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.

16294

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: Enervest Operating LLC OGRID #:
Address: 2700 Farmington Ave, Building K, Suite 1. Farmington, N.M. 87401
Facility or well name: Cain #002
API Number: 30-045-25574 OCD Permit Number:
U/L or Qtr/Qtr H Section 25 Township 31N Range 13W County: San Juan
Center of Proposed Design: Latitude 36.87374 Longitude -108.14945 NAD: ☐1927 ☒ 1983
Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Trit

DENIED *Box 19 Incorrect Date - No Surface owner Notification
BY: Cory Smith
DATE: 3/27 (505) 334-6178 Ext. 115

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

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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.
Variances 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: ____30-045-25574_____ 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_2S, 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	☐ Yes ☐ No ☐ 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	☐ Yes ☐ No ☐ 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	☐ Yes ☐ No ☐ 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	☐ 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 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	☐ Yes ☐ No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ 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
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. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. - 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. - FEMA map	☐ Yes ☐ 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: 3/12/2018

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:**

Title: **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: 11/1/2017**

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 36.87374 Longitude -108.14945 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: 3/12/2018

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

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Enervest Operating

Chain Of Custody Number:

Samples Received: 3/1/2018 10:05:00AM

Job Number: 05123-0002

Work Order: P803002

Project Name/Location: Cain #002

Report Reviewed By: Walter Hinchman Date: 3/6/18

Walter Hinchman, Laboratory Director

Date: 3/6/18

Tim Cain, Quality Assurance Officer

envirotech
Analytical Laboratory

Enervest Operating	Project Name:	Cain #002	
2700 Farmington Ave.	Project Number:	05123-0002	Reported:
Farmington NM, 87401	Project Manager:	Mike Dame	06-Mar-18 17:59

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Cain #002	P803002-01A	Soil	03/01/18	03/01/18	Glass Jar, 4 oz.
	P803002-01B	Soil	03/01/18	03/01/18	Glass Jar, 4 oz.

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Enervest Operating	Project Name:	Cain #002	
2700 Farmington Ave.	Project Number:	05123-0002	**Reported:**
Farmington NM, 87401	Project Manager:	Mike Dame	06-Mar-18 17:59

Cain #002
P803002-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1809019	03/01/18	03/03/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1809019	03/01/18	03/03/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1809019	03/01/18	03/03/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1809019	03/01/18	03/03/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1809019	03/01/18	03/03/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1809019	03/01/18	03/03/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1809019	03/01/18	03/03/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*100 %*	*50-150*		*1809019*	*03/01/18*	*03/03/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1809019	03/01/18	03/03/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1809022	03/01/18	03/05/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1809022	03/01/18	03/05/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.7 %*	*50-150*		*1809019*	*03/01/18*	*03/03/18*	*EPA 8015D*	
Surrogate: n-Nonane		*71.3 %*	*50-200*		*1809022*	*03/01/18*	*03/05/18*	*EPA 8015D*	*CV3*
Anions by 300.0									
Chloride	ND	20.0	mg/kg	1	1809020	03/01/18	03/01/18	EPA 300.0	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	ND	40.0	mg/kg	1	1809018	03/01/18	03/01/18	EPA 418.1	

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envirotech-inc.com
laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Enervest Operating	Project Name:	Cain #002	
2700 Farmington Ave.	Project Number:	05123-0002	**Reported:**
Farmington NM, 87401	Project Manager:	Mike Dame	06-Mar-18 17:59

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 1809019 - Purge and Trap EPA 5030A										
Blank (1809019-BLK1)				Prepared: 01-Mar-18 Analyzed: 02-Mar-18						
Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	*7800*		"	*8000*		*97.5*	*50-150*			
LCS (1809019-BS1)				Prepared: 01-Mar-18 Analyzed: 02-Mar-18						
Benzene	4880	100	ug/kg	5000		97.6	70-130			
Toluene	4830	100	"	5000		96.7	70-130			
Ethylbenzene	4880	100	"	5000		97.6	70-130			
p,m-Xylene	9750	200	"	10000		97.6	70-130			
o-Xylene	4800	100	"	5000		96.0	70-130			
Total Xylenes	14600	100	"	15000		97.1	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7890*		"	*8000*		*98.6*	*50-150*			
Matrix Spike (1809019-MS1)	**Source: P803001-01**			Prepared: 01-Mar-18 Analyzed: 02-Mar-18						
Benzene	4740	100	ug/kg	5000	ND	94.8	54.3-133			
Toluene	4700	100	"	5000	ND	94.1	61.4-130			
Ethylbenzene	4780	100	"	5000	ND	95.6	61.4-133			
p,m-Xylene	9510	200	"	10000	ND	95.1	63.3-131			
o-Xylene	4710	100	"	5000	ND	94.3	63.3-131			
Total Xylenes	14200	100	"	15000	ND	94.8	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	*8350*		"	*8000*		*104*	*50-150*			
Matrix Spike Dup (1809019-MSD1)	**Source: P803001-01**			Prepared: 01-Mar-18 Analyzed: 02-Mar-18						
Benzene	4800	100	ug/kg	5000	ND	96.1	54.3-133	1.34	20	
Toluene	4770	100	"	5000	ND	95.5	61.4-130	1.42	20	
Ethylbenzene	4840	100	"	5000	ND	96.9	61.4-133	1.26	20	
p,m-Xylene	9630	200	"	10000	ND	96.4	63.3-131	1.30	20	
o-Xylene	4770	100	"	5000	ND	95.4	63.3-131	1.21	20	
Total Xylenes	14400	100	"	15000	ND	96.1	63.3-131	1.27	20	
Surrogate: 4-Bromochlorobenzene-PID	*8250*		"	*8000*		*103*	*50-150*			

envirotech
Analytical Laboratory

Enervest Operating	Project Name:	Cain #002	
2700 Farmington Ave.	Project Number:	05123-0002	**Reported:**
Farmington NM, 87401	Project Manager:	Mike Dame	06-Mar-18 17:59

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 1809019 - Purge and Trap EPA 5030A										
Blank (1809019-BLK1)				Prepared: 01-Mar-18 Analyzed: 02-Mar-18						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.44*		"	*8.00*		*93.0*	*50-150*			
LCS (1809019-BS2)				Prepared: 01-Mar-18 Analyzed: 02-Mar-18						
Gasoline Range Organics (C6-C10)	48.3	20.0	mg/kg	50.0		96.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.50*		"	*8.00*		*93.8*	*50-150*			
Matrix Spike (1809019-MS2)		Source: P803001-01		Prepared: 01-Mar-18 Analyzed: 02-Mar-18						
Gasoline Range Organics (C6-C10)	54.9	20.0	mg/kg	50.0	ND	110	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.91*		"	*8.00*		*98.9*	*50-150*			
Matrix Spike Dup (1809019-MSD2)		Source: P803001-01		Prepared: 01-Mar-18 Analyzed: 02-Mar-18						
Gasoline Range Organics (C6-C10)	54.8	20.0	mg/kg	50.0	ND	110	70-130	0.330	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.61*		"	*8.00*		*95.1*	*50-150*			

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Analytical Laboratory

Enervest Operating	Project Name:	Cain #002	
2700 Farmington Ave.	Project Number:	05123-0002	**Reported:**
Farmington NM, 87401	Project Manager:	Mike Dame	06-Mar-18 17:59

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 1809022 - DRO Extraction EPA 3570										
Blank (1809022-BLK1)				Prepared: 01-Mar-18 Analyzed: 05-Mar-18						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	*40.7*		"	*50.0*		*81.3*	*50-200*			
LCS (1809022-BS1)				Prepared: 01-Mar-18 Analyzed: 02-Mar-18						
Diesel Range Organics (C10-C28)	502	25.0	mg/kg	500		100	38-132			
Surrogate: n-Nonane	*50.0*		"	*50.0*		*100*	*50-200*			
Matrix Spike (1809022-MS1)	**Source: P803002-01**			Prepared: 01-Mar-18 Analyzed: 02-Mar-18						
Diesel Range Organics (C10-C28)	567	25.0	mg/kg	500	ND	113	38-132			
Surrogate: n-Nonane	*57.0*		"	*50.0*		*114*	*50-200*			
Matrix Spike Dup (1809022-MSD1)	**Source: P803002-01**			Prepared: 01-Mar-18 Analyzed: 02-Mar-18						
Diesel Range Organics (C10-C28)	664	25.0	mg/kg	500	ND	133	38-132	15.7	20	SPK1
Surrogate: n-Nonane	*63.9*		"	*50.0*		*128*	*50-200*			

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Analytical Laboratory

Enervest Operating	Project Name:	Cain #002	
2700 Farmington Ave.	Project Number:	05123-0002	**Reported:**
Farmington NM, 87401	Project Manager:	Mike Dame	06-Mar-18 17:59

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
Batch 1809020 - Anion Extraction EPA 300.0/9056A										
Blank (1809020-BLK1)				Prepared & Analyzed: 01-Mar-18						
Chloride	ND	20.0	mg/kg							
LCS (1809020-BS1)				Prepared & Analyzed: 01-Mar-18						
Chloride	248	20.0	mg/kg	250		99.0	90-110			
Matrix Spike (1809020-MS1)	Source: P803002-01			Prepared & Analyzed: 01-Mar-18						
Chloride	255	20.0	mg/kg	250	ND	102	80-120			
Matrix Spike Dup (1809020-MSD1)	Source: P803002-01			Prepared & Analyzed: 01-Mar-18						
Chloride	255	20.0	mg/kg	250	ND	102	80-120	0.251	20	

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Enervest Operating	Project Name:	Cain #002	
2700 Farmington Ave.	Project Number:	05123-0002	**Reported:**
Farmington NM, 87401	Project Manager:	Mike Dame	06-Mar-18 17:59

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 1809018 - 418 Freon Extraction										
Blank (1809018-BLK1)				Prepared & Analyzed: 01-Mar-18						
Total Petroleum Hydrocarbons	ND	40.0	mg/kg							
LCS (1809018-BS1)				Prepared & Analyzed: 01-Mar-18						
Total Petroleum Hydrocarbons	978	40.0	mg/kg	1000		97.8	80-120			
Matrix Spike (1809018-MS1)		Source: P803002-01		Prepared & Analyzed: 01-Mar-18						
Total Petroleum Hydrocarbons	996	40.0	mg/kg	1000	ND	99.6	70-130			
Matrix Spike Dup (1809018-MSD1)		Source: P803002-01		Prepared & Analyzed: 01-Mar-18						
Total Petroleum Hydrocarbons	1010	40.0	mg/kg	1000	ND	101	70-130	1.40	30	

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Analytical Laboratory

Enervest Operating	Project Name:	Cain #002	
2700 Farmington Ave.	Project Number:	05123-0002	**Reported:**
Farmington NM, 87401	Project Manager:	Mike Dame	06-Mar-18 17:59

Notes and Definitions

SPK1	The spike recovery is outside of quality control limits.
CV3	CV recovery was below quality control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference

Project Information | Chain of Custody | Page 1 of 1

Client:	Enerrest Operating
Project:	Cain #003
Project Manager:	Mike Dame
Address:	
City, State, Zip	
Phone:	
Email:	mdame@enerrest.net

Report Attention	
Report due by:	
Attention:	
Address:	
City, State, Zip	
Phone:	
Email:	

Lab Use Only		TAT		EPA Program		
Lab WO#	Job Number	1D	3D	RCRA	CWA	SDWA
P803002	05123-0002		✓			

State			
NM	CO	UT	AZ
✓			

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chlorides 300.0	TPH 418.1	Remarks
7:00am	3/1/18	Soil	2-40z	Cain #003	1	✓	✓	✓			✓	✓	

Additional Instructions: VIS ice in cooler

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: Mike Dame

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
	3/1/18	7:00am		3/1/18	1005am
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
Received on ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

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
5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

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

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: Cain #002	Facility Type Oil & Gas Production

Surface Owner: Private	Mineral Owner: Private	API No. 30-045-25574

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	25	31N	13W					San Juan

Latitude N. 36.87374 **Longitude** W -108.14945

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? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

NMOCD

MAR 12 2018

DISTRICT III

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 – Non Detect mg/kg (EPA 8015)
Total Petroleum Hydrocarbons – Non Detect mg/kg (EPA Method 418.1)
Chloride – Non Detect 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:	OIL CONSERVATION DIVISION	
Printed Name: Michael Dame	Approved by Environmental Specialist:	
Title: HSE Specialist	Approval Date:	Expiration Date:
E-mail Address: mdame@ enervest.net	Conditions of Approval:	Attached ☐
Date: 3/12/2018 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 – Cain #002
API # 30-045-25574
Location UL- H, Sec 25, T-31N, R-13W
Lat: N 36.87374 Lat W -108.14945

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 February 14th, 2018.

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 landowner. 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
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 transported to the Enervest 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:

Constituent	Method	Old Standard	Test Results
Chloride	EPA 300.0	250 mg/kg	Non-Detect
TPH	EPA SW-846 Method 418.1	100 mg/kg	Non-Detect
BTEX	EPA SW-846 Method 8021B or8260B	50 mg/kg	Non-Detect
Benzene	EPA -SW-846 Method 8021B or 8015M	0.2 mg/kg	Non-Detect
GRO/DRO	EPA SW-846 Method 8015B	500 mg/kg	Non-Detect

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 utilizing soil that was already on location on March 9th, 2018. 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 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 has not reseeded the area where the pit was removed due to where it was located between the oil tank and the newly set above grade tank

Dame, Michael

From: Dame, Michael
Sent: Wednesday, February 07, 2018 2:16 PM
To: Smith, Cory, EMNRD
Cc: Deal, Chester
Subject: 72 Hour notice for Cain #002

Good Afternoon,

This is a 72 hour notice that Enervest Operating will be pulling the below grade pit on the Cain #002 (API#: 30-045-25574). U/L: H, Section 25, Township 31N, Range 13W. Lat: 36.87374, Long: -108.14945. Work will begin at 9:00am on Wednesday February 14th, 2018, we will have a crew there to pull the pit, as well as conduct a 5 point soil sample to send to Envirotech Laboratory for analysis.

Thank you,

Michael Dame CSHO
EnerVest, Ltd. | HSE Specialist
2700 Farmington Ave., Building K, Suite 1| Farmington, NM 87401
| Mobile:505.215.7879
mdame@enervest.net | www.enervest.net