Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NRM2004358654
District RP	
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

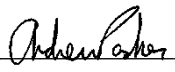
☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Andrew Parker Title: Env. Scientist

Signature:  Date: June 21, 2023

email: aparker@ameredev.com Telephone: 970-570-9535

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Ameredev II, LLC
2901 Via Fortuna Suite 600 • Austin, Texas 78746 • Phone (737) 300-4700

June 21, 2023

Incident ID: NRM2004358654
AEP #: 20200112-0000-water
Location: 3750 Riser (Sunoco Pad)

RE: Closure Report Resubmission

NMOCD,

An audit of internal files indicates that closure for incident NRM2004358654 has not been approved. Below are key Incident Events reproduced from OCD Online followed by an explanation of the October 2021 sidewall sampling event.

Date	Detail
11/15/2021	No sidewall samples taken, report was just resubmitted with no changes. Closure report is denied.
	Ameredev Comment: *Submission included revised text discussing sidewall sampling, revised summary of analytical data, and a revised sampling map showing location of sidewall samples.*
11/15/2021	An application [54469] was submitted to OCD for review. It was submitted, indicating that it was an: [C-141] Application for administrative approval of a release notification and corrective action The operator was emailed confirmation of this event.
10/01/2021	Closure report is DENIED due to no sidewall sampling. Please Provide sidewall samples not exceeding 200 sq/ft per sample.
08/05/2021	Closure report is DENIED due to no sidewall sampling. Please Provide sidewall samples not exceeding 200 sq/ft per sample.
08/17/2020	The (08/17/2020, C-141) application [8733] was rejected by OCD. The operator was emailed with details of this event.

Incident ID: NRM2004358654
AEP #: 20200112-0000-water

Date	Detail
02/12/2020	An application [3826] was submitted to OCD for review. It was submitted, indicating that it was an: [C-141] Application for administrative approval of a release notification and corrective action The operator was emailed confirmation of this event.
02/10/2020	Additional notes from Operator: On 1/12/2020, a contractor struck a Poly Line that was being used to transfer recycled/produced water to a frac site. After the strike, water transfer employee's immediately shut in pumps and closed valves on both sides of the leak to minimize the amount of water spilled. Due to the excavation around the poly line, most of the water was contained in a ditch on the ROW. According to American Safety Services, INc., 145.7 bbls were spilled during the incident. Vacuum trucks were imediately called to site and started vacuuming the water up. A total of 140 bbls were recovered. After Amercian Safety Services gathering info and took measurements, H&H Field Services dug up all contaminated soil and sent to disposal.
01/12/2020	C-141 received on 2/10/2020 for release on 1/12/2020. The cause of the release was reported as “While excavating around the 3750 riser an underground line was struck.”

Per the denied closure report dated May 2021, R.T. Hicks Consultants performed additional horizontal and vertical delineation along the permitter of the release on October 19, 2021. Soil samples obtained during the delineation are representative of sidewall samples.

The October 2021 closure report (attached) submitted to NMOCD on November 1, 2021 includes:

- A description of sidewall sampling, 2nd to last paragraph on Page 2.
- Summary of analytical appended to the bottom of Table 1.
- Revised sampling map presented as Plate 1.
- Laboratory reports inserted into Appendix B.

We respectfully ask NMOCD to review the previously submitted closure report. Ameredev Operating looks forward to NMOCD’s response.

Sincerely,

Andrew Parker
Environmental Scientist

06/21/2023

October 2021

Confirmation Sampling Report & Closure Request

Riser 3750 Release

Incident Number NRM #2004358654
Unit A, Section 8, T25S R36E, Lea County

Recent satellite image of release origin showing current condition of surrounds

Prepared for:
Ameredev Operating, LLC
Austin, Texas

Prepared by:
R.T. Hicks Consultants, Ltd.
901 Rio Grande NW F-142
Albuquerque, New Mexico

R. T. HICKS CONSULTANTS, LTD.
901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Since 1996

October 28, 2021

New Mexico Oil & Gas Conservation Division, District I
1625 N. French Drive
Hobbs, New Mexico 88240
Emailed to OCD.Enviro@state.nm.us and submitted via NMOCD E-permitting portal

RE: Ameredev Operating LLC – Riser 3750 Release
Confirmation Sampling Report/Closure Request
Incident Number NRM2004358654

NMOCD:

In response to NMOCD's denial of a closure report submitted by Ameredev Operating (Ameredev) on June 16, 2020 for the above-referenced produced water release, Ameredev contracted R.T. Hicks Consultants (Hicks) to address sample density deficiencies outlined in a series of emails between Ameredev and NMOCD. In an email to Ameredev on September 4, 2020 (enclosed), NMOCD suggested a sampling arrangement plotted on a map of the site with 16 additional sample points. Because a production battery and pad are now located at the release site, we faithfully adhered to NMOCD's suggested sample pattern as far as present facilities allowed.

9/9/2020 Sampling on location pad; view S-SW

All field and laboratory analyses by both American Safety Services, Inc. (ASSI) and Hicks are summarized in Table 1. From the 19 composite samples from 0-4 feet collected by Hicks, all but one were below laboratory detection limits. Sample Point 12 was 64 mg/kg chloride. All of the samples submitted by Hicks for TPH, Benzene, and BTEX confirmation were also below the laboratory detection limits. Results of both field programs confirm that conditions at this release meet closure criteria outlined in 19.15.29 NMAC

On September 9, 2020, Hicks directed the collection of samples at the original seven sample points shown in the report by ASSI and submitted by Ameredev (Appendix A). As seen in the above photograph, the location of Sample Point 6 is now the site of production equipment so we were not able to collect confirmation samples from that point. Additionally, 13 more sample points were selected to bring the total to 19 (Plate 1). A backhoe was used to collect composite samples at the 0-4 feet intervals and discrete samples at 4.1 feet in accordance 19.15.29 NMAC. All 0-4 feet samples were submitted for

laboratory analyses for chloride and five random samples from that interval were also analyzed for TPH (8015B) and BTEX.

Electrical conductivity (EC) field tests were performed on all 4.1-feet samples from each sample point. The EC readings ranged from 0.00-0.16 dS/m. Four random samples from the 4.1 feet depths were analyzed for chloride and one random sample from those, SP15, was additionally analyzed for TPH and BTEX confirmation.

9/9/2020 Excavation of samples; view southwest

A request for closure was submitted on May 26, 2021 but was denied by NMOCD on October 1, 2021 due to an absence of "sidewall" samples. On October 19, 2021, I returned to the site to collect composite "sidewall" samples at 0-2 feet from the farthest lateral extents of the affected surface as present facilities allowed (Plate 1). These and previous analyses are summarized in Table 1 and laboratory reports are included in Appendix B.

Results of all field programs confirm that conditions at this release meet closure criteria outlined in 19.15.29 NMAC. Please contact me regarding any questions you may have regarding this confirmation sampling program/closure request.

Sincerely,

R.T. Hicks Consultants

Kristin Pope

Kristin Pope
Senior Project Geologist

Enclosures: as stated

Form C-141
& Email from NMOCD

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Ameredev Operating, LLC	OGRID 372224
Contact Name Shane McNeely	Contact Telephone 737-300-4729
Contact email smcneely@ameredev.com	Incident # *(assigned by OCD)* NRM2004358654
Contact mailing address 2901 Via Fortuna, Suite 600 Austin, TX 78746	

Location of Release Source

Latitude 32.1511 Longitude -103.2814
(NAD 83 in decimal degrees to 5 decimal places)

Site Name 3750 Riser	Site Type Pipeline ROW
Date Release Discovered 1/12/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
A	8	25S	36E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name: Intrepid Potash)*

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 145.7	Volume Recovered (bbls) 140
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

While excavating around the 3750 riser an underground line was struck.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? >25 bbls

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Email from Shane McNeely to Mike Bratcher on 1/13/2020

Initial Response

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

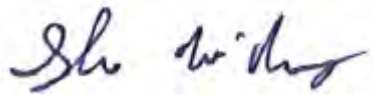
☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been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

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Shane McNeely Title: Engineer

Signature:  Date: 2/10/2020

email: smcneely@ameredev.com Telephone: 737-300-4729

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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Printed Name: Kristin Pope Title: Agent for Ameredev Operating

Signature: Kristin Pope Date: October 28, 2021

email: kristin@rthicksconsult.com Telephone: 575-302-6755

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.

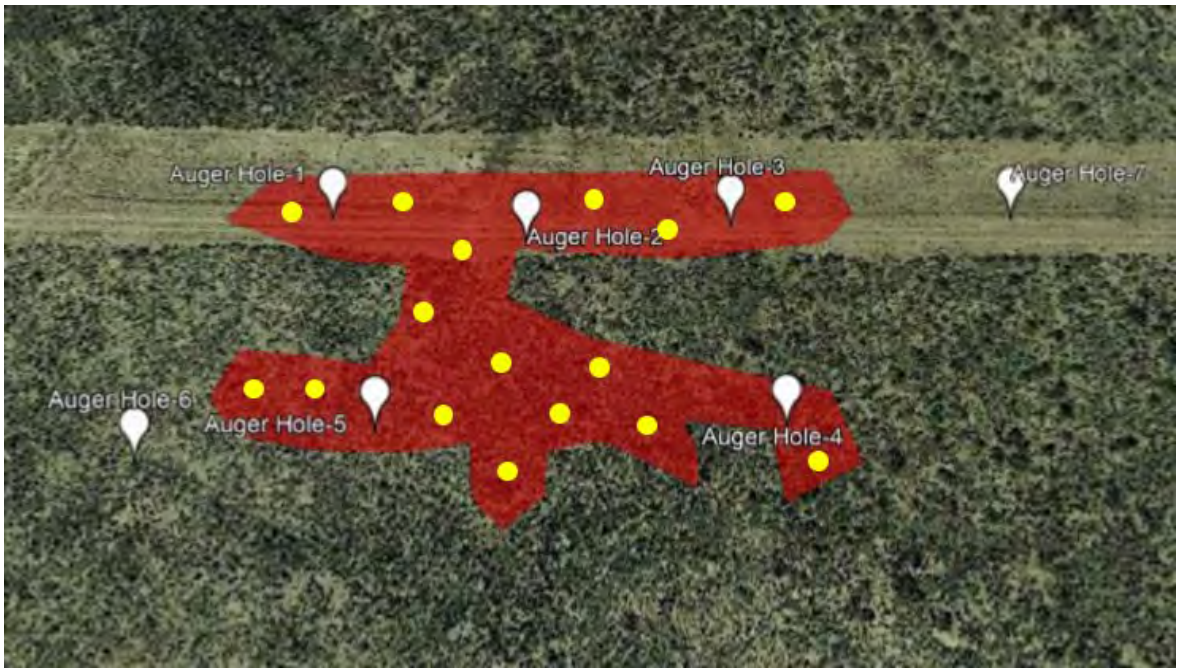
Closure Approved by: Nelson Velez Date: 09/19/2023

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

Sent: Friday, September 4, 2020 8:53 AM
To: Shane McNeely <smcneely@ameredev.com>
Subject: [EXTERNAL] RE: NRM2004358654 3750 RISER @ A-08-25S-36E 0N 0E

Shane,

I've included an image below with additional sample points in yellow. At each of these sample points, soil should be collected directly beneath the clean backfill and at a one foot interval. For example, if the original excavation went to a depth of 1', the sample should be collected from 1-2' bgs.
Sidewall samples will also need to be collected. At a minimum, 2 composite samples from each side of the excavation should be collected.



Let me know if you have any questions.

Thanks,

Cristina Eads | 505-670-5601

From: Shane McNeely <smcneely@ameredev.com>
Sent: Monday, August 17, 2020 9:51 AM
To: Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>
Subject: [EXT] RE: NRM2004358654 3750 RISER @ A-08-25S-36E 0N 0E

Cristina,

I discussed with American Safety Services Inc, the company who collected the samples and filled out the report, and we did not do composite sampling. They did grab sampling at each auger hole location. The letter report under Sampling Activities and Sampling Type should have said Grab. Sorry for the mistake.

AMEREDEV
Ameredev II, LLC
Shane McNeely | Engineer

Direct: (737) 300-4729
smcneely@ameredev.com
2901 Via Fortuna Suite 600
Austin, Texas 78746

From: Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Sent: Friday, August 14, 2020 5:49 PM
To: Shane McNeely <smcneely@ameredev.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>
Subject: [EXTERNAL] NRM2004358654 3750 RISER @ A-08-25S-36E 0N 0E

Shane,
I am currently reviewing the closure report for incident # NRM2004358654, 3750 RISER @ A-08-25S-36E 0N 0E. Can you explain how the composite samples were collected? Unless approved prior to submitting a closure report, composite samples are expected to be collected representing an area of no more than 200 square feet. My interpretation of the closure report is each composite sample collected represents each of the auger holes. If I am interpreting this correctly, do you have documentation of an approved alternate sampling plan?

Thanks,

Cristina Eads
Environmental Bureau
EMNRD – Oil Conservation Division
5200 Oakland Avenue NE, Suite 100
Albuquerque, New Mexico 87113
505.670-5601
email: Cristina.Eads@state.nm.us

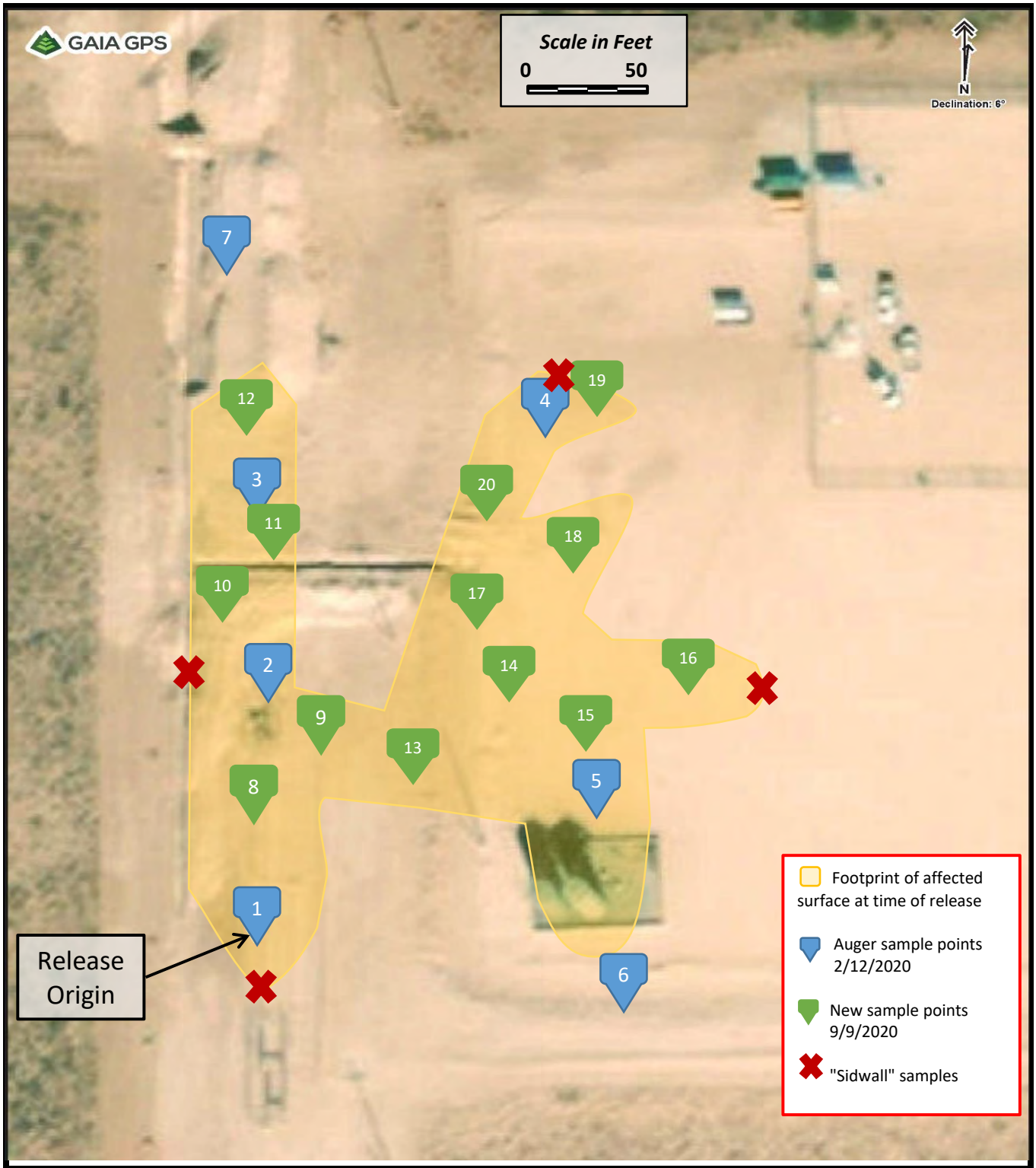
Plate 1

(Release area, sample points)

&

Table 1

(field & lab results)



R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 505-266-5004	**Current Aerial Image** **Release Area with Sample Points**	**Plate 1**
	Riser 3750 Release (NRM #2004358654) Ameredev Operating, LLC	**Oct 2021**

Sample ID ft BGS	Sample Date	In Use?	EC (Hanna) (field) dS/m	Chloride (lab) mg/kg	TPH mg/kg	Benzene mg/kg	BTEX mg/kg	Comments	Lab
NMOCD limits				600	100	10	50	0 - 4 feet & "not in-use"	
				20,000	2,500	10	50	> 4 ft or "in-use"	
SP1 @ 0-4 ft	9/9/2020	yes		0	0	0	0	Pipeline right-of-way	HEAL
SP1 @ 4.1 ft	9/9/2020	yes	0.00					Pipeline right-of-way	HEAL
SP1 @ 5-6 ft	2/12/2020	yes		8.8048	0	0	0	Pipeline right-of-way	XENCO
SP1 @ 6-7 ft	2/12/2020	yes		9.9950				Pipeline right-of-way	XENCO
SP1 @ 7-8 ft	2/12/2020	yes		7.3010				Pipeline right-of-way	XENCO
SP1 @ 8-9 ft	2/12/2020	yes		6.6396				Pipeline right-of-way	XENCO
SP2 @ 0-1 ft	2/12/2020	yes		7.3364				Pipeline right-of-way	XENCO
SP2 @ 0-4 ft	9/9/2020	yes		0	0	0	0	Pipeline right-of-way	HEAL
SP2 @ 4.1 ft	9/9/2020	yes	0.14					Pipeline right-of-way	HEAL
SP3 @ 0-1 ft	2/12/2020	yes		7.8068	0	0.00416	0.03845	Pipeline right-of-way	XENCO
SP3 @ 0-4 ft	9/9/2020	yes		0				Pipeline right-of-way	HEAL
SP3 @ 4.1 ft	9/9/2020	yes	0.00	0				Pipeline right-of-way	HEAL
SP4 @ 0-1 ft	2/12/2020	yes		9.141	0	0.00626	0.04456	Location pad	XENCO
SP4 @ 0-4 ft	9/9/2020	yes		0				Location pad	HEAL
SP4 @ 4.1 ft	9/9/2020	yes	0.01					Location pad	HEAL
SP5 @ 0-1 ft	2/12/2020	yes		0	0	0	0	Location pad	XENCO
SP5 @ 0-4 ft	9/9/2020	yes		0				Location pad	HEAL
SP5 @ 4.1 ft	9/9/2020	yes	0.01	0				Location pad	HEAL
SP6 @ 0-1 ft	2/12/2020	yes		8.6233	0	0	0	UNEFFECTED BY RELEASE	XENCO
SP6	Production equipment is now here								
SP7 @ 0-1 ft	2/12/2020	yes		0	0	0	0	UNEFFECTED BY RELEASE	XENCO
SP7 @ 0-4 ft	9/9/2020	yes		0				UNEFFECTED BY RELEASE	HEAL
SP7 @ 4.1 ft	9/9/2020	yes	0.02					UNEFFECTED BY RELEASE	HEAL
SP8 @ 0-4 ft	9/9/2020	yes		0				Pipeline right-of-way	HEAL
SP8 @ 4.1 ft	9/9/2020	yes	0.10					Pipeline right-of-way	HEAL
SP9 @ 0-4 ft	9/9/2020	yes		0				Location pad	HEAL
SP9 @ 4.1 ft	9/9/2020	yes	0.01	0	0	0	0	Location pad	HEAL
SP10 @ 0-4 ft	9/9/2020	yes		0				Pipeline right-of-way	HEAL
SP10 @ 4.1 ft	9/9/2020	yes	0.03	0				Pipeline right-of-way	HEAL
SP11 @ 0-4 ft	9/9/2020	yes		0				Pipeline right-of-way	HEAL
SP11 @ 4.1 ft	9/9/2020	yes	0.03					Pipeline right-of-way	HEAL
SP12 @ 0-4 ft	9/9/2020	yes		64	0	0	0	Pipeline right-of-way	HEAL
SP12 @ 4.1 ft	9/9/2020	yes	0.01					Pipeline right-of-way	HEAL
SP13 @ 0-4 ft	9/9/2020	yes		0				Location pad	HEAL
SP13 @ 4.1 ft	9/9/2020	yes	0.03					Location pad	HEAL
SP14 @ 0-4 ft	9/9/2020	yes		0				Location pad	HEAL
SP14 @ 4.1 ft	9/9/2020	yes	0.01					Location pad	HEAL
SP15 @ 0-4 ft	9/9/2020	yes		0	0	0	0	Location pad	HEAL
SP15 @ 4.1 ft	9/9/2020	yes	0.01					Location pad	HEAL
SP16 @ 0-4 ft	9/9/2020	yes		0				Location pad	HEAL
SP16 @ 4.1 ft	9/9/2020	yes	0.01					Location pad	HEAL
SP17 @ 0-4 ft	9/9/2020	yes		0				Location pad	HEAL
SP17 @ 4.1 ft	9/9/2020	yes	0.01					Location pad	HEAL
SP18 @ 0-4 ft	9/9/2020	yes		0				Location pad	HEAL
SP18 @ 4.1 ft	9/9/2020	yes	0.01					Location pad	HEAL
SP19 @ 0-4 ft	9/9/2020	yes		0				Location pad	HEAL
SP19 @ 4.1 ft	9/9/2020	yes	0.00					Location pad	HEAL
SP20 @ 0-4 ft	9/9/2020	yes		0				Location pad	HEAL
SP20 @ 4.1 ft	9/9/2020	yes	0.00					Location pad	HEAL
SW-SW comp. 0-2 ft	10/19/2021	yes		16	<10.0	<0.050	<0.300	"Sidewall" comp. requested by OCD	Cardinal
W-SW comp. 0-2 ft	10/19/2021	yes		16	<10.0	<0.050	<0.300	"Sidewall" comp. requested by OCD	Cardinal
NE-SW comp. 0-2 ft	10/19/2021	yes		32	<10.0	<0.050	<0.300	"Sidewall" comp. requested by OCD	Cardinal
E-SW comp. 0-2 ft	10/19/2021	yes		64				"Sidewall" comp. requested by OCD	Cardinal

Note: Concentrations of '0' were reported as below detection limits by the laboratory

Analyses not requested *Data previously reported by ASSI*

R.T. Hicks Consultants, Ltd. 901 Rio Grande Blvd. NW, Suite F-142 Albuquerque, New Mexico 87104	**Summary of Soil Samples & Analyses** Riser 3750 Release (NRM #2004358654) Ameredev Operating, LLC	**Table 1** **Oct-21**

Appendix A

ASSI Report
June 2020

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NRM2004358654
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Ameredev Operating, LLC	OGRID 372224
Contact Name Shane McNeely	Contact Telephone 737-300-4729
Contact email smcneely@ameredev.com	Incident # *(assigned by OCD)* NRM2004358654
Contact mailing address 2901 Via Fortuna, Suite 600 Austin, TX 78746	

Location of Release Source

Latitude 32.1511 Longitude -103.2814
(NAD 83 in decimal degrees to 5 decimal places)

Site Name 3750 Riser	Site Type Pipeline ROW
Date Release Discovered 1/12/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
A	8	25S	36E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name: Intrepid Potash)*

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 145.7	Volume Recovered (bbls) 140
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

While excavating around the 3750 riser an underground line was struck.

Incident ID	NRM2004358654
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? >25 bbls

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Email from Shane McNeely to Mike Bratcher on 1/13/2020

Initial Response

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

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

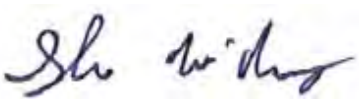
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Shane McNeely Title: Engineer

Signature:  Date: 2/10/2020

email: smcneely@ameredev.com Telephone: 737-300-4729

OCD Only

Received by: _____ Date: _____

Incident ID	NRM2004358654
District RP	
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

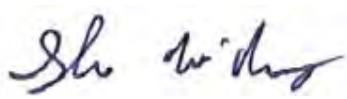
☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Shane McNeely Title: Engineer

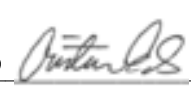
Signature:  Date: 6/16/2020

email: smcneely@ameredev.com Telephone: 737-300-4729

OCD Only

Received by: Cristina Eads Date: 06/16/2020

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

Closure Approved by: D E N I E D  Date: 08/17/2020

Printed Name: Cristina Eads Title: Environmental Specialist

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INTEGRITY, CONSISTENCY, QUALITY

Remediation and Closure Report

Date of Report: April 23, 2020

Site Name: 3750 Riser

Site GPS: Latitude: 32.1511
Longitude: -103.2814

Site County: Lea Co. NM

Unit Letter "A", Section 8, Township 25 South, Range 36 East

Release Information

Date of Release: January 12, 2020

Cause of Release: Underground line strike

Released Substance:	Volume		
	Released	Recovered	Net
Reclaimed Water	147.5 bbls.	Unknown	Unknown

NMOCD Notified		C-141 Filed	
X	Yes	X	Yes
	N/A		N/A

NMOCD Job #	District
Unknown	Unknown

Dimensions (ft.) L: 300' W: 265' D: 6" Sq. ft: 57,910'

Impacted Area: Pipe Line Right-of-Way (ROW) and production pad

Sampling Activities

Sampling Date: February 12, 2020

Field Observations: Light stain no odor

# of Samples Collected: Ten (10) from seven (7) points of confirmation

Sampling Type: Composite

Laboratory Analysis: Total Petroleum Hydrocarbon (TPH) SW8015 Modified, BTEX EPA 8021B, and Chloride EPA 300.1

Name of Laboratory: Xenco Laboratories

Soil Sampling Program

The composite samples were submitted to Xenco Laboratories in Midland, TX. The samples were analyzed for TPH by method SW8015 Modified, BTEX by method EPA 8021B, and Chloride by method EPA 300. A summary of analytical results are provided in Table 1.

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Conclusion

On January 12, 2020, American Safety Services Inc. (ASSI) responded to a reportable release at the 3750 Riser operated by Ameredev II, LLC (Ameredev). According to Ameredev's spill release report approximately one hundred forty-seven and one-half (147.5) barrels (bbls) of reclaimed water (i.e., not produced water) were released due to an underground line strike which allowed for the release to occur directly to the ground. The release footprint is approximately fifty-seven thousand nine hundred and ten (57,910) square feet.

Subsequent to remediation activities performed by a 3rd party contractor ASSI personnel sampled the area inside the release footprint on February 12th. ASSI personnel completed sampling activities in accordance with the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), and the Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills and Releases*.

Confirmation sampling was accomplished by ASSI personnel collecting ten (10) composite samples, four (4) from Auger Hole 1 and one (1) each from the remaining auger holes (i.e., Auger Hole 2 thru Auger Hole 7). At sample location Auger Hole 1 material was collected from between a depth of five (5) foot and nine (9) foot below ground surface (bgs) at one (1) foot intervals. At the remaining sample locations (i.e., Auger Hole 2 thru Auger Hole 7) material was collected from surface to one (1) foot bgs.

Collected material (i.e., composite samples) was analyzed for TPH, BTEX, and Chloride. Analytical results were compared to the NMAC 19.15.29 *Release Notification* guidelines and show no exceedances.

ASSI conducted a groundwater study utilizing the New Mexico Water Rights Reporting System database. Online records show one (1) existing water well within a one (1) mile radius (i.e., one (1) mile) of the Site. Average depth to water (DTW) for the water wells according to the database information is one hundred and eighty (180) feet bgs. ASSI does not believe TPH, BTEX or Chloride pose a threat to groundwater resources. Furthermore, confirmation sampling results show TPH, BTEX, and Chloride concentrations are far below NMOCD remedial guidelines. Appendix A of this report contains the groundwater database information.

Prepared By:

Thomas Franklin
Environmental Manager

Reviewed By:

Jack Zimmerman, PG, CPG
Senior Geologist

TABLE 1
Summary of Delineation Sampling Analytical Results
Concentrations of Benzene, BTEX, TPH & Chloride in Soil
Ameredev
3750 Riser
Lea County, New Mexico

SAMPLE LOCATION	SAMPLE DEPTH (feet)	SAMPLE DATE	SOIL STATUS	8021B					8015M				EPA 300
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYLBENZENE (mg/Kg)	XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	MRO (mg/Kg)	Total TPH (mg/Kg)	CHLORIDE (mg/Kg)
NMAC 19.15.29				10	NE	NE	NE	50	NE		NE	100	600
Delination Sampling													
Auger Hole 1	5'-6'	2/12/2020	In-situ	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	8.8048
Auger Hole 1	6'-7'	2/12/2020	In-situ	—	—	—	—	—	—	—	—	—	9.995
Auger Hole 1	7'-8'	2/12/2020	In-situ	—	—	—	—	—	—	—	—	—	7.3010
Auger Hole 1	8'-9'	2/12/2020	In-situ	—	—	—	—	—	—	—	—	—	6.6396
Auger Hole 2	0-1'	2/12/2020	In-situ	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50	7.3364
Auger Hole 3	0-1'	2/12/2020	In-situ	0.00416	0.0282	0.00361	0.00248	0.03845	<49.9	<49.9	<49.9	<49.9	7.8068
Auger Hole 4	0-1'	2/12/2020	In-situ	0.00626	0.0258	0.00597	0.00653	0.04456	<49.9	<49.9	<49.9	<49.9	9.1410
Auger Hole 5	0-1'	2/12/2020	In-situ	<0.00200	<0.00200	<0.00200	<0.002	<0.002	<50.0	<50.0	<50.0	<50	<5.0100
Auger Hole 6	0-1'	2/12/2020	In-situ	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	8.6233
Auger Hole 7	0-1'	2/12/2020	In-situ	<0.00200	<0.00200	<0.00200	<0.002	<0.002	<50.0	<50.0	<50.0	<50.0	<4.9900

mg/Kg - milligrams per Kilogram

NE - not established

— = not determined

In-situ - sample collected in-place

Total TPH reported values are rounded-off to 3-significant figures using the LIMS Odd/Even Rounding Rule which is a laboratory accepted standard

Received by OCD: 6/21/2023 10:18:36 AM

View Northwest – Origin of spill. Release caused by an underground line strike.

View Northwest – A portion of the spill flow path caused by the fluid release within the release footprint.

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View Northwest – A portion of the spill flow path caused by the fluid release within the release footprint.

View Northwest – A portion of the spill flow path within the release footprint.

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Received by OCD: 6/21/2023 10:18:36 AM

View Southwest – A portion of the spill flow path within the release footprint.

View North – A portion of the spill flow path within the release footprint.

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View Northwest – A portion of the spill flow path within the release footprint.

View South – Sample location Auger Hole 1 (red circle) middle of photograph.

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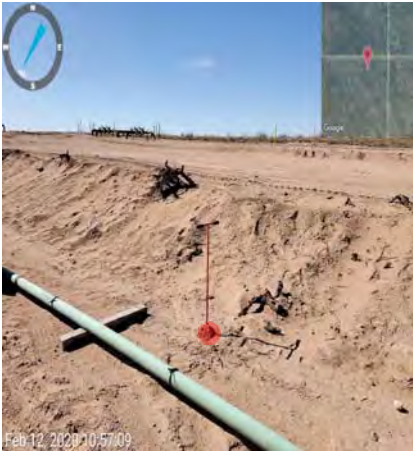
Received by OCD: 6/21/2023 10:18:36 AM

View South – Sample location Auger Hole 2 (red circle) middle of photograph.

View South – Sample location Auger Hole 3 (red circle) middle of photograph.



View Southwest – Sample location Auger Hole 4 (red circle) middle of photograph.

View South – Sample location Auger Hole 5 (red circle) middle of photograph.

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Received by OCD: 6/21/2023 10:18:36 AM

View South – Sample location Auger Hole 6 (red circle) middle of photograph.

View North – Sample location Auger Hole 7 (red circle) middle of photograph.

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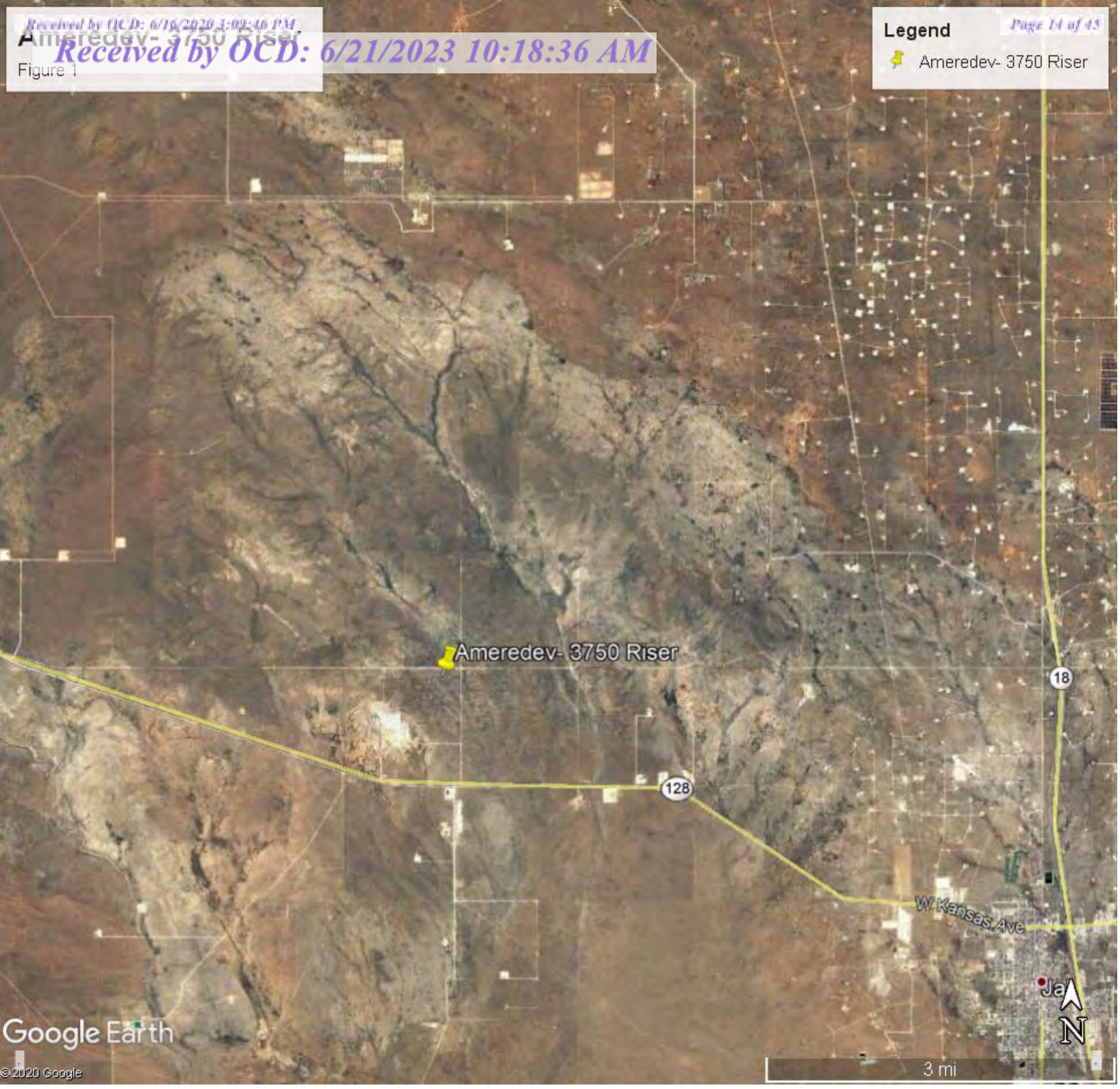
Ameredev- 3750 Riser

Figure 1



Ameredev- 3750 Riser

Figure 2

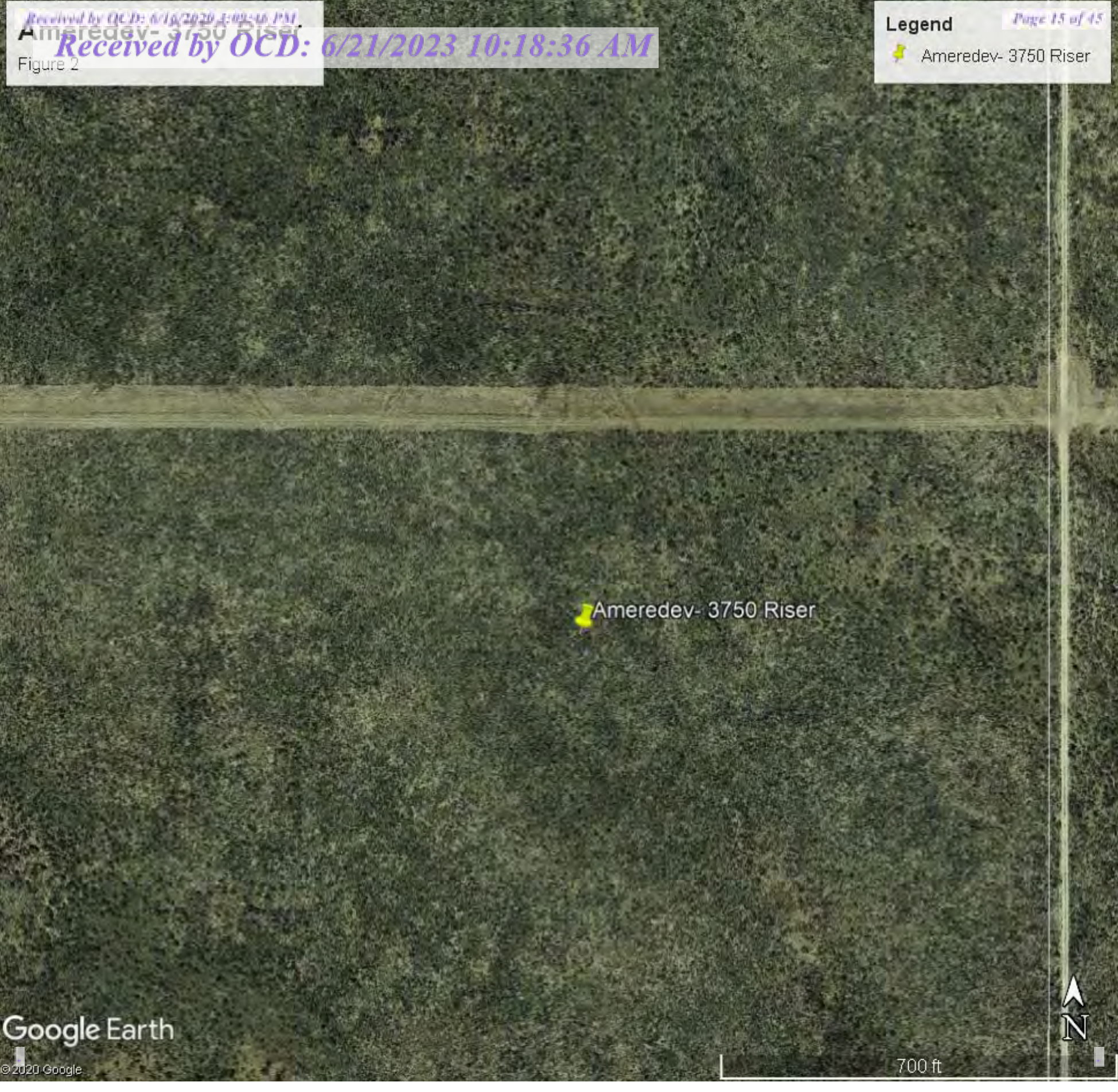
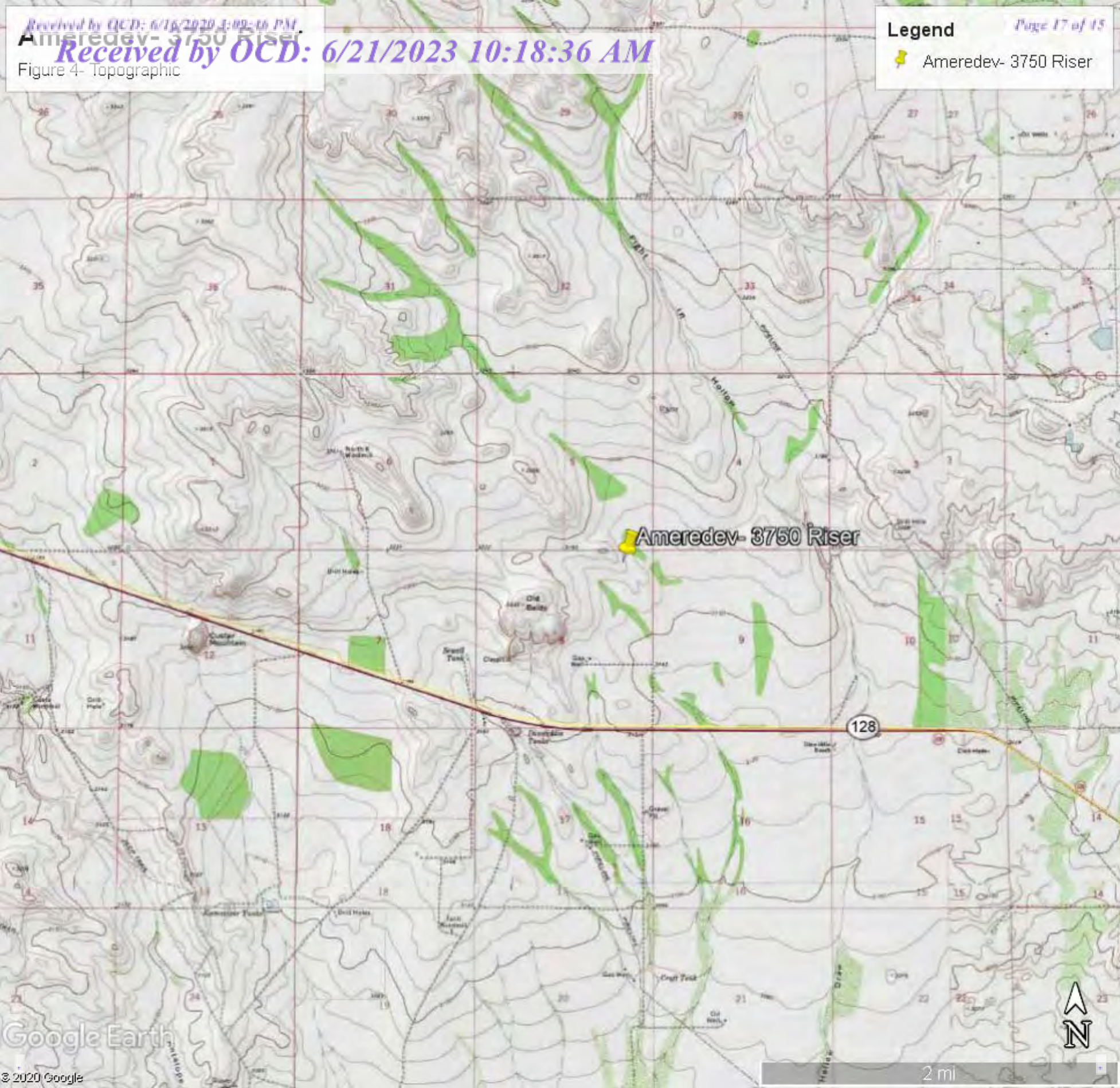


Figure 3

Received by OCD: 6/21/2023 10:18:36 AM

Ameredev- 3750 Riser

Figure 4- Topographic



Certificate of Analysis Summary 652236

American Safety Services, Odessa, TX

Project Name: Ameredev-3750 Riser

Project Id:
Contact: Thomas Franklin
Project Location: Lea Co.NM

Date Received in Lab: Thu Feb-13-20 08:28 am
Report Date: 14-FEB-20
Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	652236-001		652236-002		652236-003		652236-004		652236-005		652236-006	
		Field Id:	Auger Hole 1		Auger Hole 1		Auger Hole 1		Auger Hole 1		Auger Hole 2		Auger Hole 3	
		Depth:	5-6 ft		6-7 ft		7-8 ft		8-9 ft		0-1 ft		0-1 ft	
		Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
		Sampled:	Feb-12-20 11:15		Feb-12-20 11:17		Feb-12-20 11:19		Feb-12-20 11:21		Feb-12-20 11:26		Feb-12-20 11:31	
BTEX by EPA 8021B	Extracted:		Feb-13-20 10:00								Feb-13-20 10:00		Feb-13-20 10:00	
	Analyzed:		Feb-13-20 15:31								Feb-13-20 15:51		Feb-13-20 16:11	
	Units/RL:		mg/kg	RL							mg/kg	RL	mg/kg	RL
Benzene			<0.00199	0.00199							<0.00199	0.00199	0.00416	0.00200
Toluene			<0.00199	0.00199							<0.00199	0.00199	0.0282	0.00200
Ethylbenzene			<0.00199	0.00199							<0.00199	0.00199	0.00361	0.00200
m,p-Xylenes			<0.00398	0.00398							<0.00398	0.00398	<0.00399	0.00399
o-Xylene			<0.00199	0.00199							<0.00199	0.00199	0.00248	0.00200
Total Xylenes			<0.00199	0.00199							<0.00199	0.00199	0.00248	0.002
Total BTEX			<0.00199	0.00199							<0.00199	0.00199	0.03845	0.002
Chloride by EPA 300	Extracted:		Feb-13-20 14:30		Feb-13-20 14:30		Feb-13-20 14:30		Feb-13-20 14:30		Feb-13-20 14:30		Feb-13-20 14:30	
	Analyzed:		Feb-13-20 16:11		Feb-13-20 16:27		Feb-13-20 16:32		Feb-13-20 16:38		Feb-13-20 16:43		Feb-13-20 16:59	
	Units/RL:		mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride			8.8048	4.9801	9.9950	4.9702	7.3010	4.9505	6.6396	4.9505	7.3364	5.0505	7.8068	5.0302
TPH by SW8015 Mod	Extracted:		Feb-13-20 14:00								Feb-13-20 14:00		Feb-13-20 14:00	
	Analyzed:		Feb-13-20 18:11								Feb-13-20 19:13		Feb-13-20 19:34	
	Units/RL:		mg/kg	RL							mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)			<49.9	49.9							<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)			<49.9	49.9							<50.0	50.0	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)			<49.9	49.9							<50.0	50.0	<49.9	49.9
Total TPH			<49.9	49.9							<50	50	<49.9	49.9

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 652236

American Safety Services, Odessa, TX

Project Name: Ameredev-3750 Riser

Project Id:

Contact: Thomas Franklin

Project Location: Lea Co.NM

Date Received in Lab: Thu Feb-13-20 08:28 am

Report Date: 14-FEB-20

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	652236-007		652236-008		652236-009		652236-010					
	Field Id:	Auger Hole 4		Auger Hole 5		Auger Hole 6		Auger Hole 7					
	Depth:	0-1 ft		0-1 ft		0-1 ft		0-1 ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Feb-12-20 11:36		Feb-12-20 11:41		Feb-12-20 11:46		Feb-12-20 11:51					
BTEX by EPA 8021B	**Extracted:**	Feb-13-20 10:00		Feb-13-20 10:00		Feb-13-20 10:00		Feb-13-20 10:00					
	Analyzed:	Feb-13-20 17:30		Feb-13-20 17:50		Feb-13-20 18:11		Feb-13-20 18:31					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		0.00626	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200				
Toluene		0.0258	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200				
Ethylbenzene		0.00597	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200				
m,p-Xylenes		<0.00398	0.00398	<0.00400	0.00400	<0.00402	0.00402	<0.00400	0.00400				
o-Xylene		0.00653	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200				
Total Xylenes		0.00653	0.00199	<0.002	0.002	<0.00201	0.00201	<0.002	0.002				
Total BTEX		0.04456	0.00199	<0.002	0.002	<0.00201	0.00201	<0.002	0.002				
Chloride by EPA 300	**Extracted:**	Feb-13-20 14:30		Feb-13-20 14:30		Feb-13-20 14:30		Feb-13-20 14:30					
	Analyzed:	Feb-13-20 17:04		Feb-13-20 17:09		Feb-13-20 17:14		Feb-13-20 17:20					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		9.1410	5.0000	<5.0100	5.0100	8.6233	4.9702	<4.9900	4.9900				
TPH by SW8015 Mod	**Extracted:**	Feb-13-20 14:00		Feb-13-20 14:00		Feb-13-20 14:00		Feb-13-20 14:00					
	Analyzed:	Feb-13-20 19:55		Feb-13-20 20:16		Feb-13-20 20:37		Feb-13-20 20:58					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0				
Diesel Range Organics (DRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0				
Total TPH		<49.9	49.9	<50	50	<49.9	49.9	<50	50				

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

Jessica Kramer
Project Assistant

Analytical Report 652236

for

American Safety Services

Project Manager: Thomas Franklin

Ameredev-3750 Riser

14-FEB-20

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

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

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

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

14-FEB-20

Project Manager: **Thomas Franklin**
American Safety Services
8715 Andrews Hwy
Odessa, TX 79765

Reference: XENCO Report No(s): **652236**
Ameredev-3750 Riser
Project Address: Lea Co.NM

Thomas Franklin:

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) 652236. 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. 652236 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Auger Hole 1	S	02-12-20 11:15	5 - 6 ft	652236-001
Auger Hole 1	S	02-12-20 11:17	6 - 7 ft	652236-002
Auger Hole 1	S	02-12-20 11:19	7 - 8 ft	652236-003
Auger Hole 1	S	02-12-20 11:21	8 - 9 ft	652236-004
Auger Hole 2	S	02-12-20 11:26	0 - 1 ft	652236-005
Auger Hole 3	S	02-12-20 11:31	0 - 1 ft	652236-006
Auger Hole 4	S	02-12-20 11:36	0 - 1 ft	652236-007
Auger Hole 5	S	02-12-20 11:41	0 - 1 ft	652236-008
Auger Hole 6	S	02-12-20 11:46	0 - 1 ft	652236-009
Auger Hole 7	S	02-12-20 11:51	0 - 1 ft	652236-010

CASE NARRATIVE

Client Name: American Safety Services

Project Name: Ameredev-3750 Riser

Project ID:
Work Order Number(s): *652236*

Report Date: *14-FEB-20*
Date Received: *02/13/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3116502 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene recovered below QC limits. Samples affected are: 7696544-1-BLK.

Batch: LBA-3116504 TPH by SW8015 Mod
Lab Sample ID 652236-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Motor Oil Range Hydrocarbons (MRO) recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 652236-001, -005, -006, -007, -008, -009, -010.
The Laboratory Control Sample for Motor Oil Range Hydrocarbons (MRO) is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results: **52236**

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 1**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-001	Date Collected:	02.12.20 11.15	Sample Depth:	5 - 6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	02.13.20 14.30	Basis:	Wet Weight
Seq Number:	3116532				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.8048**	4.9801	mg/L	02.13.20 16.11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.13.20 14.00	Basis:	Wet Weight
Seq Number:	3116504				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.13.20 18.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.13.20 18.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.13.20 18.11	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.13.20 18.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	02.13.20 18.11	
o-Terphenyl	84-15-1	92	%	70-135	02.13.20 18.11	

Certificate of Analytical Results for: **652236**

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 1**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-001	Date Collected:	02.12.20 11.15	Sample Depth:	5 - 6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	02.13.20 10.00	Basis:	Wet Weight
Seq Number:	3116502				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.20 15.31	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.13.20 15.31	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.13.20 15.31	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.13.20 15.31	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.13.20 15.31	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.13.20 15.31	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.13.20 15.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.13.20 15.31	
4-Bromofluorobenzene	460-00-4	84	%	70-130	02.13.20 15.31	

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Certificate of Analytical Results: **652236**

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 1**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-002	Date Collected:	02.12.20 11.17	Sample Depth:	6 - 7 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	02.13.20 14.30	Basis:	Wet Weight
Seq Number:	3116532				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.9950**	4.9702	mg/L	02.13.20 16.27		1

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Certificate of Analytical Results: 652236

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 1**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-003	Date Collected:	02.12.20 11.19	Sample Depth:	7 - 8 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	02.13.20 14.30	Basis:	Wet Weight
Seq Number:	3116532				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.3010**	4.9505	mg/L	02.13.20 16.32		1

Certificate of Analytical Results: 652236

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 1**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-004	Date Collected:	02.12.20 11.21	Sample Depth:	8 - 9 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	02.13.20 14.30	Basis:	Wet Weight
Seq Number:	3116532				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.6396**	4.9505	mg/L	02.13.20 16.38		1

Certificate of Analytical Results for: **652236**

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 2**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-005	Date Collected:	02.12.20 11.26	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	02.13.20 14.30	Basis:	Wet Weight
Seq Number:	3116532				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.3364**	5.0505	mg/L	02.13.20 16.43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.13.20 14.00	Basis:	Wet Weight
Seq Number:	3116504				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.13.20 19.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.13.20 19.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.13.20 19.13	U	1
Total TPH	PHC635	<50	50	mg/kg	02.13.20 19.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	02.13.20 19.13	
o-Terphenyl	84-15-1	92	%	70-135	02.13.20 19.13	

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Certificate of Analytical Results: **52236**

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 2**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-005	Date Collected:	02.12.20 11.26	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	02.13.20 10.00	Basis:	Wet Weight
Seq Number:	3116502				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.20 15.51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.13.20 15.51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.13.20 15.51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.13.20 15.51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.13.20 15.51	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.13.20 15.51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.13.20 15.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	80	%	70-130	02.13.20 15.51	
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.13.20 15.51	

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 3**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-006	Date Collected:	02.12.20 11.31	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	02.13.20 14.30	Basis:	Wet Weight
Seq Number:	3116532				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.8068**	5.0302	mg/L	02.13.20 16.59		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.13.20 14.00	Basis:	Wet Weight
Seq Number:	3116504				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.13.20 19.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.13.20 19.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.13.20 19.34	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.13.20 19.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	02.13.20 19.34	
o-Terphenyl	84-15-1	92	%	70-135	02.13.20 19.34	

Certificate of Analytical Results: 652236

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 3**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-006	Date Collected:	02.12.20 11.31	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	02.13.20 10.00	Basis:	Wet Weight
Seq Number:	3116502				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00416**	0.00200	mg/kg	02.13.20 16.11		1
Toluene	108-88-3	**0.0282**	0.00200	mg/kg	02.13.20 16.11		1
Ethylbenzene	100-41-4	**0.00361**	0.00200	mg/kg	02.13.20 16.11		1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.13.20 16.11	U	1
o-Xylene	95-47-6	**0.00248**	0.00200	mg/kg	02.13.20 16.11		1
Total Xylenes	1330-20-7	**0.00248**	0.002	mg/kg	02.13.20 16.11		1
Total BTEX		**0.03845**	0.002	mg/kg	02.13.20 16.11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.13.20 16.11	
4-Bromofluorobenzene	460-00-4	82	%	70-130	02.13.20 16.11	

Certificate of Analytical Results: **652236**

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 4**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-007	Date Collected:	02.12.20 11.36	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	02.13.20 14.30	Basis:	Wet Weight
Seq Number:	3116532				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.1410**	5.0000	mg/L	02.13.20 17.04		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.13.20 14.00	Basis:	Wet Weight
Seq Number:	3116504				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.13.20 19.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.13.20 19.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.13.20 19.55	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.13.20 19.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	02.13.20 19.55	
o-Terphenyl	84-15-1	91	%	70-135	02.13.20 19.55	

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Certificate of Analytical Results: **652236**

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 4**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-007	Date Collected:	02.12.20 11.36	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	02.13.20 10.00	Basis:	Wet Weight
Seq Number:	3116502				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00626**	0.00199	mg/kg	02.13.20 17.30		1
Toluene	108-88-3	**0.0258**	0.00199	mg/kg	02.13.20 17.30		1
Ethylbenzene	100-41-4	**0.00597**	0.00199	mg/kg	02.13.20 17.30		1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.13.20 17.30	U	1
o-Xylene	95-47-6	**0.00653**	0.00199	mg/kg	02.13.20 17.30		1
Total Xylenes	1330-20-7	**0.00653**	0.00199	mg/kg	02.13.20 17.30		1
Total BTEX		**0.04456**	0.00199	mg/kg	02.13.20 17.30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	02.13.20 17.30	
4-Bromofluorobenzene	460-00-4	75	%	70-130	02.13.20 17.30	

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 5**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-008	Date Collected:	02.12.20 11.41	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	02.13.20 14.30	Basis:	Wet Weight
Seq Number:	3116532				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.0100	5.0100	mg/L	02.13.20 17.09	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.13.20 14.00	Basis:	Wet Weight
Seq Number:	3116504				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.13.20 20.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.13.20 20.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.13.20 20.16	U	1
Total TPH	PHC635	<50	50	mg/kg	02.13.20 20.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	02.13.20 20.16	
o-Terphenyl	84-15-1	91	%	70-135	02.13.20 20.16	

Certificate of Analytical Results: **652236**

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 5**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-008	Date Collected:	02.12.20 11.41	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	02.13.20 10.00	Basis:	Wet Weight
Seq Number:	3116502				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.13.20 17.50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.13.20 17.50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.13.20 17.50	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.13.20 17.50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.13.20 17.50	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	02.13.20 17.50	U	1
Total BTEX		<0.002	0.002	mg/kg	02.13.20 17.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	02.13.20 17.50	
1,4-Difluorobenzene	540-36-3	102	%	70-130	02.13.20 17.50	

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id: **Auger Hole 6** Matrix: Soil Date Received:02.13.20 08.28
Lab Sample Id: 652236-009 Date Collected: 02.12.20 11.46 Sample Depth: 0 - 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: SPC % Moisture:
Analyst: SPC Date Prep: 02.13.20 14.30 Basis: Wet Weight
Seq Number: 3116532

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.6233**	4.9702	mg/L	02.13.20 17.14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 02.13.20 14.00 Basis: Wet Weight
Seq Number: 3116504

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.13.20 20.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.13.20 20.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.13.20 20.37	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.13.20 20.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	02.13.20 20.37	
o-Terphenyl	84-15-1	93	%	70-135	02.13.20 20.37	

Certificate of Analytical Results: **652236**

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 6**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-009	Date Collected:	02.12.20 11.46	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	02.13.20 10.00	Basis:	Wet Weight
Seq Number:	3116502				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.13.20 18.11	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.13.20 18.11	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.13.20 18.11	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.13.20 18.11	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.13.20 18.11	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.13.20 18.11	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.13.20 18.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	02.13.20 18.11	
1,4-Difluorobenzene	540-36-3	109	%	70-130	02.13.20 18.11	

Certificate of Analytical Results: **652236**

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 7**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-010	Date Collected:	02.12.20 11.51	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	02.13.20 14.30	Basis:	Wet Weight
Seq Number:	3116532				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.9900	4.9900	mg/L	02.13.20 17.20	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.13.20 14.00	Basis:	Wet Weight
Seq Number:	3116504				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.13.20 20.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.13.20 20.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.13.20 20.58	U	1
Total TPH	PHC635	<50	50	mg/kg	02.13.20 20.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	02.13.20 20.58	
o-Terphenyl	84-15-1	91	%	70-135	02.13.20 20.58	

Certificate of Analytical Results: 652236

American Safety Services, Odessa, TX

Ameredev-3750 Riser

Sample Id:	**Auger Hole 7**	Matrix:	Soil	Date Received:	02.13.20 08.28
Lab Sample Id:	652236-010	Date Collected:	02.12.20 11.51	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	02.13.20 10.00	Basis:	Wet Weight
Seq Number:	3116502				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.13.20 18.31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.13.20 18.31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.13.20 18.31	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.13.20 18.31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.13.20 18.31	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	02.13.20 18.31	U	1
Total BTEX		<0.002	0.002	mg/kg	02.13.20 18.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	70-130	02.13.20 18.31	
1,4-Difluorobenzene	540-36-3	108	%	70-130	02.13.20 18.31	

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

American Safety Services

Ameredev-3750 Riser

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116532 — Matrix: Solid — Date Prep: 02.13.20
MB Sample Id: 7696641-1-BLK — LCS Sample Id: 7696641-1-BKS — LCSD Sample Id: 7696641-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.0000	250.00	258.60	103	258.47	103	90-110	0	20	mg/L	02.13.20 16:01	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116532 — Matrix: Soil — Date Prep: 02.13.20
Parent Sample Id: 652236-001 — MS Sample Id: 652236-001 S — MSD Sample Id: 652236-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.8048	249.00	267.16	104	266.35	103	90-110	0	20	mg/L	02.13.20 16:17	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116532 — Matrix: Soil — Date Prep: 02.13.20
Parent Sample Id: 652237-001 — MS Sample Id: 652237-001 S — MSD Sample Id: 652237-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	407.42	249.00	650.79	98	648.61	97	90-110	0	20	mg/L	02.13.20 17:30	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3116504 — Matrix: Solid — Date Prep: 02.13.20
MB Sample Id: 7696636-1-BLK — LCS Sample Id: 7696636-1-BKS — LCSD Sample Id: 7696636-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	837	84	840	84	70-135	0	20	mg/kg	02.13.20 17:29	
Diesel Range Organics (DRO)	<50.0	1000	934	93	909	91	70-135	3	20	mg/kg	02.13.20 17:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		104		101		70-135	%	02.13.20 17:29
o-Terphenyl	102		111		106		70-135	%	02.13.20 17:29

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3116504 — Matrix: Solid — Date Prep: 02.13.20
MB Sample Id: 7696636-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.13.20 17:01	

MS/MSD Percent Recovery [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

American Safety Services

Ameredev-3750 Riser

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3116504 | Matrix: Soil | Date Prep: 02.13.20
Parent Sample Id: 652236-001 | MS Sample Id: 652236-001 S | MSD Sample Id: 652236-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	832	83	836	84	70-135	0	20	mg/kg	02.13.20 18:31	
Diesel Range Organics (DRO)	<49.9	998	863	86	948	95	70-135	9	20	mg/kg	02.13.20 18:31	
Motor Oil Range Hydrocarbons (MRO)	<49.9	998	<49.9	0	<49.8	0	70-135	NC	20	mg/kg	02.13.20 18:31	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	91		99		70-135	%	02.13.20 18:31
o-Terphenyl	95		127		70-135	%	02.13.20 18:31

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3116502 | Matrix: Solid | Date Prep: 02.13.20
MB Sample Id: 7696544-1-BLK | LCS Sample Id: 7696544-1-BKS | LCSD Sample Id: 7696544-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.115	115	0.107	107	70-130	7	35	mg/kg	02.13.20 10:20	
Toluene	<0.000456	0.100	0.109	109	0.106	106	70-130	3	35	mg/kg	02.13.20 10:20	
Ethylbenzene	<0.000565	0.100	0.105	105	0.102	102	70-130	3	35	mg/kg	02.13.20 10:20	
m,p-Xylenes	<0.00101	0.200	0.205	103	0.202	101	70-130	1	35	mg/kg	02.13.20 10:20	
o-Xylene	<0.000344	0.100	0.100	100	0.0996	100	70-130	0	35	mg/kg	02.13.20 10:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		109		110		70-130	%	02.13.20 10:20
4-Bromofluorobenzene	69	**	83		88		70-130	%	02.13.20 10:20

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3116502 | Matrix: Soil | Date Prep: 02.13.20
Parent Sample Id: 652237-001 | MS Sample Id: 652237-001 S | MSD Sample Id: 652237-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.0991	99	0.105	105	70-130	6	35	mg/kg	02.13.20 11:00	
Toluene	0.000488	0.100	0.0980	98	0.103	103	70-130	5	35	mg/kg	02.13.20 11:00	
Ethylbenzene	<0.000565	0.100	0.0934	93	0.0982	98	70-130	5	35	mg/kg	02.13.20 11:00	
m,p-Xylenes	<0.00101	0.200	0.183	92	0.192	96	70-130	5	35	mg/kg	02.13.20 11:00	
o-Xylene	0.000369	0.100	0.0898	89	0.0947	94	70-130	5	35	mg/kg	02.13.20 11:00	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		115		70-130	%	02.13.20 11:00
4-Bromofluorobenzene	83		88		70-130	%	02.13.20 11:00

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

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

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

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

XENCO LABORATORIES

Setting the Standard since 1990

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)

CHAIN OF CUSTODY

Page 1 Of 1

Xenco Quote # 05 2230

Xenco Job # 05 2235

Client / Reporting Information

Company Name / Branch: American Safety Services Inc.

Company Address: 8713 Andrews Hwy Odessa Tx 79765

Email: charklin@americansafety.net; mdial@americansafety.net

Phone No: 432-557-4088 432-557-8196

Client Contact: nes Franklin

Sampler's Name: Michael Dial

Project Information

Project Name/Number: Amalmdev-3750 Riser

Project Location: Lea Co. NM

Invoice To: Bill ASSI: ATTN Thomas Franklin & Mike Dial

PO Number:

Analytical Information

Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	BTEX 8021	TPH 8015	Chloride	Hold	Field Comments
Auger Hole 1	5-6'	2/1/2023	1115	S	1	X	X	X		
Auger Hole 1	6-7'	2/1/2023	1117	S	1			X	X	
Auger Hole 1	7-8'	2/1/2023	1119	S	1			X	X	
Auger Hole 1	8-9'	2/1/2023	1121	S	1			X	X	
Auger Hole 2	0-1'	2/1/2023	1126	S	1	X	X	X		
Auger Hole 3	0-1'	2/1/2023	1131	S	1	X	X	X		
Auger Hole 4	0-1'	2/1/2023	1136	S	1	X	X	X		
Auger Hole 5	0-1'	2/1/2023	1141	S	1	X	X	X		
Auger Hole 6	0-1'	2/1/2023	1146	S	1	X	X	X		
Auger Hole 7	0-1'	2/1/2023	1151	S	1	X	X	X		

Matrix Codes

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

Turnaround Time (Business days)

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

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:
	02-3-23 0700	Michael Dial	Michael Dial	02-03-23 0828	
Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp: 5.8 Therm. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will not supersede any agreement previously negotiated under a fully executed client contract.

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: American Safety Services

Date/ Time Received: 02.13.2020 08.28.00 AM

Work Order #: 652236

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)?	5.5
#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: 02.13.2020
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 02.13.2020
Jessica Kramer

Appendix B

Sample Notice Email, Laboratory Reports

From: Kristin Pope
To: "Chad.Hensley@state.nm.us"
Cc: "Shane McNeely"; "Christie Hanna"
Subject: Ameredev-Riser 3750 Release, Application ID: 45936
Date: Tuesday, October 19, 2021 9:52:00 AM

Chad,

Thank you for discussing this submission with me a few weeks ago. I've had an opening in my schedule this afternoon that would allow me to stop by the location while in the area. I regret that I'm not able to give you more notice but I will be there around 1:00 pm MST to collect the sidewall samples that we discussed over the phone. Please call me with any questions or concerns; thank you for your help.

Kristin Pope, Sr. Project Geologist
R.T. Hicks Consultants, Ltd.
Carlsbad Field Office
(575) 302-6755
www.RTHicksConsult.com

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Friday, October 1, 2021 12:20 PM
To: Christie Hanna <channa@ameredev.com>
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 45936

To whom it may concern (c/o Christie Hanna for AMEREDEV OPERATING, LLC),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nRM2004358654, for the following reasons:

- **Closure report is DENIED due to no sidewall sampling. Please Provide sidewall samples not exceeding 200 sq/ft per sample. As stated previously, Sidewall samples will also need to be collected. No data submitted depicts this has been executed.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 45936.
Please review and make the required correction(s) prior to resubmitting.
If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,
Chad Hensley
Environmental Science & Specialist
575-703-1723
Chad.Hensley@state.nm.us

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 22, 2021

KRISTIN POPE

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: RISER 3750 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 10/20/21 9:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	10/20/2021	Sampling Date:	10/19/2021
Reported:	10/22/2021	Sampling Type:	Soil
Project Name:	RISER 3750 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	AMEREDEV - LEA CO NM		

Sample ID: SW - SW COMP 0-2' BGS (H212942-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2021	ND	2.12	106	2.00	0.572	
Toluene*	<0.050	0.050	10/21/2021	ND	2.08	104	2.00	0.534	
Ethylbenzene*	<0.050	0.050	10/21/2021	ND	2.03	102	2.00	0.177	
Total Xylenes*	<0.150	0.150	10/21/2021	ND	6.10	102	6.00	0.295	
Total BTEX	<0.300	0.300	10/21/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	10/21/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2021	ND	215	107	200	2.10	
DRO >C10-C28*	<10.0	10.0	10/20/2021	ND	202	101	200	3.07	
EXT DRO >C28-C36	<10.0	10.0	10/20/2021	ND					

Surrogate: 1-Chlorooctane *90.1 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *87.7 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	10/20/2021	Sampling Date:	10/19/2021
Reported:	10/22/2021	Sampling Type:	Soil
Project Name:	RISER 3750 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	AMEREDEV - LEA CO NM		

Sample ID: E - SW COMP 0-2' BGS (H212942-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2021	ND	2.12	106	2.00	0.572	
Toluene*	<0.050	0.050	10/21/2021	ND	2.08	104	2.00	0.534	
Ethylbenzene*	<0.050	0.050	10/21/2021	ND	2.03	102	2.00	0.177	
Total Xylenes*	<0.150	0.150	10/21/2021	ND	6.10	102	6.00	0.295	
Total BTEX	<0.300	0.300	10/21/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	10/21/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2021	ND	215	107	200	2.10	
DRO >C10-C28*	<10.0	10.0	10/20/2021	ND	202	101	200	3.07	
EXT DRO >C28-C36	<10.0	10.0	10/20/2021	ND					

Surrogate: 1-Chlorooctane *88.5 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *84.8 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	10/20/2021	Sampling Date:	10/19/2021
Reported:	10/22/2021	Sampling Type:	Soil
Project Name:	RISER 3750 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	AMEREDEV - LEA CO NM		

Sample ID: W - SW COMP 0-2' BGS (H212942-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2021	ND	2.12	106	2.00	0.572	
Toluene*	<0.050	0.050	10/21/2021	ND	2.08	104	2.00	0.534	
Ethylbenzene*	<0.050	0.050	10/21/2021	ND	2.03	102	2.00	0.177	
Total Xylenes*	<0.150	0.150	10/21/2021	ND	6.10	102	6.00	0.295	
Total BTEX	<0.300	0.300	10/21/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	10/21/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2021	ND	215	107	200	2.10	
DRO >C10-C28*	<10.0	10.0	10/20/2021	ND	202	101	200	3.07	
EXT DRO >C28-C36	<10.0	10.0	10/20/2021	ND					

Surrogate: 1-Chlorooctane *86.7 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *82.6 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	10/20/2021	Sampling Date:	10/19/2021
Reported:	10/22/2021	Sampling Type:	Soil
Project Name:	RISER 3750 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	AMEREDEV - LEA CO NM		

Sample ID: NE - SW COMP 0-2' BGS (H212942-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2021	ND	2.12	106	2.00	0.572	
Toluene*	<0.050	0.050	10/21/2021	ND	2.08	104	2.00	0.534	
Ethylbenzene*	<0.050	0.050	10/21/2021	ND	2.03	102	2.00	0.177	
Total Xylenes*	<0.150	0.150	10/21/2021	ND	6.10	102	6.00	0.295	
Total BTEX	<0.300	0.300	10/21/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	10/21/2021	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2021	ND	215	107	200	2.10	
DRO >C10-C28*	<10.0	10.0	10/20/2021	ND	202	101	200	3.07	
EXT DRO >C28-C36	<10.0	10.0	10/20/2021	ND					

Surrogate: 1-Chlorooctane *94.6 %* *44.3-133*

Surrogate: 1-Chlorooctadecane *90.6 %* *38.9-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: R.T. Hicks Consultants	**BILL TO**
Project Manager: Kristin Pope	P.O. #:
Address: 901 Rio Grande Blvd NW, Suite F-142	Company: R.T. Hicks Consultants
City: Albuquerque State: NM Zip: 87104	Attn: Randy Hicks
Phone #: 505-266-5004 Fax #:	Address:
Project #: Project Owner: Ameredev	City:
Project Name: [redacted] Riser 3750 Release	State: Zip:
Project Location: Lea Co.	Phone #:
Sampler Name: Kristin Pope	Fax #:

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	TPH 8015M	BTEX + Benzene
H212942																	
1	SW - SW comp. 0-2' bgs. [redacted]	C	1			X					X		10-19-21	1310	X	X	X
2	E - SW comp. 0-2' bgs	C	1			X					X		"	1331	X	X	X
3	W - SW comp. 0-2' bgs	C	1			X					X		"	1318	X	X	X
4	NE - SW comp. 0-2' bgs	C	1			X					X		"	1340	X	X	X

Relinquished By: Kristin Pope	Date: 10-20-21 Time: 0915	Received By: Tamara Oldaker	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	-1.0°C -0.5°C -1.5°C #113	Sample Condition Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	CHECKED BY: (Initials) T.O.

REMARKS: Email to kristin@rthicksconsult.com

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

October 01, 2020

Kristin Pope

R.T. Hicks Consultants, LTD
901 Rio Grande Blvd. NW
Suite F-142
Albuquerque, NM 87104
TEL: (505) 266-5004
FAX: (505) 266-0745

RE: Ameredev Riser 3750 Release OrderNo.: 2009B89

Dear Kristin Pope:

Hall Environmental Analysis Laboratory received 23 sample(s) on 9/19/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP1 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 12:59:00 PM
Lab ID: 2009B89-001 **Matrix:** SOIL
Received Date: 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 12:38:59 AM	55463
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/22/2020 11:46:51 PM	55331
Surr: BFB	104	70-130		%Rec	1	9/22/2020 11:46:51 PM	55331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/23/2020 3:14:14 PM	55347
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/23/2020 3:14:14 PM	55347
Surr: DNOP	114	30.4-154		%Rec	1	9/23/2020 3:14:14 PM	55347
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/22/2020 11:46:51 PM	55331
Toluene	ND	0.049		mg/Kg	1	9/22/2020 11:46:51 PM	55331
Ethylbenzene	ND	0.049		mg/Kg	1	9/22/2020 11:46:51 PM	55331
Xylenes, Total	ND	0.098		mg/Kg	1	9/22/2020 11:46:51 PM	55331
Surr: 1,2-Dichloroethane-d4	91.6	70-130		%Rec	1	9/22/2020 11:46:51 PM	55331
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	9/22/2020 11:46:51 PM	55331
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/22/2020 11:46:51 PM	55331
Surr: Toluene-d8	102	70-130		%Rec	1	9/22/2020 11:46:51 PM	55331

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP2 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 1:44:00 PM
Lab ID: 2009B89-002 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 1:16:00 AM	55463
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/23/2020 12:15:23 AM	55331
Surr: BFB	102	70-130		%Rec	1	9/23/2020 12:15:23 AM	55331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/23/2020 3:24:16 PM	55347
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/23/2020 3:24:16 PM	55347
Surr: DNOP	93.2	30.4-154		%Rec	1	9/23/2020 3:24:16 PM	55347
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	9/23/2020 12:15:23 AM	55331
Toluene	ND	0.049		mg/Kg	1	9/23/2020 12:15:23 AM	55331
Ethylbenzene	ND	0.049		mg/Kg	1	9/23/2020 12:15:23 AM	55331
Xylenes, Total	ND	0.098		mg/Kg	1	9/23/2020 12:15:23 AM	55331
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%Rec	1	9/23/2020 12:15:23 AM	55331
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	9/23/2020 12:15:23 AM	55331
Surr: Dibromofluoromethane	109	70-130		%Rec	1	9/23/2020 12:15:23 AM	55331
Surr: Toluene-d8	93.7	70-130		%Rec	1	9/23/2020 12:15:23 AM	55331

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP3 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 2:00:00 PM
Lab ID: 2009B89-003 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 1:28:21 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP4 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 2:37:00 PM
Lab ID: 2009B89-004 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 1:40:41 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP5 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 3:45:00 PM
Lab ID: 2009B89-005 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 1:53:02 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP7 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 2:22:00 PM
Lab ID: 2009B89-006 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 2:05:22 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP8 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 12:50:00 PM
Lab ID: 2009B89-007 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 2:17:43 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP9 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 1:10:00 PM
Lab ID: 2009B89-008 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 2:30:03 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP10 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 1:30:00 PM
Lab ID: 2009B89-009 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 3:07:05 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP11 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 1:22:00 PM
Lab ID: 2009B89-010 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 3:19:25 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP12 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 1:53:00 PM
Lab ID: 2009B89-011 **Matrix:** SOIL
Received Date: 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	64	60		mg/Kg	20	9/27/2020 3:31:46 AM	55463
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/23/2020 12:43:48 AM	55331
Surr: BFB	101	70-130		%Rec	1	9/23/2020 12:43:48 AM	55331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/23/2020 3:34:07 PM	55347
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/23/2020 3:34:07 PM	55347
Surr: DNOP	103	30.4-154		%Rec	1	9/23/2020 3:34:07 PM	55347
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/23/2020 12:43:48 AM	55331
Toluene	ND	0.050		mg/Kg	1	9/23/2020 12:43:48 AM	55331
Ethylbenzene	ND	0.050		mg/Kg	1	9/23/2020 12:43:48 AM	55331
Xylenes, Total	ND	0.10		mg/Kg	1	9/23/2020 12:43:48 AM	55331
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%Rec	1	9/23/2020 12:43:48 AM	55331
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	9/23/2020 12:43:48 AM	55331
Surr: Dibromofluoromethane	108	70-130		%Rec	1	9/23/2020 12:43:48 AM	55331
Surr: Toluene-d8	97.7	70-130		%Rec	1	9/23/2020 12:43:48 AM	55331

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP13 @ 0-4' ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 2:10:00 PM
Lab ID: 2009B89-012 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 3:44:06 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP14 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 3:20:00 PM
Lab ID: 2009B89-013 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 3:56:27 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP15 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 3:08:00 PM
Lab ID: 2009B89-014 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	9/27/2020 4:08:47 AM	55463
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**JMR**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/23/2020 4:03:18 AM	55331
Surr: BFB	105	70-130		%Rec	1	9/23/2020 4:03:18 AM	55331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/23/2020 3:43:58 PM	55347
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/23/2020 3:43:58 PM	55347
Surr: DNOP	102	30.4-154		%Rec	1	9/23/2020 3:43:58 PM	55347
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**JMR**
Benzene	ND	0.024		mg/Kg	1	9/23/2020 4:03:18 AM	55331
Toluene	ND	0.049		mg/Kg	1	9/23/2020 4:03:18 AM	55331
Ethylbenzene	ND	0.049		mg/Kg	1	9/23/2020 4:03:18 AM	55331
Xylenes, Total	ND	0.098		mg/Kg	1	9/23/2020 4:03:18 AM	55331
Surr: 1,2-Dichloroethane-d4	87.0	70-130		%Rec	1	9/23/2020 4:03:18 AM	55331
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	9/23/2020 4:03:18 AM	55331
Surr: Dibromofluoromethane	107	70-130		%Rec	1	9/23/2020 4:03:18 AM	55331
Surr: Toluene-d8	99.6	70-130		%Rec	1	9/23/2020 4:03:18 AM	55331

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP16 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 4:00:00 PM
Lab ID: 2009B89-015 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 4:21:08 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP17 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 3:35:00 PM
Lab ID: 2009B89-016 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 4:33:28 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP18 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 3:15:00 PM
Lab ID: 2009B89-017 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 4:45:48 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP19 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 2:40:00 PM
Lab ID: 2009B89-018 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/27/2020 4:58:09 AM	55463

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP20 @ 0-4 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 2:50:00 PM
Lab ID: 2009B89-019 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/28/2020 7:43:03 PM	55496

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP9 @ 4.1 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 1:10:00 PM
Lab ID: 2009B89-020 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	9/28/2020 8:45:05 PM	55496
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**JMR**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/23/2020 4:31:51 AM	55331
Surr: BFB	98.6	70-130		%Rec	1	9/23/2020 4:31:51 AM	55331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/23/2020 3:53:48 PM	55347
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/23/2020 3:53:48 PM	55347
Surr: DNOP	73.6	30.4-154		%Rec	1	9/23/2020 3:53:48 PM	55347
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**JMR**
Benzene	ND	0.024		mg/Kg	1	9/23/2020 4:31:51 AM	55331
Toluene	ND	0.049		mg/Kg	1	9/23/2020 4:31:51 AM	55331
Ethylbenzene	ND	0.049		mg/Kg	1	9/23/2020 4:31:51 AM	55331
Xylenes, Total	ND	0.097		mg/Kg	1	9/23/2020 4:31:51 AM	55331
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%Rec	1	9/23/2020 4:31:51 AM	55331
Surr: 4-Bromofluorobenzene	98.3	70-130		%Rec	1	9/23/2020 4:31:51 AM	55331
Surr: Dibromofluoromethane	101	70-130		%Rec	1	9/23/2020 4:31:51 AM	55331
Surr: Toluene-d8	93.2	70-130		%Rec	1	9/23/2020 4:31:51 AM	55331

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP3 @ 4.1 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 2:00:00 PM
Lab ID: 2009B89-021 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/28/2020 8:57:30 PM	55496

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP5 @ 4.1 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 3:45:00 PM
Lab ID: 2009B89-022 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/28/2020 9:09:54 PM	55496
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/23/2020 5:00:19 AM	55331
Surr: BFB	102	70-130		%Rec	1	9/23/2020 5:00:19 AM	55331
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/23/2020 4:03:37 PM	55347
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/23/2020 4:03:37 PM	55347
Surr: DNOP	88.4	30.4-154		%Rec	1	9/23/2020 4:03:37 PM	55347
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/23/2020 5:00:19 AM	55331
Toluene	ND	0.049		mg/Kg	1	9/23/2020 5:00:19 AM	55331
Ethylbenzene	ND	0.049		mg/Kg	1	9/23/2020 5:00:19 AM	55331
Xylenes, Total	ND	0.098		mg/Kg	1	9/23/2020 5:00:19 AM	55331
Surr: 1,2-Dichloroethane-d4	85.1	70-130		%Rec	1	9/23/2020 5:00:19 AM	55331
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	9/23/2020 5:00:19 AM	55331
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/23/2020 5:00:19 AM	55331
Surr: Toluene-d8	96.3	70-130		%Rec	1	9/23/2020 5:00:19 AM	55331

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2009B89**
Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD
Client Sample ID: SP10 @ 4.1 ft
Project: Ameredev Riser 3750 Release
Collection Date: 9/9/2020 1:30:00 PM
Lab ID: 2009B89-023 **Matrix:** SOIL **Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/28/2020 9:22:18 PM	55496

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2009B89**
01-Oct-20

Client: R.T. Hicks Consultants, LTD
Project: Ameredev Riser 3750 Release

Sample ID: **MB-55463** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **55463** RunNo: **72186**
Prep Date: **9/26/2020** Analysis Date: **9/26/2020** SeqNo: **2530878** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-55463** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **55463** RunNo: **72186**
Prep Date: **9/26/2020** Analysis Date: **9/26/2020** SeqNo: **2530879** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.2	90	110			

Sample ID: **MB-55496** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **55496** RunNo: **72226**
Prep Date: **9/28/2020** Analysis Date: **9/28/2020** SeqNo: **2532664** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-55496** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **55496** RunNo: **72226**
Prep Date: **9/28/2020** Analysis Date: **9/28/2020** SeqNo: **2532665** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.6	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2009B89**
01-Oct-20

Client: R.T. Hicks Consultants, LTD
Project: Ameredev Riser 3750 Release

Sample ID: **LCS-55347** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **55347** RunNo: **72066**
Prep Date: **9/22/2020** Analysis Date: **9/23/2020** SeqNo: **2527106** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	70	130			
Surr: DNOP	5.3		5.000		106	30.4	154			

Sample ID: **MB-55347** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **55347** RunNo: **72066**
Prep Date: **9/22/2020** Analysis Date: **9/23/2020** SeqNo: **2527109** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		113	30.4	154			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2009B89**
01-Oct-20

Client: R.T. Hicks Consultants, LTD
Project: Ameredev Riser 3750 Release

Sample ID: **lcs-55331** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC** Batch ID: **55331** RunNo: **72064**
Prep Date: **9/21/2020** Analysis Date: **9/23/2020** SeqNo: **2524709** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.9	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 1,2-Dichloroethane-d4	0.42		0.5000		85.0	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.5	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		101	70	130			
Surr: Toluene-d8	0.48		0.5000		96.3	70	130			

Sample ID: **mb-55331** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **55331** RunNo: **72064**
Prep Date: **9/21/2020** Analysis Date: **9/23/2020** SeqNo: **2524710** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		86.1	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.7	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.50		0.5000		99.6	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2009B89**
01-Oct-20

Client: R.T. Hicks Consultants, LTD
Project: Ameredev Riser 3750 Release

Sample ID: **lcs-55331** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS** Batch ID: **55331** RunNo: **72064**
Prep Date: **9/21/2020** Analysis Date: **9/23/2020** SeqNo: **2524727** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	79.6	70	130			
Surr: BFB	510		500.0		102	70	130			

Sample ID: **mb-55331** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS** Batch ID: **55331** RunNo: **72064**
Prep Date: **9/21/2020** Analysis Date: **9/23/2020** SeqNo: **2524728** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	520		500.0		105	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: R.T. Hicks Consultants, LTD Work Order Number: 2009B89 RcptNo: 1

Received By: **Juan Rojas** 9/19/2020 7:30:00 AM

Completed By: **Juan Rojas** 9/21/2020 9:48:42 AM

Reviewed By: JR 9/21/20

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: SPA 9-21-20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.7	Good				
2						

Chain-of-Custody Record

Client: R.T. Hicks Consultants
901 Rio Grande Blvd NW
Mailing Address: Suite F-142
Albuquerque, NM 87104
Phone #: 505-266-5004
email or Fax#: R@rthicksconsult.com
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: Amoredev-Riser 3750 Release
Project #:
Project Manager: Kristin Pope
Sampler: Kristin Pope
On Ice: ☑ Yes ☐ No
Sample Temperature: ~~0~~ 0.5-0.1=0.7

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 2009 13889 (JR 9/19/20)	(BTEX + ~~MTBE~~ + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
9/9/20	1259	SOIL	SP1 @ 0-4 ft	ONE 8-oz glass	ICE	-001	X		X					X								
	1344		SP2 @ 0-4 ft			-002	X		X					X								
	1400		SP3 @ 0-4 ft			-003								X								
	1437		SP4 @ 0-4 ft			-004								X								
	1545		SP5 @ 0-4 ft			-005								X								
	1422		SP6 @ 0-4 ft			-006								X								
	1250		SP8 @ 0-4 ft			-007								X								
	1310		SP9 @ 0-4 ft			-008								X								
	1330		SP10 @ 0-4 ft			-009								X								
	1322		SP11 @ 0-4 ft			-010								X								
	1353		SP12 @ 0-4 ft			-011	X		X					X								
	1410		SP13 @ 0-4 ft			-012								X								

Date	Time	Relinquished by	Received by	Date	Time
9/18/20	1430	Kristin Pope	[signature]	9/18/20	1430
9/19/20	1900	[signature]	[signature] courier	9/19/20	7:30

Remarks: Email to kristin@rthicksconsult.com

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: R.T. Hicks Consultants

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: Amoredev - Riser 3750 Release

Project #:

Project Manager:

Sampler: Kristin Pope

On Ice: ☒ Yes ☐ No

Sample Temperature: 0.8 - 0.1 = 0.7

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 2009B84	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
9/9/20	1520	soil	SP14 @ 0-4 ft	8-oz glass ONE	ICE	-013								X				
	1508		SP15 @ 0-4 ft			-014	X		X					X				
	1600		SP16 @ 0-4 ft			-015								X				
	1535		SP17 @ 0-4 ft			-016								X				
	1515		SP18 @ 0-4 ft			-017								X				
	1440		SP19 @ 0-4 ft			-018								X				
	1450		SP20 @ 0-4 ft			-019								X				
			SP															
	1310		SP9 @ 4.1 ft			-020	X		X					X				
	1400		SP3 @ 4.1 ft			-021								X				
	1545		SP5 @ 4.1 ft			-022	X		X					X				
	1330		SP10 @ 4.1 ft			-023								X				

Date	Time	Relinquished by	Received by	Date	Time
9/14/20	1430	Kristin Pope	[signature]	9/18/20	1430
9/14/20	1900	[signature]	[signature] courier	9/19/20	7:30

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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 231067

CONDITIONS

Operator: AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746	OGRID: 372224
	Action Number: 231067
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	9/19/2023