District I

1625 N French Dr , Hobbs, NM 88240

District II

1301 W. Grand Ave , Artesia, NM 88210

District III

1000 Rio Brazos Rd, 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

July 21, 2008 For temporary pits, closed-loop sytems, and below-grade tanks, submit to the appropriate NMOCD District Office

Form C-144

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office

J 5 St Flancis DI, Santa Te, NW	91303
10.67	Pit, Closed-Loop System, Below-Grade Tank, or
1952	Proposed Alternative Method Permit or Closure Plan Application

Type of action:	X 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 of 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: ConocoPhillips Company	OGRID#: 217817
Address: PO Box 4289, Farmington, NM 87499	
Facility or well name: FC Decker Primo COM 2A	
API Number: 30-045-32159	OCD Permit Number
J/L or Qtr/Qtr: P(SE/SE) Section: 19 Township: 32N	Range: 10W County: San Juan
Center of Proposed Design: Latitude: 36.967100°N	Longitude: 107.9157300°W NAD: 1927 X 1983
Surface Owner: Federal State X Private	Tribal Trust or Indian Allotment
Pit: Subsection F or G of 19.15.17.11 NMAC	
Temporary. Drilling Workover	
Permanent Emergency Cavitation P&A	
Lined Unlined Liner type: Thickness mi	ILLDPE HDPE PVC Other
String-Reinforced	
Liner Seams: Welded Factory Other	Volume:bbl Dimensions Lx Wx D
Closed-loop System: Subsection H of 19 15.17.11 NMAC Type of Operation: P&A Drilling a new well Workover notice of i Drying Pad Above Ground Steel Tanks Haul-off Bins Lined Unlined Liner type: Thickness mil Liner Seams: Welded Factory Other	Other
4	9 OCT 2003
X Below-grade tank: Subsection I of 19.15.17.11 NMAC	\
Volume bbl Type of fluid: Produced	Water OIL CONS. DIV. DIS . 3
Tank Construction material: Metal	
	ner, 6-inch lift and automatic overflow shut-off
	Other Vicetor Lyppe
Liner Type: Thickness 45 mil HDPE PV	C X Other LLDPE
5 Alternative Method:	
Alternative Method:	
Submittal of an exception request is required. Exceptions must be submitted t	o the Santa Fe Environmental Bureau office for consideration of approval

6					
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pit, temporary pits, and below-grade tanks)					
Chain link six feet in height two strands of barbad wire at ton / Paguired of low and within 1000 feet of a paguired of paguired by within a character of paguired by the character of paguire					
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					
X Alternate. Please specify 4' hogwire fence with a single strand of barbed wire on top.					
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		. 1			
Signs: Subsection C of 19.15.17 11 NMAC					
12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers					
X Signed in compliance with 19.15.3.103 NMAC					
Signed in companies with 17/13/3/103 NWAC					
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 of the Santa Fe Environmental Bureau office for consi	ideration of an	proval.			
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	condition of ap	p. 0 (41)			
Exception(s). Requests intist be submitted to the Santa Fe Environmental Buleau 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 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. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria					
does not apply to drying pads or above grade-tanks associated with a closed-loop system.					
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.	∏Yes	X No			
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	السسا				
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole, or playa	□Yes	XNo			
lake (measured from the ordinary high-water mark).	ш	<u> </u>			
- 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	∏Yes	XNo			
application.		E1.10			
(Applies to temporary, emergency, or cavitation pits and below-grade tanks)	П				
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image					
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐Yes				
· · · · · · · · · · · · · · · · · · ·		∐No			
(Applied to permanent pits)	XNA				
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image					
Within 500 horizonal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering	Yes	X No			
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.					
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	Yes	X No			
adopted pursuant to NMSA 1978, Section 3-27-3, as amended		AINO			
- Written confirmation or verification from the municipality; Written approval obtained from the municipality					
Within 500 feet of a wetland.	Yes	X No			
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site		_			
Within the area overlying a subsurface mine.	Yes	XNo			
- Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division					
Within an unstable area.	Yes	X No			
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological					
Society; Topographic map	V	IVINA			
Within a 100-year floodplain - FEMA map	Yes	XNo			

	Temporary Pits, Emergency Pits and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15 17.9 NMAC							
١	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. X Hydrogeologic Penort (Relow grade Topics) based upon the requirements of Paragraph (A) of Subsection B of 19.15.17.9 NIMAC.							
١	X 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							
l	X Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15 17.10 NMAC							
ŀ	X Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC							
l	X Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC							
l	Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of							
l	19.15.17.9 NMAC and 19.15.17.13 NMAC							
L	Previously Approved Design (attach copy of design) API or Permit							
	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							
l	NMAC and 19.15 17.13 NMAC							
l	Previously Approved Design (attach copy of design) API							
l	Previously Approved Operating and Maintenance Plan API							
	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 (I) of Subsection B of 19.15.17 9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19 15.17 10 NMAC							
l	☐ Climatological Factors Assessment							
l	Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17 11 NMAC							
١	Dike Protection and Structural Integrity Design: based upon the appropriate requirements of 19.15 17.11 NMAC							
l	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							
١	Quality Control/Quality Assurance Construction and Installation Plan							
	Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC							
١	Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15 17.11 NMAC							
	☐ Nuisance or Hazardous Odors, including H2S, Prevention Plan ☐ Emergency Response Plan							
l	Oil Field Waste Stream Characterization							
	Monitoring and Inspection Plan							
	Erosion Control Plan							
l	Closure Plan - based upon the appropriate requirements of Subsection C of 19.15 17.9 NMAC and 19 15.17 13 NMAC							
	14 Proposed Closure: 19 15 17.13 NMAC							
ĺ	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 X Below-grade Tank Closed-loop System Alternative							
	Proposed Closure Method. X 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							
I	Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)							
I	15							
	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.							
	X Protocols and Procedures - based upon the appropriate requirements of 19 15.17.13 NMAC							
	X Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15 17.13 NMAC							
	X Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)							
	X Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC							
	X Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC X Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC							
	IAN DISCONDENSION FROM DESCRIPTION OF SECURITION OF SECURI							

Form C-144 Oil Conservation Division Page 3 of 5

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 identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings Use attachment if more than two	tacilities.				
are required.	,				
Disposal Facility Name: Disposal Facility Permit #.					
Disposal Facility Name Disposal Facility Permit #					
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future Yes (If yes, please provide the information No	service and operations?				
Required for impacted areas which will not be used for future service and operations Soil Backfill and Cover Design Specification - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC 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—Recommendations of acceptable source material are provided be certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the for consideration of approval—Justifications and/or demonstrations of equivalency are required—Please refer to 19.15.17.10 NMAC for guidance					
Ground water is less than 50 feet below the bottom of the buried waste	Yes No				
- NM Office of the State Engineer - iWATERS database search, USGS: Data obtained from nearby wells	∐N/A				
Ground water is between 50 and 100 feet below the bottom of the buried waste	Yes No				
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□N/A				
Ground water is more than 100 feet below the bottom of the buried waste.	Yes No				
- NM Office of the State Engineer - 1WATERS database search; USGS; Data obtained from nearby wells	∏N/A				
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 - Visual inspection (certification) of the proposed site; Aerial photo; satellite image	Yes No				
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 fee 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, 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 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	Yes No				
- Written confirantion or verification or map from the NM EMNRD-Mining and Mineral Division					
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources, USGS; NM Geological Society, Topographic map	YesNo				
Within a 100-year floodplain FEMA map	Yes No				
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must bee attached to the clos by a check mark in the box, that the documents are attached.	ure plan. Please indicate,				
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	F19.15.17.11 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 Subsection F of 19.15.17.13 NMAG					
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 of	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 I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC					

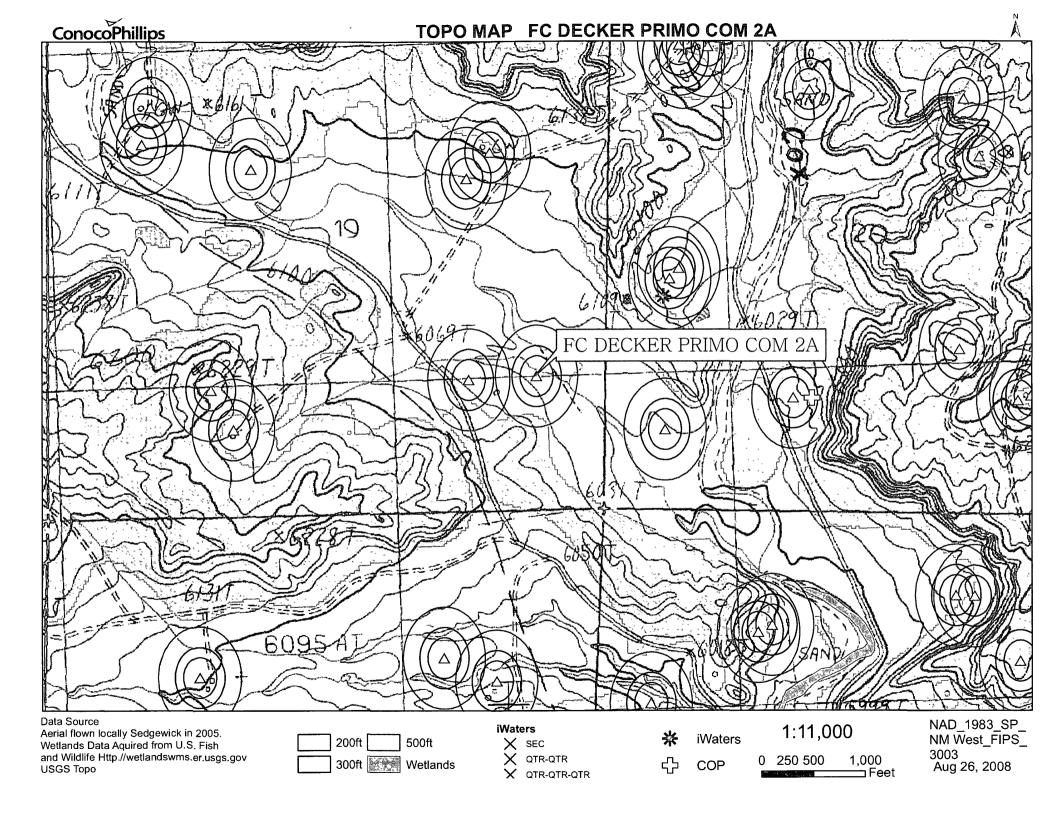
19 Operator Application Cartifications
Operator Application Certification: I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): Ethel Tally Title: Staff Regulatory Technician
5000-100
Signature: Date. Date.
e-mail address: Ethel Tally@ConocoPhillips.com Telephone 505-599-4027
20
OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)
OCD Representative Signature: 73/6/09
Title: Ewiro/spec OCD Permit Number:
·
21
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 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:
22
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.
23
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:
Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities
were utilized.
Disposal Facility Name: Disposal Facility Permit Number
Disposal Facility Permit Number. Disposal Facility Permit Number.
Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?
Yes (If yes, please demonstrate compliane to the items below)
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 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 (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 (if applicable)
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: Longitude: NAD 1927 1983
25
Operator Closure Certification:
I hereby certify that the information and attachments submitted with this closure report is ture, accurate and complete to the best of my knowledge and belief. I also certify the
the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.
Name (Print): Title:
Signature Date
e-mail address: Telephone

New Mexico Office of the State Engineer POD Reports and Downloads

Township: 32N Range: 10W Sections: 17,18,19,2	20,29,30
NAD27 X: Y: Zone:	Search Radius:
County: Basin:	Number: Suffix:
Owner Name: (First) (Last) © All	○ Non-Domestic ○ Domestic
POD / Surface Data Report Avg Depth Water Column Report	to Water Report
Clear Form iWATERS Menu .	Help
WATER COLUMN REPORT (quarters are 1=NW 2=NE 3=SW 4=SE)	
(quarters are biggest to smallest) POD Number Tws Rng Sec q q q Zone X SJ 03429 32N 10W 20 3 1 3	Depth Depth Water Columbia 103 54

New Mexico Office of the State Engineer POD Reports and Downloads

То	wnship:	32N	Range: ,1	1W	Sections:	13,24,25		-		
NAD	27 X:		Y:		Zone:		Search F	Radius:	-	
County:			Basin:				Numbe	r:	Suffix	κ:
Owner Name	(First)			(Last))		○ Non-D	Oomestic	○ Dome	estic
:	POI) / Sur	face Data R	** • 3 W * * V W	Column Re	Avg Depth	to Water F	Report	<u> </u>	
			Clear Forn	702-900-70-12-00-0	iWATERS		Help			
						N REPORT	10/10/20	008		
POD Number SJ 00017			s are 1=N s are big Rng Sec 11W 24	gest t		=	¥	Depth Well 105	Depth Water	Wate Colum



OCD CATHODIC PROTECTION DEEPWELL GROUNDBED REPORT DATA SHEET: NORTHWESTERN NEW MEXICO

OPERATOR: ConocoPhillips CO. FARMINGTON, NM 87401 PHONE: 599-3400

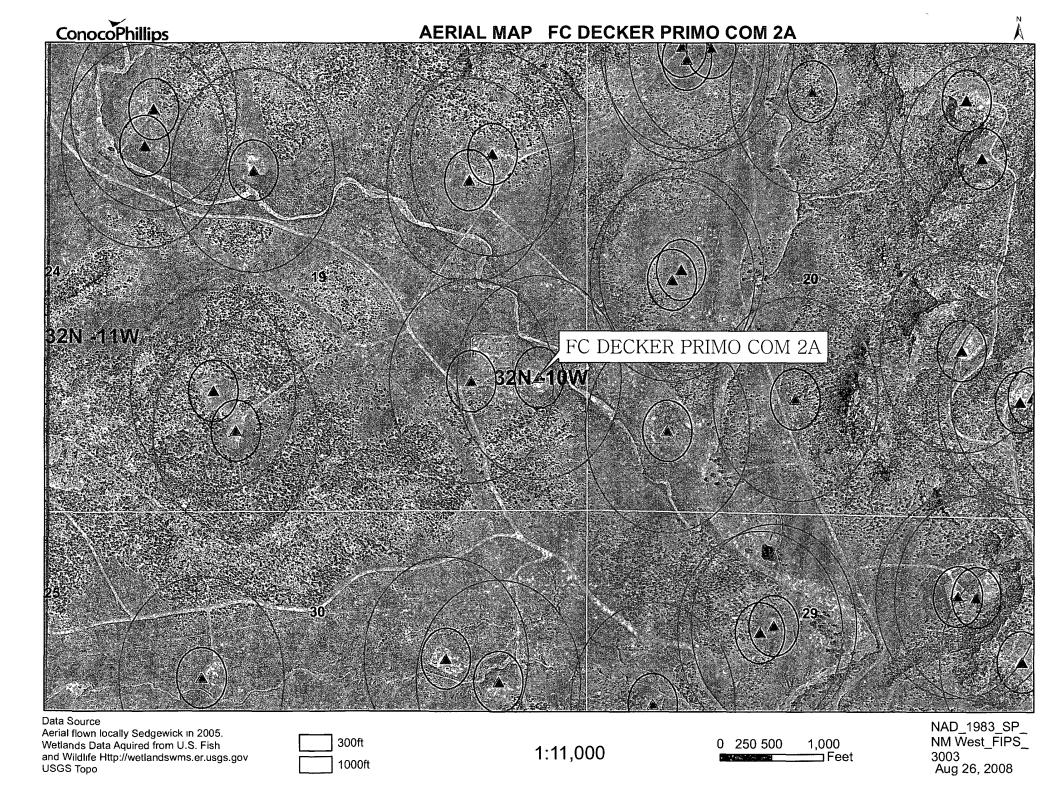
SUBMIT 2 COPIES TO O.C.D. AZTEC OFFICE

LOCATION INFORMATION	API Mumber 3004532159
WELL NAME OR PIPELINE SERVED: FC DECKER PRIMO C. 2A	OCATION: P-19-32-10 INSTALLATION DATE: 3/8/2005
PPCO. RECTIFIER NO.: FM-0276A ADDITIONAL WELLS: DECKE	R PRIMO 1A
TYPE OF LEASE: FEE(PRIVATE) LEASE NUMBER:	FEE
GROUND BED INFORMATION	
TOTAL DEPTH: 300 CASING DIAMETER: 8-IN TYPE OF CAS	SING: PVC CASING DEPTH: 20 CASING CEMENTED:
TOP ANODE DEPTH: 200 BOTTOM ANODE DEPTH: 290	
ANODE DEPTHS: 200,210,220,230,240,250,260,27	70,280,290
AMOUNT OF CORE: 2300#	
WATER INFORMATION	191077733 A
WATER DEPTH (1): 100 WATER DEPTH (2):	FE8 2006
GAS DEPTH: CEMENT PLUGS:	Colors Div
CTHER INFORMATION	CONTRACTOR OF THE PROPERTY OF
TOP OF VENT PERFORATIONS: 140 VENT PAPE DEPTH: 300	
REMARKS: DUALED WITH DECKER PRIMO #1A	

IF ANY OF THE ABOVE DATA IS UNAVAILABLE, PLEASE INDICATE SO. COPIES OF ALL LOGS, INCLUDING DRILLERS LOGS, WATER ANALYSIS, AND WELL BORE SCHEMATICS SHOULD BE SUBMITTED WHEN AVAILABLE. UNPLUGGED UNABANDONED WELLS ARE TO BE INCLUDED.

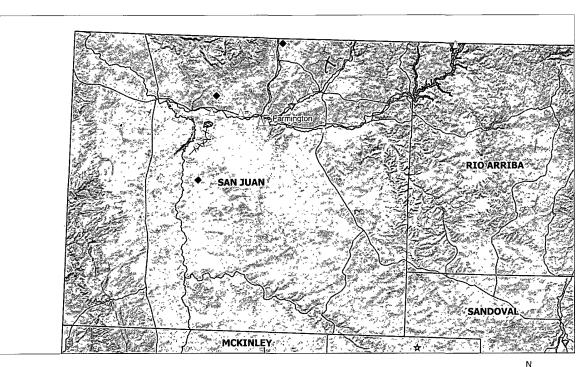
*- LAND TYPE MAY BE SHOWN: F-FEDERAL; I-INDIAN; S-STATE; P-FEE IF FEDERAL OR INDIAN, ADD LEASE NUMBER.

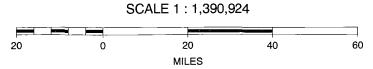
Tuesday, January



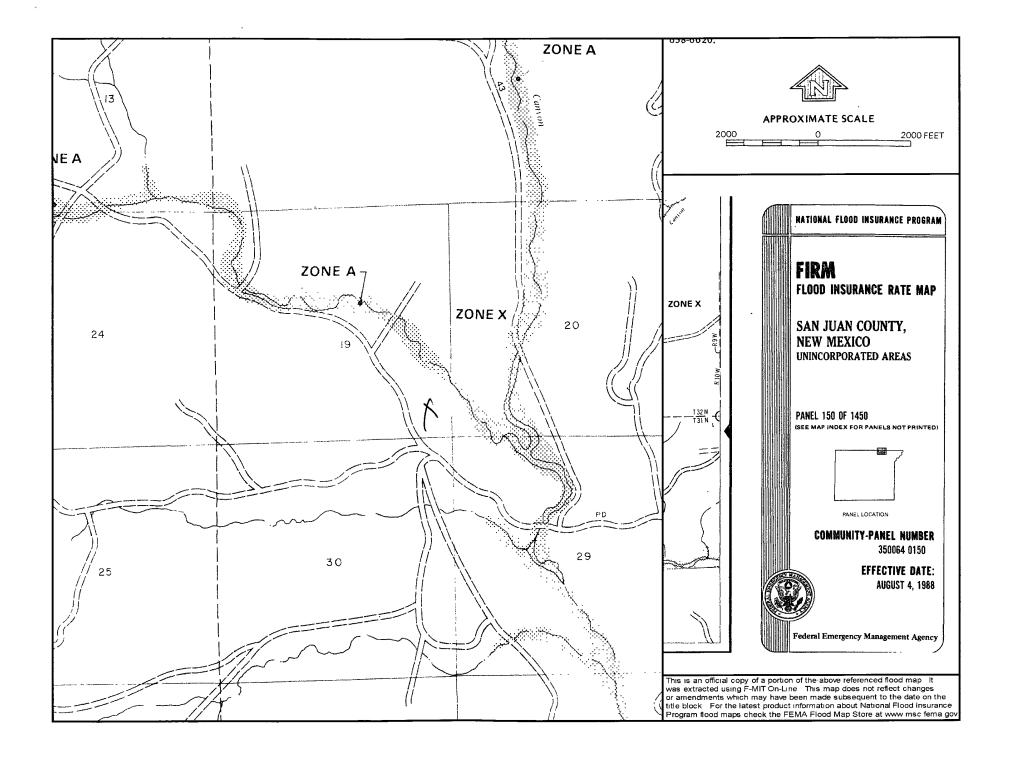
FC Decker Primo COM 2A/Mines, Mills and Quarries Map

Mines, Mills	& Quarries Commodity Groups
Δ	Aggregate & Stone Mines
•	Coal Mines
*	Industrial Minerals Mines
♥	Industrial Minerals Mills
	Metal Mines and Mill Concentrate
B	Potash Mines & Refineries
ezi.	Smelters & Refinery Ops.
*	Uranium Mines
0	Uranium Mills
Population	
©	Cities - major
Transportation	on
	Railways









Siting Criteria Compliance Demonstration & Hydro Geologic Analysis

The FC Decker Primo COM 2A is not located in an unstable area. The location is not over a mine and is not on the side of a hill as indicated on the Mines, Mills and Quarries Map and Topographic Map. The location of the excavated pit material will not be located within 300' of any continuously flowing watercourse or 200' from any other watercourse as indicated on the Topographic Map. The location is not within a 100-year floodplain area as indicated on the FEMA Map. The groundwater depth is considered to be greater than 100' as determined by the topographic map and the Cathodic well data. The FC Decker Primo COM 2A with an elevation of 6358' and groundwater depth of 100'. Using this cathodic data point, the indication of groundwater depth is greater than 100'. The hydro geologic analysis indicates the groundwater depth and the Nacimiento formation will create a stable area for this new location.

Hydrogeological Report for FC Decker Primo COM 2A

Regional Geological context:

The Nacimiento Formation is of Paleocene age (Baltz, 1967, p. 35). It crops out in a broad band inside the southern and western margins of the central basin and in a narrow band along the west face of the Nacimiento Uplift. The Nacimiento is a nonresistant unit and typically erodes to low, rounded hills or forms badland topography.

The Nacimiento Formation occurs in approximately only the southern two-thirds of the San Juan Basin where it commformably overlies and intertongues with the Ojo Alamo Sandstone (Fassett, 1974, p. 229). The Nacimiento Formation grades laterally into the main part of the Animas Formation (Fassett and Hinds, 1971, p. 34); thus, in this area, the two formations occupy the same stratigraphic interval.

Strata of the Nacimiento Formation were deposited in lakebeds in the central basin area with lesser deposition in stream channels (Brimhall, 1973, p. 201). In general, the Nacimiento consists of drab, interbedded black and gray shale with discontinuous, white, medium- to very coarse grained arkosic sandstone (Stone e al., 1983, p.30). Stone et al. indicated that the formation may contain more sandstone than commonly reported because some investigators assume the slope-forming strata in the unit area shales, whereas in many places the strata actually are poorly consolidated sandstones. Total thickness of the Nacimiento Formation ranges from about 500 to 1,300 feet. The unit generally thickens from the basin margins toward the basin center (Steven et al., 1974). The sandstone deposits within the Nacimiento Formation are much thinner than the total thickness of the formation because their environment of deposition was localized stream channels (Brimhall, 1973, p. 201). The thickness of the combined San Jose, Animas, and Nacimiento Formations ranges from 500 to more than 3.500 feet.

Hydraulic Properties:

Reported well yields for 53 wells completed in either the Animas or Nacimiento Formations range from 2 to 90 gallons per minute and the median yield is 7.5 gallons per minute. The primary use of water from Nacimiento and Animas Formations is domestic and livestock supplies. There are no known aquifer tests for the Animas or Nacimiento Formations, but specific capacities reported for six wells range from 0.24 to 2.30 gallons per minute per foot of drawdown (Levings et al., 1990).

The Animas and Nacimiento Formations are in many ways hydrologically similar to the San Jose Formation because sands in both units produce approximately the same quantities of water. However, the greater percentage of fine materials in the Animas and Nacimiento Formations may restrict downward vertical leakage to the Ojo Alamo Sandstone or Kirtland Shale. The poorly cemented fine material is highly erodible, forms a badland terrain, and supports only spotty vegetation. These conditions are more conductive to runoff than retention of precipitation.

References:

Baltz, E.H., 1967, Stratigraphy and regional tectonic implications of part of Upper Cretaceous rocks, east-central San Juan Basin, New Mexico: USGS Professional Paper

552, 101 p.

Brimhall, R.M., 1973, Ground-water hydrology of Tertiary rocks of the San Juan Basin, New Mexico, in Fassett, J.E., ed., Cretaceous and Tertiary rocks of the Southern Colorado Plateau: Four Corners Geological Society Memoir, p. 197-207.

Fassett, J.E., 1974, Cretaceous and Tertiary rocks of the eastern San Juan Basin, New Mexico and Colorado, in Guidebook of Ghost Ranch, central-northern New Mexico: New Mexico Geological Society, 25th Field Conference, p. 225-230.

Fassett, J.E., and Hinds, J.S., 1971, Geology and fuel resources of the Fruitland Formation and Kirtland Shale of the San Juan Basin, New Mexico and Colorado: USGS Professional Paper 676, 76 p.

Levings, G.W., Craigg, S.d., Dam, W.L., Kernodle, J.M., and Thorn, C.R., 1990, Hydrogeology of the San Jose, Nacimiento, and Animas Formations in the San Juan structural basin, New Mexico, Colorado, Arizona, and Utah: USGS Hydrologic Investigations Atlas HA-720-A, 2 sheets.

Stone, W.J., Lyford, F.P., Frenzel, P.F., Mizell, N.H., and Padgett, E.T., 1983, Hydrogeology and water resources of San Juan Basin, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Hydrologic Report 6.

ConocoPhillips Company San Juan Basin Below Grade Tank Design and Construction

In accordance with NMAC 19.15.17 the following information describes the design and construction of below grade tanks on ConocoPhillips Company (COPC) locations. This is COPC's standard procedure for all below grade tanks (BGT). A separate plan will be submitted for any BGT which does not conform to this plan.

General Plan:

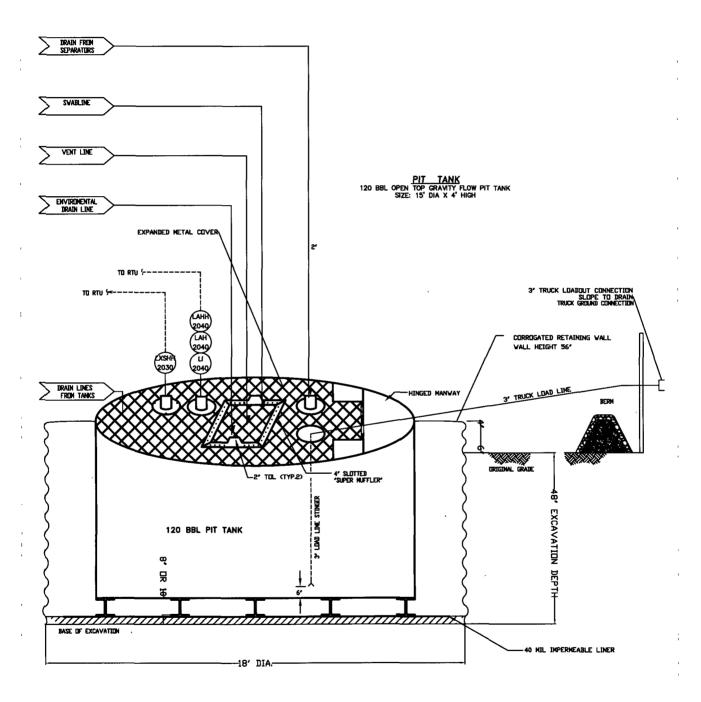
- COPC will design and construct a properly sized and approved BGT which will
 contain liquids and should prevent contamination of fresh water to protect the
 public health and environment.
- 2. COPC will sign the well location in compliance with 19.15.3.103 NMAC.
- 3. COPC shall construct fencing around the BGT using 4 foot hog wire fencing topped with two strands of barbed wire, or with a pipe top rail. A six foot chain link fence topped with three strands of barbed wire will be use if the well location is within 1000 feet of permanent residence, school, hospital, institution or church.
- 4. COPC will construct a screened, expanded metal covering, on the top of the BGT.
- 5. COPC shall ensure that a below-grade tank is constructed of materials resistant to the below-grade tank's particular contents and resistant to damage from sunlight.
- The COPC below-grade tank system shall have a properly constructed foundation consisting of a level base free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the liner or tank bottom.
- 7. COPC shall construct a below-grade tank to prevent overflow and the collection of surface water run-on.
- 8. COPC will construct and use a below-grade tank that does not have double walls. The below-grade tank's side walls will be open for visual inspection for leaks, the below-grade tank's bottom is elevated a minimum of six inches above the underlying ground surface and the below-grade tank is underlain with a geomembrane liner to divert leaked liquid to a location that can be visually inspected.
- 9. COPC has equipped the below-grade tanks with the ability to detect high level in the tank and provide alarm notification and shutdown process streams into the tank. Once high level is detected RTU logic closes the inlet separator sales valve and does not permit vent valve to open. This shutdown of the sales valve and gagging of the vent valves prevents any hydrocarbon process streams from entering the pit tank once a high level is detected. Furthermore, an electronic page is sent to the COPC MSO for that well site and to the designated contract

"Water-Hauling" Company indicating a high level and that action must be taken to address this alarm. The environmental drain line from COPC's compressor skid under normal operating conditions is in the open position. The environmental drain line is in place to capture any collected rain water or spilled lubricants from our compressor skids. The swab drain line is a manually operated drain and by normal operating procedures is in the closed position. The tank drain line is also a manually operated drain and during normal operations it is in the closed position.

- 10. The geomembrane liner consists of a 45-mil flexible LLDPE material manufactured by Raven Industries as RUFCO 4000B. This product provides a level of UV and harsh weather conditions protection. It is rated to a Low temperature impact failure of -94°F. It exceeds ASTMD3083 standard by 10%. It is typically used in Brine Pond, Oilfield Pit liner and other industrial applications. The manufacture specific sheet is attached.
- 11. The general specification for design and construction are attached in the COPC document.

MANUAL OPERATIONS PRODUCTION TANKS DRAINLINE SWABLINE DRAIN LINE ENVIROMENTAL DRAIN LINE FROM COMPRESSOR SKID

AUTOMATED OPERATION VENT VALVE DRAIN LINE DUMP LINE FROM SEPARATORS



ConocoPhillips San Juan Business Unit

ConocoPhillips Company San Juan Basin Below Grade Tank Maintenance and Operating Plan

In accordance with Rule 19.15.17 the following information describes the operation and maintenance of Below Grade Tank (BGT) on ConocoPhillips Company (COPC) locations. This is COPC's standard procedure for all BGT. A separate plan will be submitted for any BGT which does not conform to this plan.

General Plan:

- COPC will operate and maintain a BGT to contain liquids and solids and maintain the integrity of the liner, liner system and secondary containment system to prevent contamination of fresh water and protect public health and environment.
- 2. COPC will not discharge into or store any hazardous waste in the BGT.
- 3. COPC shall operate and install the below-grade tank to prevent the collection of surface water run-on. COPC shall not allow a below-grade tank to overflow or allow surface water run-on to enter the below-grade tank.
- COPC shall continuously remove any visible or measurable layer of oil from the fluid surface of a below-grade tank in an effort to prevent significant accumulation of oil overtime.
- 5. COPC shall inspect the below-grade tank at least monthly and maintain a written record of each inspection for five years.
- 6. COPC shall maintain adequate freeboard to prevent overtopping of the below-grade tank.
- 7. If a leak develops below the liquid's level, COPC shall remove all liquids within 48 hours and repair the damage or replace the below-grade tank. COPC shall notify the Aztec Division office by phone or email within 48 hours of the discovery for leaks less than 25 barrels. COPC shall notify the Aztec Division office as required pursuant to Subsection B of 19.15.3.116 NMAC shall be reported within twenty-four (24) hours of discovery of leaks greater than 25 barrels. In addition, immediate verbal notification pursuant to Subsection B, Paragraph (1), and Subparagraph (d) of 19.15.3.116 NMAC shall be reported to the division's Environmental Bureau Chief.

ConocoPhillips Company San Juan Basin Below Grade Tank Closure Plan

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure requirements of Below Grade Tanks (BGTs) on ConocoPhillips Company locations hereinafter known as COPC locations. This is COPC's standard procedure for all BGTs. A separate plan will be submitted for any BGT which does not conform to this plan.

General Requirements:

- 1. COPC 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.
- 2. COPC shall close a permitted below-grade tank within 60 days of cessation of the below-grade tank's operation. The closure report will be filed on C-144
- 3. COPC shall remove liquids and sludge from a below-grade tank prior to implementing a closure method and shall dispose of the liquids and sludge in a division-approved facility. The facilities to be used will be Basin Disposal (Permit #NM-01-005) and Envirotech Land Farm (Permit #NM-01-011). The liner will be disposed of at the San Juan County Landfill located on CR 3100.
- 4. COPC will receive prior approval to 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. Documentation of how the below-grade tank was disposed of or recycled will be provided in the closure report.
- 5. If there is any on-site equipment associated with a below-grade tank, then BR shall remove the equipment, unless the equipment is required for some other purpose.
- 6. COPC shall test the soils beneath the below-grade tank to determine whether a release has occurred. COPC shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyze for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/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 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. COPC shall notify the division of its results on form C-141.

- 7. If COPC or the division determines that a release has occurred, then COPC shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.
- 8. If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC, then COPC shall backfill the excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site.
- 9. Notice of Closure will be given prior to closure to the Aztec Division office between 72 hours and one week via email or verbally. The notification of closure will include the following:
 - i. Operator's name
 - ii. Location by Unit Letter, Section, Township, and Range. Well name and API number.
- 10. The surface owner shall be notified of COPC's closing of the below-grade tank prior to closure as per the approved closure plan via certified mail, return receipt requested.
- 11. Re-contouring of location will match fit, shape, line, form and texture of the surrounding. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be place in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 12. COPC shall seed the disturbed areas the first growing season after the operator closes the pit. 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.
- 13. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.
- 14. All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on C-144 and incorporate the following:
 - Soil Backfilling and Cover Installation
 - Re-vegetation application rates and seeding techniques
 - Photo documentation of the site reclamation
 - Confirmation Sampling Results
 - Proof of closure notice