

RECEIVED 6-5-2017	REVIEWER mam	TYPE WFX	APP NO PKSC 1715653002
----------------------	-----------------	-------------	---------------------------

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505

**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND
 REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: Apache Corporation	OGRID Number: 873
Well Name: West Blinbry Drinkard Unit 221	API: 30-025-42496
Pool: Eunice, BLI-TU-DR, North	Pool Code: 22900

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION
 INDICATED BELOW**

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]
 A. Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]

[I] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☒ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

- 2) **NOTIFICATION REQUIRED TO:** Check those which apply.

- A. ☒ Offset operators or lease holders
 B. ☐ Royalty, overriding royalty owners, revenue owners
 C. ☒ Application requires published notice
 D. ☐ Notification and/or concurrent approval by SLO
 E. ☒ Notification and/or concurrent approval by BLM
 F. ☒ Surface owner
 G. ☒ For all of the above, proof of notification or publication is attached, and/or,
 H. ☐ No notice required

FOR OCD ONLY

- ☐ Notice Complete
☐ Application
 Content
 Complete

- 3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division

Note: Statement must be completed by an individual with managerial and/or supervisory capacity

Brian Wood

Print or Type Name

Signature

6-3-17

Date

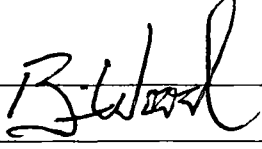
505 466-8120

Phone Number

brian@permitswest.com

e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

- I PURPOSE XXX Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage _____
Application qualifies for administrative approval? _____ Yes _____ No
- II OPERATOR APACHE CORPORATION
ADDRESS 303 VETERANS AIRPARK LANE, SUITE 3000, MIDLAND, TX 79705
CONTACT PARTY BRIAN WOOD (PERMITS WEST, INC.) PHONE 505 466-8120
- III WELL DATA Complete the data required on the reverse side of this form for each well proposed for injection
Additional sheets may be attached if necessary
- IV Is this an expansion of an existing project? _____ Yes XXX No _____
If yes, give the Division order number authorizing the project R-12981
- V Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well This circle identifies the well's area of review
- VI Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone
Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail
WEST BLINEBRY DRINKARD UNIT 221
30-025-42496
- VII Attach data on the proposed operation, including
1 Proposed average and maximum daily rate and volume of fluids to be injected,
2 Whether the system is open or closed,
3 Proposed average and maximum injection pressure,
4 Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water, and,
5 If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc)
- *VIII Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval
- IX Describe the proposed stimulation program, if any
- *X Attach appropriate logging and test data on the well (If well logs have been filed with the Division, they need not be resubmitted)
- *XI Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken
- XII Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water
- XIII Applicants must complete the "Proof of Notice" section on the reverse side of this form
- XIV Certification I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief
NAME BRIAN WOOD  TITLE CONSULTANT
SIGNATURE _____ DATE MAY 20, 2017
E-MAIL ADDRESS brian@permitswest.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted
Please show the date and circumstances of the earlier submittal _____

III WELL DATA

A The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include

- (1) Lease name, Well No, Location by Section, Township and Range, and footage location within the section
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined
- (3) A description of the tubing to be used including its size, lining material, and setting depth
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name
- (2) The injection interval and whether it is perforated or open-hole
- (3) State if the well was drilled for injection or, if not, the original purpose of the well
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any

XIV PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include

- (1) The name, address, phone number, and contact party for the applicant,
- (2) The intended purpose of the injection well, with the exact location of single wells or the Section, Township, and Range location of multiple wells,
- (3) The formation name and depth with expected maximum injection rates and pressures, and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR APACHE CORPORATIONWELL NAME & NUMBER WEST BLINEBRY DRINKARD UNIT 221

WELL LOCATION SHL: 2300' FSL & 500' FEL I 17 21 S 37 E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE
BHL: 1980' FSL & 660' FEL

WELLBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

Hole Size 11" Casing Size 8-5/8"
 Cemented with 530 sx or ft³
 Top of Cement SURFACE Method Determined VISUAL

Intermediate Casing

Hole Size Casing Size
 Cemented with sx or ft³
 Top of Cement Method Determined

Production Casing

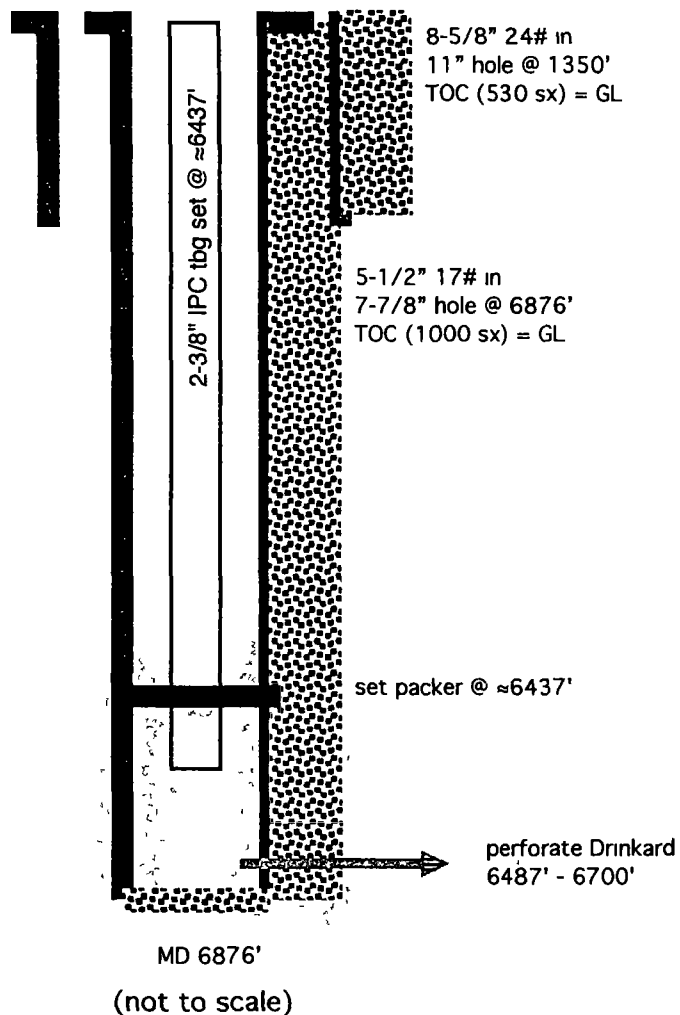
Hole Size 7-7/8" Casing Size 5-1/2"
 Cemented with 1,000 sx or ft³
 Top of Cement SURFACE Method Determined VISUAL
 Total Depth 6,876' MD

Injection Interval

6,487' MD feet to 6,700' MD

(Perforated or Open Hole, indicate which)

.....



INJECTION WELL DATA SHEETTubing Size 2-3/8" J-55 4.7# Lining Material INTERNAL PLASTIC COATType of Packer LOCK SET INJECTIONPacker Setting Depth. ≈6,437' MD

Other Type of Tubing/Casing Seal (if applicable) _____

Additional Data1 Is this a new well drilled for injection? XXX Yes _____ No

If no, for what purpose was the well originally drilled? _____

2 Name of the Injection Formation DRINKARD3 Name of Field or Pool (if applicable) EUNICE; BLI-TU-DR, NORTH (POOL CODE 22900)

4 Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e sacks of cement or plug(s) used. _____

NO

5 Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area _____

OVER: GRAYBURG (3,694'), SAN ANDRES (3,897'), BLINEBRY (5,682'), TUBB (6,175')UNDER: ABO (6,738')

APACHE CORPORATION
WEST BLINEBRY DRINKARD UNIT 221
SHL: 2300' FSL & 500' FEL
BHL: 1980' FSL & 660' FEL
SEC. 17, T. 21 S., R. 37 E., LEA COUNTY, NM

PAGE 1

30-025-42496

I. Purpose is to drill a 6860' TVD (6876' MD) water injection well to increase oil recovery. The well will inject (6487' - 6700' MD) into the Drinkard, which is part of the Eunice; Blinebry-Tubb-Drinkard, North Pool (aka, Eunice; BLI-TU-DR, North and pool code = 22900). Well will be directionally drilled because the preferred SHL is occupied by a Grayburg well (30-025-06637).

The well and zone are part of the West Blinebry Drinkard Unit (Unit Number 300341, Case Numbers 14125 and 14126, both Order Number R-12981) that was established in 2008 by Apache. There have been 15 subsequent WFX approvals. This is an active water flood. Forty-three water injectors are active or new in the Unit.

II. Operator: Apache Corporation (OGRID #873)
Operator phone number: (432) 818-1167
Operator address: 303 Veterans Airpark Lane, Suite 3000
Midland, TX 79705
Contact for Application: Brian Wood (Permits West, Inc.)
Phone: (505) 466-8120

III. A. (1) Lease: BLM NMLC-032096A
Lease Size: 120 acres (see Exhibit A for maps and C-102)
Closest Lease Line: from SHL = 340' & from BHL = 660'
Lease Area: E2NE4 & NESE of Section 17, T. 21 S., R. 37 E.
Unit Size: 2,480 acres
Closest Unit Line: from SHL = 2166' & from BHL = 1980'
Unit Area: T. 21 S., R. 37 E.
Section 4: Lot 15, S2SW4, & SE4
Section 8: E2, NENW, & E2SW
Sections 9 & 16: all
Section 17: E2 & E2SW4
Section 21: E2NE4

APACHE CORPORATION
WEST BLINEBRY DRINKARD UNIT 221
SHL: 2300' FSL & 500' FEL
BHL: 1980' FSL & 660' FEL
SEC. 17, T. 21 S., R. 37 E., LEA COUNTY, NM

PAGE 2

30-025-42496

- A. (2) Surface casing (8-5/8", 24#) will be set at 1350' in an 11" hole. Cement will be circulated to the surface with 530 sacks.

Production casing (5-1/2", 17#) will be set at 6876' (MD) in a 7-7/8" hole. Cement will be circulated to the surface with 1000 sacks.

Mechanical integrity of the casing will be assured by hydraulically pressure testing to 500 psi for 30 minutes.

- A. (3) Tubing specifications are 2-3/8", J-55, 4.7#, and internally plastic coated. Setting depth will be \approx 6437' MD. (Disposal interval will be from 6487' to 6700' MD.)
- A. (4) A lock set injection packer will be set at \approx 6437' MD (\approx 50' above the highest proposed perforation of 6487' MD).
- B. (1) Injection zone will be the Drinkard carbonate. The zone is part of the Eunice; Blinebry-Tubb-Drinkard, North Pool. Estimated fracture gradient is \approx 0.56 psi per foot.
- B. (2) Injection interval will be from 6470' to 6700' in a cased hole. See attached C-108 well profile for more perforation information.
- B. (3) The well has not yet been drilled. It will be completed as a water injection well after approval.
- B. (4) The well will be perforated from 6487' to 6700' with 2 shots per foot. Shot diameter = 0.40".
- B. (5) Next higher oil or gas zone in the area of review is the Tubb. Its bottom is at 6486' MD. Injection will occur in the Drinkard. Drinkard top is at 6487' MD. Injection interval will be from 6487' to 6700' MD. The injection interval is part of the Eunice; Blinebry-Tubb-Drinkard,

APACHE CORPORATION**PAGE 3****WEST BLINEBRY DRINKARD UNIT 221****SHL: 2300' FSL & 500' FEL****BHL: 1980' FSL & 660' FEL****SEC. 17, T. 21 S., R. 37 E., LEA COUNTY, NM****30-025-42496**

North Pool (NMOCD pool code number = 22900). Tubb is in the same pool.

The next lower oil or gas zone in the area of review is the Wantz; Abo (code 62700). Its top is at 6738' MD. Deepest perforation will be 6700' MD.

IV. This is not a horizontal or vertical expansion of an existing injection project. The case file for the unit approval (R-12981) includes a discussion of the water flood. There have been 15 subsequent WFX approvals. Closest Unit boundary is $\geq 1980'$. Five existing injection wells are within a half-mile radius. All five are in the Unit (see Exhibit B).

V. Exhibit B shows all 51 existing wells (41 oil wells + 7 water injection wells + 2 P & A wells + 1 water supply well) within a half-mile radius, regardless of depth. Exhibit C shows all 710 existing wells (544 oil or gas wells + 81 injection or disposal wells + 66 P & A wells + 18 water supply wells + 1 brine supply well) within a two-mile radius.

Exhibit D shows all leases (only BLM, fee, and State) within a half-mile radius. Exhibit E shows all lessors (BLM, fee, and state) within a two-mile radius. Details on the leases within a half-mile are:

Aliquot Parts in Area of Review (T 21 S, R 37 E)	Lessor	Lease	Lessee(s) of Record	Drinkard operator
W2NW4 & SENW Sec. 16	NMSLO	B0-1557-0001	Occidental Permian	Apache
W2NW4 & SENW Sec. 16	NMSLO	B0-1557-0002	Apache	Apache
N2SW4 Sec. 16	NMSLO	B0-0085-0016	Apache	Apache
S2SW Sec. 16	NMSLO	B0-8105-0004	Apache	Apache
E2NE4 & NESE Sec. 17	BLM	NMLC-032096A	Apache & Chevron	Apache
NWNE Sec. 17	fee	W W Weatherly	Apache	Apache
SENE Sec. 17	fee	Mittie Weatherly	Chevron	Texaco (since plugged back to Grayburg)
SWNE, NWSE, & NESW Sec. 17	fee	WW Weatherly 1	Apache	Apache

APACHE CORPORATION
WEST BLINEBRY DRINKARD UNIT 221
SHL: 2300' FSL & 500' FEL
BHL: 1980' FSL & 660' FEL
SEC. 17, T. 21 S., R. 37 E., LEA COUNTY, NM

PAGE 4

30-025-42496

SESW Sec. 17	fee	Hardy Blinebry	Apache	Apache
S2SE4 Sec. 17	fee	Percy Hardy	Apache	Apache
NENE Sec. 20	fee	A M York	Chevron	Chevron
NWNE Sec. 20	fee	W E Lee	Upland	Upland
NWNW Sec. 21	fee	Weatherly	Stephens & Johnson	Stephens & Johnson

VI. Fifty-one existing wells are within a half-mile radius. Thirty-one of the wells penetrated the Drinkard. The penetrators include 22 oil wells, 7 water injection wells, 1 P&A well, and 1 water supply well (plugged back from the Drinkard to the San Andres). A table abstracting the well construction details and histories of the penetrators is in Exhibit F. A diagram of the plug back well is also in Exhibit F.

- VII. 1. Average injection rate will be $\approx 2,500$ bwpd.
Maximum injection rate will be $\approx 3,000$ bwpd.
2. System will be closed. The well will be tied into the existing unit pipeline system. It consists of a branched injection system with centrifugal injection pumps.
3. Average injection pressure will be ≈ 1100 psi. Maximum injection pressure will be 1120 psi (see item (13) of Order R-12981).
4. Water source will be water pumped from two existing $\approx 4,000'$ deep San Andres water supply wells, plus produced water from Blinebry, Tubb, and Drinkard zones. The source water and produced water are collected in separate skim tanks. The two water streams (source and produced) are commingled in a tank before being piped to the injection wells. A comparison of nearby analyses and San Andres follows. No compatibility problems have reported from the 45,879,789 barrels that have been injected in the unit to date.

APACHE CORPORATION
 WEST BLINEBRY DRINKARD UNIT 221
 SHL: 2300' FSL & 500' FEL
 BHL: 1980' FSL & 660' FEL
 SEC. 17, T. 21 S., R. 37 E., LEA COUNTY, NM

PAGE 5

30-025-42496

	<u>NEDU Injection Pump Discharge</u>	<u>San Andres 919-S</u>
Anion/Cation Ratio	1.0	N/A
Barium	0.1 mg/l	0.38 mg/l
Bicarbonate	671.0 mg/l	562.0 mg/l
Calcium	1,099.0 mg/l	608.0 mg/l
Carbon Dioxide	80.0 ppm	80.0 ppm
Chloride	10,086.0 mg/l	6,200.0 mg/l
Hydrogen Sulfide	90.0 ppm	408.0 ppm
Iron	0.3 mg/l	0.0 mg/l
Magnesium	439.0 mg/l	244.0 mg/l
Manganese	N/A	0.01 mg/l
pH	7.5	6.49
Potassium	115.0 mg/l	N/A
Sodium	5,799.5 mg/l	3,909.0 mg/l
Strontium	28.0 mg/l	19.0 mg/l
Sulfate	2,465.0 mg/l	1,750.0 mg/l
Total Dissolved Solids	20,702.9 mg/l	13,273.0 mg/l

5. There are 124 active or new oil wells in the Unit. It is the goal of the project to increase production.

VIII. The Unit is on the north end of a north-northwest to south-southeast trending anticline. It is part of the Penrose Skelly trend and parallels the west edge of the Central Basin Platform. Dips are 1° to 2°. The injection interval is Leonardian in age, 250' thick, and consists of tan to dark gray shallow marine carbonates, many of which have been dolomitized. Core filling and replacement anhydrite are common in the limestone. Nodular anhydrite is common in the dolomite. Five per cent porosity cut off is used to determine pay zones. Impermeable shale and carbonates vertically confine the interval.

There are currently 154 Drinkard active or new injection wells in the state. The West Blinebry Drinkard Unit shares its east border with Apache's Northeast Drinkard Unit. Three other similar water floods (East Blinebry Drinkard Units, Central Drinkard Unit, and Warren Blinebry Unit) are within a mile of the West

APACHE CORPORATION
WEST BLINEBRY DRINKARD UNIT 221
SHL: 2300' FSL & 500' FEL
BHL: 1980' FSL & 660' FEL
SEC. 17, T. 21 S., R. 37 E., LEA COUNTY, NM

PAGE 6

30-025-42496

Blinebry Drinkard Unit. The Central Drinkard Unit has been under water flood since the 1960s.

Estimated formation depths are:

	MD	TVD
Quaternary	0	0
Rustler	1244	1244
Tansill	2486	2486
Yates	2614	2614
Seven Rivers	2883	2883
Queen	3413	3411
Grayburg	3694	3691
San Andres	3897	3893
Glorieta	5168	5159
Paddock	5238	5229
Blinebry	5682	5671
Tubb	6175	6162
Drinkard	6487	6473
Drinkard top perf	6487	6473
Drinkard bottom perf	6700	6685
Abo	6738	6723
TD	6875	6860

According to Office of the State Engineer records (Exhibit G), three fresh water wells are within a mile radius, two of which (CP 01026 POD and CP 00447 POD-1) were sampled (Exhibit G). The Ogallala is >3 miles northeast.

No existing underground drinking water sources are below the injection interval within a mile radius.

There will be >5,000' of vertical separation and hundreds of feet of salt and anhydrite between the bottom of the only likely underground fresh water source and the top of the injection interval.

Produced water is or will be injected (201 wells) or disposed (8 wells) into the Blinebry-Tubb-Drinkard, San Andres, Grayburg, Queen, Seven Rivers, and Yates within T. 21 S., R. 37 E.

IX. The well will be stimulated with acid to clean out scale or fill.

APACHE CORPORATION
WEST BLINEBRY DRINKARD UNIT 221
SHL: 2300' FSL & 500' FEL
BHL: 1980' FSL & 660' FEL
SEC. 17, T. 21 S., R. 37 E., LEA COUNTY, NM

PAGE 7

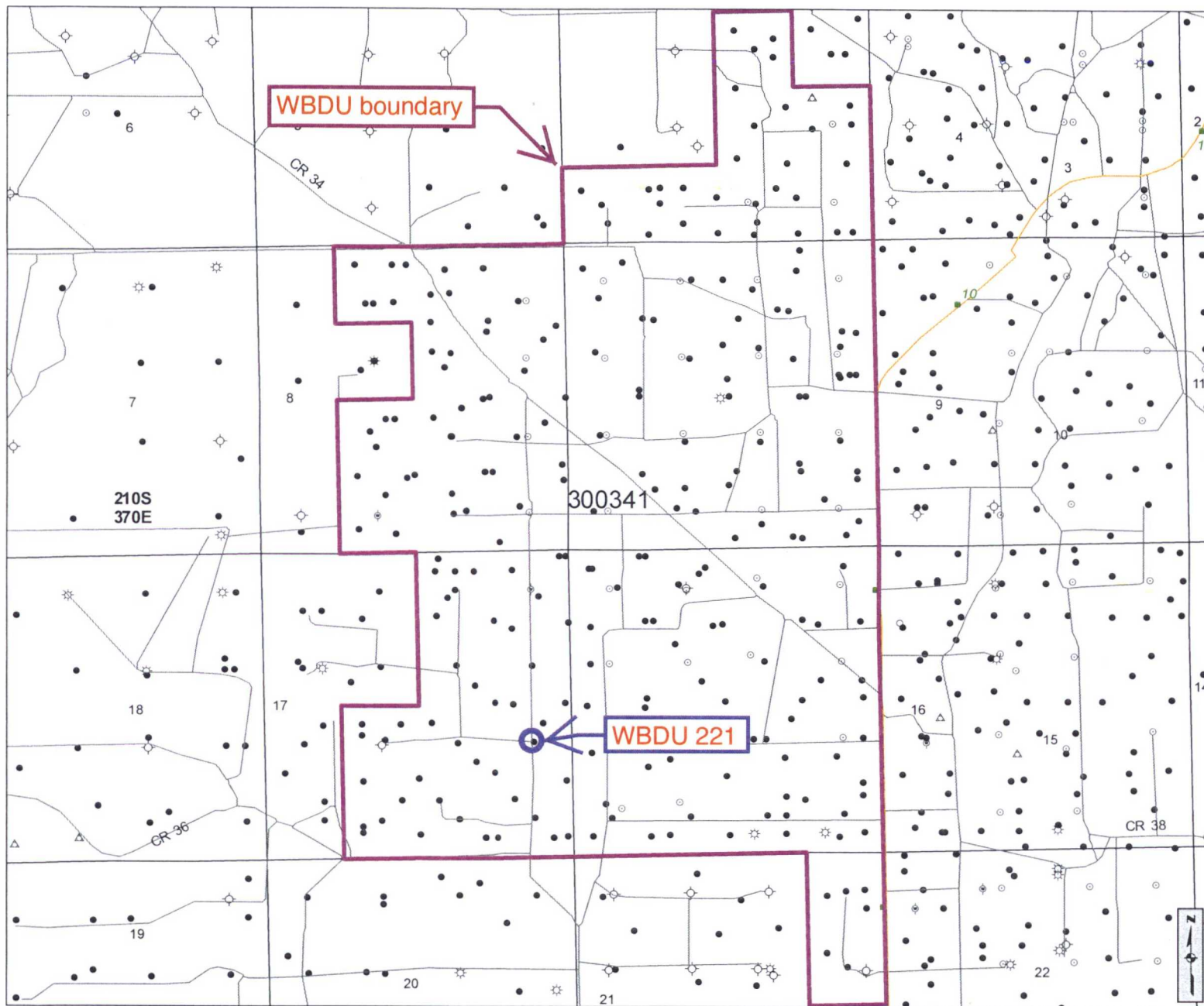
30-025-42496

X. GR/CNL, resistivity, density, and CBL logs are planned.

XI. Three fresh water wells are within a mile. Analyses from two of the three are in Exhibit G.

XII. Apache is not aware of any geologic or engineering data that may indicate the injection interval is in hydrologic connection with any underground sources of water. Closest Quaternary faults are ≈ 109 miles southwest (Exhibit H). There are 154 active or new Drinkard injection wells in New Mexico. Previously approved water flood expansions (WFX-) in the Unit include 854, 857, 913, 921, 922, 923, 924, 948, 952, 954, 955, 958, 959, 960, 962, and 964.

XIII. A legal ad (see Exhibit I) was published on May 5, 2017. Notice (this application) has been sent (Exhibit J) to the surface owner (Chevron USA Inc.), lessor (BLM), offset Drinkard operators (Chevron, Stephens & Johnson, and Upland), lessees (Chevron, Occidental Permian, Stephens & Johnson, and Upland), and operating rights holders (Chevron USA, ConocoPhillips Co., and Six Aeches Co.).



Cartographic Features

- County Boundaries
- County Seats
- City, Town or Village
- SLO District Offices
- SLO District Boundary
- Hwy Mileposts
- Interstate
- US Hwy
- NM Hwy
- Local Road
- Continental Divide

Federal Minerals Ownership

- All Minerals
- Coal Only
- Oil and Gas Only
- Oil, Gas and Coal Only
- Other Minerals

State Trust Lands

- Surface Estate
- Subsurface Estate
- Surface and Subsurface Estate

State Leases

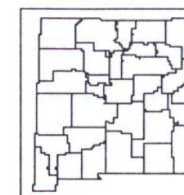
- Oil and Gas Leases
- Agricultural Leases
- Commercial Leases
- Minerals Leases
- Not Available for Oil and Gas Leasing
- Oil and Gas Leasing Influenced by Restriction

Oil and Gas Related Features

- Oil and Gas Unit Boundary
- Participating Areas in Units
- Geologic Regions
- Volcanic Vents
- NMOC D Order R-111-P
- Potash Enclave Outline

NMOC D Oil and Gas Wells

- CO₂
- Gas
- Injection
- Miscellaneous
- Oil
- Salt Water Disposal
- Water
- DA or PA



www.nmstatelands.org

New Mexico State Land Office Oil, Gas and Minerals

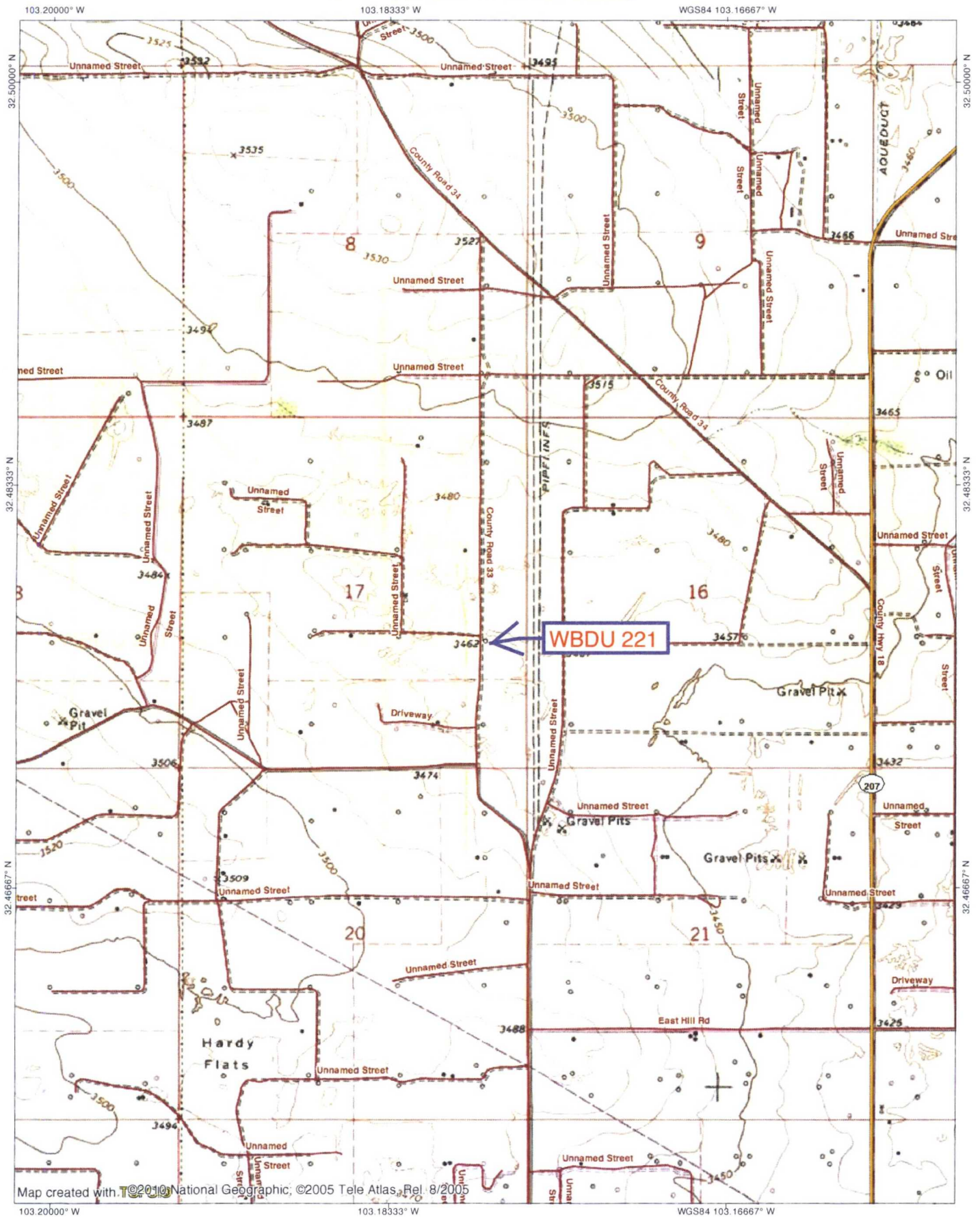
0 0.1 0.2 0.4 0.6 0.8
Miles
Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

The New Mexico State Land Office assumes no responsibility or liability for, or in connection with, the accuracy, reliability or use of the information provided here, in State Land Office data layers or any other data layer.

Land Office Geographic Information Center
logic@sls.state.nm.us

Created On: 5/19/2017 9:07:32 AM

EXHIBIT A



DISTRICT I
1625 N French Dr Hobbs NM 88240
Phone (575) 393-6161 Fax (575) 393-0720

DISTRICT II
811 S First St Artesia NM 88210
Phone (575) 748-1283 Fax (575) 748 9720

DISTRICT III
1000 Rto Brazos Road, Aztec NM 87410
Phone (505) 334-6178 Fax (505) 334-6170

DISTRICT IV
1220 S St Francis Dr Santa Fe NM 87505
Phone (505) 476-3460 Fax (505) 476 3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-42496	Pool Code 22900	Pool Name EUNICE, BLI-TU-DR, NORTH
Property Code 37346	Property Name WEST BLINEBRY DRINKARD UNIT	
OGRID No 873	Operator Name APACHE CORPORATION	
		Well Number 221W
		Elevation 3464'

Surface Location

UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	17	21-S	37-E		2300	SOUTH	500	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	17	21-S	37-E		1980	SOUTH	660	EAST	LEA

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No
------------------------------	-----------------	--------------------	----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=539490 2 N X=856365 8 E LAT =32 477865 N LONG =103 177746 W LAT =32 28' 40 31" N LONG =103° 10 39 89" W</p>	<p>GEODETIC COORDINATES NAD 83 NME SURFACE LOCATION Y=539550 6 N X=897550 1 E LAT =32 477986 N LONG =103 178217 W LAT =32 28' 40 75" N LONG =103° 10 41 58" W</p>	<p>GEODETIC COORDINATES NAD 27 NME BOTTOM HOLE LOCATION Y=539168 7 N X=856208 8 E LAT =32 476986" N LONG =103 178267" W LAT =32° 28' 37 14" N LONG =103° 10 41 76" W</p>	<p>GEODETIC COORDINATES NAD 83 NME BOTTOM HOLE LOCATION Y=539229 0 N X=897393 0 E LAT =32 477107" N LONG =103 178737" W LAT =32° 28' 37 59" N LONG =103° 10 43 45" W</p>
--	--	---	---

CORNER COORDINATES TABLE
NAD 27 NME

A - Y=539823 4 N, X=855544 6 E
B - Y=539836 0 N X=856862 8 E
C - Y=538503 1 N X=855556 6 E
D - Y=538515 6 N X=856874 6 E

CORNER COORDINATES TABLE
NAD 83 NME

A - Y=539883 8 N X=896728 9 E
B - Y=539896 2 N X=898047 0 E
C - Y=538563 5 N X=896740 8 E
D - Y=538575 9 N, X=898058 8 E

OPERATOR CERTIFICATION	
I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.	
Signature <i>Sorina L Flores</i>	Date 3/2/2017
Printed Name SORINA L FLORES	
E-mail Address sorina.flores@apachecorp.com	
SURVEYOR CERTIFICATION	
I hereby certify that the well location shown on this plat was plotted from field notes of recent surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.	
Date of Survey 02/28/2017	
Signature & Seal of Professional Surveyor <i>Ronald J. Eidson</i>	
Certificate Number Gary G Eidson 12641	Ronald J. Eidson 3239
ACK REL W/O 13111281 JWSC W/O 17131052	

EXHIBIT A

SORTED BY DISTANCE FROM WBDU 221 BHL

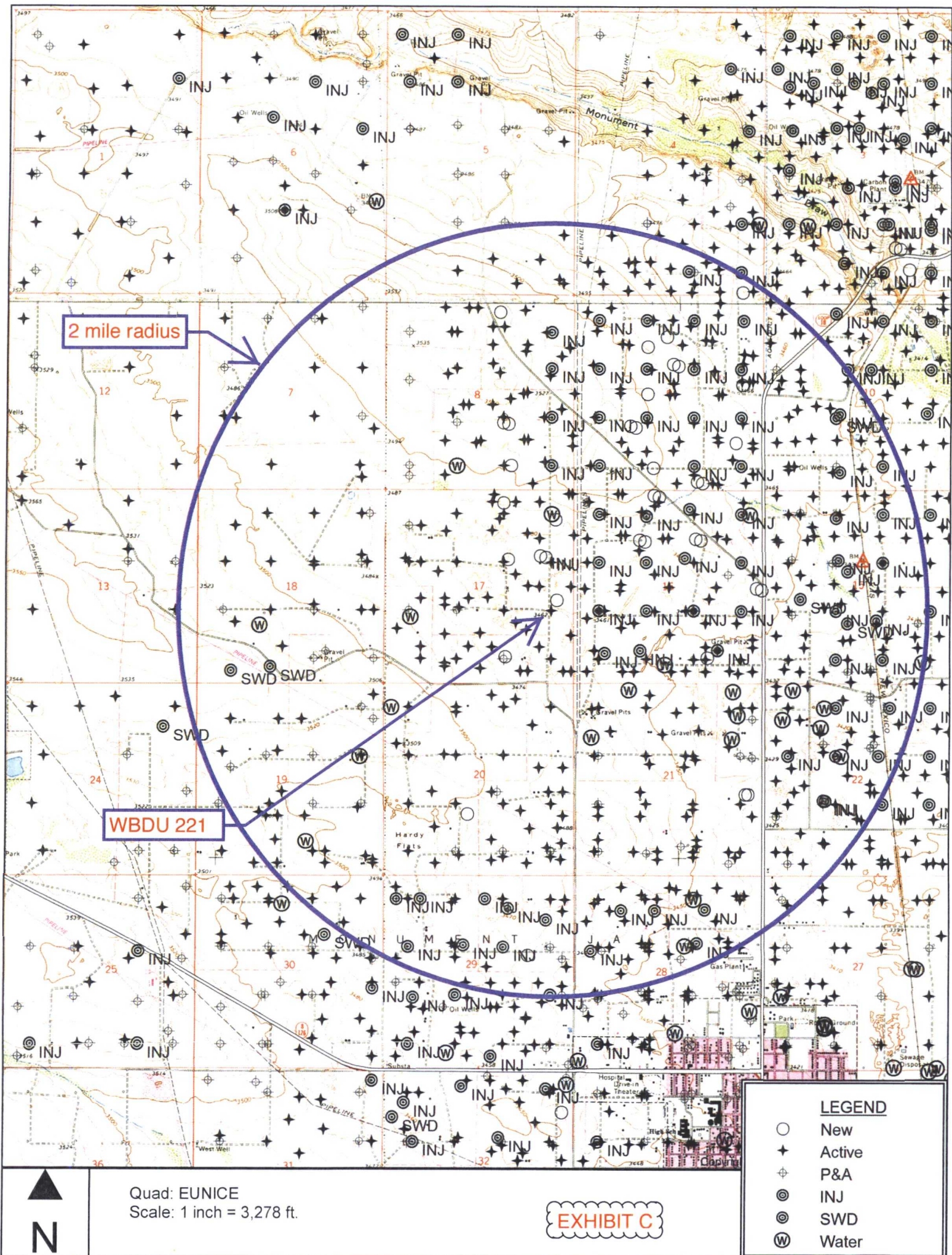
API	OPERATOR	WELL	TYPE	UNIT-SECTION	TVD	CURRENT ZONE	FEET FROM WBDU 221
3002506637	Apache	Lockhart A 17 002	O	I-17	6630	Penrose Skelly, Grayburg	21
3002536159	Apache	Lockhart A 17 007	O	I-17	4100	Penrose Skelly, Grayburg	713
3002538204	Apache	WBDU 069	O	I-17	6829	Eunice, Bli-Tu-Dr, N	838
3002539958	Apache	WBDU 126	O	P-17	6920	Eunice, Bli-Tu-Dr, N	859
3002539172	Apache	WBDU 123	O	J-17	7200	Eunice, Bli-Tu-Dr, N	876
3002538411	Apache	WBDU 068	O	H-17	6905	Eunice, Bli-Tu-Dr, N	962
3002537864	Apache	State DA 014	O	L-16	4375	Penrose Skelly, Grayburg	1007
3002536659	Apache	W W Weatherly 008	O	J-17	4215	Penrose Skelly, Grayburg	1034
3002523831	Apache	Percy Hardy 005	O	P-17	3849	Penrose Skelly, Grayburg	1048
3002536617	Apache	State DA 009	O	L-16	4350	Penrose Skelly, Grayburg	1114
3002506645	Apache	WBDU 072	O	J-17	6637	Eunice, Bli-Tu-Dr, N	1308
3002506638	Apache	WBDU 066	O	H-17	6645	Eunice, Bli-Tu-Dr, N	1312
3002506652	Apache	WBDU 085	O	P-17	6657	Eunice, Bli-Tu-Dr, N	1331
3002506615	Apache	WBDU 075	I	L-16	6650	Eunice, Bli-Tu-Dr, N	1345
3002536658	Apache	W W Weatherly 007	O	G-17	4234	Penrose Skelly, Grayburg	1386
3002534245	Apache	State DA 006	O	L-16	4000	Penrose Skelly, Grayburg	1496
3002543229	Apache	WBDU 145	I	H-17	6865	Eunice, Bli-Tu-Dr, N	1573
3002539606	Apache	State Land 15 019	O	M-16	4404	Penrose Skelly, Grayburg	1619
3002535709	Apache	State C Tract 12 011	O	E-16	4200	Penrose Skelly, Grayburg	1655
3002536056	Apache	Percy Hardy 010	O	P-17	4350	Penrose Skelly, Grayburg	1698

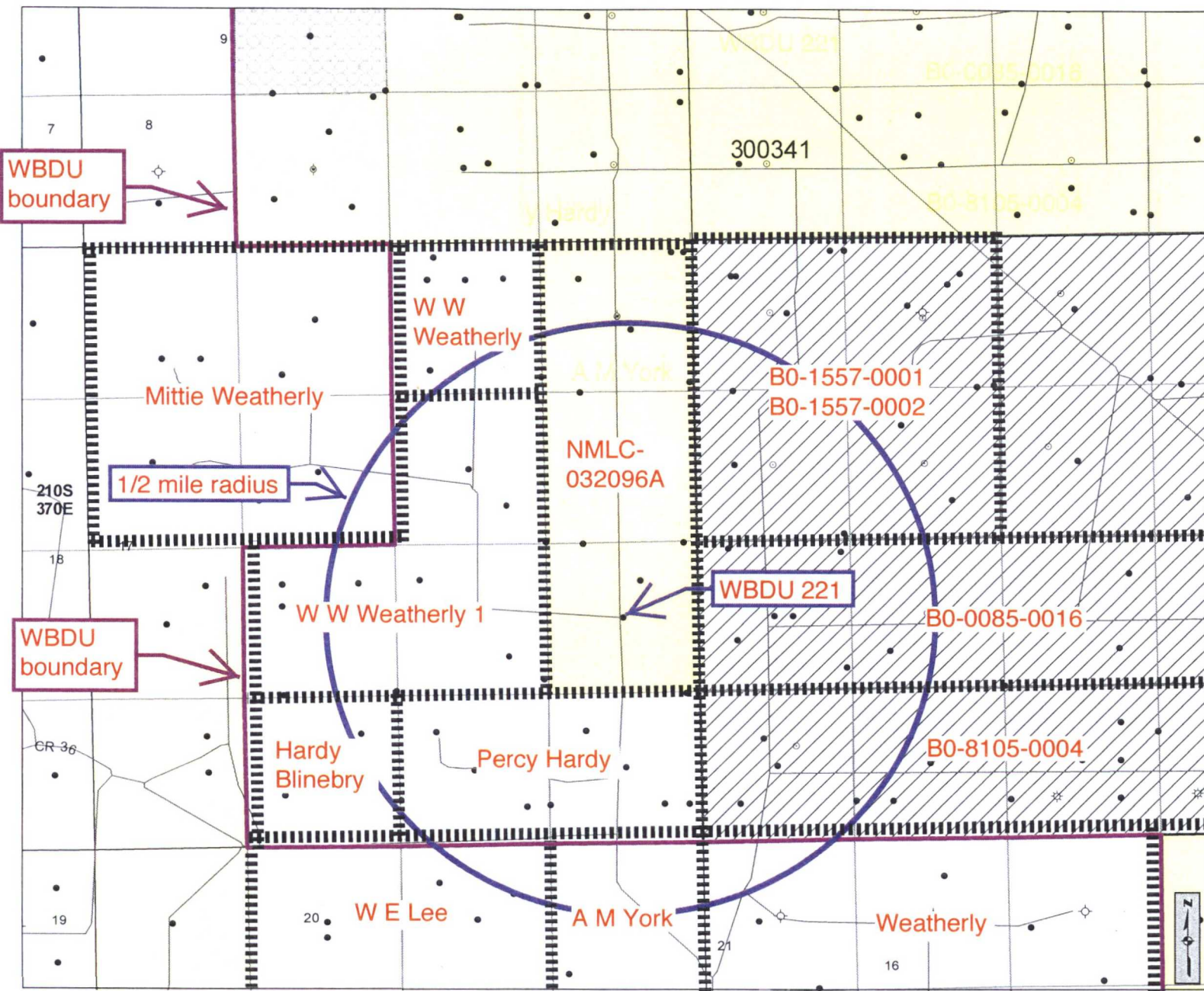
SORTED BY DISTANCE FROM WBDU 221 BHL

3002539280	Apache	WBDU 129	O	P-17	7120	Eunice, Bli-Tu-Dr, N	1741
3002539986	Apache	WBDU 121	O	P-17	6970	Eunice; Bli-Tu-Dr, N	1772
3002539709	Apache	WBDU 118	O	J-17	7200	Eunice; Bli-Tu-Dr, N	1825
3002543529	Apache	WBDU 180	I	O-17	6856	Eunice, Bli-Tu-Dr, N	1846
3002506646	Apache	WBDU 073	O	G-17	6677	Eunice, Bli-Tu-Dr, N	1855
3002536477	Apache	Percy Hardy 009	O	O-17	4350	Penrose Skelly, Grayburg	1862
3002506653	Apache	WBDU 086	P&A	O-17	6650	Eunice, Bli-Tu-Dr, N	1864
3002506625	Apache	WBDU 058	I	E-16	6740	Eunice, Bli-Tu-Dr, N	1876
3002541543	Apache	WBDU 152	I	M-16	6955	Eunice, Bli-Tu-Dr, N	1882
3002506630	Apache	State Land 15 001	O	M-16	6700	Penrose Skelly, Grayburg	1895
3002523795	Apache	Percy Hardy 004	O	O-17	3850	Penrose Skelly, Grayburg	1919
3002537364	Apache	State Land 15 007	O	M-16	4402	Penrose Skelly, Grayburg	1926
3002538220	Apache	WBDU 080	O	L-16	6875	Eunice, Bli-Tu-Dr, N	1976
3002536101	Apache	Lockhart A 17 006	O	H-17	4150	Penrose Skelly, Grayburg	1987
3002538414	Apache	WBDU 083	O	L-16	6850	Eunice, Bli-Tu-Dr, N	1998
3002543530	Apache	WBDU 182	I	G-17	6925	Eunice, Bli-Tu-Dr, N	2007
3002536614	Apache	State C Tract 12 018	O	E-16	4350	Penrose Skelly, Grayburg	2078
3002539279	Apache	WBDU 119	O	K-17	6900	Eunice, Bli-Tu-Dr, N	2098
3002538206	Apache	WBDU 071	O	A-17	6905	Eunice, Bli-Tu-Dr, N	2170
3002536115	Apache	State C Tract 12 012	O	E-16	4125	Penrose Skelly, Grayburg	2205
3002539987	Apache	WBDU 125	O	B-17	6951	Eunice, Bli-Tu-Dr, N	2244

SORTED BY DISTANCE FROM WBDU 221 BHL

3002524178	Apache	W W Weatherly 006	O	K-17	3840	Penrose Skelly, Grayburg	2294
3002536787	Apache	State DA 011	O	K-16	4350	Penrose Skelly, Grayburg	2365
3002523858	Apache	HARDY 002	O	N-17	3887	Penrose Skelly, Grayburg	2480
3002539710	Apache	WBDU 120	O	O-17	7219	Eunice, Bli-Tu-Dr, N	2529
3002506647	Apache	WBDU 074	O	K-17	6646	Eunice, Bli-Tu-Dr, N	2531
3002542495	Apache	WBDU 130	I	A-17	6950	Eunice, Bli-Tu-Dr, N	2546
3002537537	Apache	WBDU 094	O	N-16	7290	Eunice, Bli-Tu-Dr, N	2590
3002506644	Sun	W W Weatherly 001	P&A	K-17	3815	Penrose Skelly, Grayburg	2603
3002511520	Upland	W E LEE 002	O	B-20	6658	Tubb (Oil)	2618
3002506639	Apache	WBDU 067	W	A-17	6770	WSW, San Andres	2632
3002509924	Chevron	A M York 002	O	A-20	6637	Blinebry (Oil)	2651





Cartographic Features

- County Boundaries
- County Seats
- City, Town or Village
- SLO District Offices
- SLO District Boundary
- Hwy Mileposts
- Interstate
- US Hwy
- NM Hwy
- Local Road
- Continental Divide

Federal Minerals Ownership

- All Minerals
- Coal Only
- Oil and Gas Only
- Oil, Gas and Coal Only
- Other Minerals

State Trust Lands

- Surface Estate
- Subsurface Estate
- Surface and Subsurface Estate

State Leases

- Oil and Gas Leases
- Agricultural Leases
- Commercial Leases
- Minerals Leases
- Not Available for Oil and Gas Leasing
- Oil and Gas Leasing Influenced by Restriction

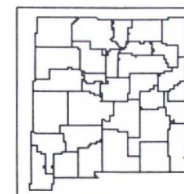
Oil and Gas Related Features

- Oil and Gas Unit Boundary
- Participating Areas in Units
- Geologic Regions

- Volcanic Vents
- NMOC D Order R-111-P
- Potash Enclave Outline

NMOC D Oil and Gas Wells

- CO₂
- Gas
- Injection
- Miscellaneous
- Oil
- Salt Water Disposal
- Water
- DA or PA



www.nmstatelands.org

New Mexico State Land Office Oil, Gas and Minerals

00.03 0.07 0.14 0.21 0.28
Miles

Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

The New Mexico State Land Office assumes no responsibility or liability for, or in connection with, the accuracy, reliability or use of the information provided here, in State Land Office data layers or any other data layer.

Land Office Geographic Information Center
logic@slo.state.nm.us

Created On: 5/19/2017 11:41:22 AM

EXHIBIT D

Sorted by distance from WBDU 221 BHL

WELL	SPUD	TD	CURRENT POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET	CEMENT	TOC	HOW DETERMINED
Lockhart A 17 002	3/26/47	6630	Penrose Skelly, Grayburg	O	17 5	13 375	195	200 sx	GL	Circ
30-025-06637					12 24	9 625	2538	450 sx	1364	Temp Survey
I-17-21S-37E					7 875	5 5	6629	500 sx	3510	Temp Survey
WBDU 069	2/22/07	6829	Eunice, Bli-Tu-Dr, N	O	12 25	8 625	1303	600 sx	GL	Circ
30-025-38204					7 875	5 5	6875	1075 sx	440	CBL
I-17-21S-37E										
WBDU 126	1/11/11	6920	Eunice, Bli-Tu-Dr, N	O	12 25	8 625	1283	665 sx	GL	Circ 222 sx
30-025-39958					7 875	5 5	6920	1340 sx	GL	Circ 130 sx
P-17-21S-37E										
WBDU 123	5/21/10	7200	Eunice, Bli-Tu-Dr, N	O	12 25	8 625	1248	650 sx	GL	Circ
30-025-39172					7 875	5 5	7200	1150 sx	330	CBL
J-17-21S-37E										

Sorted by distance from WBDU 221 BHL

WBDU 068	7/14/07	6905	Eunice, Bli-Tu-Dr, N	O	12 25	8 625	1295	650 sx	GL	Circ
30-025-38411					7 875	5 5	6905	1350 sx	2660	CBL
H-17-21S-37E										
WBDU 072	7/25/47	6637	Eunice, Bli-Tu-Dr, N	O	13 375	10 75	337	300 sx	GL	Circ
30-025-06645					9 875	7 625	2844	1600 sx	GL	Circ
J-17-21S-37E					6 75	5 5	6639	550 sx	3000	Temp Survey
WBDU 066	7/7/47	6645	Eunice, Bli-Tu-Dr, N	P&A	17 5	13 375	222	200 sx	GL	Circ
30-025-06638					12	9 625	2529	500 sx	1513	Temp Survey
H-17-21S-37E					8 75	7	6629	500 sx	3740	CBL
WBDU 085	4/24/47	6657	Eunice, Bli-Tu-Dr, N	O	15 5	13 375	297	300 sx	GL	circ
30-025-06652					11	8 625	2814	1200 sx	No report	No report
P-17-21S-37E					7 875	5 5	6641	500 sx	No report	No report

Sorted by distance from WBDU 221 BHL

WBDU 075	3/24/47	6650	Eunice, Bli-Tu-Dr, N	O	17 25	13 375	216	200 sx	GL	Circ
30-025-06615					11	8 625	2812	1200 sx	1300	Temp Survey
L-16-21S-37E					7 375	5 5	6686	400 sx	3525	Temp Survey
WBDU 145	2/17/17	6865	Eunice, Bli-Tu-Dr, N	I	11	8 625	1368	575 sx	GL	Circ 182 sx
30-025-43229					7 875	5 5	6865	1350 sx	86	CBL
H-17-21S-37E										
WBDU 129	4/28/10	7120	Eunice, Bli-Tu-Dr, N	O	12 25	8 625	1286	650 sx	GL	Circ to GL
30-025-39280					7 875	5 5	7120	1150 sx	GL	Circ to GL
P-17-21S-37E										
WBDU 121	1/1/11	6970	Eunice, Bli-Tu-Dr, N	O	12 25	8 625	1300	665 sx	GL	Circ 95 sx
30-025-39986					7 875	5 5	6970	1370 sx	125	CBL
P-17-21S-37E										

Sorted by distance from WBDU 221 BHL

WBDU 118	5/4/10	7200	Eunice, Bli-Tu-Dr, N	O	12 25	8 625	1215	650 sx	GL	Circ to GL
30-025-39709					7 875	5 5	7208	1400 sx	350	no report
J-17-21S-37E										
WBDU 180	4/7/17	6856	Eunice, Bli-Tu-Dr, N	I	11	8 625	1288	575 sx	GL	no report
30-025-43529					8 875	5 5	6856	1870 sx	4426	no report
O-17-21S-37E										
WBDU 073	5/19/87	6677	Eunice, Bli-Tu-Dr, N	O	13 75	10 75	363	300 sx	GL	No report
30-025-06646					9 625	7 625	2873	2000 sx	GL	No report
G-17-21S-37E					6 75	5 5	6655	550 sx	2500	Temp Survey
WBDU 086	3/17/48	6650	Eunice, Bli-Tu-Dr, N	P&A	17 25	13 375	280	325 sx	GL	No report
30-025-06653					11	8 625	2776	1200 sx	No report	No report
O-17-21S-37E					7 875	5 5	6650	500 sx	No report	No report

Sorted by distance from WBDU 221 BHL

WBDU 058	7/5/72	6660	Eunice, Bli-Tu-Dr, N	I	17 5	13 375	326	300 sx	GL	Circ
30-025-06625					12	9 625	2902	1500 sx	1560	Temp Survey
E-16-21S-37E					8 75	7	6660	270 sx	1900.	Temp Survey
WBDU 152	10/25/14	6955	Eunice, Bli-Tu-Dr, N	I	11	8 625	1247	575 sx	GL	Circ 166 sx
30-025-41543					7 875	5 5	6955	1380 sx	GL	Circ 193 sx
M-16-21S-37E										
State Land 15 001	1/17/47	6700	Penrose Skelly, Grayburg	O	17	13 375	334	300 sx	No report	No report
30-025-06630					12	9 625	2849	2100 sx	No report	No report
M-16-21S-37E					8 75	7	6699	500 sx	4850	Temp Survey
WBDU 080	1/19/07	6875	Eunice, Bli-Tu-Dr, N	O	12 25	8 625	1227	575 sx	GL	Circ
30-025-38220					7 875	5 5	6875	1425 sx	225	CBL
L-16-21S-37E										

Sorted by distance from WBDU 221 BHL

WBDU 083	6/23/07	6850	Eunice, Bli-Tu-Dr, N	O	12 25	8 625	1273	575 sx	GL	Circ
30-025-38414					7 875	5 5	6850	1300 sx	186	CBL
L-16-21S-37E										
WBDU 182	4/16/17	6925	Eunice, Bli-Tu-Dr, N	I	11	8 625	1296	575 sx	14	no report
30-025-43530					7 875	5 5	6925	1350	14	no report
G-17-21S-37E										
WBDU 119	9/22/09	6900	Eunice, Bli-Tu-Dr, N	O	12 25	8 625	1265	650 sx	GL	Circ to GL
30-025-39279					7 875	5 5	6900	1350 sx	GL	Circ to GL
K-17-21S-37E										
WBDU 071	3/17/07	6905	Eunice, Bli-Tu-Dr, N	O	12 25	8 625	1300	575 sx	GL	Circ
30-025-38206					7 875	5 5	6905	1150 sx	240	CBL
A-17-21S-37E										

Sorted by distance from WBDU 221 BHL

WBDU 125	1/22/11	6951	Eunice, Bli-Tu-Dr, North	O	12 25	8 625	1317	665 sx	GL	Circ 222 sx
3002539987					7 875	5 5	6951	1300 sx	GL	Circ 137 sx
B-17-21S-37E										
WBDU 120	4/19/10	7219	Eunice, Bli-Tu-Dr, N	O	12 25	8 625	1292	650 sx	GL	Circ to GL
30-025-39710					7 875	5 5	7219	1150 sx	GL	Circ to GL
O-17-21S-37E										
WBDU 074	9/5/48	6646	Eunice, Bli-Tu-Dr, N	O	17	13 325	348	300 sx	GL	Circ
30-025-06647					12 25	9 625	2841	1600 sx	GL	Circ
K-17-21S-37E					8 75	5 5	6646	600sx	3800	No report
WBDU 130	2/5/17	6950	Eunice, Bli-Tu-Dr, N	I	12 25	8 625	1392	575 sx	GL	Circ 170 sx
30-025-42495					7 875	5 5	6940	1350 sx	203	CBL
A-17-21S-37E										

Sorted by distance from WBDU 221 BHL

WBDU 094	5/25/06	7290	Eunice, Bli-Tu-Dr, N	O	12 25	8 625	1207	500 sx	GL	Circ 29 sx
30-025-37537					7 875	5 5	7290	1050 sx	280	CBL
N-16-21S-37E										
W E Lee 002	12/29/47	6658	Tubb (Oil)	O	16	12 5	190	250 sx	No report	No report
30-025-11520					11	8 625	2634	850 sx	No report	No report
B-20-21S-37E					7 75	5 5	6577	625 sx	No report	No report
WBDU 067	12/31/49	6770	WSW, San Andres	W	16	13 375	228	250 sx	GL	Circ
30-025-06639					12 5	9 625	2819	900 sx	675	Temp Survey
A-17-21S-37E					8 75	7	6767	650 sx	2830	CBL
A M York 002	2/3/88	6637	Blinebry (Oil)	O	17 5	13 375	306	300 sx	GL	Circ
30-025-09924					12 25	9 625	2795	1000 sx	592	Temp Survey
A-20-21S-37E					8 75	7	6636	500 sx	3172	Temp Survey



WELL BORE INFO.

LEASE NAME	WBDU
WELL #	66
API #	30-025-06638
COUNTY	Lea, NM

spud 7-7-47
P&A 8-30-16

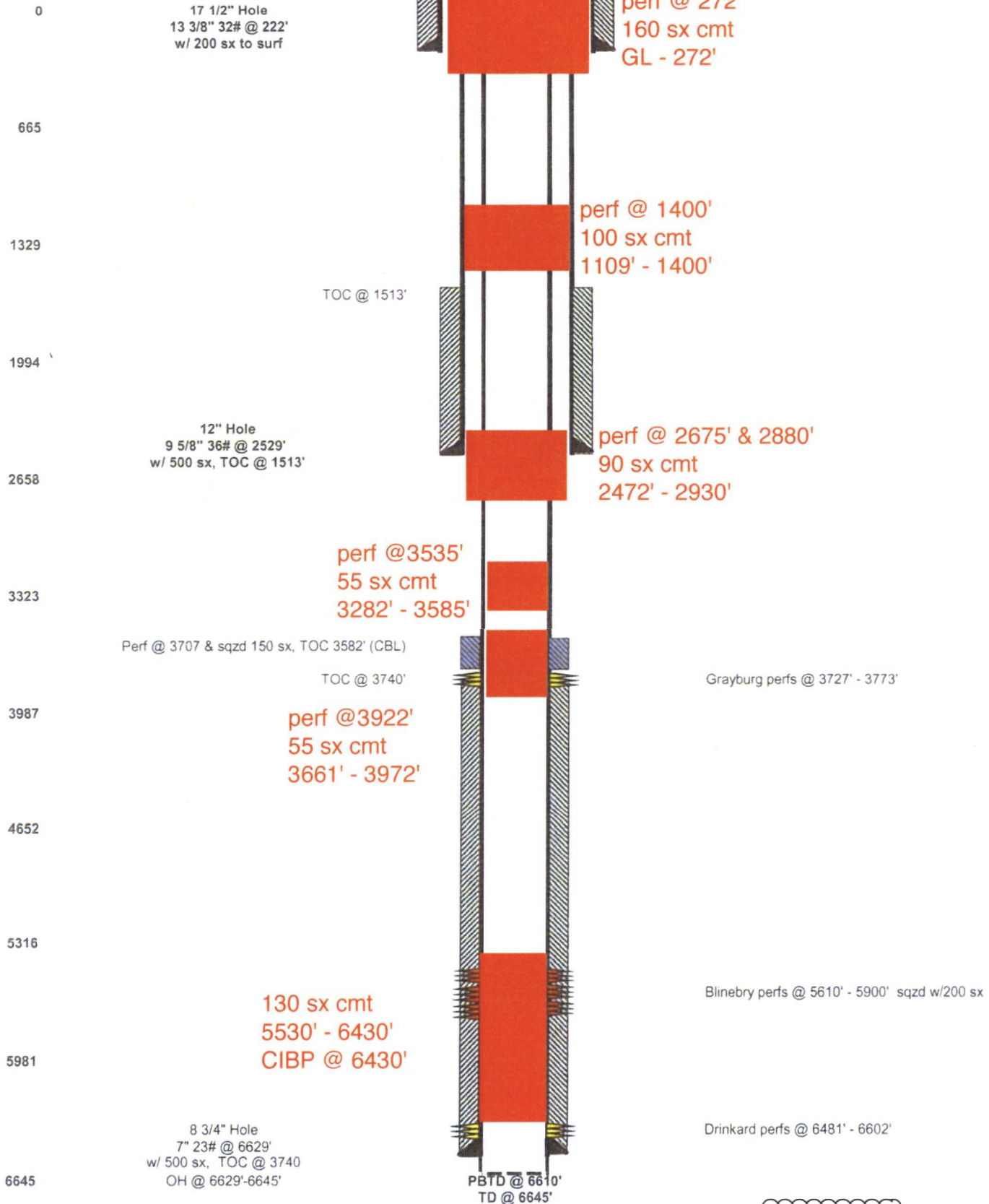
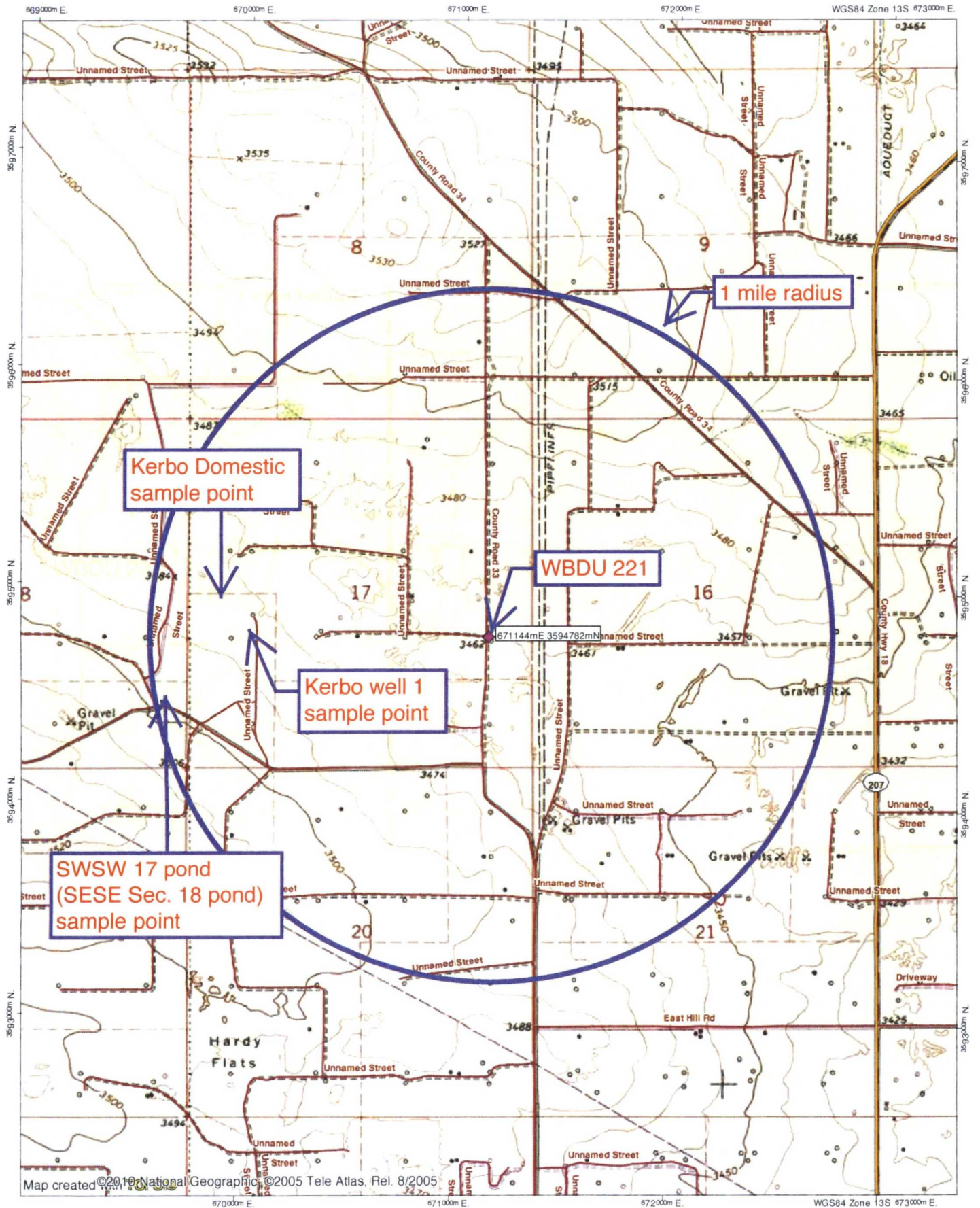


EXHIBIT F





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	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 01026 POD1		LE		1	1	3	17	21S	37E	669809	3594958	1346	167	95	72
CP 00895		LE		1	1	20	21S	37E	669957	3593956*	1446	163			
CP 00447 POD1	CP	LE		2	4	4	18	21S	37E	669647	3594451*	1533	95		
CP 00448 POD1	CP	LE		2	4	4	18	21S	37E	669647	3594451*	1533	100		
CP 00676		LE		4	4	18	21S	37E	669548	3594352*	1652	140	106	34	
CP 00554		LE		2	2	16	21S	37E	672744	3595610*	1801	80	70	10	
CP 00985 POD1		LE		4	4	2	19	21S	37E	669595	3593453	2040	160		
CP 00729 POD1	CP	LE		4	1	3	15	21S	37E	673259	3594711*	2116	8015		
CC 01999 POD1		CU		3	3	2	29	03N	36E	670385	3592502	2402	415	372	43
CP 01141 POD3	CP	LE					15	21S	37E	673520	3594272	2429	40		
CP 01141 POD2	CP	LE					15	21S	37E	673543	3594250	2457	40		
CP 01575 POD1	CP	LE		1	2	1	22	21S	37E	673544	3594204	2468	40	35	5
CP 01141 POD4	CP	LE					15	21S	37E	673556	3594239	2472	45		
CP 01245 POD1	CP	LE				4	18	21S	37E	668676	3594411	2496	220		
CP 01575 POD2	CP	LE		2	2	1	22	21S	37E	673615	3594181	2543	35	35	0
CP 00731 POD1	CP	LE		2	1	22	21S	37E	673577	3594015*	2551	8130			
CP 00732 POD1	CP	LE		4	1	22	21S	37E	673584	3593613*	2705	6633			
CP 00733 POD1	CP	LE		3	3	22	21S	37E	673196	3592801*	2852	7864			
CP 00711		LE		4	2	2	28	21S	37E	672900	3592291*	3047	100	65	35

Average Depth to Water 111 feet

Minimum Depth 35 feet

Maximum Depth 372 feet

Record Count: 19

UTMNAD83 Radius Search (in meters):

Easting (X): 671144

Northing (Y): 3594782

Radius: 3220

*UTM location was derived from PLSS - see Help

EXHIBIT G

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1611379

Date Reported 11/17/2016

CLIENT: Permits West

Client Sample ID: SWSW 17 Pond

Project: Apache WBDU 130,185,188,192,200

Collection Date: 11/3/2016 8 12 00 AM

Lab ID: 1611379-002

Matrix: AQUEOUS

Received Date: 11/8/2016 12 03 00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0 ANIONS						Analyst - LGT
Chloride	150	10		mg/L	20	11/8/2016 11 35 31 PM
EPA METHOD 1664A						Analyst tnc
N-Hexane Extractable Material	ND	10.3		mg/L	1	11/10/2016 12 00 00 PM
SM2540C MOD TOTAL DISSOLVED SOLIDS						Analyst SRM
Total Dissolved Solids	720	20.0	*	mg/L	1	11/11/2016 10 40 00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information

Qualifiers	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

EXHIBIT G

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1611379

Date Reported 11/17/2016

CLIENT: Permits West

Client Sample ID: Kerbo Domestic

Project: Apache WBDU 130,185,188,192,200

Collection Date: 11/3/2016 10 21 00 AM

Lab ID: 1611379-003

Matrix: AQUEOUS

Received Date: 11/8/2016 12 03 00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0 ANIONS						Analyst LGT
Chloride	70	10		mg/L	20	11/9/2016 12 00 21 AM
EPA METHOD 1664A						Analyst tnc
N-Hexane Extractable Material	ND	10.3		mg/L	1	11/10/2016 12 00 00 PM
SM2540C MOD TOTAL DISSOLVED SOLIDS						Analyst SRM
Total Dissolved Solids	512	20.0	*	mg/L	1	11/11/2016 10 40 00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information

Qualifiers.	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

EXHIBIT G

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1611379

Date Reported 11/17/2016

CLIENT: Permits West

Client Sample ID: Kerbo Well #1

Project: Apache WBDU 130,185,188,192,200

Collection Date: 11/3/2016 10 36 00 AM

Lab ID: 1611379-004

Matrix: AQUEOUS

Received Date: 11/8/2016 12 03 00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0- ANIONS						Analyst LGT
Chloride	47	10		mg/L	20	11/9/2016 12 25 10 AM
EPA METHOD 1664A						Analyst tnc
N-Hexane Extractable Material	ND	10.8		mg/L	1	11/10/2016 12 00 00 PM
SM2540C MOD TOTAL DISSOLVED SOLIDS						Analyst SRM
Total Dissolved Solids	472	20.0		mg/L	1	11/11/2016 10 40 00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information

Qualifiers	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range	J Analyte detected below quantitation limit
H Holding times for preparation or analysis exceeded	P Sample pH Not In Range	RL Reporting Detection Limit
ND Not Detected at the Reporting Limit	W Sample container temperature is out of limit as specified	
R RPD outside accepted recovery limits		
S % Recovery outside of range due to dilution or matrix		

EXHIBIT G

Ogallala boundary



WBDU 221



18

EXHIBIT G

Google earth

Survey

6388 ft

© 2013 Google

Imagery Date: 11/14/2011 lat 32.491976° lon -103.151997° elev 3459 ft eye alt 31166 ft

From: Oldani, Martin Martin.Oldani@apachecorp.com
Subject: FW: shallow faulting in the vicinity of WBDU
Date: January 11, 2016 at 4:27 PM
To: brian@permitswest.com
Cc: Shapot, Bret Bret.Shapot@apachecorp.com



Brian,

As per Mark's comments below, our G&G staff has taken a look at the potential issue of shallow faulting in the WBDU area and have concluded there is none present across the area and no danger of shallow faulting as a conduit to groundwater contamination

Regards,

MARTIN J. OLDANI
PERMIAN REGION EXPLORATION & EXPLOITATION MANAGER
Apache main (432) 818 1000 | fax (432) 818 1982
office 6100A | direct (432) 818 1030 | mobile (432) 234-1925
martin.oldani@apachecorp.com

APACHE CORPORATION - PERMIAN REGION
303 Veterans Airway Park
Midland, TX 79705

From: Pasley, Mark
Sent: Monday, January 11, 2016 4:48 PM
To: Oldani, Martin <Martin.Oldani@apachecorp.com>
Cc: O'Shay, Justin <Justin.O'Shay@apachecorp.com>, Riley, Brent <Brent.Riley@apachecorp.com>, Shapot, Bret <Bret.Shapot@apachecorp.com>, Piggott, Fiona <fiona.piggott@apachecorp.com>
Subject: shallow faulting in the vicinity of WBDU

Martin

In reference to the meeting this morning where we discussed the possibility of shallow faulting in the WBDU area and its potential impact on the permitting of the injection well(s) into the Drinkard, I submit to you the attached slide set from me and Justin. You will see that we have done several extractions on the seismic data and there is no indication of faulting above the Glorieta which is well above the Drinkard and below the younger evaporites. Also, as we suspected, there are no surface faults mapped in the area – the nearest being more than 50 miles away.

Please contact me or Justin if you have further questions.

Sincerely,

DR. MARK PASLEY
GEOLOGICAL ADVISOR
direct +1 432 818 1835 | mobile +1 832 943 9040 | office 6112A

APACHE PERMIAN

303 Veterans Airpark Lane
Midland, TX 79705 USA

ApacheCorp.com | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [StockTwits](#) | [YouTube](#)





Geologic Hazards Science Center

EHP Quaternary Faults

Search for fault:

Select a state or region map:

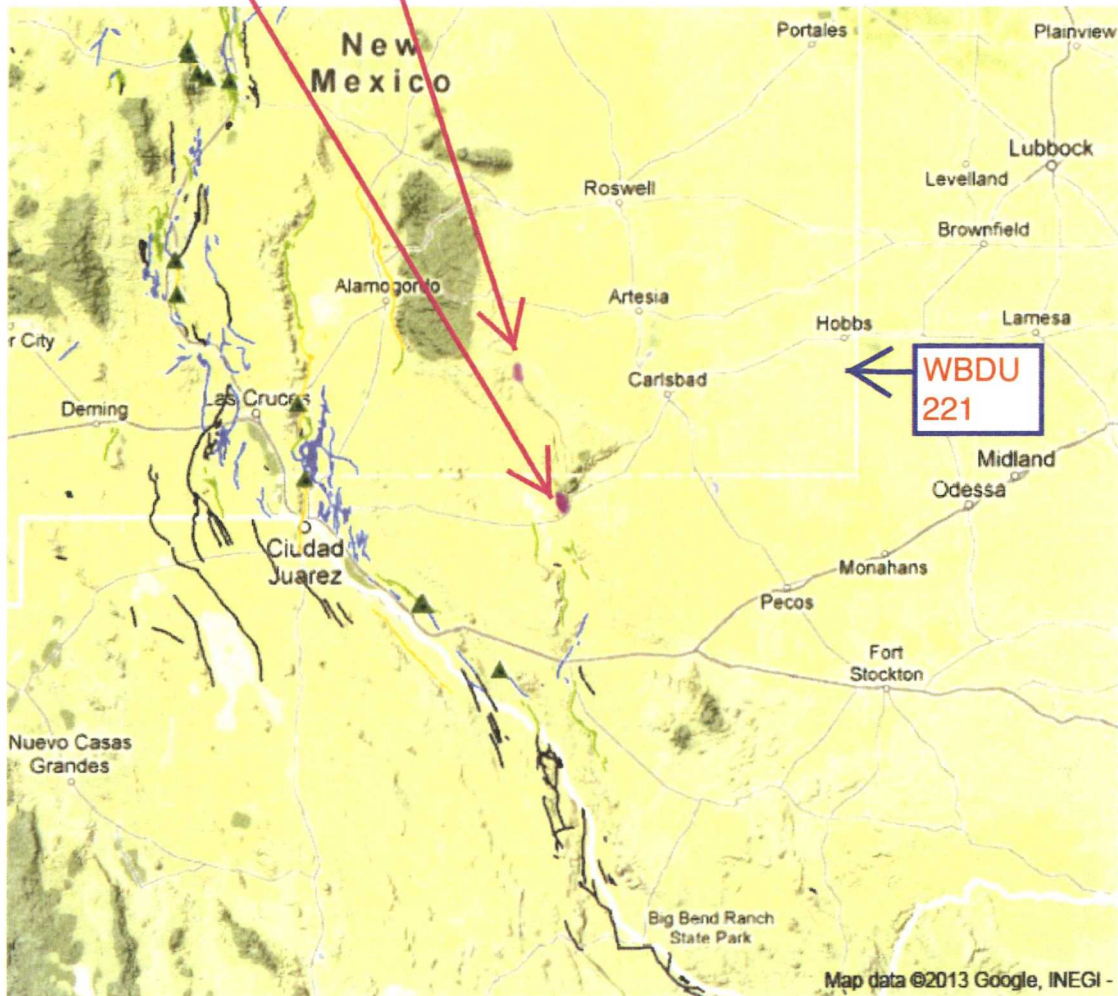


EXHIBIT H

Affidavit of Publication

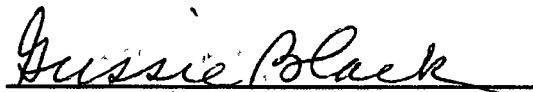
STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico; solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s)

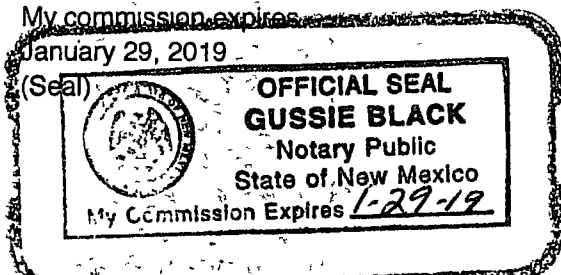
Beginning with the issue dated
May 05, 2017
and ending with the issue dated
May 05, 2017


Publisher

Sworn and subscribed to before me this
5th day of May 2017


Business Manager

My commission expires
January 29, 2019



This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGAL NOTICE
May 5, 2017

Apache Corporation is applying to directionally drill the West Blinberry Drinkard Unit 221 well as a water injection well. The proposed SHL is at 2300 FSL & 500 FEL, Sec 17, T 21 S, R 37 E, Lea County, NM. The proposed BHL is at 1980 FSL & 880 FEL, Sec 17, T 21 S, R 37 E, Lea County, NM. This is 3 miles north-northwest of Eunice, NM. It will inject water into the Drinkard (maximum injection pressure = 1,120 psi) from 6,470 to 6,700'. Injection will be at a maximum rate of 3,000 bwpd. Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505, within 15 days. Additional information can be obtained by contacting Brian Wood, Permits West, Inc., 37 Verano Loop, Santa Fe, NM 87508. Phone number is (505) 466-8120 #31754

02108485

00192736

BRIAN WOOD
PERMITS WEST
37 VERANO LOOP
SANTA FE, NM 87508

EXHIBIT I

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

May 20, 2017

Chevron USA, Inc.
PO Box 285
Houston TX 77001

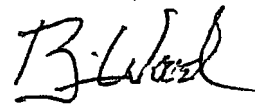
Apache Corporation is planning (see attached application) to directionally drill its West Blinbry Drinkard Unit 221 as a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection well. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: West Blinbry Drinkard Unit 221 (BLM lease) MD = 6876'
Proposed Injection Zone: Drinkard from 6487' to 6700' MD
SHL: 2300' FSL & 500' FEL Sec. 17, T. 21 S., R. 37 E., Lea County, NM
BHL: 1980' FSL & 660' FEL Sec. 17, T. 21 S., R. 37 E., Lea County, NM
Approximate Location: 3 air miles NNW of Eunice, NM
Applicant Name: Apache Corporation (432) 818-1062
Applicant's Address: 303 Veterans Airpark Lane, #3000, Midland, TX 79705

Submittal Information: Application for a water injection well will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,



Brian Wood

EXHIBIT J

7016 1370 0000 0859 7333
7016 1370 0000 0859 7321
7016 1370 0000 0859 7369

U.S. Postal Service
CERTIFIED MAIL® RECEIPT
(Domestic Mail Only)

For delivery information, visit our website at www.usps.com

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy)
☐ Return Receipt (electronic)
☐ Certified Mail Restricted Delivery
☐ Adult Signature Required
☐ Adult Signature Restricted Delivery

Postage \$
Total Postage and Fees \$

Sent To
Upland Production Company
PO Box 1327
Edmond OK 73083
Apache WBDU 221

City, State, ZIP+4®

PECOS NM
MAY 22 2017
87552-9998

U.S. Postal Service
CERTIFIED MAIL® RECEIPT
(Domestic Mail Only)

For delivery information, visit our website at www.usps.com

Certified Mail Fee \$3.35
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy)
☐ Return Receipt (electronic)
☐ Certified Mail Restricted Delivery
☐ Adult Signature Required
☐ Adult Signature Restricted Delivery

Postage \$1.82
Total Postage and Fees \$5.17

Sent To
BLM
620 E Greene
Carlsbad NM 88220
Apache WBDU 221

City, State, ZIP+4®

PECOS NM
MAY 22 2017
87552-9998

U.S. Postal Service
CERTIFIED MAIL® RECEIPT
(Domestic Mail Only)

For delivery information, visit our website at www.usps.com

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy)
☐ Return Receipt (electronic)
☐ Certified Mail Restricted Delivery
☐ Adult Signature Required
☐ Adult Signature Restricted Delivery

Postage \$
Total Postage and Fees \$

Sent To
Occidental Permian Ltd
PO Box 4294
Houston TX 77210
Apache WBDU 221

City, State, ZIP+4®

PECOS NM
MAY 22 2017
87552-9998

U.S. Postal Service
CERTIFIED MAIL® RECEIPT
(Domestic Mail Only)

For delivery information, visit our website at www.usps.com

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy)
☐ Return Receipt (electronic)
☐ Certified Mail Restricted Delivery
☐ Adult Signature Required
☐ Adult Signature Restricted Delivery

Postage \$
Total Postage and Fees \$

Sent To
Stephens & Johnson Op Co
PO Box 2249
Vichita Falls TX 76307
Apache WBDU 221

City, State, ZIP+4®

PECOS NM
MAY 22 2017
87552-9998

U.S. Postal Service
CERTIFIED MAIL® RECEIPT
(Domestic Mail Only)

For delivery information, visit our website at www.usps.com

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy)
☐ Return Receipt (electronic)
☐ Certified Mail Restricted Delivery
☐ Adult Signature Required
☐ Adult Signature Restricted Delivery

Postage \$
Total Postage and Fees \$

Sent To
Six Aeches Co
902 Country Club
Midland TX 79701
Apache WBDU 221

City, State, ZIP+4®

PECOS NM
MAY 22 2017
87552-9998

U.S. Postal Service
CERTIFIED MAIL® RECEIPT
(Domestic Mail Only)

For delivery information, visit our website at www.usps.com

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy)
☐ Return Receipt (electronic)
☐ Certified Mail Restricted Delivery
☐ Adult Signature Required
☐ Adult Signature Restricted Delivery

Postage \$
Total Postage and Fees \$

Sent To
Chevron USA Inc
6301 Deauville Blvd
Midland TX 79706
Apache WBDU 221

City, State, ZIP+4®

PECOS NM
MAY 22 2017
87552-9998

U.S. Postal Service
CERTIFIED MAIL® RECEIPT
(Domestic Mail Only)

For delivery information, visit our website at www.usps.com

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy)
☐ Return Receipt (electronic)
☐ Certified Mail Restricted Delivery
☐ Adult Signature Required
☐ Adult Signature Restricted Delivery

Postage \$
Total Postage and Fees \$

Sent To
Chevron USA Inc
PO Box 285
Houston TX 77001
Apache WBDU 221

City, State, ZIP+4®

PECOS NM
MAY 22 2017
87552-9998

U.S. Postal Service
CERTIFIED MAIL® RECEIPT
(Domestic Mail Only)

For delivery information, visit our website at www.usps.com

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy)
☐ Return Receipt (electronic)
☐ Certified Mail Restricted Delivery
☐ Adult Signature Required
☐ Adult Signature Restricted Delivery

Postage \$
Total Postage and Fees \$

Sent To
ConocoPhillips
PO Box 7500
Bartlesville OK 74005
Apache WBDU 221

City, State, ZIP+4®

PECOS NM
MAY 22 2017
87552-9998

EXHIBIT J

SENDER: COMPLETE THIS SECTION

1. Complete items 1, 2, and 3

2. Print your name and address on the reverse so that we can return the card to you

3. Attach this card to the back of the mailpiece or on the front if space permits

Article Addressed to

BLM
620 E Greene
Carlsbad NM 88220
Apache-WBDU 221

9590 9402 2329 6225 4757 40

2. Article Number (Transfer from service label)
7016 1370 0000 0859 7307

PS Form 3811 July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [Signature]
B. Received by (Printed Name)
C. Date of Delivery
D. Is delivery address different from item 1? Yes No
If YES enter delivery address below

3. Service Type
Adult Signature
Adult Signature Restricted Delivery
Certified Mail
Certified Mail Restricted Delivery
Collect on Delivery
Collect on Delivery Restricted Delivery
Insured Mail
Insured Mail Restricted Delivery
Priority Mail Express
Registered Mail
Registered Mail Restricted Delivery
Return Receipt for Merchandise
Signature Confirmation
Signature Confirmation Restricted Delivery

SENDER: COMPLETE THIS SECTION

1. Complete items 1, 2, and 3

2. Print your name and address on the reverse so that we can return the card to you

3. Attach this card to the back of the mailpiece or on the front if space permits

Article Addressed to

Occidental Permain Ltd
PO Box 4294
Houston TX 77210
Apache WBDU 221

9590 9402 2329 6225 4750 16

2. Article Number (Transfer from service label)
7016 1370 0000 0859 7338

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [Signature]
B. Received by (Printed Name)
C. Date of Delivery
D. Is delivery address different from item 1? Yes No
If YES enter delivery address below

3. Service Type
Adult Signature
Adult Signature Restricted Delivery
Certified Mail
Certified Mail Restricted Delivery
Collect on Delivery
Collect on Delivery Restricted Delivery
Insured Mail
Insured Mail Restricted Delivery
Priority Mail Express
Registered Mail
Registered Mail Restricted Delivery
Return Receipt for Merchandise
Signature Confirmation
Signature Confirmation Restricted Delivery

SENDER: COMPLETE THIS SECTION

1. Complete items 1, 2, and 3

2. Print your name and address on the reverse so that we can return the card to you

3. Attach this card to the back of the mailpiece or on the front if space permits

Article Addressed to

Chevron USA Inc
6301 Deauville Blvd
Midland TX 79706
Apache-WBDU 221

9590 9402 2329 6225 4757 64

2. Article Number (Transfer from service label)
7016 1370 0000 0859 7352

PS Form 3811 July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [Signature]
B. Received by (Printed Name)
C. Date of Delivery
D. Is delivery address different from item 1? Yes No
If YES enter delivery address below

3. Service Type
Adult Signature
Adult Signature Restricted Delivery
Certified Mail
Certified Mail Restricted Delivery
Collect on Delivery
Collect on Delivery Restricted Delivery
Insured Mail
Insured Mail Restricted Delivery
Priority Mail Express
Registered Mail
Registered Mail Restricted Delivery
Return Receipt for Merchandise
Signature Confirmation
Signature Confirmation Restricted Delivery

SENDER: COMPLETE THIS SECTION

1. Complete items 1, 2, and 3

2. Print your name and address on the reverse so that we can return the card to you

3. Attach this card to the back of the mailpiece or on the front if space permits

Article Addressed to

Stephens & Johnson Op Co
PO Box 2249
Wichita Falls TX 76307
Apache-WBDU 221

9590 9402 2329 6225 4750 23

2. Article Number (Transfer from service label)
7016 1370 0000 0859 7314

PS Form 3811 July 2015 PSN 7530-02-000 9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [Signature]
B. Received by (Printed Name)
C. Date of Delivery
D. Is delivery address different from item 1? Yes No
If YES enter delivery address below

3. Service Type
Adult Signature
Adult Signature Restricted Delivery
Certified Mail
Certified Mail Restricted Delivery
Collect on Delivery
Collect on Delivery Restricted Delivery
Insured Mail
Insured Mail Restricted Delivery
Priority Mail Express
Registered Mail
Registered Mail Restricted Delivery
Return Receipt for Merchandise
Signature Confirmation
Signature Confirmation Restricted Delivery

SENDER: COMPLETE THIS SECTION

1. Complete items 1, 2, and 3

2. Print your name and address on the reverse so that we can return the card to you

3. Attach this card to the back of the mailpiece or on the front if space permits

Article Addressed to

Chevron USA Inc
PO Box 285
Houston TX 77001
Apache-WBDU 221

9590 9402 2329 6225 4757 57

2. Article Number (Transfer from service label)
7016 1370 0000 0859 7369

PS Form 3811 July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [Signature]
B. Received by (Printed Name)
C. Date of Delivery
D. Is delivery address different from item 1? Yes No
If YES enter delivery address below

3. Service Type
Adult Signature
Adult Signature Restricted Delivery
Certified Mail
Certified Mail Restricted Delivery
Collect on Delivery
Collect on Delivery Restricted Delivery
Insured Mail
Insured Mail Restricted Delivery
Priority Mail Express
Registered Mail
Registered Mail Restricted Delivery
Return Receipt for Merchandise
Signature Confirmation
Signature Confirmation Restricted Delivery

SENDER: COMPLETE THIS SECTION

1. Complete items 1, 2, and 3

2. Print your name and address on the reverse so that we can return the card to you

3. Attach this card to the back of the mailpiece, or on the front if space permits

Article Addressed to

Six Aeches Co
902 Country Club
Midland TX 79701
Apache WBDU 221

9590 9402 2329 6225 4750 60

2. Article Number (Transfer from service label)
7016 1370 0000 0859 7321

PS Form 3811 July 2015 PSN 7530-02-000 9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [Signature]
B. Received by (Printed Name)
C. Date of Delivery
D. Is delivery address different from item 1? Yes No
If YES enter delivery address below

3. Service Type
Adult Signature
Adult Signature Restricted Delivery
Certified Mail
Certified Mail Restricted Delivery
Collect on Delivery
Collect on Delivery Restricted Delivery
Insured Mail
Insured Mail Restricted Delivery
Priority Mail Express
Registered Mail
Registered Mail Restricted Delivery
Return Receipt for Merchandise
Signature Confirmation
Signature Confirmation Restricted Delivery

SENDER: COMPLETE THIS SECTION

1. Complete items 1, 2, and 3

2. Print your name and address on the reverse so that we can return the card to you

3. Attach this card to the back of the mailpiece or on the front if space permits

Article Addressed to

ConocoPhillips
PO Box 7500
Bartlesville OK 74005
Apache-WBDU 221

9590 9402 2329 6225 4757 71

2. Article Number (Transfer from service label)
7016 1370 0000 0859 7345

PS Form 3811 July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [Signature]
B. Received by (Printed Name)
C. Date of Delivery
D. Is delivery address different from item 1? Yes No
If YES enter delivery address below

3. Service Type
Adult Signature
Adult Signature Restricted Delivery
Certified Mail
Certified Mail Restricted Delivery
Collect on Delivery
Collect on Delivery Restricted Delivery
Insured Mail
Insured Mail Restricted Delivery
Priority Mail Express
Registered Mail
Registered Mail Restricted Delivery
Return Receipt for Merchandise
Signature Confirmation
Signature Confirmation Restricted Delivery

SENDER: COMPLETE THIS SECTION

1. Complete items 1, 2, and 3

2. Print your name and address on the reverse so that we can return the card to you

3. Attach this card to the back of the mailpiece or on the front if space permits

Article Addressed to

Upland Production Company
PO Box 1327
Edmond OK 73083
Apache-WBDU 221

9590 9402 2329 6225 4752 07

2. Article Number (Transfer from service label)
7015 1660 0000 1583 1686

PS Form 3811 July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [Signature]
B. Received by (Printed Name)
C. Date of Delivery
D. Is delivery address different from item 1? Yes No
If YES enter delivery address below

3. Service Type
Adult Signature
Adult Signature Restricted Delivery
Certified Mail
Certified Mail Restricted Delivery
Collect on Delivery
Collect on Delivery Restricted Delivery
Insured Mail
Insured Mail Restricted Delivery
Priority Mail Express
Registered Mail
Registered Mail Restricted Delivery
Return Receipt for Merchandise
Signature Confirmation
Signature Confirmation Restricted Delivery



C-108 Review Checklist: Received _____ Add Request _____ Reply Date _____ Suspended _____ [Ver 15]

ORDER TYPE WFX / PMX / SWD Number _____ Order Date _____ Legacy Permits/Orders 12-12581

Well No 221 Well Name(s) LBDS

API 30-0 25-42496 Spud Date TBD New or Old N (UIC Class II Primacy 03/07/1982)

Footages 22 miles NW/4 miles Lot _____ or Unit I Sec 17 Tsp 21S Rge 37E County LEA

General Location SHL 2300FS4 1480FS4 660FSL Pool E4 mile BL-T-DK Pool No 2250

BLM 100K Map 5M1 Operator Apache Corporation OGRID 873 Contact _____

COMPLIANCE RULE 59 Total Wells _____ Inactive _____ Fincl Assur _____ Compl Order? _____ IS 59 OK? _____ Date _____

WELL FILE REVIEWED ☐ Current Status Proposed

WELL DIAGRAMS NEW Proposed ☐ or RE-ENTER Before Conv ☐ After Conv ☐ Logs in Imaging _____

Planned Rehab Work to Well _____

Well Construction Details				Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Size or Cf	Cement Top and Determination Method
Planned ___ or Existing ___ Surface				11" / 8 9/16"	1350	530	541 FLL / U15421
Planned ___ or Existing ___ Interm/Prod							
Planned ___ or Existing ___ Interm/Prod							
Planned ___ or Existing ___ Prod/Liner				7 7/8" / 5 1/2"		1000	541 FLL / U15421
Planned ___ or Existing ___ Liner							
Planned ___ or Existing ___ OH / PERF				6 4/20 / 6 20			

Injection Lithostratigraphic Units				Depths (ft)	Injection or Confining Units	Tops
Adjacent Unit	Litho	Struc	Por			
Confining Unit	Litho	Struc	Por			
Proposed Inj Interval TOP						
Proposed Inj Interval BOTTOM						
Confining Unit	Litho	Struc	Por			
Adjacent Unit	Litho	Struc	Por			

Completion/Operation Details			
Drilled TD	PBDT		
NEW TD	NEW PBDT		
NEW Open Hole	<input type="radio"/> or NEW Perfs <input checked="" type="radio"/>		
Tubing Size	2 3/8 in Inter Coated? <input checked="" type="checkbox"/>		
Proposed Packer Depth	6437 ft		
Min Packer Depth	6370 (100-ft limit)		
Proposed Max Surface Press	1120 psi		
Admin Inj Press	1120* (0.2 psi per ft)		

AOR Hydrologic and Geologic Information

POTASH R-111-P _____ Noticed? _____ BLM Sec Ord ☐ WIPP ☐ Noticed? _____ Salt/Salado T 340 B 2613 NW Cliff House fm _____

FRESH WATER Aquifer Capitan Max Depth _____ HYDRO AFFIRM STATEMENT By Qualified Person ☐

NMOSE Basin Capitan CAPITAN REEF thru adj NA No Wells within 1-Mile Radius? 3 FW Analysis

Disposal Fluid Formation Source(s) Produced here Analysis? ☒ On Lease ☒ Operator Only ☐ or Commercial ☐

Disposal Int Inject Rate (Avg/Max BWPD) 256/312 Protectable Waters? MA Source _____ System Closed or Open

HC Potential Producing Interval? ☒ Formerly Producing? _____ Method Logs/DST/P&A/Other _____ 2-Mile Radius Pool Map ☐

AOR Wells: 1/2-M Radius Map? ☒ Well List? ☒ Total No Wells Penetrating Interval 31 Horizontals? ☒

Penetrating Wells No Active Wells 30 Num Repairs? _____ on which well(s)? _____ Diagrams? _____

Penetrating Wells. No P&A Wells 1 Num Repairs? _____ on which well(s)? _____ Diagrams? ☒

NOTICE. Newspaper Date _____ Mineral Owner BLM Surface Owner Chevron N Date 5-25-2017

RULE 26 7(A). Identified Tracts? _____ Affected Persons Chevron, Stephens & Johnson, Upland N Date 5-25-2017

Order Conditions: Issues _____

Add Order Cond _____