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.

BGT	1
&	
<b>BGT</b>	2

### 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 tank, 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.
Operator: Chevron Midcontinent, LP OGRID #: 241333
Address: P.O. Box 36366 Houston, TX 77236
Facility or well name: Rincon Unit No. 149
API Number: _30-039-06868 OCD Permit Number:
U/L or Qtr/Qtr Otr/Qtr N Section 30 Township 27N Range 6W County: Rio Arriba
Center of Proposed Design: Latitude 36 541006° Longitude 107 512493° NAD: 1927 1983
Surface Owner:  Federal  State  Private  Tribal Trust or Indian Allotment
Pit: Subsection F or G of 19.15.17.11 NMAC     Temporary:
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other
Liner Seams: Welded Factory Other
4.
Below-grade tank: Subsection I of 19.15.17.11 NMAC  Volume: 45 bbl 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 Buried  Liner type: Thickness mil HDPE PVC Other None
5.
Alternative Method:
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6.  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, institution or church)	hospital,
Four foot height, four strands of barbed wire evenly spaced between one and four feet	
Alternate. Please specify Four foot, pipe frame with square wire mesh.	
7. Nesting Subscript F of 10 15 17 11 NMAG (A. P	
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)  ☐ Screen ☐ Netting ☒ Other Solid	
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 accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the approoffice 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.	priate district pproval.
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.  - Please reference hydrogeologic report and printout from iWATERS database.	☐ 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).  - Please reference the attached topographic map with distance rings. In addition, a field visit was conducted by Envirotech in July 2008 certifying that, at the time, there were no watercourses within the distance specified above.	☐ Yes ⊠ No
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)  - Please reference the attached aerial photo. In addition, a field visit was conducted by Envirotech in July 2008 certifying that, at the time, there were no referenced buildings within the distance specified above.	☐ Yes ☑ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No 図 NA
<ul> <li>(Applies to permanent pits)</li> <li>Please reference the attached aerial photo. In addition, a field visit was conducted by Envirotech in July 2008 certifying that, at the time, there were no referenced buildings within the distance specified above.</li> </ul>	
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.  - Please reference the attached iWATERS printout. In addition, a field visit was conducted by Envirotech in July 2008 certifying that, at the time, there were no wells or springs within the distances specified above.	☐ 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.	☐ Yes ⊠ No
The site is not within any known incorporated municipal boundaries, please reference the attached topographic map.  Within 500 feet of a wetland.	☐ Yes ☒ No
<ul> <li>Please reference the attached topographic map with distance rings. In addition, a field visit was conducted by Envirotech in July 2008 certifying that, at the time, there were no wetlands within the distance specified above</li> </ul>	☐ Yes ⊠ No
Within the area overlying a subsurface mine.  - Please reference the attached topographic map	☐ Yes ⊠ No
<ul> <li>Within an unstable area.</li> <li>Please reference the attached topographic map which includes FEMA flood map data. The map indicates the well site is outside of any known 100 year floodplains.</li> </ul>	☐ Yes ⊠ No
Within a 100-year floodplain.	

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 19.15.17.12 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   Previously Approved Design (attach copy of design) API Number:
Treviously Approved Design (academ copy of design) All Trainber.
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)
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.    Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC   Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC   Climatological Factors Assessment   Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC   Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC   Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC   Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC   Quality Control/Quality Assurance Construction and Installation Plan   Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC   Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC   Nuisance or Hazardous Odors, including H <sub>2</sub> S, Prevention Plan   Emergency Response Plan   Oil Field Waste Stream Characterization   Monitoring and Inspection Plan   Erosion Control Plan   Erosion Control 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
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

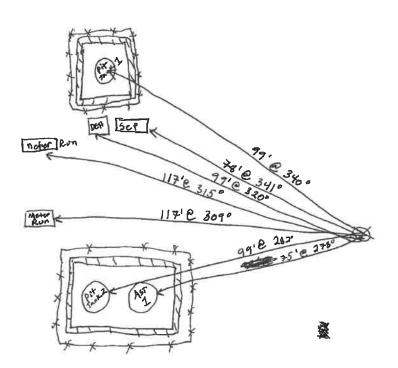
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bir Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cutting		
facilities are required.		
Disposal Facility Name: Disposal Facility Permit Nu		
Disposal Facility Name: Disposal Facility Permit Nu	mber:	
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not a Yes (If yes, please provide the information below) No	ot be used for future servi	ice 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 Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC		
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. Recommendate provided below. Requests regarding changes to certain siting criteria may require administrative approval freconsidered an exception which must be submitted to the Santa Fe Environmental Bureau office for considered demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.	om the appropriate distri	ict office or may be
Ground water is less than 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 between 50 and 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
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
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakeb lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	ed, sinkhole, or playa	Yes No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of in Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	itial application.	Yes No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed	e of initial application.	Yes No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a 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 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of		☐ 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; USG Society; Topographic map	S; NM Geological	☐ Yes ☐ No
Within a 100-year floodplain FEMA map		Yes No
18.  On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be at 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 NM Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19 Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate 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 Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC	MAC 3 NMAC 9.15.17.11 NMAC riate requirements of 19.1 6.19.15.17.13 NMAC NMAC	5.17.11 NMAC
<ul> <li>□ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC</li> <li>□ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC</li> </ul>		

Operator Application Certification:  I hereby certify that the information submitted with this application is true, a	accurate and complete to the best of my knowledge and belief.
Name (Print): Rodney Bailey	Title: Waste & Water Group Lead
Signature:	Date: March 1, 2010
e-mail address: Bailerg@chevron.com	Telephone: (432) 687 7123
20.  OCD Approval: ☐ Permit Application (including closure plan) ☑ Closure	ure Plan (only)
	Approval Date: 3/5/21
Title: Environmental Specialist	OCD Permit Number: BGT 1 & BGT 2
Closure Report (required within 60 days of closure completion): Subset Instructions: Operators are required to obtain an approved closure plan p. The closure report is required to be submitted to the division within 60 day section of the form until an approved closure plan has been obtained and t	rior to implementing any closure activities and submitting the closure report.  s of the completion of the closure activities. Please do not complete this
	Closure Completion Date:
22.  Closure Method:  Waste Excavation and Removal On-Site Closure Method A  If different from approved plan, please explain.	lternative Closure Method   Waste Removal (Closed-loop systems only)
23. Closure Report Regarding Waste Removal Closure For Closed-loop Sys Instructions: Please indentify the facility or facilities for where the liquids two facilities were utilized.	stems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: s, drilling fluids and drill cuttings were disposed. Use attachment if more than
Disposal Facility Name:	Disposal Facility Permit Number:
Disposal Facility Name:	
Were the closed-loop system operations and associated activities performed  Yes (If yes, please demonstrate compliance to the items below)	
Required for impacted areas which will not be used for future service and op  Site Reclamation (Photo Documentation)  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique	perations:
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)	ing items must be attached to the closure report. Please indicate, by a check sure)  congitude NAD:
25. Operator Closure Certification:	
I hereby certify that the information and attachments submitted with this clobelief. I also certify that the closure complies with all applicable closure req	
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:

Site Inventory S	heet
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•	Well Name & Number: Rincon Unit 149
•	API#: 30039 06868
•	Lease #: _ SF 079364
•	Quarter/Quarter: 1750 w N Section: 30 Township: 27N Range: 6 w
•	Lat: (310. 5410016 Long: - 107. 512493
•	Pit Tank #1: Manufacturer:
•	Serial #: bbl
	o If N/A – Dimensions: Diameter 6 Height 5!
•	Material: Steel Galvanized Fiberglass
•	Tank Configuration: Double Wall Single Wall (Buried or Exposed Walls)
•	Contents: Produced Water Condensate Recycled Oil
•	Tank Top Covering: Solid/Cone-top X Netting (Solid Fiber )
•	Secondary Containment: Yes X No
•	Fencing around berm: Yes X No
	o Fence Type: Cattle Panel Field Fence Barbwire
•	Pit Tank #2: Manufacturer:
•	Serial #: DOM: Size bbl
	o If N/A – Dimensions: Diameter 6 Height 5'
•	Material: Steel X Galvanized Fiberglass
	Tank Configuration: Double Wall Single Wall X (Buried X or Exposed Walls)
•	Contents: Produced Water Condensate Recycled Oil
•	Tank Top Covering: Solid/Cone-top X Netting (Solid Fiber )
•	Secondary Containment: Yes × No
•	Fencing around berm: Yes \( \sigma \) No
•	<del></del>
	○ Fence Type: Cattle Panel Field Fence_X Barbwire
	Above-Ground Tank #1: Manufacturer: A merican Tank and Steel Corp
•	1573
•	
_	
•	
•	Contents: Produced Water Condensate (State # 300076) Recycled Oil
•	Secondary Containment: Yes X No
	All Company of the same of the
•	Above-Ground Tank #2: Manufacturer:
•	Serial #:bbl
	o If N/A – Dimensions: Diameter
•	Material: Steel Galvanized Fiberglass
•	Contents: Produced Water Condensate (State # Recycled Oil
•	Secondary Containment: Yes No
•	Above-Ground Tank #3: Manufacturer:
•	Serial #:bbl
	o If N/A – Dimensions: Diameter Height
•	Material: Steel Galvanized Fiberglass
•	Contents: Produced Water Condensate (State #) Recycled Oil
•	Secondary Containment: Yes No





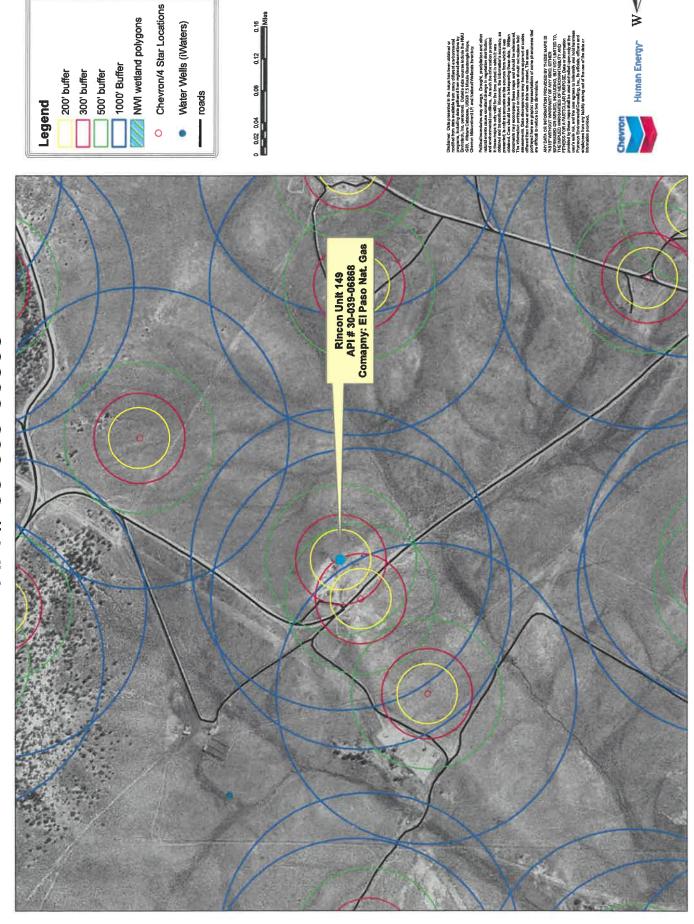
SCharge is	per 1 - 10				
Schematic Key:					
Separator	SEP	Artificial Lift	AL	Condensate Tank	COND
Compressor	сом	Meter Run	METER RUN		
Dehydrator	DEH	Weli Head	0	Water Tank	WATER

Measure any distance 1000ft or less of the following:

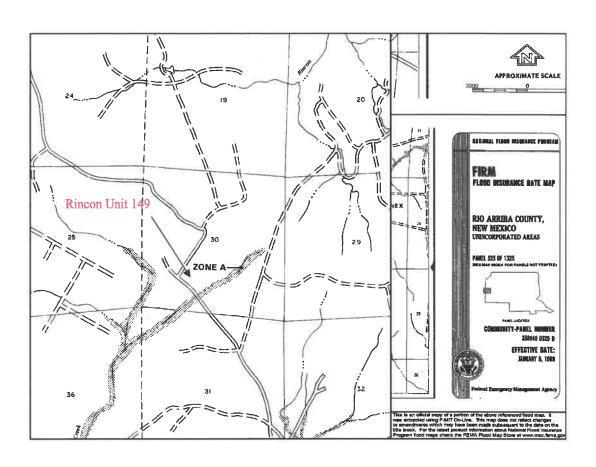
- From wellhead to any continuous flowing or significant water course.
- From below-grade tanks to any permanent residence, school, church, hospital, etc.  $\cancel{N}/\cancel{A}$

## Chevron/4 Star Locations NWI wetland polygons Water Wells (iWaters) Human Energy\* 1000' Buffer 300' buffer 500' buffer roads **Legend** Rincon Unit 149 API # 30-039-06868 Comapny: El Paso Nat. Gas Rincon Unit 149 API # 30-039-06868

# Rincon Unit 149 API # 30-039-06868



### Rincon Unit 149 API # 30-039-06868 SE ½ SW ½ Sec. 30 T27N R6W

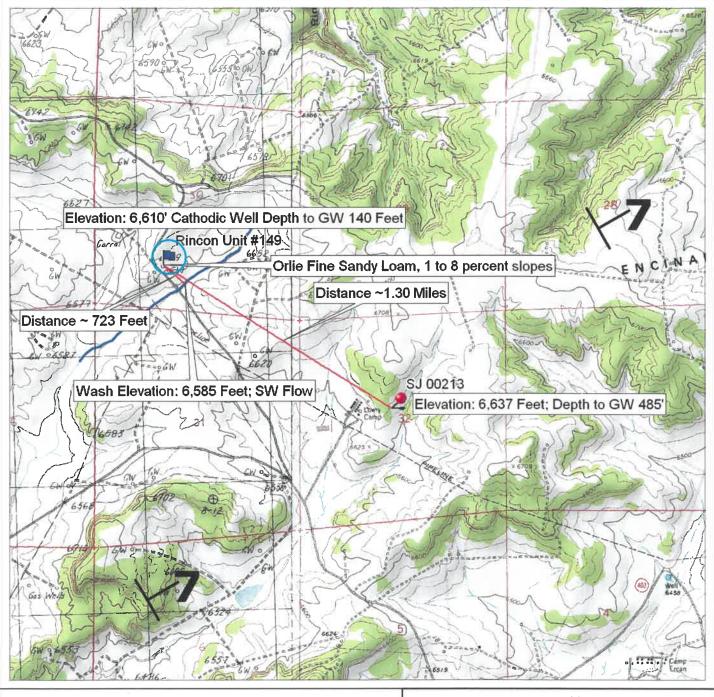


#### Rincon Unit #149 Groundwater Statement

The attached iWATERS database search and topographic map shows a water well approximately 1.30 miles to the south-east with a depth to groundwater of 485 feet. This water well is labeled on the topographic map with a red point. As evidenced on the attached topographic map, the water well is at an elevation approximately 27 feet higher than the Rincon Unit #149 well site, which is represented by a blue flag on the topographic map. The attached cathodic well data sheet for a cathodic well drilled in 1989 for the Rincon Unit #149 well site shows that groundwater was encountered at 140 feet. This cathodic well data sheet is stamped as being accepted by the OCD in May of 1990. The soil type at the Rincon Unit #149 well site is an Orlie Fine Sandy Loam, 1 to 8 percent slopes. This is a well drained soil, characterized by moderate organic material and a high available water capacity. The nearest wash is approximately 723 feet to the south-east of the Rincon Unit #149 well site at an elevation of 6,585 feet. This is a south-west flowing emphereal wash that only exists during periods of heavy precipitation. This wash is a first order tributary of Moss Lake. The Rincon Unit #149 well site lies in the San Jose Formation Aguifer which dips at 7 degrees to the north-east (Frenzel, 1983); see Topographic Map for aguifer dip direction. The San Jose Formation ranges from less than 200 feet in the west and south to nearly 2,700 feet in the basin center between Cuba and Gobernador (Frenzel, 1983). These findings give definitive proof that the depth to groundwater is greater than 50 feet from the bottom of the BGT at the Rincon Unit #149 well site. All above information, excluding the aquifer dip, was confirmed by a visual inspection performed by Envirotech, Inc.

The San Jose Formation (Tsj) is the youngest Tertiary unit in the San Juan Basin and was named by Simpson (1948, p. 277-283). It is of early Eocene age and as early as 1875 was correlated with the Wasatch Formation in Wyoming. The San Jose is the surface formation in the eastern two-thirds of the San Juan Basin. Although largely exposed in New Mexico, the San Jose also straddles the New Mexico/Colorado State boundaries. It outcrops in its west, south and northeast boundaries in a broad, and in some places irregular, southeasterly trending band in the Blanco Canyon to Largo Canyon area. On the east side, it rises structurally and outcrops in a narrow band along the west face of the Nacimiento Uplift forming the eastern boundary of the San Juan Basin. There are several smaller, isolated remnants of the San Jose Formation west of the central exposure. The San Jose has eroded deeply in some areas and because of differential resistance to erosion of its various sandstone and shale units, produces a large thickness variance and in some places formation of very rugged topographic expression (Baltz, 1967, p. 45). In some places it erodes to horseshoe-shaped badlands and massive cliffs. The San Jose overlays the nonresistant slope-forming Nacimiento Formation (Tn). Thickness of the San Jose ranges from less than 200' at the outcrop on the west and south sides to almost 2700 feet in the the Basin center (Stone, etal, p. 25). The thickness is 1300' or less on the southern part of the Tapicitos Plateau where the San Jose structurally rises and its upper beds are eroded. In the Largo Plains area (Largo Canyon) which marks the western exposure of the preserved San Jose, more than half of the Formation was removed by erosion (Baltz, p. 46). The San Jose Formation contact is that of an angular unconformity surface with the underlying Paleocene-age Nacimiento Formation near the Nacimiento Uplift, but is slightly disconformable to conformable in the Basin center (Stone, et al, p. 25).

The San Jose Formation is comprised of four identifiable rock facies (in ascending order) called the Cuba Mesa, the Regina, the Llaves and the Tapicitos Members. These four members are only present in the far eastern part of the basin (Brimhall, 1973, p. 198). Within the preserved area, only the Cuba Mesa and Regina are widespread throughout the basin. The oldest Member of the San Jose is the Cuba Mesa (150-800 feet thick), which is largely a massive cliff-forming buff and yellow, rusty-weathering cross-bedded arkosic coarse-grained sandstone with lenticular reddish, green and gray shale beds (Baltz, p. 46). The Cuba Mesa is overlain in the southern two-thirds of the area by drab-colored variegated shale and interbedded soft to hard sandstones known as the Regina Member (100 to 1700 feet thick) and overlain in the northern one-third by a thick sequence of sandstone called the Llaves (50 to 1300 feet thick) which in turn intertongues and grades southward into the Regina. In the northeastern part of the area, the upper Llaves Member grades southward and westward into the red silty mudstones, siltstones and interbedded poorly consolidated sandstones of the Tapicitos Member (120-500 feet thick) (Stone, etal, p. 25).



### LEGEND

Aquifer Strike & Dip

✓ Emphereal Wash

Distance

Topographic Map Rincon Unit #149 Sec 30, Twp 27N, Rge 6W Rio Arriba County, New Mexico

SCAL	.E: N	rs	FIGURE NO. 1		REV		
PROJECT N092270-0342			342	FIGURE NO. I			
			REVISI	ONS			
		+++					
NO.	DATE	BY		DESCRIPTION			
MAP	DRWN	JPM	DATE	4/10/09			



5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

#### This product is generated from the USDA-NRCS certified data as of Soil Survey Area: Rio Arriba Area, New Mexico, Parts of Rio Arriba imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. The soil surveys that comprise your AOI were mapped at 1:24,000. Date(s) aerial images were photographed: 10/13/1997; 10/9/1997 Please rely on the bar scale on each map sheet for accurate map The orthophoto or other base map on which the soil lines were Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov compiled and digitized probably differs from the background Source of Map: Natural Resources Conservation Service Map Scale: 1:9,540 if printed on A size (8.5" x 11") sheet. MAP INFORMATION Version 10, Dec 19, 2008 Coordinate System: UTM Zone 13N NAD83 the version date(s) listed below. and Sandoval Counties Survey Area Data: measurements. Streams and Canals Interstate Highways Short Steep Slope Very Stony Spot Special Line Features Major Roads Local Roads **US Routes** Wet Spot Oceans Other Other Cities Gully Rails Political Features Water Features **Fransportation** MAP LEGEND م # 0 Severely Eroded Spot Area of Interest (AOI) Miscellaneous Water Closed Depression Marsh or swamp Perennial Water Mine or Quarry Soil Map Units Gravelly Spot Rock Outcrop **Special Point Features** Sandy Spot Saline Spot Slide or Slip Sodic Spot **Borrow Pit** Gravel Pit Lava Flow Spoil Area Clay Spot Area of Interest (AOI) Sinkhole Blowout Landfill X 0 Soils

Stony Spot

### **Map Unit Legend**

Rio Arriba Area, New Mexico, Parts of Rio Arriba and Sandoval Counties (NM650)									
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI						
103	Orlie fine sandy loam, 1 to 8 percent slopes	402.9	93.2%						
110	Vessilla-Menefee-Orlie complex, 1 to 30 percent slopes	29.4	6.8%						
Totals for Area of Interes	t	432.3	100.0%						

### Rio Arriba Area, New Mexico, Parts of Rio Arriba and Sandoval Counties

### 103—Orlie fine sandy loam, 1 to 8 percent slopes

#### Map Unit Setting

Elevation: 6,200 to 7,500 feet

Mean annual precipitation: 13 to 16 inches
Mean annual air temperature: 45 to 49 degrees F

Frost-free period: 100 to 130 days

### **Map Unit Composition**

Orlie and similar soils: 80 percent

### **Description of Orlie**

#### Setting

Landform: Mesas, fan remnants

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Side slope, talf

Down-slope shape: Linear, convex

Across-slope shape: Linear

Parent material: Fan alluvium and/or slope alluvium derived from

sandstone and shale

### **Properties and qualities**

Slope: 1 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 10 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/

cm)

Available water capacity: High (about 10.8 inches)

#### Interpretive groups

Land capability (nonirrigated): 6c

Ecological site: Gravelly Loamy (R036XB006NM)

### **Typical profile**

0 to 3 inches: Fine sandy loam 3 to 13 inches: Clay loam

13 to 60 inches: Sandy clay loam

### **Data Source Information**

Soil Survey Area: Rio Arriba Area, New Mexico, Parts of Rio Arriba and Sandoval

Counties

Survey Area Data: Version 10, Dec 19, 2008

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### DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator Union Oil Company of California Location: Unit Sec. 30 Twp27N Rng6W								
Name of Well/Wells or Pipeline Serviced Rincon #149 DK/MV Rincon #48 PC								
Elevation 6616 Completion Date 11-9-89 Total Depth 300 Land Type* F  Casing, Sizes, Types & Depths None DECENTER  MAY1 4 1990								
If Casing is cemented, show amounts & types used None OIL CON. DIV.								
If Cement or Bentonite Plugs have been placed, show depths & amounts used.*  None								
Depths & thickness of water zones with description of water when possible:  Fresh, Clear, Salty, Sulphur, Etc. Fresh 140' Deep 30'Thick								
SEE ATTACHED PAGE								
Depths gas encountered: NA								
Type & amount of coke breeze used: Carbo 60 plus mettalurgical 3300 lbs								
Depths anodes placed: 110' to 210'								
Depths vent pipes placed: 300'								
Vent pipe perforations: 140' to 300'								
Remarks: Unocal was the operator at the time this ground bed was installed								
First ground bed installed at this location.								
If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.								

\*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number.



### New Mexico Office of the State Engineer Water Column/Average Depth to Water

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

	(dr	(quarters are smallest to largest) (NAD83 U								TM in meters) (In feet)			
	QQQ							Depth Depth Water				Nater	
POD Number	County	64	16	4	Sec	Tws	Rng	X	Y	Well	<b>VaterC</b>	olumn	
SJ 00061	Rio Arriba	3	3	3	32	27N	06W	276278	4044923	445	301	144	
SJ 00062	Rio Arriba	3	3	3	32	27N	06W	276278	4044923	452	301	151	
SJ 00213	Rio Arriba	4	4	1	32	27N	06W	276897	4045750	1308	485	823	
SJ 02403	Rio Arriba	3	1	3	30	27N	06W	274714	4047115	505	300	205	
SJ 03001	Rio Arriba	1	2	2	07	27N	06W	276165	4052831	141	41	100	
Record Count: 5 Average Depth to Water: 285 feet												eet	

Minimum Depth: 41 feet

Maximum Depth: 485 feet

### BELOW GRADE TANK (BGT) CLOSURE PLAN

### SUBMITTED TO:

### ENVIRONMENTAL BUREAU,

### NEW MEXICO OIL CONSERVATION DIVISION

### ON BEHALF OF:

CHEVRON USA INC., CHEVRON MIDCONTINENT, L.P., AND FOUR STAR OIL & GAS

COMPANY
P.O. Box 730

AZTEC, NEW MEXICO 87410

(505) 333-1901

### Chevron San Juan Basin Below Grade Tank Closure Plan

#### INTRODUCTION

In accordance with NMAC §§ 19.15.17.9(B)(4) and 19.15.17.13, Chevron (representing Chevron USA Inc, Chevron Midcontinent, L.P., and Four Star Oil & Gas Company) submits this Closure Plan for below grade tanks (BGTs) in New Mexico. This Closure Plan contains standard conditions that attach to multiple BGTs. If needed for a particular BGT, a modified Closure Plan for a proposed alternative closure will be submitted to the New Mexico Oil Conservation Division (NMOCD or the division) for approval prior to closure.

### CLOSURE PLAN PROCEDURES AND PROTOCOLS (NMAC §§ 19.15.17.9(C) and 19.15.17.13).

- 1) Chevron, or a contractor acting on behalf of Chevron, will close a BGT within the time periods provided in NMAC § 19.15.17.13(A), or by an earlier date required by NMOCD to prevent an imminent danger to fresh water, public health, or the environment. NMAC § 19.15.17.13(A).
- 2) Chevron, or a contractor acting on behalf of Chevron, will close an existing BGT that does not meet the requirements of NMAC § 19.15.17.11(I)(1 through 4) or is not included in NMAC § 19.15.17.11(I)(5) within five years after June 16, 2008, if not retrofitted to comply with § 19.15.17.11(I)(1 through 4). NMAC § 19.15.17.13(A)(4).
- 3) Chevron shall close an existing below-grade tank that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, if not retrofitted to comply with Paragraphs 1) through (4) of Subsection I of 19.15.17.11 NMAC, prior to any sale or change of operator pursuant to 19.15.9.9 NMAC.
- 4) Chevron, or a contractor acting on behalf of Chevron, will close a permitted BGT within 60 days of cessation of the BGT's operation or as required by the transitional provisions of NMAC § 19.15.17.17(B) in accordance with a closure plan that the appropriate division district office approves. NMAC §§ 19.15.17.13(A)(9) and 19.15.17.9(C).
- 5) In accordance with NMAC § 19.15.17.13(J)(1), Chevron will notify the surface owner by certified mail, return receipt requested, of its plans to close a BGT prior to beginning closure activities. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records is sufficient to demonstrate compliance. Chevron will also notify the appropriate division district office verbally or by other means at least 72 hours, but not more than one week, prior to any closure operation. The notice shall include the operator's name and the location to be closed by unit letter, section, township and range. If the closure is associated with a particular well, then the notice shall also include the well's name, number and API number. NMAC § 19.15.17.13(J)(2).

- 6) Chevron, or a contractor acting on behalf of Chevron, will remove liquids and sludge from a BGT prior to implementing a closure method and will dispose of the liquids and sludge in a division approved facility. NMAC § 19.15.17.13(E)(1). A list of Chevron currently approved disposal facilities is included at the end of this document.
- 7) The proposed method of closure for this Closure Plan is waste excavation and removal. NMAC §§ 19.15.17.13 (E)(1).
- 8) Chevron, or a contractor acting on behalf of Chevron, shall remove the below-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves. When required, prior approval for disposal will be obtained. NMAC § 19.15.17.13(E)(2). Documentation regarding disposal of the BGT and its associated liner, if any, will be included in the closure report.
- 9) Waste generated during closure will be handled and disposed of in accordance with applicable laws. NMAC § 19.15.35.8(C)(1)(m) provides that plastic pit liners may be disposed at a solid waste facility without testing before disposal, provided they are cleaned well.
- 10) Chevron, or a contractor acting on behalf of Chevron, will remove on-site equipment associated with a BGT unless the equipment is required for some other purpose. NMAC § 19.15.17.13(E)(3).
- 11) Chevron, or a contractor acting on behalf of Chevron, will test the soils beneath the BGT to determine whether a release has occurred. At a minimum, 5 point composite samples will be collected along with individual grab samples from any area that is wet, discolored, or showing other evidence of a release. Samples will be analyzed for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or EPA method that the division approves, does not exceed 0.2mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250mg/kg; or the background concentration, whichever is greater. Chevron, or a contractor acting on behalf of Chevron, will notify the NMOCD Division District office of its results on form C-141. NMAC § 19.15.17.13(E)(4).
- 12) If Chevron or the division determines that a release has occurred, Chevron will comply with NMAC §§ 19.15.29 and 19.15.30, as appropriate. NMAC § 19.15.17.13(E)(5).
- 13) If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in NMAC § 19.15.17.13(E)(4), Chevron will backfill the excavation with compacted, non-waste containing, earthen materials; construct a division prescribed soil cover; re-contour and re-vegetate the site. The division-prescribed soil cover, recontouring and re-vegetation requirements shall comply with NMAC § 19.15.17.13)(G, H and I). NMAC § 19.15.17.13(E)(6).

- 14) As per NMAC § 19.15.17.13(G)(1), once Chevron has closed a BGT or is no longer using the BGT or an area associated with the BGT, Chevron will reclaim the BGT location and all areas associated with it including associated access roads not needed by the surface estate owner to a safe and stable condition that blends with the surrounding undisturbed area. Chevron will substantially restore impacted surface area to the condition that existed prior to its oil and gas operations by placement of soil cover as provided in NMAC § 19.15.17.13(H) (see below), recontour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography, and re-vegetate according to NMAC § 19.15.17.13(I). NMAC § 19.15.17.13(G)(1).
- 15) Chevron may propose an alternative to the re-vegetation requirement of NMAC § 19.15.17.13(G)(1) if it demonstrates that the proposed alternative effectively prevents erosion, and protects fresh water, human health and the environment. The proposed alternative must be agreed upon in writing by the surface owner. Chevron will submit the proposed alternative, with written documentation that the surface owner agrees to the alternative, to the division for approval. NMAC § 19.15.17.13(G)(2).
- 16) Soil cover for closures where Chevron has removed the pit contents or remediated the contaminated soil to the division's satisfaction will consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater. NMAC § 19.15.17.13(H)(1).
- 17) Chevron will construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material. NMAC § 19.15.17.13(H)(3).
- 18) As per NMAC § 19.15.17.13(I)(1) and 19.15.17.13(G)(2), Chevron will seed or plant disturbed areas during the first growing season after it is no longer using a BGT or an area associated with the BGT including access roads unless needed by the surface estate owner as evidenced by a written agreement with the surface estate owner, if any and written approval by NMOCD.
- 19) Seeding will be accomplished by drilling on the contour whenever practical or by other division approved methods. Chevron will obtain vegetative cover that equals 70% of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) 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. During the two growing seasons that prove viability, Chevron will not artificially irrigate the vegetation. NMAC § 19.15.17.13(I)(2).
- 20) Chevron will notify the division when it has seeded or planted and when it successfully achieves re-vegetation. NMAC § 19.15.17.13(I)(5).
- 21) Seeding or planting will be repeated until Chevron successfully achieves the required vegetative cover. NMAC § 19.15.17.13(I)(3).

- 22) When conditions are not favorable for the establishment of vegetation, such as periods of drought, the division may allow Chevron to delay seeding or planting until soil moisture conditions become favorable or may require Chevron to use additional cultural techniques such as mulching, fertilizing, irrigating, fencing or other practices. NMAC § 19.15.17.13(I)(4).
- 23) As per NMAC § 19.15.17.13(K), within 60 days of closure completion, Chevron will submit a closure report containing the elements required by NMAC § 19.15.17.13(K) including:
  - i) Confirmation sampling results,
  - ii) A plot plan,
  - iii) Details on back-filling, capping and covering, where applicable, including revegetation application rates and seeding technique,
  - iv) Proof of closure notice to the surface owner, if any, and the division,
  - v) Name and permit number of disposal facility, and
  - vi) Photo documentation.
- 24) The closure report will be filed on NMOCD Form C-144. Chevron will certify that all information in the closure report and attachments is correct and that it has complied with all applicable closure requirements and conditions specified in the approved closure plan. NMAC § 19.15.17.13(K).
- 25) As requested, the following are the current Chevron approved Waste Disposal Sites for the identified waste streams:

### Soils and Sludges

i) Envirotech Inc. Soil Remediation Facility, Permit No. NM-01-0011

#### Solids

ii) San Juan County Regional Land Fill (NMAC § 19.15.35.8 items only, with prior NMOCD approval when required)

### <u>Liquids</u>

- i) Key Energy Disposal Facility, Permit No. NM-01-0009
- ii) Basin Disposals Facility, Permit No. NM-01-005.
- 26) These waste disposal sites are subject to change if their certification is lost or they are closed or other more appropriate, equally protective sites become available. Chevron will provide notice if such a change is affected.

### BELOW GRADE TANK (BGT) DESIGN AND CONSTRUCTION PLAN

### SUBMITTED TO:

ENVIRONMENTAL BUREAU,

NEW MEXICO OIL CONSERVATION DIVISION

### ON BEHALF OF:

CHEVRON USA INC., CHEVRON MIDCONTINENT, L.P., AND FOUR STAR OIL & GAS

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AZTEC, NEW MEXICO 87410

(505) 333-1901

### Chevron San Juan Basin Below Grade Tank Design and Construction Plan

### INTRODUCTION

In accordance with NMAC §§ 19.15.17.9(B)(4) and 19.15.17.11 Chevron (representing Chevron USA Inc, Chevron Midcontinent, L.P., and Four Star Oil & Gas Company) submits this Design and Construction Plan for below grade tanks (BGTs) in New Mexico. This Plan contains standard conditions that attach to multiple BGTs.

- 1. Chevron will design and construct a BGT to contain liquids and solids, prevent contamination of fresh water, and protect public health and the environment. NMAC § 19.15.17.11(A).
- 2. Chevron will post an upright sign not less than 12 inches by 24 inches with lettering not less than two inches in height in a conspicuous place on the fence surrounding the BGT, unless the BGT is located on a site where there is an existing well, signed in compliance with NMAC § 19.15.16.8, that is operated by Chevron. Chevron will post the sign in a manner and location such that a person can easily read the legend. The sign will provide the following information: Chevron's name; the location of the site by quarter-quarter or unit letter, section, township and range; and emergency telephone numbers. NMAC § 19.15.17.11(C).
- 3. Chevron will fence or enclose a BGT in a manner that prevents unauthorized access and will maintain the fences in good repair. Fences are not required if there is an adequate surrounding perimeter fence that prevents unauthorized access to the well site or facility, including the BGT. NMAC § 19.15.17.11(D)(1).
- 4. Chevron will fence or enclose a BGT located within 1000 feet of a permanent residence, school, hospital, institution or church with a chain link security fence, at least six feet in height with at least two strands of barbed wire at the top. Chevron will close and lock all gates associated with the fence when responsible personnel are not on-site. NMAC § 19.15.17.11(D)(2).
- 5. Chevron will fence BGTs to exclude livestock with a four foot fence that has at least four strands of barbed wire evenly spaced in the interval between one foot and four feet above ground level. NMAC § 19.15.17.11(D)(3). Chevron may install tubular steel cattle panels, as it determines appropriate (photo of cattle

- panel fence submitted to NMOCD, 24 June 2009). As illustrated on the attach photo.
- 6. Chevron will screen the permanent opening on the tank top with expanding steel mesh in order to render it non-hazardous to wildlife, including migratory birds. NMAC § 19.15.17.11(E).
- 7. Chevron's BGTs will be constructed with the design features illustrated on the attached drawing.
- 8. Only double-walled, double-bottomed BGTs will be installed.
- 9. Chevron will use 3/16" carbon steel which is resistant to the anticipated contents and resistant to damage from sunlight. NMAC § 19.15.17.11(I)(1).
- 10. Chevron will construct a BGT foundation on a level base free of rocks, debris, sharp edges or irregularities to help prevent punctures, cracks or indentations of the liner or tank bottom. NMAC § 19.15.17.11(I)(2).
- 11. Chevron will construct a BGT to prevent overflow and the collection of surface water run-on. NMAC § 19.15.17.11(I)(3). Chevron, or a contractor representing Chevron, will install a level control device to help prevent overflow from the BGT and will use berms and/or a diversion ditch to prevent surface run on from entering the BGT. NMAC §§ 19.15.17.11(I)(3), 19.15.17.12(A)(7), and 19.15.17.12(D)(1).
- 12. All BGTs, in which the side walls are not open for visible inspection for leaks, will be double walled with leak detection capability. NMAC § 19.15.17.11(I)(4)(b).
- 13. Chevron, as the operator of a below-grade tank constructed and installed prior to June 16, 2008 that does not meet all the requirements in Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC and is not included in Paragraph (6) of Subsection I of 19.15.17.11 NMAC, is not required to equip or retrofit the below-grade tank to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC so long as it demonstrates integrity. If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, as illustrated in the approved drawing. Chevron shall comply with the operational requirements of 19.15.17.12 NMAC.

14. Chevron, as the operator of a below-grade tank constructed and 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 five years after June 16, 2008. If the existing below-grade tank does not demonstrate integrity, Chevron shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, as illustrated in the approved drawing. Chevron shall comply with the operational requirements of 19.15.17.12 NMAC.

