

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.

Pit, Below-Grade Tank, or
12505 Proposed Alternative Method Permit or Closure Plan Application

- Type of action: Below grade tank registration
39-22526 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

OIL CONS. DIV DIST. 3

DEC 24 2014

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: Enervest Operating LLC OGRID #: _____
Address: 2700 Farmington Ave, Building K, Suite 1
Facility or well name: Jicarilla Contract 148 #20
API Number: 30-039-22526 OCD Permit Number: _____
U/L or Qtr/Qtr B Section 23 Township 25N Range 5W County: Rio Arriba
Center of Proposed Design: Latitude 36.39022 Longitude 107.32617 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: _____
 Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
 Visible sidewalls and liner Visible sidewalls only Other _____
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 Four Foot hog wire

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

Within 100 feet of a wetland.
 - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Yes No

Temporary Pit Non-low chloride drilling fluid

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 Yes No

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 Yes No

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 Yes No

Within 300 feet of a wetland.
 - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Yes No

Permanent Pit or Multi-Well Fluid Management Pit

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 Yes No

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 Yes No

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 Yes No

Within 500 feet of a wetland.
 - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Yes 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: _____ 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 H₂S, 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. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <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). - 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. - 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. - 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. 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.	<input type="checkbox"/> Yes <input type="checkbox"/> No
- Written confirmation or verification from the municipality; Written approval obtained from the municipality	
Within the area overlying a subsurface mine.	<input type="checkbox"/> Yes <input type="checkbox"/> No
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	
Within an unstable area.	<input type="checkbox"/> Yes <input type="checkbox"/> No
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	
Within a 100-year floodplain.	<input type="checkbox"/> Yes <input type="checkbox"/> No
- FEMA map	

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: _____ 11/11/2014 _____

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: Jonathan D. Kelly Approval Date: 12/29/2014

Title: Compliance Officer 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: _____ 11/12/2014 _____

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

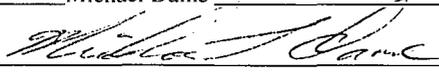
Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude 36.39022 Longitude 107.32617 NAD: 1927 1983

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: _____ 12-21-14 _____

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

EnerVest Operating, LLC (EV)

**BELOW-GRADE TANK
CLOSURE PLAN**

Rule 19.15.17.13

Well Name – Jicarilla Contract 148 #20

API # 30-039-22526

Location UL- B, Sec23, T-25N, R-5W

Lat: N 36.39022 Lat W -107.32617

Before November 15, 2014, 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 or about October 13, 2014.

- 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 Jicarilla Tribal Environmental Protection Officer per regulations. 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:
- | | | |
|----------------------|---------------------|------------------|
| TNT Land Farm | Permit # NM-01-0008 | Liquids & Sludge |
| Envirotech 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 transported to the Enervest Jicarilla yard where it was inspected and recoated. The tank will be utilized at another location in the future.

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:

** Standards in chart do not follow those on approved*

Constituent	Method	Groundwater 51-100 FT	Test Results
Chloride	EPA 300.0	10,000 250 mg/kg	21.6 mg/kg
TPH	EPA SW-846 Method 418.1	2,500 100 mg/kg	Non-Detect
BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg	Non-Detect
Benzene	EPA -SW-846 Method 8021B or 8015M	0.2 10 mg/kg	Non Detect
GRO/DRO	EPA SW-846 Method 8015B	1,000 mg/kg	Non-Detect

*C-144 Closure Plan, but are within approved standards. Chart adjusted
Janell D. Kelly
12/29/2014*

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 Costilla Oil Field Services on November 12, 2014 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 reseeded the excavated area with Jicarilla Southern Seed Mix. See attached photos.

Analytical Report

Report Summary

Client: Enervest Operating
Chain Of Custody Number: 16836
Samples Received: 10/13/2014 12:50:00PM
Job Number: 05123-0002
Work Order: P410048
Project Name/Location: Jicarilla Cont 148 #20

Entire Report Reviewed By:



Date: 10/21/14

Tim Cain, Laboratory Manager

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.

Enervest Operating 2700 Farmington Ave. Farmington NM, 87401	Project Name: Jicarilla Cont 148 #20 Project Number: 05123-0002 Project Manager: Mike Dame	Reported: 21-Oct-14 15:56
--	--	-------------------------------------

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Jicarilla Cont 148 #20	P410048-01A	Soil	10/13/14	10/13/14	Glass Jar, 4 oz.

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

Envervest Operating
2700 Farmington Ave.
Farmington NM, 87401

Project Name: Jicarilla Cont 148 #20
Project Number: 05123-0002
Project Manager: Mike Dame

Reported:
21-Oct-14 15:56

Jicarilla Cont 148 #20
P410048-01 (Solid)

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1442010	10/13/14	10/21/14	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1442010	10/13/14	10/21/14	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1442010	10/13/14	10/21/14	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1442010	10/13/14	10/21/14	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1442010	10/13/14	10/21/14	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1442010	10/13/14	10/21/14	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1442010	10/13/14	10/21/14	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		94.7 %			1442010	10/13/14	10/21/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	10.0	mg/kg	1	1442010	10/13/14	10/21/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	35.0	mg/kg	1	1442006	10/13/14	10/14/14	EPA 8015D	
<i>Surrogate: o-Terphenyl</i>		131 %			1442006	10/13/14	10/14/14	EPA 8015D	
<i>Surrogate: 4-Bromochlorobenzene-FID</i>		87.0 %			1442010	10/13/14	10/21/14	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	ND	35.0	mg/kg	1	1442017	10/14/14	10/14/14	EPA 418.1	
Cation/Anion Analysis									
Chloride	26.1	9.83	mg/kg	1	1442012	10/14/14	10/14/14	EPA 300.0	

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.



Enervest Operating 2700 Farmington Ave. Farmington NM, 87401	Project Name: Jicarilla Cont 148 #20 Project Number: 05123-0002 Project Manager: Mike Dame	Reported: 21-Oct-14 15:56
--	--	-------------------------------------

Volatile Organics by EPA 8021 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1442010 - Purge and Trap EPA 5030A

Blank (1442010-BLK1)		Prepared: 13-Oct-14 Analyzed: 14-Oct-14								
Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	<i>0.389</i>		<i>"</i>	<i>0.400</i>		<i>97.3</i>	<i>50-150</i>			

LCS (1442010-BS1)		Prepared: 13-Oct-14 Analyzed: 14-Oct-14								
Benzene	20.6	0.10	mg/kg	20.0	ND	103	75-125			
Toluene	20.9	0.10	"	20.0	ND	105	70-125			
Ethylbenzene	21.0	0.10	"	20.0	ND	105	75-125			
p,m-Xylene	42.4	0.20	"	39.9	ND	106	80-125			
o-Xylene	20.9	0.10	"	20.0	ND	104	75-125			
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	<i>0.405</i>		<i>"</i>	<i>0.399</i>		<i>101</i>	<i>50-150</i>			

Matrix Spike (1442010-MS1)		Source: P410050-01		Prepared: 13-Oct-14 Analyzed: 14-Oct-14						
Benzene	19.8	0.10	mg/kg	20.0	ND	99.0	75-125			
Toluene	20.0	0.10	"	20.0	ND	100	70-125			
Ethylbenzene	20.2	0.10	"	20.0	ND	101	75-125			
p,m-Xylene	40.8	0.20	"	40.0	ND	102	80-125			
o-Xylene	20.2	0.10	"	20.0	0.11	100	75-125			
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	<i>0.408</i>		<i>"</i>	<i>0.400</i>		<i>102</i>	<i>50-150</i>			

Matrix Spike Dup (1442010-MSD1)		Source: P410050-01		Prepared: 13-Oct-14 Analyzed: 14-Oct-14						
Benzene	20.0	0.10	mg/kg	20.0	ND	100	75-125	0.928	15	
Toluene	20.2	0.10	"	20.0	ND	101	70-125	1.00	15	
Ethylbenzene	20.3	0.10	"	20.0	ND	102	75-125	0.589	15	
p,m-Xylene	41.2	0.20	"	39.9	ND	103	80-125	0.837	15	
o-Xylene	20.3	0.10	"	20.0	0.11	101	75-125	0.785	15	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	<i>0.409</i>		<i>"</i>	<i>0.399</i>		<i>102</i>	<i>50-150</i>			

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

Enervest Operating
2700 Farmington Ave.
Farmington NM, 87401

Project Name: Jicarilla Cont 148 #20
Project Number: 05123-0002
Project Manager: Mike Dame

Reported:
21-Oct-14 15:56

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
Batch 1442006 - DRO Extraction EPA 3550M										
Blank (1442006-BLK1)										
				Prepared: 13-Oct-14 Analyzed: 14-Oct-14						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: <i>o</i> -Terphenyl	33.4		"	39.9		83.7	50-200			
LCS (1442006-BS1)										
				Prepared: 13-Oct-14 Analyzed: 14-Oct-14						
Diesel Range Organics (C10-C28)	429	25.0	mg/kg	500		85.8	38-132			
Surrogate: <i>o</i> -Terphenyl	40.8		"	40.0		102	50-200			
Matrix Spike (1442006-MS1)										
		Source: P410044-01		Prepared: 13-Oct-14 Analyzed: 14-Oct-14						
Diesel Range Organics (C10-C28)	635	34.9	mg/kg	499	ND	127	38-132			
Surrogate: <i>o</i> -Terphenyl	48.8		"	39.9		122	50-200			
Matrix Spike Dup (1442006-MSD1)										
		Source: P410044-01		Prepared: 13-Oct-14 Analyzed: 14-Oct-14						
Diesel Range Organics (C10-C28)	662	35.0	mg/kg	499	ND	132	38-132	4.03	20	
Surrogate: <i>o</i> -Terphenyl	50.5		"	40.0		127	50-200			

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

Enervest Operating
2700 Farmington Ave.
Farmington NM, 87401

Project Name: Jicarilla Cont 148 #20
Project Number: 05123-0002
Project Manager: Mike Dame

Reported:
21-Oct-14 15:56

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
Batch 1442010 - Purge and Trap EPA 5030A										
Blank (1442010-BLK1) Prepared: 13-Oct-14 Analyzed: 14-Oct-14										
Gasoline Range Organics (C6-C10)	ND	10.0	mg/kg							
Surrogate: 4-Bromochlorobenzene-FID	0.358		"	0.400		89.5	50-150			
LCS (1442010-BS1) Prepared: 13-Oct-14 Analyzed: 14-Oct-14										
Gasoline Range Organics (C6-C10)	296	9.99	mg/kg	292		101	80-120			
Surrogate: 4-Bromochlorobenzene-FID	0.370		"	0.399		92.6	50-150			
Matrix Spike (1442010-MS1) Source: P410050-01 Prepared: 13-Oct-14 Analyzed: 14-Oct-14										
Gasoline Range Organics (C6-C10)	284	9.99	mg/kg	292	ND	97.4	75-125			
Surrogate: 4-Bromochlorobenzene-FID	0.371		"	0.400		92.7	50-150			
Matrix Spike Dup (1442010-MSD1) Source: P410050-01 Prepared: 13-Oct-14 Analyzed: 14-Oct-14										
Gasoline Range Organics (C6-C10)	287	9.99	mg/kg	292	ND	98.5	75-125	1.02	15	
Surrogate: 4-Bromochlorobenzene-FID	0.372		"	0.399		93.1	50-150			

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

Enverest Operating
2700 Farmington Ave.
Farmington NM, 87401

Project Name: Jicarilla Cont 148 #20
Project Number: 05123-0002
Project Manager: Mike Dame

Reported:
21-Oct-14 15:56

Total Petroleum Hydrocarbons by 418.1 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1442017 - 418 Freon Extraction

Blank (1442017-BLK1)

Prepared & Analyzed: 14-Oct-14

Total Petroleum Hydrocarbons ND 35.0 mg/kg

Duplicate (1442017-DUP1)

Source: P410048-01

Prepared & Analyzed: 14-Oct-14

Total Petroleum Hydrocarbons ND 34.9 mg/kg ND 30

Matrix Spike (1442017-MS1)

Source: P410048-01

Prepared & Analyzed: 14-Oct-14

Total Petroleum Hydrocarbons 1910 34.9 mg/kg 2020 ND 94.7 80-120

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

Enervest Operating 2700 Farmington Ave. Farmington NM, 87401	Project Name: Jicarilla Cont 148 #20 Project Number: 05123-0002 Project Manager: Mike Dame	Reported: 21-Oct-14 15:56
--	--	-------------------------------------

Cation/Anion Analysis - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1442012 - Anion Extraction EPA 300.0										
Blank (1442012-BLK1)				Prepared & Analyzed: 14-Oct-14						
Chloride	ND	9.96	mg/kg							
LCS (1442012-BS1)				Prepared & Analyzed: 14-Oct-14						
Chloride	499	9.88	mg/kg	494		101	90-110			
Matrix Spike (1442012-MS1)				Source: P410050-01		Prepared & Analyzed: 14-Oct-14				
Chloride	516	9.95	mg/kg	498	ND	104	80-120			
Matrix Spike Dup (1442012-MSD1)				Source: P410050-01		Prepared & Analyzed: 14-Oct-14				
Chloride	519	9.97	mg/kg	499	ND	104	80-120	0.616	20	

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.



Enervest Operating
2700 Farmington Ave.
Farmington NM, 87401

Project Name: Jicarilla Cont 148 #20
Project Number: 05123-0002
Project Manager: Mike Dame

Reported:
21-Oct-14 15:56

Notes and Definitions

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

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

CHAIN OF CUSTODY RECORD

16836

Client: Enervest	Project Name / Location: Jicarilla Cont 148 #20	ANALYSIS / PARAMETERS														
Email results to: mdame@enervest.net wgardner@enervest.net	Sampler Name: Mike Dame	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
Client Phone No.: 305-215-7879	Client No.: 05123-0002															

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative		TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact	
					HNO ₃	HCl																
Jicarilla Cont 148#20	10/13	11:15am	P410048-01				✓	✓								✓	✓				X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10/13	12:50		10/13	12:50
Relinquished by: (Signature)			Received by: (Signature)		
Sample Matrix					
Soil <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>					

Sample(s) dropped off after hours to secure drop off area.

8.8

5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 • laboratory@envirotech-inc.com



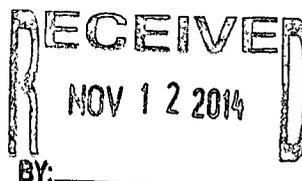
IN REPLY REFER TO:
Energy & Minerals Management

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS
JICARILLA AGENCY
P.O. BOX 167
DULCE, NEW MEXICO 87528



OCT 31 2014

Mr. Michael Dame
EnerVest Operating, LLC
2700 Farmington, Building K, Suite 1
Farmington, New Mexico 87401



Dear Mr. Dame:

This is in response to your request, dated **October 28, 2014**, for Permission to Perform Plug and Abandonment (PTPA) Procedures on the following location, which is on Tribal Surface:

Lease No. 148, Jicarilla Contract 148 #20:

Located in Section 23, Township 25 North, Range 5 West, N.M.P.M. Rio Arriba County, New Mexico (API No. 30-039-22526).

Scope of Work:

Perform plug and abandonment procedures including reclamation. Close below grade pit on the above indicated location.

The Bureau of Indian Affairs, Jicarilla Agency, hereby grants EnerVest Operating, LLC and its contractors permission to perform plug and abandonment procedures on the above indicated location. Please submit an affidavit of completion or final report when completed.

Enclosed for your reference is the Jicarilla Oil and Gas Administration Standard Stipulations (Section K – Reseeding and Section L – Abandonment) which apply to plug and abandonment activities.

If you should have any questions or concerns, please contact Mr. Kurt Sandoval, Realty Officer, at (575) 759-3936.

Sincerely,

Acting Superintendent

Enclosure

cc: Jicarilla Oil and Gas Administration

Dame, Michael

From: Dame, Michael
Sent: Thursday, November 06, 2014 3:57 PM
To: 'Smith, Cory, EMNRD'; 'hsandoval_99@yahoo.com'
Cc: Gardner, Wilbert; Julian, Bill
Subject: 72 Hour Notice

Tracking:	Recipient	Read
	'Smith, Cory, EMNRD'	
	'hsandoval_99@yahoo.com'	
	Gardner, Wilbert	Read: 11/6/2014 3:57 PM
	Julian, Bill	Read: 11/6/2014 4:26 PM

Good Afternoon,

EnerVest Operating is planning on closing the below grade pit excavation on the Jicarilla Contract 148 #20 on Wednesday November 12, 2014. The work will start at 9:00am- weather permitting. The location for the below grade tank is located in Section 23, Township 26 North, Range 5 West, N.M.P.M Rio Arriba County, New Mexico (API No. 30-039-22526).

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 | www.enervest.net



JICARILLA CONT 148 020-CH/PC

API# 3003922526

FEDERAL LEASE# JIC148

NW/4 NE/4 (B) S.23-T25N-R5W

RIO ARRIBA COUNTY ELEV 6,831

ENERVEST OPERATING, LLC

LAT 36.39022 LONG 107.32617

PETROLEUM CRUDE OIL

HANDLING

PROLONGED OR REPEATED

4

HYDROGEN SULFIDE

