

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-144  
Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.  
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

16055

Pit, Below-Grade Tank, or  
Proposed Alternative Method Permit or Closure Plan Application

- Type of action:  Below grade tank registration  
 Permit of a pit or proposed alternative method  
 Closure of a pit, below-grade tank, or proposed alternative method  
 Modification to an existing permit/or registration  
 Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

**Instructions:** Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.  
Operator: Enverest Operating LLC OGRID #: \_\_\_\_\_ **OIL CONS. DIV DIST. 3**  
Address: 2700 Farmington Ave, Building K, Suite 1. Farmington, N.M. 87401  
Facility or well name: Southern Union #002 **SEP 20 2017**  
API Number: 30-045-10638 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr A Section 19 Township 31N Range 12W County: San Juan  
Center of Proposed Design: Latitude 36.888617 Longitude -107.153827 NAD:  1927  1983  
Surface Owner:  Federal  State  Private  Tribal Trust or Indian Allotment

2.  
 **Pit:** Subsection F, G or J of 19.15.17.11 NMAC  
Temporary:  Drilling  Workover  
 Permanent  Emergency  Cavitation  P&A  Multi-Well Fluid Management Low Chloride Drilling Fluid  yes  no  
 Lined  Unlined Liner type: Thickness \_\_\_\_\_ mil  LLDPE  HDPE  PVC  Other \_\_\_\_\_  
 String-Reinforced  
Liner Seams:  Welded  Factory  Other \_\_\_\_\_ Volume: \_\_\_\_\_ bbl Dimensions: L \_\_\_\_\_ x W \_\_\_\_\_ x D \_\_\_\_\_

3.  
 **Below-grade tank:** Subsection I of 19.15.17.11 NMAC  
Volume: 95 bbl Type of fluid: Produced Water  
Tank Construction material: Steel double bottom tank  
 Secondary containment with leak detection  Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off  
 Visible sidewalls and liner  Visible sidewalls only  Other \_\_\_\_\_ leak detection \_\_\_\_\_  
Liner type: Thickness \_\_\_\_\_ mil  HDPE  PVC  Other \_\_\_\_\_

4.  
 **Alternative Method:**  
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.  
**Fencing:** Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)  
 Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)  
 Four foot height, four strands of barbed wire evenly spaced between one and four feet  
 Alternate. \_\_\_\_\_ Please specify Wire mesh fence with a pipe railing \_\_\_\_\_

20

6.

**Netting:** Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)

- Screen  Netting  Other \_\_\_\_\_
- Monthly inspections (If netting or screening is not physically feasible)

7.

**Signs:** Subsection C of 19.15.17.11 NMAC

- 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- Signed in compliance with 19.15.16.8 NMAC

8.

**Variations and Exceptions:**

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

*Please check a box if one or more of the following is requested, if not leave blank:*

- Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.
- Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

**Siting Criteria (regarding permitting):** 19.15.17.10 NMAC

*Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.*

**General siting**

**Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.**

- NM Office of the State Engineer - iWATERS database search;  USGS;  Data obtained from nearby wells

- Yes  No
- NA

**Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.**

NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

- Yes  No
- NA

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. **(Does not apply to below grade tanks)**

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

- Yes  No

Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)**

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

- Yes  No

Within an unstable area. **(Does not apply to below grade tanks)**

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

- Yes  No

Within a 100-year floodplain. **(Does not apply to below grade tanks)**

- FEMA map

- Yes  No

**Below Grade Tanks**

Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

- Yes  No

Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

- Yes  No

**Temporary Pit using Low Chloride Drilling Fluid** (maximum chloride content 15,000 mg/liter)

Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)

- Topographic map; Visual inspection (certification) of the proposed site

- Yes  No

Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

- Yes  No

Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.

NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

- Yes  No

<p>Within 100 feet of a wetland.          - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b><u>Temporary Pit Non-low chloride drilling fluid</u></b></p>	
<p>Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).          - Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.          - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>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, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;          - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Within 300 feet of a wetland.          - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b><u>Permanent Pit or Multi-Well Fluid Management Pit</u></b></p>	
<p>Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).          - Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.          - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.          - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Within 500 feet of a wetland.          - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No

10.

**Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC

*Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.*

Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC

Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC

Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC

Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC

Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

Previously Approved Design (attach copy of design) API Number: 30-045-10638 or Permit Number: \_\_\_\_\_

11.

**Multi-Well Fluid Management Pit Checklist:** Subsection B of 19.15.17.9 NMAC

*Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.*

Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC

Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC

A List of wells with approved application for permit to drill associated with the pit.

Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC

Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_ or Permit Number: \_\_\_\_\_

12. **Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC

**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- Climatological Factors Assessment
- Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- Quality Control/Quality Assurance Construction and Installation Plan
- Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan
- Emergency Response Plan
- Oil Field Waste Stream Characterization
- Monitoring and Inspection Plan
- Erosion Control Plan
- Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13. **Proposed Closure:** 19.15.17.13 NMAC

**Instructions:** Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

- Type:  Drilling  Workover  Emergency  Cavitation  P&A  Permanent Pit  Below-grade Tank  Multi-well Fluid Management Pit  
 Alternative
- Proposed Closure Method:  Waste Excavation and Removal  
 Waste Removal (Closed-loop systems only)  
 On-site Closure Method (Only for temporary pits and closed-loop systems)  
 In-place Burial  On-site Trench Burial  
 Alternative Closure Method

14. **Waste Excavation and Removal Closure Plan Checklist:** (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC
- Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15. **Siting Criteria (regarding on-site closure methods only):** 19.15.17.10 NMAC

**Instructions:** Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

- |   |   |
|---|---|
| Ground water is less than 25 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Ground water is between 25-50 feet below the bottom of the buried waste<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Ground water is more than 100 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).<br>- Topographic map; Visual inspection (certification) of the proposed site                        | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application.<br>- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Written confirmation or verification from the municipality; Written approval obtained from the municipality   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 300 feet of a wetland.<br>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |

adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> No

16. **On-Site Closure Plan Checklist:** (19.15.17.13 NMAC) *Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.*

- Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

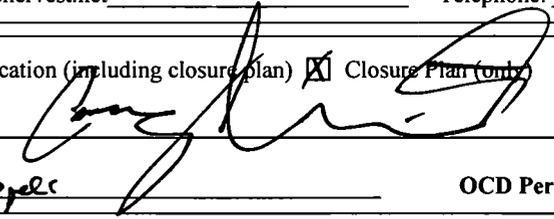
17. **Operator Application Certification:**  
 I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Michael Dame Title: HSE Associate

Signature: \_\_\_\_\_ Date: 9/15/2017

e-mail address: mdame@enervest.net Telephone: 505-325-0318

18. **OCD Approval:**  Permit Application (including closure plan)  Closure Plan (only)  OCD Conditions (see attachment)

OCD Representative Signature:  Approval Date: 9/25/17

Title: Environmental Spec OCD Permit Number: \_\_\_\_\_

19. **Closure Report (required within 60 days of closure completion):** 19.15.17.13 NMAC  
*Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.*

Closure Completion Date: \_\_\_\_\_

20. **Closure Method:**

Waste Excavation and Removal  On-Site Closure Method  Alternative Closure Method  Waste Removal (Closed-loop systems only)

If different from approved plan, please explain.

21. **Closure Report Attachment Checklist:** *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- Proof of Closure Notice (surface owner and division)
- Proof of Deed Notice (required for on-site closure for private land only)
- Plot Plan (for on-site closures and temporary pits)
- Confirmation Sampling Analytical Results (if applicable)
- Waste Material Sampling Analytical Results (required for on-site closure)
- Disposal Facility Name and Permit Number
- Soil Backfilling and Cover Installation
- Re-vegetation Application Rates and Seeding Technique
- Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude 36.88996 Longitude -108.13210 NAD:  1927  1983

22.

**Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Michael Dame Title: HSE Associate

Signature:  Date: 9/15/2017

e-mail address: mdame@enervest.net Telephone: 505-325-0318

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1625 N. French Dr., Hobbs, NM 88240  
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company Enervest Operating	Contact Michael Dame
Address 2700 Farmington Ave Building K, Suite #1	Telephone No. 505-325-0318
Facility Name Southern Union #2	Facility Type Oil & Gas Production

Surface Owner: Bureau of Land Management	Mineral Owner: Bureau of Land Management	API No. 30-045-10638
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	19	31N	12W					San Juan

Latitude N. 36.88996 Longitude W -108.13210

**NATURE OF RELEASE**

Type of Release None	Volume of Release None	Volume Recovered none
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
Below grade tank excavation closure A five point composite sample was collect from the excavation and submitted analysis, the results are  
Benzene – Non Detect (EPA Method 8021)  
BTEX – Non Detect (EPA Method 8021)  
GRO/DRO – 131 mg/kg (EPA 8015)  
Total Petroleum Hydrocarbons – 356 mg/kg (EPA Method 418.1)  
Chloride – 510 mg/kg (EPA Method 300.0)

Describe Area Affected and Cleanup Action Taken.\*  
No release was detected by analysis

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

Signature: <i>Michael Dame</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Michael Dame	Approved by Environmental Specialist:	
Title: HSE Associate	Approval Date:	Expiration Date:
E-mail Address: mdame@enervest.net	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 9/15/2017 Phone: 505-325-0318		

\* Attach Additional Sheets If Necessary

**EnerVest Operating, LLC (EV)**

**BELOW-GRADE TANK  
CLOSURE PLAN**

**Rule 19.15.17.13**

**Well Name – Southern Union #002  
API # 30-045-10638  
Location UL- A, Sec 19, T-31N, R-12W  
Lat: N 36.88996 Lat W -108.13210**

On September 14, 2017, EV shall close, retrofit, or replace an existing below-grade tank that has not demonstrated integrity.

EV shall close a below-grade tank within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the division requires because of imminent danger to fresh water, public health or the environment.

- A. EV shall close an existing below-grade tank that does not meet the requirements of Subsection I, paragraphs (1) through (4), of 19.15.17.11 NMAC if not retrofitted to comply with said requirements prior to any sale or change of operator to 19.15.9.9 NMAC.

Any below-grade tank installed prior to June 16, 2008 that is single walled and where any portion of the tank sidewall is below the ground surface and not visible shall equip or retrofit the below-grade tank to comply with paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, or close it, within 5 years after June 16, 2008.

Within 60 days of cessation of the permitted below-grade tanks operation or as required by Subsection B of 19.15.17.17 NMAC, EV shall close the below-grade tank in accordance with a closure plan that the appropriate division district office approves.

**Below grade tank was removed on July 21<sup>st</sup>, 2017.**

- B. Prior to implementing any closure operations EV shall research county tax records to determine the name and address of the surface owner of the properties involved. EV shall notify this surface owner via Certified U.S. Mail, return receipt requested, of their intent to close said below-grade tank.

Upon determination, EV will notify the appropriate district office verbally and in writing at least 72 hours but not more than one week prior to beginning work. Such notice shall contain at a minimum the following:

Operators Name  
Unit letter, Section, Township, & Range of well  
Well name and well number  
API Number of well

**Enervest Operating provided 72 hour notification to the state of New Mexico and the Bureau of Land Management. See attached notification and responses**

- C. Within 60 days of completion of closure operations, EV will file Form C-144, with attachments, outlining the detailed operations of the closing operations. Such attachments shall include, but not limited to, proof of surface owner and division notifications, confirmation of sampling analysis, disposal facility names and permit numbers, soil backfilling and cover installation, re-vegetation application rates and seeding techniques, and photo documentations.
- D. All free standing liquids and sludge will be removed at the start of the below-grade tank closure process from the below-grade tank and disposed of in one of the below division-approved facility as indicated below:

Environtech Land Farm	Permit # NM-01-0011	Solids
AguaMoss	Permit # 247130	Liquids

EV will obtain prior approval from the division to dispose, recycle, reuse, or reclaim the below-grade tanks and provide documentation of the final disposition of the below-grade tank in the closure report.

**All material in the below grade tank was removed and disposed of at the Envirotech Land Farm (Permit #NM-01-0011). The interior of the tank was steam cleaned prior to removal. The tank was taken to EnerVest Bloomfield yard where it will be checked and put into use at another location.**

Existing liners that are removed as a result of closure will be wiped cleaned and disposed of at a solid waste facility listed below in compliance with Subparagraph (M) of Paragraph (I) of Subsection C 19.15.35.8 NMAC..

San Juan Regional Landfill	Permit # SWM 052426 or
“	Special Waster Permit # SWM052433 “sp”

If there is any on-site equipment associated with a below grade tank, EV shall remove the equipment, unless the equipment is required for some other purpose .

Upon removal of the below-grade tank, EV will take, at a minimum, a five point composite sample from where the tank was sitting. EV shall collect individual grab samples will be taken from any area that is wet, discolored or showing other evidence of a release. All samples will be analyzed for the following:

Constituent	Method	Groundwater >100 FT	Test Results
Chloride	EPA 300.0	20,000 mg/kg	510 mg/kg
TPH	EPA SW-846 Method 418.1	2,500 mg/kg	356 mg/kg
BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg	Non- Detect
Benzene	EPA -SW-846 Method 8021B or 8015M	10 mg/kg	Non Detect
GRO/DRO	EPA SW-846 Method 8015B	1,000 mg/kg	131 mg/kg

**The sample was analyzed by Envirotech Analytical Laboratory in Aztec NM. See attached laboratory report.**

EV will insure that the results of all sampling shall be reported to the division on approved form C-141. EV understands that the division may require additional delineation upon review of the results.

If sampling demonstrates that concentrations specified above have NOT been exceeded, or that a release has NOT occurred, EV will backfill the excavation with compacted, non-waste containing, earthen material, construct a division prescribed soil cover, and recontour and re-vegetate the site. The division prescribed soil cover, recontouring, and re-vegetation shall comply with 19.15.17.13.

**The excavation was back filled by Sierra Oilfield Services on September 14, 2017 utilizing soil that was already on location. The location was contoured to match the existing terrain. See attached photographs**

If EV or the division determines that a release has occurred, EV shall fully comply with 19.15.29 NMAC and 19.15.30 NMAC as appropriate.

**No release was observed. See the attached C-141 for details**

- E. Once EV has closed a below-grade tank, we shall reclaim the site to a safe and stable condition that blends with the surrounding undisturbed area. When possible, EV will restore the impacted surface area to the condition that existed prior to oil and gas operations by the placement of soil cover.

If the closed area is within the confines of the pad location EV will blend the site to match the pad location as much as possible. Such activities shall prevent erosion, protect fresh water, human health and the environment. EV will obtain written agreement from the surface owner for any alternate re-vegetation proposals and submit to the division for final approval.

The soil cover design will be consistent with the requirements of 19.15.17.13(H)(1) and (3). The soil cover will consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater. The soil cover will be constructed to the site's existing grade and prevent ponding of water and erosion of the cover material.

EV will seed the disturbed areas the first growing season after closing the below grade tank. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixes will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs. During the two growing seasons that prove viability, there shall be no artificial irrigation of the vegetation.

EV placed down a liner and gravel and placed a new tank with new earthen berm/firewalls around new above ground tank. Seeding is not applicable at this time.



## Analytical Report

### Report Summary

Client: Enervest Operating  
Chain Of Custody Number:  
Samples Received: 9/6/2017 10:49:00AM  
Job Number: 05123-0002  
Work Order: P709008  
Project Name/Location: Southern Union #2

Report Reviewed By:

Date: 9/12/17

Walter Hinchman, Laboratory Director

Date: 9/12/17

Tim Cain, Quality Assurance Officer

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



<b>Enverest Operating</b> 2700 Farmington Ave. Farmington NM, 87401	<b>Project Name:</b> Southern Union #2	<b>Reported:</b> 12-Sep-17 07:43
	<b>Project Number:</b> 05123-0002	
	<b>Project Manager:</b> Mike Dame	

**Southern Union #2  
P709008-01 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b><u>Volatile Organics by EPA 8021</u></b>									
Benzene	ND	0.10	mg/kg	1	1736010	09/06/17	09/07/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1736010	09/06/17	09/07/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1736010	09/06/17	09/07/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1736010	09/06/17	09/07/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1736010	09/06/17	09/07/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1736010	09/06/17	09/07/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1736010	09/06/17	09/07/17	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %		50-150	1736010	09/06/17	09/07/17	EPA 8021B	
<b><u>Nonhalogenated Organics by 8015</u></b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1736010	09/06/17	09/07/17	EPA 8015D	
Diesel Range Organics (C10-C28)	131	25.0	mg/kg	1	1736012	09/06/17	09/07/17	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		85.4 %		50-150	1736010	09/06/17	09/07/17	EPA 8015D	
<i>Surrogate: n-Nonane</i>		102 %		50-200	1736012	09/06/17	09/07/17	EPA 8015D	
<b><u>Anions by 300.0</u></b>									
Chloride	510	20.0	mg/kg	1	1736009	09/06/17	09/06/17	EPA 300.0	
<b><u>Total Petroleum Hydrocarbons by 418.1</u></b>									
Total Petroleum Hydrocarbons	356	40.0	mg/kg	1	1737003	09/11/17	09/11/17	EPA 418.1	

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5796 US Highway 64, Farmington, NM 87401  
 Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

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 Ph (970) 259-0615 Fx (800) 362-1879

[envirotech-inc.com](http://envirotech-inc.com)  
[laboratory@envirotech-inc.com](mailto:laboratory@envirotech-inc.com)



Enervest Operating 2700 Farmington Ave. Farmington NM, 87401	Project Name:	Southern Union #2	Reported: 12-Sep-17 07:43
	Project Number:	05123-0002	
	Project Manager:	Mike Dame	

**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
<b>Batch 1736010 - Purge and Trap EPA 5030A</b>										
<b>Blank (1736010-BLK1)</b>					Prepared: 06-Sep-17 Analyzed: 07-Sep-17					
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.85		"	8.00		85.7	50-150			
<b>LCS (1736010-BS1)</b>					Prepared: 06-Sep-17 Analyzed: 07-Sep-17					
Gasoline Range Organics (C6-C10)	55.9	20.0	mg/kg	60.9		91.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.47		"	8.00		80.8	50-150			
<b>Matrix Spike (1736010-MS1)</b>					Source: P708075-01 Prepared: 06-Sep-17 Analyzed: 07-Sep-17					
Gasoline Range Organics (C6-C10)	55.8	20.0	mg/kg	60.9	ND	91.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.46		"	8.00		80.7	50-150			
<b>Matrix Spike Dup (1736010-MSD1)</b>					Source: P708075-01 Prepared: 06-Sep-17 Analyzed: 07-Sep-17					
Gasoline Range Organics (C6-C10)	55.9	20.0	mg/kg	60.9	ND	91.8	70-130	0.179	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.43		"	8.00		80.4	50-150			

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Enervest Operating 2700 Farmington Ave. Farmington NM, 87401	Project Name: Southern Union #2 Project Number: 05123-0002 Project Manager: Mike Dame	<b>Reported:</b> 12-Sep-17 07:43
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**Anions by 300.0 - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1736009 - Anion Extraction EPA 300.0</b>										
<b>Blank (1736009-BLK1)</b> Prepared & Analyzed: 06-Sep-17										
Chloride	ND	20.0	mg/kg							
<b>LCS (1736009-BS1)</b> Prepared & Analyzed: 06-Sep-17										
Chloride	258	20.0	mg/kg	250		103	90-110			
<b>Matrix Spike (1736009-MS1)</b> Source: P708075-01 Prepared & Analyzed: 06-Sep-17										
Chloride	442	20.0	mg/kg	250	183	104	80-120			
<b>Matrix Spike Dup (1736009-MSD1)</b> Source: P708075-01 Prepared & Analyzed: 06-Sep-17										
Chloride	447	20.0	mg/kg	250	183	106	80-120	1.22	20	

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Enervest Operating 2700 Farmington Ave. Farmington NM, 87401	Project Name: Southern Union #2 Project Number: 05123-0002 Project Manager: Mike Dame	Reported: 12-Sep-17 07:43
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**Notes and Definitions**

- SPK2 The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to native analyte concentration at 4 times or greater than the spike concentration.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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laboratory@envirotech-inc.com

## Dame, Michael

---

**From:** Dame, Michael  
**Sent:** Monday, July 17, 2017 2:39 PM  
**To:** 'vbarr@blm.gov'  
**Subject:** FW: Permission to perform work on Below Grade Pit

Good Morning,

EnerVest Operating is asking permission to perform work on a below grade pit. The location is at the Southern Union #002 (API # 30-045-10638), it's surface location is: Lat:36.88996, Long:-108.13210, Unit A, Sec.19-31N-12W, San Juan County, New Mexico. We think that our below grade pit might possibly have a small leak on the side of the tank and would like to pull the pit and make sure that everything is good with the tank as well as close the pit after all rules and regulations have been met.

Thank you,

**Michael Dame CSHO**

**EnerVest, Ltd. | HSE Associate**

2700 Farmington Ave., Building K, Suite 1 | Farmington, NM 87401

| Mobile:505.215.7879

[mdame@enervest.net](mailto:mdame@enervest.net) | [www.enervest.net](http://www.enervest.net)



## Dame, Michael

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**From:** Dame, Michael  
**Sent:** Tuesday, July 18, 2017 12:32 PM  
**To:** 'Smith, Cory, EMNRD'; 'dmankiew@blm.gov'  
**Cc:** Deal, Chester; Ahrens, Mickey  
**Subject:** 72 hour notice Southern Union #002

### Tracking:

#### Recipient

#### Read

'Smith, Cory, EMNRD'

'dmankiew@blm.gov'

Deal, Chester

Read: 7/18/2017 3:50 PM

Ahrens, Mickey

Good Afternoon,

Enervest Operating LLC is notifying for 72 hour notice for a removal of a below grade tank. We will take a 5 point soil sample, which will be analyzed at Envirotech Laboratory. The location of the below grade tank that will be removed is on location Southern Union #002 (API# 30-045-0638), it's surface location is Lat: 36.88996, Long: -108.13210, Unit A, Sec. 19-31N-12W, San Juan County, New Mexico. We will be performing this work on Monday July 24<sup>th</sup>, 2017 at 9:00am. Once all soil sampling has been completed and cleared as per regulations. We will close up the pit and contour the location to standards/requirements.

Thank you,

### Michael Dame CSHO

**Enervest, Ltd.** | HSE Associate

2700 Farmington Ave., Building K, Suite 1 | Farmington, NM 87401

| Mobile: 505.215.7879

[mdame@enervest.net](mailto:mdame@enervest.net) | [www.enervest.net](http://www.enervest.net)



# **ENERVEST OPERATING, LLC**

**SOUTHERN UNION NO. 2  
UNIT A, SEC. 19-31N-12W  
SAN JUAN COUNTY, N.M.**

**LEASE NO. SF - 078243**

**IN CASE OF EMERGENCY CALL**

**Phone # ( EMERGENCY # )  
505-325-0318**



