						revised widion 25, 2017
RECEIVED:	u (REV	VIEWER: MAM	TYPE:	ufx	DM Am	802249430
		NEW MEXICO - Geologico South St. Fran	OIL CON: al & Engine	SERVATION eering Bure	N DIVISION eau –	TO MEN MEN
TLII	S CHECKLIST IS M	ADMINISTRA ANDATORY FOR ALL A				DIVISION PHI ES AND
17 118		LATIONS WHICH REQU				
pplicant: Apach	e Corporation				OGRID	Number: 873
ell Name: East		ard Unit 21			API: 30-0	025-06523
ool: Eunice; BLI-T	U-DR, North				Pool C	ode: 22900
SUBMIT ACCU	RATE AND C	OMPLETE INFO	RMATION F		O PROCESS TH	HE TYPE OF APPLICATION
A. Locatio	n – Spacing]NSL one only fol		neous Dedi ect area)	cation	ation unitj S[RECEIVED OCI
[II] Inje [ection – Disp WFX	□CTB □PLC posal – Pressure]PMX □SWI	e Increase -	☐ EOR	□OLM d Oil Recovery □PPR	FOR OCD ONLY
A. Offse B. Royc C. App D. Notif E. Notif F. Surfc G. For c	et operators alty, overridi lication req ication and ication and ace owner	O TO: Check the content of the content of the concurrence over proof of red	ers ners, revenu I notice t approval t approval	by SLO by BLM	tion is attache	Notice Complete Application Content Complete ed, and/or,
administrativ understand t	e approval hat no acti	certify that the is accurate an on will be take ed to the Divisi	nd complet n on this ap	e to the be	est of my knov	•
ı	Note: Statement	t must be completed	d by an individu	ıal with manaç	gerial and/or super	visory capacity.
				4	20-18	
Brian Wood					ate	· · · · · · · · · · · · · · · · · · ·
Print or Type Name	13-4	læd			05 466-8120 none Number	
					rian@permitswes	t.com
Signature				e-	mail Address	

Signature

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, New Mexico 87505 FORM C-108 Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE: XXX Secondary Recovery Pressure Maintenance Disposal Storage Application qualifies for administrative approval? XXX Yes No
II.	OPERATOR: APACHE CORPORATION
	ADDRESS: 303 VETERANS AIRPARK LANE, SUITE 3000, MIDLAND, TX 79705
	CONTACT PARTY: BRIAN WOOD (PERMITS WEST, INC.) PHONE: 505 466-812
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.
3.771	EAST BLINEBRI DRINKARD UNIT 21
VII.	Attach data on the proposed operation, including: 30-025-06523
	 Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, 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 TO STITLE: CONSULTANT
	SIGNATURE: DATE: JAN. 2, 2018
	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.

APACHE CORPORATION

OPERATOR:

INJECTION WELL DATA SHEET

WELL LOCATION: 660' FNL \$ 19 WELL LOCATION: 660' FNL \$ 19 FOOTAGE LOC WELLBORE SCHEMATIC " AS IS" (not to scale)	A 8 E	B UNIT LETTER Hole Size:	SEC	21 S)WNSHIP UCTION DATA ing Size: 8.62	NGE
	8.625" in 10.625" hole @ 1396' TOC (700 sx) = ??	Cemented with: Top of Cement: Hole Size:	NO REPORT Metho Intermediate Casing	or Method Determined: NO Casing Casing Size:	REPORT
	5.5" in 7.875" hole @ 5932' TOC (1626 sx) = GL	Cemented with:Top of Cement:Hole Size:	Sx. or Methodoction Casing 7.875" Casin	or Method Determined: Casing Casing Size: 5.5"	THE HEET STATES AND THE STATES AND T
	Blinebry perfs 5720' - 5919'	Cemented with:Top of Cement:Total Depth:	1626 sx. or SURFACE Meth 5932 ' Injection Interval	tod Determined: N	REPORT
TD 5932'			(Perforated or Open Hole; indicate which)	to 5932 'ole; indicate which)	

APACHE CORPORATION

OPERATOR:

 $\mathfrak{t}^{\mathfrak{z}}$ $\mathfrak{t}\mathfrak{t}^3$ \mathfrak{f}^3 Method Determined: NO REPORT Method Determined: NO REPORT 37 E RANGE 8.625" 5.5" WELL CONSTRUCTION DATA Method Determined: (Perforated or Open Hole; indicate which) TOWNSHIP 21 S Casing Size: Casing Size: Casing Size: 5645 feet to 5932' Intermediate Casing Production Casing Injection Interval Surface Casing or or or SX. SX. SX. SECTION NO REPORT 11 SURFACE 7.875" 10.625" 5932' 1626 700 Cemented with: Cemented with: Top of Cement: Top of Cement: Cemented with: Top of Cement: Total Depth: Hole Size: UNIT LETTER Hole Size: Hole Size: 21 EAST BLINEBRY DRINKARD UNIT 10.625" hole @ 1396' 700 (700 sx) = ??7.875" hole @ 5932' TOC (1626 sx) = GL660' FNL & 1980' FEL FOOTAGE LOCATION 5.5" in WELLBORE SCHEMATIC (not to scale) **PROPOSED** TD 5932' WELL NAME & NUMBER: "3650≈ @ gdt J91 "8/£-S tes lliw WELL LOCATION: will set packer @ ≈5595' Blinebry 5595' - 5932' will perf

INJECTION WELL DATA SHEET

Tul	Tubing Size: 2-3/8" J-55 4.7# Lining Material: INTERNAL PLASTIC COAT
Ty	Type of Packer: LOCK SET INJECTION
Pa	Packer Setting Depth: ~5595'
Of	Other Type of Tubing/Casing Seal (if applicable):
	Additional Data
1.	Is this a new well drilled for injection?
	If no, for what purpose was the well originally drilled? BLINEBRY OIL WELL
2.	Name of the Injection Formation: BLINEBRY
3.	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: YATES (2637'), 7 RIVERS (2894'), QUEEN (3465'), GRAYBURG (3800') SAN ANDRES (4010')
	UNDER: TUBB (6106'), DRINKARD (6517'), ABO (6824'), SIMPSON (7610') ELLENBURGER (7755')

30-025-06523

I. Goal is to convert a 5932' deep oil well to a water injection well to increase oil recovery. The well will inject (5645' - 5932') into the Blinebry, which is part of the Eunice; Blinebry-Tubb-Drinkard, North Pool (aka, Eunice; BLI-TU-DR, North and pool code = 22900).

Well and zone are in the East Blinebry Drinkard Unit (Case Numbers 13503 and 13504, Order Numbers R-12394 and R-12395) that was established in 2005 by Apache. There have been 6 subsequent WFX approvals (WFX-819, -842, -904, -909, -963, & -969). This is an active water flood. Twenty-four water injectors are in the Unit. Injection increase to 2100 psi was authorized (IPI-292) in 2008.

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 (NMNM-125057)

Lease Size: 1200 acres (see Exhibit A for maps and C-102)

Closest Lease Line: 660'

Lease Area: E2 & NW4 Section 11, T. 21 S., R. 37 E. et al Unit Size: 2080 acres BLM Unit #: NMNM-112723X

Closest Unit Line: 660'

Unit Area: <u>T. 21 S., R. 37 E.</u>

Section 1: Lots 11-15, W2SE4, & SW4

Section 11: E2 & NW4

Sections 12: W2 & W2E2

Section 13: W2, W2NW4, & NWSE Section 14: NE4 & E2SE4

A. (2) Surface casing (8.625") is set at 1396' in a 10.625" hole and cemented with 700 sacks. No TOC was reported.



30-025-06523

Production casing (5.5") is set at 5932' in a 7.875" hole and cemented to GL with 1626 sacks.

- A. (3) Tubing will be 2-3/8" J-55 (4.7# IPC or 5.3# fiber lined). Setting depth will be \approx 5595'. (Disposal interval will be 5645' 5932'.)
- A. (4) A lock set injection packer will be set at ≈ 5595 ' (≈ 50 ' above the highest proposed perforation of 5645').
- B. (1) Injection zone will be the Blinebry carbonate. It is part of the Eunice; Blinebry-Tubb-Drinkard, North Pool. Fracture gradient is ≈0.56 psi/ft.
- B. (2) Injection interval will be from 5645' to 5932' in a cased hole. Well is now perforated in Blinebry from 5720' to 5919'.
- B. (3) Well was originally drilled in 1956 as a Blinebry oil well.
- B. (4) Well will be perforated from 5645' to 6932' with 2 shots per foot. Shot diameter = 0.40". Perforation and isolation history is below:

Depth	Zone	Action
5645′	Blinebry	Top proposed injection interval
5720' - 5753'	Blinebry	open perfs
5770' - 5919'	Blinebry	open perfs
5932′	Blinebry	Bottom proposed injection interval

B. (5) Next higher oil or gas zone in the area of review is the San Andres. Its bottom is at 5271'. Injection will occur in the Blinebry. Highest perforation will be 5645'.

Next lower oil or gas zone in the area of review is the Tubb, part of the same Eunice; Blinebry-Tubb-Drinkard, North Pool. Tubb top is at ≈ 6190 '. Deepest perforation will be 5932'.



30-025-06523

- IV. This is not a horizontal or vertical expansion of an existing injection project. Case files 13503 and 13504 describe the water flood.
- V. Exhibit B shows and tabulates all 40 existing wells (24 oil wells + 11 injectors + 5 P & A wells) within a half-mile radius, regardless of depth. Exhibit C shows all 589 existing wells (404 oil or gas wells + 112 injection or disposal wells + 54 P&A wells + 18 water supply wells + 1 brine well) within a two-mile radius.

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

Aliquot Parts in Area of Review (T21S, R37E)	Lessor	Lease	Lessee(s) of Record	Blinebry, Tubb, &/or Drinkard operator
SWSW Sec. 1	BLM	NMLC-0065525B	Sheridan	Apache
SE4 Sec. 2	NMSLO	B0-1732-0001	Chevron USA	Apache
SWSW & E2SW4 Sec. 2	NMSLO	B0-9745-0004	Occidental Permian	Apache
N2 & N2SE4 Sec. 11 & W2NW4 Sec. 12	BLM	NMNM-125057	Apache, BP, & Chevron	Apache
NESW Sec. 11	fee	J H Nolan	Apache	Apache

- VI. Forty existing wells are within a half-mile, all forty penetrated the Blinebry. The penetrators include 24 oil wells, 11 injectors, and 5 P&A wells. A table abstracting the well construction details and histories of the penetrators is in Exhibit F. Diagrams of the P&A wells are in Exhibit G and sorted by API number.
- VII. 1. Average injection rate will be ≈400 bwpd. Maximum injection rate will be 500 bwpd.
 - 2. System is closed. Well will tie into the existing unit pipeline system.



30-025-06523

- 3. Average injection pressure will be ≈2000 psi. Maximum injection pressure will be 2100 psi (IPI-292).
- 4. Water source will be water pumped from an existing San Andres water supply well. A comparison of nearby analyses and San Andres follows. No compatibility problems have reported from the 16,803,534 barrels that have been injected in the Unit to date.

	NEDU Injection Pump Discharge	San Andres 919-S
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
рН	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/	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. Ninety-one oil wells are 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, 4285' thick, and consists of tan to dark gray shallow marine



30-025-06523

carbonates, many of which have been dolomitized. Core filling and replacement anhydrite is 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 106 Blinebry injection wells in the state. The East Blinebry Drinkard Unit shares its west border with Apache's Northeast Drinkard Unit. Three other similar water floods (West Blinebry Drinkard Unit, Northeast Drinkard Unit, and Warren Blinebry Unit) are within a mile of the East Blinebry Drinkard Unit. The slightly more distant (2 miles) Central Drinkard Unit has been under water flood since the 1960s.

Formation depths are:

Quaternary = 0'
Rustler = 1360'
Top salt = 1450'
Base salt = 2492'
Yates = 2637'
Seven Rivers = 2894'
Queen = 3465'
Penrose = 3615'
Grayburg = 3800'
San Andres = 4010'
Glorieta = 5272'
Blinebry marker = 5618' $injection\ interval = 5645' - 5932'$ TD = 5932'
(Tubb \approx 6106')

According to Office of the State Engineer records (Exhibit H), one fresh water well, 70' deep, is within a mile radius. That well, a windmill 4946' west, is dry (Exhibit H). However, four other water wells ranging from 1-1/4 miles to 2-1/2 miles were sampled (Exhibit H).

The same records show the deepest water well within 2 miles is 136'. 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



30-025-06523

(Quaternary redbeds) and the top of the injection interval. Well is a half-mile southwest of Ogallala aquifer (Exhibit H).

There are 213 active or new injection wells and 8 active disposal wells in the Blinebry-Tubb-Drinkard, San Andres, Grayburg, Queen, Seven Rivers, or Yates in T. 21 S., R. 37 E.

- IX. The well will be stimulated with acid to clean out scale or fill.
- X. A gamma ray log is on file with NMOCD.
- XI. No active water well could be found within a mile during an August 18, 2017 field inspection. Analyses from four fresh water wells within 1-1/4 miles to 2-1/2 miles away are in Exhibit H.
- XII. Apache (Exhibit I) 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 ≈ 111 miles southwest (Exhibit I). There are 106 Blinebry injection wells in New Mexico. Previously approved water flood expansions in the Unit include WFX-819, -842, -904, -909, -963, and -969.
- XIII. A legal ad (see Exhibit J) was published on November 22, 2017. Notice (this application) has been sent (Exhibit K) to the surface owner (W F M Ranch), government lessors (BLM & NMSLO), lessees (BP, Chevron USA, Occidental Permian, and Sheridan), operating rights holders (Mitchell Brown Properties, Elliott Industries, McElvain Oil & Gas, and SandRidge E & P), and other operators (Chevron USA, Sheridan) regardless of depth within a half-mile.



TOWNSHIP 21S, RANGE 37E, N.M.P.M. 4E.F EBDU boundary EAST BLINEBRY DRINKARD UNIT LEA COUNTY, NEW MEXICO wind res The years **LEGEND** (11) **UNIT TRACT NUMBER** LC-032096-B (8) (9) (8) 10 . 9 411 LC-032098-B ACREAGE PERCENTAGE FEDERAL LANDS 1640.00 78.85 PATENTED (FEE) LANDS 440.00 21.15 12 TOTALS 2080.00 100% -

EXHIBIT A



0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 miles 0.0 0.5 1.0 km TN ★ MN 6.5*

1/18/17

IL CONSERVATION COMMIS N

EXHIBIT A Form C-128

Well Location and/or Gas Proration Plat

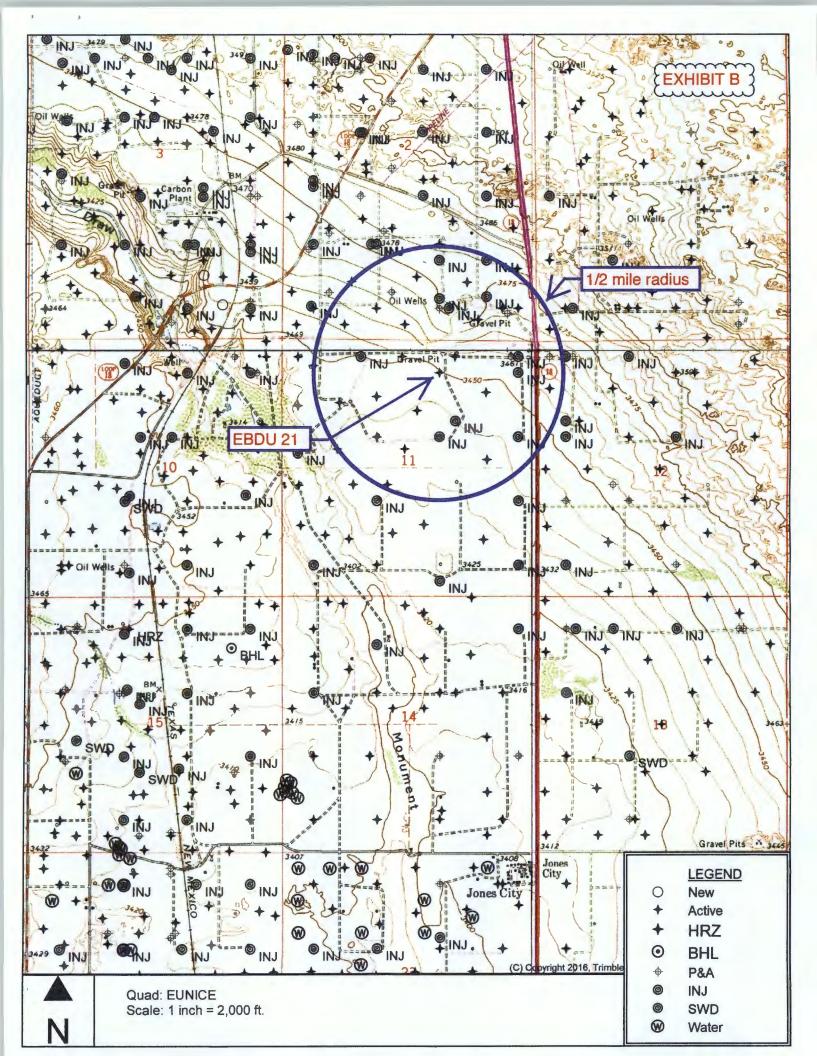
		CII Docu				Dat	4-23-	-56
Operator Cont	inental Oil (Co.		Lease	Lockh			
Weil No. 12								NMPM
Located 1930	Feet Fro	om <u>Ea</u>	st	Line,	660	Feet Fr	om Nor	th Line,
Le	a	County	, New A	1exico.	G 1	Elevation		
Name of Produci								
	(Note: All dist	ances mu	ist be fr	om out	r bound	aries of Se	ction)	
		1			-			
		1			099			
		İ		(1	⊢ 1980 ' — 	-	
					') 		
	-	!						į
						· •		
					:	:		
					İ	i 1		
		-						
		:						
		!			į			
		; 1						
		 						
					į			
		1			; !			
)	5CALE: 1"=1000"	\		(T)	1			
l. Is this Well a	Dual Comp. ?	resN	0			ertify that t on: field no		plat was Jal surveys
2. If the answer	to Question 1. ly completed w	-		e mad	le by me	or under r le are true	ny superv	ision and
	age? Yes					nowledge a		CC EO UIT
Name				Dat	e Survey	ed_ 4-23	- 56	

Registered Professional Engineer and/or Land Surveyor

Position

Address

Representing

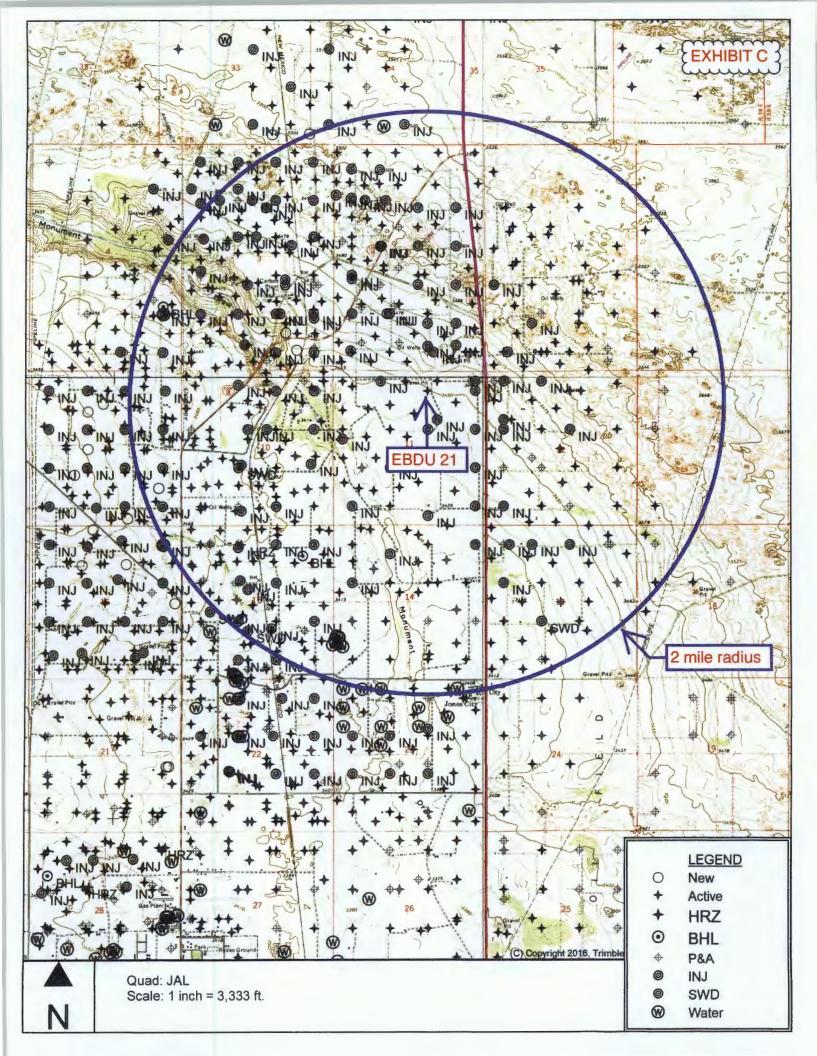


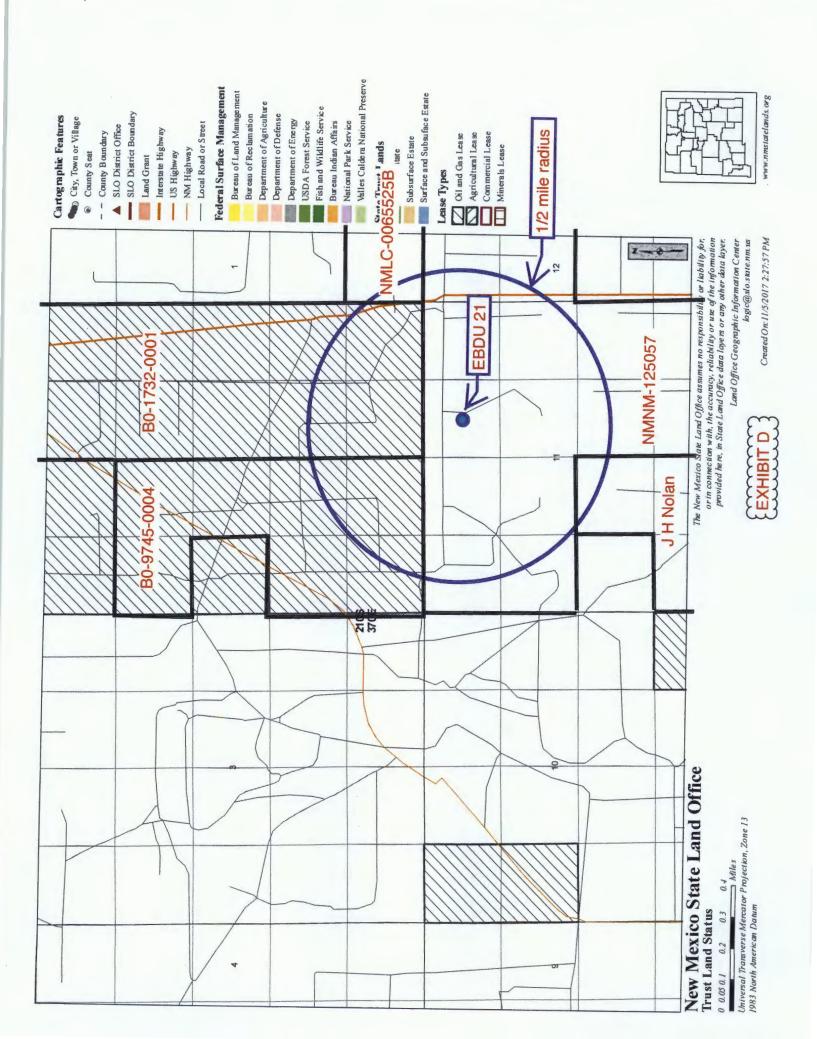
SORTED BY DISTANCE FROM EBDU 21

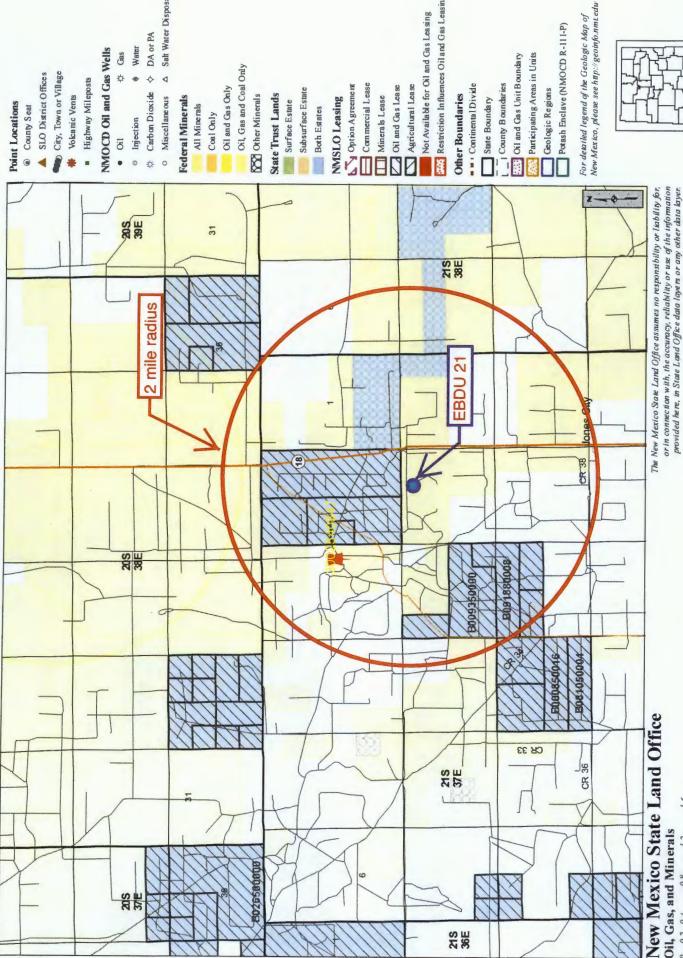
API	OPERATOR	WELL	TYPE	UNIT- SECTION- 21S-37E	TVD	ZONE	FEET FROM EBDU 21
3002506482	Apache	EBDU 014	0	B-11	7831	Eunice; Bli-Tu- Dr, N	468
3002538760	Apache	EBDU 065	0	C-11	6950	Eunice; Bli-Tu- Dr, N	783
3002538761	Apache	EBDU 066	0	A-11	7000	Eunice; Bli-Tu- Dr, N	978
3002506529	Apache	EBDU 023	ı	G-11	5925	Eunice; Bli-Tu- Dr, N	1044
3002539380	Apache	EBDU 073	0	G-11	6978	Eunice; Bli-Tu- Dr, N	1176
3002536808	Apache	NEDU 336	0	N-2	7000	Eunice; Bli-Tu- Dr, N	1210
3002537712	Apache	NEDU 338	0	P-2	6987	Eunice; Bli-Tu- Dr, N	1260
3002506362	Chevron	Harry Leonard NCT F 002	P & A	0-2	7962	Eunice; Bli-Tu- Dr, N	1320
3002506536	Apache	EBDU 026	1	G-11	7500	Eunice; Bli-Tu- Dr, N	1320
3002506366	Apache	NEDU 320	-	0-2	5925	Eunice; Bli-Tu- Dr, N	1335
3002539865	Apache	EBDU 099	0	C-11	7204	Eunice; Bli-Tu- Dr, N	1476
3002506348	Apache	NEDU 324	ı	0-2	7778	Eunice; Bli-Tu- Dr, N	1520
3002506526	Apache	EBDU 016	P&A	A-11	8042	Eunice; Bli-Tu- Dr, N	1543
3002506479	Apache	EBDU 018	I	A-11	5880	Eunice; Bli-Tu- Dr, N	1658
3002506476	Apache	EBDU 013	1	C-11	7811	Eunice; Bli-Tu- Dr, N	1659
3002506527	Apache	EBDU 015	1	A-11	8065	Eunice; Bli-Tu- Dr, N	1690
3002506364	Apache	NEDU 122	ı	1-2	7554	Eunice; Bli-Tu- Dr, N	1848
3002506531	Apache	EBDU 025	0	F-11	7450	Eunice; Bli-Tu- Dr, N	1849
3002506373	Apache	State Section 2 007	0	N-2	7854	Wantz; Abo	1849
3002506363	Chevron	Harry Leonard NCT F 003	0	P-2	8168	Brunson; Ellenburger	1871

SORTED BY DISTANCE FROM EBDU 21

3002506349	Apache	NEDU 325	P&A	P-2	8013	Eunice; Bli-Tu- Dr, N	1878
3002539644	Apache	EBDU 086	0	F-11	7112	Eunice; Bli-Tu- Dr, N	1899
3002506488	Apache	NEDU 317	P&A	N-2	5914	Eunice; Bli-Tu- Dr, N	1916
3002535406	Apache	NEDU 335	0	0-2	6270	Eunice; Bli-Tu- Dr, N	1949
3002535405	Apache	NEDU 334	0	0-2	6950	Eunice; Bli-Tu- Dr, N	2017
3002506352	Apache	NEDU 321	0	P-2	5970	Eunice; Bli-Tu- Dr, N	2119
3002506480	Apache	EBDU 019	ı	H-11	6775	Eunice; Bli-Tu- Dr, N	2120
3002537677	Apache	NEDU 339	0	M-2	6975	Eunice; Bli-Tu- Dr, N	2134
3002538771	Apache	EBDU 067	0	H-11	6960	Eunice; Bli-Tu- Dr, N	2149
3002539645	Apache	EBDU 098	0	D-12	7211	Eunice; Bli-Tu- Dr, N	2183
3002538301	Apache	EBDU 064	0	D-11	6975	Eunice; Bli-Tu- Dr, N	2236
3002506365	Apache	NEDU 318	ı	J-2	5925	Eunice; Bli-Tu- Dr, N	2310
3002506542	Apache	EBDU 032	P & A	D-12	5900	Eunice; Bli-Tu- Dr, N	2344
3002539848	Apache	EBDU 122	0	M-1	7204	Eunice; Bli-Tu- Dr, N	2489
3002537728	Apache	NEDU 424	0	K-11	6955	Eunice; Bli-Tu- Dr, N	2509
3002506353	Apache	NEDU 319	ı	I-2	8300	Eunice; Bli-Tu- Dr, N	2515
3002538153	Apache	NEDU 340	0	1-2	7095	Eunice; Bli-Tu- Dr, N	2575
3002535404	Apache	NEDU 333	0	N-2	6950	Eunice; Bli-Tu- Dr, N	2606
3002506524	Apache	Lockhart B 11 001	0	D-11	7751	Wantz; Abo	2625
3002506361	Apache	NEDU 323	0	J-2	8350	Eunice; Bli-Tu- Dr, N	2640
3002506530	Apache	EBDU 024	0	J-11	6760	Eunice; Bli-Tu- Dr, N	2642







NIMOCD Oil and Gas Wells Gas

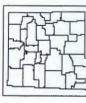
- Water
- ♦ DA or PA
- A Salt Water Disposal
- Oil, Gas and Coal Only

- Oil and Gas Lease
- Not Available for Oil and Gas Leasing

Restriction Influences Oil and Gas Leasing

- Participating Areas in Units

Potash Enclave (NMOCD R-111-P)



www.nmstatelands.org

EXHIBIT E

m

Land Office Geographic Information Center

Created On: 3/11/2013 1:48:40 PM

Universal Transverse Mercator Projection, Zone 13

1983 North American Datum

0.8 1.2

0.2 0.4

Oil, Gas, and Minerals

WELL	SPUD	ξ	POOL	WELL	HOLE 0.D.	CASING O.D.	SET @	CEMENT	TOC	HOW TOC
EBDU 014	3/8/52	7831	Eunice; Bli-Tu-Dr, N	0	No report	10.75	255	250 sx	Surface	Circ
30-025-06482					No report	7.625	3149	1600 sx	750	Temp Survey
B-11-21S-37E					6.75	5.5	7830	583 sx	3150	Temp Survey
EBDU 065	3/30/08	6950	Eunice; Bli-Tu-Dr, N	0	12.25	8.625	1396	650 sx	Surface	Circ
30-025-38760					7.875	5.5	6950	1300 sx	150	TBD
C-11-21S-37E										
EBDU 066	4/12/08	7000	Eunice; Bli-Tu-Dr, N	0	12.25	8.625	1413	e80 sx	Surface	Circ
30-025-38761					7.875	5.5	7000	1300 sx	125	TBD
A-11-21S-37E										
EBDU 023	7/16/57	5925	Eunice; Bli-Tu-Dr, N		15	10.75	275	250 sx	Surface	Circ
30-025-06529					9.5	7.625	3124	420 sx	1575	Calc
G-11-21S-37E					6.75	5.5	5924	400 sx	3175	Calc

									1			
Circ	Circ		Circ 54 sx	No report		Circ	CBL		Circ	Temp Survey	Temp Survey	
Surface	Surface		Surface	65		Surface	142		Surface	458	3748	
850 sx	1150 sx		575 sx	1200 sx		200 sx	1100 sx		300 sx	1200 sx	800 sx	
1430	6978		1262	7000		1239	2869		264	3024	7925	
8.625	5.5		8.625	5.5		8.625	5.5		13.375	9.625	7	
12.25	7.875		12.25	7.875		12.25	7.875		17.5	12.25	8.75	
0			0			0			P&A			
Eunice; Bli-Tu-Dr, N			Eunice; Bli-Tu-Dr, N			Eunice; Bli-Tu-Dr, N			Eunice; Bli-Tu-Dr, N			
8269			7000			6987			7962			
9/18/09			12/27/04			4/10/06			12/25/51			
EBDU 073	30-025-39380	G-11-21S-37E	NEDU 336	30-025-36808	N-2-21S-37E	NEDU 338	30-025-37712	P-2-21S-37E	Harry Leonard NCT F 002	30-025-06362	0-2-21S-37E	

EBDU 026	4/10/62	7500	Eunice; Bli-Tu-Dr, N	_	17.5	13.375	368	300 sx	Surface	Circ
30-025-06536					12.25	9.625	3094	1150 sx	1600	Temp Survey
G-11-21S-37E					8.75	7	7499	650 sx	3600	Temp Survey
NEDU 320	3/26/55	5925	Eunice; Bli-Tu-Dr, N		17.5	13.375	334	375 sx	Surface	Circ 50 sx
30-025-06366					11	8.625	3049	2000 sx	1390	Temp Survey
W-2-21S-37E					7.875	5.5	5769	825 sx	2080	Temp Survey
EBDU 099	10/6/10	7204	Eunice; Bli-Tu-Dr, N	0	12.25	8.625	1378	700 sx	Surface	Circ 189 sx
30-025-39865					7.875	5.5	7204	1425 sx	100	CBL
C-11-21S-37E										
NEDU 324	3/29/52	8777	Eunice; Bli-Tu-Dr, N	I	17.25	12.75	259	300 sx	Surface	Circ
30-025-06348					11	8.625	2989	1100 sx	1135	Temp Survey
0-2-21S-37E					7.875	5.5	7778	870 sx	3320	Temp Survey

	3/11/54									
	11/54				12.25	9.625	3152	1260 sx	059	Temp Survey
	11/54				8.75	7	8041	940 sx	2650	Temp Survey
	1/54									
30-025-06479		5880	Eunice; Bli-Tu-Dr, N	-	15	10.75	257	250 sx	Surface	Calc
					9.5	7.875	3149	940 sx	Surface	Calc
A-11-215-37E					6.75	5.5	5879	415 sx	5880	Calc
EBDU 013 11/7	11/21/51	7811	Eunice; Bli-Tu-Dr, N	_	15	10.75	272	250 sx	Surface	Circ
30-025-06476					9.5	7.625	3149	1200 sx	340	No report
C-11-21S-37E					6.75	5.5	7805	835 sx	Surface	Circ
EBDU 015 7/6	7/6/52	8065	Eunice; Bli-Tu-Dr, N	-	17.5	13.375	246	260 sx	Surface	Calc
30-025-06527					12.25	9.625	3136	1797 sx	Surface	Calc
A-11-21S-37E					8.75	7	8064	948 sx	Surface	Calc

	ı		 r									
Circ	Circ	Temp Survey	Circ	Temp Survey	No report	Circ	Circ 146 sx	Circ	Circ 30 sx	Temp Survey	Temp Survey	
Surface	Surface	2156	Surface	1500	1200	Surface	Surface	Surface	Surface	1745	3225	
375 sx	1700 sx	750 sx	250 sx	950 sx	xs 0/2	250 sx	1950 sx	xs 006	350 sx	1875 sx	975 sx	
327	3098	5924	322	2912	7450	225	3152	7852	285	3034	8167	
13.375	8.625	5.5	13.375	9.625	7	13.375	8.625	5.5	13.375	8.75	5	
17.5	11	7.875	No report	No report	No report	17.25	11	7.875	17.5	11	7.875	
_			0			0			0			
Eunice; Bli-Tu-Dr, N			Eunice; Bli-Tu-Dr, N			Wantz; Abo			Brunson; Ellenburger			
7554			7450			7854			8168			
10/30/54			12/27/61			7/13/51			2/6/52			
NEDU 122	30-025-06364	A-2-21S-37E	EBDU 025	30-025-06531	F-11-21S-37E	State Section 2 007	30-025-06373	N-2-215-37E	Harry Leonard NCT F 003	30-025-06363	P-2-21S-37E	

	5/14/52	8013	Eunice; Bli-Tu-Dr, N	0	17.25	12.75	287	300 sx	Surface	Circ
					11	8.625	3049	1100 sx	1375	Temp Survey
					7.875	5.5	8012	925 sx	3075	Temp Survey
	6/27/10	7112	Eunice; Bli-Tu-Dr, N	0	12.25	8.625	1370	750 sx	Surface	Circ
					7.875	5.5	7112	1400 sx	340	No report
	4/16/56	5914	Eunice; Bli-Tu-Dr, N	P&A	17	13.375	283	300 sx	Surface	Circ 50 sx
. 1					11	8.625	3148	1500 sx	Surface	Circ 400 sx
					7.875	5.5	5913	100 sx	5304	Calc
. 1										
	8/15/01	6270	Eunice; Bli-Tu-Dr, N	0	12.25	8.625	1403	460 sx	Surface	Circ 78 sx
					7.875	5.5	6270	1350 sx	Surface	Circ 133 sx
l										
1										

NEDU 334	7/19/01	0569	Eunice; Bli-Tu-Dr, N	0	12.25	8.625	1378	460 sx	Surface	Circ 72 sx
30-025-35405					7.875	5.5	6950	1100 sx	Surface	Circ 134 sx
W-2-215-37E										
NEDU 321	4/22/53	5970	Eunice; Bli-Tu-Dr, N	0	17.25	12.75	309	350 sx	Surface	Circ
30-025-06352					11	8.625	3099	1300 sx	743	Temp Survey
X-2-21S-37E					7.875	5.5	5750	195 sx	4623	Temp Survey
EBDU 019	4/4/56	6775	Eunice; Bli-Tu-Dr, N	_	13.75	10.75	266	250 sx	Surface	Circ
30-025-06480					9.875	7.625	2955	1646 sx	Surface	Circ
H-11-215-37E					7.875	5.5	5920	450 sx	2763	Calc
					4.75	4	6775	40 sx	5918	TOL
NEDU 339	3/24/06	6975	Eunice; Bli-Tu-Dr, N	0	12.25	8.625	1274	550 sx	Surface	Circ 157 sx
30-025-37677					7.875	5.5	6975	1200 sx	107	CBL
M-2-21S-37E										

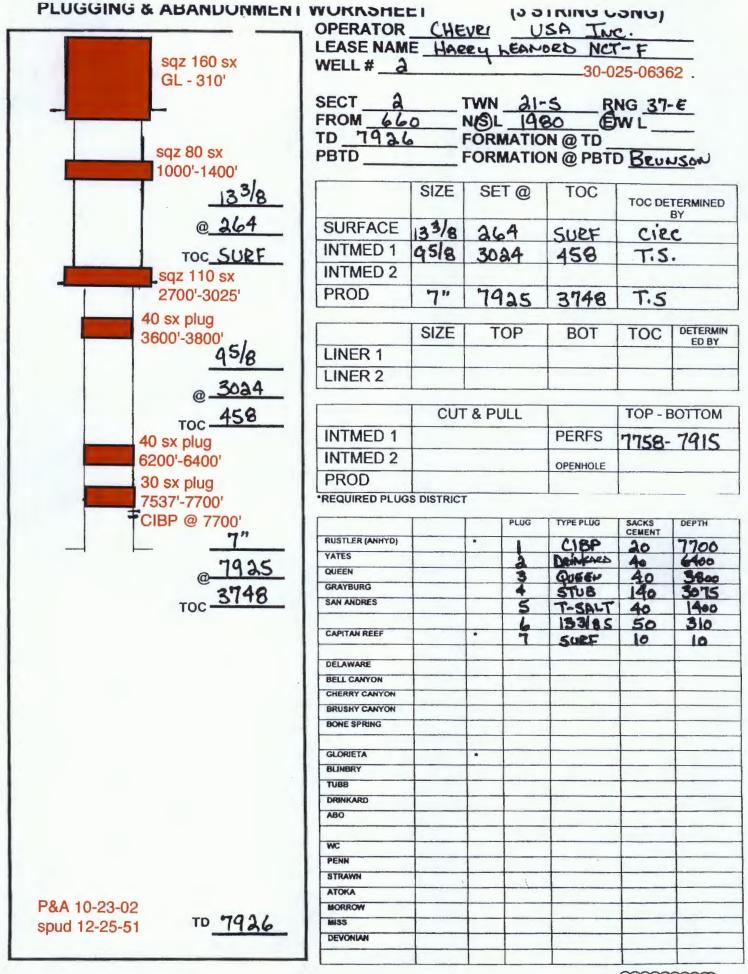
EBDU 067	4/25/08	0969	Eunice; Bli-Tu-Dr, N	0	12.25	8.625	1366	e80 sx	Surface	Circ
30-025-38771					7.875	5.5	0969	1550 sx	1013	CBL
H-11-21S-37E										
EBDU 098	7/7/10	7211	Eunice; Bli-Tu-Dr, N	0	12.25	8.625	1380	750 sx	Surface	Circ 102 sx
30-025-39645					7.875	5.5	7200	1460 sx	80	No report
D-12-21S-37E										
EBDU 064	20/9/9	6975	Eunice; Bli-Tu-Dr, N	0	12.25	8.625	1320	e00 sx	Surface	Circ
30-025-38301					7.875	5.5	6975	1150 sx	06	CBL
D-11-21S-37E										
NEDU 318	12/28/54	5925	Eunice; Bli-Tu-Dr, N	-	17.5	13.375	312	375 sx	Surface	Circ 35 sx
30-025-06365					11	8.625	3027	1650 sx	Surface	Circ 35 sx
R-2-21S-37E					7.875	5.5	5751	675 sx	3375	No report

EBDU 032	4/24/54	2900	Eunice; Bli-Tu-Dr, N	P&A	11	10.75	263	250 sx	Surface	Circ
30-025-06542					No report	7.625	3149	1255 sx	Surface	Circ
D-12-21S-37E					6.75	5.5	5897	362 sx	4226	Calc
EBDU 122	9/5/10	7204	Eunice; Bli-Tu-Dr, N	0	12.25	8.625	1495	199 sx	Surface	Circ 199 sx
30-025-39848					7.875	5.5	7204	1460 sx	76	CBL
U-1-21S-37E										
NEDU 424	90/2/8	6955	Eunice; Bli-Tu-Dr, N	0	12.25	8.625	1239	550 sx	Surface	Circ 146 sx
30-025-37728					7.875	5.5	6955	1325 sx	140	CBL
K-11-21S-37E										
NEDU 319	5/22/53	8300	Eunice; Bli-Tu-Dr, N	_	17.25	13.375	309	350 sx	Surface	Circ
30-025-06353					11	8.625	3099	1575 sx	1495	Temp Survey
Q-2-21S-37E					7.875	5.5	6019	xs 009	2400	Temp Survey

e Circ	CBL		e Circ 71 sx	e Circ 90 sx			Circ	Temp survey	Temp survey	.e Circ	Temp Survey	Temp survey	
Surface	110		Surface	Surface		:	Surface	989	3030	Surface	205	3665	
xs 006	1150 sx		460 sx	1335 sx			250 sx	1050 sx	7700 sx	300 sx	1600 sx	800 sx	
1476	7095		1358	6950			248	3049	7750	253	2904	8350	
8.625	5.5		8.625	5.5			10.75	7.625	5.5	16	10.75	4	
12.25	7.875		12.25	7.875			No report	No report	No report	19.5	13.75	8.75	
0			0				0			0			
Eunice; Bli-Tu-Dr, N			Eunice; Bli-Tu-Dr, N				Wantz; Abo			Eunice; Bli-Tu-Dr, N			
7095			0569				7751			8350			
8/9/07			6/20/01				10/21/50			10/8/51			
NEDU 340	30-025-38153	I-2-21S-37E	NEDU 333	30-025-35404	V-2-21S-37E		Lockhart B 11 001	30-025-06524	D-11-215-37E	NEDU 323	30-025-06361	J-2-215-37E	

1/12/60	0929	6760 Eunice; Bli-Tu-Dr, N	0	17.5	13.375	307	260 sx	Surface	Circ
				12.25	9.625	2995	1150 sx	2000	No report
				8.75	2	0929	500 sx	3000	No report

LEASE NAME NEDU 325 WELL# API# 30-025-06349 COUNTY Lea 555 FSL & 555 FEL **WELL BORE INFO.** 2-21s-37e P&A 5-14-14 spud 5-14-52 sqz 240 sx 0 17 1/4" Hole 12 3/4" 50# @ 287' GL - 337' perf @ 337' w/ 300 sx to surf 801 sqz 200 sx 1074' - 1440' TOC @ 1375' (TS) perf @ 1440' 1603 2404 sqz 200 sx 11" Hole 2280' - 3125' 8 5/8" 28# @ 3049" 3205 w/ 1100 sx TOC @ 1375' (TS) perf @ 3125' TOC @ 3075' 4007 4808 25 sx plug @ 5400' 5609 30 sx plug 6410 6249' - 6557' Drinkard perfs @ 6602'-6778' CIBP @ 6850' w/ 2 sx cmt Abo perfs @ 6928'-7270' 7212 CIBP @ 7600' w/ 1 sx cmt 7 7/8" Hole McKee perfs @ 7615'-7800' 5 1/2" 15.5/20# @ 8012' **EXHIBIT G** Connell perfs @ 7925'-7955' 8013 w/ 925 sx TOC @ 3075' PBTD @ 6557 TD @ 8013'





LEASE NAME WELL# **Northeast Drinkard Unit**

API# COUNTY

> TOC GL 45 sx

perf @ 60' & 383'

317 30-025-06488 Lea

990 FSL & 2300 FWL 2-21s-37e

WELL BORE INFO. P&A 9-16-11 spud 4-16-56

> 13 3/8" 48# @ 283' w/ 300 sx circ to surf

w/1500 sx cmt to surf Csg lk @ 4914'-4977' sqzd w/ 500 sx

PBTD @ 5630'

TD @ 5913'

TOC 1875' spot 25 sx unable to sqz perf @ 2054'

TOC 2785'

spot 50 sx unable to sqz perf @ 3200'

TOC 3870' spot 50 sx

TOC 4876' spot 55 sx

Cal TOC of sqz @ 1930'

8 5/8" 32# @ 3148'

Cal TOC @ 5304'

Blinebry I perfs @ 5672'-5737' sqzd w/ 150 sx cmt Blinebry II perfs @ 5807'-5837' sqzd w/ 150 sx cmt Blinebry III perfs @ 5856'-5893' sqzd w/ 150 sx cmt

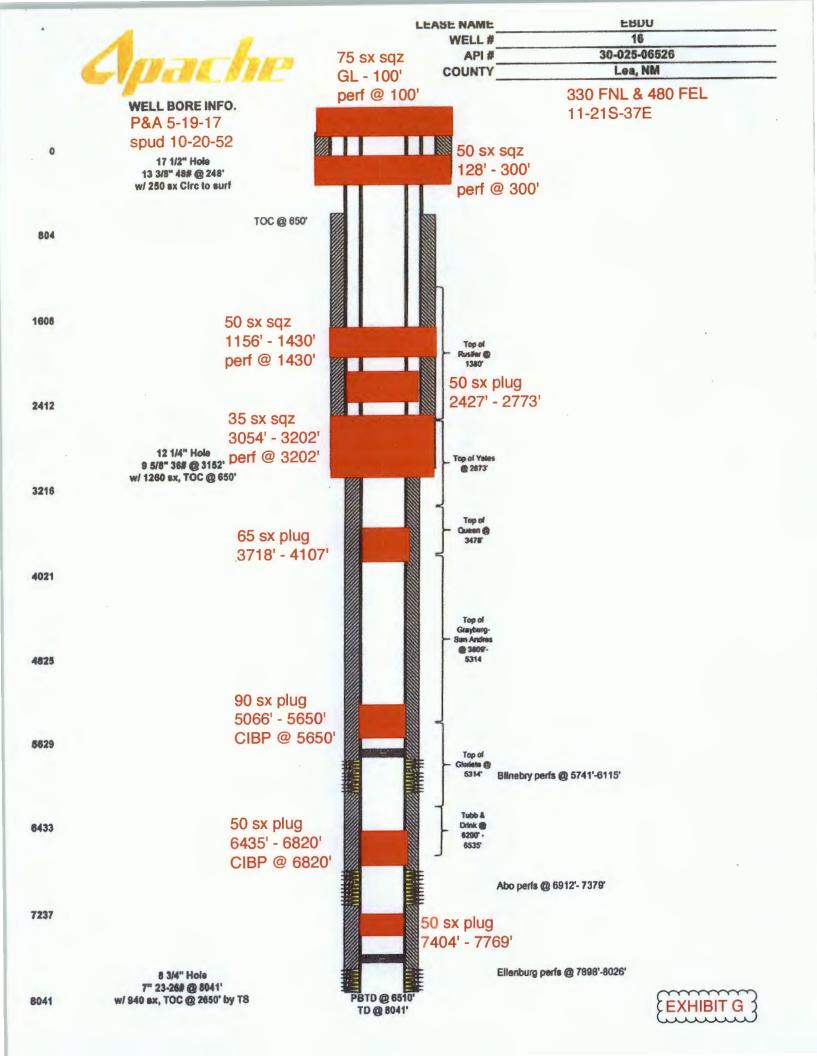
5 1/2" 15.5# @ 5914' w/ 100 sx cmt Cal TOC @ 5304'

CIBP @ 5665' w/ 35' cmt

Blinebry perfs @ 5749'-5781'

Blinebry perfs @ 5789'-5838'

Blinebry perfs @ 5857'-5904'

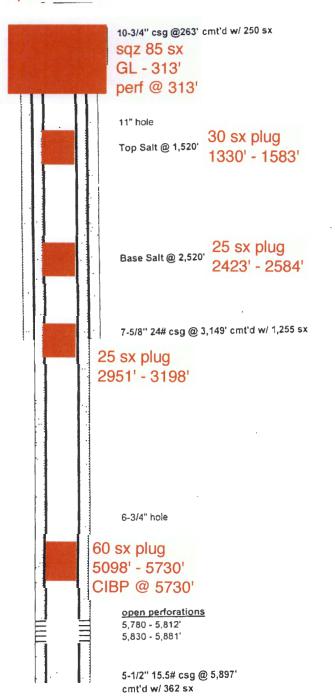


CURRENT WELLBORE SKETCH Apache Corporation



Date July 24, 2008

P&A 9-12-08 spud 4-24-54



Lease & Well No . Legal Description :

County .
Field .
Date Spudded ·
AP! Number
Status ·

Ci i hiaw Mayro	21-S, R-3	17-E	
Lea State New Mexico		State	New Mexico
Eunice, Blinebry-Tubb-Drinkard,N	unice. Blir	ebry-Tubb-D	rinkard,N





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 Nambar	Sub-	0	QQ	_		m		**					Vater
POD Number Code CP 00286 POD1 1 mile =	CP	County LE				1ws 21S	_	X 674019	Y 3597338*	DistanceDep 1508	othWellDepth 70	Water Co	lumn
CP 00197 1610 m O	СР	LE	1 4	1	01	215	37E	676611	3598599*	1716	85		
CP 00197 POD1	CP	LE	1 4	1	01	215	37E	676611	3598599*	1716	85		
<u>CP 00137 POD1</u>	CP	LE	2 2	1	13	215	37E	676862	3595783*	1998	65		
CP 01185 POD1	CP	LE	1	3	14	218	37E	674598	3594689	2741	70		
CP 01185 POD2	CP	LE	1	3	14	218	37E	674623	3594674	2747	70		
CP 01110 POD1	CP	LE	1	3	14	21S	37E	674586	3594648	2784	70		
CP 01110 POD2	CP	LE	1	3	14	21S	37E	674586	3594648	2784	70		
CP 01110 POD3	CP	LE	1	3	14	21S	37E	674586	3594648	2784	70		
CP 01110 POD4	CP	LE	1	3	14	218	37E	674586	3594648	2784	20		
CP 01110 POD5	CP	LE	1	3	14	21S	37E	674586	3594648	2784	20		
CP 01185 POD4	CP	LE	1	3	14	21S	37E	674633	3594610	2804	70		
CP 01185 POD3	CP	LE	1	3	14	21S	37E	674592	3594620	2808	70		
L 13546 POD1	L	LE	4 4	3	34	20S	38E	675011	3600037	2815	88		
CP 01574 POD2	CP	LE	1 3	3	14	21S	37E	674666	3594578	2824	68	57	11
CP 01574 POD1	CP	LE	2 4	4	15	21S	37E	674559	3594598	2840	68	57	11
CP 00552	CP	LE	2	4	04	21S	37E	672700	3598022*	2924	90	75	15
CP 00553	CP	LE	2	4	04	21S	37E	672700	3598022*	2924	90	75	15
CP 00239 POD1	CP	LE	1 1	2	23	21S	37E	675485	3594152*	3117	89	61	28
CP 00562	CP	LE	1 2	2	23	215	37E	675887	3594159*	3130	136	65	71
CP 00235 POD1	CP	LE	2 2	1	23	21S	37E	675283	3594144*	3134	81		
CP 00235 POD2	CP	LE	1 2	1	23	21S	37E	675083	3594144*	3156	96	65	31
CP 00134 POD1	CP	LE	1 1	1	24	215	37E	676289	3594166*	3195	85		
CP 00235 POD6	CP	LE	2 1	1	23	21S	37E	674881	3594137*	3197	85	65	20
									Averag	ge Depth to Wate	er:	65 fee	t

Minimum Depth:

57 feet

Maximum Depth:

75 feet

Record Count: 24

UTMNAD83 Radius Search (in meters):

Easting (X): 675526

Northing (Y): 3597269

Radius: 3220

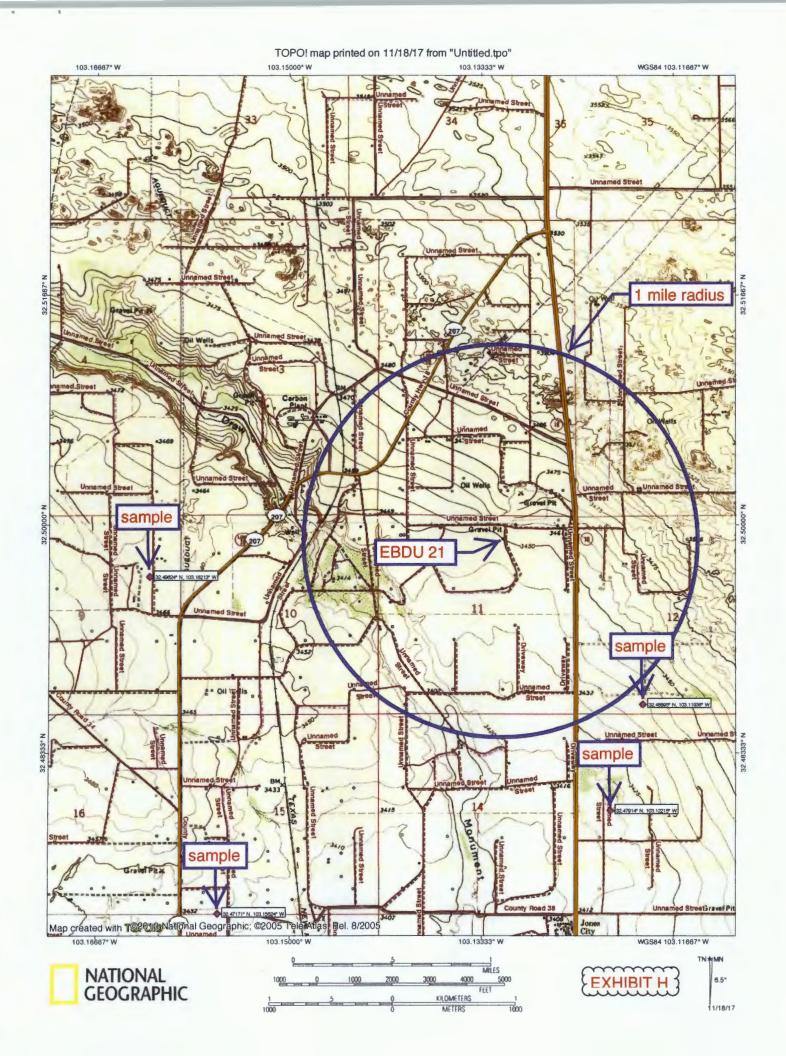




Windmill (CP 00286)



Dry Stock Tank at CP 00286



Lab Order 1708C75

Date Reported: 9/11/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West Client Sample ID: Section 12 Tank

Project: Apache EBDU 24 et al Collection Date: 8/18/2017 10:28:00 AM

Lab ID: 1708C75-001 Matrix: AQUEOUS Received Date: 8/22/2017 2:00:00 PM

Analyses	Result	PQL (Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	670	25	*	mg/L	50	8/31/2017 6:31:12 PM
EPA METHOD 1664B						Analyst: MAB
N-Hexane Extractable Material	ND	10.7		mg/L	1	9/1/2017
SM2540C MOD: TOTAL DISSOLVE	D SOLIDS					Analyst: SRM
Total Dissolved Solids	1770	20.0	*	mg/L	1	8/25/2017 5:04:00 PM



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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1708C75

Date Reported: 9/11/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West Client Sample ID: Section 13 WM

Project: Apache EBDU 24 et al Collection Date: 8/18/2017 11:19:00 AM

Lab ID: 1708C75-002 Matrix: AQUEOUS Received Date: 8/22/2017 2:00:00 PM

Analyses	Result	PQL (Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	280	10	*	mg/L	20	8/25/2017 12:24:29 AM
EPA METHOD 1664B						Analyst: MAB
N-Hexane Extractable Material	ND	9.95		mg/L	1	9/1/2017
SM2540C MOD: TOTAL DISSOLVE	D SOLIDS					Analyst: SRM
Total Dissolved Solids	930	20.0	*	mg/L	1	8/25/2017 5:04:00 PM



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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1708C75

Date Reported: 9/11/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

Client Sample ID: Decky Pond

Project: Apache EBDU 24 et al

Collection Date: 8/18/2017 2:20:00 PM

Lab ID: 1708C75-003

Matrix: AQUEOUS

Received Date: 8/22/2017 2:00:00 PM

Analyses	Result	PQL (Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	360	10	*	mg/L	20	8/25/2017 12:49:18 AM
EPA METHOD 1664B						Analyst: MAB
N-Hexane Extractable Material	ND	9.93		mg/L	1	9/1/2017
SM2540C MOD: TOTAL DISSOLVE	D SOLIDS					Analyst: SRM
Total Dissolved Solids	1040	20.0	*	mg/L	1	8/25/2017 5:04:00 PM



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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1708C75

Date Reported: 9/11/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West Client Sample ID: Section 15 Tank

Apache EBDU 24 et al Project: Collection Date: 8/18/2017 5:17:00 PM

Lab ID: 1708C75-004 Matrix: AQUEOUS Received Date: 8/22/2017 2:00:00 PM

Analyses	Result	PQL ()ual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	660	25	*	mg/L	50	9/5/2017 6:57:19 PM
EPA METHOD 1664B						Analyst: MAB
N-Hexane Extractable Material	ND	10.1		mg/L	1	9/1/2017
SM2540C MOD: TOTAL DISSOLVE	D SOLIDS					Analyst: SRM
Total Dissolved Solids	1730	40.0	*D	mg/L	1	8/25/2017 5:04:00 PM



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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits J
 - Page 4 of 7
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1708C75

11-Sep-17

Client:

Permits West

Project:

Apache EBDU 24 et al

Sample ID MB-33659

SampType: MBLK

TestCode: EPA Method 1664B

Client ID:

PBW

Batch ID: 33659

RunNo: 45373

Prep Date: 9/1/2017 Analysis Date: 9/1/2017

SeqNo: 1437730

Units: mg/L

HighLimit

Analyte

Result PQL ND 10.0 SPK value SPK Ref Val %REC LowLimit

%RPD

RPDLimit Qual

N-Hexane Extractable Material

Sample ID LCS-33659

SampType: LCS

TestCode: EPA Method 1664B RunNo: 45373

Client ID: LCSW Prep Date: 9/1/2017

Batch ID: 33659 Analysis Date: 9/1/2017

SeqNo: 1437731

Units: mg/L

Analyte

Result

10.0

40.00

84.5

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD

114

N-Hexane Extractable Material

33.8

0

RPDLimit

Qual

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Η Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Е Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

Reporting Detection Limit

Sample container temperature is out of limit as specified



Page 5 of 7

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1708C75

11-Sep-17

Client:

Permits West

Project:

Apache EBDU 24 et al

Sample	ID	MB
--------	----	----

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID: PBW Batch ID: R45189

RunNo: 45189

Units: mg/L

HighLimit

Prep Date: Analyte

Analysis Date: 8/24/2017 PQL

SeqNo: 1432143

RPDLimit Qual

Chloride

ND 0.50

Sample ID LCS

SampType: Ics

TestCode: EPA Method 300.0: Anions

LowLimit

LowLimit

Client ID: LCSW

Batch ID: R45189

RunNo: 45189

%REC

Prep Date:

Analysis Date: 8/24/2017

SeqNo: 1432144

Units: mg/L

Analyte Chloride

SPK value SPK Ref Val Result PQL

0.50

%REC

HighLimit

RPDLimit %RPD

Qual

Sample ID MB

TestCode: EPA Method 300.0: Anions

100

%RPD

SampType: mblk

Client ID: **PBW** Batch ID: R45380

5.0

Result

RunNo: 45380

Units: mg/L

Prep Date: Analyte

Analysis Date: 8/31/2017

SeqNo: 1437942

%RPD

Qual

Chloride

0.50 ND

SPK value SPK Ref Val %REC LowLimit PQL

5.000

SPK value SPK Ref Val

HighLimit

RPDLimit

Prep Date:

Sample ID LCS

SampType: Ics

TestCode: EPA Method 300.0: Anions

Client ID: LCSW Batch ID: R45380

5.000

RunNo: 45380

92.8

Units: mg/L

HighLimit

110

Analyte Chloride

Result PQL SPK value SPK Ref Val

SPK value SPK Ref Val

RL

5.000

SeqNo: 1437943 %REC

LowLimit

90

%RPD

RPDLimit

Qual

Sample ID MB

Prep Date:

SampType: mblk

0.50

Analysis Date: 8/31/2017

TestCode: EPA Method 300.0: Anions

Client ID:

Batch ID: A45445

RunNo: 45445

Analyte

Analysis Date: 9/5/2017 PQL Result

SPK value SPK Ref Val %REC

SeqNo: 1439920

TestCode: EPA Method 300.0: Anions

LowLimit

90

Units: mg/L

Qual

Chloride

ND 0.50

LowLimit

HighLimit

%RPD

RPDLimit

Sample ID LCS-b Client ID: LCSW

SampType: Ics Batch ID: A45445

PQL

0.50

RunNo: 45445

%REC

91.9

HighLimit

110

Analyte Chloride

Prep Date:

Analysis Date: 9/5/2017

Result

4.6

SeqNo: 1439922

Units: mg/L

%RPD

RPDLimit Qual

D

ND

- Qualifiers: Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix Holding times for preparation or analysis exceeded H
- Not Detected at the Reporting Limit PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Sample pH Not In Range Reporting Detection Limit
- Sample container temperature is out of limit as specified

Page 6 of 7

EXHIBIT

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1708C75

11-Sep-17

Client:

Permits West

Project:

Analyte

Apache EBDU 24 et al

Sample ID MB-33526

SampType: MBLK

TestCode: SM2540C MOD: Total Dissolved Solids

Client ID:

PBW

Batch ID: 33526

PQL

RunNo: 45227

Prep Date: 8/23/2017 Analysis Date: 8/25/2017

SeqNo: 1432473

%REC LowLimit

Units: mg/L

HighLimit

RPDLimit

Qual

Total Dissolved Solids

ND 20.0

Sample ID LCS-33526

SampType: LCS

TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: LCSW Batch ID: 33526

RunNo: 45227

SeqNo: 1432474

Units: mg/L

Analyte

Prep Date:

Analysis Date: 8/25/2017 PQL

SPK value SPK Ref Val %REC 0

SPK value SPK Ref Val %REC

SPK value SPK Ref Val %REC

1728

1728

LowLimit

LowLimit

LowLimit

80

80

HighLimit

Result 1030

20.0 1000 103

80 120 **RPDLimit** Qual

Total Dissolved Solids

2000

2000

SPK value SPK Ref Val

%RPD

%RPD

PQL

40.0

SampType: MS

TestCode: SM2540C MOD: Total Dissolved Solids RunNo: 45227

120

Client ID: Prep Date:

Total Dissolved Solids

Analyte

8/23/2017

Sample ID 1708C75-004AMS

8/23/2017

Batch ID: 33526 Section 15 Tank

Result

3830

Analysis Date: 8/25/2017

SeqNo: 1432494

Units: mg/L HighLimit

RPDLimit %RPD Qual

D

Sample ID 1708C75-004AMSD

SampType: MSD

TestCode: SM2540C MOD: Total Dissolved Solids

105

Client ID: Section 15 Tank Batch ID: 33526

PQL

40.0

RunNo: 45227

106

Units: mg/L

HighLimit

Qual

Analyte Total Dissolved Solids

Prep Date:

8/23/2017

Result

3850

Analysis Date: 8/25/2017

SeqNo: 1432495

%RPD 0.625

RPDLimit

D

Oualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Practical Quanitative Limit **PQL**

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Reporting Detection Limit

Analyte detected below quantitation limits

P Sample pH Not In Range

RI.

Sample container temperature is out of limit as specified

Page 7 of 7



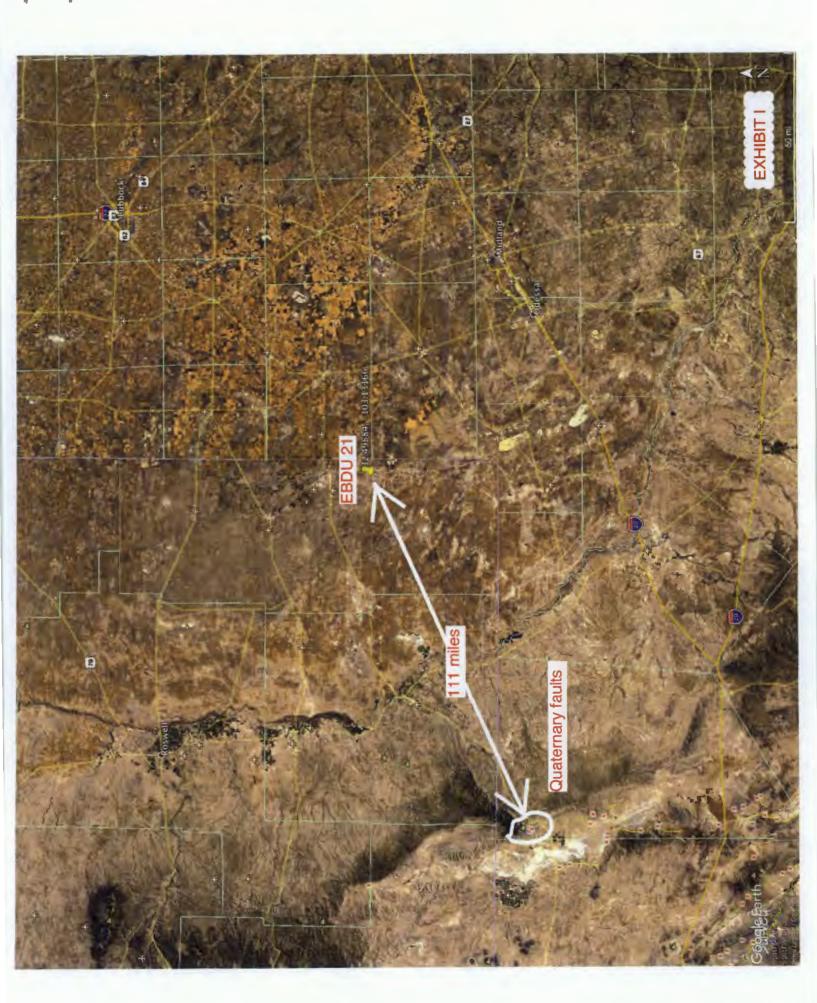




Form C-108
Affirmative Statement
Apache Corporation
East Blinebry Drinkard Unit
Section 11, T-21-S, R-37-E
Lea County, New Mexico

The extractions from the seismic data show no evidence of faulting at (or above) the Glorieta in this area and surface mapping from the USGS confirms that no faults are known at the surface. In addition, we have no empirical evidence that our injection operations at EBDU are affected by faulting at the Glorieta level, the evaporites, or the surface. Available geologic and engineering data has been examined and no evidence of open faults or hydrological connection between the injection zone and any underground sources of drinking water has been found.

Justin Wagner Geologist I 8/14/2017



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 November 22, 2017 and ending with the issue dated November 22, 2017.

Publisher

Sworn and subscribed to before me this 22nd day of November 2017.

Business Manager

My commission expires

January 29, 2019 (Seal) OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico

My Commission Expires

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 November 22, 2017

Apache Corporation is applying to convert the East Blinebry Drinkard Unit '21 oil well to a water injection well. The well is at 660 FNL & 1980 FEL, Sec. 11, T. 21 S., R. 37 E., Lea County, NM. This is 4 miles northnortheast of Eunice, NM. It will inject water into the Blinebry (maximum injection pressure = 2,100 psi) from 5,645 to 5,932. Injection will be at a maximum rate of 500 bwpd. Interested parties must file objections or requests for hearing with the NM. Oil 'Conservation Division, 1220 South Saint Francis Dr., Sante Fe, NM. 87605 withird: 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.

02108485

BRIAN WOOD PERMITS WEST 37 VERANO LOOP SANTA FE, NM 87508 00203090





January 2, 2018

W F M Ranch Ltd et al PO Box 21116 Billings MT 59104

Apache Corporation is applying (see attached application) to convert its East Blinebry Drinkard Unit 21 oil well to 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: East Blinebry Drinkard Unit 21 (BLM lease) TD = 5,932'

Proposed Injection Zone: Blinebry from 5,645' to 5,932'

Where: 660' FNL & 1980' FEL Sec. 11, T. 21 S., R. 37 E., Lea County, NM

Approximate Location: 4 air miles NNE of Eunice, NM

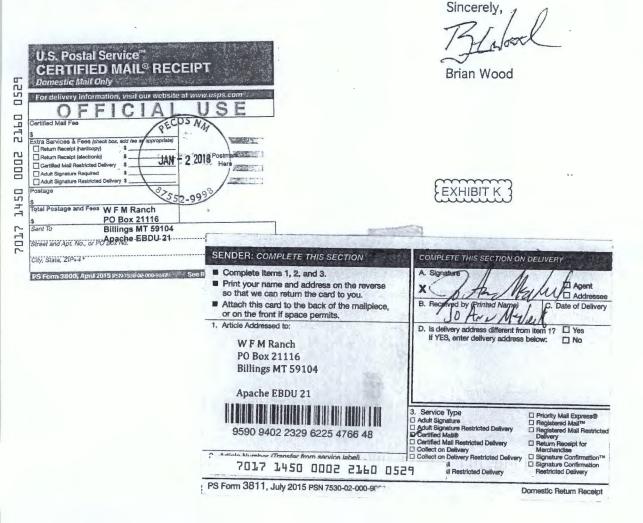
Applicant Name: Apache Corporation

(432) 818-1062

Applicant's Address: 303 Veterans Airpark Lane, #3000, Midland, TX 79705

<u>Submittal Information</u>: 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.



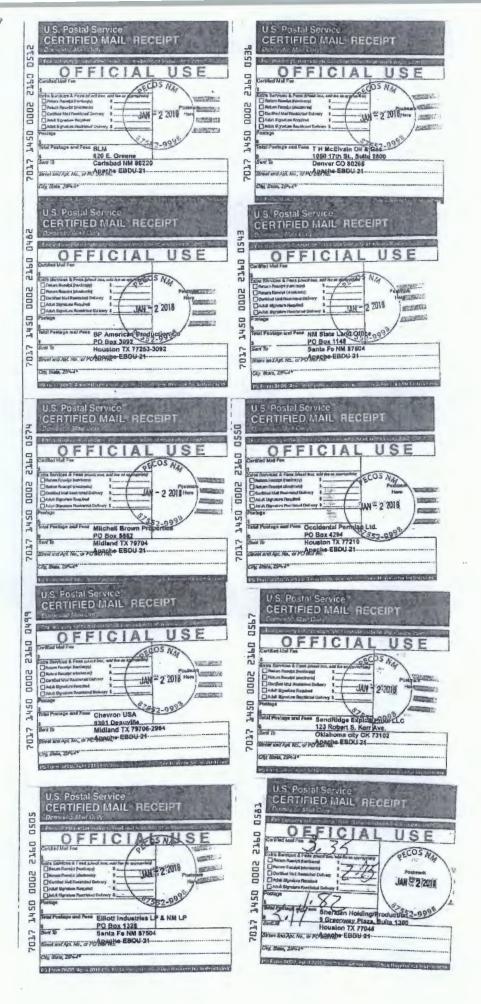


EXHIBIT K



STATE OF NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 13503 ORDER NO. R-12394

APPLICATION OF APACHE CORPORATION FOR APPROVAL OF A WATERFLOOD PROJECT AND QUALIFICATION OF THE PROJECT AREA FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE "ENHANCED OIL RECOVERY ACT", LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on June 16, 2005, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this day 22nd of July, 2005, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

- (1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.
- (2) Division Cases No. 13503 and 13504 were consolidated at the hearing for the purpose of testimony.
- (3) The applicant, Apache Corporation ("Apache" or "applicant"), seeks authority to institute a waterflood project within its East Blinebry-Drinkard Unit Area ("Unit Area"), described below, by the injection of produced water into the Blinebry and Drinkard formations, Drinkard and Blinebry Oil & Gas Pools, Lea County, New Mexico, through seventeen (17) initial injection wells to be located within the Unit Area, all as shown on Exhibit "A" attached to this order:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM

Section 1: Lots 11 through 15, SW/4, W/2 SE/4

Section 11: E/2, NW/4 Section 12: W/2, W/2 E/2

Section 13: W/2, W/2 NE/4, NW/4 SE/4

Section 14: NE/4, E/2 SE/4

(4) BP America Production Company, a working interest owner in the East Blinebry-Drinkard Unit, appeared at the hearing through legal counsel but offered no evidence or testimony in this proceeding.

- (5) The Unitized Interval within the Unit Area comprises the Blinebry, Tubb and Drinkard formations and occurs at a depth of 5,615 feet to 6,795 on the type log for the Apache Lockhart B-11 Well No. 17 (API No. 30-025-06536) located 1980 feet from the North and East lines (Unit G) of Section 11, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.
- (6) Apache proposes to inject into the Blinebry and Drinkard formations within the Unit Area by means of a five spot injection pattern.
- (7) The Blinebry and Drinkard formations within the Unit Area are in an advanced state of depletion and are suitable for waterflooding. The Tubb formation is predominantly gas bearing within the Unit Area, and development of this interval thus far has been limited to portions of Sections 13 and 14.
- (8) All of the "area of review" wells within the Unit Area appear to be cased and cemented, and/or plugged and abandoned adequately so as to preclude the movement of injected fluid from the proposed injection interval to other formations or fresh water sources.
- (9) The proposed waterflood project should result in the recovery of an additional 3.465 million barrels of secondary oil reserves from the Unitized Interval within the Unit Area.
- (10) Apache estimates that it will cost approximately \$2.428 million dollars to implement waterflood operations within the Unit Area.
- (11) Approval of the proposed waterflood project will result in the recovery of additional secondary oil and gas reserves that would otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.

- (12) Injection into the Unitized Interval should be limited to the oil-bearing portions of the Blinebry and Drinkard formations. The applicant should be required, insofar as is practical, to avoid injection into any gas-bearing zones within any or all of the three formations within the Unitized Interval, and should otherwise take steps as may be necessary to protect these gas-bearing intervals.
- (13) Prior to commencing injection operations into the Elliot-Monterey Well No. 5 (API No. 30-025-06334), the Lockhart B-11 Well No. 4 (API No. 30-025-06476), the Lockhart B-11 Well No. 6 (API No. 30-025-06527), the Lockhart B-11 Well No. 17 (API No. 30-025-06536) and the Lockhart B-12 Well No. 4 (API No. 30-025-06539), the deeper perforations below the Unitized Interval in each of these wells should be squeeze cemented or otherwise isolated by a method approved by the Hobbs District Office of the Division.
- (14) Injection into the wells shown on Exhibit "A" should be conducted at a maximum surface injection pressure of 1121 psi; provided however that the Division may administratively grant a surface injection pressure increase upon a showing by Apache that such increase will not result in the fracturing of the injection interval or confining strata.
- (15) The applicant further seeks to qualify the waterflood project as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (NMSA 1978 Sections 7-29A-1 through 7-29A-5).
 - (16) The evidence presented demonstrates that:
 - the application for approval of the proposed secondary recovery project has not been prematurely filed either for economic or technical reasons;
 - (b) the area affected by the proposed project has been so depleted by primary operations that it is prudent to apply secondary recovery techniques to maximize the ultimate recovery of crude oil from the pool; and

- (c) the proposed secondary recovery project meets all the criteria for certification by the Division as a qualified "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (NMSA 1978 Sections 7-29A-1 through 7-29A-5).
- (17) The approved project area should comprise the entire East Blinebry-Drinkard Unit Area; provided however that the "project area" and/or the producing wells eligible for the enhanced oil recovery (EOR) tax rate may be contracted and reduced based upon the evidence presented by the applicant in its demonstration of a positive production response.

IT IS THEREFORE ORDERED THAT:

- (1) Apache Corporation is hereby authorized to institute a waterflood project within its East Blinebry-Drinkard Unit Area, described in Finding No. (3) above, by the injection of water into the Blinebry and Drinkard formations, Drinkard and Blinebry Oil & Gas Pools, through seventeen (17) injection wells shown on Exhibit "A" attached to this order located in Sections 1, 11, 12, 13 and 14, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.
- (2) Injection into the Unitized Interval, described in Finding No. (5) above, shall be limited to the oil-bearing portions of the Blinebry and Drinkard formations. The applicant shall, insofar as is practical, avoid injection into any gas-bearing zones within any or all of the three formations within the Unitized Interval, and shall otherwise take steps as may be necessary to protect these gas-bearing intervals.
- (3) The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.
- (4) Injection into each of the wells shown on Exhibit "A" shall be accomplished through 2 3/8 inch internally plastic-lined tubing installed in a packer located within 100 feet of the uppermost injection perforations or open hole interval. The casing-tubing annulus in each well shall be filled with an inert fluid and a gauge or approved leak-detection device shall be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

- (5) The injection wells or pressurization system shall be equipped with a pressure control device or acceptable substitute that will limit the surface injection pressure to no more than 1121 psi.
- (6) The Division Director may administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.
- (7) Prior to commencing injection operations into the Elliot Monterey Well No. 5 (API No. 30-025-06334), the Lockhart B-11 Well No. 4 (API No. 30-025-06476), the Lockhart B-11 Well No. 6 (API No. 30-025-06527), the Lockhart B-11 Well No. 17 (API No. 30-025-06536) and the Lockhart B-12 Well No. 4 (API No. 30-025-06539), the deeper perforations below the Unitized Interval in each of these wells shall be squeeze cemented or otherwise isolated by a method approved by the Hobbs District Office of the Division.
- (8) Prior to commencing injection operations, the casing in each well shall be pressure tested throughout the interval from the surface down to the proposed packer setting depth to assure the integrity of such casing.
- (9) The operator shall give advance notice to the supervisor of the Division's Hobbs District Office of the date and time (i) injection equipment will be installed, (ii) the mechanical integrity pressure tests will be conducted on the injection wells, and (iii) remedial plug back work will be conducted on the wells described in Ordering Paragraph No. (7), so that these operations may be witnessed.
- (10) The operator shall immediately notify the supervisor of the Division's Hobbs District Office of the failure of the tubing, casing or packer in any of the injection wells or the leakage of water, oil or gas from or around any producing or plugged and abandoned well within the project area, and shall promptly take all steps necessary to correct such failure or leakage.
- (11) The waterflood project is hereby designated the East Blinebry-Drinkard Unit Waterflood Project, and the applicant shall conduct injection operations in accordance with Division Rules No. 701 through 708, and shall submit monthly progress reports in accordance with Division Rules No. 706 and 1115.

SEAL

- (12) The injection authority granted herein for each well shown on Exhibit "A" shall terminate one year after the date of this order if the operator has not commenced injection operations into the wells; provided, however, the Division, upon written request by the operator, may grant an extension for good cause.
- (13) The East Blinebry-Drinkard Unit Waterflood Project is hereby certified as an "Enhanced Oil Recovery Project." The project area shall initially comprise the area described in Finding Paragraph No. (3), provided however, the project area and/or the producing wells eligible for the enhanced oil recovery (EOR) tax rate may be contracted and reduced based upon the evidence presented by the applicant in its demonstration of a positive production response.
- (14) To be eligible for the EOR tax rate, the operator shall advise the Division of the date and time water injection commences within the secondary recovery project. At that time, the Division will certify the project to the New Mexico Taxation and Revenue Department.
- (15) At such time as a positive production response occurs, and within five years from the date the project was certified to the New Mexico Taxation and Revenue Department, the applicant must apply to the Division for certification of a positive production response. This application shall identify the area benefiting from enhanced oil recovery operations and the specific wells eligible for the EOR tax rate. The Division may review the application administratively or set it for hearing. Based upon the evidence presented, the Division will certify to the New Mexico Taxation and Revenue Department those wells that are eligible for the EOR tax rate.
- (16) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E.

Director

Exhibit "A" Case No. 13503 Division Order No. R-12394 East Blinebry-Drinkard Waterflood Project Approved Injection Wells (All in Township 21 South, Range 37 East, NMPM)

Well Name & Number	API Number	Well Location	Injection Interval	Packer Depth	Maximum Surface Injection Pressure
Elliot "B" Well No. 1	30-025-06325	2970' FSL & 330' FWL (Unit M) Section 1	5,880'-5,971' OH	5,830	1121 PSIG
Elliot-Monterey Well No. 5	30-025-06334	660' FSL & 810' FWL (Unit U) Section 1	5,810'-5,987' Perf.	5,760,	1121 PSIG
Lockhart B-11 Well No. 4	30-025-06476	330' FNL & 1650' FWL (Unit C) Section 11	5,943'-6,730' Perf.	5,893	1121 PSIG
Lockhart B-11 Well No. 6	30-025-06527	330' FNL & 330' FEL (Unit A) Section 11	6,595'-6,766' Perf.	6,445	1121 PSIG
Lockhart B-11 Well No. 8	30-025-06478	660' FSL & 1980' FEL (Unit O) Section 11	5,604'-6,650' Perf.	5,554'	1121PSIG
Lockhart B-11 Well No. 9	30-025-06479	660' FNL & 330' FEL (Unit A) Section 11	5,759'-5,852' Perf.	5,709,	1121 PSIG
Lockhart B-11 Well No. 11	30-025-06481	1980' FSL & 330' FEL (Unit I) Section 11	5,696'-6,703' Perf.	5,646	1121 PSIG
Lockhart B-11 Well No. 14	30-025-06529	1650' FNL & 1650' FEL (Unit G) Section 11	5,724'-5,894' Perf.	5,674	1121 PSIG
Lockhart B-11 Well No. 17	30-025-06536	1980' FNL & 1980' FEL (Unit G) Section 11	6,582'-6.708' Perf.	6,520	1121 PSIG
Lockhart B-11 E Well No. 1	30-025-06535	2310' FNL & 330' FWL (Unit E) Section 11	6,453'-6,570' Perf.	6,403,	112I PSIG
Lockhart B-12 Well No. 4	30-025-06539	1650' FNL & 660' FWL (Unit E) Section 12	5,740'-6,747' Perf.	5,690,	1121 PSIG
Lockhart B-12 Well No. 6	30-025-06541	330' FNL & 1980' FWL (Unit C) Section 12	5,796'-5,996' Perf.	5,746'	1121 PSIG
Lockhart B-12 Well No. 11	30-025-06546	1980' FNL & 660' FWL (Unit E) Section 12	5,712'-5,908' Perf.	5,662,	112I PSIG
Lockhart B-13 A Well No. 2	30-025-06556	1980' FNL & 660' FWL (Unit E) Section 13	5,680'-6,703' Perf.	5,630	1121 PSIG
Lockhart P-14 A Well No. 3	30-025-06575	660' FNL & 330' FEL (Unit A) Section 14	5,741'-5,877' Perf.	5,691,	1121 PSIG
Chesher Well No. 2	30-025-06550	660' FSL & 660' FWL (Unit M) Section 12	5,720'-5,815' Perf.	5,670'	1121 PSIG
Gulf Bunin Well No. 2	30-025-06566	660' FNL & 1650' FWL (Unit C) Section 13	5,702'-5,888' Perf.	5,652,	1121 PSIG

DATE RECORD: F	First Rec: 1/22/2		2/20/ or Su	K spended:	Add. Request/Reply:		
		umber: Order	Date:	Legacy Permit	s/Orders: 17-12-34 9		
Well No. Well Name(s):	135E	7	-6		FDI-292		
API: 30-0 25-06523 Spud Date: 401/12/3/4 56 New or Old (EPA): (UIC Class II Primacy 03/07/1982)							
Footages 1900 FEC Lot or Unit B Sec 11 Tsp 215 Rge 37 E County Les							
					•		
General Location: 23m; 1-es MR4412- Pool: Eunize 13L1-7-DR Pool No.: 225/2 BLM 100K Map: 541 Operator: Apula Corp OGRID: Contact:							
BLM 100K Map: 54 Operator: 4 O							
WELL FILE REVIEWED Current			\ \ \		7		
WELL DIAGRAMS: NEW: Proposed	or RE-ENTER:	Before Conv. After Co	onv.	ogs in Imaging:			
Planned Rehab Work to Well:				/			
Well Construction Details	Sizes (in)	Setting		Cement	Cement Top and		
Planned _or Existing _Surface	Borehole / Pipe	Depths (ft)	Stern Tool	Sx or Cf	Determination Method		
Planned _or Existing _Surface Planned_or Existing _Interm/Prod		5432	Stage Tool	700	Circletux		
Planned_or ExistingInterm/Prod	1 " 8/5"	3932		1626	tine		
Planned_or Existing Prod/Liner							
Planned_or Existing Liner			4				
	and t		Inj Length	Completion	Operation Details:		
Planned_or Existing_OH (PEHF) 3643-5632							
Injection Lithostratigraphic Units:	Depths (ft)	Units	Tops		PBTD		
Adjacent Unit: Litho. Struc. Por.		8 BL	5648		NEW PBTD		
Confining Unit: Litho. Struc. Por.					or NEW Perfs O		
Proposed Inj Interval TOP: Proposed Inj Interval BOTTOM:					epth 5535 ft		
Confining Unit: Litho. Struc. Por.					55 4 5 (100-ft limit)		
Adjacent Unit: Litho. Struc. Por.				Proposed Max. Surf			
AOR: Hydrologic and Geologic Information Admin. Inj. Press. 2100 (0.2 psi per ft)							
POTASH: R-111-P A Noticed? BLM Sec Ord WIPP Noticed? Salt/Salado T: B: NW: Cliff House fm_							
FRESH WATER: Aquifer Qualified Person Max Depth 75 HYDRO AFFIRM STATEMENT By Qualified Person							
NMOSE Basin: CApiten CAPITAN REEF: thru adjNo. GW Wells in 1-Mile Radius? FW Analysis?							
Disposal Fluid: Formation Source(s) Produc = 4Hw Analysis? On Lease Operator Only () or Commercial ()							
Disposal Interval: Inject Rate (Avg/Max BWPD): 400/500 Protectable Waters? Source: System Closed or Open							
HC Potential: Producing Interval? Formerly Producing? Method: Logs/DST/P&A/Other 2-Mi Radius Pool Map							
AOR Wells: 1/2-M Radius Map and Well List? No. Penetrating Wells: 40 [AOR Horizontals: 40 AOR SWDs:							
Penetrating Wells: No. Active Wells Num Repairs? on which well(s)? Diagrams?							
Penetrating Wells: No. P&A Wells	5 Num Repairs?	on which well(s)?	1.0		Diagrams?		
NOTICE: Newspaper Date 11-27	NOTICE: Newspaper Date 1-22201 Mineral Owner Bum / Mineral Owner Bum / Sto Surface Owner WHAN N. Date 1-02-24						
RULE 26.7(A): Identified Tracts?	Affected Per	rsons: mitchense	dge rungens	swein, Chey	N. Date 1-02-2018		
Order Conditions: Issues:(Drun c	-13-Lin	52"/6	Asing +	USUMFACE		
Additonal COAs:	B Fr	I 242 1	topno	ved ing	UFZIOUPSZ		
	@BLIM	ebry int	EXOF	2			