District I
1625 N French Dr Hobbs NM 88240
District II
811 S First St Artesia, NM 88210
District III
1000 Rio Brazos Road Aztec NM 87410
District IV
1220 S St Francis Dr Santa Fe NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St Francis Dr
Santa Fe NM 87505

Form C 144
Revised June 6 2013

For temporary pits below grade tanks and multi well fluid management pits submit to the appropriate NMOCD District Office
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office

15804

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

OIL CONS DIV DIST 3

JAN 12 2017

Type of action
- ☒ Below grade tank registration
- ☐ Permit of a pit or proposed alternative method
- ☐ Closure of a pit below grade tank or proposed alternative method
- ☐ Modification to an existing permit/or registration
- ☐ Closure plan only submitted for an existing permitted or non permitted pit below grade tank or proposed alternative method

Instructions ***Please submit one application (Form C 144) per individual pit below grade tank or alternative request***

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water ground water or the environment Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority s rules regulations or ordinances

1

Operator ConocoPhillips Company OGRID # 217817

Address P O Box 4289, Farmington, New Mexico 87499

Facility or well name SAN JUAN 29 5 UNIT 21A

API Number 30 039 21342 OCD Permit Number

U/L or Qtr/Qtr O Section 8 Township 29N Range 5W County Rio Arriba

Center of Proposed Design Latitude 36 735255 N Longitude 107 376622 W NAD 1927 ☐ 1983 ☒

Surface Owner ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2

☐ **Pit** Subsection F G or J of 19 15 17 11 NMAC

* Cathodic report in Wellfile indicates GW3 100', Closure Standard modified

Temporary ☐ Drilling ☐ Workover

☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no

☐ Lined ☐ Unlined Liner type Thickness mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other

☐ String Reinforced

Liner Seams ☐ Welded ☐ Factory ☐ Other Volume bbl Dimensions L x W x D

3

☒ **Below grade tank** Subsection I of 19 15 17 11 NMAC

Volume Max 120 bbl Type of fluid Produced Water

Tank Construction material Metal

☐ Secondary containment with leak detection ☒ Visible sidewalls liner 6 inch lift and automatic overflow shut off

☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other

Liner type Thickness 45 mil ☐ HDPE ☐ PVC ☒ Other LLDPE

4

☐ **Alternative Method**

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

5

Fencing Subsection D of 19 15 17 11 NMAC *(Applies to permanent pits temporary pits and below grade tanks)*

☐ Chain link, six feet in height two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence school hospital institution or church)*

☐ Four foot height four strands of barbed wire evenly spaced between one and four feet

☒ Alternate Please specify 4 hog wire fence with a single strand of barbed wire on top

2R

6

Netting Subsection E of 19 15 17 11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☒ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

7

Signs Subsection C of 19 15 17 11 NMAC

☐ 12 x 24 2 lettering providing Operator s name site location and emergency telephone numbers

☒ Signed in compliance with 19 15 16 8 NMAC

8

Variances and Exceptions

Justifications and/or demonstrations of equivalency are required Please refer to 19 15 17 NMAC for guidance

Please check a box if one or more of the following is requested if not leave blank

☒ Variance(s) Requests must be submitted to the appropriate division district for consideration of approval

☐ Exception(s) Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval

9

Siting Criteria (regarding permitting) 19 15 17 10 NMAC

Instructions ***The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below*** **Siting criteria does not apply to drying pads or above-grade tanks**

General siting

Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below grade tank. ☐ Yes ☒ No ☐ NA

☐ NM Office of the State Engineer iWATERS database search ☐ USGS ☐ Data obtained from nearby wells

Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi Well Fluid Management pit ☐ Yes ☐ No ☐ NA

NM Office of the State Engineer iWATERS database search USGS Data obtained from nearby wells

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978 Section 3 27 3 as amended **(Does not apply to below grade tanks)** ☐ Yes ☐ No

Written confirmation or verification from the municipality Written approval obtained from the municipality

Within the area overlying a subsurface mine **(Does not apply to below grade tanks)** ☐ Yes ☐ No

Written confirmation or verification or map from the NM EMNRD Mining and Mineral Division

Within an unstable area **(Does not apply to below grade tanks)** ☐ Yes ☐ No

Engineering measures incorporated into the design NM Bureau of Geology & Mineral Resources USGS NM Geological Society Topographic map

Within a 100 year floodplain **(Does not apply to below grade tanks)** ☐ Yes ☐ No

FEMA map

Below Grade Tanks

Within 100 feet of a continuously flowing watercourse significant watercourse lake bed sinkhole wetland or playa lake (measured from the ordinary high water mark) ☐ Yes ☒ No

Topographic map Visual inspection (certification) of the proposed site

Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption ☐ Yes ☒ No

NM Office of the State Engineer iWATERS database search Visual inspection (certification) of the proposed site

Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15 000 mg/liter)

Within 100 feet of a continuously flowing watercourse or any other significant watercourse or within 200 feet of any lakebed sinkhole or playa lake (measured from the ordinary high water mark) (Applies to low chloride temporary pits) ☐ Yes ☐ No

Topographic map Visual inspection (certification) of the proposed site

Within 300 feet from a occupied permanent residence school hospital institution or church in existence at the time of initial application ☐ Yes ☐ No

Visual inspection (certification) of the proposed site Aerial photo Satellite image

Within 200 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes or 300feet of any other fresh water well or spring in existence at the time of the initial application ☐ Yes ☐ No

NM Office of the State Engineer iWATERS database search Visual inspection (certification) of the proposed site

Within 100 feet of a wetland US Fish and Wildlife Wetland Identification map Topographic map Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit Non-low chloride drilling fluid	
Within 300 feet of a continuously flowing watercourse or any other significant watercourse or within 200 feet of any lakebed sinkhole or playa lake (measured from the ordinary high water mark) Topographic map Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence school hospital institution or church in existence at the time of initial application Visual inspection (certification) of the proposed site Aerial photo Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes or 1000 feet of any other fresh water well or spring in the existence at the time of the initial application NM Office of the State Engineer iWATERS database search Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet of a wetland US Fish and Wildlife Wetland Identification map Topographic map Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Permanent Pit or Multi-Well Fluid Management Pit	
Within 300 feet of a continuously flowing watercourse or 200 feet of any other significant watercourse or lakebed sinkhole or playa lake (measured from the ordinary high water mark) Topographic map Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 1000 feet from a permanent residence school hospital institution or church in existence at the time of initial application Visual inspection (certification) of the proposed site Aerial photo Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes in existence at the time of initial application NM Office of the State Engineer iWATERS database search Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map Topographic map Visual inspection (certification) of the proposed site	☐ Yes ☐ No

10

Temporary Pits, Emergency Pits, and Below grade Tanks Permit Application Attachment Checklist Subsection B of 19 15 17 9 NMAC

Instructions Each of the following items must be attached to the application. Please indicate by a check mark in the box, that the documents are attached.

- ☒ Hydrogeologic Report (Below grade Tanks) based upon the requirements of Paragraph (4) of Subsection B of 19 15 17 9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) based upon the requirements of Paragraph (2) of Subsection B of 19 15 17 9 NMAC
- ☒ Siting Criteria Compliance Demonstrations based upon the appropriate requirements of 19 15 17 10 NMAC
- ☒ Design Plan based upon the appropriate requirements of 19 15 17 11 NMAC
- ☒ Operating and Maintenance Plan based upon the appropriate requirements of 19 15 17 12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18 if applicable) based upon the appropriate requirements of Subsection C of 19 15 17 9 NMAC and 19 15 17 13 NMAC

☐ Previously Approved Design (attach copy of design) API Number _____ or Permit Number _____

11

Multi Well Fluid Management Pit Checklist Subsection B of 19 15 17 9 NMAC

Instructions Each of the following items must be attached to the application. Please indicate by a check mark in the box, that the documents are attached.

- ☐ Design Plan based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Operating and Maintenance Plan based upon the appropriate requirements of 19 15 17 12 NMAC
- ☐ A List of wells with approved application for permit to drill associated with the pit
- ☐ Closure Plan (Please complete Boxes 14 through 18 if applicable) based upon the appropriate requirements of Subsection C of 19 15 17 9 NMAC and 19 15 17 13 NMAC
- ☐ Hydrogeologic Data based upon the requirements of Paragraph (4) of Subsection B of 19 15 17 9 NMAC
- ☐ Siting Criteria Compliance Demonstrations based upon the appropriate requirements of 19 15 17 10 NMAC

☐ Previously Approved Design (attach copy of design) API Number _____ or Permit Number _____

12
Permanent Pits Permit Application Checklist Subsection B of 19 15 17 9 NMAC
Instructions Each of the following items must be attached to the application. Please indicate by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report based upon the requirements of Paragraph (1) of Subsection B of 19 15 17 9 NMAC
- ☐ Siting Criteria Compliance Demonstrations based upon the appropriate requirements of 19 15 17 10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Dike Protection and Structural Integrity Design based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Leak Detection Design based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Liner Specifications and Compatibility Assessment based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan based upon the appropriate requirements of 19 15 17 12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Nuisance or Hazardous Odors including H_2S Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan based upon the appropriate requirements of Subsection C of 19 15 17 9 NMAC and 19 15 17 13 NMAC

13
Proposed Closure 19 15 17 13 NMAC
Instructions Please complete the applicable boxes Boxes 14 through 18 in regards to the proposed closure plan.

Type ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☒ Below grade Tank ☐ Multi well Fluid Management Pit ☐ Alternative

Proposed Closure Method
- ☒ Waste Excavation and Removal
- ☐ Waste Removal (Closed loop systems only)
- ☐ On site Closure Method (Only for temporary pits and closed loop systems)
  - ☐ In place Burial ☐ On site Trench Burial
- ☐ Alternative Closure Method

14
Waste Excavation and Removal Closure Plan Checklist (19 15 17 13 NMAC) ***Instructions Each of the following items must be attached to the closure plan. Please indicate by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures based upon the appropriate requirements of 19 15 17 13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) based upon the appropriate requirements of Subsection C of 19 15 17 13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC
- ☐ Re vegetation Plan based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC
- ☐ Site Reclamation Plan based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC

15
Siting Criteria (regarding on site closure methods only) 19 15 17 10 NMAC
Instructions Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency Please refer to 19 15 17 10 NMAC for guidance.

Ground water is less than 25 feet below the bottom of the buried waste NM Office of the State Engineer iWATERS database search USGS Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 25 50 feet below the bottom of the buried waste NM Office of the State Engineer iWATERS database search USGS Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste NM Office of the State Engineer iWATERS database search USGS Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 100 feet of a continuously flowing watercourse or 200 feet of any other significant watercourse lakebed sinkhole or playa lake (measured from the ordinary high water mark) Topographic map Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence school hospital institution or church in existence at the time of initial application Visual inspection (certification) of the proposed site Aerial photo Satellite image	☐ Yes ☐ No
Within 300 horizontal feet of a private domestic fresh water well or spring used for domestic or stock watering purposes in existence at the time of initial application NM Office of the State Engineer iWATERS database Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Written confirmation or verification from the municipality Written approval obtained from the municipality	☐ Yes ☐ No
Within 300 feet of a wetland US Fish and Wildlife Wetland Identification map Topographic map Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	

adopted pursuant to NMSA 1978 Section 3 27 3 as amended Written confirmation or verification from the municipality Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. Engineering measures incorporated into the design NM Bureau of Geology & Mineral Resources USGS NM Geological Society Topographic map	☐ Yes ☐ No
Within a 100 year floodplain FEMA map	☐ Yes ☐ No

16

On Site Closure Plan Checklist (19 15 17 13 NMAC) ***Instructions Each of the following items must be attached to the closure plan. Please indicate by a check mark in the box that the documents are attached.***

- ☐ Siting Criteria Compliance Demonstrations based upon the appropriate requirements of 19 15 17 10 NMAC
- ☐ Proof of Surface Owner Notice based upon the appropriate requirements of Subsection E of 19 15 17 13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19 15 17 11 NMAC
- ☐ Construction/Design Plan of Temporary Pit (for in place burial of a drying pad) based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Protocols and Procedures based upon the appropriate requirements of 19 15 17 13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) based upon the appropriate requirements of 19 15 17 13 NMAC
- ☐ Waste Material Sampling Plan based upon the appropriate requirements of 19 15 17 13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids drilling fluids and drill cuttings or in case on site closure standards cannot be achieved)
- ☐ Soil Cover Design based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC
- ☐ Re vegetation Plan based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC
- ☐ Site Reclamation Plan based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC

17

Operator Application Certification

I hereby certify that the information submitted with this application is true accurate and complete to the best of my knowledge and belief

Name (Print) Crystal Walker Title Regulatory Coordinator

Signature Crystal Walker Date 1/11/2017

e mail address crystal walker@conocophillip com Telephone 505 326 9837

18

OCD Approval ☒ Permit Application (including closure plan) ☐ Closure Plan (only) ☒ OCD Conditions (see attachment)

OCD Representative Signature _____ **Approval Date** 3/29/2017

Title Environmental Specialist **OCD Permit Number** _____

19

Closure Report (required within 60 days of closure completion) 19 15 17 13 NMAC

Instructions Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report The closure report is required to be submitted to the division within 60 days of the completion of the closure activities Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date** _____

20

Closure Method

☐ Waste Excavation and Removal ☐ On Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed loop systems only)

☐ If different from approved plan please explain

21

Closure Report Attachment Checklist ***Instructions Each of the following items must be attached to the closure report Please indicate by a check mark in the box, that the documents are attached.***

- ☐ Proof of Closure Notice (surface owner and division)
- ☐ Proof of Deed Notice (required for on site closure for private land only)
- ☐ Plot Plan (for on site closures and temporary pits)
- ☐ Confirmation Sampling Analytical Results (if applicable)
- ☐ Waste Material Sampling Analytical Results (required for on site closure)
- ☐ Disposal Facility Name and Permit Number
- ☐ Soil Backfilling and Cover Installation
- ☐ Re vegetation Application Rates and Seeding Technique
- ☐ Site Reclamation (Photo Documentation)

On site Closure Location Latitude _____ Longitude _____ NAD ☐1927 ☐ 1983

22

Operator Closure Certification

I hereby certify that the information and attachments submitted with this closure report is true accurate and complete to the best of my knowledge and belief I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan

Name (Print) _____ Title _____

Signature _____ Date _____

e mail address _____ Telephone _____

ConocoPhillips Company requests a variance for the items listed below The requested variance per 19 15 17 15 A provides equal or better protection of fresh water public health & the environment

1 Fencing

- Fencing as described in Section 5 under Alternate COPC will construct all new fences around the below grade tank utilizing 48 steel mesh field fence (hog wire) on the bottom with a single strand of barbed wire on top T posts shall be installed every 12 feet and corners shall be anchored utilizing a secondary T post Below grade tanks will be fenced regardless of location

2 Geo membrane Liner

- The geo membrane liner consists of a 45 mil flexible LLDPE material manufactured by Brawler Industries LLC as SuperScrim H45 SuperScrim H45 is manufactured with LLDPE and is 45 mil inch thickness and is reinforced with polyester scrim The geomembrane liner has a hydraulic conductivity of less than 5 X 10^{-14} cm/s and is resistant to ultraviolet light petroleum hydrocarbons salts and acidic and alkaline solutions The manufacturer specific sheet is attached

3 COPC will notify Public Entity Surface Owners by email in lieu of certified mail Private Entity Surface Owners will still be notified via certified mail

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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file)

(R=POD has been replaced O=orphaned, C=the file is closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twws	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 00056			RA	1	3	2	31	29N	05W	285759	4062596	142	50	92
SJ 00057			RA	1	3	2	31	29N	05W	285759	4062596	158	57	101
SJ 00422			RA			2	31	29N	05W	286061	4062698	239	135	104
SJ 02339			RA	3	3	3	29	29N	05W	286585	4063177	350	108	242
SJ 02383			RA	1	1	1	32	29N	05W	286575	4062975	300	100	200
SJ 03208			RA	3	3	3	31	29N	05W	284935	4061614	220	160	60
SJ 03593	O		RA	4	2	4	21	29N	05W	289638	4065294	455	300	155
SJ 03855 POD1			RA	2	3	2	27	29N	05W	290018	4064139	385	120	265

Average Depth to Water: **128 feet**

Minimum Depth: **50 feet**

Maximum Depth: **300 feet**

Record Count 8

PLSS Search

Township 29N **Range** 05W

UTM locat o w d rived from PLSS see H lp

DATA SHEET FOR DEEP BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(SUBMIT 2 COPIES TO OCD AZTEC OFFICE)

30 039-21342

PPCO DESIGNATION FM-046
OPERATOR PHILLIPS PETROLEUM COMPANY LOCATION O 8 29 5
FARMINGTON N M 87401 LEASE NUMBER NA
(505) 599-3400
NAME OF WELL/S OR PIPELINE SERVED (1) SJ 29-5 UNIT #21A MV
(2) N/A

ELEVATION NA COMPLETION DATE 10 19/78
TOTAL DEPTH 300 FT LAND FEDERAL

CASING INFO SIZE NA IN TYPE NA
DEPTH NA FT CEMENT USED NA

IF CEMENT OR BENTONITE PLUGS HAVE BEEN PLACED SHOW DEPTHS & AMOUNTS
PLUG DEPTH NONE
PLUG AMOUNT NONE

WATER INFORMATION
WATER DEPTH (FT) (1) 100 (2) -0-
WATER INFORMATION NA

DEPTHS GAS ENCOUNTERED (FT) NA

TYPE AND AMOUNT OF COKE BREEZE USED
COKE TYPE METALLURGICAL COKE BREEZE
COKE AMOUNT 4273 LBS

DEPTHS ANODES PLACED (FT)
125 135 145 155 165 205 215 225 235 280

DEPTH VENT PIPE PLACED (FT) 300

VENT PIPE PERFORATIONS (FT) TOP 115 BOTTOM 300

REMARKS -0-

IF ANY OF THE ABOVE DATA IS UNAVAILABLE PLEASE INDICATE SO COPIES OF ALL LOGS INCLUDING DRILLERS LOG WATER ANALYSIS & 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

NA-INFORMATION NOT AVAILABLE

CC CP FILE--FARMINGTON
HOUSTON

REPRODUCTION OF OCD FORM

5116

DATA SHEET FOR DEEP BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(SUBMIT 2 COPIES TO OCD AZTEC OFFICE)

1993REP

PPCO DESIGNATION FM-046 REPLACEMENT
OPERATOR PHILLIPS PETROLEUM COMPANY LOCATION O 8 29 5
FARMINGTON N M 87401 LEASE NUMBER NA
(505) 599-3400
NAME OF WELL/S OR PIPELINE SERVED (1) SJ 29-5 UNIT #21A MV
(2) N/A

21A-30039 21342

ELEVATION NA COMPLETION DATE 07/20/93
TOTAL DEPTH 300 FT LAND FEDERAL

CASING INFO SIZE 8 IN TYPE PVC
DEPTH 20 FT CEMENT USED NO

IF CEMENT OR BENTONITE PLUGS HAVE BEEN PLACED SHOW DEPTHS & AMOUNTS
PLUG DEPTH NONE
PLUG AMOUNT NONE

WATER INFORMATION
WATER DEPTH (FT) (1) 120 (2) N/A
WATER INFORMATION N/A

DEPTHS GAS ENCOUNTERED (FT) N/A

TYPE AND AMOUNT OF COKE BREEZE USED
COKE TYPE METALLURGICAL COKE BREEZE
COKE AMOUNT 3834 LBS

DEPTHS ANODES PLACED (FT)
145 160 175 190 205 220 240 255 270 285

DEPTH VENT PIPE PLACED (FT) 300

VENT PIPE PERFORATIONS (FT) TOP 135 BOTTOM 300

REMARKS -0-

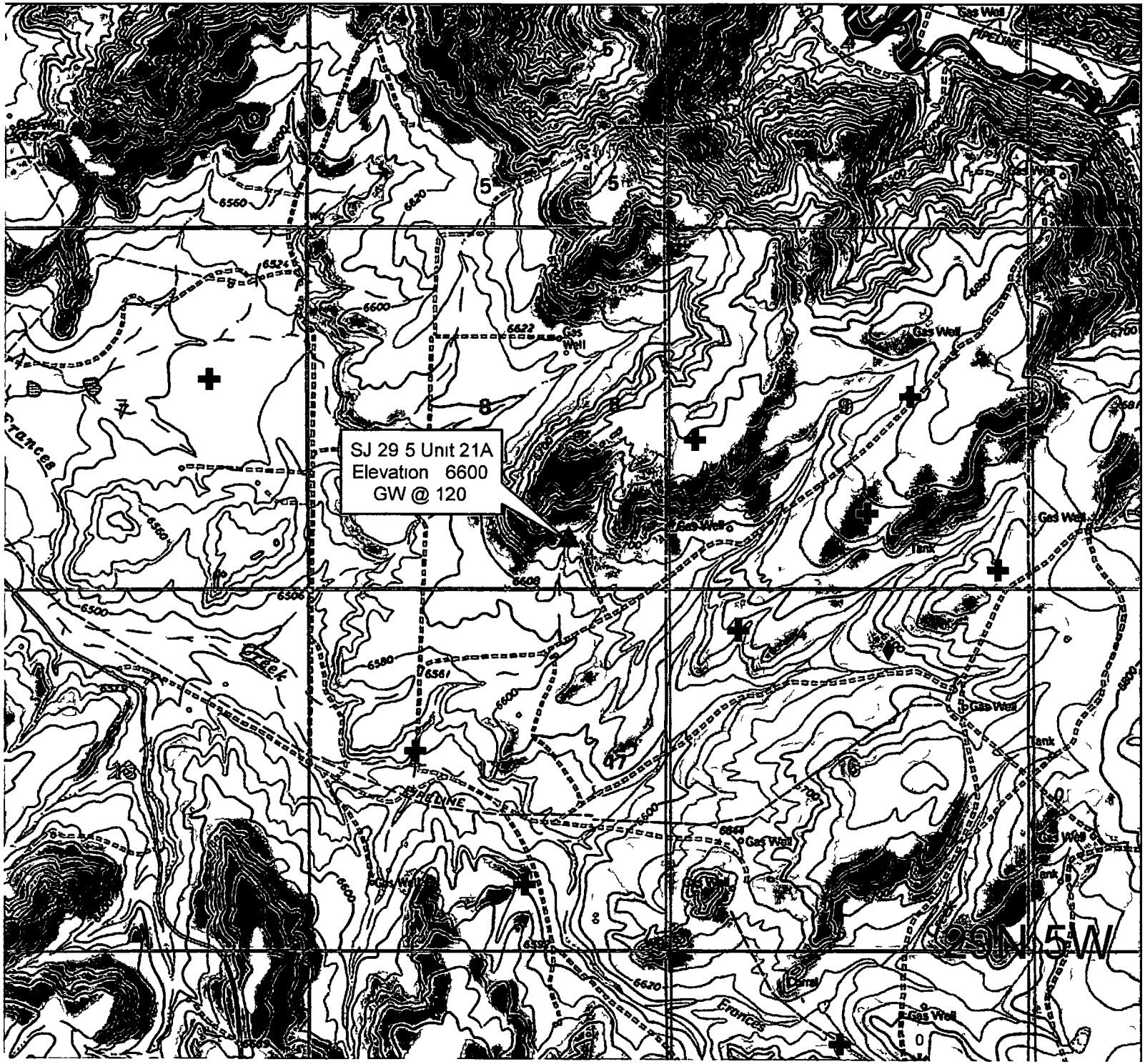
IF ANY OF THE ABOVE DATA IS UNAVAILABLE PLEASE INDICATE SO COPIES OF ALL LOGS INCLUDING DRILLERS LOG WATER ANALYSIS & WELL BORE SCHEMATICS SHOULD BE SUBMITTED WHEN AVAILABLE UNPLUGGED ABANDONED WELLS ARE TO BE INCLUDED

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

NA-INFORMATION NOT AVAILABLE

CC CP FILE--FARMINGTON

San . ua ı 29-5 Jn't 2 A



Legend

- DSM
- CO Water Wells
- ıWater
- Hydrogeologic
- COP Cathodic
- Wetlands

NM

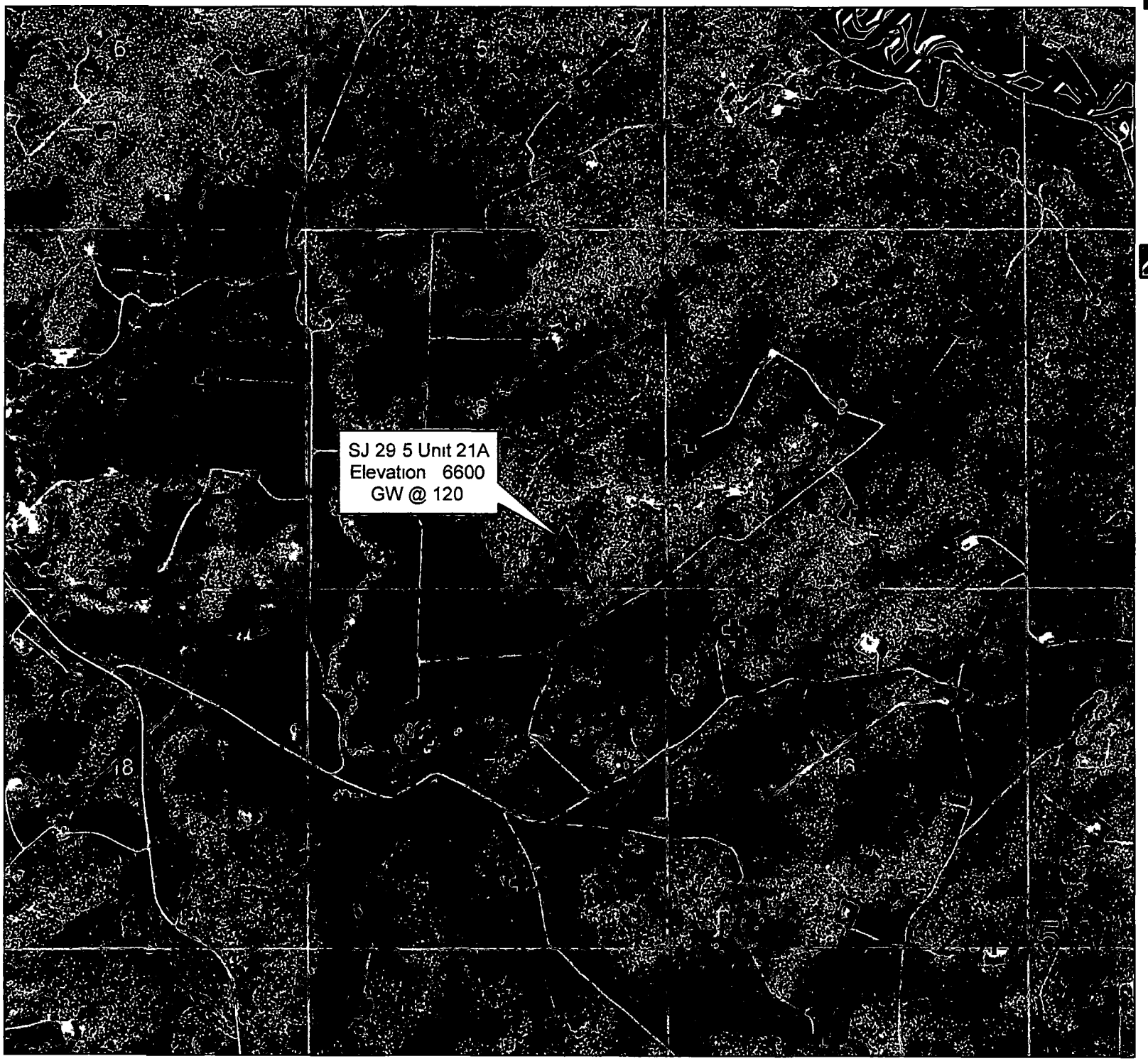
ConocoPhillips

San Juan 29 5 Unit 21A
30 039 21342
O 8 29N 5W
GW @ 120

0 0.175 0.35 0.7 Mi

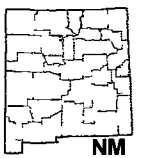
Date: Date: 1/11/2017

Sa . an 29-5 J · 2 A



Legend

- DSM
- CO Water Wells
- iWater
- Hydrogeologic
- COP Cathodic
- Wetlands



ConocoPhillips

San Juan 29 5 Unit 21A
30 039 21342
O 8 29N 5W
GW @ 120

Date: Date: 1/11/2017

Below Grade Tank (BGT) Siting Criteria and Compliance Demonstrations

Well Name **San Juan 29-5 Unit 21A**

1 Depth to groundwater (should not be less than 25 feet)
The nearest recorded well with available water depth information is the **subject well** with groundwater @ 120 as indicated in the **Cathodic Data Sheet** attached

2 Distance to watercourse (should not be within 100 feet of a continuously flowing watercourse, other significant watercourse, lakebed, sinkhole, wetland or playa lake [measured from the ordinary high water mark])

Aerial map attached indicates that there are **no** lakebeds, sinkholes, playa lakes or watercourses within 100 feet of the proposed Below Grade Tank

3 Distance to springs or wells (should not be within 200 feet of a spring or a fresh water well used for public or livestock consumption)

Aerial map attached indicates that the Below Grade Tank will **not** be within 200 feet of any recorded well or spring

Hydrogeological report for San Juan 29-5 Unit 21A

Regional Hydrogeological context

The San Jose Formation of Eocene age occurs in New Mexico and Colorado and its outcrop forms the land surface over much of the eastern half of the central basin It overlies the Nacimiento Formation in the area generally south of the Colorado-New Mexico State line and overlies the Animas Formation in the area generally north of the State line

The San Jose Formation was deposited in various fluvial type environments In general, the unit consists of an interbedded sequence of sandstone siltstone and variegated shale Thickness of the San Jose Formation generally increases from west to east (200 feet in the west and south to almost 2 700 feet in the center of the structural basin)

Ground water is associated with alluvial and fluvial sandstone aquifers Thus, the occurrence of ground water is mainly controlled by the distribution of sandstone in the formation The distribution of such sandstone is the result of original depositional extent plus any post depositional modifications, namely erosion and structural deformation Transmissivity data for San Jose Formation are minimal Values of 40 and 120 feet squared per day were determined from two aquifer tests (Stone et al, 1983, table 5) The reported or measured discharge from 46 water wells completed in San Jose Formation ranges from 0 15 to 61 gallons per minute and the median is 5 gallons per minute Most of the wells provide water for livestock and domestic use

The San Jose Formation is a very suitable unit for recharge from precipitation because soils that form on the unit are sandy and highly permeable and therefore readily adsorb precipitation However, low annual precipitation relatively high transpiration and evaporation rates and deep dissection of the San Jose Formation by the San Juan River and its tributaries all tend to reduce the effective recharge to the unit

Stone et al , 1983 Hydrogeology and Water Resources of the San Juan Basin, New Mexico Socorro, New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 70 p

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 hereinafter known as 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

1 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 signage will comply with 19 15 17 11 C NMAC

3 COPC is requesting approval of an alternative fencing to be used on BGT tank locations COPC requests to utilize 48 steel mesh field-fence (hog wire) on the bottom with a single strand of barbed wire on top T posts shall be installed every 12 feet and corners shall be anchored utilizing a secondary T post BGTs will be fenced regardless of location
   a If the BGT is located within 1000 of an occupied permanent residence school hospital institution or church COPC will construct A 6 chain link fence with two strands of barbed wire on top The operator shall ensure that all gates associated with the fence are closed and locked when responsible personnel are not onsite

4 COPC will construct a screened expanded metal covering on the top of the BGT

5 COPC will ensure that a BGT is constructed of materials resistant to the BGT s particular contents and resistant to damage from sunlight as shown on design drawing and specification sheet

6 The COPC BGT system will 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 as shown on design drawing

7 COPC shall operate and install the BGT to prevent the collection of surface water run on COPC has built in shut off devices that do not allow a BGT to overflow COPC constructs berms and corrugated retaining walls at least 6 above ground to keep from surface water run on entering the BGT as shown on the design plan

8 If COPC needs to modify/retrofit the existing BGT it will meet the below specifications

9 COPC will construct and use a BGT that does not have double walls The BGT s side walls will be open for visual inspection for leaks the BGT s bottom is elevated a minimum of six inches above the underlying ground surface and the BGT is underlain with a geomembrane liner to divert leaked liquid to a location that can be visually inspected

10 COPC will equip below grade tanks with a properly functioning automatic high level shut off control device as well as manual controls to prevent overflows

11 COPC will utilize a geomembrane liner manufactured by Brawler Industries LLC as SuperScrim H45 SuperScrim H45 is manufactured with LLDPE and is 45 mil inch thickness and is reinforced with polyester scrim The geomembrane liner has a hydraulic conductivity of less than 5 X 10^{14} cm/s and is resistant to ultraviolet light petroleum hydrocarbons salts and acidic and alkaline solutions The manufacturer specific sheet is attached

12 The general specification for design and construction are attached

BRAWLER SUPERSCRIM™ H

Reinforced Geomembranes

SuperScrim™ H Product Specifications

This product meets GRI GM 25 Specifications

Properties	Test Method	Frequency	Minimum Average Values		
			H30	H36	H45
Thickness Nominal (mils) Min Ave (mils)	ASTM D5199	Per roll	30 27	36 32	45 40
Weight Nominal (lb/1000 ft²) Min Ave (lb/1000 ft²)	ASTM D5261	Per roll	140 125	168 151	210 189
Grab Tensile Strength (lb) min ave Elongation (%) min ave	ASTM D7004 (each direction) (each direction)	30 000 lb	300 25	310 25	320 25
Tongue Tear (lb) min ave	ASTM D5884 (each direction)	30 000 lb	130	130	130
Index Puncture (lb) min ave	ASTM D4833	30 000 lb	85	103	105
Ply Adhesion (lb) min ave (1)	ASTM D6636	30 000 lb	20	25	25
Oxidative Induction Time (OIT) (2) (a) Standard OIT Or (b) High Pressure OIT	ASTM D3895 ASTM D5885	Formulation	>100 >1000	>100 >1000	>100 >1000
Standard Roll Dimensions					
Roll Width (3) ft			11 83	11 83	11 83
Roll Length (3) ft			1500	1230	1000
Roll Area ft²			17 745	14 551	11 830

( )Alternatively an acceptable ply adhesion is to have a film tearing bond occur within the sheet material

(2)The Manufacturer has the option to select either one of the OIT methods listed to evaluate the antioxidant effectiveness in the geomembrane.

(3)Roll widths and lengths have a tolerance of ±1%

Custom material thicknesses also available

This data is provided for informati nal purposes only Brawle Industries LLC m kes no warra ties a to the suitability of the fitness for a specific use or merchantability of products referred to no guarantee of satisfactory results upon contained information or recommendations and disclaims all liability from resulting loss or damage. This information is subject to change without notice please check with Brawler Industries LLC for current updates

This is a preliminary data sheet based upon laboratory testing of initial manufacturing lots and may be changed without notice as additional product testing data becomes available.

BRAWLER INDUSTRIAL FABRICS & LINERS

MILES CITY MT
184 Hwy 59 N
Miles City MT 59301
800 488 3592
406.234 1680

MIDLAND TX
11701 Co Rd 125 W
Midland TX 79711
800.583.6005
432 563 4005

PLEASANTON, TX
4300 S Hwy 281
Pleasanton TX 78064
830 569 4005

HOUSTON, TX
8615 Golden Spike Ln
Houston TX 77086
800 364 7688
281 272 1660

SE HABLA ESPAÑOL

www.brawler.com

BRAWLER SUPERSCRIM™ WC
Reinforced Geomembranes

SuperScrim™ WC Product Specifications

Properties	Test Method	Minimum Average Values					
		9 mil	12 mil	16 mil	20 mil	24 mil	30 mil
Weight	D5261	5 4 oz/yd²	5 7 oz/yd²	7 2 oz/yd²	9 6 oz/yd²	11 5 oz/yd²	13 4 oz/yd²
Thickness		9 mil	12 mil	16 mil	20 mil	24 mil	30 mil
Grab Tensile (lbs)	D751	MD 200 CD 135	MD 210 CD 176	MD 230 CD 210	MD 330 CD 286	MD 352 CD 300	MD 352 CD 300
Mullen Burst	D6241	300 psi	350 psi	400 psi	600 psi	680 psi	780 psi
Accelerated UV Weathering	D4355	>80 % after 2000 hrs exposure	>90 % after 2000 hrs exposure	>90% after 2000 hrs exposure	>90 / after 2000 hrs exposure	>90 % after 2000 hrs exposure	>90% after 2000 hrs exposure
Standard Roll Dimensions							
Roll Length (2) Ft		3 000	3 000	4 000	3 000	2 250	2 250
Roll Width (2) Ft		12	12	12	12	12	12
Roll Area Ft ²		36 000	36 000	48 000	36 000	27 000	27 000

(1)9 of 10 views shall be Category 1 or 2 No more than 1 view from Category 3
(2)Roll widths and lengths have a tolerance of ± 1%

Custom material thicknesses also available

This data is provided for informational purposes only Brawler Industries LLC makes no warranties as to the suitability of the fitness for a specific use or merchantability of products referred to no guarantee of satisfactory results upon contained information or recommendations and disclaims all liability from resulting loss or damage This information is subject to change without notice please check with Brawler Industries LLC for current updates

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4300 S Hwy 281
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HOUSTON, TX
8615 Golden Spike Ln
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SE HABLA ESPAÑOL

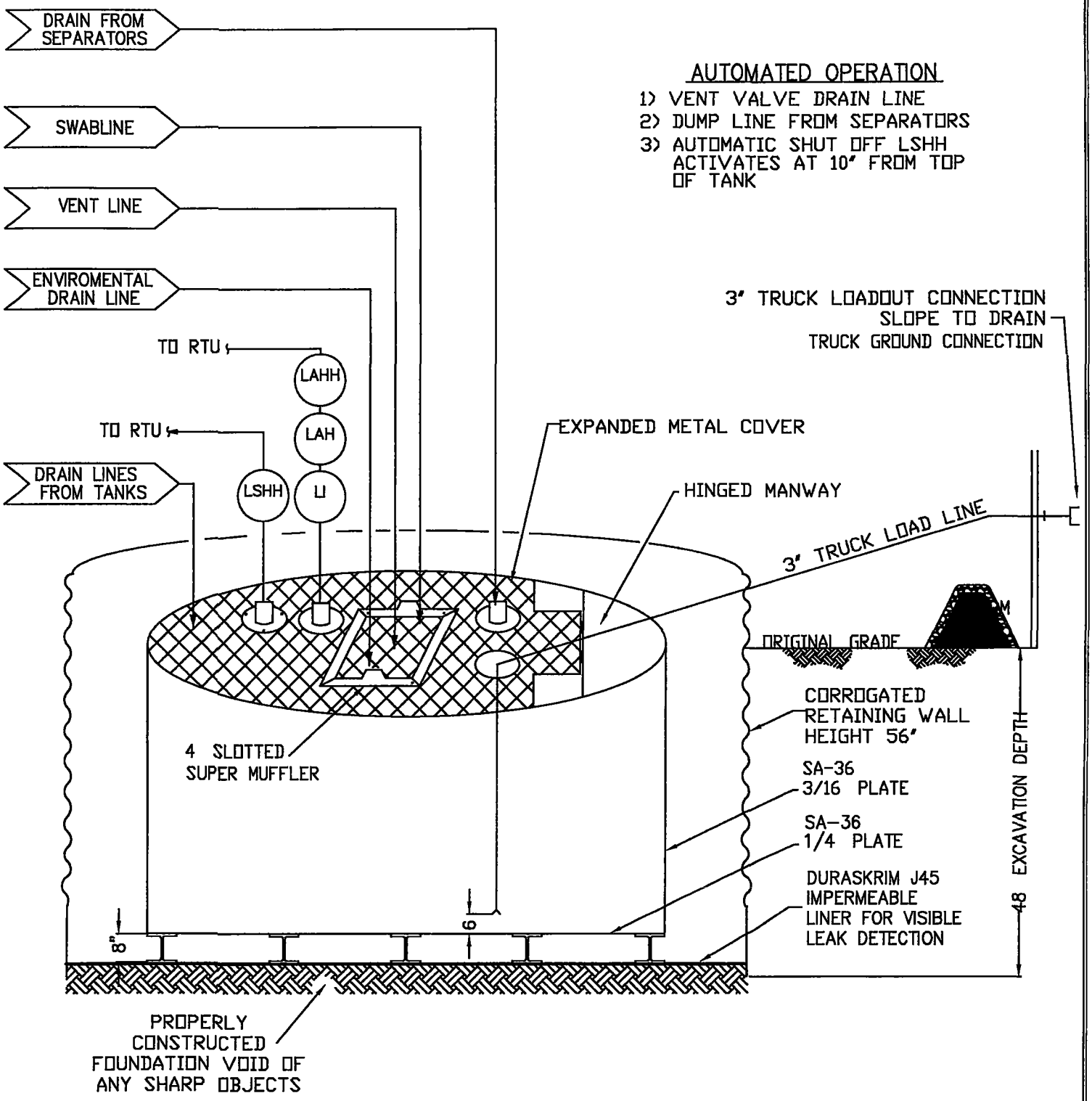
www.brawler.com

MANUAL OPERATION

1) PRODUCTION TANKS DRAINLINE
2) SWABLINE DRAIN LINE
3) ENVIROMENTAL DRAIN LINE FROM COMPRESSOR SKID

AUTOMATED OPERATION

1) VENT VALVE DRAIN LINE
2) DUMP LINE FROM SEPARATORS
3) AUTOMATIC SHUT OFF LSHH ACTIVATES AT 10' FROM TOP OF TANK



ConocoPhillips

San Juan Business Unit

PRODUCED WATER PIT TANK

OPEN TOP GRAVITY FLOW TANK
INTERNALLY COATED WITH
12-14 MILS AMERON AMERCOAT 385

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

In accordance with Rule 19 15 17 the following information describes the operation and maintenance of a below grade tank (BGT) on a Burlington Resources Oil & Gas Company, LP (COP) location This is COP s standard procedure for all BGT s A separate plan will be submitted for any BGT which does not conform to this plan

General Plan

1 COP will operator 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 the environmental COP will perform an inspection on a monthly basis install cathodic protection and automatic overflow shutoff devices as seen on the design plan
2 COP will not discharge into or store any hazardous waste in the BGT
3 COP shall operator and install the BGT to prevent the collection of surface water run on COP has built in shut off devices that do not all ow a BGT to overflow COP constructs berms and corrugated retained walls at least 6 above grade to keep surface water run on from entering the BGT as shown on the design plan
4 As per 19 15 17 12 D(3), COP will inspect the BGT for leakage and damage at least monthly The operator will document the integrity of each tank at least annually and maintain a written record for 5 years Inspections may include 1) containment berms adequate and no oil present 2) tanks had no visible leaks or sign of corrosion 3) tank valves flanges and hatches had no visible leaks and 4) no evidence of significant spillage of produced liquids COP shall remove any visible or measurable layer of oil from the fluid surface of the BGT in an effort to prevent significant accumulation of oil overtime
5 COP shall maintain adequate freeboard to prevent overtopping of the BGT
6 If a BGT develops a leak then COP shall removal all liquid above the damage or leak within 48 hours of discovery notify the appropriate division office pursuant to 19 15 29 NMAC and repair the damage or replace BGT as applicable
7 If COP discovers a BGT designed in accordance with 19 15 17 11 I(5) has lost integrity the BGT will promptly be drained and removed from service and COP will follow the approved closure plan If COP discovers a retrofitted BGT designed in accordance with 19 15 17 11 I(4)(a c) does not demonstrate integrity or that the BGT develops any of the conditions identified in Paragraph (5) of Subsection A of 19 15 17 12 NMAC shall repair the damage or close the existing BGT pursuant to the closure requirements of 19 15 17 13 NMAC
8 If COP equips or retrofits the existing BGT to comply with Paragraphs (1) through (4) of Subsection I of 19 15 17 11 NMAC COP shall visually inspect the area beneath the BGT during the retrofit and document any areas that are wet discolored or showing other evidence of a release on form C 141 COP shall measure and report to the division the concentration of contaminants in the wet or discolored soil with respect to the standards set forth in Table I of 19 15 17 13 NMAC If there is no wet or discolored soil or if the concentration of contaminants in the wet or discolored soil is less than the standard set forth in Table I of 19 15 17 13 NMAC then COP will proceed with the closure requirements of 19 15 17 13 NMAC prior to initiating the retrofit or replacement

ConocoPhillips Company
San Juan Asset
Production BGT Closure Plan

In accordance with Rule 19 15 17 13 NMAC the following plan describes the general closure requirements of a below grade tank (BGT) on any ConocoPhillips Company (COP) location in the San Juan Asset This is COP s standard closure procedure for all BGT s regulated under Rule 19 15 17 NMAC and operated by COP For those closures which do not conform to this standard closure plan a separate BGT specific closure plan will be developed and utilized

Closure Conditions and Timing for BGT

- Within 60 days of cessation of operation COP will
  - Remove all liquids and sludge and dispose in a division approved manner
- Within 72 hours or 1 week prior to closure COP will
  - Give notice to surface owners by certified mail For public entities by email as specified on the variance page
  - Give notice to Division District Office verbal or in writing/email
- Within 6 months of cessation of operation COP will
  - Remove BGT and dispose recycle reuse or reclaim in a division approved manner
  - Remove unused onsite equipment associated with the BGT
- Within 60 days of closure COP will
  - Send the Division District Office a Closure Report per 19 15 17 13 F (1)

General Plan Requirements

1 Prior to initiating any BGT closure except in the case of an emergency COP will notify the surface owner of the intent to close the BGT by certified mail no later than 72 hours or 1 week before closure and a copy of this notification will be included in the closure report In the case of an emergency the surface owner will be notified as soon as practical

2 Notice of closure will be given to the Division District office between 72 hours and 1 week of the scheduled closure via email or phone The notification of closure will include the following
   a Operators Name
   b Well Name and API Number
   c Location

3 All liquids will be removed from the BGT following cessation of operation Produced water will be disposed of at one of COP s approved Salt Water Disposal facilities or at a Division District Office approved facility

4 Solids and sludge s will be shoveled and/or vacuumed out for disposal at one of the Division District Office approved facilities depending on the proximity of the BGT site Envirotech Land Farm (Permit #NM 01 011) Industrial Ecosystems Inc JFJ Land Farm (Permit #NM 01 0010B) and Basin Disposal (Permit #NM 01 005)

5 COP will obtain prior approval from the Division District Office to dispose recycle reuse or reclaim the BGT and provide documentation of the disposition of the BGT in the closure report Steel materials will be recycled or reused as approved by the Division District Office Fiberglass tanks will be empty cut up or shredded and EPA cleaned for disposal as solid waste Liner materials will be cleaned without soils or contaminated material for disposal as solid waste Fiberglass tanks and liner materials will meet the conditions of 19 15 35 NMAC Disposal will be at a licensed disposal facility presently San Juan County Landfill operated by Waste Management under NMED Permit SWM 052426

6 Any equipment associated with the BGT that is no longer required for some other purpose following the closure will be removed

Revised 3/15/2016

7 Following removal of the tank and any liner material COP will test the soils beneath the BGT as follows
   a At a minimum a five point composite sample will be taken to include any obvious stained or wet soils or any other evidence of contamination
   b The laboratory sample shall be analyzed for the constituents listed in Table I of 19 15 17 13

Table I

Closure Criteria for Soils Beneath Below Grade Tanks Drying Pads Associated with Closed Loop Systems and Pits where Contents are Removed

Depth below bottom of pit to groundwater less than 10 000 mg/l TDS	Constituent	Method*	Limit**
≤50 feet	Chloride	EPA 300 0	600 mg/kg
	TPH	EPA SW 846 Method 418 1	100 mg/kg
	BTEX	EPA SW 846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
51 feet 100 feet	Chloride	EPA 300 0	10 000 mg/kg
	TPH	EPA SW 846 Method 418 1	2 500 mg/kg
	GRO+DRO	EPA SW 846 Method 8015M	1 000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
> 100 feet	Chloride	EPA 300 0	20 000 mg/kg
	TPH	EPA SW 846 Method 418 1	2 500 mg/kg
	GRO+DRO	EPA SW 846 Method 8015M	1 000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW 846 Method 8021B or 8015M	10 mg/kg

*Or other test methods approved by the division

**Numerical limits or natural background level whichever is greater

(19 15 17 13 NMAC Ro 19 15 17 13 NMAC 3/28/2013)

8 If the Division District Office and/or COP determine there is a release COP will comply with 19 15 17 13 C 3b

9 Upon completion of the tank removal pursuant to 19 15 17 13 C 3c if all contaminant concentrations are less than or equal to the parameters listed in Table I of 19 15 17 13 NMAC the excavation will be backfilled with non waste containing earthen material compacted and covered with a minimum of one foot top soil or background thickness of top soil whichever is greater The surface will then be re contoured to match the native grade prevent ponding of water and prevent erosion of cover material

10 For those portions of the former BGT area no longer required for production activities COP will seed the disturbed area in the first favorable growing season following the closure of the BGT Seeding will be accomplished via drilling on the contour whenever practical or by other Division District Office approved methods COP will notify the Division District Office when reclamation and re vegetation is complete

Reclamation of the BGT shall be considered complete when

- Established vegetative cover reflects a life form ratio of +/ 50% of pre disturbance levels
- Total plant cover is at least 70% of pre disturbance levels (Excluding noxious weeds) OR
- Pursuant to 19 15 17 13 H 5d COP will comply with obligations imposed by other applicable federal or tribal agencies in which there re vegetation and reclamation requirements provide equal or better protection of fresh water human health and the environment

11 For those portions of the former BGT area required for production activities reseeding will be done at well abandonment and following the procedure noted above

Closure Report

All closure activities will include proper documentation and will be submitted to OCD within 60 days of the BGT closure on a Closure Report using Division District Office Form C 144 The Report will include the following

- Proof of Closure Notice (surface owner and Division District Office)
- Backfilling & cover installation
- Confirmation Sampling Analytical Results
- Application Rate & Seeding techniques
- Photo Documentation of Reclamation