



Souder, Miller & Associates ♦ 201 S. Halagueno St. ♦ Carlsbad, NM 88220  
(575) 689-8801

December 10, 2020

#5E29133-BG62

NMOCD District 2  
811 S. First St.,  
Artesia, New Mexico 88210

SUBJECT: Remediation Closure Report for the Todd 15 – 7 Battery Release (NRM2014568830), Eddy County, New Mexico

To Whom It May Concern:

On behalf of Devon Energy Production Company, Souder, Miller & Associates (SMA) has prepared this Remediation Closure Report that describes the remediation of a release of liquids related to oil and gas production activities at Todd 15 – 7 Battery site. The site is in Unit G, Section 15, Township 23S, Range 31E, Eddy County, New Mexico, on Federal land. Figure 1 illustrates the vicinity and site location on an USGS 7.5-minute quadrangle map.

Table 1 summarizes release information and Closure Criteria.

Table 1: Release Information and Closure Criteria			
Name	Todd 15 – 7 Battery	Company	Devon Energy Production Company
API Number	30-015-32016	Location	32.3062194, -103.7635472
Tracking Number	NRM2014568830		
Estimated Date of Release	5/20/2020	Date Reported to NMOCD	5/21/2020
Land Owner	Federal	Reported To	NMOCD, BLM
Source of Release	Overflow from vent tank caused by a loss in pressure at the separation equipment.		
Released Volume	22.35 BBLS	Released Material	Crude Oil
Recovered Volume	20.0 BBLS	Net Release	2.35 BBLS
NMOCD Closure Criteria	<50 feet to groundwater		
SMA Response Dates	9/16/2020, 9/29/2020, 11/12/2020, 11/16/2020		

Todd 15 – 7 Battery Remediation Closure Report  
December 10, 2020

NRM2014568830

## **1.0 Background**

On May 20, 2020, a release was discovered at the Todd 15 – 7 Battery site due to overflow from the vent tank caused by a loss in pressure at the separation equipment. Initial response activities were conducted by the operator, and included source elimination and site stabilization activities, which recovered approximately 20.0 barrels of crude oil of the 22.35 barrels released. Figure 1 illustrates the vicinity and site location; Figure 2 illustrates the release location. The C-141 form is included in Appendix A.

## **2.0 Site Information and Closure Criteria**

The Todd 15 – 7 Battery is located approximately 28 miles southeast of Carlsbad, New Mexico on Federal (BLM) land at an elevation of approximately 3,453 feet above mean sea level (amsl).

### **Depth to Groundwater**

Based upon Office of the State Engineer well data (Appendix B), depth to groundwater in the area is estimated to be 639 feet below grade surface (bgs).

### **Wellhead Protection Area**

There is one known water sources within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database.

### **Distance to Nearest Significant Watercourse**

The nearest significant watercourse is a New Mexico wetland, located approximately 13,135 feet to the northeast of the Todd 15 – 7 Battery site.

Table 2 demonstrates the Closure Criteria applicable to this location. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Due to the lack of supportable groundwater depth information, and to the applicable reclamation requirements for most of the release area, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of less than 50 feet bgs.

## **3.0 Release Characterization and Remediation Activities**

On September 16, and 29, 2020, SMA personnel performed site delineation activities at the Todd 15 – 7 Battery site. SMA collected soil samples around the release site and throughout the visibly stained area. Soil samples were field-screened for chloride using an electrical conductivity (EC) meter and for hydrocarbon impacts using a calibrated MiniRAE 3000 photoionization detector (PID) equipped with a 10.6 eV lamp.

A total of four sample locations (T1 – T4) were investigated using a hand-auger to depths of up to 2 feet bgs. A minimum of two samples were collected at each sampling location and field-screened using the methods above. A total of nine samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

On November 12, 2020, SMA returned to the site to guide the excavation of contaminated soil. SMA guided the excavation activities by collecting soil samples for field screening. Samples were screened using the methods above. The walls and base were excavated until field screening results indicated that the NMOCD Closure Criteria would be met. NMOCD was notified on November 12, 2020 that closure samples were expected to be collected in two (2) business days.

**Todd 15 – 7 Battery Remediation Closure Report**  
**December 10, 2020**

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On November 16, 2020, SMA collected confirmation samples from the walls and base of the excavation, which measured approximately 12.5 by 21 by 1.5 feet, representing all initial sample locations (T1 – T4). Confirmation samples were comprised of five-point composites of the base (CS1) and walls (SW1 – SW4).

A total of five confirmation samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. Laboratory samples were collected in accordance with the sampling protocol included in Appendix C. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Envirotech in Farmington, New Mexico (Appendix D).

Figure 3 shows the site and initial sample locations, Figure 3A shows the extent of the final excavation and closure sample locations. All field screening and laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D.

#### **4.0 Site Recommendations**

As demonstrated in Table 3, all closure samples meet the Closure Criteria. The site has been remediated to meet the standards of Table I of 19.15.29.12 NMAC.

Contaminated soils were removed and replaced with clean backfill material to return the surface to previous contours. The contaminated soil was transported and disposed of at Northern Delaware Basin Landfill near Jal, NM, an NMOCD-permitted disposal facility.

SMA recommends no further action and requests closure of NRM2014568830.

Todd 15 – 7 Battery Remediation Closure Report  
December 10, 2020

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## **5.0 Scope and Limitations**

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation; and preparing this report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact Ashley Maxwell at 505-325-7535.

Submitted by:  
SOUDER, MILLER & ASSOCIATES

Reviewed by:



Ashley Maxwell  
Project Scientist



Shawna Chubbuck  
Senior Scientist

### **REFERENCES:**

New Mexico Office of the State Engineer (NMOSE) online water well database  
[https://gis.ose.state.nm.us/gisapps/ose\\_pod\\_locations/](https://gis.ose.state.nm.us/gisapps/ose_pod_locations/); accessed 11/19/2020

### **ATTACHMENTS:**

#### **Figures:**

Figure 1: Vicinity and Well Head Protection Map  
Figure 2: Surface Water Radius Map  
Figure 3: Site and Initial Sample Location Map  
Figure 3A: Site and Confirmation Sample Location Map

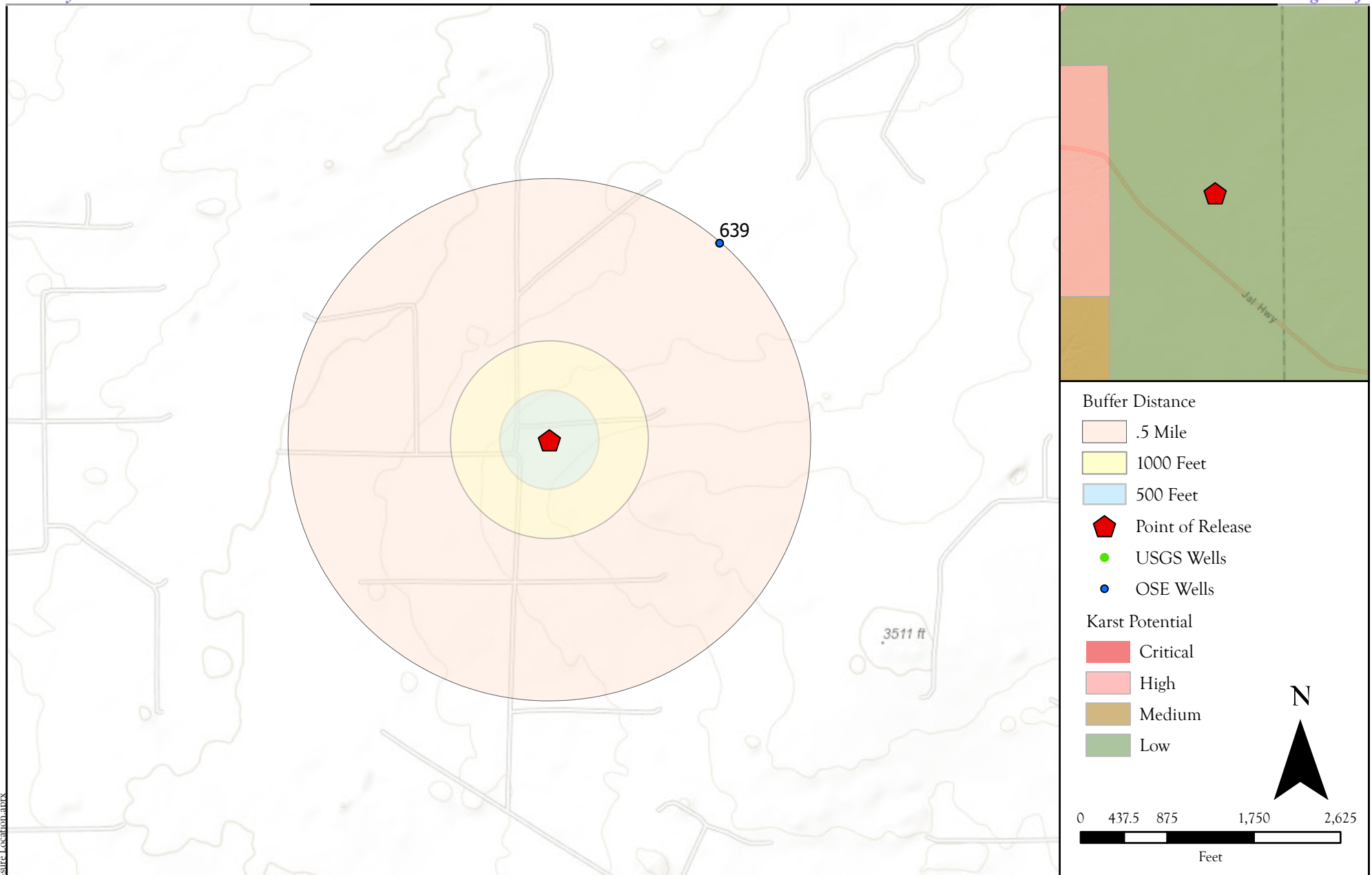
#### **Tables:**

Table 2: NMOCD Closure Criteria Justification  
Table 3: Summary of Sample Results

#### **Appendices:**

Appendix A: Form C141  
Appendix B: NMOSE Wells Report  
Appendix C: Sampling Protocol and Field Notes  
Appendix D: Laboratory Analytical Reports  
Appendix E: Photo Log

# FIGURES



Vicinity and Well Head Protection Map  
 Todd 15 - 7 Battery - Devon Energy Production Company  
 UL: G S: 15 T: 23S R: 31E, Eddy County, New Mexico

Figure 1

C:\Users\jms\Desktop\Bradley A1 Closure Location.mxd

 Date Saved:  
 11/19/2020

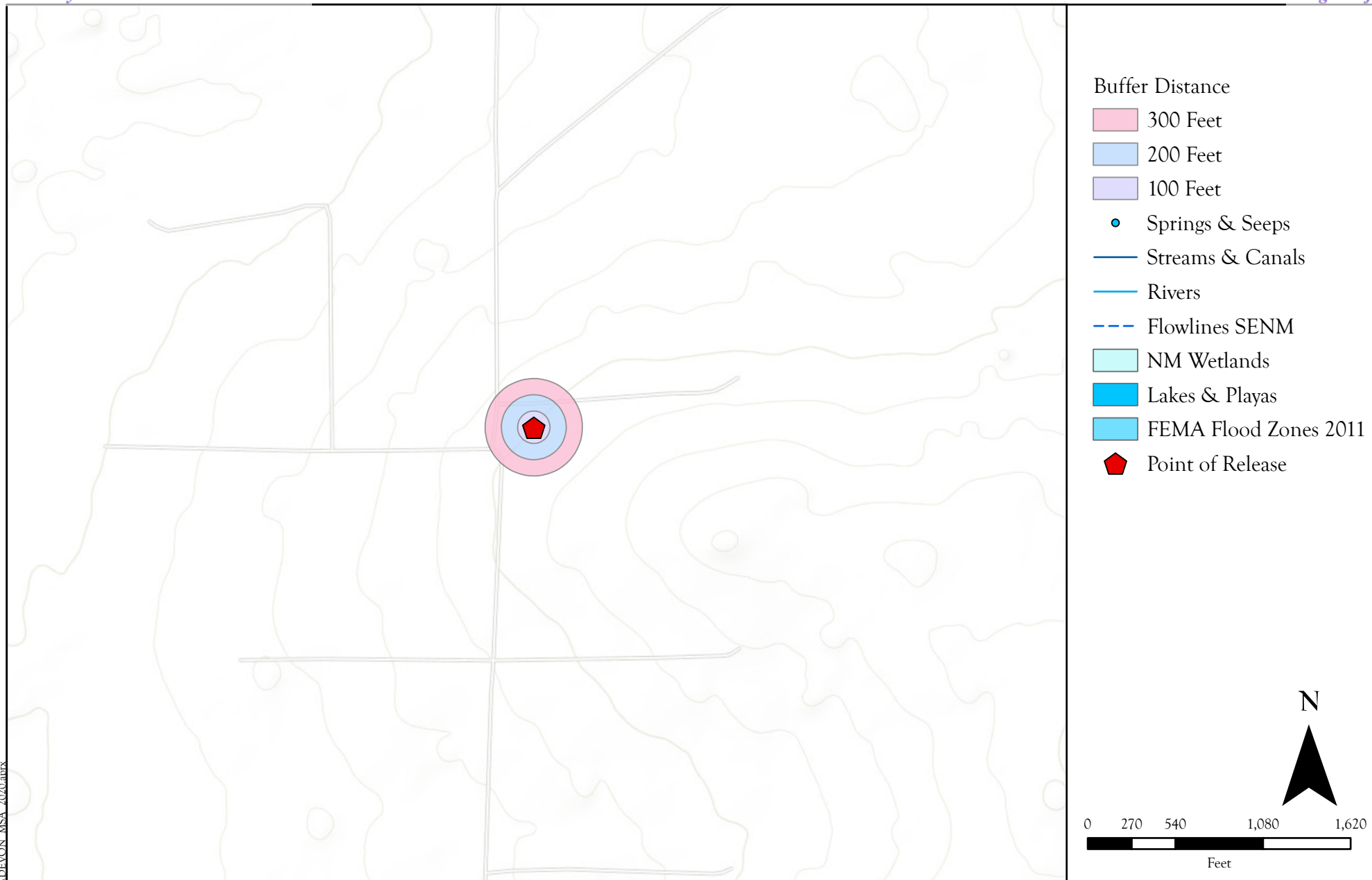
Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

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Drawn	P.R. Smith
Date	11/19/2020
Checked	_____
Approved	_____




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 Carlsbad, New Mexico 88221  
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## Buffer Distance

 300 Feet

 200 Feet

 100 Feet

 Springs & Seeps

 Streams & Canals


 Rivers

 Flowlines SENM

 NM Wetlands

 Lakes & Playas

 FEMA Flood Zones 2011

 Point of Release

Surface Water Protection Map  
 Todd 15 - 7 Battery - Devon Energy Production Company  
 UL: G S: 15 T: 23S R: 31E, Eddy County, New Mexico

Figure 2

## Revisions

By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_  
 By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_

Drawn  
 Date  
 Checked  
 Approved

P.R. Smith

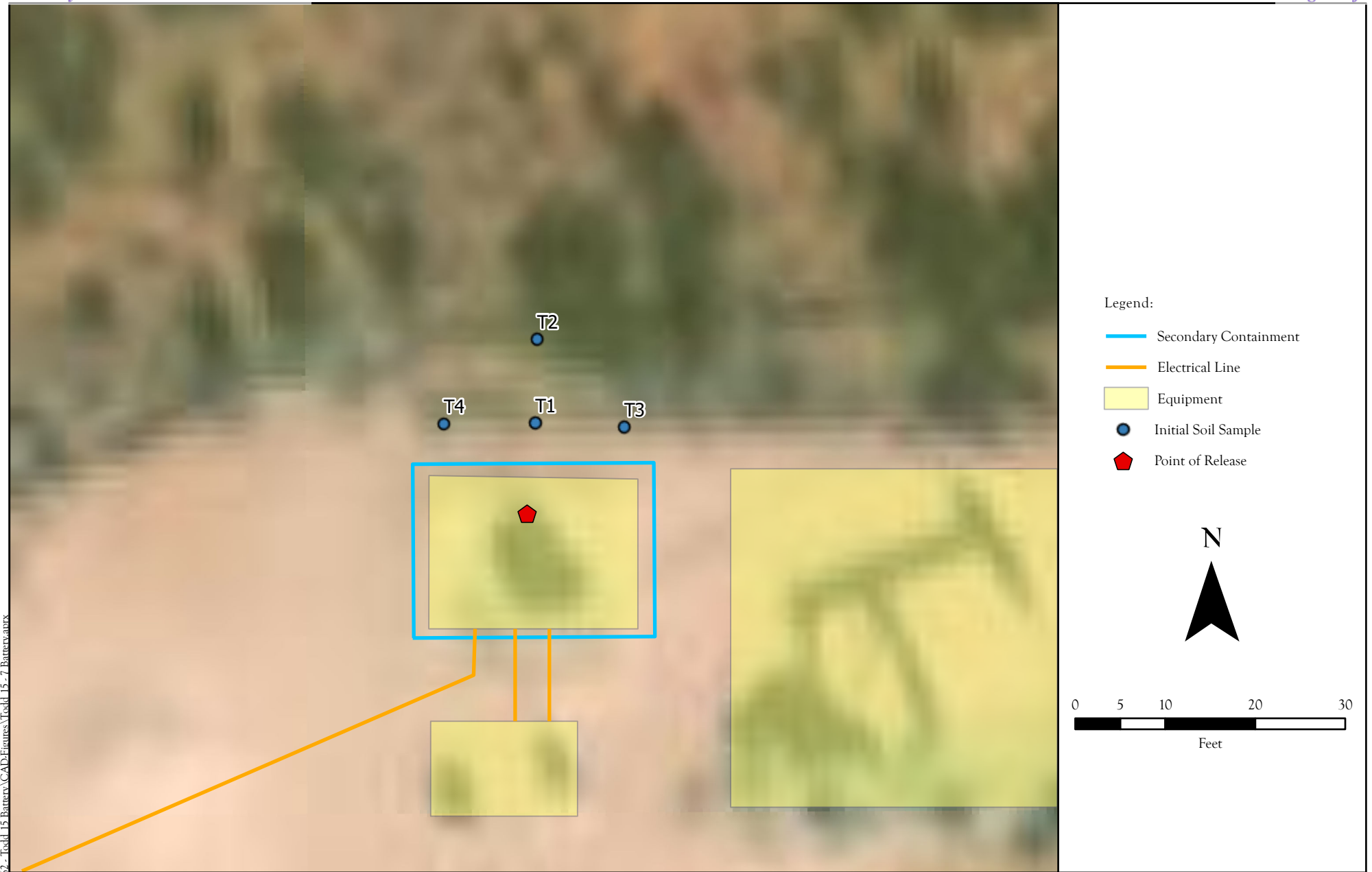
11/19/2020



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Site and Initial Sample Location Map  
 Todd 15 - 7 Battery- Devon Energy Production Company  
 UL: G S: 15 T: 23 S R: 31 E - Eddy County, New Mexico

Figure 3

Revisions

By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_  
 By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_

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Drawn  
 Date  
 Checked  
 Approved

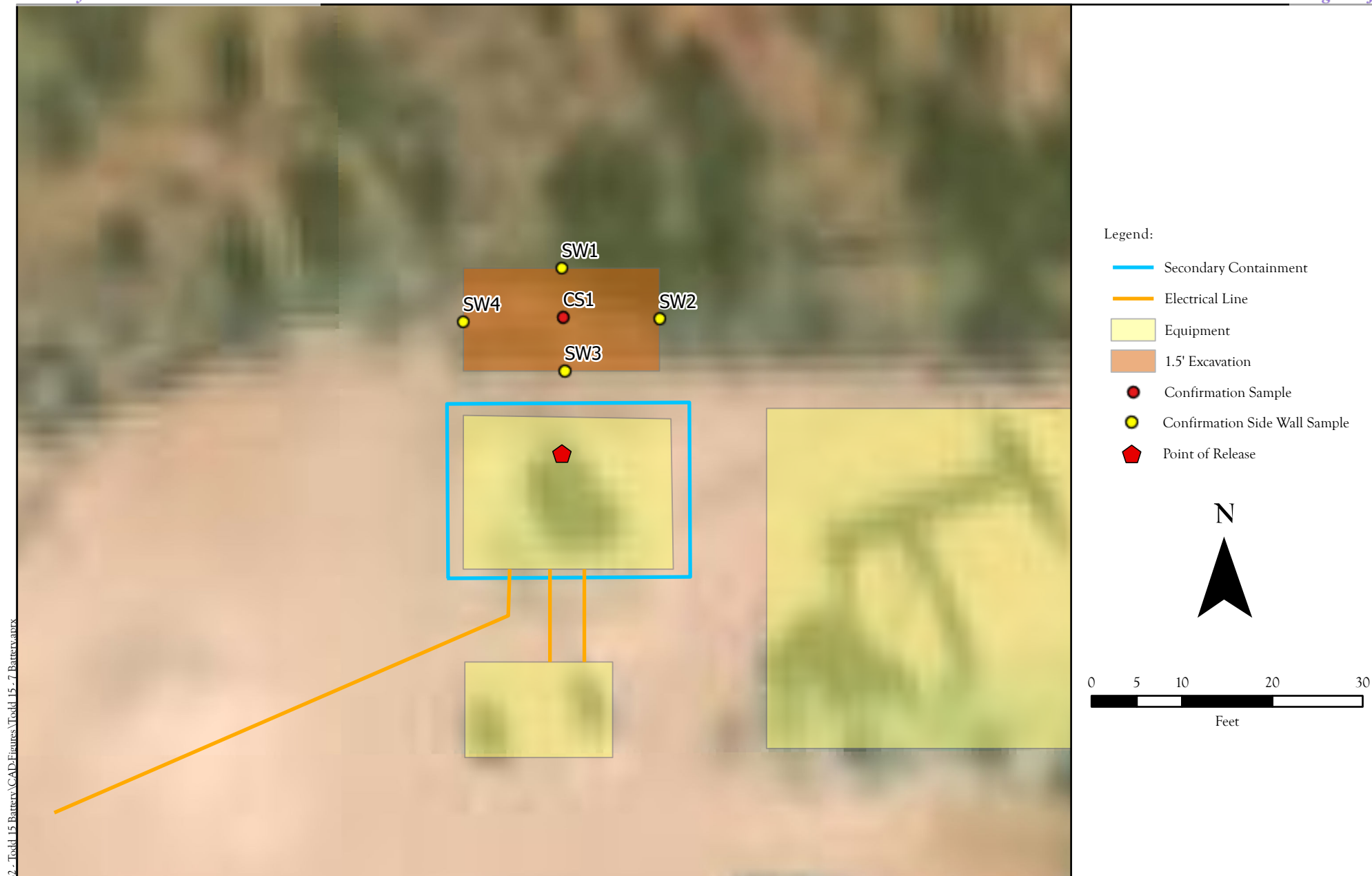
P.R. Smith

12/2/2020



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Site and Confirmation Sample Location Map  
 Todd 15 - 7 Battery - Devon Energy Production Company  
 UL: G S: 15 T: 23S R: 31E - Eddy County, New Mexico

Figure 3A

P:\5 Devon MSA 2020\5E20131\FIG62 - Todd 15 Battery\CAD Figures\Todd 15 - 7 Battery\

Date Saved:  
12/3/2020

Revisions  
 By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_  
 By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_

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Drawn P.R. Smith  
 Date 12/3/2020  
 Checked \_\_\_\_\_  
 Approved \_\_\_\_\_



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# TABLES

Table 2:  
NMOCD Closure Criteria

Devon Energy  
Todd 15 - 7 Battery

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	639	New Mexico Office of the State Engineer
Horizontal Distance From All Water Sources Within 1/2 Mile (ft)	N/A	United States Geological Survey Topo Map
Horizontal Distance to Nearest Significant Watercourse (ft)	13,135	New Mexico Wetland

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		Closure Criteria (units in mg/kg)				
		Chloride *numerical limit or background, whichever is greater	TPH	GRO + DRO	BTEX	Benzene
< 50' BGS	X	600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'		20000	2500	1000	50	10
Surface Water	yes or no	if yes, then				
<300' from continuously flowing watercourse or other significant watercourse?	No	600	100		50	10
<200' from lakebed, sinkhole or playa lake?	No					
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	No					
<1000' from fresh water well or spring?	No					
Human and Other Areas						
<300' from an occupied permanent residence, school, hospital, institution or church?	No					
within incorporated municipal boundaries or within a defined municipal fresh water well field?	No					
<100' from wetland?	No					
within area overlying a subsurface mine	No					
within an unstable area?	No (Low.Karst)					
within a 100-year floodplain?	No					

SMA #

Table 3:  
Sample ResultsDevon Energy  
Todd 15 - 7 Battery

Sample ID	Sample Date	Depth of Sample (feet bgs)	Action Taken	Method 8021B		Method 8015D				Method 300.0
				BTEX	Benzene	GRO	DRO	MRO	Total TPH	CI-
				mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Reclamation Requirement (0-4 ft)				50	10	-		-	100	600
NMOCD Closure Criteria (>4 ft)				50	10	-		-	100	600
T1	9/16/2020	Surface	Excavated	<0.1	<0.0250	<20.0	7690	5660	13350	<20.0
		1	Excavated	<0.1	<0.0250	<20.0	701	420	1121	<20.0
		2	In-Situ	<0.1	<0.0250	<20.0	<25.0	<50.0	<95.0	30.8
T2	9/16/2020	Surface	Excavated	<0.1	<0.0250	<20.0	77.8	94.1	171.9	<20.0
	9/29/2020	1	In-Situ	<0.1	<0.0250	<20.0	<25.0	<50.0	<95.0	44
T3	9/16/2020	Surface	Excavated	<0.1	<0.0250	<20.0	536	587	1123	<20.0
	9/29/2020	1	In-Situ	<0.1	<0.0250	<20.0	<25.0	<50.0	<95.0	51.2
T4	9/16/2020	Surface	Excavated	<0.1	<0.0250	<20.0	1160	1230	2390	<20.0
	9/29/2020	1	In-Situ	<0.1	<0.0250	<20.0	54.1	<50.0	54.1	219
Confirmation Samples										
CS1	11/16/2020	1.5	In-Situ	<0.1	<0.0250	<20.0	<25.0	<50.0	<95.0	78.9
SW1		0 - 1.5		<0.1	<0.0250	<20.0	<25.0	<50.0	<95.0	<20.0
SW2				<0.1	<0.0250	<20.0	<25.0	<50.0	<95.0	24.4
SW3				<0.1	<0.0250	<20.0	<25.0	<50.0	<95.0	<20.0
SW4				<0.1	<0.0250	<20.0	<25.0	<50.0	<95.0	65.8

"--" = Not Analyzed

BG: Background sample

SMA #

# APPENDIX A

## FORM C141

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	NRM2014568830
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party	Devon Energy	OGRID	6137
Contact Name	Amanda Trujillo Davis	Contact Telephone	575-748-0176
Contact email	amanda.davis@dvn.com	Incident # (assigned by OCD)	
Contact mailing address	6488 Seven Rivers Highway		

### Location of Release Source

Latitude 32.3062194 Longitude -103.7635472  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Todd 15 - 7 Battery	Site Type	Central Tank Battery
Date Release Discovered	5/20/2020	API# (if applicable)	

Unit Letter	Section	Township	Range	County
G	15	23S	31E	Eddy County

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 22.35	Volume Recovered (bbls) 20.0
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

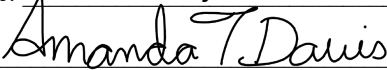
Due to a loss in pressure at the separation equipment, oil was sent to a vent tank, causing it to over run. The release occurred in an unlined earthen containment. A small overspray hit the adjoining pasture.  
Please see the attached spill calculator.

Incident ID	NRM2014568830
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> 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: <u>Amanda Trujillo Davis</u>	Title: <u>Environmental Professional</u>
Signature: <u></u>	Date: <u>5/21/2020</u>
email: <u>amanda.davis@dvn.com</u>	Telephone: <u>575-748-0176</u>
<b><u>OCD Only</u></b>	
Received by: <u>Ramona Marcus</u>	Date: <u>5/24/2020</u>



Incident ID	NRM2014568830
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?	<u>639</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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

Page 4

Incident ID	NRM2014568830
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: \_\_\_\_\_ Lupe Carrasco \_\_\_\_\_ Title: \_\_\_\_\_ EHS Professional \_\_\_\_\_

Signature: \_\_\_\_\_ *Lupe Carrasco* \_\_\_\_\_ Date: \_\_\_\_\_ 1/28/21 \_\_\_\_\_

email: \_\_\_\_\_ Lupe.Carrasco@dmv.com \_\_\_\_\_ Telephone: \_\_\_\_\_ 575-748-0165 \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	NRM2014568830
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: \_\_\_\_\_ Lupe Carrasco \_\_\_\_\_ Title: \_\_\_\_\_ EHS Professional \_\_\_\_\_

Signature: \_\_\_\_\_ *Lupe Carrasco* \_\_\_\_\_ Date: \_\_\_\_\_ 1/28/21 \_\_\_\_\_

email: \_\_\_\_\_ Lupe.Carrasco@dvn.com \_\_\_\_\_ Telephone: \_\_\_\_\_ 1/28/21 \_\_\_\_\_

### 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: \_\_\_\_\_

**Spill Volume(Bbls) Calculator***Inputs in blue , Outputs in red***Contaminated Soil measurement**

Length(Ft)	Width(Ft)	Depth(Ft)
<u>30</u>	<u>24.000</u>	<u>0.021</u>
Cubic Feet of Soil Impacted		<u>15.120</u>
Barrels of Soil Impacted		<u>2.70</u>
Soil Type		Clay/Sand
Barrels of Oil Assuming 100% Saturation		<u>0.40</u>
Saturation	Fluid present with shovel/backhoe	
Estimated Barrels of Oil Released		0.40
<b>Free Standing Fluid Only</b>		
Length(Ft)	Width(Ft)	Depth(Ft)
<u>0</u>	<u>0.000</u>	<u>0.000</u>
Standing fluid		<u>0.000</u>
<b>Total fluids spilled</b>		<b>0.404</b>

**Instructions**

1. Input spill area measurements in feet, if less than one foot use converter below.
  2. Select a soil type from the drop down menu.
  3. Select a saturation level from the drop down menu.
- (For data gathering instructions see appendix tab)

**Spills In Lined Containment****Measurements Of Standing Fluid**

Length(Ft)	18
Width(Ft)	18
Depth(in.)	5
Total Capacity without tank displacements (bbls)	24.04
No. of 500 bbl Tanks In Standing Fluid	
No. of Other Tanks In Standing Fluid	1
OD Of Other Tanks In Standing Fluid(feet)	6
Total Volume of standing fluid accounting for tank displacement.	21.95

# APPENDIX B

## NMOSE WELLS REPORT



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">C 02777</a>		CUB	ED	4	4	4	10	23S	31E	616974	3575662	836	890		
<a href="#">C 03749 POD1</a>		CUB	ED		2	2	15	23S	31E	616974	3575662	836	865	639	226

Average Depth to Water: **639 feet**

Minimum Depth: **639 feet**

Maximum Depth: **639 feet**

Record Count: 2

### UTMNAD83 Radius Search (in meters):

**Easting (X):** 616403.659

**Northing (Y):** 3575049.953

**Radius:** 850

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

11/19/20 1:49 PM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER

# APPENDIX C SAMPLING PROTOCOL & FIELD NOTES





## Sampling Protocol

Representatives from SMA chose the Judgmental Sampling Method as described in EPA's Final Sampling Guidance for SW-846, 2002 to adequately quantify contaminant concentrations on Cotton Draw Unit #294H Location. The utility of this particular method functions on the sufficient knowledge of the contaminant, which we possess. This design is also useful when identifying the composition of a release, which we have documented. In addition, this sampling design was chosen for this project because of the locations uniform soil type, and the several operational considerations (such as the liner within the battery and the construction of a new facility) that precluded the implementation of a different statistical design.

The soil samples were collected in laboratory supplied containers in accordance with this sampling protocol, immediately placed on ice and sent under standard chain-of-custody protocols to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico for analysis. A total of eight (8) samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

## Sampling Analysis Field Quality Assurance Procedures

A unique sample numbering was used to identify each sample collected and designated for on-site and off-site laboratory analysis. The purpose of this numbering scheme was to provide a tracking system for the retrieval of analytical and field data on each sample. Sample identification numbers were recorded on sample labels or tags, field notes, chain-of-custody records (COC) and all other applicable documentation used during the project. Sample labels were affixed to all sample containers during sampling activities. Information was recorded on each sample container label at the time of sample collection. The information recorded on the labels were as follows: sample identification number; sample type (discrete or composite); site name and area/location number; analysis to be performed; type of chemical preservative present in container; date and time of sample collection; and sample collector's name and initials. All samples were packed in ice in an approved rigid body container, custody sealed signed and shipped to the appropriate laboratory via insured courier service.

COC procedures implemented for the project provided documentation of the handling of each sample from the time of collection until completion of laboratory analysis. A COC form serves as a legal record of possession of the sample. A sample is considered to be under custody if one or more of the following criteria are met: the sample is in the sampler's possession; the sample is in the sampler's view after being in possession; the sample was in the sampler's possession and then was placed into a locked area to prevent tampering; and/or the sample is in a designated secure area. Custody was documented throughout the project field sampling activities by a chain-of custody form initiated each day during which samples are collected. Container custody seals placed on either individual samples or on the rigid body container were used to ensure that no sample tampering occurs between the time the samples are placed into the containers and the time the containers are opened for analysis at the laboratory. Container custody seals were signed and dated by the individual responsible for completing the COC form contained within the container.

SUBJECT

Total 15 Battery

PROJECT

PAGE

CLIENT

Dewar Energy

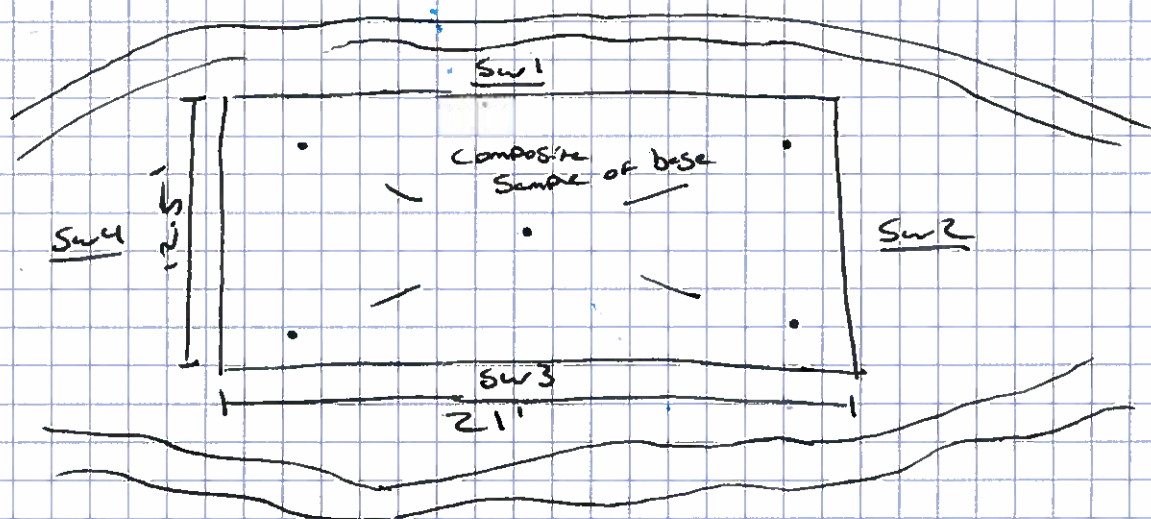
DATE 11/12/20

BY

CHECKED

BY

- Arrived on Site @ 8:30 am
  - Before any digging took place, Poly-lines had to be moved by hand to safety excavate contaminated soils.
- Was informed by Dewar Representative that tracer tanks were going to be cleaned out and notified me of master area in case anything happened
- Excavation continued and total area excavated measured out to 12.5' x 21' x 1.5'
  - All contaminated Soil was hauled to northern Delaware Basin Landfill
  - Area was fenced off until backfill is scheduled
- The base and dimensions of pit were Grid-Surveyed with results showing that NMOC criteria for closure would be met.



# APPENDIX D

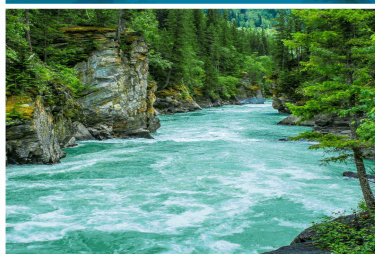
## LABORATORY ANALYTICAL REPORTS

Report to:

Ashley Maxwell

201 S Halagueno St.

Carlsbad, NM 88220



5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Souder Miller Associates - Carlsbad

Project Name: Todd 15-7 Battery

Work Order: P009082

Job Number: 01058-0007

Received: 9/22/2020

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
9/25/20

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM009792018-1 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557-19-2 for data reported.

Date Reported: 9/25/20

Ashley Maxwell  
201 S Halagueno St.  
Carlsbad, NM 88220



Project Name: Todd 15-7 Battery  
Workorder: P009082  
Date Received: 9/22/2020 11:00:00AM

Ashley Maxwell,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 9/22/2020 11:00:00AM, under the Project Name: Todd 15-7 Battery.

The analytical test results summarized in this report with the Project Name: Todd 15-7 Battery apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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**Sample Summary**

Souder Miller Associates - Carlsbad	Project Name:	Todd 15-7 Battery	<b>Reported:</b> 09/25/20 08:30
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
T1- Surface	P009082-01A	Soil	09/16/20	09/22/20	Glass Jar, 4 oz.
T1- 1'	P009082-02A	Soil	09/16/20	09/22/20	Glass Jar, 4 oz.
T1- 2'	P009082-03A	Soil	09/16/20	09/22/20	Glass Jar, 4 oz.
T2- Surface	P009082-04A	Soil	09/16/20	09/22/20	Glass Jar, 4 oz.
T3- Surface	P009082-05A	Soil	09/16/20	09/22/20	Glass Jar, 4 oz.
T4- Surface	P009082-06A	Soil	09/16/20	09/22/20	Glass Jar, 4 oz.





## Sample Data

Souder Miller Associates - Carl	Project Name:	Todd 15-7 Battery	
201 S Halagueno St.	Project Number:	01058-0007	<b>Reported:</b>
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	9/25/2020 8:30:12AM

### T1- Surface

#### P009082-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: IY			Batch: 2039008
Benzene	ND	0.0250	1	09/22/20	09/22/20	
Toluene	ND	0.0250	1	09/22/20	09/22/20	
Ethylbenzene	ND	0.0250	1	09/22/20	09/22/20	
p,m-Xylene	ND	0.0500	1	09/22/20	09/22/20	
o-Xylene	ND	0.0250	1	09/22/20	09/22/20	
Total Xylenes	ND	0.0250	1	09/22/20	09/22/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	96.4 %	70-130		09/22/20	09/22/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: IY			Batch: 2039008
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/22/20	09/22/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	86.1 %	70-130		09/22/20	09/22/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: JL			Batch: 2039009
Diesel Range Organics (C10-C28)	7690	1250	50	09/22/20	09/22/20	
Oil Range Organics (C28-C40)	5660	2500	50	09/22/20	09/22/20	
<i>Surrogate: n-Nonane</i>	141 %	50-200		09/22/20	09/22/20	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: NE			Batch: 2039005
Chloride	ND	20.0	1	09/22/20	09/22/20	



## Sample Data

Souder Miller Associates - Carl  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Todd 15-7 Battery  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
9/25/2020 8:30:12AM

T1- 1'

P009082-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2039008
Benzene	ND	0.0250	1	09/22/20	09/22/20	
Toluene	ND	0.0250	1	09/22/20	09/22/20	
Ethylbenzene	ND	0.0250	1	09/22/20	09/22/20	
p,m-Xylene	ND	0.0500	1	09/22/20	09/22/20	
o-Xylene	ND	0.0250	1	09/22/20	09/22/20	
Total Xylenes	ND	0.0250	1	09/22/20	09/22/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.7 %	70-130		09/22/20	09/22/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2039008
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/22/20	09/22/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	85.2 %	70-130		09/22/20	09/22/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2039009
Diesel Range Organics (C10-C28)	701	125	5	09/22/20	09/22/20	
Oil Range Organics (C28-C40)	420	250	5	09/22/20	09/22/20	
<i>Surrogate: n-Nonane</i>						
	111 %	50-200		09/22/20	09/22/20	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: NE		Batch: 2039005
Chloride	ND	20.0	1	09/22/20	09/22/20	



## Sample Data

Souder Miller Associates - Carl  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Todd 15-7 Battery  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
9/25/2020 8:30:12AM

T1- 2'

P009082-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2039008
Benzene	ND	0.0250	1	09/22/20	09/22/20	
Toluene	ND	0.0250	1	09/22/20	09/22/20	
Ethylbenzene	ND	0.0250	1	09/22/20	09/22/20	
p,m-Xylene	ND	0.0500	1	09/22/20	09/22/20	
o-Xylene	ND	0.0250	1	09/22/20	09/22/20	
Total Xylenes	ND	0.0250	1	09/22/20	09/22/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.7 %	70-130		09/22/20	09/22/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2039008
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/22/20	09/22/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.4 %	70-130		09/22/20	09/22/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2039009
Diesel Range Organics (C10-C28)	ND	25.0	1	09/22/20	09/22/20	
Oil Range Organics (C28-C40)	ND	50.0	1	09/22/20	09/22/20	
<i>Surrogate: n-Nonane</i>						
	92.6 %	50-200		09/22/20	09/22/20	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: NE		Batch: 2039005
Chloride	30.8	20.0	1	09/22/20	09/22/20	



## Sample Data

Souder Miller Associates - Carl  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Todd 15-7 Battery  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
9/25/2020 8:30:12AM

## T2- Surface

## P009082-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2039008
Benzene	ND	0.0250	1	09/22/20	09/22/20	
Toluene	ND	0.0250	1	09/22/20	09/22/20	
Ethylbenzene	ND	0.0250	1	09/22/20	09/22/20	
p,m-Xylene	ND	0.0500	1	09/22/20	09/22/20	
o-Xylene	ND	0.0250	1	09/22/20	09/22/20	
Total Xylenes	ND	0.0250	1	09/22/20	09/22/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.5 %	70-130	09/22/20	09/22/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2039008
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/22/20	09/22/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		86.9 %	70-130	09/22/20	09/22/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: JL		Batch: 2039009
Diesel Range Organics (C10-C28)	77.8	25.0	1	09/22/20	09/23/20	
Oil Range Organics (C28-C40)	94.1	50.0	1	09/22/20	09/23/20	
<i>Surrogate: n-Nonane</i>		121 %	50-200	09/22/20	09/23/20	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: NE		Batch: 2039005
Chloride	ND	20.0	1	09/22/20	09/22/20	



## Sample Data

Souder Miller Associates - Carl  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Todd 15-7 Battery  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
9/25/2020 8:30:12AM

## T3- Surface

## P009082-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2039008
Benzene	ND	0.0250	1	09/22/20	09/22/20	
Toluene	ND	0.0250	1	09/22/20	09/22/20	
Ethylbenzene	ND	0.0250	1	09/22/20	09/22/20	
p,m-Xylene	ND	0.0500	1	09/22/20	09/22/20	
o-Xylene	ND	0.0250	1	09/22/20	09/22/20	
Total Xylenes	ND	0.0250	1	09/22/20	09/22/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	98.5 %	70-130		09/22/20	09/22/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2039008
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/22/20	09/22/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	86.0 %	70-130		09/22/20	09/22/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2039009
Diesel Range Organics (C10-C28)	536	125	5	09/22/20	09/22/20	
Oil Range Organics (C28-C40)	587	250	5	09/22/20	09/22/20	
<i>Surrogate: n-Nonane</i>						
	120 %	50-200		09/22/20	09/22/20	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: NE		Batch: 2039005
Chloride	ND	20.0	1	09/22/20	09/22/20	



## Sample Data

Souder Miller Associates - Carl  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Todd 15-7 Battery  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
9/25/2020 8:30:12AM

## T4- Surface

## P009082-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2039008
Benzene	ND	0.0250	1	09/22/20	09/22/20	
Toluene	ND	0.0250	1	09/22/20	09/22/20	
Ethylbenzene	ND	0.0250	1	09/22/20	09/22/20	
p,m-Xylene	ND	0.0500	1	09/22/20	09/22/20	
o-Xylene	ND	0.0250	1	09/22/20	09/22/20	
Total Xylenes	ND	0.0250	1	09/22/20	09/22/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	98.7 %	70-130		09/22/20	09/22/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2039008
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/22/20	09/22/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	85.4 %	70-130		09/22/20	09/22/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2039009
Diesel Range Organics (C10-C28)	1160	250	10	09/22/20	09/22/20	
Oil Range Organics (C28-C40)	1230	500	10	09/22/20	09/22/20	
<i>Surrogate: n-Nonane</i>						
	116 %	50-200		09/22/20	09/22/20	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: NE		Batch: 2039005
Chloride	ND	20.0	1	09/22/20	09/22/20	



## QC Summary Data

Souder Miller Associates - Carlsbad	Project Name:	Todd 15-7 Battery	<b>Reported:</b>
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	9/25/2020 8:30:12AM

## Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2039008-BLK1)

Prepared: 09/22/20 Analyzed: 09/23/20

Benzene	ND	0.0250							
Toluene	ND	0.0250							
Ethylbenzene	ND	0.0250							
p,m-Xylene	ND	0.0500							
o-Xylene	ND	0.0250							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.23		8.00		103	70-130			

## LCS (2039008-BS1)

Prepared: 09/22/20 Analyzed: 09/23/20

Benzene	4.87	0.0250	5.00		97.4	70-130			
Toluene	4.97	0.0250	5.00		99.4	70-130			
Ethylbenzene	4.93	0.0250	5.00		98.6	70-130			
p,m-Xylene	9.76	0.0500	10.0		97.6	70-130			
o-Xylene	4.89	0.0250	5.00		97.8	70-130			
Total Xylenes	14.6	0.0250	15.0		97.7	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.45		8.00		106	70-130			

## Matrix Spike (2039008-MS1)

Source: P009082-01 Prepared: 09/22/20 Analyzed: 09/23/20

Benzene	5.25	0.0250	5.00	ND	105	54-133			
Toluene	5.40	0.0250	5.00	ND	108	61-130			
Ethylbenzene	5.35	0.0250	5.00	ND	107	61-133			
p,m-Xylene	10.6	0.0500	10.0	ND	106	63-131			
o-Xylene	5.26	0.0250	5.00	ND	105	63-131			
Total Xylenes	15.8	0.0250	15.0	ND	106	63-131			
Surrogate: 4-Bromochlorobenzene-PID	8.02		8.00		100	70-130			

## Matrix Spike Dup (2039008-MSD1)

Source: P009082-01 Prepared: 09/22/20 Analyzed: 09/23/20

Benzene	4.87	0.0250	5.00	ND	97.3	54-133	7.61	20	
Toluene	4.98	0.0250	5.00	ND	99.7	61-130	8.04	20	
Ethylbenzene	4.95	0.0250	5.00	ND	99.0	61-133	7.75	20	
p,m-Xylene	9.77	0.0500	10.0	ND	97.7	63-131	7.82	20	
o-Xylene	4.88	0.0250	5.00	ND	97.6	63-131	7.55	20	
Total Xylenes	14.7	0.0250	15.0	ND	97.7	63-131	7.73	20	
Surrogate: 4-Bromochlorobenzene-PID	7.96		8.00		99.5	70-130			





## QC Summary Data

Souder Miller Associates - Carlsbad	Project Name:	Todd 15-7 Battery	<b>Reported:</b>
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	9/25/2020 8:30:12AM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2039008-BLK1)

Prepared: 09/22/20 Analyzed: 09/23/20

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.94		8.00		86.7	70-130			

## LCS (2039008-BS2)

Prepared: 09/22/20 Analyzed: 09/23/20

Gasoline Range Organics (C6-C10)	42.9	20.0	50.0		85.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.99		8.00		87.4	70-130			

## Matrix Spike (2039008-MS2)

Source: P009082-01 Prepared: 09/22/20 Analyzed: 09/23/20

Gasoline Range Organics (C6-C10)	51.1	20.0	50.0	ND	102	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.80		8.00		84.9	70-130			

## Matrix Spike Dup (2039008-MSD2)

Source: P009082-01 Prepared: 09/22/20 Analyzed: 09/23/20

Gasoline Range Organics (C6-C10)	47.5	20.0	50.0	ND	95.0	70-130	7.27	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.91		8.00		86.4	70-130			



## QC Summary Data

Souder Miller Associates - Carlsbad	Project Name:	Todd 15-7 Battery	<b>Reported:</b>
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	9/25/2020 8:30:12AM

## Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2039009-BLK1)

Prepared: 09/22/20 Analyzed: 09/22/20

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C40)	ND	50.0							
Surrogate: n-Nonane	47.8		50.0		95.7	50-200			

## LCS (2039009-BS1)

Prepared: 09/22/20 Analyzed: 09/22/20

Diesel Range Organics (C10-C28)	463	25.0	500		92.6	38-132			
Surrogate: n-Nonane	46.9		50.0		93.8	50-200			

## Matrix Spike (2039009-MS1)

Source: P009082-01 Prepared: 09/22/20 Analyzed: 09/22/20

Diesel Range Organics (C10-C28)	6100	1250	500	7690	NR	38-132			M4
Surrogate: n-Nonane	71.2		50.0		142	50-200			

## Matrix Spike Dup (2039009-MSD1)

Source: P009082-01 Prepared: 09/22/20 Analyzed: 09/22/20

Diesel Range Organics (C10-C28)	6750	1250	500	7690	NR	38-132	10.1	20	M4
Surrogate: n-Nonane	70.9		50.0		142	50-200			



## QC Summary Data

Souder Miller Associates - Carlsbad	Project Name:	Todd 15-7 Battery	<b>Reported:</b>
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	9/25/2020 8:30:12AM

## Anions by EPA 300.0/9056A

Analyst: NE

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2039005-BLK1)

Prepared: 09/22/20 Analyzed: 09/22/20

Chloride	ND	20.0
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## LCS (2039005-BS1)

Prepared: 09/22/20 Analyzed: 09/22/20

Chloride	250	20.0	250	100	90-110
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## Matrix Spike (2039005-MS1)

Source: P009075-01 Prepared: 09/22/20 Analyzed: 09/22/20

Chloride	579	20.0	250	327	101	80-120
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## Matrix Spike Dup (2039005-MSD1)

Source: P009075-01 Prepared: 09/22/20 Analyzed: 09/22/20

Chloride	590	20.0	250	327	105	80-120	1.97	20
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## QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Souder Miller Associates - Carlsbad	Project Name:	Todd 15-7 Battery	
201 S Halagueno St.	Project Number:	01058-0007	<b>Reported:</b>
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	09/25/20 08:30

M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



## Project Information

## Chain of Custody

Page 1 of 1

Client: <u>SMA - Carlishead</u>					Bill To					Lab Use Only					TAT		EPA Program						
Project: <u>Tacel 15-7 Battery</u>					Attention: <u>Devon</u>					Lab WO# <u>P0091082</u>					Job Number <u>01058-0007</u>		1D	3D	RCRA	CWA	SDWA		
Project Manager: <u>Ashley Maxwell</u>					Address:					Analysis and Method										State			
Address:					City, State, Zip					DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0		BGDOC - NM	BGDOC - TX	NM	CO	UT	AZ	
City, State, Zip					Phone:																		
Phone:					Email: <u>Phillip.P. Smith@Saudermiller.com</u>																		
Email:					Report due by:																		
Report due by:																							
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number																		
11:00	9/16	Soil	1-402	T <sub>1</sub> - Surface	1																		
11:05				T <sub>1</sub> - 1'	2																		
11:10				T <sub>1</sub> - 2'	3																		
11:15				T <sub>2</sub> - Surface	4																		
11:20				T <sub>3</sub> - Surface	5																		
11:25				T <sub>4</sub> - Surface	6																		
Additional Instructions:																							
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: <u>TS</u>																Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.							
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Lab Use Only											
<u>Phillip P. Smith</u>		9/21/20				<u>[Signature]</u>		9-21-2020		1346		Received on ice: <u>Y</u> N											
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		T1 _____ T2 _____ T3 _____											
<u>[Signature]</u>		9-21-2020		1605		<u>Rena Lopez</u>		9/22/20		11:00		AVG Temp °C <u>4</u>											
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____																Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA							
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																							

## Envirotech Analytical Laboratory

Printed: 9/22/2020 11:04:30AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Souder Miller Associates - Carlsbad	Date Received:	09/22/20 11:00	Work Order ID:	P009082
Phone:	(505) 325-7535	Date Logged In:	09/22/20 11:00	Logged In By:	Raina Lopez
Email:	ashley.maxwell@soudermiller.com	Due Date:	09/28/20 17:00 (4 day TAT)		

Chain of Custody (COC)

	Yes	No	
1. Does the sample ID match the COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Does the number of samples per sampling site location match the COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Were samples dropped off by client or carrier?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Carrier: <u>Fed Ex</u>
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Were all samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

	Yes	No
6. Did the COC indicate standard TAT, or Expedited TAT?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Standard TAT <input checked="" type="checkbox"/> 24-hr rush <input type="checkbox"/> Immediate <input type="checkbox"/> 48-hr rush <input type="checkbox"/> 72-hr rush <input type="checkbox"/>		

Sample Cooler

	Yes	No	N/A
7. Was the sample cooler received in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Was the sample(s) received in tact, i.e., not broken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Was the sample cooler received with custody/security seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Were samples received with custody/security seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: Thermal preservation is not required, if samples are received w/I 15 minutes of sampling

12. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

	Yes	No	N/A
13. Are VOC samples collected in VOA Vials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14. Is the head space less than 6-8 mm (pea sized or less)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. Was a trip blank (TB) included for VOC analyses?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16. Are non-VOC samples collected in the correct containers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Is the appropriate volume/weight or number of sample containers collected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Field Label

	Yes	No
18. Were field sample labels filled out with the minimum information:	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Sample ID ☒ Date/time collected ☒ Collectors name ☒

Sample Preservation

	Yes	No	N/A
19. Does the COC or field labels indicate the samples were preserved?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20. Were VOCs preserved with 1:1 HCl?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21. Are IOC/WET correctly preserved with H2SO4 or other?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22. Is lab filtration required and/or requested for dissolved metals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23. Are metals preserved with 5N (1:1) HNO3?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Multiphase Sample Matrix

	Yes	No	N/A
24. Does the sample have more than one phase, i.e., multiphase?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
25. If so, does the COC specify which phase(s) is to be analyzed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Subcontract Laboratory Information

	Yes	No	
26. Was a subcontract laboratory specified by the client and if so who?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Subcontract Lab: NA

Client Instruction

Bill Devon Energy, email phillip.smith@soudermiller.com

Comments/Resolution

RL  
SCO Initials

9/22/20  
Date

Signature of client authorizing changes to the COC or sample disposition.

Date



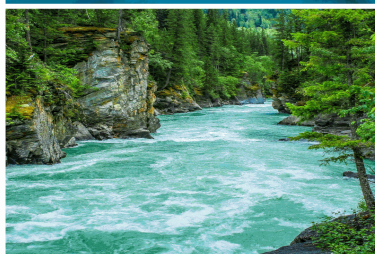
envirotech Inc.



Report to:

Ashley Maxwell

201 S Halagueno St.  
Carlsbad, NM 88220



5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Souder Miller Associates - Carlsbad

Project Name: Todd 15 Battery

Work Order: E010002

Job Number: 01058-0007

Received: 10/1/2020

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
10/6/20

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM009792018-1 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557-19-2 for data reported.

Date Reported: 10/6/20

Ashley Maxwell  
201 S Halagueno St.  
Carlsbad, NM 88220



Project Name: Todd 15 Battery  
Workorder: E010002  
Date Received: 10/1/2020 12:00:00AM

Ashley Maxwell,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/1/2020 12:00:00AM, under the Project Name: Todd 15 Battery.

The analytical test results summarized in this report with the Project Name: Todd 15 Battery apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)



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**Sample Summary**

Souder Miller Associates - Carlsbad	Project Name:	Todd 15 Battery	<b>Reported:</b> 10/06/20 11:40
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
T2-1'	E010002-01A	Soil	09/29/20	10/01/20	Glass Jar, 4 oz.
T3-2'	E010002-02A	Soil	09/29/20	10/01/20	Glass Jar, 4 oz.
T4-2'	E010002-03A	Soil	09/29/20	10/01/20	Glass Jar, 4 oz.



## Sample Data

Souder Miller Associates - Carl	Project Name:	Todd 15 Battery	
201 S Halagueno St.	Project Number:	01058-0007	<b>Reported:</b>
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	10/6/2020 11:40:23AM

T2-1'

E010002-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: RS			Batch: 2040021
Benzene	ND	0.0250	1	10/01/20	10/01/20	
Toluene	ND	0.0250	1	10/01/20	10/01/20	
Ethylbenzene	ND	0.0250	1	10/01/20	10/01/20	
p,m-Xylene	ND	0.0500	1	10/01/20	10/01/20	
o-Xylene	ND	0.0250	1	10/01/20	10/01/20	
Total Xylenes	ND	0.0250	1	10/01/20	10/01/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	97.9 %	70-130		10/01/20	10/01/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: RS			Batch: 2040021
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/20	10/01/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	88.1 %	70-130		10/01/20	10/01/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: JL			Batch: 2040020
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/20	10/01/20	
Oil Range Organics (C28-C40)	ND	50.0	1	10/01/20	10/01/20	
<i>Surrogate: n-Nonane</i>	97.7 %	50-200		10/01/20	10/01/20	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: NE			Batch: 2040026
Chloride	44.0	20.0	1	10/01/20	10/01/20	



## Sample Data

Souder Miller Associates - Carl  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Todd 15 Battery  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
10/6/2020 11:40:23AM

T3-2'

E010002-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RS		Batch: 2040021
Benzene	ND	0.0250	1	10/01/20	10/01/20	
Toluene	ND	0.0250	1	10/01/20	10/01/20	
Ethylbenzene	ND	0.0250	1	10/01/20	10/01/20	
p,m-Xylene	ND	0.0500	1	10/01/20	10/01/20	
o-Xylene	ND	0.0250	1	10/01/20	10/01/20	
Total Xylenes	ND	0.0250	1	10/01/20	10/01/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		104 %	70-130	10/01/20	10/01/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RS		Batch: 2040021
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/20	10/01/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		88.2 %	70-130	10/01/20	10/01/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2040020
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/20	10/01/20	
Oil Range Organics (C28-C40)	ND	50.0	1	10/01/20	10/01/20	
<i>Surrogate: n-Nonane</i>						
		85.5 %	50-200	10/01/20	10/01/20	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: NE		Batch: 2040026
Chloride	51.2	20.0	1	10/01/20	10/01/20	



## Sample Data

Souder Miller Associates - Carl  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Todd 15 Battery  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
10/6/2020 11:40:23AM

T4-2'

E010002-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: RS		Batch: 2040021	
Benzene	ND	0.0250	1	10/01/20	10/01/20	
Toluene	ND	0.0250	1	10/01/20	10/01/20	
Ethylbenzene	ND	0.0250	1	10/01/20	10/01/20	
p,m-Xylene	ND	0.0500	1	10/01/20	10/01/20	
o-Xylene	ND	0.0250	1	10/01/20	10/01/20	
Total Xylenes	ND	0.0250	1	10/01/20	10/01/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	102 %	70-130		10/01/20	10/01/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: RS		Batch: 2040021	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/20	10/01/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	88.1 %	70-130		10/01/20	10/01/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: JL		Batch: 2040020	
Diesel Range Organics (C10-C28)	54.1	25.0	1	10/01/20	10/01/20	
Oil Range Organics (C28-C40)	ND	50.0	1	10/01/20	10/01/20	
<i>Surrogate: n-Nonane</i>						
	97.5 %	50-200		10/01/20	10/01/20	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: NE		Batch: 2040026	
Chloride	219	20.0	1	10/01/20	10/01/20	



## QC Summary Data

Souder Miller Associates - Carlsbad	Project Name:	Todd 15 Battery	<b>Reported:</b>
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	10/6/2020 11:40:23AM

## Volatile Organics by EPA 8021B

Analyst: RS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2040021-BLK1)

Prepared: 10/01/20 Analyzed: 10/01/20

Benzene	ND	0.0250							
Toluene	ND	0.0250							
Ethylbenzene	ND	0.0250							
p,m-Xylene	ND	0.0500							
o-Xylene	ND	0.0250							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.00		8.00		100	70-130			

## LCS (2040021-BS1)

Prepared: 10/01/20 Analyzed: 10/01/20

Benzene	5.43	0.0250	5.00		109	70-130			
Toluene	5.51	0.0250	5.00		110	70-130			
Ethylbenzene	5.49	0.0250	5.00		110	70-130			
p,m-Xylene	11.1	0.0500	10.0		111	70-130			
o-Xylene	5.55	0.0250	5.00		111	70-130			
Total Xylenes	16.7	0.0250	15.0		111	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.35		8.00		104	70-130			

## Matrix Spike (2040021-MS1)

Source: P009104-01 Prepared: 10/01/20 Analyzed: 10/01/20

Benzene	5.24	0.0250	5.00	ND	105	54-133			
Toluene	5.30	0.0250	5.00	ND	106	61-130			
Ethylbenzene	5.28	0.0250	5.00	ND	106	61-133			
p,m-Xylene	10.7	0.0500	10.0	ND	107	63-131			
o-Xylene	5.35	0.0250	5.00	ND	107	63-131			
Total Xylenes	16.0	0.0250	15.0	ND	107	63-131			
Surrogate: 4-Bromochlorobenzene-PID	8.34		8.00		104	70-130			

## Matrix Spike Dup (2040021-MSD1)

Source: P009104-01 Prepared: 10/01/20 Analyzed: 10/01/20

Benzene	5.30	0.0250	5.00	ND	106	54-133	1.18	20	
Toluene	5.33	0.0250	5.00	ND	107	61-130	0.491	20	
Ethylbenzene	5.31	0.0250	5.00	ND	106	61-133	0.552	20	
p,m-Xylene	10.7	0.0500	10.0	ND	107	63-131	0.439	20	
o-Xylene	5.37	0.0250	5.00	ND	107	63-131	0.306	20	
Total Xylenes	16.1	0.0250	15.0	ND	107	63-131	0.395	20	
Surrogate: 4-Bromochlorobenzene-PID	8.28		8.00		103	70-130			



## QC Summary Data

Souder Miller Associates - Carlsbad	Project Name:	Todd 15 Battery	<b>Reported:</b>
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	10/6/2020 11:40:23AM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2040021-BLK1)

Prepared: 10/01/20 Analyzed: 10/01/20

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.96		8.00		87.0	70-130			

## LCS (2040021-BS2)

Prepared: 10/01/20 Analyzed: 10/01/20

Gasoline Range Organics (C6-C10)	44.7	20.0	50.0		89.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.05		8.00		88.1	70-130			

## Matrix Spike (2040021-MS2)

Source: P009104-01 Prepared: 10/01/20 Analyzed: 10/01/20

Gasoline Range Organics (C6-C10)	44.1	20.0	50.0	ND	88.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.05		8.00		88.1	70-130			

## Matrix Spike Dup (2040021-MSD2)

Source: P009104-01 Prepared: 10/01/20 Analyzed: 10/01/20

Gasoline Range Organics (C6-C10)	46.4	20.0	50.0	ND	92.8	70-130	5.20	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.98		8.00		87.3	70-130			



## QC Summary Data

Souder Miller Associates - Carlsbad	Project Name:	Todd 15 Battery	<b>Reported:</b>
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	10/6/2020 11:40:23AM

## Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2040020-BLK1)

Prepared: 10/01/20 Analyzed: 10/01/20

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C40)	ND	50.0							
Surrogate: <i>n</i> -Nonane	51.3		50.0		103	50-200			

## LCS (2040020-BS1)

Prepared: 10/01/20 Analyzed: 10/01/20

Diesel Range Organics (C10-C28)	435	25.0	500		87.0	38-132			
Surrogate: <i>n</i> -Nonane	49.5		50.0		99.0	50-200			

## Matrix Spike (2040020-MS1)

Source: E010002-01 Prepared: 10/01/20 Analyzed: 10/01/20

Diesel Range Organics (C10-C28)	458	25.0	500	ND	91.7	38-132			
Surrogate: <i>n</i> -Nonane	37.5		50.0		75.0	50-200			

## Matrix Spike Dup (2040020-MSD1)

Source: E010002-01 Prepared: 10/01/20 Analyzed: 10/01/20

Diesel Range Organics (C10-C28)	444	25.0	500	ND	88.9	38-132	3.12	20	
Surrogate: <i>n</i> -Nonane	35.5		50.0		70.9	50-200			





## QC Summary Data

Souder Miller Associates - Carlsbad	Project Name:	Todd 15 Battery	<b>Reported:</b>
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	10/6/2020 11:40:23AM

## Anions by EPA 300.0/9056A

Analyst: NE

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2040026-BLK1)

Prepared: 10/01/20 Analyzed: 10/01/20

Chloride	ND	20.0
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## LCS (2040026-BS1)

Prepared: 10/01/20 Analyzed: 10/01/20

Chloride	250	20.0	250	100	90-110
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## Matrix Spike (2040026-MS1)

Source: E010002-01 Prepared: 10/01/20 Analyzed: 10/01/20

Chloride	300	20.0	250	44.0	102	80-120
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## Matrix Spike Dup (2040026-MSD1)

Source: E010002-01 Prepared: 10/01/20 Analyzed: 10/01/20

Chloride	301	20.0	250	44.0	103	80-120	0.363	20
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## QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Souder Miller Associates - Carlsbad	Project Name:	Todd 15 Battery	
201 S Halagueno St.	Project Number:	01058-0007	<b>Reported:</b>
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	10/06/20 11:40

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.




 5795 US Highway 84, Farmington, NM 87401      Ph: (505) 592-1381      Fx: (505) 592-1355  
 24-hour Emergency Response Phone: (800) 362-1375      [labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

## Envirotech Analytical Laboratory

Printed: 10/1/2020 11:15:38AM

## Sample Receipt Checklist (SRC)

**Instructions:** Please take note of any NO checkmarks.**If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.**

Client:	Souder Miller Associates - Carlsbad	Date Received:	10/01/20 00:00	Work Order ID:	E010002
Phone:	(575) 200-5443	Date Logged In:	10/01/20 10:09	Logged In By:	Alexa Michaels
Email:	ashley.maxwell@soudermiller.com	Due Date:	10/08/20 17:00 (5 day TAT)		

**Chain of Custody (COC)**

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: Fed Ex**Comments/Resolution****Sample Turn Around Time (TAT)**

6. Did the COC indicate standard TAT, or Expedited TAT? No

**Sample Cooler**

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

**Sample Preservation**

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab:

**Client Instruction**

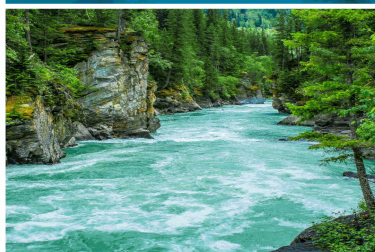
Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Maxwell



5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Devon Energy - Carlsbad

Project Name: Todd 15 Battery

Work Order: E011056

Job Number: 01058-0007

Received: 11/18/2020

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/24/20

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM009792018-1 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557-19-2 for data reported.

Date Reported: 11/24/20

Ashley Maxwell  
6488 7 Rivers Hwy  
Artesia, NM 88210



Project Name: Todd 15 Battery  
Workorder: E011056  
Date Received: 11/18/2020 10:00:00AM

Ashley Maxwell,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/18/2020 10:00:00AM, under the Project Name: Todd 15 Battery.

The analytical test results summarized in this report with the Project Name: Todd 15 Battery apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
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**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)



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**Sample Summary**

Devon Energy - Carlsbad	Project Name:	Todd 15 Battery	<b>Reported:</b> 11/24/20 08:21
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Maxwell	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CS1	E011056-01A	Soil	11/16/20	11/18/20	Glass Jar, 4 oz.
SW1	E011056-02A	Soil	11/16/20	11/18/20	Glass Jar, 4 oz.
SW2	E011056-03A	Soil	11/16/20	11/18/20	Glass Jar, 4 oz.
SW3	E011056-04A	Soil	11/16/20	11/18/20	Glass Jar, 4 oz.
SW4	E011056-05A	Soil	11/16/20	11/18/20	Glass Jar, 4 oz.





## Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Todd 15 Battery Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 11/24/2020 8:21:44AM
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## CS1

## E011056-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: RKS		Batch: 2047016	
Benzene	ND	0.0250	1	11/19/20	11/20/20	
Toluene	ND	0.0250	1	11/19/20	11/20/20	
Ethylbenzene	ND	0.0250	1	11/19/20	11/20/20	
p,m-Xylene	ND	0.0500	1	11/19/20	11/20/20	
o-Xylene	ND	0.0250	1	11/19/20	11/20/20	
Total Xylenes	ND	0.0250	1	11/19/20	11/20/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		116 %	70-130	11/19/20	11/20/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: RKS		Batch: 2047016	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/20	11/20/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		86.3 %	70-130	11/19/20	11/20/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: JL		Batch: 2047019	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/19/20	11/19/20	
Oil Range Organics (C28-C35)	ND	50.0	1	11/19/20	11/19/20	
<i>Surrogate: n-Nonane</i>		84.2 %	50-200	11/19/20	11/19/20	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: NE		Batch: 2047017	
Chloride	78.9	20.0	1	11/19/20	11/19/20	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Todd 15 Battery  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
11/24/2020 8:21:44AM

## SW1

## E011056-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2047016
Benzene	ND	0.0250	1	11/19/20	11/20/20	
Toluene	ND	0.0250	1	11/19/20	11/20/20	
Ethylbenzene	ND	0.0250	1	11/19/20	11/20/20	
p,m-Xylene	ND	0.0500	1	11/19/20	11/20/20	
o-Xylene	ND	0.0250	1	11/19/20	11/20/20	
Total Xylenes	ND	0.0250	1	11/19/20	11/20/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		115 %	70-130	11/19/20	11/20/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2047016
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/20	11/20/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		84.3 %	70-130	11/19/20	11/20/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2047019
Diesel Range Organics (C10-C28)	ND	25.0	1	11/19/20	11/19/20	
Oil Range Organics (C28-C35)	ND	50.0	1	11/19/20	11/19/20	
<i>Surrogate: n-Nonane</i>						
		99.1 %	50-200	11/19/20	11/19/20	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: NE		Batch: 2047017
Chloride	ND	20.0	1	11/19/20	11/19/20	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Todd 15 Battery  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
11/24/2020 8:21:44AM

## SW2

## E011056-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2047016
Benzene	ND	0.0250	1	11/19/20	11/20/20	
Toluene	ND	0.0250	1	11/19/20	11/20/20	
Ethylbenzene	ND	0.0250	1	11/19/20	11/20/20	
p,m-Xylene	ND	0.0500	1	11/19/20	11/20/20	
o-Xylene	ND	0.0250	1	11/19/20	11/20/20	
Total Xylenes	ND	0.0250	1	11/19/20	11/20/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		117 %	70-130	11/19/20	11/20/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2047016
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/20	11/20/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		84.7 %	70-130	11/19/20	11/20/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2047019
Diesel Range Organics (C10-C28)	ND	25.0	1	11/19/20	11/19/20	
Oil Range Organics (C28-C35)	ND	50.0	1	11/19/20	11/19/20	
<i>Surrogate: n-Nonane</i>						
		103 %	50-200	11/19/20	11/19/20	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: NE		Batch: 2047017
Chloride	24.4	20.0	1	11/19/20	11/19/20	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Todd 15 Battery  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
11/24/2020 8:21:44AM

## SW3

## E011056-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2047016
Benzene	ND	0.0250	1	11/19/20	11/20/20	
Toluene	ND	0.0250	1	11/19/20	11/20/20	
Ethylbenzene	ND	0.0250	1	11/19/20	11/20/20	
p,m-Xylene	ND	0.0500	1	11/19/20	11/20/20	
o-Xylene	ND	0.0250	1	11/19/20	11/20/20	
Total Xylenes	ND	0.0250	1	11/19/20	11/20/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		116 %	70-130	11/19/20	11/20/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2047016
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/20	11/20/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		86.7 %	70-130	11/19/20	11/20/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2047019
Diesel Range Organics (C10-C28)	ND	25.0	1	11/19/20	11/19/20	
Oil Range Organics (C28-C35)	ND	50.0	1	11/19/20	11/19/20	
<i>Surrogate: n-Nonane</i>						
		95.6 %	50-200	11/19/20	11/19/20	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: NE		Batch: 2047017
Chloride	ND	20.0	1	11/19/20	11/19/20	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Todd 15 Battery  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
11/24/2020 8:21:44AM

## SW4

## E011056-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2047016
Benzene	ND	0.0250	1	11/19/20	11/20/20	
Toluene	ND	0.0250	1	11/19/20	11/20/20	
Ethylbenzene	ND	0.0250	1	11/19/20	11/20/20	
p,m-Xylene	ND	0.0500	1	11/19/20	11/20/20	
o-Xylene	ND	0.0250	1	11/19/20	11/20/20	
Total Xylenes	ND	0.0250	1	11/19/20	11/20/20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		117 %	70-130	11/19/20	11/20/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2047016
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/20	11/20/20	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		85.9 %	70-130	11/19/20	11/20/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2047019
Diesel Range Organics (C10-C28)	ND	25.0	1	11/19/20	11/19/20	
Oil Range Organics (C28-C35)	ND	50.0	1	11/19/20	11/19/20	
<i>Surrogate: n-Nonane</i>						
		95.3 %	50-200	11/19/20	11/19/20	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: NE		Batch: 2047017
Chloride	65.8	20.0	1	11/19/20	11/19/20	



## QC Summary Data

Devon Energy - Carlsbad	Project Name:	Todd 15 Battery	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Maxwell	11/24/2020 8:21:44AM

## Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2047016-BLK1)

Prepared: 11/19/20 Analyzed: 11/19/20

Benzene	ND	0.0250							
Toluene	ND	0.0250							
Ethylbenzene	ND	0.0250							
p,m-Xylene	ND	0.0500							
o-Xylene	ND	0.0250							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.79		8.00		110	70-130			

## LCS (2047016-BS1)

Prepared: 11/19/20 Analyzed: 11/19/20

Benzene	5.30	0.0250	5.00		106	70-130			
Toluene	5.33	0.0250	5.00		107	70-130			
Ethylbenzene	5.30	0.0250	5.00		106	70-130			
p,m-Xylene	10.7	0.0500	10.0		107	70-130			
o-Xylene	5.34	0.0250	5.00		107	70-130			
Total Xylenes	16.1	0.0250	15.0		107	70-130			
Surrogate: 4-Bromochlorobenzene-PID	9.17		8.00		115	70-130			

## Matrix Spike (2047016-MS1)

Source: E011053-01 Prepared: 11/19/20 Analyzed: 11/19/20

Benzene	5.33	0.0250	5.00	ND	107	54-133			
Toluene	5.36	0.0250	5.00	ND	107	61-130			
Ethylbenzene	5.32	0.0250	5.00	ND	106	61-133			
p,m-Xylene	10.8	0.0500	10.0	ND	108	63-131			
o-Xylene	5.38	0.0250	5.00	ND	108	63-131			
Total Xylenes	16.1	0.0250	15.0	ND	108	63-131			
Surrogate: 4-Bromochlorobenzene-PID	9.35		8.00		117	70-130			

## Matrix Spike Dup (2047016-MSD1)

Source: E011053-01 Prepared: 11/19/20 Analyzed: 11/19/20

Benzene	5.27	0.0250	5.00	ND	105	54-133	1.04	20	
Toluene	5.26	0.0250	5.00	ND	105	61-130	1.88	20	
Ethylbenzene	5.22	0.0250	5.00	ND	104	61-133	1.81	20	
p,m-Xylene	10.6	0.0500	10.0	ND	106	63-131	1.75	20	
o-Xylene	5.28	0.0250	5.00	ND	106	63-131	1.91	20	
Total Xylenes	15.9	0.0250	15.0	ND	106	63-131	1.80	20	
Surrogate: 4-Bromochlorobenzene-PID	9.33		8.00		117	70-130			



## QC Summary Data

Devon Energy - Carlsbad	Project Name:	Todd 15 Battery	<b>Reported:</b>
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Maxwell	11/24/2020 8:21:44AM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2047016-BLK1)

Prepared: 11/19/20 Analyzed: 11/19/20

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.02		8.00		87.8	70-130			

## LCS (2047016-BS2)

Prepared: 11/19/20 Analyzed: 11/19/20

Gasoline Range Organics (C6-C10)	46.8	20.0	50.0		93.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.79		8.00		84.9	70-130			

## Matrix Spike (2047016-MS2)

Source: E011053-01 Prepared: 11/19/20 Analyzed: 11/19/20

Gasoline Range Organics (C6-C10)	46.0	20.0	50.0	ND	91.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.90		8.00		86.3	70-130			

## Matrix Spike Dup (2047016-MSD2)

Source: E011053-01 Prepared: 11/19/20 Analyzed: 11/19/20

Gasoline Range Organics (C6-C10)	44.8	20.0	50.0	ND	89.7	70-130	2.44	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.80		8.00		85.0	70-130			



## QC Summary Data

Devon Energy - Carlsbad	Project Name:	Todd 15 Battery	<b>Reported:</b>
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Maxwell	11/24/2020 8:21:44AM

## Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2047019-BLK1)

Prepared: 11/19/20 Analyzed: 11/19/20

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C35)	ND	50.0							
Surrogate: n-Nonane	45.7		50.0		91.3	50-200			

## LCS (2047019-BS1)

Prepared: 11/19/20 Analyzed: 11/19/20

Diesel Range Organics (C10-C28)	440	25.0	500		88.1	38-132			
Surrogate: n-Nonane	47.7		50.0		95.4	50-200			

## Matrix Spike (2047019-MS1)

Source: E011053-01 Prepared: 11/19/20 Analyzed: 11/19/20

Diesel Range Organics (C10-C28)	451	25.0	500	ND	90.3	38-132			
Surrogate: n-Nonane	43.9		50.0		87.9	50-200			

## Matrix Spike Dup (2047019-MSD1)

Source: E011053-01 Prepared: 11/19/20 Analyzed: 11/19/20

Diesel Range Organics (C10-C28)	455	25.0	500	ND	90.9	38-132	0.723	20	
Surrogate: n-Nonane	47.1		50.0		94.1	50-200			





## QC Summary Data

Devon Energy - Carlsbad	Project Name:	Todd 15 Battery	<b>Reported:</b>
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Maxwell	11/24/2020 8:21:44AM

## Anions by EPA 300.0/9056A

Analyst: NE

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2047017-BLK1)

Prepared: 11/19/20 Analyzed: 11/19/20

Chloride	ND	20.0
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## LCS (2047017-BS1)

Prepared: 11/19/20 Analyzed: 11/19/20

Chloride	253	20.0	250	101	90-110
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## Matrix Spike (2047017-MS1)

Source: E011041-01 Prepared: 11/19/20 Analyzed: 11/19/20

Chloride	428	20.0	250	173	102	80-120
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## Matrix Spike Dup (2047017-MSD1)

Source: E011041-01 Prepared: 11/19/20 Analyzed: 11/19/20

Chloride	437	20.0	250	173	106	80-120	2.25	20
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## QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.




Definitions and Notes

Devon Energy - Carlsbad	Project Name:	Todd 15 Battery	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Maxwell	11/24/20 08:21

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.


 5796 US Highway 64, Farmington, NM 87401      Ph (505) 632-1881 Fx (505) 632-1885      [envirotech-inc.com](http://envirotech-inc.com)  
 24 Hour Emergency Response Phone (800) 362-1879      [labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

## Envirotech Analytical Laboratory

Printed: 11/18/2020 10:36:53AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Devon Energy - Carlsbad	Date Received:	11/18/20 10:00	Work Order ID:	E011056
Phone:	(575) 748-0176	Date Logged In:	11/18/20 10:27	Logged In By:	Alexa Michaels
Email:		Due Date:	11/24/20 17:00 (4 day TAT)		

**Chain of Custody (COC)**

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: FedEx**Comments/Resolution**

Email- Ashley, Phil and Lynn

**Sample Turn Around Time (TAT)**

6. Did the COC indicate standard TAT, or Expedited TAT? No

**Sample Cooler**

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? No
  - Collectors name? No

**Sample Preservation**

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Email- Ashley, Phil and Lynn

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

# APPENDIX E

## PHOTO LOG



240

270

300

330

☉ 290°W (T) ● 32.306397, -103.763719 ±2 m ▲ 1022 m





240

270

300

330

☉ 275°W (T) ● 32.30639, -103.763706 ±1 m ▲ 1024 m





210

240

270

300

☉ 259°W (T) ● 32.306409, -103.763693 ±1 m ▲ 1026 m





Incident ID	NRM2014568830
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: Lupe Carrasco Title: EHS Professional

Signature: Lupe Carrasco Date: 1/28/21

email: Lupe.Carrasco@dvn.com Telephone: 1/28/21

**OCD Only**

Received by: Robert Hamlet Date: 6/7/2021

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: Robert Hamlet Date: 6/7/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

**District I**

1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 16099

**CONDITIONS**

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 16099
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NRM2014568830 TODD 15 - 7 BATTERY, thank you. This closure is approved.	6/7/2021