Form C-144 July 21, 2008

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, 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

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office. For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

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# Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action:	Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
	Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
	☐ Modification to an existing permit
	☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system,
below-grade tanl	x, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, 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: _CDX Gas LLC		
Address:2700 Farmington Ave, Building K, Suite #1		
Facility or well name:Jicarilla C #004F		
API Number:30-039-29590 OCD Permit 1	Number:	
U/L or Qtr/Qtr        N        26N        26N	lange5W County:Rio Arriba	
Center of Proposed Design: Latitude36.466778 Longit	ude107.3122778 NAD: ☐1927 🖂 1983	
Surface Owner:   Federal   State   Private   Tribal Trust or Indian Allotment		
2.	2010 250 40 100	
Pit: Subsection F or G of 19.15.17.11 NMAC	RCVD DEC 16 '08	
Temporary: Drilling Workover	OIL COMS. DIV.	
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A	DIST. 3	
☐ Lined ☐ Unlined Liner type: Thicknessmil ☐ LLDPE ☐ HD	PE   PVC   Other	
String-Reinforced		
Liner Seams: Welded Factory Other Volum	me:bbl Dimensions: Lx Wx D	
3.  Closed-loop System: Subsection H of 19.15.17.11 NMAC		
Type of Operation: P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)		
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other		
Lined Unlined Liner type: Thickness mil LLDPE HDPE PVC Other		
Liner Seams:		
4.		
Below-grade tank: Subsection I of 19.15.17.11 NMAC		
Volume:95bbl Type of fluid:Produced water		
Tank Construction material:Steel		
Secondary containment with leak detection  Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off		
☐ Visible sidewalls and liner ☒ Visible sidewalls only ☒ Other _See closure plan		
Liner type: Thicknessmil	Below grade tank to be closed per new rule.	
5. Alternative Method:		
Anternative Method:		

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

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		
7.		
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)		
8.		
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 19.15.3.103 NMAC		
9. Administrative Approvals 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:  Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau	office for	
consideration of approval.  Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.		
10.		
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 acceptanterial are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the approximately approxim		
office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dry		
above-grade tanks associated with a closed-loop system.	<del>r</del>	
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No	
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).	Yes No	
- Topographic map; Visual inspection (certification) of the proposed site		
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks)	☐ Yes ☐ No ☐ NA	
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	□ Vaa□ Na	
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits)	☐ Yes ☐ No ☐ NA	
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image		
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, 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 incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	☐ Yes ☐ 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		
Within 500 feet of a wetland.	☐ Yes ☐ No	
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site		
Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No	
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	Yes No	
Within a 100-year floodplain FEMA map	☐ Yes ☐ No	

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  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:
Treviously Approved Besign (actual copy of design) Art France.
Closed-loop Systems 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.  Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (only for on-site closure) - 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:
Previously Approved Operating and Maintenance Plan API Number:(Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
13.   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   Luner 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   Erosion Control Plan   Erosion Control Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
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 Closed-loop System 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 (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
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 F 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 G of 19.15.17.13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC) Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.				
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rice and operations?				
Required for impacted areas which will not be used for future service and operations:  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 G of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC				
17. 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 may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.				
Yes No				
☐ Yes ☐ No ☐ NA				
<ul><li>☐ Yes ☐ No</li><li>☐ NA</li></ul>				
☐ Yes ☐ No				
☐ Yes ☐ No				
Yes No				
Yes No				
☐ Yes ☐ No				
☐ Yes ☐ No				
☐ Yes ☐ No				
☐ Yes ☐ No				
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 F of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements 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 19.15.17.13 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 Subsection F of 19.15.17.13 NMAC Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F 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 I of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC				

19.		
Operator Application Certification:		
I hereby certify that the information submitted with this application is true, accurate and of	complete to the best of my knowledge and belief	
Name (Print):Lee Gardner	Title:HSE Coordinator	
Signature: Tee Herring	Date: 12/14/08	
e-mail address:lee.gardner@cdxgas.com	ephone:505-324-5427	
20.	\ \( \tau_{\text{cap}} \\ \tau	
OCD Approval: Permit Application (including closure plan) Closure Plan (only		
OCD Representative Signature:	Approval Date: 4/89/201	
Title: OUD COUCE OCD	Permit Number:	
Closure Report (required within 60 days of closure completion): Subsection K of 19.	.15.17.13 NMAC	
Instructions: Operators are required to obtain an approved closure plan prior to imples		
The closure report is required to be submitted to the division within 60 days of the comp		
section of the form until an approved closure plan has been obtained and the closure ac	ctivities have been completed.	
	Closure Completion Date:	
22.		
Closure Method:		
Waste Excavation and Removal On-Site Closure Method Alternative Clo	osure Method   Waste Removal (Closed-loop systems only)	
If different from approved plan, please explain.		
23.  Classica Parasit Parasiting Wests Parasial Classica For Classical Ison Systems That II	Tilling Above Crown of Steel Toules on Head off Ding Only	
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That U Instructions: Please indentify the facility or facilities for where the liquids, drilling fluit		
two facilities were utilized.	and arm cumings were disposed. Ose diagenment y more man	
-	osal Facility Permit Number:	
Disposal Facility Name: Dispo	•	
Were the closed-loop system operations and associated activities performed on or in areas	•	
Yes (If yes, please demonstrate compliance to the items below) No	s that with not be used for future service and operations:	
Required for impacted areas which will not be used for future service and operations:		
☐ Site Reclamation (Photo Documentation) ☐ Soil Backfilling and Cover Installation		
Re-vegetation Application Rates and Seeding Technique		
24.		
Closure Report Attachment Checklist: Instructions: Each of the following items must	st 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)		
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)		
	NAD: 🔲 1927 🔲 1983	
25.		
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): Ti	itle:	
Signature:	Date:	
e-mail address:	elephone:	



#### Below Grade Tank Closure Plan

#### I. Closure:

- 1. The current configuration consists of one single walled steel tank with in a pit.
- 2. The current configuration will be replaced with an above ground tank with in a lined bermed facility.
- 3. If existing below grade tank which does not show integrity shall be immediately removed from service.
- 4. The tank shall be recycled, reused, reclaimed or disposed of in an Oil Conservation Division approved manner.
- 5. The soil under any pit shall be sampled for:
  - a. Benzene as determined by Environmental Protection Agency SW-846 method 8012B or 8260B or other Environmental Protection Agency method that the Oil conservation Division approves. The test shall not exceed 0.2 mg/kg.
  - b. Total Petroleum Hydrocarbons as determined by the Environmental Protection Agency SW-846 method 8021B or 8260B or other Environmental Protection Agency method that the Oil Conservation Division approves. The test shall not exceed 100 mg/kg.
  - c. Total Benzene, Toluene, Ethyl Benzene, and Xylene as determined by Environmental Protection Agency SW-846 method 8021B or 8260B or other Environmental Protection Agency method that the Oil Conservation Division approves. The test shall not exceed 50 mg/kg.
  - d. Chlorides as determined by Environmental Protection Agency method 300.1. The test shall not exceed 250mg/kg or background concentration, whichever is greater.
- 5. If contaminated soil is found under the pit, the soil will be removed and transported to either:
  - a. TNT land farm (permit number NM-01-0008)
  - b. Industrial Ecosystems Landfarm (permit number NM 01-0010B)
- 6. Any produced sludge/liquids shall be disposed of at either:
  - a. Basin Disposal (permit number NM-01-005)
  - b. Aquamoss (permit number SWD-1034A)
- 7. Any equipment associated with the removed below grade tank shall be removed unless needed for some other purpose.
- 8. Upon permanent closure of the below grade tank location:
  - a. Notify the land owner in writing by certified mail, return receipt requested, of the closure.

- b. Notify the Oil Conservation Division at least 72 hours but not more than one week in advance of the closure.
- c. Submit a closure report to the Oil Conservation Division with in 60 days.

## II. Site Reclamation

# A. Contouring:

- 1. The site shall be contoured to blend in with the surrounding terrain.
- 2. The soil cover shall consist of the background thickness of topsoil or one foot of suitable material for establishing vegetation at the site, which ever is greater.
- 3. The soil shall be spread in such a manner as to prevent the pooling of water.

## B. Reseeding:

- 1. The area shall be reseeded at the first growing season after the completion of all work
- 2. The seed mixture shall consist of three native plant species including one grass or Jicarilla Apache Tribal approved seed mix.
- 3. The seed mixture shall be drilled on the contour whenever practical.
- 4. At least 70 percent of the native perennial vegetative cover (unimpacted by overgrazing, fire, or other intrusive damage) shall be maintained through two successive growing seasons. Irrigation may not be used to accomplish the required ground cover.