701 Tradewinds Boulevard, Suite C
Midland, Texas 79706
Tel. 432-685-3898
www.ntglobal.com

January 7, 2019

Ms. Christina Hernandez
New Mexico Oil Conservation District
Energy, Minerals and Natural Resources Department
1625 N. French Drive
Hobbs, NM 88240

Re: Remedial Action Report and Closure Request
Godfather 36 State Com No. 1H (API No. 3002540830000)
1RP-5227
Centennial Resource Development
Site Location: Unit C, Sec. 36, T 22-S, R 34-E
(Lat 32.3551254º, Long -103.4268036º)
Lea County, New Mexico

Dear Ms. Hernandez:

At the request of Centennial Resource Development, Inc. (Centennial), New Tech Global Environmental, LLC (NTGE) has prepared this letter to document remediation activities and request site closure from the New Mexico Oil Conservation District (NMOCD) for the following release at the Godfather 36 State Com No. 1H (Site). The Site is an active wellsite located within Unit C, Section 36, Township 22 South, Range 34 East, approximately 16.6 miles southwest of Eunice, New Mexico (Figures 1 and 2).

Background

On October 10, 2018, a release of approximately 926 barrels (bbls) of produced water occurred when the fracking operations of Centennial's Mortal Kombat 36 State Com 502H communicated with the Site causing the sucker rod packing to blow out, and resulted in the storage tanks overflowing. The majority of the release was contained within the tank battery berm with the exception of approximately 75 bbls spilling onto the pad and spreading to a few small areas off of the pad to the west. An estimated total of 825 bbls within the berm and 40 of the 75 bbls outside the berm were recovered. A small berm was built along the western edge of the pad to prevent further migration of the spill into native areas. The spill trajectory is illustrated on Figure 3, attached.

An initial site assessment was conducted on October 16 and 17, 2018 NTGE conducted Site assessment activities to determine the vertical and horizontal extents of impacts resulting from the release. A total of seven test pits were installed using a backhoe within the identified spill trajectory area to depths of 0 to 10 feet below ground surface (ft bgs). Soil samples were collected in 2 ft intervals and field screened for chlorides using Hach Quantab Chloride Strips to aid in sample selection. On November 1, 2018 two more test pits were installed at the request of the Centennial and another was installed on November 15,

2018 at the request of the NMOCD. Test pit locations are illustrated on Figure 3. Site Photographs taken at the time of sample collection are included in the attached photographic log. A Site Assessment Report (SAR) and Corrective Action Plan (CAP) were submitted to the NMOCD on October 25, 2018.

Corrective Action Activities

The CAP was approved on November 13, 2018 with stipulations from the NMOCD which can be found in the Correspondence section of the attachments. On November 15, 2018 excavation began at the location of TP3 and were removed to a depth of 2 ft bgs and an additional test pit was installed as requested by the NMOCD. A total of four conformation samples were taken from the sidewalls and one from the bottom of the excavation. At the location of the new test pit (TP10) the sample collected at TP10-0' was found to be above regulatory limits. On December 12, 2018 this area was scraped to a depth of .5 ft bgs and a conformation sample was collected. Locations for these areas can be found in Figures 3 & 4. Photographs of the excavation can be found in the attached photographic log.

Soil samples were placed directly into laboratory provided sample containers, stored on ice, and transported under proper chain-of-custody protocol to Xenco Laboratories for chemical analysis. Samples were analyzed for chlorides. Laboratory reports and chain of custody documents are attached. Soil analytical results are presented in Tables 1 and 2, below.

Table 1 - Analytical Results – Site Assessment

Chloride Concentrations (mg/kg) at Test Pit Locations												
Depth (ft)	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TP8	TP9	TP10	BKGD	Regulatory Limit
0	7.13	70.9	771	<4.95	<4.97	<4.96	<4.96	<4.95	18.1	1210	<5.00	650[A]
2	13.8	7.70	155	<4.95	<4.96	<5.00	<4.95	<5.02	134	18.4	<5.02	
4	<4.99	<4.99	<4.98	<4.98	<4.98	<4.97	<4.98	30.6	130	<5.00	<4.98	
6	175	<4.95	34.4	40.9	<5.03	<5.00	<4.99	41.3	29.4	<4.96	<4.99	
8	139	---	---	---	55.0	<4.99	<5.03	---	---	---	<5.02	
10	39.3	---	---	---	<4.98	<4.95	17.6	---	---	---	<4.95	

Table 2 - Analytical Results – Conformation Samples

Sample ID	Sample Depth (ft)	Date	Chloride (mg/kg)	TPH (mg/kg)	BTEX (mg/kg)			
					Benzene	Toluene	Ethylebenzene	Xylene
CS1	2	11/15/2018	26.0	<25.0	<0.00199	<0.00199	<0.00199	<0.00199
CS2	0.5	12/12/2018	<4.96	---	---	---	---	---
SWCS1	2	11/15/2018	128	<25.0	<0.00198	<0.00198	<0.00198	<0.00198
SWCS2	2	11/15/2018	164	<25.0	<0.00201	<0.00201	<0.00201	<0.00201
SWCS3	2	11/15/2018	41.8	<25.0	<0.00201	<0.00201	<0.00201	<0.00201
SWCS4	2	11/15/2018	238	<25.0	<0.00199	<0.00199	<0.00199	<0.00199
Regulatory Limit[A]			650	100	10	50	50	50

— exceeded regulatory limit
mg/kg – milligram per kilogram
ft – feet
A – NMAC 19.15.29

Conclusions

Based upon the analysis of the conformation samples it is concluded that the release has been remediated to in accordance with the NMOCD approved CAP as detailed above. On behalf of Centennial, NTGE requests closure be granted for this release (1RP-5227). The final C-141 form can be found in the attachments of this report for your approval.

If you have any questions regarding this report or need further information, please contact us at 432-685-3898.

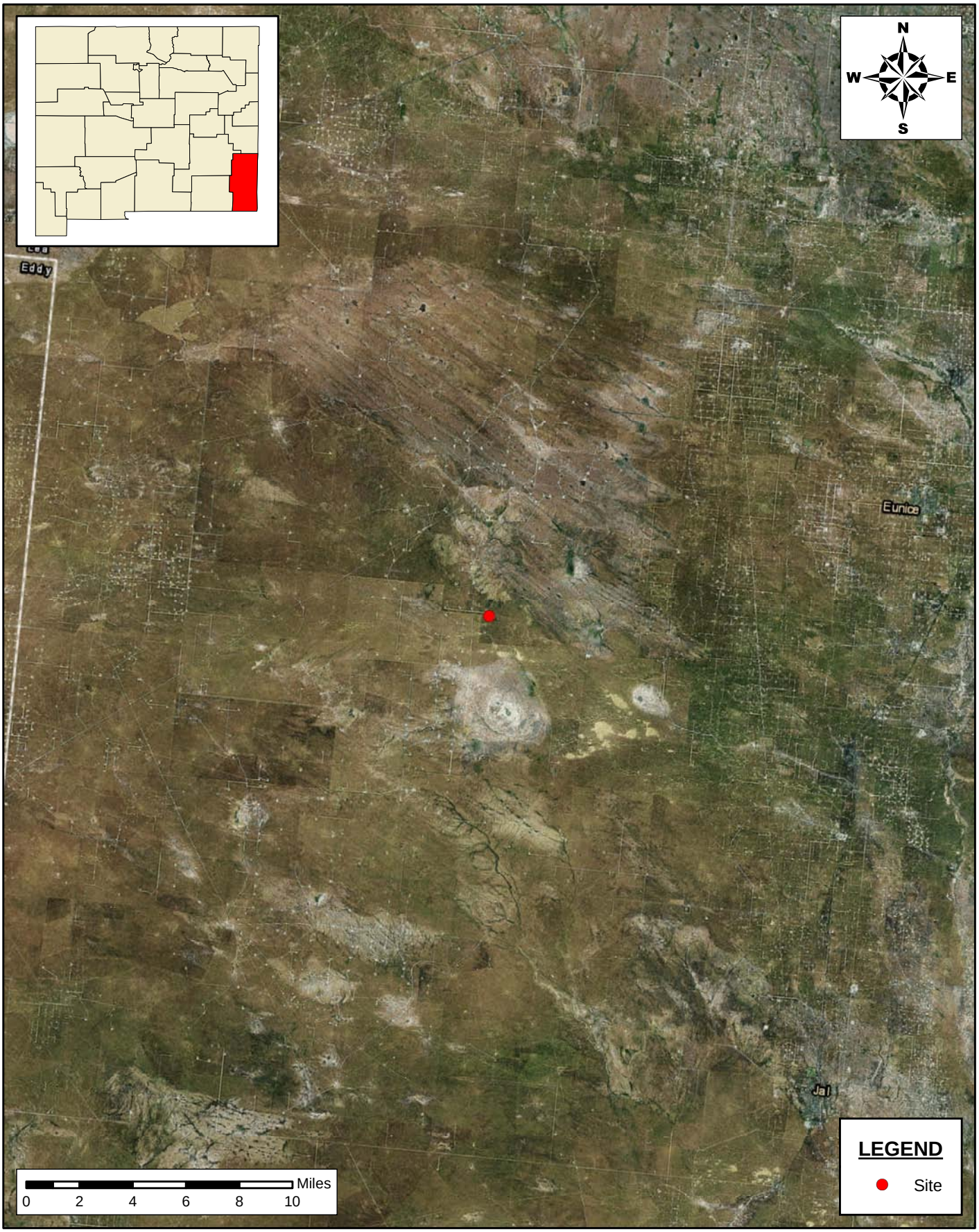
Sincerely,
NTG Environmental

Jay Loudermilk
Staff Scientist

Kari Lazo
Environmental Manager

Attachments: Figures
Photographic Log
C-141 Form
Correspondence
Laboratory Reports and Chain of Custody Documents

Figures



SITE LOCATION MAP
SITE ASSESSMENT REPORT
CENTENNIAL RESOURCES
GODFATHER 36 STATE COM 1H
LEA COUNTY, NEW MEXICO

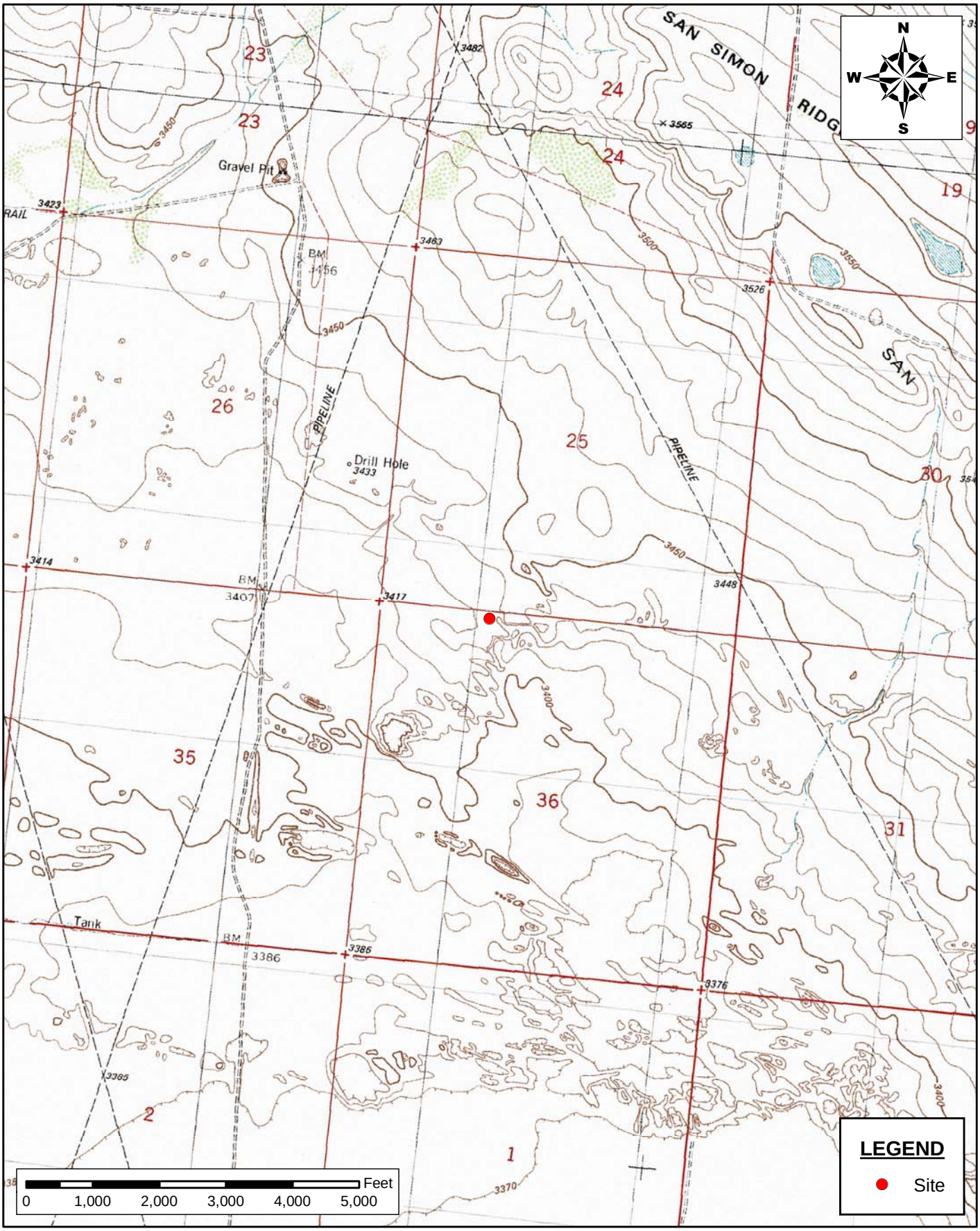
SCALE: AS SHOWN | DATE: 10/23/2018 | PROJECT #: CNTE-R1805612

New Tech Global Environmental, LLC
911 Regional Park Drive
Houston, Texas 77060
T - 281.872.9300
F - 281.872.4521
Web: www.ntglobal.com

NOTES:
1. Base Image: ESRI Maps & Data 2017
2. Map Projection: NAD 1983 UTM Zone 15N

DRAWING NUMBER:
FIGURE 1
SHEET NUMBER:
1 of 1

Document Path: P:\2018 PROJECTS\CENTENNIAL RESOURCES (CNTE)\RSC\CNTE-R1805612 Godfather 36 State Com 1H\7- Figures\Geodatabase\CNTE-R1805612_FIG 1_SLMap_10232018.mxd



AREA MAP
SITE ASSESSMENT REPORT
CENTENNIAL RESOURCES
GODFATHER 36 STATE COM 1H
LEA COUNTY, NEW MEXICO

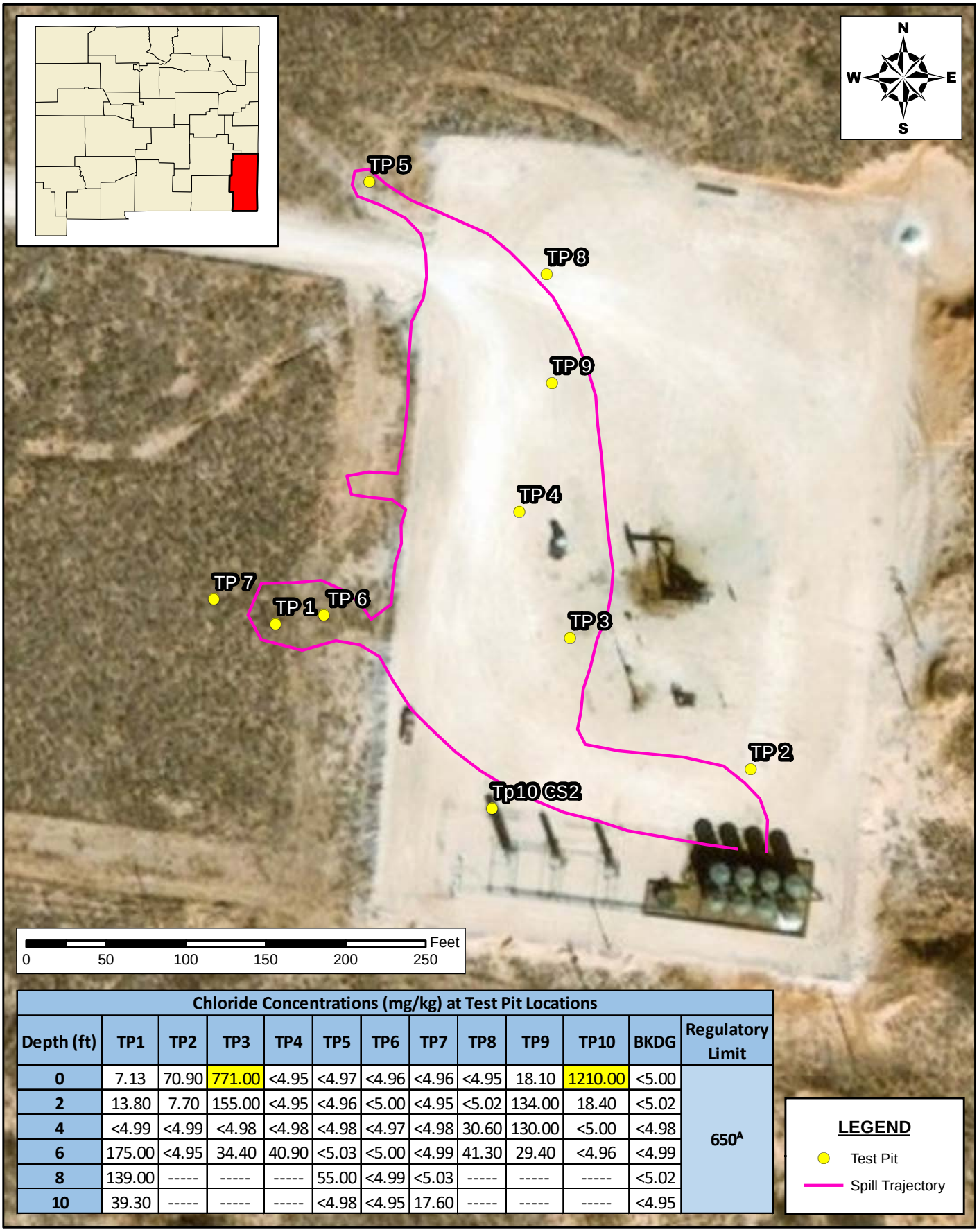
SCALE: AS SHOWN | DATE: 10/23/2018 | PROJECT #: CNTE-R1805612

New Tech Global Environmental, LLC
911 Regional Park Drive
Houston, Texas 77060
T - 281.872.9300
F - 281.872.4521
Web: www.ntglobal.com

NOTES:
1. Base Image: USDA, NRCS-NCGC 2002
2. Map Projection: NAD 1983 UTM Zone 15N

DRAWING NUMBER:
FIGURE 2
SHEET NUMBER:
1 of 1

Document Path: P:\2018 PROJECT S\CENTENNIAL RESOURCES (CNTE)\RSC\CNTE-R1805612 Godfather 36 State Com 1H\7- Figures\Geodatabase\CNTE-R1805612_FIG 2_AMap_10232018.mxd



Chloride Concentrations (mg/kg) at Test Pit Locations

Depth (ft)	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TP8	TP9	TP10	BKDG	Regulatory Limit
0	7.13	70.90	771.00	<4.95	<4.97	<4.96	<4.96	<4.95	18.10	1210.00	<5.00	650[A]
2	13.80	7.70	155.00	<4.95	<4.96	<5.00	<4.95	<5.02	134.00	18.40	<5.02	
4	<4.99	<4.99	<4.98	<4.98	<4.98	<4.97	<4.98	30.60	130.00	<5.00	<4.98	
6	175.00	<4.95	34.40	40.90	<5.03	<5.00	<4.99	41.30	29.40	<4.96	<4.99	
8	139.00	-----	-----	-----	55.00	<4.99	<5.03	-----	-----	-----	<5.02	
10	39.30	-----	-----	-----	<4.98	<4.95	17.60	-----	-----	-----	<4.95	

LEGEND

- Test Pit
- Spill Trajectory

SCALED SITE MAP
SITE ASSESSMENT REPORT
CENTENNIAL RESOURCES
GODFATHER 36 STATE COM 1H
LEA COUNTY, NEW MEXICO

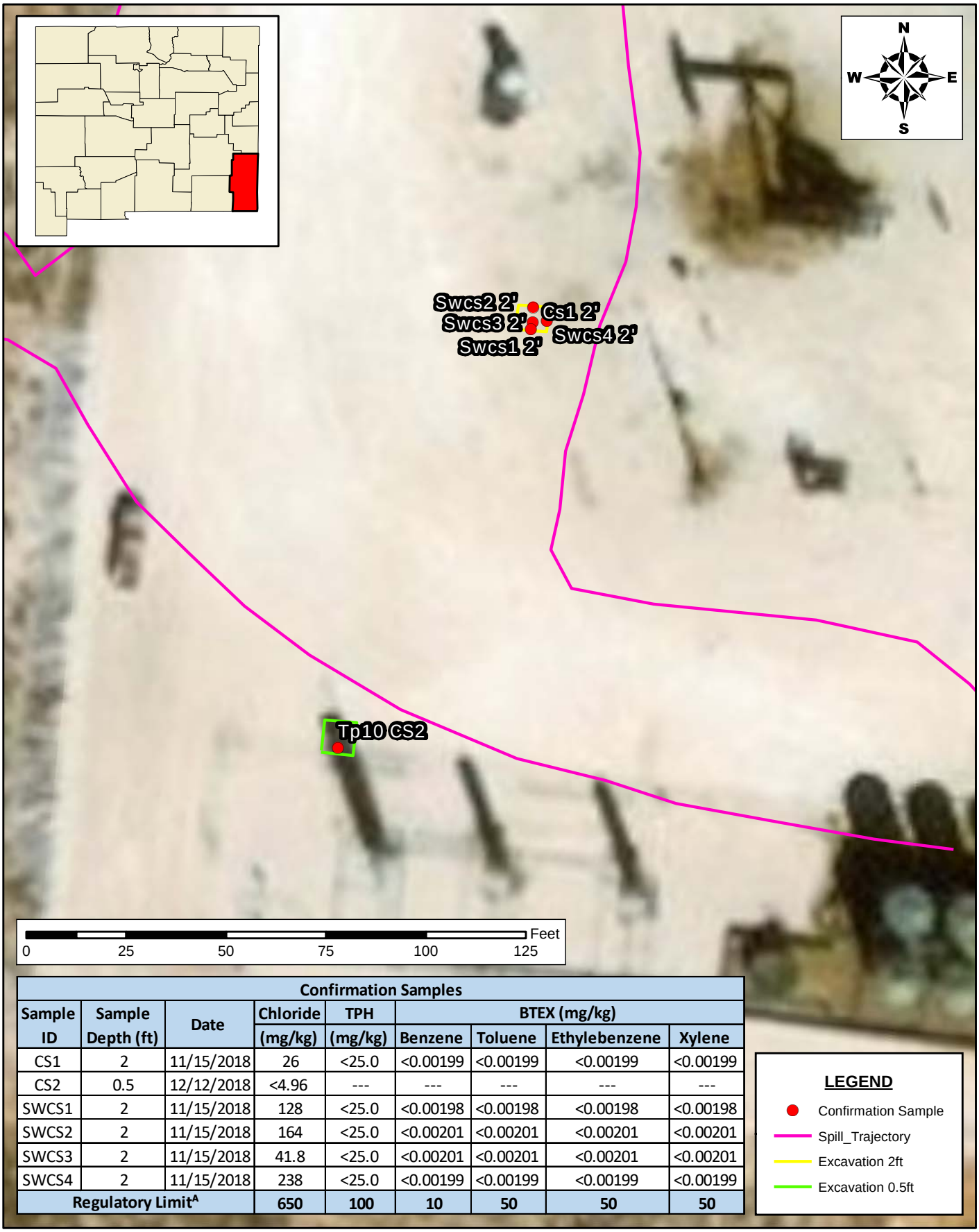
SCALE: 1:1,500 | DATE: 12/19/2018 | PROJECT #: CNTE-R1805612

New Tech Global Environmental, LLC
911 Regional Park Drive
Houston, Texas 77060
T - 281.872.9300
F - 281.872.4521
Web: www.ntglobal.com

NOTES:
1. Base Image: ESRI Maps & Data 2017
2. Map Projection: NAD 1983 UTM Zone 15N

DRAWING NUMBER:
FIGURE 3
SHEET NUMBER:
1 of 1

Document Path: P:\2018 PROJECTS\CENTENNIAL RESOURCES (CNTE)\RSC\CNTE-R1805612 Godfather 36 State Com 1H\7- Figures\Geodatabase\CNTE-R1805612_FIG 3_ScaledSiteMap_10232018.mxd



Confirmation Samples								
Sample ID	Sample Depth (ft)	Date	Chloride (mg/kg)	TPH (mg/kg)	BTEX (mg/kg)			
					Benzene	Toluene	Ethylebenzene	Xylene
CS1	2	11/15/2018	26	<25.0	<0.00199	<0.00199	<0.00199	<0.00199
CS2	0.5	12/12/2018	<4.96	---	---	---	---	---
SWCS1	2	11/15/2018	128	<25.0	<0.00198	<0.00198	<0.00198	<0.00198
SWCS2	2	11/15/2018	164	<25.0	<0.00201	<0.00201	<0.00201	<0.00201
SWCS3	2	11/15/2018	41.8	<25.0	<0.00201	<0.00201	<0.00201	<0.00201
SWCS4	2	11/15/2018	238	<25.0	<0.00199	<0.00199	<0.00199	<0.00199
Regulatory Limit[A]			650	100	10	50	50	50

LEGEND

- Confirmation Sample
- Spill_Trajectory
- Excavation 2ft
- Excavation 0.5ft

SCALED SITE MAP
SITE ASSESSMENT REPORT
CENTENNIAL RESOURCES
GODFATHER 36 STATE COM 1H
LEA COUNTY, NEW MEXICO

SCALE: 1:1,500 | DATE: 12/19/2018 | PROJECT #: CNTE-R1805612

New Tech Global Environmental, LLC
911 Regional Park Drive
Houston, Texas 77060
T - 281.872.9300
F - 281.872.4521
Web: www.ntglobal.com

NOTES:
1. Base Image: ESRI Maps & Data 2017
2. Map Projection: NAD 1983 UTM Zone 15N

DRAWING NUMBER:
FIGURE 3
SHEET NUMBER:
1 of 1

Document Path: P:\2018 PROJECTS\CENTENNIAL RESOURCES (CNTE)\RSC\CNTE-R1805612 Godfather 36 State Com 1H\7- Figures\Geodatabase\CNTE-R1805612_FIG 4_ScaledSiteMap_2_CS_12192018.mxd

Photographic Log

PHOTOGRAPHIC LOG

CENTENNIAL RESOURCE DEVELOPMENT, INC.

Photograph No. 1

Facility: Godfather 36 State Com No. 1H

County: Lea, NM

Date: 10/01/2018

Photographer: Zane Kurtz

Description:
View of spill trajectory and initial response actions looking south.

Photograph No. 2

Facility: Godfather 36 State Com No. 1H

County: Lea, NM

Date: 10/01/2018

Photographer: Zane Kurtz

Description:
View of spill trajectory and initial response actions looking east.

Photograph No. 3

Facility: Godfather 36 State Com No. 1H

County: Lea, NM

Date: 10/16/2018

Photographer: Jay Loudermilk

Description:
View of TP1, TP6, and TP7 sample locations looking east.

PHOTOGRAPHIC LOG

CENTENNIAL RESOURCE DEVELOPMENT, INC.

Photograph No. 4

Facility: Godfather 36 State Com No. 1H

County: Lea, NM

Date: 10/16/2018

Photographer: Jay Loudermilk

Description:
View of TP2 sample location looking south.

Photograph No. 5

Facility: Godfather 36 State Com No. 1H

County: Lea, NM

Date: 10/16/2018

Photographer: Jay Loudermilk

Description:
View of TP3 sample location looking north.

Photograph No. 6

Facility: Godfather 36 State Com No. 1H

County: Lea, NM

Date: 10/16/2018

Photographer: Jay Loudermilk

Description:
View of TP4 sample location looking south.

PHOTOGRAPHIC LOG

CENTENNIAL RESOURCE DEVELOPMENT, INC.

Photograph No. 7

Facility: Godfather 36 State Com No. 1H

County: Lea, NM

Date: 10/16/2018

Photographer: Jay Loudermilk

Description:
View of TP5 sample location looking south.

Photograph No. 8

Facility: Godfather 36 State Com No. 1H

County: Lea, NM

Date: 11/15/2018

Photographer: Jay Loudermilk

Description:
View of excavation at TP3 looking south.

Photograph No. 9

Facility: Godfather 36 State Com No. 1H

County: Lea, NM

Date: 12/12/2018

Photographer: Jay Loudermilk

Description:
View of excavation at TP10.

PHOTOGRAPHIC LOG

CENTENNIAL RESOURCE DEVELOPMENT, INC.

Photograph No. 10

Facility: Godfather 36 State Com No. 1H

County: Lea, NM

Date: 11/16/2018

Photographer: Jay Loudermilk

Description:
View of completed remedial activities looking northwest.

Photograph No. 11

Facility: Godfather 36 State Com No. 1H

County: Lea, NM

Date: 11/16/2018

Photographer: Jay Loudermilk

Description:
View of completed remedial activities looking north.

C-141 Form

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	nCH1828530607
District RP	1RP-5227
Facility ID	
Application ID	pCH1828531065

Release Notification

Responsible Party

Responsible Party: Centennial Resource Development	OGRID: 260511 372165
Contact Name: Zane Kurtz	Contact Telephone: 432-701-5672
Contact email: Zane.Kurtz@cdevinc.com	Incident # NCH1828530607 GODFATHER 36 STATE COM 1H @ 30-025-42083
Contact mailing address: 500 W Illinois Avenue, Suite 500, Midland, Texas 79701	

Location of Release Source

Latitude 32.35512540 Longitude -103.42680360
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Godfather 36 State Com 1H	Site Type: Producing Oil Well
Date Release Discovered: 10-1-2018	API# *(if applicable)*: 3002542083000

Unit Letter	Section	Township	Range	County
C	36	22 S	34 E	Lea

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls): Approx 926	Volume Recovered (bbls): 900
	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 frac'n our Mortal Combat 36 State Com 502H they communicated, and it blew out the stuffing box and overflowed the tanks due to not being able to kill the well. Vac trucks were called to immediately start recovering fluid and sucking out the lined containment. All was contained in the metal lined containment except approximately 75 bbls which ran out onto the pad. 40 bbls of the 75 that ran over was recovered. About 35 bbls soaked into the pad and ran off pad to the west a bit.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? This is a spill of over 25 bbls and some managed to go off the pad and into the pasture area where livestock grazes. No immediate watercourses are nearby.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No. Environmental department was not given immediate notice and the quantity was unknown until vac truck hauler tickets were accounted for.	

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: Zane Kurtz Title: Environmental Rep

Signature: Zane Kurtz Date: 10-5-2018

email: Zane.Kurtz@cdevinc.com Telephone: 432-701-5672

OCD Only

Received by: **RECEIVED** By CHernandez at 8:19 am, Oct 12, 2018

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: JayLoudermilk Title: Staff Scientist

Signature:  Date: 10/24/2018

email: jloudermilk@ntglobal.com Telephone: 432-312-8049

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- [ ] Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- [ ] Extents of contamination must be fully delineated.
- [ ] Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: Jay Loudermilk Title: Staff Scientist

Signature: Date: 1/7/18

email: jloudermilk@ntglobal.com Telephone: (432) 312-8049

OCD Only

Received by: Date:

- [ ] Approved
- [ ] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☑ Description of remediation activities

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

Printed Name: Jay Loudermilk Title: Staff Scientist

Signature: Date: 1/7/19

email: jloudermilk@ntglobal.com Telephone: (432) 312-8049

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:

Correspondence

Jay Loudermilk

From: Hernandez, Christina, EMNRD <Christina.Hernandez@state.nm.us>
Sent: Tuesday, November 13, 2018 2:25 PM
To: Mann, Ryan; Jay Loudermilk
Cc: Zane Kurtz
Subject: RE: [EXT] RE: 1RP-5227 Centennial Godfather 36 State Com 1H Assessment
Attachments: WorkPlan1RP-5227 Godfather 36 - Site Assessment Report FINAL (002).pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Mr. Loudermilk:

Notes:

- In the future, please be advised that initial C-141 form for a release must provide volume spill calculations/measurements such as: dimensions (L X W X depth of impact), soil parameters (porosity, texture, bulk density, soil moisture), meter readings, waste manifests, etc. This was initially requested by OCD on an email on 10/12/2018.
- Delineation/characterization of a spill must be done for all constituents of Table I of 19.15.29.11 NMAC, which includes: Chloride, TPH, BTEX, and Benzene.

The delineation/characterization submitted for **1RP-5227** is incomplete, however, in the interests of resolution NMOCD approves the proposed remediation plan with the following conditions:

1) Provide bottom and sidewall confirmation lab analyses for the excavation area at TP3-0', to include Benzene, BTEX and TPH extended analyses.
2) Submit laboratory analyses for all delineation sample locations at surface for Benzene, BTEX and TPH extended analyses.
3) Please include an additional delineation sample (all constituents) location at southern portion of spill (marked X on the delineation sample map) to complete horizontal delineation.
4) Dated photo documentation of the remedial activities.
5) Scaled map with the confirmation sample locations in relation to the delineation sample points.

Thanks,
Christina Hernandez
EMNRD-OCD
Environmental Specialist
1625 N. French Drive
Hobbs, NM 88240
575-393-6161 x111
Christina.Hernandez@state.nm.us

From: Mann, Ryan <rmann@slo.state.nm.us>
Sent: Monday, October 29, 2018 9:36 AM
To: 'Jay Loudermilk' <JLoudermilk@ntglobal.com>; Hernandez, Christina, EMNRD <Christina.Hernandez@state.nm.us>
Cc: Zane Kurtz <Zane.Kurtz@cdevinc.com>
Subject: [EXT] RE: 1RP-5227 Centennial Godfather 36 State Com 1H Assessment

NMSLO will with the following condition: For the off pad portion, if any topsoil was removed as part of the initial response then the same amount should be replaced. This area should also be seeded at the appropriate time. Let me know if you have any questions. Like approval is also necessary from NMOCD.

Ryan Mann
Remediation Specialist
Field Operation Division
(575) 392-3697
(505) 699-1989
New Mexico State Land Office
2827 N. Dal Paso Suite 117
Hobbs, NM 88240

From: Jay Loudermilk [mailto:JLoudermilk@ntglobal.com]
Sent: Thursday, October 25, 2018 10:59 AM
To: christina.hernandez@state.nm.us; Mann, Ryan <rmann@slo.state.nm.us>
Cc: Zane Kurtz <Zane.Kurtz@cdevinc.com>
Subject: 1RP-5227 Centennial Godfather 36 State Com 1H Assessment
Importance: High

Ms. Hernandez & Mr. Mann,

Please see attached Site Assessment Report for the Centennial Godfather 36 State Com 1H Release.

Incident ID: nCH1828530607
District RP: 1RP-5227
Application ID: pCH1828531065

If you have any question regarding the report please do not hesitate to contact me.

Thanks,

Jay Loudermilk
Staff Scientist | **NTG Environmental**
701 Tradewinds Blvd, Suite C | Midland, Texas 79706
T: 432.848.4208 | M: 432.312.8049 | jloudermilk@ntglobal.com | ntglobal.com

Laboratory Reports and Chain of Custody Document

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**SWCS2 2'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-007	Date Collected:	11.15.18 11.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.16.18 10.30	Basis:	Wet Weight
Seq Number:	3069907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**164**	4.97	mg/kg	11.16.18 14.13		1

Analytical Method:	TPH by Texas1005			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.16.18 11.00	Basis:	Wet Weight
Seq Number:	3070123				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C12 Range Hydrocarbons	PHC612	BRL	25.0	mg/kg	11.16.18 15.44	U	1
C12-C28 Range Hydrocarbons	PHCG1228	BRL	25.0	mg/kg	11.16.18 15.44	U	1
C28-C35 Range Hydrocarbons	PHCG2835	BRL	25.0	mg/kg	11.16.18 15.44	U	1
Total TPH	PHC635	BRL	25.0	mg/kg	11.16.18 15.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
o-Terphenyl	84-15-1	93	%	70-130	11.16.18 15.44	
1-Chlorooctane	111-85-3	91	%	70-130	11.16.18 15.44	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**SWCS2 2'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-007	Date Collected:	11.15.18 11.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	11.16.18 16.00	Basis:	Wet Weight
Seq Number:	3070050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	BRL	0.00201	mg/kg	11.16.18 22.22	U	1
Toluene	108-88-3	BRL	0.00201	mg/kg	11.16.18 22.22	U	1
Ethylbenzene	100-41-4	BRL	0.00201	mg/kg	11.16.18 22.22	U	1
m,p-Xylenes	179601-23-1	BRL	0.00402	mg/kg	11.16.18 22.22	U	1
o-Xylene	95-47-6	BRL	0.00201	mg/kg	11.16.18 22.22	U	1
Total Xylenes	1330-20-7	BRL	0.00201	mg/kg	11.16.18 22.22	U	1
Total BTEX		BRL	0.00201	mg/kg	11.16.18 22.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	11.16.18 22.22	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.16.18 22.22	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**SWCS3 2'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-008	Date Collected:	11.15.18 11.35	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.16.18 10.30	Basis:	Wet Weight
Seq Number:	3069907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**41.8**	5.00	mg/kg	11.16.18 14.20		1

Analytical Method:	TPH by Texas1005			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.16.18 11.00	Basis:	Wet Weight
Seq Number:	3070123				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C12 Range Hydrocarbons	PHC612	BRL	24.9	mg/kg	11.16.18 16.05	U	1
C12-C28 Range Hydrocarbons	PHCG1228	BRL	24.9	mg/kg	11.16.18 16.05	U	1
C28-C35 Range Hydrocarbons	PHCG2835	BRL	24.9	mg/kg	11.16.18 16.05	U	1
Total TPH	PHC635	BRL	24.9	mg/kg	11.16.18 16.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
o-Terphenyl	84-15-1	90	%	70-130	11.16.18 16.05	
1-Chlorooctane	111-85-3	90	%	70-130	11.16.18 16.05	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**SWCS3 2'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-008	Date Collected:	11.15.18 11.35	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	11.16.18 16.00	Basis:	Wet Weight
Seq Number:	3070050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	BRL	0.00201	mg/kg	11.16.18 22.41	U	1
Toluene	108-88-3	BRL	0.00201	mg/kg	11.16.18 22.41	U	1
Ethylbenzene	100-41-4	BRL	0.00201	mg/kg	11.16.18 22.41	U	1
m,p-Xylenes	179601-23-1	BRL	0.00402	mg/kg	11.16.18 22.41	U	1
o-Xylene	95-47-6	BRL	0.00201	mg/kg	11.16.18 22.41	U	1
Total Xylenes	1330-20-7	BRL	0.00201	mg/kg	11.16.18 22.41	U	1
Total BTEX		BRL	0.00201	mg/kg	11.16.18 22.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.16.18 22.41	
1,4-Difluorobenzene	540-36-3	111	%	70-130	11.16.18 22.41	

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**SWCS4 2'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-009	Date Collected:	11.15.18 11.40	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.16.18 10.30	Basis:	Wet Weight
Seq Number:	3069907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**238**	4.95	mg/kg	11.16.18 14.38		1

Analytical Method:	TPH by Texas1005			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.16.18 11.00	Basis:	Wet Weight
Seq Number:	3070123				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C12 Range Hydrocarbons	PHC612	BRL	25.0	mg/kg	11.16.18 16.26	U	1
C12-C28 Range Hydrocarbons	PHCG1228	BRL	25.0	mg/kg	11.16.18 16.26	U	1
C28-C35 Range Hydrocarbons	PHCG2835	BRL	25.0	mg/kg	11.16.18 16.26	U	1
Total TPH	PHC635	BRL	25.0	mg/kg	11.16.18 16.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
o-Terphenyl	84-15-1	91	%	70-130	11.16.18 16.26	
1-Chlorooctane	111-85-3	91	%	70-130	11.16.18 16.26	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**SWCS4 2'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-009	Date Collected:	11.15.18 11.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	11.16.18 16.00	Basis:	Wet Weight
Seq Number:	3070050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	BRL	0.00199	mg/kg	11.16.18 23.01	U	1
Toluene	108-88-3	BRL	0.00199	mg/kg	11.16.18 23.01	U	1
Ethylbenzene	100-41-4	BRL	0.00199	mg/kg	11.16.18 23.01	U	1
m,p-Xylenes	179601-23-1	BRL	0.00398	mg/kg	11.16.18 23.01	U	1
o-Xylene	95-47-6	BRL	0.00199	mg/kg	11.16.18 23.01	U	1
Total Xylenes	1330-20-7	BRL	0.00199	mg/kg	11.16.18 23.01	U	1
Total BTEX		BRL	0.00199	mg/kg	11.16.18 23.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	11.16.18 23.01	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.16.18 23.01	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 605718

Centennial Resource Production LLC

Godfather 36 1H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3069907 Matrix: Solid Date Prep: 11.16.18
MB Sample Id: 7666267-1-BLK LCS Sample Id: 7666267-1-BKS LCSD Sample Id: 7666267-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	261	104	271	108	90-110	4	20	mg/kg	11.16.18 12:16	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3069907 Matrix: Soil Date Prep: 11.16.18
Parent Sample Id: 605718-006 MS Sample Id: 605718-006 S MSD Sample Id: 605718-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	128	248	369	97	431	122	90-110	16	20	mg/kg	11.16.18 14:01	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3069907 Matrix: Soil Date Prep: 11.16.18
Parent Sample Id: 605733-001 MS Sample Id: 605733-001 S MSD Sample Id: 605733-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	41.3	250	288	99	291	100	90-110	1	20	mg/kg	11.16.18 12:35	

Analytical Method: **TPH by Texas1005** Prep Method: TX1005P
Seq Number: 3070123 Matrix: Solid Date Prep: 11.16.18
MB Sample Id: 7666447-1-BLK LCS Sample Id: 7666447-1-BKS LCSD Sample Id: 7666447-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
C6-C12 Range Hydrocarbons	<8.00	1000	871	87	857	86	75-125	2	20	mg/kg	11.16.18 12:19	
C12-C28 Range Hydrocarbons	<8.13	1000	969	97	949	95	75-125	2	20	mg/kg	11.16.18 12:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
o-Terphenyl	126		101		94		70-130	%	11.16.18 12:19
1-Chlorooctane	122		113		109		70-130	%	11.16.18 12:19

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

QC Summary 605718

Centennial Resource Production LLC

Godfather 36 1H

Analytical Method: **TPH by Texas1005** Prep Method: TX1005P
Seq Number: 3070123 Matrix: Soil Date Prep: 11.16.18
Parent Sample Id: 605718-001 MS Sample Id: 605718-001 S MSD Sample Id: 605718-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
C6-C12 Range Hydrocarbons	<7.99	999	1030	103	1020	102	75-125	1	30	mg/kg	11.16.18 13:19	
C12-C28 Range Hydrocarbons	38.6	999	1060	102	1040	100	75-125	2	30	mg/kg	11.16.18 13:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
o-Terphenyl	117		117		70-130	%	11.16.18 13:19
1-Chlorooctane	128		123		70-130	%	11.16.18 13:19

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3070050 Matrix: Solid Date Prep: 11.16.18
MB Sample Id: 7666419-1-BLK LCS Sample Id: 7666419-1-BKS LCSD Sample Id: 7666419-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.102	102	0.107	107	70-130	5	35	mg/kg	11.16.18 15:23	
Toluene	<0.00200	0.0998	0.0955	96	0.0991	99	70-130	4	35	mg/kg	11.16.18 15:23	
Ethylbenzene	<0.00200	0.0998	0.106	106	0.111	111	70-130	5	35	mg/kg	11.16.18 15:23	
m,p-Xylenes	<0.00399	0.200	0.207	104	0.217	109	70-130	5	35	mg/kg	11.16.18 15:23	
o-Xylene	<0.00200	0.0998	0.101	101	0.106	106	70-130	5	35	mg/kg	11.16.18 15:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		95		96		70-130	%	11.16.18 15:23
4-Bromofluorobenzene	103		94		99		70-130	%	11.16.18 15:23

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3070050 Matrix: Soil Date Prep: 11.16.18
Parent Sample Id: 605690-005 MS Sample Id: 605690-005 S MSD Sample Id: 605690-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0890	88	0.0964	95	70-130	8	35	mg/kg	11.16.18 16:03	
Toluene	0.000691	0.101	0.0848	83	0.0848	83	70-130	0	35	mg/kg	11.16.18 16:03	
Ethylbenzene	<0.000569	0.101	0.0922	91	0.0908	90	70-130	2	35	mg/kg	11.16.18 16:03	
m,p-Xylenes	<0.00102	0.202	0.180	89	0.174	86	70-130	3	35	mg/kg	11.16.18 16:03	
o-Xylene	<0.000347	0.101	0.0906	90	0.0874	87	70-130	4	35	mg/kg	11.16.18 16:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		102		70-130	%	11.16.18 16:03
4-Bromofluorobenzene	114		105		70-130	%	11.16.18 16:03

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

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 605719

www.xenco.com Page 1 of 1

Project Manager:	Zane Kurtz	Bill to: (if different)	
Company Name:	Centennial Res Dev	Company Name:	
Address:	500 W Illinois STE 500	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	(720) 701-5672	Email:	jloudermilk@ntglobal.com

Work Order Comments

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

Project Name:	Godfather 36 1H	Turn Around	
Project Number:		Routine ☐	
P.O. Number:		Rush: 48hr	
Sampler's Name:	Jay Loudermilk	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	5.2 / 5.1	Thermometer ID		
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	0.0	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	BTEX	TPH
TP10 0'	SS	11/15/18	10:30	0	1	X	X	X
TP10 2'			10:35	2		X	X	X
TP10 4'			10:40	4		X	X	X
TP10 6'			10:45	6		X	X	X
CS 1 2'			11:20	2		X	X	X
SWCS 1 2'			11:25	2		X	X	X
SWCS 2 2'			11:30	2		X	X	X
SWCS 3 2'			11:35	2		X	X	X
SWCS 4 2'			11:40	2		X	X	X

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11/15 1815	2		
3			4		
5			6		

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Centennial Resource Production LLC

Date/ Time Received: 11/15/2018 05:15:00 PM

Work Order #: 605718

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)?	5.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**Yes**
#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: 11/16/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 11/16/2018
Jessica Kramer

Analytical Report 604389

for

Centennial Resource Production LLC

Project Manager: Zane Kurtz

Godfather 36

05-NOV-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

05-NOV-18

Project Manager: **Zane Kurtz**
Centennial Resource Production LLC
400 West Illinios, Suite 1601
Midland, TX 79701

Reference: XENCO Report No(s): **604389**
Godfather 36
Project Address: Lea, NM

Zane Kurtz:

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) 604389. 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. 604389 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

Sample Cross Reference 604389

Centennial Resource Production LLC, Midland, TX

Godfather 36

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TP8 0'	S	11-01-18 09:05	0 ft	604389-001
TP8 2'	S	11-01-18 09:10	2 ft	604389-002
TP8 4'	S	11-01-18 09:15	4 ft	604389-003
TP8 6'	S	11-01-18 09:20	6 ft	604389-004
TP9 0'	S	11-01-18 09:25	0 ft	604389-005
TP9 2'	S	11-01-18 09:30	2 ft	604389-006
TP9 4'	S	11-01-18 09:35	4 ft	604389-007
TP9 6'	S	11-01-18 09:40	6 ft	604389-008

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3068465 Inorganic Anions by EPA 300

Lab Sample ID 604389-006 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 604389-001, -002, -003, -004, -005, -006, -007, -008.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 604389

Centennial Resource Production LLC, Midland, TX

Project Name: Godfather 36

Project Id:

Contact: Zane Kurtz

Project Location: Lea, NM

Date Received in Lab: Fri Nov-02-18 04:05 pm

Report Date: 05-NOV-18

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	604389-001		604389-002		604389-003		604389-004		604389-005		604389-006	
	Field Id:	TP8 0'		TP8 2'		TP8 4'		TP8 6'		TP9 0'		TP9 2'	
	Depth:	0- ft		2- ft		4- ft		6- ft		0- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-01-18 09:05		Nov-01-18 09:10		Nov-01-18 09:15		Nov-01-18 09:20		Nov-01-18 09:25		Nov-01-18 09:30	
Inorganic Anions by EPA 300	***Extracted:***	Nov-03-18 11:30		Nov-03-18 11:30		Nov-03-18 11:30		Nov-03-18 11:30		Nov-03-18 11:30		Nov-03-18 11:30	
	Analyzed:	Nov-03-18 17:58		Nov-03-18 18:51		Nov-03-18 18:56		Nov-03-18 19:02		Nov-03-18 19:07		Nov-03-18 19:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		BRL	4.95	BRL	5.02	30.6	5.00	41.3	4.95	18.1	4.99	134	4.98

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 604389

Centennial Resource Production LLC, Midland, TX

Project Name: Godfather 36

Project Id:
Contact: Zane Kurtz
Project Location: Lea, NM

Date Received in Lab: Fri Nov-02-18 04:05 pm
Report Date: 05-NOV-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	604389-007		604389-008									
	Field Id:	TP9 4'		TP9 6'									
	Depth:	4- ft		6- ft									
	Matrix:	SOIL		SOIL									
	Sampled:	Nov-01-18 09:35		Nov-01-18 09:40									
Inorganic Anions by EPA 300	***Extracted:***	Nov-03-18 11:30		Nov-03-18 11:30									
	Analyzed:	Nov-03-18 19:28		Nov-03-18 19:34									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Chloride		130	4.98	29.4	4.97								

Jessica Kramer
Project Assistant

Certificate of Analytical Results 604389

Centennial Resource Production LLC, Midland, TX

Godfather 36

Sample Id:	**TP8 0'**	Matrix:	Soil	Date Received:	11.02.18 16.05
Lab Sample Id:	604389-001	Date Collected:	11.01.18 09.05	Sample Depth:	0 ft
Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.03.18 11.30	Basis:	Wet Weight
Seq Number:	3068465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	BRL	4.95	mg/kg	11.03.18 17.58	U	1

Certificate of Analytical Results 604389

Centennial Resource Production LLC, Midland, TX

Godfather 36

Sample Id:	**TP8 2'**	Matrix:	Soil	Date Received:	11.02.18 16.05
Lab Sample Id:	604389-002	Date Collected:	11.01.18 09.10	Sample Depth:	2 ft
Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.03.18 11.30	Basis:	Wet Weight
Seq Number:	3068465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	BRL	5.02	mg/kg	11.03.18 18.51	U	1

Certificate of Analytical Results 604389

Centennial Resource Production LLC, Midland, TX

Godfather 36

Sample Id:	**TP8 4'**	Matrix:	Soil	Date Received:	11.02.18 16.05
Lab Sample Id:	604389-003	Date Collected:	11.01.18 09.15	Sample Depth:	4 ft
Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.03.18 11.30	Basis:	Wet Weight
Seq Number:	3068465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**30.6**	5.00	mg/kg	11.03.18 18.56		1

Certificate of Analytical Results 604389

Centennial Resource Production LLC, Midland, TX

Godfather 36

Sample Id:	**TP8 6'**	Matrix:	Soil	Date Received:	11.02.18 16.05
Lab Sample Id:	604389-004	Date Collected:	11.01.18 09.20	Sample Depth:	6 ft
Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.03.18 11.30	Basis:	Wet Weight
Seq Number:	3068465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**41.3**	4.95	mg/kg	11.03.18 19.02		1

Certificate of Analytical Results 604389

Centennial Resource Production LLC, Midland, TX

Godfather 36

Sample Id:	**TP9 0'**	Matrix:	Soil	Date Received:	11.02.18 16.05
Lab Sample Id:	604389-005	Date Collected:	11.01.18 09.25	Sample Depth:	0 ft
Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.03.18 11.30	Basis:	Wet Weight
Seq Number:	3068465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.1**	4.99	mg/kg	11.03.18 19.07		1

Certificate of Analytical Results 604389

Centennial Resource Production LLC, Midland, TX

Godfather 36

Sample Id:	**TP9 2'**	Matrix:	Soil	Date Received:	11.02.18 16.05
Lab Sample Id:	604389-006	Date Collected:	11.01.18 09.30	Sample Depth:	2 ft
Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.03.18 11.30	Basis:	Wet Weight
Seq Number:	3068465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**134**	4.98	mg/kg	11.03.18 19.12		1

Certificate of Analytical Results 604389

Centennial Resource Production LLC, Midland, TX

Godfather 36

Sample Id:	**TP9 4'**	Matrix:	Soil	Date Received:	11.02.18 16.05
Lab Sample Id:	604389-007	Date Collected:	11.01.18 09.35	Sample Depth:	4 ft
Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.03.18 11.30	Basis:	Wet Weight
Seq Number:	3068465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**130**	4.98	mg/kg	11.03.18 19.28		1

Certificate of Analytical Results 604389

Centennial Resource Production LLC, Midland, TX

Godfather 36

Sample Id:	**TP9 6'**	Matrix:	Soil	Date Received:	11.02.18 16.05
Lab Sample Id:	604389-008	Date Collected:	11.01.18 09.40	Sample Depth:	6 ft
Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.03.18 11.30	Basis:	Wet Weight
Seq Number:	3068465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**29.4**	4.97	mg/kg	11.03.18 19.34		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 604389

Centennial Resource Production LLC

Godfather 36

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P

Seq Number: 3068465 Matrix: Solid Date Prep: 11.03.18

MB Sample Id: 7665433-1-BLK LCS Sample Id: 7665433-1-BKS LCSD Sample Id: 7665433-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	248	99	256	102	90-110	3	20	mg/kg	11.03.18 17:48	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P

Seq Number: 3068465 Matrix: Soil Date Prep: 11.03.18

Parent Sample Id: 604389-001 MS Sample Id: 604389-001 S MSD Sample Id: 604389-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.850	248	272	110	267	108	90-110	2	20	mg/kg	11.03.18 18:03	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P

Seq Number: 3068465 Matrix: Soil Date Prep: 11.03.18

Parent Sample Id: 604389-006 MS Sample Id: 604389-006 S MSD Sample Id: 604389-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	134	249	427	118	431	119	90-110	1	20	mg/kg	11.03.18 19:18	X

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

CHAIN OF CUSTODY

XENCO LABORATORIES

Revision 2016.1

Page ___ Of ___

Setting the Standard since 1990

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

www.xenco.com

Xenco Quote # | Xenco Job # 604389

Client / Reporting Information

Company Name / Branch: Centennial Resource Development
Company Address: 500 W Illinois STE500 Midland, TX 79701
Email: zane.kurtz@cdevinc.com, jloudermilk@ntglobal.com | Phone No:
Project Contact: Zane Kurtz
Samplers's Name: Jay Loudermilk

Project Information

Project Name/Number: Godfather 36
Project Location: Lea, NM
Invoice To: Zane Kurtz CDEVinc
PO Number:

Analytical Information

Matrix Codes

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

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Chlorides	Field Comments
1	TP8 0'	0.4	11/1	9:05	SS	1									X	
2	TP8 2'	2	11/1	9:10		1									X	
3	TP8 4'	4	11/1	9:15		1									X	
4	TP8 6'	6		9:20		1									X	
5	TP9 0'	0		9:25		1									X	
6	TP9 2'	2		9:30		1									X	
7	TP9 4'	4		9:35		1									X	
8	TP9 6'	6		9:40	F	1									X	
9																
10																

Turnaround Time (Business days)

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

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

Data Deliverable Information

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

Notes:

FED-EX / UPS: Tracking #

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

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		11/2 16:05				
2	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3						
4	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
5						✓ 2.9°C

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Centennial Resource Production LLC

Date/ Time Received: 11/02/2018 04:05:00 PM

Work Order #: 604389

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)?	22.9
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**No**
#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)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Katie Lowe Date: 11/02/2018

Checklist reviewed by: Mike Kimmel Date: 11/04/2018

Analytical Report 605718

for

Centennial Resource Production LLC

Project Manager: Zane Kurtz

Godfather 36 1H

19-NOV-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

19-NOV-18

Project Manager: **Zane Kurtz**
Centennial Resource Production LLC
400 West Illinios, Suite 1601
Midland, TX 79701

Reference: XENCO Report No(s): **605718**
Godfather 36 1H
Project Address:

Zane Kurtz:

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) 605718. 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. 605718 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

Sample Cross Reference 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TP10 0'	S	11-15-18 10:30		605718-001
TP10 2'	S	11-15-18 10:35	2 ft	605718-002
TP10 4'	S	11-15-18 10:40	4 ft	605718-003
TP10 6'	S	11-15-18 10:45	6 ft	605718-004
CS 1 2'	S	11-15-18 11:20	2 ft	605718-005
SWCS1 2'	S	11-15-18 11:25	2 ft	605718-006
SWCS2 2'	S	11-15-18 11:30	2 ft	605718-007
SWCS3 2'	S	11-15-18 11:35	2 ft	605718-008
SWCS4 2'	S	11-15-18 11:40	2 ft	605718-009

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3069907 Inorganic Anions by EPA 300

Lab Sample ID 605733-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 605718-001, -002, -003, -004, -005, -006, -007, -008, -009.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3070050 BTEX by EPA 8021B

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

Certificate of Analysis Summary 605718

Centennial Resource Production LLC, Midland, TX

Project Name: Godfather 36 1H

Project Id:
Contact: Zane Kurtz
Project Location:

Date Received in Lab: Thu Nov-15-18 05:15 pm
Report Date: 19-NOV-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	605718-001		605718-002		605718-003		605718-004		605718-005		605718-006	
	Field Id:	TP10 0'		TP10 2'		TP10 4'		TP10 6'		CS 1 2'		SWCS1 2'	
	Depth:			2- ft		4- ft		6- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-15-18 10:30		Nov-15-18 10:35		Nov-15-18 10:40		Nov-15-18 10:45		Nov-15-18 11:20		Nov-15-18 11:25	
BTEX by EPA 8021B	***Extracted:***	Nov-16-18 16:00		Nov-16-18 16:00		Nov-16-18 16:00		Nov-16-18 16:00		Nov-16-18 16:00		Nov-16-18 16:00	
	Analyzed:	Nov-16-18 19:03		Nov-16-18 19:22		Nov-16-18 19:42		Nov-16-18 20:02		Nov-16-18 21:42		Nov-16-18 22:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		BRL	0.00200	BRL	0.00202	BRL	0.00200	BRL	0.00199	BRL	0.00199	BRL	0.00198
Toluene		BRL	0.00200	BRL	0.00202	BRL	0.00200	BRL	0.00199	BRL	0.00199	BRL	0.00198
Ethylbenzene		BRL	0.00200	BRL	0.00202	BRL	0.00200	BRL	0.00199	BRL	0.00199	BRL	0.00198
m,p-Xylenes		BRL	0.00399	BRL	0.00403	BRL	0.00401	BRL	0.00398	BRL	0.00398	BRL	0.00397
o-Xylene		BRL	0.00200	BRL	0.00202	BRL	0.00200	BRL	0.00199	BRL	0.00199	BRL	0.00198
Total Xylenes		BRL	0.00200	BRL	0.00202	BRL	0.00200	BRL	0.00199	BRL	0.00199	BRL	0.00198
Total BTEX		BRL	0.00200	BRL	0.00202	BRL	0.00200	BRL	0.00199	BRL	0.00199	BRL	0.00198
Inorganic Anions by EPA 300	***Extracted:***	Nov-16-18 10:30		Nov-16-18 10:30		Nov-16-18 10:30		Nov-16-18 10:30		Nov-16-18 10:30		Nov-16-18 10:30	
	Analyzed:	Nov-16-18 13:24		Nov-16-18 13:30		Nov-16-18 13:36		Nov-16-18 13:42		Nov-16-18 13:49		Nov-16-18 13:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1210	4.97	18.4	5.01	BRL	5.00	BRL	4.96	26.0	5.02	128	4.95
TPH by Texas1005	***Extracted:***	Nov-16-18 11:00		Nov-16-18 11:00		Nov-16-18 11:00		Nov-16-18 11:00		Nov-16-18 11:00		Nov-16-18 11:00	
	Analyzed:	Nov-16-18 12:59		Nov-16-18 14:01		Nov-16-18 14:21		Nov-16-18 14:42		Nov-16-18 15:03		Nov-16-18 15:24	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Range Hydrocarbons		BRL	25.0	BRL	24.9	BRL	24.9	BRL	24.9	BRL	25.0	BRL	25.0
C12-C28 Range Hydrocarbons		38.6	25.0	BRL	24.9	BRL	24.9	BRL	24.9	BRL	25.0	BRL	25.0
C28-C35 Range Hydrocarbons		BRL	25.0	BRL	24.9	BRL	24.9	BRL	24.9	BRL	25.0	BRL	25.0
Total TPH		38.6	25.0	BRL	24.9	BRL	24.9	BRL	24.9	BRL	25.0	BRL	25.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 605718

Centennial Resource Production LLC, Midland, TX

Project Name: Godfather 36 1H

Project Id:
Contact: Zane Kurtz
Project Location:

Date Received in Lab: Thu Nov-15-18 05:15 pm
Report Date: 19-NOV-18
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	605718-007		605718-008		605718-009			
	Field Id:	SWCS2 2'		SWCS3 2'		SWCS4 2'			
	Depth:	2- ft		2- ft		2- ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Nov-15-18 11:30		Nov-15-18 11:35		Nov-15-18 11:40			
BTEX by EPA 8021B	***Extracted:***	Nov-16-18 16:00		Nov-16-18 16:00		Nov-16-18 16:00			
	Analyzed:	Nov-16-18 22:22		Nov-16-18 22:41		Nov-16-18 23:01			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		BRL	0.00201	BRL	0.00201	BRL	0.00199		
Toluene		BRL	0.00201	BRL	0.00201	BRL	0.00199		
Ethylbenzene		BRL	0.00201	BRL	0.00201	BRL	0.00199		
m,p-Xylenes		BRL	0.00402	BRL	0.00402	BRL	0.00398		
o-Xylene		BRL	0.00201	BRL	0.00201	BRL	0.00199		
Total Xylenes		BRL	0.00201	BRL	0.00201	BRL	0.00199		
Total BTEX		BRL	0.00201	BRL	0.00201	BRL	0.00199		
Inorganic Anions by EPA 300	***Extracted:***	Nov-16-18 10:30		Nov-16-18 10:30		Nov-16-18 10:30			
	Analyzed:	Nov-16-18 14:13		Nov-16-18 14:20		Nov-16-18 14:38			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		164	4.97	41.8	5.00	238	4.95		
TPH by Texas1005	***Extracted:***	Nov-16-18 11:00		Nov-16-18 11:00		Nov-16-18 11:00			
	Analyzed:	Nov-16-18 15:44		Nov-16-18 16:05		Nov-16-18 16:26			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
C6-C12 Range Hydrocarbons		BRL	25.0	BRL	24.9	BRL	25.0		
C12-C28 Range Hydrocarbons		BRL	25.0	BRL	24.9	BRL	25.0		
C28-C35 Range Hydrocarbons		BRL	25.0	BRL	24.9	BRL	25.0		
Total TPH		BRL	25.0	BRL	24.9	BRL	25.0		

Jessica Kramer
Project Assistant

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**TP10 0'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-001	Date Collected:	11.15.18 10.30		

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.16.18 10.30	Basis:	Wet Weight
Seq Number:	3069907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1210**	4.97	mg/kg	11.16.18 13.24		1

Analytical Method:	TPH by Texas1005			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.16.18 11.00	Basis:	Wet Weight
Seq Number:	3070123				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C12 Range Hydrocarbons	PHC612	BRL	25.0	mg/kg	11.16.18 12.59	U	1
C12-C28 Range Hydrocarbons	PHCG1228	**38.6**	25.0	mg/kg	11.16.18 12.59		1
C28-C35 Range Hydrocarbons	PHCG2835	BRL	25.0	mg/kg	11.16.18 12.59	U	1
Total TPH	PHC635	**38.6**	25.0	mg/kg	11.16.18 12.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
o-Terphenyl	84-15-1	96	%	70-130	11.16.18 12.59	
1-Chlorooctane	111-85-3	92	%	70-130	11.16.18 12.59	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**TP10 0'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-001	Date Collected:	11.15.18 10.30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	11.16.18 16.00	Basis:	Wet Weight
Seq Number:	3070050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	BRL	0.00200	mg/kg	11.16.18 19.03	U	1
Toluene	108-88-3	BRL	0.00200	mg/kg	11.16.18 19.03	U	1
Ethylbenzene	100-41-4	BRL	0.00200	mg/kg	11.16.18 19.03	U	1
m,p-Xylenes	179601-23-1	BRL	0.00399	mg/kg	11.16.18 19.03	U	1
o-Xylene	95-47-6	BRL	0.00200	mg/kg	11.16.18 19.03	U	1
Total Xylenes	1330-20-7	BRL	0.00200	mg/kg	11.16.18 19.03	U	1
Total BTEX		BRL	0.00200	mg/kg	11.16.18 19.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	11.16.18 19.03	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.16.18 19.03	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**TP10 2'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-002	Date Collected:	11.15.18 10.35	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.16.18 10.30	Basis:	Wet Weight
Seq Number:	3069907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.4**	5.01	mg/kg	11.16.18 13.30		1

Analytical Method:	TPH by Texas1005			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.16.18 11.00	Basis:	Wet Weight
Seq Number:	3070123				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C12 Range Hydrocarbons	PHC612	BRL	24.9	mg/kg	11.16.18 14.01	U	1
C12-C28 Range Hydrocarbons	PHCG1228	BRL	24.9	mg/kg	11.16.18 14.01	U	1
C28-C35 Range Hydrocarbons	PHCG2835	BRL	24.9	mg/kg	11.16.18 14.01	U	1
Total TPH	PHC635	BRL	24.9	mg/kg	11.16.18 14.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
o-Terphenyl	84-15-1	89	%	70-130	11.16.18 14.01	
1-Chlorooctane	111-85-3	89	%	70-130	11.16.18 14.01	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**TP10 2'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-002	Date Collected:	11.15.18 10.35	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	11.16.18 16.00	Basis:	Wet Weight
Seq Number:	3070050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	BRL	0.00202	mg/kg	11.16.18 19.22	U	1
Toluene	108-88-3	BRL	0.00202	mg/kg	11.16.18 19.22	U	1
Ethylbenzene	100-41-4	BRL	0.00202	mg/kg	11.16.18 19.22	U	1
m,p-Xylenes	179601-23-1	BRL	0.00403	mg/kg	11.16.18 19.22	U	1
o-Xylene	95-47-6	BRL	0.00202	mg/kg	11.16.18 19.22	U	1
Total Xylenes	1330-20-7	BRL	0.00202	mg/kg	11.16.18 19.22	U	1
Total BTEX		BRL	0.00202	mg/kg	11.16.18 19.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	11.16.18 19.22	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.16.18 19.22	

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**TP10 4'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-003	Date Collected:	11.15.18 10.40	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.16.18 10.30	Basis:	Wet Weight
Seq Number:	3069907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	BRL	5.00	mg/kg	11.16.18 13.36	U	1

Analytical Method:	TPH by Texas1005			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.16.18 11.00	Basis:	Wet Weight
Seq Number:	3070123				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C12 Range Hydrocarbons	PHC612	BRL	24.9	mg/kg	11.16.18 14.21	U	1
C12-C28 Range Hydrocarbons	PHCG1228	BRL	24.9	mg/kg	11.16.18 14.21	U	1
C28-C35 Range Hydrocarbons	PHCG2835	BRL	24.9	mg/kg	11.16.18 14.21	U	1
Total TPH	PHC635	BRL	24.9	mg/kg	11.16.18 14.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
o-Terphenyl	84-15-1	91	%	70-130	11.16.18 14.21	
1-Chlorooctane	111-85-3	93	%	70-130	11.16.18 14.21	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**TP10 4'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-003	Date Collected:	11.15.18 10.40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	11.16.18 16.00	Basis:	Wet Weight
Seq Number:	3070050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	BRL	0.00200	mg/kg	11.16.18 19.42	U	1
Toluene	108-88-3	BRL	0.00200	mg/kg	11.16.18 19.42	U	1
Ethylbenzene	100-41-4	BRL	0.00200	mg/kg	11.16.18 19.42	U	1
m,p-Xylenes	179601-23-1	BRL	0.00401	mg/kg	11.16.18 19.42	U	1
o-Xylene	95-47-6	BRL	0.00200	mg/kg	11.16.18 19.42	U	1
Total Xylenes	1330-20-7	BRL	0.00200	mg/kg	11.16.18 19.42	U	1
Total BTEX		BRL	0.00200	mg/kg	11.16.18 19.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.16.18 19.42	
1,4-Difluorobenzene	540-36-3	110	%	70-130	11.16.18 19.42	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**TP10 6'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-004	Date Collected:	11.15.18 10.45	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.16.18 10.30	Basis:	Wet Weight
Seq Number:	3069907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	BRL	4.96	mg/kg	11.16.18 13.42	U	1

Analytical Method:	TPH by Texas1005			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.16.18 11.00	Basis:	Wet Weight
Seq Number:	3070123				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C12 Range Hydrocarbons	PHC612	BRL	24.9	mg/kg	11.16.18 14.42	U	1
C12-C28 Range Hydrocarbons	PHCG1228	BRL	24.9	mg/kg	11.16.18 14.42	U	1
C28-C35 Range Hydrocarbons	PHCG2835	BRL	24.9	mg/kg	11.16.18 14.42	U	1
Total TPH	PHC635	BRL	24.9	mg/kg	11.16.18 14.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
o-Terphenyl	84-15-1	90	%	70-130	11.16.18 14.42	
1-Chlorooctane	111-85-3	91	%	70-130	11.16.18 14.42	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**TP10 6'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-004	Date Collected:	11.15.18 10.45	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	11.16.18 16.00	Basis:	Wet Weight
Seq Number:	3070050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	BRL	0.00199	mg/kg	11.16.18 20.02	U	1
Toluene	108-88-3	BRL	0.00199	mg/kg	11.16.18 20.02	U	1
Ethylbenzene	100-41-4	BRL	0.00199	mg/kg	11.16.18 20.02	U	1
m,p-Xylenes	179601-23-1	BRL	0.00398	mg/kg	11.16.18 20.02	U	1
o-Xylene	95-47-6	BRL	0.00199	mg/kg	11.16.18 20.02	U	1
Total Xylenes	1330-20-7	BRL	0.00199	mg/kg	11.16.18 20.02	U	1
Total BTEX		BRL	0.00199	mg/kg	11.16.18 20.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	11.16.18 20.02	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.16.18 20.02	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**CS 1 2'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-005	Date Collected:	11.15.18 11.20	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.16.18 10.30	Basis:	Wet Weight
Seq Number:	3069907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26.0**	5.02	mg/kg	11.16.18 13.49		1

Analytical Method:	TPH by Texas1005			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.16.18 11.00	Basis:	Wet Weight
Seq Number:	3070123				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C12 Range Hydrocarbons	PHC612	BRL	25.0	mg/kg	11.16.18 15.03	U	1
C12-C28 Range Hydrocarbons	PHCG1228	BRL	25.0	mg/kg	11.16.18 15.03	U	1
C28-C35 Range Hydrocarbons	PHCG2835	BRL	25.0	mg/kg	11.16.18 15.03	U	1
Total TPH	PHC635	BRL	25.0	mg/kg	11.16.18 15.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
o-Terphenyl	84-15-1	89	%	70-130	11.16.18 15.03	
1-Chlorooctane	111-85-3	90	%	70-130	11.16.18 15.03	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**CS 1 2'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-005	Date Collected:	11.15.18 11.20	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	11.16.18 16.00	Basis:	Wet Weight
Seq Number:	3070050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	BRL	0.00199	mg/kg	11.16.18 21.42	U	1
Toluene	108-88-3	BRL	0.00199	mg/kg	11.16.18 21.42	U	1
Ethylbenzene	100-41-4	BRL	0.00199	mg/kg	11.16.18 21.42	U	1
m,p-Xylenes	179601-23-1	BRL	0.00398	mg/kg	11.16.18 21.42	U	1
o-Xylene	95-47-6	BRL	0.00199	mg/kg	11.16.18 21.42	U	1
Total Xylenes	1330-20-7	BRL	0.00199	mg/kg	11.16.18 21.42	U	1
Total BTEX		BRL	0.00199	mg/kg	11.16.18 21.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	11.16.18 21.42	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.16.18 21.42	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**SWCS1 2'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-006	Date Collected:	11.15.18 11.25	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.16.18 10.30	Basis:	Wet Weight
Seq Number:	3069907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**128**	4.95	mg/kg	11.16.18 13.55		1

Analytical Method:	TPH by Texas1005			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.16.18 11.00	Basis:	Wet Weight
Seq Number:	3070123				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C12 Range Hydrocarbons	PHC612	BRL	25.0	mg/kg	11.16.18 15.24	U	1
C12-C28 Range Hydrocarbons	PHCG1228	BRL	25.0	mg/kg	11.16.18 15.24	U	1
C28-C35 Range Hydrocarbons	PHCG2835	BRL	25.0	mg/kg	11.16.18 15.24	U	1
Total TPH	PHC635	BRL	25.0	mg/kg	11.16.18 15.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
o-Terphenyl	84-15-1	102	%	70-130	11.16.18 15.24	
1-Chlorooctane	111-85-3	101	%	70-130	11.16.18 15.24	

Certificate of Analytical Results 605718

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**SWCS1 2'**	Matrix:	Soil	Date Received:	11.15.18 17.15
Lab Sample Id:	605718-006	Date Collected:	11.15.18 11.25	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	11.16.18 16.00	Basis:	Wet Weight
Seq Number:	3070050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	BRL	0.00198	mg/kg	11.16.18 22.02	U	1
Toluene	108-88-3	BRL	0.00198	mg/kg	11.16.18 22.02	U	1
Ethylbenzene	100-41-4	BRL	0.00198	mg/kg	11.16.18 22.02	U	1
m,p-Xylenes	179601-23-1	BRL	0.00397	mg/kg	11.16.18 22.02	U	1
o-Xylene	95-47-6	BRL	0.00198	mg/kg	11.16.18 22.02	U	1
Total Xylenes	1330-20-7	BRL	0.00198	mg/kg	11.16.18 22.02	U	1
Total BTEX		BRL	0.00198	mg/kg	11.16.18 22.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.16.18 22.02	
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.16.18 22.02	

Analytical Report 608376

for

Centennial Resource Production LLC

Project Manager: Zane Kurtz

Godfather 36 1H

13-DEC-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

13-DEC-18

Project Manager: **Zane Kurtz**
Centennial Resource Production LLC
400 West Illinios, Suite 1601
Midland, TX 79701

Reference: XENCO Report No(s): **608376**
Godfather 36 1H
Project Address:

Zane Kurtz:

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) 608376. 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. 608376 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

Sample Cross Reference 608376

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
C2 0.5'	S	12-12-18 11:00	0.5	608376-001

CASE NARRATIVE

Client Name: Centennial Resource Production LLC
Project Name: Godfather 36 1H

Project ID:
Work Order Number(s): *608376*

Report Date: *13-DEC-18*
Date Received: *12/12/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 608376

Centennial Resource Production LLC, Midland, TX

Project Name: Godfather 36 1H

Project Id:
Contact: Zane Kurtz
Project Location:

Date Received in Lab: Wed Dec-12-18 01:32 pm
Report Date: 13-DEC-18
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	608376-001					
	Field Id:	C2 0.5'					
	Depth:	0.5-					
	Matrix:	SOIL					
	Sampled:	Dec-12-18 11:00					
Inorganic Anions by EPA 300	***Extracted:***	Dec-12-18 16:15					
	Analyzed:	Dec-12-18 22:00					
	Units/RL:	mg/kg RL					
Chloride		BRL 4.96					

Jessica Kramer
Project Assistant

Certificate of Analytical Results 608376

Centennial Resource Production LLC, Midland, TX

Godfather 36 1H

Sample Id:	**C2 0.5'**	Matrix:	Soil	Date Received:	12.12.18 13.32
Lab Sample Id:	608376-001	Date Collected:	12.12.18 11.00	Sample Depth:	0.5
Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.12.18 16.15	Basis:	Wet Weight
Seq Number:	3072723				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	BRL	4.96	mg/kg	12.12.18 22.00	U	1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 608376

Centennial Resource Production LLC

Godfather 36 1H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P

Seq Number: 3072723 Matrix: Solid Date Prep: 12.12.18

MB Sample Id: 7667909-1-BLK LCS Sample Id: 7667909-1-BKS LCSD Sample Id: 7667909-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	262	105	259	104	90-110	1	20	mg/kg	12.12.18 20:21	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P

Seq Number: 3072723 Matrix: Soil Date Prep: 12.12.18

Parent Sample Id: 608349-008 MS Sample Id: 608349-008 S MSD Sample Id: 608349-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1120	250	1300	72	1290	68	90-110	1	20	mg/kg	12.12.18 20:39	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P

Seq Number: 3072723 Matrix: Soil Date Prep: 12.12.18

Parent Sample Id: 608376-001 MS Sample Id: 608376-001 S MSD Sample Id: 608376-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.852	248	253	102	258	104	90-110	2	20	mg/kg	12.12.18 22:06	

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

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 608376

www.xenco.com Page 1 of 1

Project Manager:	Zane Kurtz	Bill to: (if different)	
Company Name:	Centennial Resource	Company Name:	
Address:	500 W Illinois Ave STE 500	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:		Email:	jlowdermilk@ntglobal.com

Work Order Comments

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

Project Name:	GodFather 36 1H	Turn Around	
Project Number:		Routine ☐	
P.O. Number:		Rush: 48hr	
Sampler's Name:	Jay Lowdermilk	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	23.2 / 23.4	Thermometer ID:		
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides
CS 2 0.5'	SS	12/12/18	11:00	0.5	1	X

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		12/12 1332	2		
3			4		
5			6		

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Centennial Resource Production LLC

Date/ Time Received: 12/12/2018 01:32:00 PM

Work Order #: 608376

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)?	23.4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**No**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 12/12/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 12/12/2018
Jessica Kramer