OCD RP #4311
Section 17, Township 20-S, Range 39-E
Latitude N 32.571190°, Longitude W -103.075300°
Lea County, New Mexico

Dear Mr. Boyer:

GHD Services, Inc. (GHD) is pleased to submit this summary report to Chevron Environmental Management Company (CEMC) summarizing remediation activities for the above referenced site (Site) as an attachment to Form C-141. The Howse #1 site is located 11 miles northeast of Eunice in Lea County, New Mexico (Figure 1) within the Howse (San Andres) Oil Field.

1. Site Background

1.1 Soils Investigation – March 2016

The Site is a former oil production and salt water disposal well site that formerly contained a tank battery. During decommissioning and demolition activities conducted by Chevron USA, Inc. in March 2016, soils beneath the tank battery location were removed to a depth of 1 to 3 feet (ft) below ground surface (bgs) in an approximately 20 ft x 120 ft area. To assess the former production equipment area for potential impacts, three soil samples were collected from three 3 ft x 6 ft x 10 ft test pits located in the center of the excavation area beneath the former tank battery location.

Chloride concentrations above New Mexico Oil Conservation Division (NMOCD) Recommended Remedial Action Limits (RRALs) were identified in the analytical results from the three samples, identified as A, B, and C. The specific location and depth of these samples, however, was unknown. Soil analytical results are provided in Table 1.

1.2 Soils Investigation – April 2016

Following the completion of the test pit sampling, GHD conducted a limited soil assessment on April 25 to 28, 2016. A total of fourteen samples were collected from the former tank battery area. Samples were collected from trench locations dug using a backhoe. Benzene, toluene, ethylbenzene and xylenes (BTEX) and total petroleum hydrocarbons (TPH) were not detected in any samples. Chloride exceeded the RRAL of 250 milligrams per kilogram (mg/kg) in five soil samples (#1, #5, #8, #10 and #11), at depths ranging from 4 ft to 12 ft bgs. Soil sample locations and analytical results are included on Figure 2 and also included in Table 1.

Horizontal assessment of chloride impacts was performed during this sampling event. Results of this sampling event were documented in the *Soil Assessment Summary Report* provided to the NMOCD on June 6, 2016. As chloride concentrations in soil exceeded the NMOCD RRAL of 250 mg/kg, an initial Form C-141 was prepared in accordance with New Mexico Administrative Code 19.15.29 and included in the *Soil Assessment Summary Repor*t submittal.

1.3 Soil Boring Assessment - June 2016

Soil boring assessment activities were conducted on June 22, 2016 to assess the vertical extent of chloride concentrations above NMOCD RRALs. Two borings were installed near locations where previous sampling indicated chloride concentrations in soil. Activities performed were conducted in general accordance with the *Initial Site Assessment Work Plan* submitted to the NMOCD on April 13, 2016.

Soil borings were installed to a total depth of 40 ft bgs. Six samples were collected from each of the two soil borings starting at 10 ft bgs, and every 5 ft thereafter to a depth of 35 ft bgs. Chloride was detected at concentrations above RRALs in four samples: SB-1 (10 and 15 ft bgs) and SB-2 (15 and 20 ft bgs). The analytical results indicated that chloride concentrations were below RRALs in at least a 15 foot soil interval above the water table in each soil boring. Groundwater was not encountered in either soil boring location. Results of this soil boring assessment were documented in the *Phase Two: Delineation Soil Boring Assessment Summary Report and Phase Three Work Plan* provided to the NMOCD on October 4, 2016. Soil boring locations and analytical results are included in Table 1.

1.4 Regulatory Framework

There are relatively few groundwater wells in the area of the Site with which to obtain a depth to groundwater. No wells were identified within the vicinity of the site using the NMOCD GIS Oil and Gas Map. The United States Geological Survey (USGS) database was also reviewed for current groundwater data.

The USGS database indicated the presence of two wells located in the vicinity of the Site. The closest well (well number 323405103044501), was reportedly located approximately 0.70 miles southwest of the Site. The depth to groundwater in this well was 46.37 ft bgs as of January 7, 2016. The depth to groundwater in the second well (well number 323555103053201), was 80.18 ft bgs as of February 3, 2016. The second well was reportedly located approximately 2.4 miles north of the site. An extrapolation of these well depths would indicate that the depth to groundwater at the site would be

approximately 55 ft bgs. Groundwater was not encountered in either of the soil borings installed to a total depth of 40 ft bgs in June 2016.

There do not appear to be any well head protection areas and no surface water bodies within 200 to 1,000 ft of the Site. Therefore, the preliminary total ranking score for the Site is 10 (see summary table below).

Based on this score, the applicable NMOCD Site-specific RRALs are 10 mg/kg for benzene, 50 mg/kg for total BTEX, 1,000 mg/kg for TPH, and 250 mg/kg for chlorides.

New Mexico Oil Conservation Division Site Assessment	
Ranking Criteria	Score
Depth to Ground Water (50-99 ft bgs)	10
Wellhead Protection Area (> 1,000 ft from water source, > 200 ft from domestic source)	0
Distance to Surface Body Water (200-1,000 ft)	0
Ranking Criteria Total Score	**10***
**Because the ranking criteria total score is 10, NMOCD established RRALs are 10 mg/kg for benzene, 50 mg/kg for total BTEX, 1,000 mg/kg for TPH[1], and 250 mg/kg for chlorides.*	

1. NMOCD Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993

During development of the Phase Three scope of work, further described in Section 3, GHD contacted Mr. Jim Griswold at the NMOCD on August 11, 2016 to discuss options for re-use of the excavated soils as backfill material. Jim Griswold confirmed that the excavated soils can be utilized as backfill if analytical results indicate that the chloride concentrations of the stockpiled soil are below 600 mg/kg.

2. Remediation and Pit Closure Activities – November 2016

Remediation activities were conducted on-site over the period from November 7 through 14, 2016. Prior to initiating any subsurface activities, a Utility Locate (One-Call) was submitted 48 hours in advance to notify companies with subsurface utilities in the area of the proposed intrusive assessment.

2.1 Soil Excavation and Confirmation Sampling Activities

Excavation activities were initiated on November 7 and completed on November 10, 2016. The excavation limits were based upon the results of the April and June 2016 investigations. Soils were excavated to a depth of 4 ft bgs within the approximate limits of the former tank battery pad and additional areas to the north, northwest, and southeast of the pad. The final excavation limits are included on Figure 2. Approximately 325 cubic yards (cy) of soil was excavated from the former tank battery area. Photographic documentation of excavation activities is included as Attachment A.

Two side wall confirmation samples, SW-1 and SW-2, were collected at 4 ft bgs from the north and southeast walls of the excavation, respectively, to confirm excavation limits had been met. These samples were collected from the two perimeter locations that exhibited chlorides exceedances during the April 2016 soil investigation. Six soil samples, #1A, #2, #3, #4, #6A, and #7, collected during the

April 2016 soil investigation were used as confirmation samples for the remaining walls of the excavation. These six samples were collected at 4 ft bgs and soil sample analytical results were below the RRAL for chlorides of 250 mg/kg. The April 2016 soil sampling locations and analytical results are included on Figure 2 and also included in Table 1.

The two side wall confirmation samples were analyzed for chlorides by EPA Method 300 and moisture by EPA Method SW3550. Analytical results from the two side wall samples indicated that both samples were below the RRAL for chlorides of 250 mg/kg. Soil sampling locations and analytical results are included on Figure 2 and also included in Table 1. Copies of certified laboratory reports are presented in Attachment B.

2.2 Stockpiling, Lining and Backfilling Activities

The excavated soils were placed into three stockpiles located adjacent to the excavation. Each stockpile contained approximately 100 cy of soil. One 5-point composite sample was collected from each of the stockpiles, identified as SP-1 through SP-3, and analyzed for chlorides by EPA Method 300 and moisture by EPA Method SW3550.

Chloride analytical results from the three samples collected from the stockpiles were below 600 mg/kg, the concentration approved by the NMOCD for use as backfill, further discussed in Section 1.4. The analytical results for the composite stockpile samples are included in Table 2. A copy of the certified analytical report is included as Attachment B.

Lining activities were completed on November 10, 2016 once analytical results from both of the confirmation wall samples indicated that the excavation limits had been met. A 20-mil polyethylene liner was placed in the bottom of the excavation at a depth of 4 ft bgs. Photographic documentation of lining activities is included in Attachment A.

Backfilling activities were conducted November 11 through 14, 2016. The stockpiled material was placed back into the excavation, above the liner. In order to bring the former tank battery area up to surface grade, an additional 760 cy of clean fill material was transported to the site from a Chevron borrow pit located in Eunice, Lea County, New Mexico, and used to backfill the remainder of the excavation. Once completed, the backfilled material was compacted with heavy equipment and the Site was graded to match existing topography. Following completion of backfilling and grading, the disturbed area was fertilized and reseeded with BLM #2 and #3 seed mix. Photographic documentation of backfilling activities is included as Attachment A.

3. Closing

This Remediation and Closure Activities Report, as attachment to a final Form C-141, provides documentation of NMOCD-approved corrective actions associated with the Howse #1 site. Based on corrective actions performed to date and outlined in this report, no further action is required for the site.

Should you have any questions, or require additional information regarding this submittal, please feel free to contact either of us.

Sincerely,

GHD

Leslie Maranciak
Project Manager

Bernard Bockisch, PMP
Senior Project Manager

LM/ag/2

Attachments:

Table 1 – Soil Analytical Data Summary- BTEX/TPH/Chlorides

Table 2 – Stockpiled Soil Analytical Data Summary - Chlorides

Figure 1 – Site Location Map

Figure 2 – Soil Chloride Analytical Results and November 2016 Excavation Limits

Attachment A – Photographic Documentation

Attachment B – Analytical Data Reports and Chain of Custody Documentation

Tables

TABLE 1
SOIL ANALYTICAL DATA SUMMARY - BTEX/TPH/CHLORIDES
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
HOWSE #1 SITE
LEA COUNTY, NEW MEXICO

Sample ID:	Sample Date:	Sample Depth:	Parameters	Chloride	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Total BTEX	Total Petroleum Hydrocarbons (C6-C10)	Total Petroleum Hydrocarbons (C10-C28)	Total Petroleum Hydrocarbons (C6-C35)
			Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			RRAL	250	10	--	--	--	50	--	--	100
March 2016 Initial Soils Investigation												
A	**3/3/2016**	**Unknown**		1320	--	--	--	--	--	--	--	--
B	**3/3/2016**	**Unknown**		1570	--	--	--	--	--	--	--	--
C	**3/3/2016**	**Unknown**		928	--	--	--	--	--	--	--	--
April 2016 Soils Investigation												
#1	**4/26/2016**	**10.5 ft BGS**		1660	<0.000368	<0.00110	<0.000537	<0.000927	<0.000368	<10.8	<10.8	<10.8
#1A	**4/27/2016**	**4 ft BGS**		200	<0.000344	<0.00103	<0.000503	<0.000867	<0.000344	<10.2	<10.2	<10.2
#2	**4/26/2016**	**4 ft BGS**		61.4	<0.000354	<0.00106	<0.000518	<0.000893	<0.000354	<10.5	<10.5	<10.5
#3	**4/26/2016**	**4 ft BGS**		43.6	<0.000350	<0.00104	<0.000512	<0.000883	<0.000350	<10.3	<10.3	<10.3
#4	**4/26/2016**	**4 ft BGS**		109	<0.000347	<0.00103	<0.000507	<0.000874	<0.000347	<10.3	<10.3	<10.3
#5	**4/27/2016**	**12 ft BGS**		620	<0.000390	<0.00116	<0.000571	<0.000984	<0.000390	<11.5	<11.5	<11.5
#5A	**4/27/2016**	**9 ft BGS**		185	<0.000360	<0.00107	<0.000527	<0.000908	<0.000360	<10.6	<10.6	<10.6
#6	**4/27/2016**	**12 ft BGS**		211	<0.000370	<0.00110	<0.000541	<0.000933	<0.000370	<10.9	<10.9	<10.9
#6A	**4/27/2016**	**4 ft BGS**		52.9	<0.000365	<0.00109	<0.000534	<0.000920	<0.000365	<10.8	<10.8	<10.8
#7	**4/26/2016**	**4 ft BGS**		130	<0.000374	<0.00111	<0.000546	<0.000942	<0.000374	<11.1	<11.1	<11.1
#8	**4/26/2016**	**4 ft BGS**		**278**	<0.000379	<0.00113	<0.000554	<0.000956	<0.000379	<11.2	<11.2	<11.2
#9	**4/27/2016**	**12 ft BGS**		124	<0.000369	<0.00110	<0.000540	<0.000930	<0.000369	<10.9	<10.9	<10.9
#10	**4/27/2016**	**12 ft BGS**		274	<0.000383	<0.00114	<0.000559	<0.000965	<0.000383	<11.3	<11.3	<11.3
#11	**4/27/2016**	**12 ft BGS**		770	<0.000371	<0.00111	<0.000542	<0.000935	<0.000371	<10.9	<10.9	<10.9
June 2016 Soil Boring Assessment												
SB-1	**6/22/2016**	**10 ft BGS**		1870	--	--	--	--	--	--	--	--
SB-1	**6/22/2016**	**15 ft BGS**		542	--	--	--	--	--	--	--	--
SB-1	**6/22/2016**	**20 ft BGS**		56.7	--	--	--	--	--	--	--	--
SB-1	**6/22/2016**	**25 ft BGS**		11.4	--	--	--	--	--	--	--	--
SB-1	**6/22/2016**	**30 ft BGS**		39.1	--	--	--	--	--	--	--	--
SB-1	**6/22/2016**	**35 ft BGS**		48.8	--	--	--	--	--	--	--	--
SB-2	**6/22/2016**	**10 ft BGS**		158	--	--	--	--	--	--	--	--
SB-2	**6/22/2016**	**15 ft BGS**		270	--	--	--	--	--	--	--	--
SB-2	**6/22/2016**	**20 ft BGS**		346	--	--	--	--	--	--	--	--
SB-2	**6/22/2016**	**25 ft BGS**		122	--	--	--	--	--	--	--	--
SB-2	**6/22/2016**	**30 ft BGS**		<0.858	--	--	--	--	--	--	--	--
SB-2	**6/22/2016**	**35 ft BGS**		210	--	--	--	--	--	--	--	--
November 2016 Excavation Confirmation Sampling												
SW-1	**11/09/16**	**4 ft BGS**		19.5	--	--	--	--	--	--	--	--
SW-2	**11/09/16**	**4 ft BGS**		165	--	--	--	--	--	--	--	--

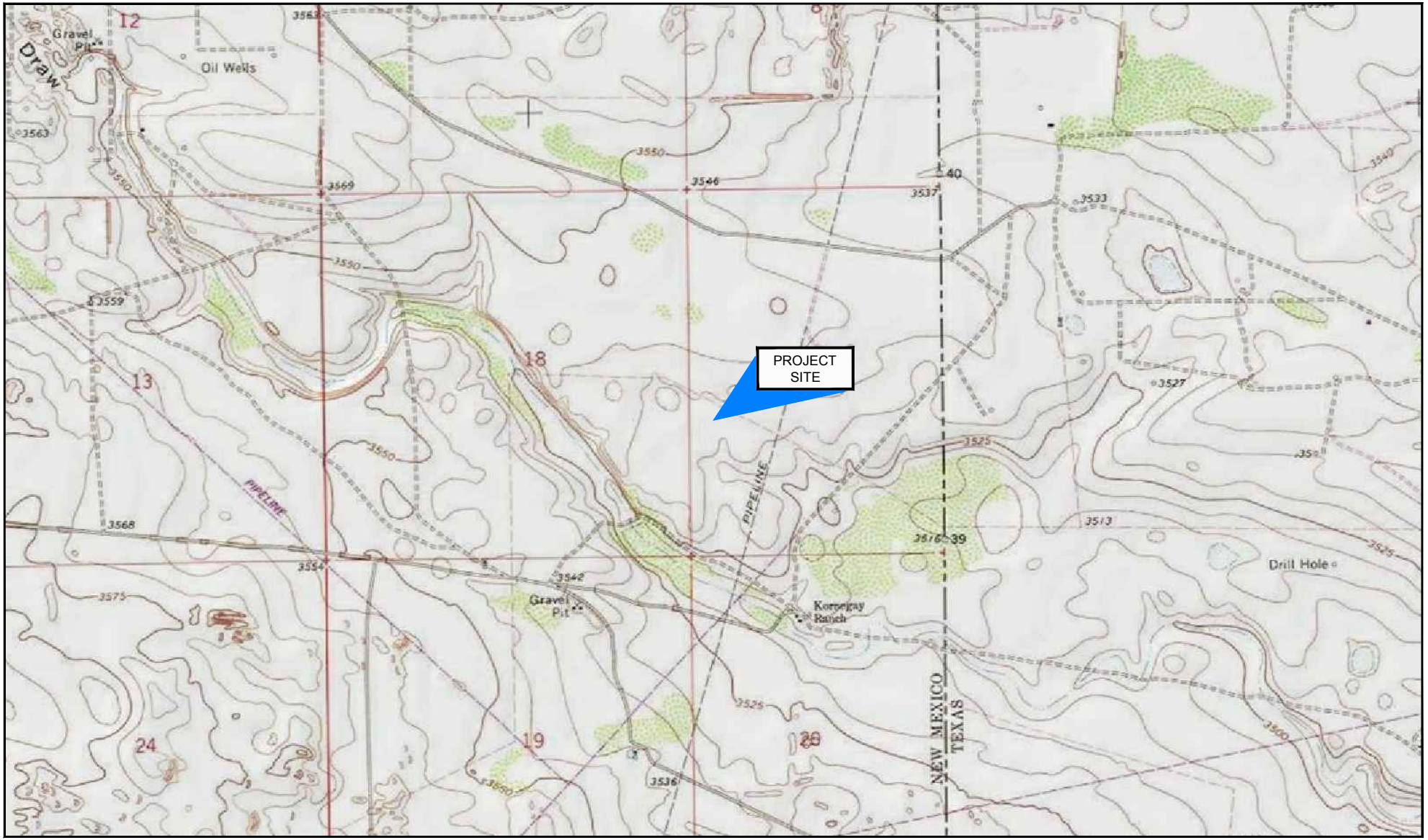
Notes:
1. Shaded cells indicate RRAL exceeded.
2. RRAL - Recommended Remedial Action Limits (NMOCD)
3. BGS - Below Ground Surface
4. '---" Indicates not sampled for the listed constituent

TABLE 2
COMPOSITE STOCKPILE ANALYTICAL DATA SUMMARY - CHLORIDES
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
HOWSE #1 SITE
LEA COUNTY, NEW MEXICO

Sample Location:	Sample ID:	Sample Date:	Sample Depth:	Parameters Units *Approved Backfill Limits*	Chloride mg/kg **600**
SP-1	**SP-1-S-161109**	**11/9/2016**	**Composite**		182
SP-2	**SP-2-S-161109**	**11/9/2016**	**Composite**		87.7
SP-3	**SP-3-S-161110**	**11/10/2016**	**Composite**		335

Notes:
1. Jim Griswold with the NMOCD approved the backfill limit of 600 mg/kg for excavated soils on August 11, 2016

Figures



Source: USGS 7.5 Minute Quad "Hobbs SE, New Mexico"

Lat/Long: 32.57119° North, 103.07530° West

0 1000 2000ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

HOWSE #1
LEA COUNTY, NEW MEXICO

11121230-00

Nov 30, 2016

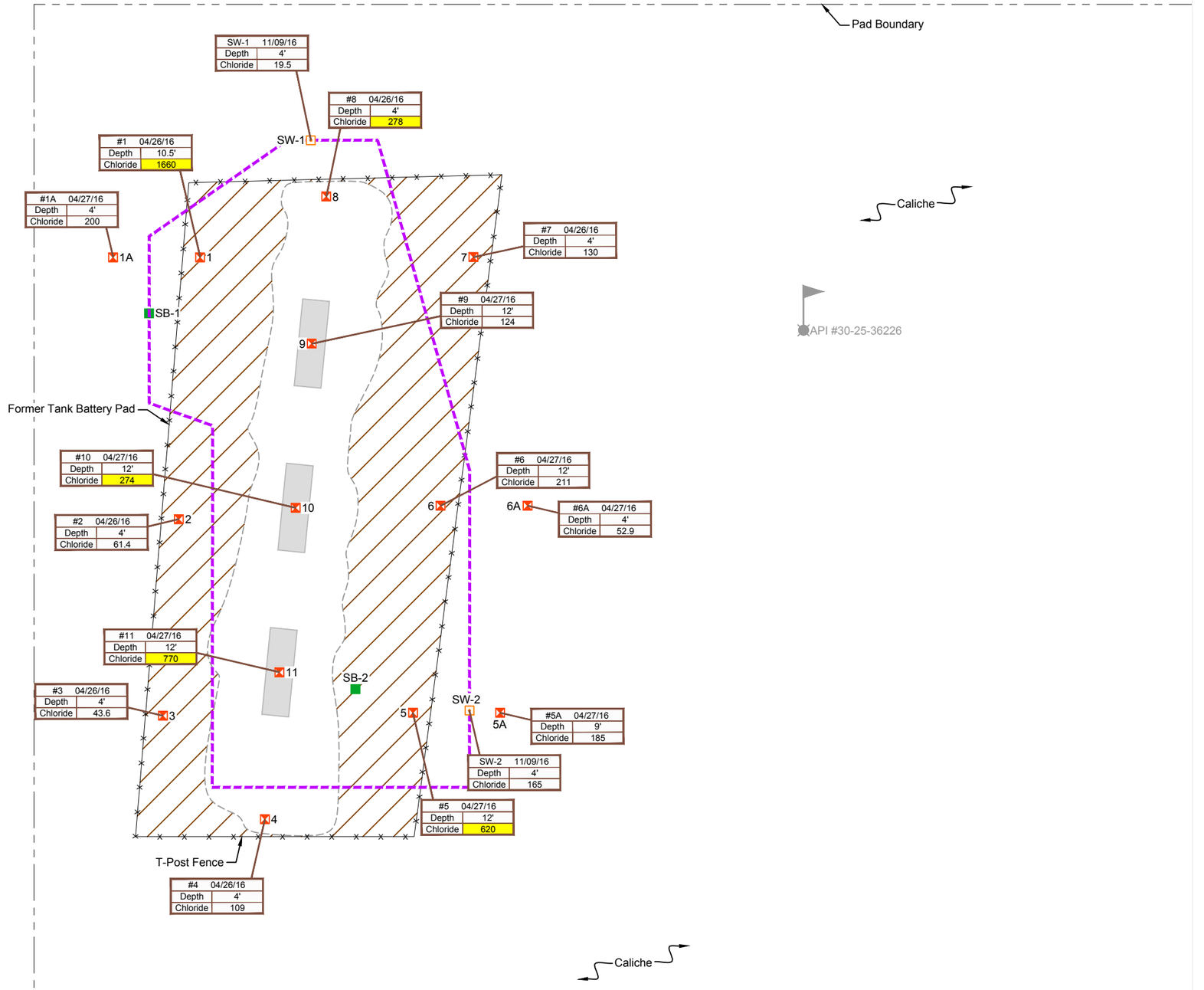
SITE LOCATION MAP

FIGURE 1

CAD File: I:\CAD\Files\Eight Digit Job Numbers\1112----\11121230-CEMC-Eunice Nadine\11121230-00(004)GN-DL001.dwg

NOTES:

1. Soil analytical results are in mg/kg.
2. The New Mexico RRAL for chlorides is 250 mg/kg.
3. Excavation activities were initiated on November 9th and completed November 10th, 2016. Backfilling was completed on November 14, 2016.
4. Once excavation limits were met, a 20-mil polyethylene liner was placed at the bottom of the excavation at a depth of 4ft bgs.



LEGEND

- Soil Sample Location - April 2016
- Soil Boring Location - June 2016
- Excavation Wall Confirmation Sample - November 2016
- Excavation Limits - (4ft bgs) - November 2016
- Test Pits - Chevron - March 2016 (10ft bgs) March 2016 (1 to 3 ft bgs)
- Plugged Well Marker
- Initial Excavation Limits - Chevron - March 2016 (1 to 3 ft bgs)
- Approximate Pad Boundary
- Fence Line
- mg/kg Miligrams per Kilogram
- RRAL New Mexico Recommended Remedial Action Limits

0 10 20ft

GHD

HOWSE #1
LEA COUNTY, NEW MEXICO

SOIL CHLORIDE ANALYTICAL RESULTS AND NOVEMBER 2016 EXCAVATION LIMITS

11121230-00
Jan 11, 2017

FIGURE 2

CAD File: I:\CAD\Files\Eight Digit Job Numbers\1112----\11121230-CEMC-Eunice Nadine\11121230-00(004)GN-DL001.dwg

Attachments

Attachment A
Photographic Documentation

Photo 1 - View of planned excavation area facing north

Photo 2 - View of excavation activities facing southwest

Site Photos

Photo 3 - View of final excavation limits facing north

Photo 4 - View of excavated soil stockpiles facing northwest

Site Photos

Photo 5 - View of liner following completing of excavation activities facing north

Photo 6 - View of backfilling activities facing northwest

Photo 7 - View of Site during wheel compacting and grading facing northwest

Photo 8 - View of Site following completion of backfilling and grading facing south

Photo 9 - View of Site following completion of backfilling and grading facing southwest

Attachment B
Analytical Data Reports and Chain of Custody Documentation

Analytical Report 540123

for

GHD Services, INC- Midland

Project Manager: Chris Knight

Howse #1 Site

11121230

11-NOV-16

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

11-NOV-16

Project Manager: **Chris Knight**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **540123**
Howse #1 Site
Project Address: Lea County NM

Chris Knight:

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) 540123. 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. 540123 will be filed for 60 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 540123

GHD Services, INC- Midland, Midland, TX

Howse #1 Site

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW-1-S-4-161109	S	11-09-16 10:00		540123-001
SW-2-S-4-161109	S	11-09-16 10:30		540123-002
SP-1-S-161109	S	11-09-16 15:00		540123-003
SP-2-S-161109	S	11-09-16 14:00		540123-004

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 540123

GHD Services, INC- Midland, Midland, TX

Project Name: Howse #1 Site

Project Id: 11121230
Contact: Chris Knight
Project Location: Lea County NM

Date Received in Lab: Wed Nov-09-16 04:35 pm
Report Date: 11-NOV-16
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	540123-001		540123-002		540123-003		540123-004					
	Field Id:	SW-1-S-4-161109		SW-2-S-4-161109		SP-1-S-161109		SP-2-S-161109					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Nov-09-16 10:00		Nov-09-16 10:30		Nov-09-16 15:00		Nov-09-16 14:00					
Inorganic Anions by EPA 300/300.1	***Extracted:***	Nov-10-16 09:10		Nov-10-16 09:10		Nov-10-16 09:10		Nov-10-16 09:10					
	Analyzed:	Nov-10-16 09:26		Nov-10-16 09:33		Nov-10-16 09:40		Nov-10-16 09:47					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		19.5	5.51	165	5.52	182	5.59	87.7	5.59				
Percent Moisture by SM2540G	***Extracted:***												
	Analyzed:	Nov-09-16 19:40		Nov-09-16 19:40		Nov-09-16 19:40		Nov-09-16 19:40					
	Units/RL:	%	RL	%	RL	%	RL	%	RL				
Percent Moisture		9.27		9.38		10.5		10.6					

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

+ NELAC certification not offered for this compound.

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

	Phone	Fax
4147 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(602) 437-0330	

BS / BSD Recoveries

Project Name: Howse #1 Site

Work Order #: 540123, 540123 **Project ID:** 11121230

Analyst: MNR **Date Prepared:** 11/09/2016 **Date Analyzed:** 11/09/2016

Lab Batch ID: 3003597 **Sample:** 715920-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	263	105	250	262	105	0	90-110	20	

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

Form 3 - MS Recoveries

Project Name: Howse #1 Site

Work Order #: 540123

Lab Batch #: 3003597 **Project ID:** 11121230

Date Analyzed: 11/10/2016 **Date Prepared:** 11/09/2016 **Analyst:** MNR

QC- Sample ID: 540076-001 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	329	250	563	94	90-110	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Sample Duplicate Recovery

Project Name: Howse #1 Site

Work Order #: 540123

Lab Batch #: 3003598 **Project ID:** 11121230

Date Analyzed: 11/09/2016 19:40 **Date Prepared:** 11/09/2016 **Analyst:** WRU

QC- Sample ID: 540123-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture by SM2540G Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	9.27	9.32	1	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES

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Dallas Texas (214-902-0300)

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

www.xenco.com

Odessa, Texas (432-563-1800)

Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

Xenco Quote #

Xenco Job # 540123

Client / Reporting Information

Company Name / Branch: GHD-Midland

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: christopher.knight@ghd.com

Phone No: 512-506-8603

Project Contact: Christopher Knight

Sampler's Name: Justin Mann

Project Information

Project Name/Number: Howse #1 Site/ 11121230

Project Location: Lea County, NM

Invoice To:

PO Number:

Analytical Information

Matrix Codes

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

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Chloride	% Solids	Field Comments
1	SW-1-S-161109		11-9-16	1000	S	1								X	X	X	
2	SW-2-S-161109			1030	S	1								X	X	X	
3	SP-1-S-161109			1500	S	1								X	X	X	
4	SP-2-S-161109			1400	S	1								X	X	X	
5																	
6																	
7																	
8																	
9																	
10																	

FW 11/11/16

Turnaround Time (Business days)

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

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

Data Deliverable Information

- [ ] 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

Notes: 3.5 Hrs travel time

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		11-9-16 1635	1	2	11-9-16 16:35	2
3		11-9-16 17:30	3	4		4
5	Relinquished by:		5	Custody Seal #	Preserved where applicable	On Ice

Cooler Temp. Thermo. Corr. Factor

Temp: IR ID:R-8

CF:+ 0.1 5.4

Corrected Temp 5.5

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 ne

Final 1.000

Page 10 of 11

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 11/09/2016 04:35:00 PM

Work Order #: 540123

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
#2 *Shipping container in good condition?	**N/A**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**N/A**
#21 VOC samples have zero headspace (less than 1/4 inch bubble)?	**N/A**
#22 <2 for all samples preserved with HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	**N/A**
#23 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Jessica Kramer Date: 11/10/2016
Jessica Kramer

Checklist reviewed by: Kelsey Brooks Date: 11/10/2016
Kelsey Brooks

Analytical Report 540192

for

GHD Services, INC- Midland

Project Manager: Chris Knight

Howse #1 Site

11121230

11-NOV-16

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Table of Contents

11-NOV-16

Project Manager: **Chris Knight**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **540192**
Howse #1 Site
Project Address: Lea County NM

Chris Knight:

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) 540192. 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. 540192 will be filed for 60 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 540192

GHD Services, INC- Midland, Midland, TX

Howse #1 Site

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-3-S-161110	S	11-10-16 12:00		540192-001

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 540192

GHD Services, INC- Midland, Midland, TX

Project Name: Howse #1 Site

Project Id: 11121230
Contact: Chris Knight
Project Location: Lea County NM

Date Received in Lab: Thu Nov-10-16 06:50 pm
Report Date: 11-NOV-16
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	540192-001					
	Field Id:	SP-3-S-161110					
	Depth:						
	Matrix:	SOIL					
	Sampled:	Nov-10-16 12:00					
Inorganic Anions by EPA 300/300.1	***Extracted:***	Nov-10-16 20:00					
	Analyzed:	Nov-11-16 12:26					
	Units/RL:	mg/kg	RL				
Chloride		335	5.53				
Percent Moisture by SM2540G	***Extracted:***						
	Analyzed:	Nov-10-16 19:00					
	Units/RL:	%	RL				
Percent Moisture		9.52					

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

+ NELAC certification not offered for this compound.

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

	Phone	Fax
4147 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(602) 437-0330	

BS / BSD Recoveries

Project Name: Howse #1 Site

Work Order #: 540192 **Project ID:** 11121230

Analyst: MNR **Date Prepared:** 11/10/2016 **Date Analyzed:** 11/10/2016

Lab Batch ID: 3003713 **Sample:** 715944-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	230	92	250	239	96	4	90-110	20	

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

Version: 1.%

Form 3 - MS / MSD Recoveries

Project Name: Howse #1 Site

Work Order # : 540192 **Project ID:** 11121230

Lab Batch ID: 3003713 **QC- Sample ID:** 540004-014 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 11/10/2016 **Date Prepared:** 11/10/2016 **Analyst:** MNR

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	4450	1250	5690	99	1250	5610	93	1	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.

Sample Duplicate Recovery

Project Name: Howse #1 Site

Work Order #: 540192

Lab Batch #: 3003725 **Project ID:** 11121230

Date Analyzed: 11/10/2016 19:00 **Date Prepared:** 11/10/2016 **Analyst:** WRU

QC- Sample ID: 540192-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture by SM2540G	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	9.52	9.11	4	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Version: 1.%

XENCO LABORATORIES

CHAIN OF CUSTODY

Page 1 Of 1

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Odessa, Texas (432-563-1800)

Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

Xenco Quote #

Xenco Job # 540192

Client / Reporting Information

Company Name / Branch: GHD-Midland

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: christopher.knight@ghd.com

Phone No: 512-506-8803

Project Contact: Christopher Knight

Samplers's Name

Project Information

Project Name/Number: Howse #1 Site/ 11121230

Project Location: Lea County, NM

Invoice To:

PO Number:

Analytical Information

Matrix Codes

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

No.	Field ID / Point of Collection	Sample Depth	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Chloride	% Solids	Field Comments
1	SP-3-S-161110		11-10-16	1200	S	1								X	X	X	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (Business days)

- [x] 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 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:

FED-EX / UPS: Tracking #

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

	Date Time:			Date Time:	
Relinquished by Sampler: 1 [signature]	11-10-16 1645	Received By: 1 Bill Ashman	Relinquished By: 2	11-10-16 16:45	Received By: 2
Relinquished by: 3 Bill Ashman	11-10-16 18:50	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice ✓

Temp: IR ID:R-8 1.2°C
CF:+ 0.1
Corrected Temp: 1.3°C

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 11/10/2016 06:50:00 PM

Work Order #: 540192

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)?	1.3
#2 *Shipping container in good condition?	**N/A**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**N/A**
#21 VOC samples have zero headspace (less than 1/4 inch bubble)?	**N/A**
#22 <2 for all samples preserved with HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	**N/A**
#23 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

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

Analyst:

PH Device/Lot#:

Checklist completed by: Jessica Kramer
Jessica Kramer
Date: 11/11/2016

Checklist reviewed by: Kelsey Brooks
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Date: 11/11/2016