AE Order Number Banner

Application Number: pAZS2233442618

WFX-1051

APACHE CORPORATION [873]

RECEIVED:	REVIEWER:	TYPE:	APP NO:	
		ABOVE THIS TABLE FOR OCD DIV		
	- Geologia	O OIL CONSERVA cal & Engineering ancis Drive, Santa	Bureau -	
	1220 30001 30. 118	ands blive, same	1 FE, INIVI 67505	COMMENSATION OF STREET
ZILIT	ADMINISTR CHECKLIST IS MANDATORY FOR AL	ATIVE APPLICATION	ON CHECKLIST	DIVIGION DUE SO AND
Inis	REGULATIONS WHICH RE	QUIRE PROCESSING AT THE I	DIVISION LEVEL IN SANTA FE	DIVISION RULES AND
Applicant: Apache				Number: <u>873</u>
	Monument G/SA Unit 006		API: 30-0	
Pool: Eunice - Monum	nent; Grayburg - San Andres		Pool Co	ode: 23000
SUBMIT ACCUR	ATE AND COMPLETE INF	ORMATION REQUIR		E TYPE OF APPLICATION
1) TYPE OF APPLI	CATION: Check those v	which apply for [A]		
A. Location	- Spacing Unit - Simult	aneous Dedication		
	NSL NSP _{(PRO}	DJECT AREA) NSF	(PRORATION UNIT)	
P. Chock o	no only for [1] or [1]			
b. Check o	ne only for [1] or [11] minaling = Storage = Ma	asuromont		
	mingling – Storage – Me] DHC □CTB □PL	с Прс Поі	s Dolm	
[II] Injec	tion – Disposal – Pressu	e Increase – Enha	nced Oil Recovery	
]wfx ∴pmx □sv	/D DIPI DEC		
			· · · · · · · · · · · · · · · · · · ·	FOR OCD ONLY
2) NOTIFICATION	I REQUIRED TO: Check t	hose which apply.		Notice County
	operators or lease hold			Notice Complete
B. Royalt	ty, overriding royalty ov	ners, revenue owr	ners	Application
	cation requires publishe			Content
D. Notific	cation and/or concurre	nt approval by SLC)	Complete
	cation and/or concurre	nt approval by BLN	Λ	Complete
	ce owner	potification or a de	Paragraph to the state of	1 17
	of the above, proof of tice required	nouncation or put	olication is attached	a, and/or,
11 110 110	dec required			
3) CERTIFICATION	I: I hereby certify that tl	ne information sub	mitted with this an	plication for
administrative	approval is accurate a	nd complete to th	e best of my knowl	ledge. Lalso
understand th	at no action will be take	en on this applicat	ion until the require	ed information and
notifications a	re submitted to the Divi	sion.		in official and
No	te: Statement must be complete	ed by an individual with n	nanagerial and/or supervi	isory canacity
		•	у у	act, capacity.
			11-23-22	
Brian Wood	Λ		Date	
Print or Type Name	2 / 1	-		
ijportanio	K-11		505 466-8120	
	1 / Kee		Phone Number	
			and the same of	
Signature			brian@permitswest.	com
Signature			e-mail Address	

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: 505 466-8120
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-9596
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.
3711	NORTH MONUMENT G/SA UNIT 006
VII.	Attach data on the proposed operation, including: 1. 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 TITLE: CONSULTANT
	SIGNATURE: DATE: NOV. 22, 2022
*	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.

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:	
		ABOVE THIS TABLE FOR OCD		
			ATION DIVISION	SE OF NEW MEERO
	- Geologic	al & Engineerin	g Bureau -	E.
	1220 South St. Fra	incis blive, sani	.a re, NIVI 87505	CONSERVATION OF STREET
		ATIVE APPLICAT		
THIS C	CHECKLIST IS MANDATORY FOR ALI REGULATIONS WHICH REC	. Administrative applic Quire processing at thi	ATIONS FOR EXCEPTIONS TO DIVISION RU E DIVISION LEVEL IN SANTA FE	LES AND
Applicant: Apache (Corporation		OGRID Numbe	er: 873
	Monument G/SA Unit 006		API: 30-025-05655	
Pool: Eunice - Monum	ent; Grayburg - San Andres		Pool Code: 230	000
SUBMIT ACCURA	ATE AND COMPLETE INF	ORMATION REQUI	IRED TO PROCESS THE TYPE C)F APPLICATION
1) TYPE OF APPLIC	CATION: Check those v	vhich apply for [A	\]	
A. Location	 Spacing Unit – Simulta 	aneous Dedicatio	on	
	ISL UNSP _{(PRC}	JECT AREA)	SP(proration unit) SD	
B Check or	ne only for [I] or [II]			
[1] Comr	ninalina – Storage – Me	easurement		
	mingling – Storage – Me DHC □CTB □PL			
[II] Injec	tion - Disposal - Pressur	e Increase - Enha		
	WFX PMX SW	/D IPI IE		
2) NOTIFICATION	REQUIRED TO: Check to	noso which apply	, <u> </u>	OR OCD ONLY
	operators or lease hold		No.	tice Complete
	y, overriding royalty ow		/ners	plication
C. Applic	ation requires publishe	d notice		entent
	ation and/or concurre		.0	mplete
	ation and/or concurre e owner	nt approval by BL	.M	пріосо
		notification or pu	ublication is attached, and/o	Or.
	rice required	roundation of pa	bileation is attached, and t	51,
3) CERTIFICATION	: I hereby certify that the	e information sul	bmitted with this application	n for
understand tha	approvaris accurate a	na complete to t	he best of my knowledge. I ation until the required inform	also
notifications ar	e submitted to the Divis	in on this applica	mon unui the required inform	nation and
NO	e. statement must be complete	a by an individual with	managerial and/or supervisory capac	city.
			11-23-22	
Brian Wood	2		Date	
Print or Type Name	0 (1			
	K-11		505 466-8120	
	1 With	J.	Phone Number	
			1.1.0	
Signature)		brian@permitswest.com e-mail Address	
3			CTHAIL MUULESS	

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 - I - I - I - I - I - I - I - I - I
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: 505 466-8120
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?YesXXXNo If yes, give the Division order number authorizing the project:R-9596
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.
* ***	NORTH MONUMENT G/SA UNIT 006
VII.	Attach data on the proposed operation, including: 30–025–05655
	 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 TITLE: CONSULTANT
	SIGNATURE:DATE: NOV. 22, 2022
*	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.

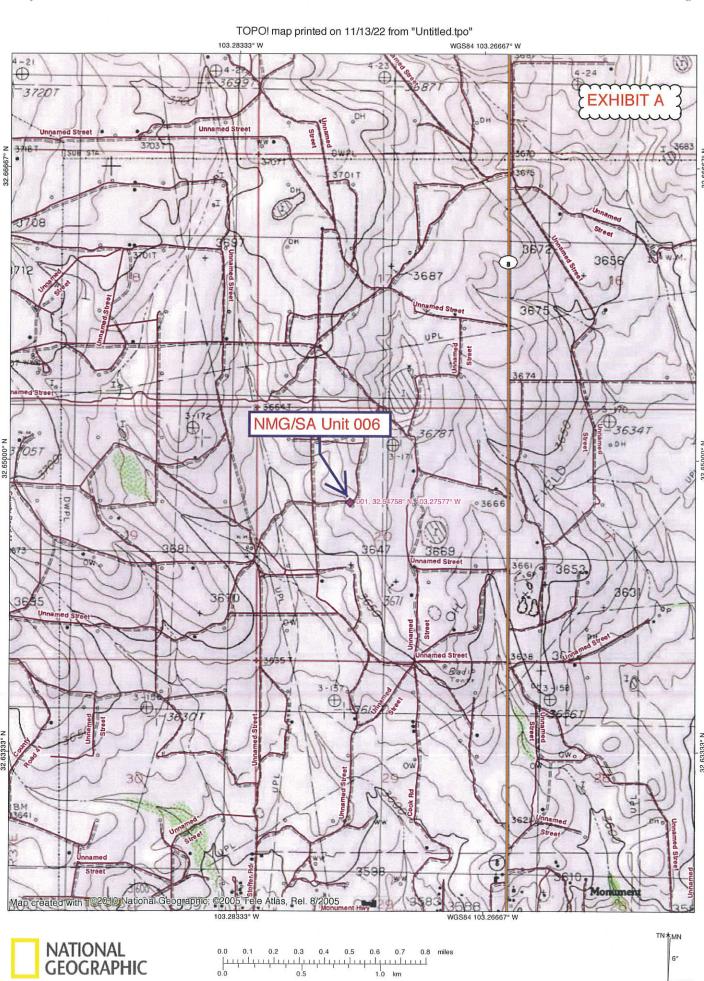
Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (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.

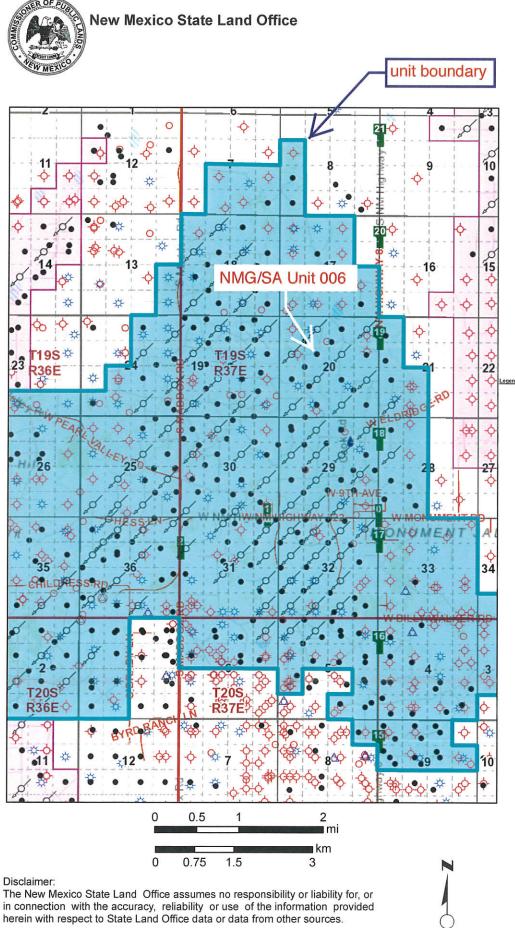
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

11/13/22



0.3 0.4 0.5 0.6 0.7 0.8 miles





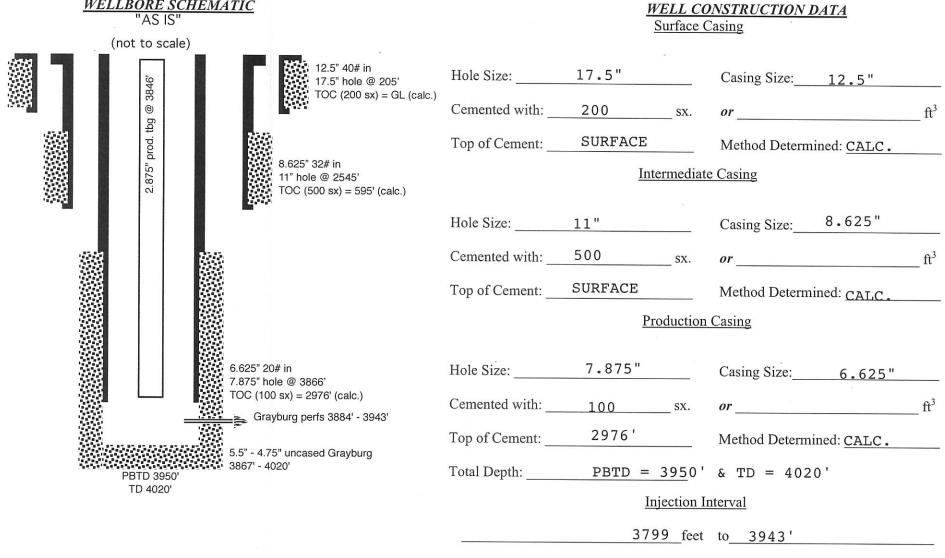




Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.



WELL PODE SCHEMATIC				
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE
WELL LOCATION: 1980' FNL & 1980' FWL	F	20	19 S	37 E
WELL NAME & NUMBER: NORTH MONUMENT G	/SA UNIT 006	ÿ		
OPERATOR: APACHE CORPORATION				
Side I	INJECTION WELL DATA SHEET			



(Perforated or Open Hole; indicate which)

OPERATOR: _	APAC	HE	CORPORATIO	N							
WELL NAME	& NUME	BER:	NORTH MC	NUMENT G/S	A UNIT 0	06					
WELL LOCAT	TION: 19		FNL & 198	0' FWL TION	UN	F IT LETTER	20 SECT	0 ION	19 S TOWNSHIP		
			SCHEMATIC SED"				W		NSTRUCTION L		, L
9999 9999 9999	(not	3774' ot	cale)	12.5" 40# 17.5" hole	@ 205'	Hole Size:	17.5"		Casing Size:	12.5"	
		tbg @		TOC (200	sx) = GL (calc.)	Cemented with:					ft ³
		2.875" IPC inj.		8.625" 32# in 11" hole @ 2545' TOC (500 sx) = 59	95' (calc.)	Top of Cement:		ermediate		ined: <u>CALC</u> .	
_						Hole Size:				8.625"	
						Cemented with:					ft ³
	9000 9000 9000 9000		7000 7000 7000			Top of Cement:	SURFACE	13	Method Determ	ined: CALC.	
packer							Pro	oduction	Casing		
@ 3774 perf Grayburg			6.625" <i>2</i> 7.875" I	20# in nole @ 3866'		Hole Size:	7.875"	0/1	Casing Size:	6.625"	
3799' - 3865'			10,000	00 sx) = 2976' (calc.) avburg perfs		Cemented with:	100	sx.	or		ft ³
		15151,	10000	ayburg perfs 84' - 3943' 75" uncased Graybu	ra	Top of Cement:	2976'		Method Determi	ned: CALC.	
		TD 39	3867' - 950'		y	Total Depth:	PBTD =	<u>395</u> 0'	& $TD = 402$	0 '	
	Т	D 402	0.				<u>In</u>	jection In	nterval		

(Perforated or Open Hole; indicate which)

3799 feet to 3943'

INJECTION WELL DATA SHEET

Tub	oing Size: 2.875" J-55 6.4# Lining Material: INTERNAL PLASTIC COAT
Тур	De of Packer: LOCK SET INJECTION
Pac	ker Setting Depth: 3774 '
Oth	er Type of Tubing/Casing Seal (if applicable):
	Additional Data
1.	Is this a new well drilled for injection? Yes XXX No
	If no, for what purpose was the well originally drilled? GRAYBURG OIL WELL
2.	Name of the Injection Formation: <u>GRAYBURG</u>
3.	Name of Field or Pool (if applicable): <u>EUNICE-MONUMENT</u> ; <u>GRAYBURG-SAN ANDRES (PO</u> OL #23000
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
5.	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
	OVER: YATES (2654'), SEVEN RIVERS (2870'), & QUEEN (3381')
	UNDER: SAN ANDRES (4025')

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 08, 2022 and ending with the issue dated November 08, 2022.

Publisher

Sworn and subscribed to before me this 8th day of November 2022.

Business Manager

My commission expires

January 29, 2023

(Seal)

GUSSIE BLACK Notary Public - State of New Mexico Commission # 1087526 My Comm. Expires Jan 29, 2023

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 8, 2022

Apache Corporation is applying to convert the North Monument G/SA Unit 6 oil well to a water injection well. The well, API 30-025-05655, is at 1980 FNL & 1980 FWL, Sec. 20, T. 19 S., R. 37 E., Lea County, NM. This is 1.7 miles NNW of the Monument, NM Post Office. Water will be injected at a maximum pressure of 737 psi into the Grayburg formation from 3688' to 4015'. Maximum injection rate will be 700 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 or ocd.engineer@state.nm.us within 15 days. NMOCD Engineering Bureau phone is 505 476-3441. 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

00272841

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





November 22, 2022

James Allan Bryant 8204 Indigo Court NE Albuquerque NM 87112

TYPICAL NOTICE

Apache Corporation is planning (see attached application) to convert its North Monument G/SA Unit 006 oil well (30-025-05655) to a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposal. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: North Monument G/SA Unit 006 (NMSLO lease) TD: 4020'
Proposed Injection Zone: Grayburg from 3799' to 3943'
Where: 1980' FNL & 1980' FWL Sec. 20, T. 19 S., R. 37 E., Lea County, NM Approximate Location: 1.7 miles NNW of the Monument, NM Post Office Applicant Name: Apache Corporation (432) 818-1088
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 NMOCD Enginering Bureau address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Phone number is (505) 476-3441. E-mail address is: ocd.engineer@state.nm.us

Please call me if you have any questions.

Sincerely,

Brian Wood

Received by OCD: 11/23/2022 3:08:20 PM U.S. Postal Ser CERTIFIED MAIL® RECEIPT П Midland, IX 79707 rn TU Certified Mail Fee 口口 Extra Services & Fees (check before es appr TU \$3,75 Postmark Return Receipt (hardcopy) 1000 Return Receipt (electronic) to Here Certified Mail Restricted Delivery Adult Signature Required Adult Signature Restricted Delivery \$0.00 ostage \$0.00 Chantrey Corporation 767 Total Postage and Fees 5505 Highland Ct. Midland TX 797072 ZAPAOTIE NMO/SA Unit 606 П Sent To ru Street and Apt. No., or PO Box No. City, State, ZIP+45

U.S. Postal Service CERTIFIED MAIL® RECEIPT 出田 mation, visit our m TU 门严 10 Certified Mail Fee \$4.00 Extra Services & Fees (check bp) (2) Fee as appropriate) TU Return Receipt (hardcopy) 1000 Return Receipt (electronic) Harə Lill Lill Cartified Mail Restricted Delivery J\$12/1999 Adult Signature Required Adult Signature Restricted Delivery \$ \$17.00 ConocoPhillips Company \$0.00 ostage Total Postage and Fees 600 W. Illinois Ave. Midland TX 797,017 11/ 2 Apache NMG/SA Unit 606 LI Street and Apt. No., or PO Box No. City, State, ZIP+4



U.S. Postal Service CERTIFIED MAIL® RECEI 7 m Tulso, OK 74114 O П Extra Services & Fees (check Return Receipt (hardcopy) \$3Bo2Ehark Return Receipt (electronic) 000 ., Here Cartifled Mail Restricted Delivery 40.00022 \$111 Adult Signature Required Adult Signature Restricted Delivery \$ \$0.00 \$0,00 Empire New Mexico LLC \$0.00 卫 Total Postage and Fees 2200 S Utica Place Suite 150 #1 92 2 Julsa OK 74134, 7 2 Apache NMG/SA Unit 606 Sent To 11/П Street and Apt. No.,





EXHIBIT

Received by OCD: 11/23/2022 3:08:20 PM U.S. Postal Service CERTIFIED MAIL® RECEIPT 507 elivery information, visit our website at www.usps.com TU 2804 \$4,00 Extra Services & Fees (check by Fig. Fee as appropriate) Return Receipt (hardcopy) \$3.75 Postmark 1000 Return Receipt (electronic) Certified Mail Restricted Delivery \$0.00 \$0.00 Adult Signature Required Adult Signature Restricted Delivery \$ \$0,00 Postage 20 AJYANI Southwest Royalties
Total Postage and Fees PO Box 53570 \$0.00 Л Midland TX 79719-24 paghe NMG/\$A Unit 606 LI LI 11/ Street and Apt. No., or PO Box No. City, State, ZIP+43

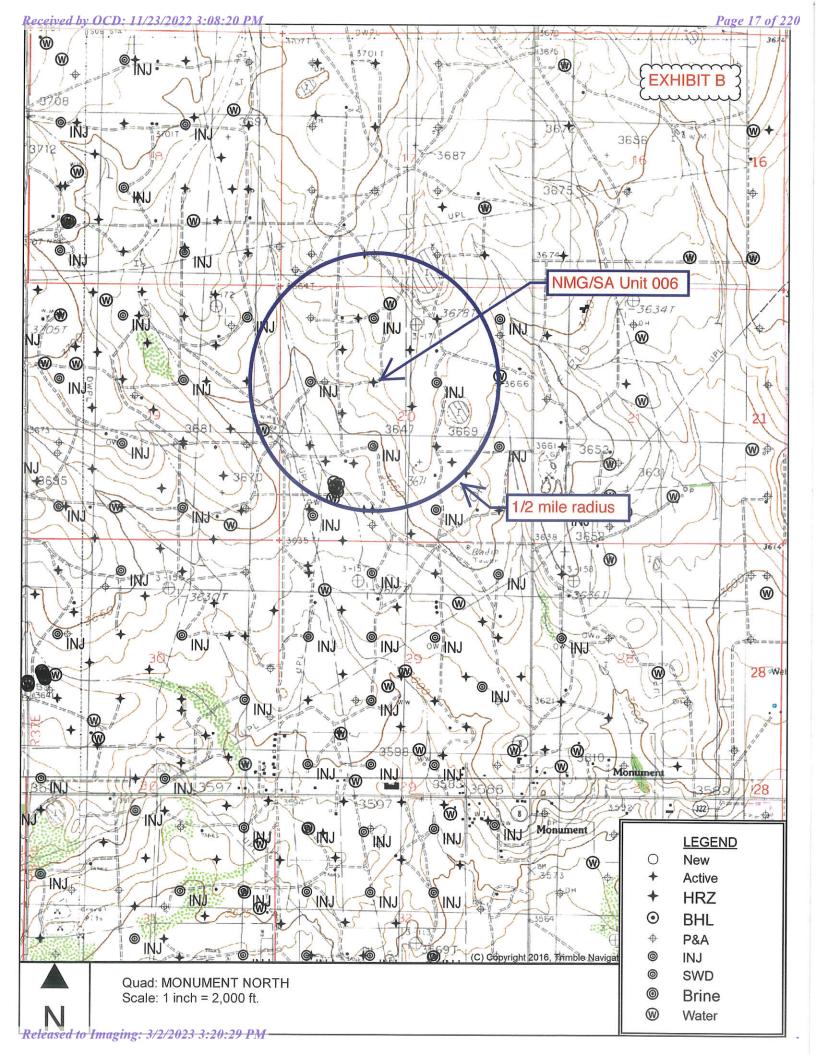
U.S. Postal Service™ CERTIFIED MAIL® RECEIPT For delivery information, visit our 1000 *4700 Extra Services & Fees (check box light (ca as appropriate) * Postmark Return Receipt (hardcopy) Return Receipt (electronic) Here Certified Mail Restricted Delivery Adult Signature Required saling. Adult Signature Restricted Delivery \$ 1670 \$0.00 Postage \$0.00 Shell-Western E&P Total Postage and Fees PO Box 576 Houston TX \$20012 7미5 Apache NMG SAlUnit 606 Street and Apt. No., or PO Box No. City, State, ZIP+4

2445



ru	U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only For delivery information, visit our website at www.usps.com Santa Fe NH 87504 S E Certified Mail Fee \$ Certified Mail Fee \$ Certified Mail Fee \$ Sinta Fee NH 87504 S E \$ Sinta Services & Fees (check box, add fee as approbability) Return Receipt (electronic) Certified Mail Restricted Delivery Adult Signature Restricted Delivery Adult Signature Required Adult Signature Required Solution NM State Land Office \$ Sinta Fe NM 87504 \$ Santa Fe NM 87504 \$ Santa Fe NM 87504
ru l	Sent To Apache NMG/SACONIT 606 23/2022 \$7.17 Street and Apt. No., or PO Box No.
	City, State, ZIP+49 PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

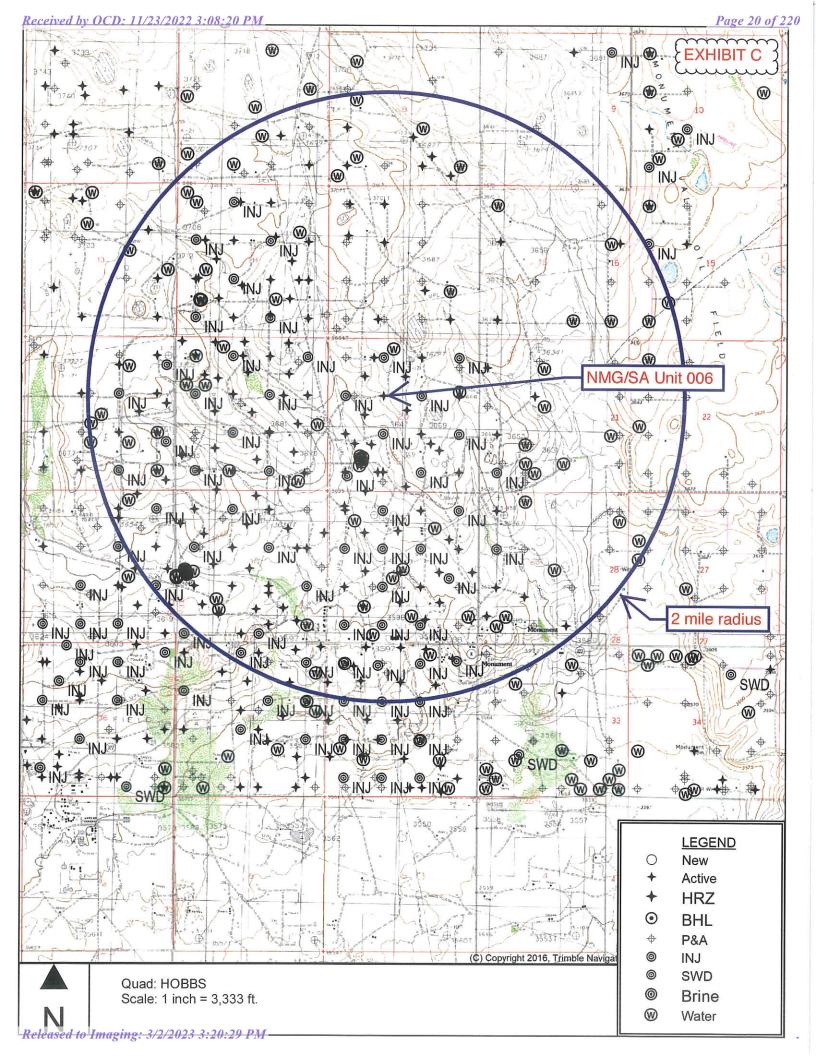
72	U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only
ū	For delivery information, visit our website at www.usps.com
1085	Certified Mail Fee
ᄗ	\$ \$4,000
000	Extra Services & Fees (check by Fees and appropriate) Return Receipt (hardcopy) Return Receipt (alectronic) Cartified Mail Restricted Delivery Adult Signature Restricted Delivery Adult Signature Restricted Delivery
	Postage PU. III
1670	Mulloy Operating Inc \$0.00 Total Postage and Fees 415 W Wall St \$0.00
	Sent To MICHARD TX 79701
	Street and Apt. No., or PO Box No.
	Olfy, State, ŽIP+4*
Annahita	PS Form 3800, April 2015 PSN 7590-02-000-9047 See Heverse for Instructions

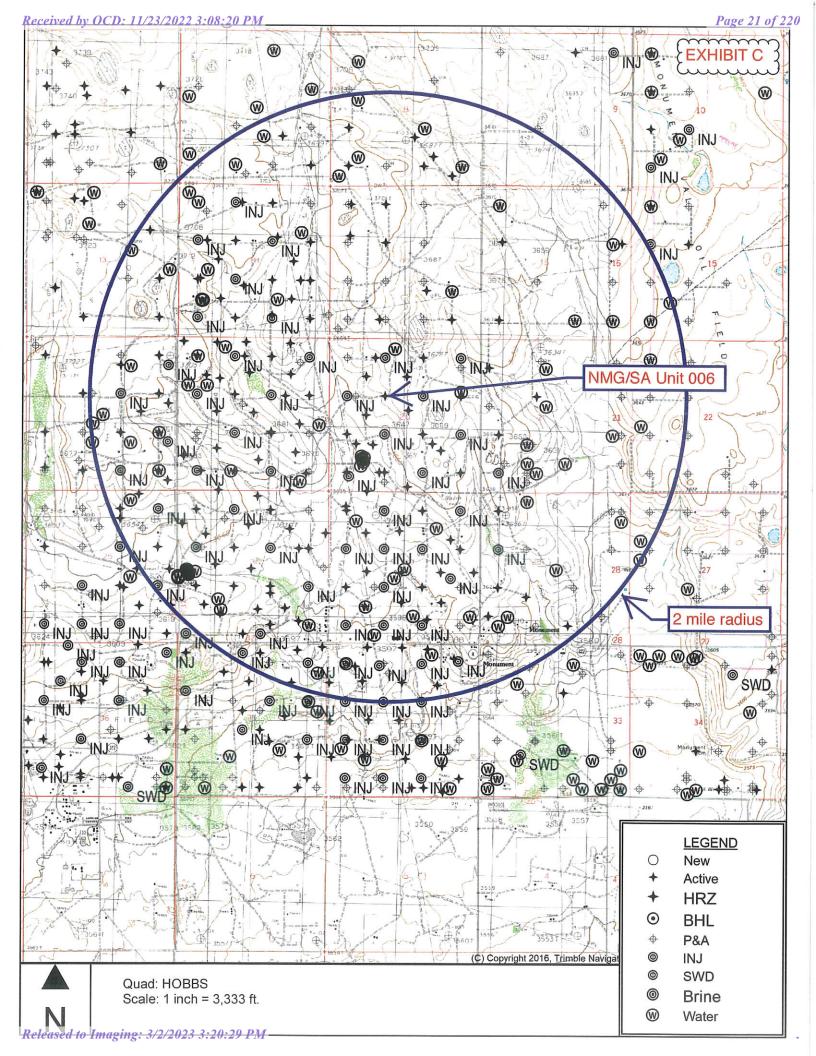


API	OPERATOR	WELL	TYPE WELL	UNIT- SECTION- T19S-R37E	TVD	ZONE @ TD	FEET FROM NMG/SAU 006
3002541036	Apache	NMG/SAU 384	О	F-20	4100	San Andres	914
3002541704	Apache	NMG/SAU 433	0	C-20	4000	Grayburg	932
3002538146	Apache	NMG/SAU 344	0	G-20	4125	San Andres	940
3002531588	Apache	NMG/SAU 018	0	B-20	4310	San Andres	1003
3002526535	Apache	State L Gas Com 003	G	E-20	3630	Queen	1017
3002505656	Apache	NMG/SAU 007	1	G-20	3997	Grayburg	1312
3002505667	Apache	NMG/SAU 011	I	K-20	3982	Grayburg	1316
3002505654	Apache	NMG/SAU 005	I	E-20	3996	Grayburg	1318
3002505669	Apache	NMG/SAU 003	Ī	C-20	4020	Grayburg	1322
3002528087	Energy Acumen	Dority 001	G	C-20	3855	Queen	1361
3002541038	Apache	NMG/SAU 386	0	K-20	4048	Grayburg	1727
3002505659	Apache	NMG/SAU 010	0	J-20	4002	Grayburg	1860
3002505664	Apache	NMG/SAU 012	0	L-20	3965	Grayburg	1861
3002505657	Apache	NMG/SAU 002	0	B-20	4000	Grayburg	1861
3002505668	Apache	NMG/SAU 004	P&A	D-20	3973	Grayburg	1867
3002509885	Empire New Mexico	H T Mattern 005	G	L-20	3639	Queen	1918
3002505660	Empire New Mexico	F W Kutter NCT A Com 003	G	J-20	3700	Queen	2328
3002505666	Apache	NMG/SAU 014	0	N-20	3960	Grayburg	2636
3002505661	Apache	NMG/SAU 008	0	H-20	3996	Grayburg	2640
3002505611	Conoco	State A 17 002	P&A	N-17	4005	Grayburg	2640

Received by OCD: 11/23/2022 3:08:20 PM SORTED BY DISTANCE FROM NORTH MONUMENT G/SA UNIT 006

АРІ	OPERATOR	WELL	TYPE WELL	UNIT- SECTION- T19S-R37E	TVD	ZONE @ TD	FEET FROM NMG/SAU 006
3002505645	Apache	NMG/SAU 008	0	H-19	4000	Grayburg	2640
3002533618	Apache	NMG/SAU 624	wsw	H-20	5100	San Andres	2644
3002530916	Empire New Mexico	HT Mattern 006	G	N-20	3725	Penrose	2646
3002532820	Mewbourne	Eumont 17 State 001	G	N-17	3890	Grayburg	2647

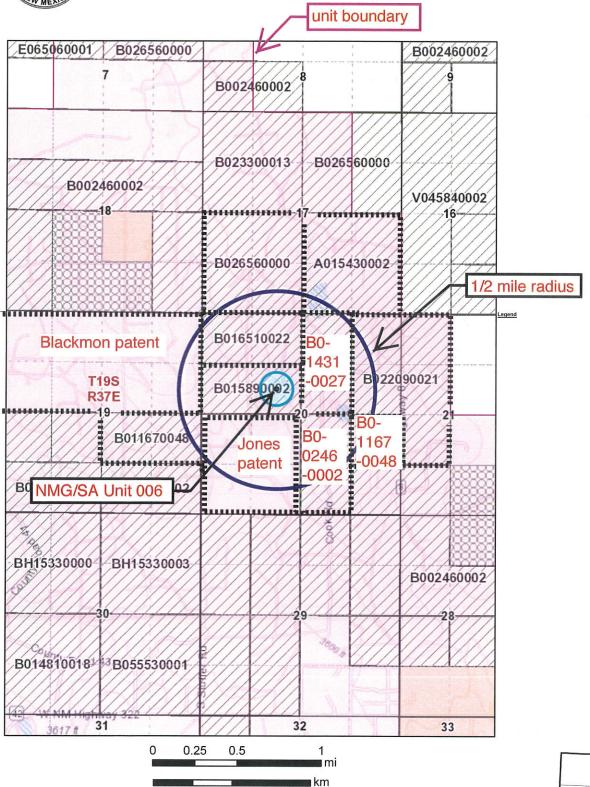






New Mexico State Land Office





Disclaimer:

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 herein with respect to State Land Office data or data from other sources.

0.38

0.75

1.5

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.



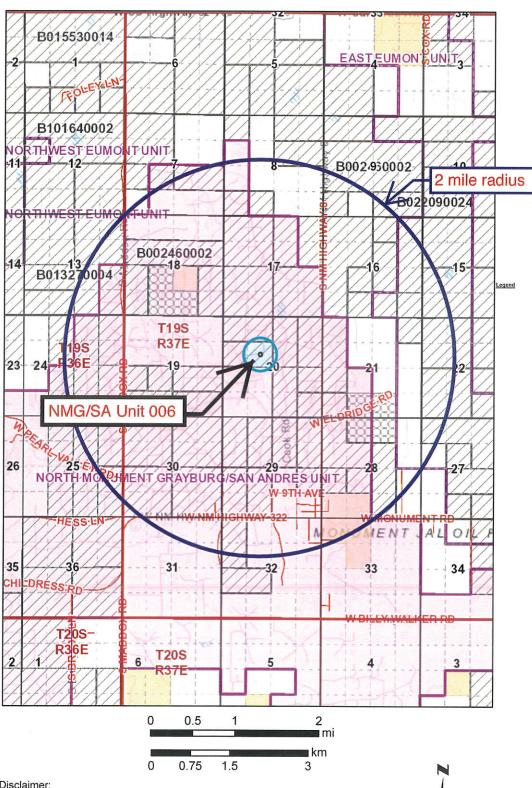
Received by OCD: 11/23/2022 3:08:20 PM NORTH MONUMENT G/SA UNIT 006 AREA OF REVIEW LEASES

Aliquot Parts in Area of Review (T. 19 S., R. 37 E.)	Lessor	Lease	Lessee(s) of Record	Well Operators (all zones)
S2SW4 Sec. 17	NMSLO	B0-2656-0000	ConocoPhillips	Mewbourne Oil
SWSE Sec. 17	NMSLO	A0-1543-0002	Southwest Royalties	Petroleum Exploration
E2NE4 Sec. 19	fee	Blackmon patent	Apache	Apache, Arrington O&G, and Mulloy Operating
NESE Sec. 19	NMSLO	B0-1167-0048	Shell Western E&P	Apache, Arrington O&G, and Mulloy Operating
E2NE4 Sec. 20	NMSLO	B0-2209-0021	Chantrey	Apache
W2NE4 Sec. 20	NMSLO	B0-1431-0027	Leaco NM E&P, aka Apache	Apache
N2NW4 Sec. 20	NMSLO	B0-1651-0022	Mewbourne	Apache, Energy Acumen
S2NW4 Sec. 20	NMSLO	B0-1589-0002	Leaco NM E&P, aka, Apache	Apache
NESE Sec. 20	NMSLO	B0-1167-0048	Shell Western E&P	Apache
W2SE4 Sec. 20	NMSLO	B0-0246-0002	Southwest Royalties	Apache, Empire NM
SW4 Sec. 20	fee	Jones patent	Apache	Apache, Empire NM



New Mexico State Land Office





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 herein with respect to State Land Office data or data from other sources.

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.

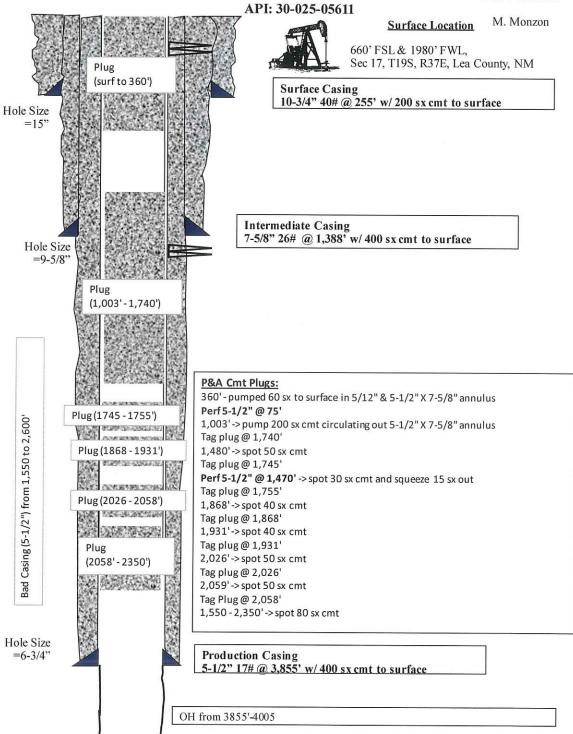




GL=3700' Spud: 8/22/36

Conoco Inc. – State A-17 # 2 Wellbore Diagram – P&A (5/22/1992)

Date: 11/2/2022



TD = 4,005'

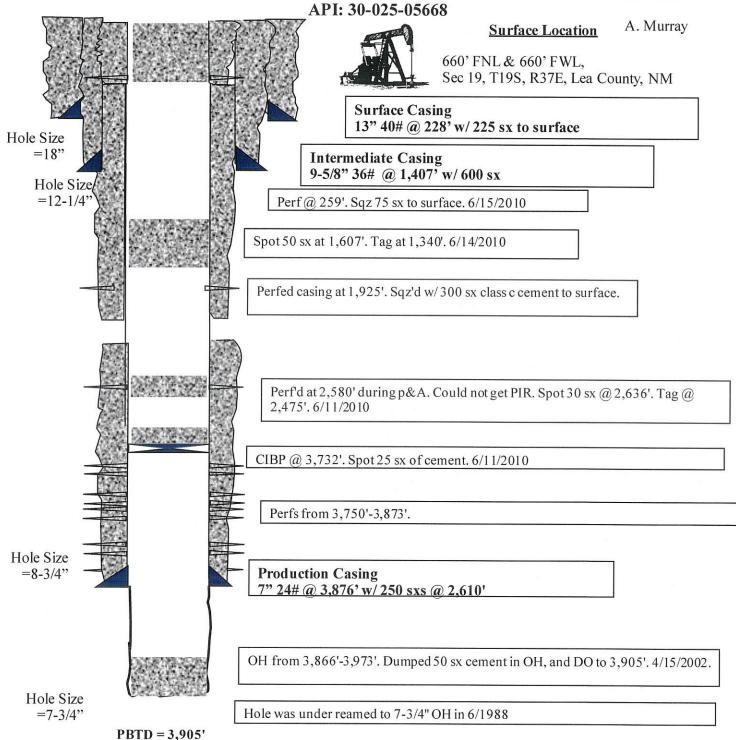
Drawing not to scale

EXHIBIT F

Spud: 4/4/36

Apache Corporation – NMGSAU #004 P&A'd 6/15/2010

Date: 11/7/22



TD = 3.973'

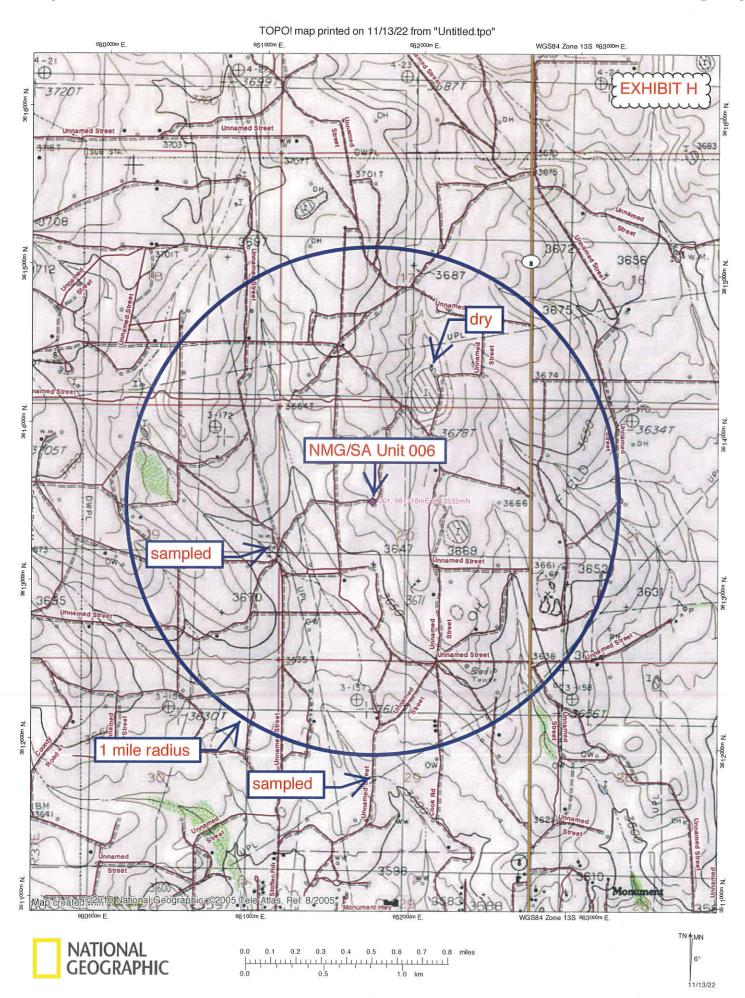
WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 384	5/24/13	4100	Eunice Monument; Grayburg-SA	0	11	8.625	1348	500 sx	GL	Circ 105 sx
3002541036					7.875	5.5	4100	790 sx	20'	CBL
F-20-19S-37E										
N Monument	7/25/14	4000	Eunice Monument;		11	0.605		4		
GSA Unit 433	7/23/14	4000	Grayburg-SA	0	11	8.625	1358	460 sx	GL	Circ 3 sx
3002541704					7.875	5.5	4000	900 sx	GL	CBL
C-20-19S-37E							·			
N Monument GSA Unit 344	10/23/06	4125	Eunice Monument; Grayburg-SA	0	11	8.625	392	300 sx	GL	Circ
3002538146					7.875	5.5	4125	850 sx	GL	CBL
G-20-19S-37E										
						S.				*
N Monument GSA Unit 018	9/28/92	4310	Eunice Monument; Grayburg-SA	0	17.5	13.375	477	500 sx	GL	108 sx
3002531588					12.25	9.625	3707	1545 sx	no report	no report
B-20-19S-37E					8.75	7	4309	225 sx	2700	Estimated

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
			4							
N Monument GSA Unit 007	10/8/36	3997	Eunice Monument; Grayburg-SA	ı	17.5	12.5	196	200 sx	GL	calc.
3002505656					11	8.625	2554	500 sx	604'	calc.
G-20-19S-37E					7.875	6.625	3864	100 sx	2974'	calc.
N Monument GSA Unit 011	10/27/36	3982	Eunice Monument; Grayburg-SA	1	16	13	125	125 sx	GL	calc.
3002505667					12.25	9.625	1362	600 sx	GL	calc.
K-20-19S-37E					8.625	7	3800	350 sx	1560'	calc.
N Monument GSA Unit 005	2/3/36	3996	Eunice Monument; Grayburg-SA	1	17.5	12.5	190	150 sx	GL	calc.
3002505654					11	9.625	2476	500 sx	726'	calc.
E-20-19S-37E					8.75	7	3851	100 x	3211'	calc.
			16							¥
N Monument GSA Unit 003	6/9/36	4020	Eunice Monument; Grayburg-SA	I	17	13	245	250 sx	GL	calc.
3002505669					12	9.625	1392	550 sx	GL	calc.
C-20-19S-37E					8.75	6.625	3906	350 sx	791'	calc.

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 386	6/1/13	4048	Eunice Monument; Grayburg-SA	0	11	8.625	1333	372 sx	GL	Circ 128 sx
3002541038					7.875	5.5	4080	692 sx	40	CBL
K-20-19S-37E	Tr.	100								×
N Monument	12/11/25	4000	Eunice Monument;							
GSA Unit 010	12/14/36	4002	Grayburg-SA	0	17.25	13	269	275 sx	GL	no report
3002505659					12.25	9.625	1391	275 sx	no report	no report
J-20-19S-37E					8.625	7	3774	260 sx	no report	no report
					6.75	5.5	3759	25 sx	no report	no report
N Monument GSA Unit 012	11/16/35	3965	Eunice Monument; Grayburg-SA	0	no report	12.5	258	250 sx	GL	no report
3002505664					no report	9.625	1367	800 sx	no report	no report
L-20-19S-37E			-		no report	7	3811	400 sx	no report	no report
N Monument GSA Unit 002	11/12/36	4000	Eunice Monument; Grayburg-SA	0	17.5	12.5	198	200 sx	GL	no report
3002505657					9	8.625	2585	500 sx	no report	no report
B-20-19S-37E					7.875	6.625	3838	100 sx	no report	no report

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 004	4/4/36	3973	Eunice Monument; Grayburg-SA	P&A	18	13	225	209 sx	GL	Circ
3002505668					12.25	9.625	1407	600 sx	GL	no report
D-20-19S-37E					8.75	7	3876	250 sx	2610	CBL
N Monument GSA Unit 014	6/23/61	3960	Eunice Monument; Grayburg-SA	0	no report	12.5	247	250 sx	GL	no report
3002505666					no report	9.625	1361	600 sx	GL	no report
N-20-19S-37E					no report	7	3837	400 sx	GL	no report
			, i							
N Monument GSA Unit 008	10/30/36	3996	Eunice Monument; Grayburg-SA	0	13.75	10.75	209	100 sx	no report	no report
3002505661		Y			9.875	7.625	1413	400 sx	no report	no report
H-20-19S-37E					6.75	5.5	3755	100 sx	no report	no report
				(2)						
State A 17 002	8/21/36	4005	Eunice Monument; Grayburg-SA	P&A	15	10.75	272	200 sx	GL	no report
3002505611					9.625	7.625	1397	425 sx	GL	no report
N-17-19S-37E					6.75	5.5	3843	400 sx	GL	no report

WELL	SPUD TVD POOL		POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED	
N Monument GSA Unit 008	3/1/36	4000	Eunice Monument; Grayburg-SA	0	13.75	10.75	238	250 sx	no report	no report	
3002505645					9.875	7.625	1368	300 sx	no report	no report	
H-19-19S-37E					6.75	5.5	3816	300 sx	no report	no report	
N Monument GSA Unit 624	10/24/96	5100	Grayburg-SA	WSW	17.5	13.375	500	525 sx	GL	Circ 138 sx	
3002533618					12.25	9.625	44070	1350 sx	GL	Circ trace	
H-20-19S-37E					8.75	open hole	5100	N/A	N/A	р	
Eumont 17 State 001	2/28/95	3890	Eumont; Yates-7 Rvrs- Queen	G	12.25	8.625	425	350 sx	GL	Circ 50 sx	
3002532820					7.875	4.5	3890	730 sx	GL	Circ 10 sx	
N-17-19S-37E											
						-					





New Mexico Office of the State Engineer

EXHIBIT H

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													
		Sub-		Q	Q	Q								7	Water
POD Number	Code		County	64	16	4	Sec	Tws	Rng	X	Y	DistanceD	epthWellDe	pthWater C	olumn
L 05611 POD4	R	L	LE	2	2	1	20	19S	37E	661812	3614032*	508	105	53	52
<u>L 14366 POD3</u>		L	LE	2	3	3	20	19S	37E	661477	3612899	677	32		
<u>L 13521 POD1</u>		L	LE	4	4	3	20	19S	37E	661504	3612887	678	34	22	12
L 13926 POD1		L	LE	2	3	3	20	19S	37E	661484	3612874	698	32	21	11
L 13926 POD3		L	LE	2	3	3	20	19S	37E	661485	3612865	705	32	21	11
L 13926 POD2		L	LE	2	3	3	20	19S	37E	661495	3612857	710	32	21	11
L 14366 POD1		L	LE	2	3	3	20	19S	37E	661500	3612840 🌑	725	32		
<u>L 10277</u>		L	LE	2	2	4	19	19S	37E	661020	3613219*	764	70	40	30
<u>L 14366 POD2</u>		L	LE	2	3	3	20	19S	37E	661473	3612797 🌑	774	32		
<u>L 00062</u>		L	LE		4	4	18	19S	37E	660903	3614327*	1138	93		
<u>L 01273</u>		L	LE	3	4	4	19	19S	37E	660827	3612617*	1277	62	45	17
<u>L 06933</u>		L	LE	3	2	4	17	19S	37E	662403	3614646*	1307	100	65	35
<u>L 01251</u>		L	LE	4	1	1	29	19S	37E	661434	3612218*	1344	51	38	13
<u>L 00061</u>		L	LE		3	4	18	19S	37E	660501	3614325*	1452	100		
L 14224 POD2		L	LE	2	3	3	18	19S	37E	660549	3614528	1535	75	59	16
L 02621		L	LE	3	2	3	21	19S	37E	663233	3613050*	1589	83	40	43
<u>L 05433</u>		L	LE		4	1	19	19S	37E	660112	3613518*	1606	5790	1072	4718

Average Depth to Water:

124 feet

Minimum Depth:

21 feet

Maximum Depth:

1072 feet

Record Count: 17

UTMNAD83 Radius Search (in meters):

Easting (X): 661718

Northing (Y): 3613532

Radius: 1610

*UTM location was derived from PLSS - see Help

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.

11/13/22 3:34 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



Analytical Report Lab Order 2211086

Date Reported: 11/14/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

Project: NMGSAU

Client Sample ID: Sec 19

Collection Date: 11/1/2022 10:20:00 AM

Lab ID: 2211086-003 Matrix: AQUEOUS Received Date: 11/2/2022 11:33:00 AM

Analyses	Result	RL (Qual Uni	ts DF	Date Analyzed	Batch
EPA METHOD 1664B					Analys	t: dms
N-Hexane Extractable Material	ND	9.44	mg/	L 1	11/9/2022 4:42:00 PM	71367
EPA METHOD 300.0: ANIONS					Analys	t: JTT
Chloride	110	5.0	mg/	L 10	11/3/2022 9:16:05 AM	R92333
SM2540C MOD: TOTAL DISSOLVED SOLIDS					Analys	t: SNS
Total Dissolved Solids	515	20.0	* mg/	_ 1	11/8/2022 10:21:00 AM	<i>I</i> 71300

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank
- Above Quantitation Range/Estimated Value
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit RL

Page 4 of 8

Analytical Report Lab Order 2211086

Date Reported: 11/14/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

Client Sample ID: Sec 29

Project: N

NMGSAU

chefit Sample 1D: 500 25

Collection Date: 11/1/2022 12:50:00 PM

Lab ID: 2211086-001

Matrix: AQUEOUS

Received Date: 11/2/2022 11:33:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 1664B					Analys	: dms
N-Hexane Extractable Material	ND	9.46	mg/L	1	11/9/2022 4:42:00 PM	71367
EPA METHOD 300.0: ANIONS					Analys	:: JTT
Chloride	210	50	mg/L	100	11/3/2022 8:38:51 AM	R92333
SM2540C MOD: TOTAL DISSOLVED SOLIDS					Analyst	:: SNS
Total Dissolved Solids	720	40.0	*D mg/L	1	11/8/2022 10:21:00 AM	71300

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

Qualifiers:

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 standard limits. If undiluted results may be estimated

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 2 of 8





NM Oil Conservation Division 1220 S. St. Francis Dr. Santa Fe, NM 87505

Re: Geology Statement
Apache Corporation
North Monument G/SA Unit #6
Section 20, T. 19S, R. 37E
Lea County, New Mexico

To whom it may concern:

Publicly available geologic and engineering data related to the proposed well have been thoroughly reviewed, and no evidence for open faults or any other hydrologic connection between the proposed Grayburg injection zone and any underground sources of drinking water has been found. Please see the attached seismic risk assessment for additional information.

Sincerely,

Cory Walk Geologist

EXHIBIT J

Seismic Risk Assessment

Apache Corporation

North Monument G/SA Unit #6

Section 20, Township 19 South, Range 37 East

Lea County, New Mexico

Cory Walk, M.S.

Geologist

Cory Walk

Permits West Inc.

November 17, 2022

Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 1





North Monument G/SA Unit #6 is located in the NW ¼, section 20, T19S, R37E, about 1.5 miles north of Monument, NM in the Central Basin Platform of the greater Permian Basin. Apache Corporation proposes to convert this existing oil well to a water injection well. The proposed injection zone is within the Grayburg Formation through a cased hole from 3,688'-4,015' below ground surface. The Grayburg is primarily a carbonate reservoir with some sandstones present. This report assesses any potential concerns relating to induced seismicity along deep penetrating Precambrian faults or the connection between the injection zone and known underground potable water sources.

SEISMIC RISK ASSESSMENT

Historical Seismicity

Searching the USGS earthquake catalog resulted in no (0) earthquakes above a magnitude 2.5 within 6 miles (9.7 km) of the proposed injection site since 1970 (Fig 1). According to this dataset, the nearest historical earthquake occurred June 28, 2020 about 11.3 miles (~18.1 km) northwest and had a magnitude of 2.7.

Basement Faults and Subsurface Conditions

A structure contour map (Fig. 1) of the Precambrian basement shows the North Monument G/SA Unit #6 is approximately 4.8 miles from the nearest basement-penetrating fault inferred by Ewing et al (1990) and about 59 miles from the nearest surface fault.

Snee and Zoback (2018) state, "In the western part of Eddy County, New Mexico, S_{Hmax} is ~north-south (consistent with the state of stress in the Rio Grande Rift; Zoback and Zoback, 1980) but rotates to ~east-northeast-west-southwest in southern Lea County, New Mexico, and the northernmost parts of Culberson and Reeves counties, Texas." Around the North Monument G/SA Unit #6 site, Snee and Zoback indicate a S_{Hmax} direction of N105°E and an A_{ϕ} of 0.85, indicating a normal/strike-slip faulting stress regime.

Induced seismicity is a growing concern of deep injection wells. Snee and Zoback (2018) show that due to its orientation, the nearest Precambrian fault has a low probability of slipping (Fig. 2). Also, the proposed injection zone is much shallower in the Grayburg Formation and therefore would not affect the deep Precambrian faults. In addition to the existing fault orientation, the vertical (approx. 6900') and horizontal (4.8 miles) separation between the proposed water injection zone and any deep Precambrian faults is large enough to infer that there is no immediate concern or potential of induced seismicity as a result from this injection well.

GROUNDWATER SOURCES

Three principal aquifers are used for potable groundwater in southern Lea County; these geologic units include the Triassic Santa Rosa formation, Tertiary Ogallala formation, and Quaternary alluvium. Nicholson and Clebsch (1961) state, "Potable ground water is not available below the Permian and Triassic unconformity but, because this boundary is not easily defined, the top of the Rustler anhydrite formation is regarded as the effective lower limit of 'potable' ground water." Around the North



Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 2

Monument G/SA Unit #6 well, the top of a thick anhydrite unit interpreted to represent the Rustler Formation lies at a depth of ~1342 feet bgs.

STRATIGRAPHY

A thick permeability barrier (Rustler Anhydrite and Salado Fm; 1100+ ft thick) exists above the targeted Grayburg injection zone. Well data indicates ~2,345 ft of rock separating the top of the injection zone from the previously stated lower limit of potable water at the top of the Rustler anhydrite formation.

CONCLUDING STATEMENT

All available geologic and engineering data evaluated around the North Monument G/SA Unit #6 well show no potential structural or stratigraphic connection between the Grayburg injection zone and any subsurface potable water sources. The shallow injection zone, spatial location and orientation of nearby faults also removes any major concern of inducing seismic activity.



SEISMIC RISK ASSESSMENT PAGE 3

Apache Corporation North Monument G/SA Unit #6

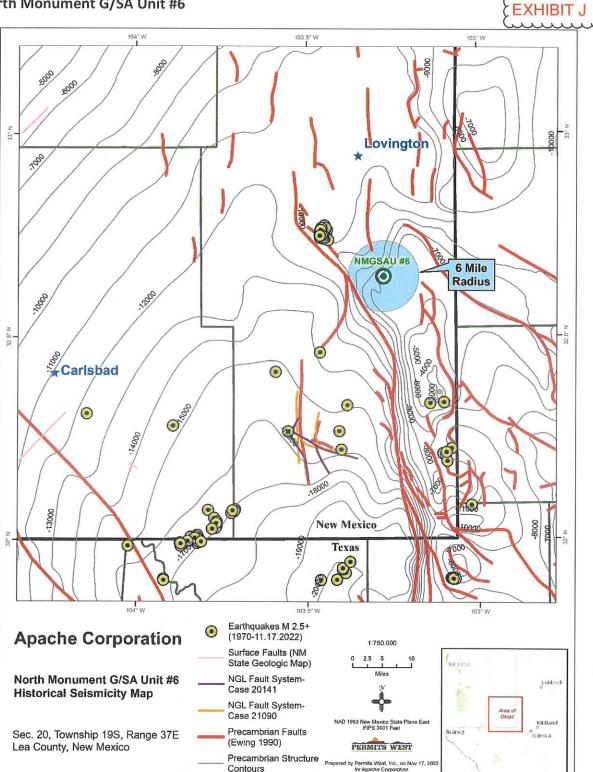


Figure 1. Structural contour map of the Precambrian basement in feet below sea level. Red lines represent the locations of Precambrian basement-penetrating faults (Ewing et al., 1990). The North Monument G/SA Unit #6 well lies ~4.8 miles south of the closest deeply penetrating fault, ~59 miles from the nearest surface fault and ~11.3 miles from the closest historic earthquake.



Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 4 EXHIBIT J

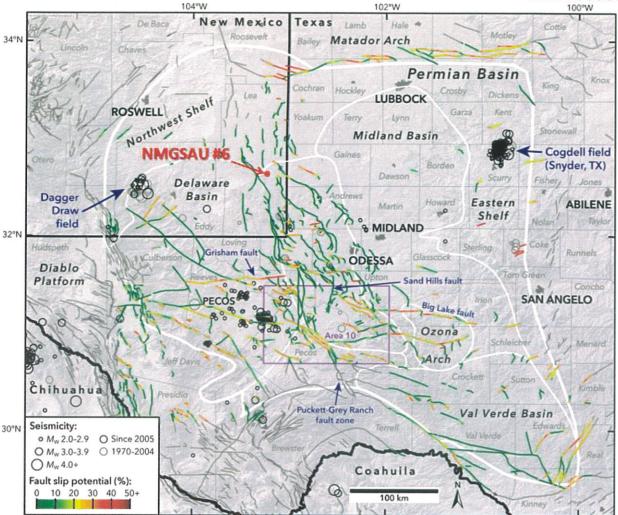


Figure 2. Modified from Snee and Zoback (2018). The nearest deep Precambrian fault lies ~4.8 miles north of the proposed injection well and has a low probability (0%) of slip. Also, the proposed injection zone is much shallower in the Grayburg and therefore removes any major concern of inducing seismicity on any known fault.



Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 5

References Cited



- Ewing, T. E., 1990, The tectonic map of Texas: Austin, Bureau of Economic Geology, The University of Texas at Austin.
- Geologic Map of New Mexico, New Mexico Bureau of Geology and Mineral Resources, 2003, Scale 1:500,000.
- Nicholson, A., Jr., and Clebsch, A., Jr., 1961, Geology and ground-water conditions in southern Lea County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Ground-Water Report 6, 123 pp., 2 plates.
- Snee, J.-E.L., Zoback, M.D., 2018, State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity: Leading Edge, v. 37, p. 127–134.



AE Order Number Banner

Application Number: pAZS2233442618

WFX-1051

APACHE CORPORATION [873]

RECEIVED:	REVIEWER:	TYPE:	APP NO:	
		ABOVE THIS TABLE FOR OCD E	DIVISION USE ONLY	
		O OIL CONSERV cal & Engineering ancis Drive, Sant	g Bureau -	
	ADMINISTR	ATIVE APPLICATI	ON CHECKLIST	
THIS C	HECKLIST IS MANDATORY FOR AL	L ADMINISTRATIVE APPLICA	ATIONS FOR EXCEPTIONS TO DIVIS EDIVISION LEVEL IN SANTA FE	ION RULES AND
Applicant: Apache C	Corporation		OGRID Nu	ımber: 873
	Monument G/SA Unit 006		API: 30-025-0	
Pool: Eunice - Monume	ent; Grayburg - San Andres		Pool Code	23000
		INDICATED BELC		/PE OF APPLICATION
1) TYPE OF APPLICATION A. Location	CATION: Check those was spacing Unit – Simulta SL NSP(PRO	which apply for [A aneous Dedicatio DJECT AREA) \square \square	n	
[1] Comn [II] Inject [II] Inject 2) NOTIFICATION A. Offset of B. Royalty C. Application D. Notification	ningling - Storage - Me DHC	C PC C Te Increase - Enhand TO IPI E Those which apply lers Thornous revenue ow a notice Those intapproval by SLO	anced Oil Recovery OR PPR vners	FOR OCD ONLY Notice Complete Application Content Complete
F. Surface G. For all of H. No not	ce required I hereby certify that the	notification or pu	blication is attached, a built attached with this application best of my knowled	eation for
understand tha	t no action will be take e submitted to the Divis	en on this applica	tion until the required i	nformation and
Note	e: Statement must be complete	ed by an individual with	managerial and/or supervisory	capacity.
Brian Wood			11-23-22 Date	
Print or Type Name	Reliand		505 466-8120 Phone Number	
 Signature)		brian@permitswest.com e-mail Address	

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

	AFFLICATION 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: 505 466-8120
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-9596
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.
VII.	Attach data on the proposed operation, including: NORTH MONUMENT G/SA UNIT 006 30-025-05655
	 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 TITLE: CONSULTANT
	SIGNATURE:DATE: NOV. 22, 2022
*	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:

Side 2

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.

RECEIVED:	REVIEWER:	TYPE:	APP NO:	
		ABOVE THIS TABLE FOR OCD DIV		
	- Geologia	O OIL CONSERVA cal & Engineering ancis Drive, Santa	Bureau -	
	1220 30001 30. 118	ands blive, same	1 FE, INIVI 67505	COMMENSATION OF STREET
ZILIT	ADMINISTR CHECKLIST IS MANDATORY FOR AL	ATIVE APPLICATION	ON CHECKLIST	DIVIGION DUE SO AND
Inis	REGULATIONS WHICH RE	QUIRE PROCESSING AT THE I	DIVISION LEVEL IN SANTA FE	DIVISION RULES AND
Applicant: Apache				Number: <u>873</u>
	Monument G/SA Unit 006		API: 30-0	
Pool: Eunice - Monum	nent; Grayburg - San Andres		Pool Co	ode: 23000
SUBMIT ACCUR	ATE AND COMPLETE INF	ORMATION REQUIR		E TYPE OF APPLICATION
1) TYPE OF APPLI	CATION: Check those v	which apply for [A]		
A. Location	- Spacing Unit - Simult	aneous Dedication		
	NSL NSP _{(PRO}	DJECT AREA) NSF	(PRORATION UNIT)	
P. Chock o	no only for [1] or [1]			
b. Check o	ne only for [1] or [11] minaling = Storage = Ma	asuromont		
	mingling – Storage – Me] DHC □CTB □PL	с Прс Поі	s Dolm	
[II] Injec	tion – Disposal – Pressu	e Increase – Enha	nced Oil Recovery	
]wfx ∴pmx □sv	/D DIPI DEC		
			·	FOR OCD ONLY
2) NOTIFICATION	I REQUIRED TO: Check t	hose which apply.		Notice County
	operators or lease hold			Notice Complete
B. Royalt	ty, overriding royalty ov	ners, revenue owr	ners	Application
	cation requires publishe			Content
D. Notific	cation and/or concurre	nt approval by SLC)	Complete
	cation and/or concurre	nt approval by BLN	Λ	Complete
	ce owner	potification as a selection	Paragraph to the state of	1 17
	of the above, proof of tice required	nouncation or put	olication is attached	a, and/or,
11 110 110	dec required			
3) CERTIFICATION	I: I hereby certify that tl	ne information sub	mitted with this an	plication for
administrative	approval is accurate a	nd complete to th	e best of my knowl	ledge. Lalso
understand th	at no action will be take	en on this applicat	ion until the require	ed information and
notifications a	re submitted to the Divi	sion.		a morriagori aria
No	te: Statement must be complete	ed by an individual with n	nanagerial and/or supervi	isory canacity
		•	у у	acty capacity.
			11-23-22	
Brian Wood	Λ		Date	
Print or Type Name	2 / 1	-		
ijportanio	K-11		505 466-8120	
	1 / Kee		Phone Number	
			and the same of	
Signature			brian@permitswest.	com
Signature			e-mail Address	

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: 505 466-8120									
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-9596									
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.									
VII.	Attach data on the proposed operation, including: NORTH MONUMENT G/SA UNIT 006 30-025-05655									
otoma.	Attach data on the proposed operation, including: 1. 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 TITLE: CONSULTANT									
	SIGNATURE: DATE: NOV. 22, 2022									
	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

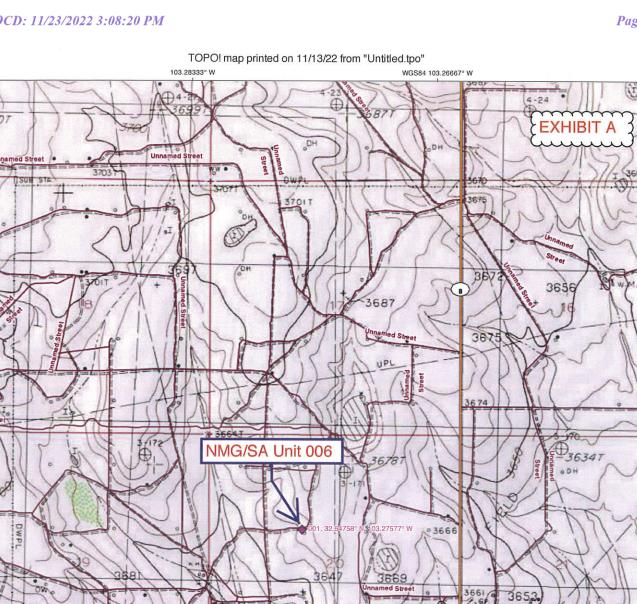
All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

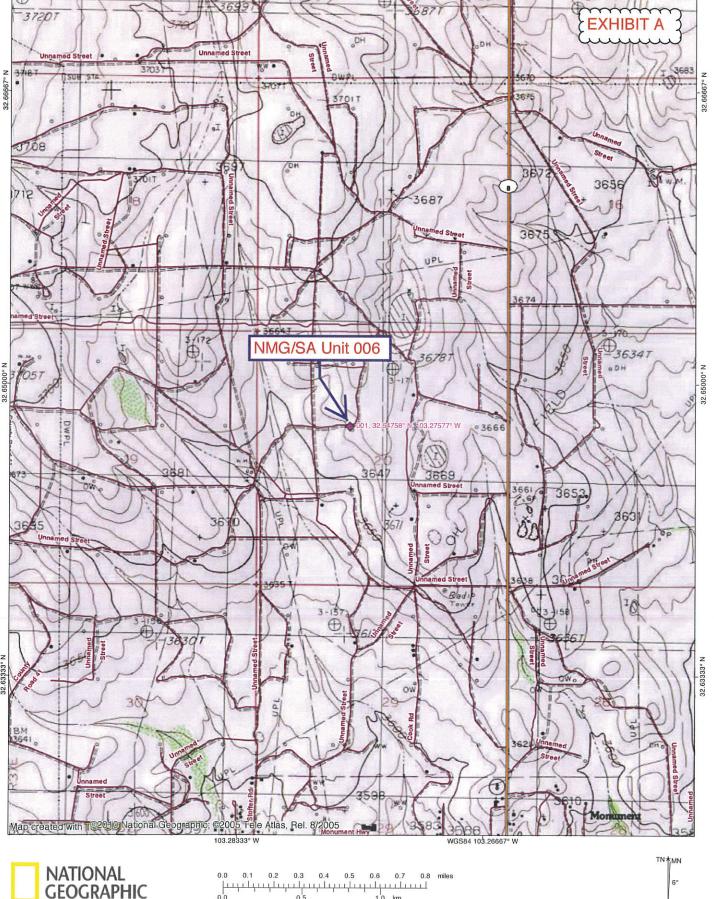
Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (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.

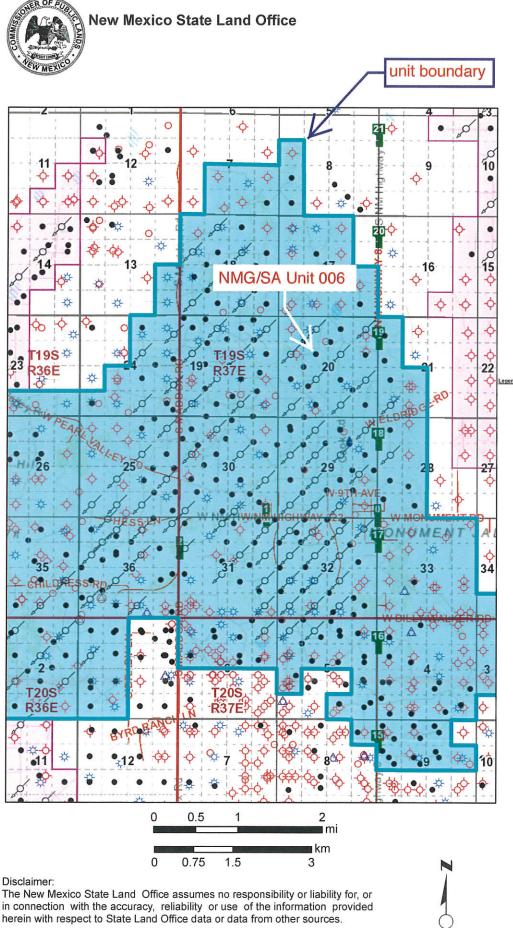






0.0 0.5 1.0 km

11/13/22

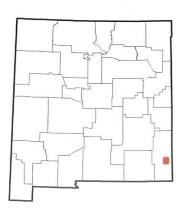






The New Mexico State Land Office assumes no responsibility or liability for, or in connection with the accuracy, reliability or use of the information provided

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.



Side 1	INJECTION WELL DATA SHEET			
OPERATOR:APACHE CORPORATION				
WELL NAME & NUMBER: NORTH MONUMENT G	/SA UNIT 006	i ji		
WELL LOCATION: 1980' FNL & 1980' FWL	F	20	19 S	37 E
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE
WELLBORE SCHEMATIC		WELL CO	NCTDUCTION DAT	4

"AS IS"			WELL CO Surface (ONSTRUCTION DATA
(not to scale)			Surface	Zasnig
3846'	12.5" 40# in 17.5" hole @ 205'	Hole Size:	17.5"	Casing Size: 12.5"
8	TOC (200 sx) = GL (calc.)	Cemented with:	200 sx.	<i>or</i> ft ³
brod. tbg		Top of Cement:	SURFACE	Method Determined: CALC.
[26]	8.625" 32# in 11" hole @ 2545' TOC (500 sx) = 595' (calc.)		Intermediat	e Casing
- -		Hole Size:	11"	Casing Size: 8.625"
### ###		Cemented with:	500 sx.	<i>or</i> ft ³
		Top of Cement:	SURFACE	Method Determined: CALC.
			Production	Casing
6.625" 20# 7.875" hole	e @ 3866'	Hole Size:	7.875"	Casing Size: 6.625"
	sx) = 2976' (calc.) ourg perfs 3884' - 3943'	Cemented with:	100 sx.	<i>or</i> ft ³
	uncased Grayburg	Top of Cement:	2976'	Method Determined: CALC.
9867' - 402 PBTD 3950'		Total Depth:	PBTD = 3950'	& TD = $4020'$
TD 4020'			Injection I	nterva <u>l</u>
			3799 feet	to3943 '

(Perforated or Open Hole; indicate which)

Side I					INJECTION	WELL DATA SH	IEET		
OPERATOR: _	APAC	HE	CORPORA	TION					
WELL NAME	& NUMI	BER:	NORTH	MONUMEN	T G/SA UNIT	006			
WELL LOCAT	TION: 19				L		20	19 S	
		FO	OTAGE LO	OCATION	U	NIT LETTER	SECTION	TOWNSHIP	RANGE
	"PR	OPOS	<u>SCHEMAT</u> SED"	<u>IC</u>			WELL CO Surface O	ONSTRUCTION D Casing	<u>ATA</u>
	(not	to so	cale)			*		8	
		3774'			12.5" 40# in 17.5" hole @ 205'		17.5"	Casing Size:	12.5"
333		. tbg @			TOC (200 sx) = GL (calc.	Cemented with:	200 sx.	or	ft ³
12315 12315 12315 12315		875" IPC inj.		100 mm		Top of Cement:	SURFACE	Method Determi	ned: CALC.
		2.875"			32# in e @ 2545' 500 sx) = 595' (calc.)		Intermediat	e Casing	
						Hole Size:	11"	Casing Size:	8.625"
						Cemented with:	500 sx.	or	ft ³
	12020 12020 12020 12020 12020					Top of Cement:	SURFACE	Method Determi	ned: CALC.
packer	100 000 100 000 100 000 100 000 100 000 100 000						Production	Casing	
. @ 3774' perf Grayburg <u>-</u>			P. S. B. S. B.	625" 20# in 875" hole @ 38	66'	Hole Size:	7.875"	Casing Size:	6.625"
3799' - 3865'				OC (100 sx) = 2 Gravburg pe		Cemented with:	100 sx.	or	ft ³
		191917	1000	Grayburg pe 3884' - 3943 5" - 4.75" uncas		Top of Cement:	2976'	Method Determine	ned: CALC.
		STD 39: D 4020	38 50'	367' - 4020'	od Grayburg	Total Depth:	PBTD = 3950'	& $TD = 4020$) '
		D 4020					Injection I	nterval	

3799 feet to 3943'

(Perforated or Open Hole; indicate which)

Received by OCD: 11/23/2022 3:08:20 PM

Received by OCD: 11/23/2022 3:08:20 PM

INJECTION WELL DATA SHEET

Tub	oing Size: 2.875" J-55 6.4# Lining Material: INTERNAL PLASTIC COAT
Тур	De of Packer: LOCK SET INJECTION
Pac	ker Setting Depth: 3774 '
Oth	er Type of Tubing/Casing Seal (if applicable):
	Additional Data
1.	Is this a new well drilled for injection? Yes XXX No
	If no, for what purpose was the well originally drilled? GRAYBURG OIL WELL
2.	Name of the Injection Formation: <u>GRAYBURG</u>
3.	Name of Field or Pool (if applicable): <u>EUNICE-MONUMENT</u> ; <u>GRAYBURG-SAN ANDRES (PO</u> OL #23000
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
5.	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
	OVER: YATES (2654'), SEVEN RIVERS (2870'), & QUEEN (3381')
	UNDER: SAN ANDRES (4025')

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 08, 2022 and ending with the issue dated November 08, 2022.

Publisher

Sworn and subscribed to before me this 8th day of November 2022.

Business Manager

My commission expires

January 29, 2023

(Seal)

GUSSIE BLACK Notary Public - State of New Mexico Commission # 1087526 My Comm. Expires Jan 29, 2023

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

EXHIBIT K

LEGAL NOTICE November 8, 2022

Apache Corporation is applying to convert the North Monument G/SA Unit 6 oil well to a water injection well. The well, API 30-025-05655, is at 1980 FNL & 1980 FWL, Sec. 20, T. 19 S., R. 37 E., Lea County, NM. This is 1.7 miles NNW of the Monument, NM Post Office. Water will be injected at a maximum pressure of 737 psi into the Grayburg formation from 3688' to 4015'. Maximum injection rate will be 700 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 or ocd.engineer@state.nm.us within 15 days. NMOCD Engineering Bureau phone is 505 476-3441. 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

00272841

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





November 22, 2022

James Allan Bryant 8204 Indigo Court NE Albuquerque NM 87112

TYPICAL NOTICE

Apache Corporation is planning (see attached application) to convert its North Monument G/SA Unit 006 oil well (30-025-05655) to a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposal. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: North Monument G/SA Unit 006 (NMSLO lease) TD: 4020'
Proposed Injection Zone: Grayburg from 3799' to 3943'
Where: 1980' FNL & 1980' FWL Sec. 20, T. 19 S., R. 37 E., Lea County, NM Approximate Location: 1.7 miles NNW of the Monument, NM Post Office Applicant Name: Apache Corporation (432) 818-1088
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 NMOCD Enginering Bureau address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Phone number is (505) 476-3441. E-mail address is: ocd.engineer@state.nm.us

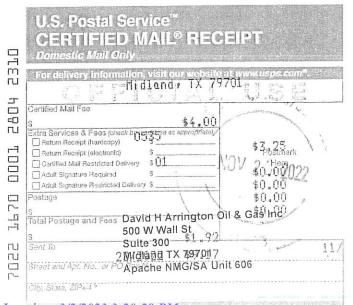
Please call me if you have any questions.

Sincerely.

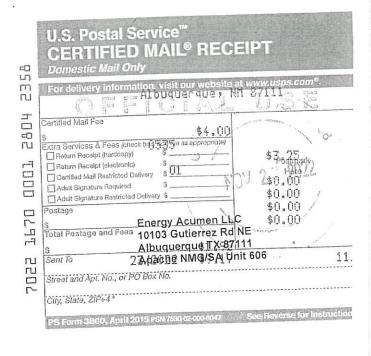
Brian Wood







	U.S. Postal Service™ EXHIBIT L
	CERTIFIED MAIL® RECEIPT
r-T	Domestic Mail Only
7	
m	For delivery information, visit our website at www.usps.com ² .
	O = = Tulso, OK 74114 71 S E
904	Certified Mail Fee
=0	s \$400
П	Extra Services & Fees (check box, add the as appropriate)
1000	Return Receipt (electronic) \$ \$3803[bark \ C]
	Cartified Mail Restricted Delivery \$11 100 3 Here Adult Signature Required \$ 400 170000
	Adult Signature Restricted Delivery \$ \$ \$11,000
1670	Postage \$0.00 /
. n	5 Empire New Mexico LLC \$0.000
H	2200 S Otica Place
П	Suite 150 👔 92 Sent To 🤧 ក្សាទុក្ខ9K 74134 7 11/
	73 UI9A UNITED 17 11/
702	Street and Apr. No., or PO BENTS:
	City, State, ZIP+4*
	PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions





Released to Imaging: 3/2/2023 3:20:29 PM that see the first had been seen as the first had been seen a

EXHIBIT

Received by OCD: 11/23/2022 3:08:20 PM U.S. Postal Service CERTIFIED MAIL® RECEIPT 507 elivery information, visit our website at www.usps.com TU 2804 \$4,00 Extra Services & Fees (check by Fig. Fee as appropriate) Return Receipt (hardcopy) \$3.75 Postmark Return Receipt (electronic) Certified Mail Restricted Delivery \$0.00 \$0.00 Adult Signature Required Adult Signature Restricted Delivery \$ \$0,00 ostage AJYANI Southwest Royalties
Total Postage and Fees PO Box 53570 \$0.00 Midland TX 79719-24 paghe NMG/\$A Unit 606 11/ Street and Apt. No., or PO Box No. City, State, ZIP+43

1000

20

Л

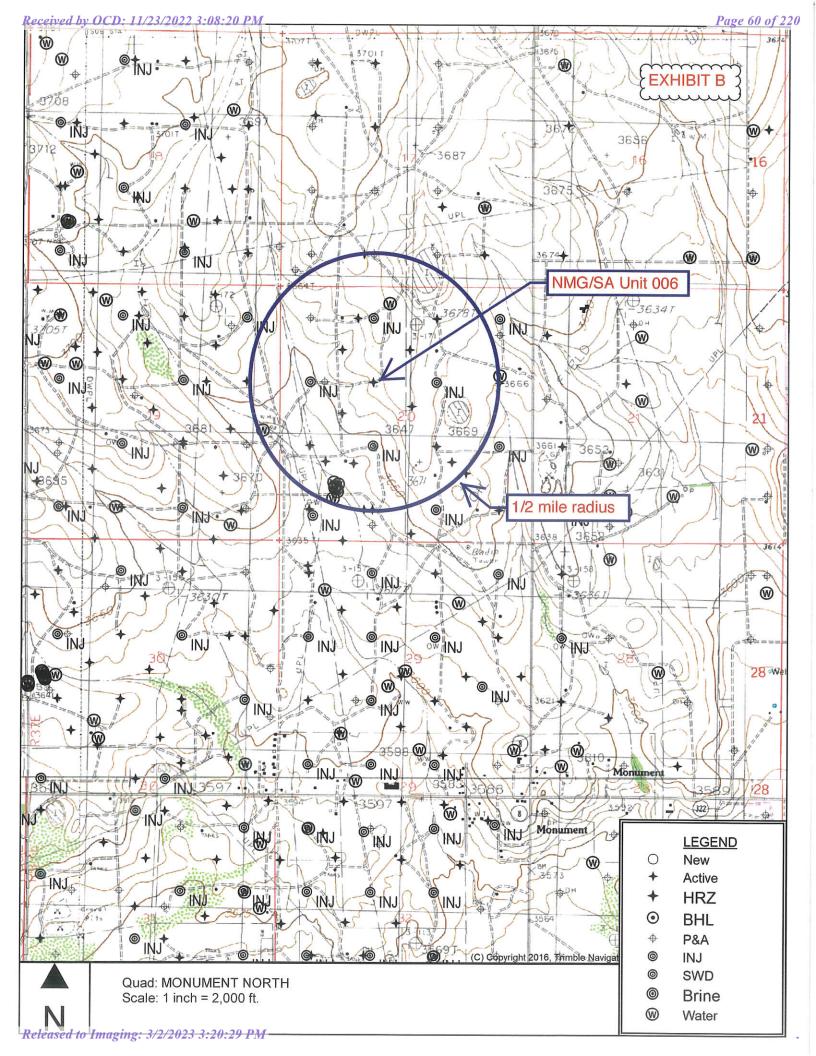
LI LI

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT 24.15 For delivery information, visit our 1000 *4700 Extra Services & Fees (check box light (ca as appropriate) * Postmark Return Receipt (hardcopy) Return Receipt (electronic) Here Certified Mail Restricted Delivery Adult Signature Required saling. Adult Signature Restricted Delivery \$ 1670 \$0.00 Postage \$0.00 Shell-Western E&P Total Postage and Fees PO Box 576 Houston TX \$20012 7미5 Apache NMG SALUnit 606 Street and Apt. No., or PO Box No. City, State, ZIP+4*



U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only For delivery information, visit our website at www.usps.com .
Certified Mall Fee Extra Services & Fees (check box, add fee as aphiopadd) Return Receipt (hardcopy) Certified Mall Restricted Delivery) Adult Signature Required Adult Signature Required Adult Signature Restricted Delivery) \$0.000
Postage \$10,000

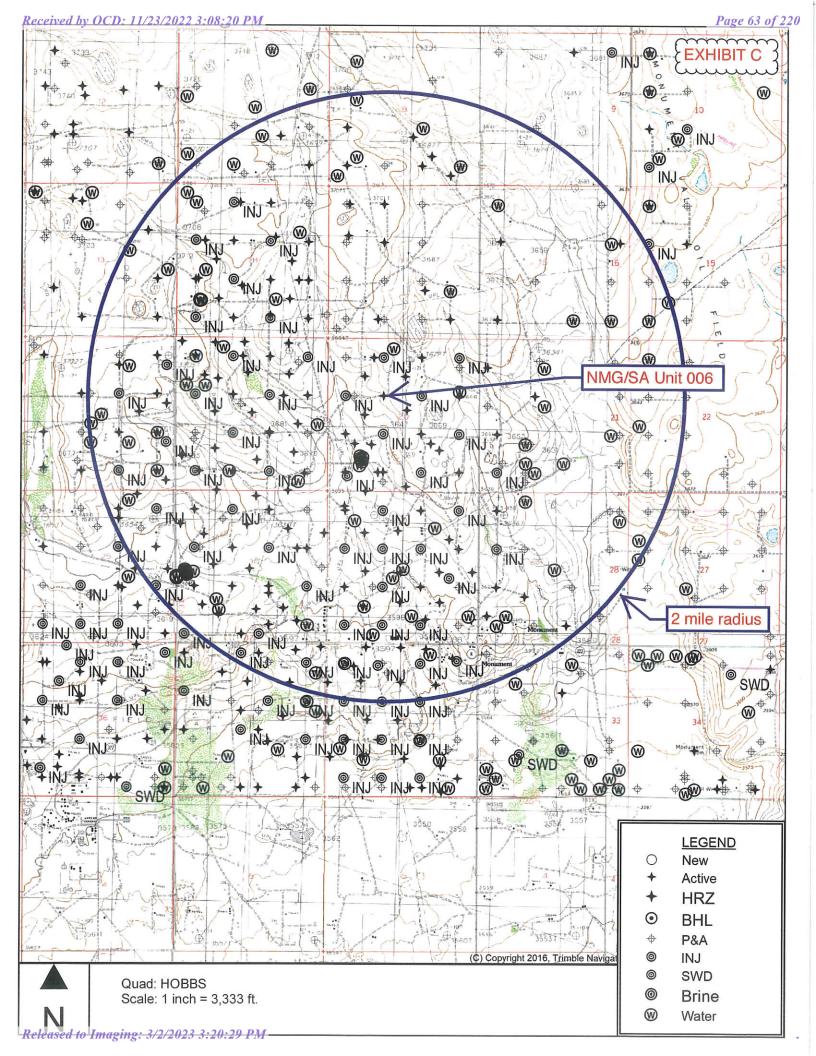
372	Domestic Mail Only
ru	For delivery information, visit our website at www.usps.com*.
7007	Certified Mail Fee
=0	\$ \$4,00
000	Extra Services & Fees (check by Tipe as appropriate) Return Receipt (hardcopy) Return Receipt (delectronic) Certified Mail Restricted Delivery Tipe as appropriate Adult Signature Required Adult Signature Restricted Delivery Tipe as appropriate Adult Signature Restricted Delivery Tipe as
	Postage During Planting
1670	Mulloy Operating Inc \$0.00
戸	rotal Postage and Fees 415 W Wall St
LI LI	Suite 200 Sent To Midjand TX 797017
	Street and Apt. No., or PO Box No.
1	City, State, ŽIP+43
a de la companya de l	PS Form 3800, April 2015 PSN 7500-02-000-5047 See Reverse for Instructions

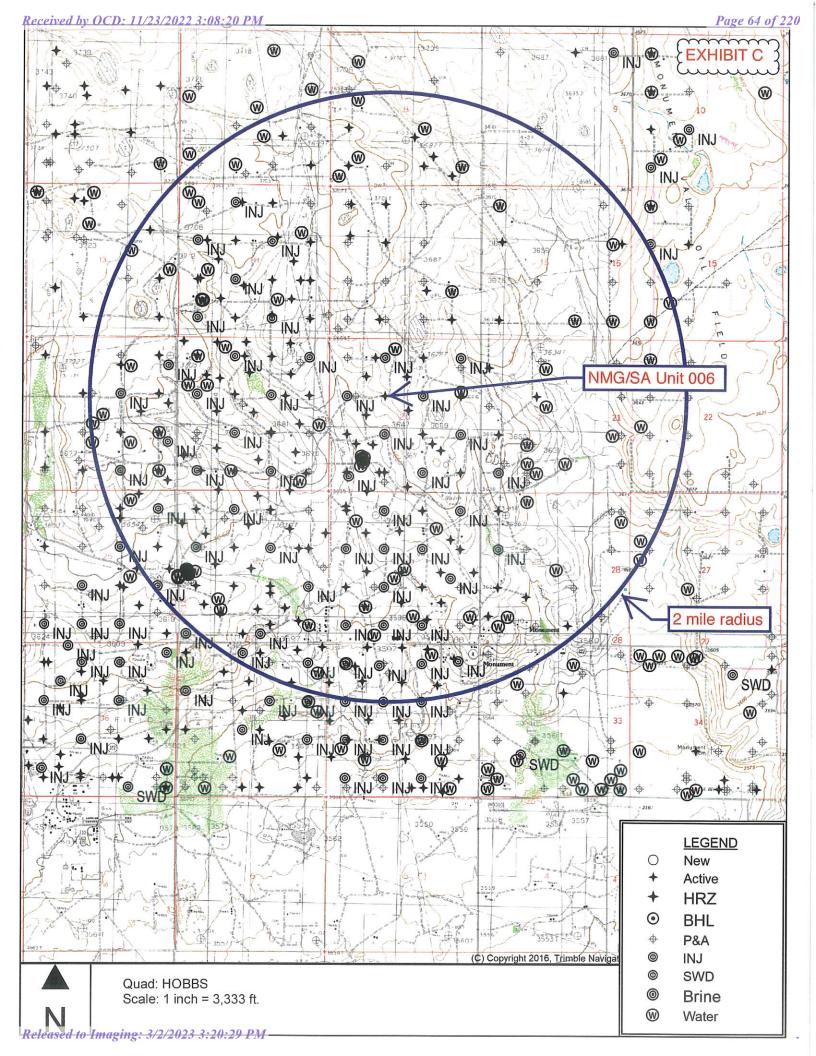


API	OPERATOR	WELL	TYPE WELL	UNIT- SECTION- T19S-R37E	TVD	ZONE @ TD	FEET FROM NMG/SAU 006
3002541036	Apache	NMG/SAU 384	О	F-20	4100	San Andres	914
3002541704	Apache	NMG/SAU 433	0	C-20	4000	Grayburg	932
3002538146	Apache	NMG/SAU 344	0	G-20	4125	San Andres	940
3002531588	Apache	NMG/SAU 018	0	B-20	4310	San Andres	1003
3002526535	Apache	State L Gas Com 003	G	E-20	3630	Queen	1017
3002505656	Apache	NMG/SAU 007	1	G-20	3997	Grayburg	1312
3002505667	Apache	NMG/SAU 011	I	K-20	3982	Grayburg	1316
3002505654	Apache	NMG/SAU 005	I	E-20	3996	Grayburg	1318
3002505669	Apache	NMG/SAU 003	Ī	C-20	4020	Grayburg	1322
3002528087	Energy Acumen	Dority 001	G	C-20	3855	Queen	1361
3002541038	Apache	NMG/SAU 386	0	K-20	4048	Grayburg	1727
3002505659	Apache	NMG/SAU 010	0	J-20	4002	Grayburg	1860
3002505664	Apache	NMG/SAU 012	0	L-20	3965	Grayburg	1861
3002505657	Apache	NMG/SAU 002	0	B-20	4000	Grayburg	1861
3002505668	Apache	NMG/SAU 004	P&A	D-20	3973	Grayburg	1867
3002509885	Empire New Mexico	H T Mattern 005	G	L-20	3639	Queen	1918
3002505660	Empire New Mexico	F W Kutter NCT A Com 003	G	J-20	3700	Queen	2328
3002505666	Apache	NMG/SAU 014	0	N-20	3960	Grayburg	2636
3002505661	Apache	NMG/SAU 008	0	H-20	3996	Grayburg	2640
3002505611	Conoco	State A 17 002	P&A	N-17	4005	Grayburg	2640

Received by OCD: 11/23/2022 3:08:20 PM SORTED BY DISTANCE FROM NORTH MONUMENT G/SA UNIT 006

АРІ	OPERATOR	WELL	TYPE WELL	UNIT- SECTION- T19S-R37E	TVD	ZONE @ TD	FEET FROM NMG/SAU 006
3002505645	Apache	NMG/SAU 008	0	H-19	4000	Grayburg	2640
3002533618	Apache	NMG/SAU 624	wsw	H-20	5100	San Andres	2644
3002530916	Empire New Mexico	HT Mattern 006	G	N-20	3725	Penrose	2646
3002532820	Mewbourne	Eumont 17 State 001	G	N-17	3890	Grayburg	2647

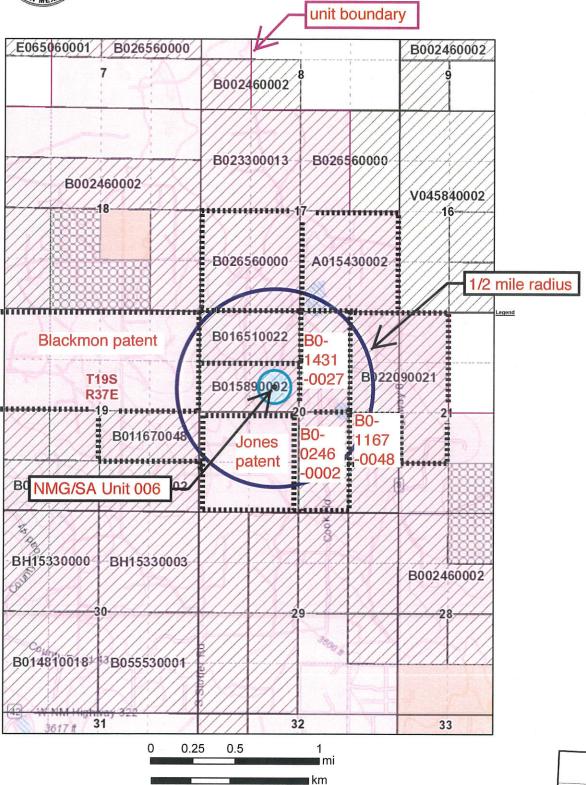






New Mexico State Land Office





Disclaimer:

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 herein with respect to State Land Office data or data from other sources.

0.38

0.75

1.5

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.



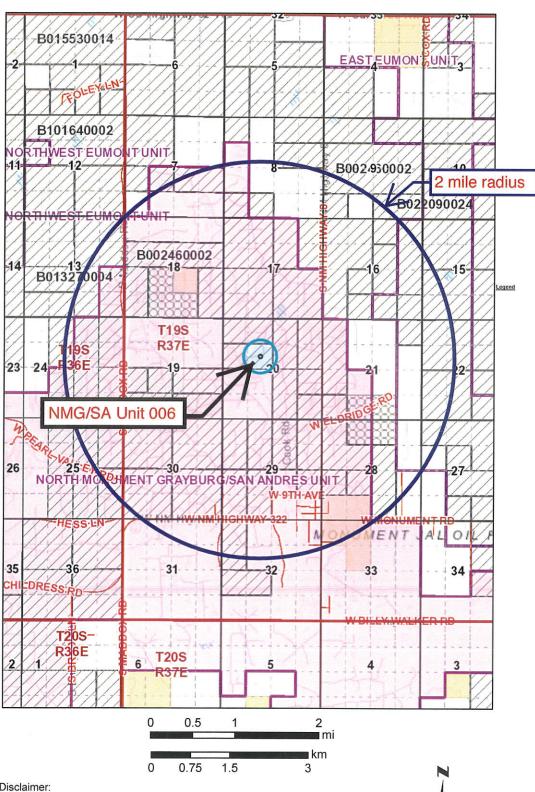
Received by OCD: 11/23/2022 3:08:20 PM NORTH MONUMENT G/SA UNIT 006 AREA OF REVIEW LEASES

Aliquot Parts in Area of Review (T. 19 S., R. 37 E.)	Lessor	Lease	Lessee(s) of Record	Well Operators (all zones)
S2SW4 Sec. 17	NMSLO	B0-2656-0000	ConocoPhillips	Mewbourne Oil
SWSE Sec. 17	NMSLO	A0-1543-0002	Southwest Royalties	Petroleum Exploration
E2NE4 Sec. 19	fee	Blackmon patent	Apache	Apache, Arrington O&G, and Mulloy Operating
NESE Sec. 19	NMSLO	B0-1167-0048	-1167-0048 Shell Western E&P	
E2NE4 Sec. 20	NMSLO	B0-2209-0021	Chantrey	Apache
W2NE4 Sec. 20	NMSLO	B0-1431-0027	Leaco NM E&P, aka Apache	Apache
N2NW4 Sec. 20	NMSLO	B0-1651-0022	Mewbourne	Apache, Energy Acumen
S2NW4 Sec. 20	NMSLO	B0-1589-0002	Leaco NM E&P, aka, Apache	Apache
NESE Sec. 20	NMSLO	B0-1167-0048	Shell Western E&P	Apache
W2SE4 Sec. 20	NMSLO	B0-0246-0002	Southwest Royalties	Apache, Empire NM
SW4 Sec. 20	fee	Jones patent	Apache	Apache, Empire NM



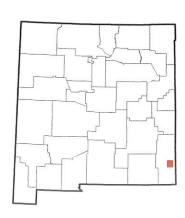
New Mexico State Land Office





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 herein with respect to State Land Office data or data from other sources.

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.

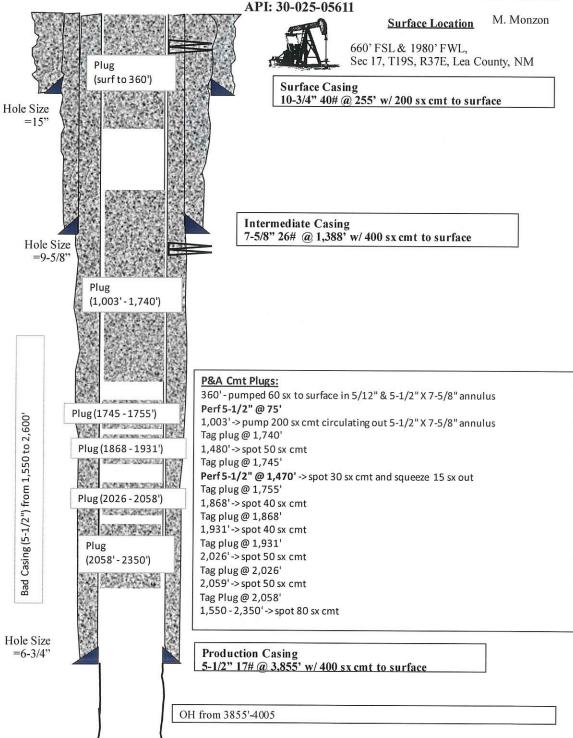




GL=3700' Spud: 8/22/36

Conoco Inc. – State A-17 # 2 Wellbore Diagram – P&A (5/22/1992)

Date: 11/2/2022



TD = 4,005'

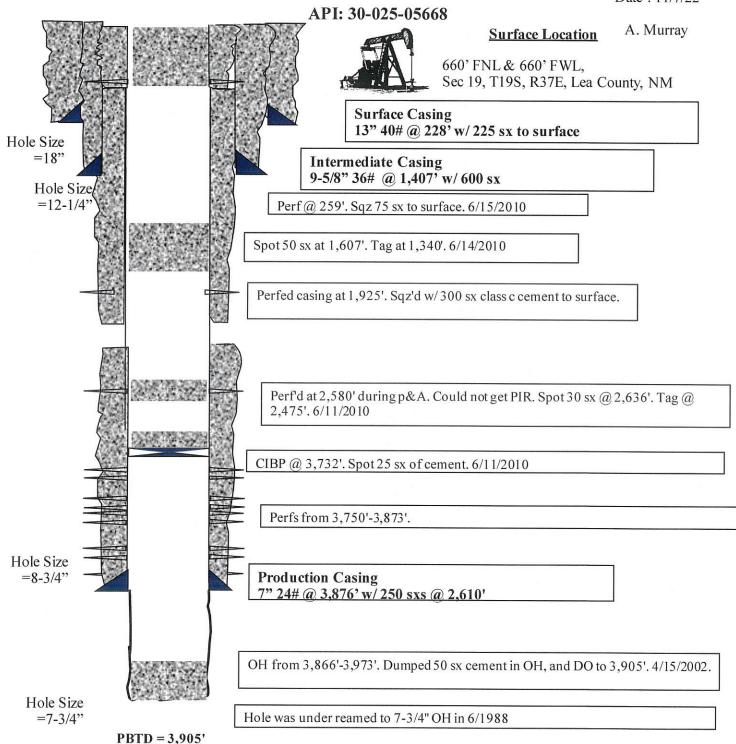
Drawing not to scale

EXHIBIT F

Spud: 4/4/36

Apache Corporation – NMGSAU #004 P&A'd 6/15/2010

Date: 11/7/22



TD = 3.973'

SORTED BY DISTANCE FROM NMG/SA UNIT 006

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 384	5/24/13	4100	Eunice Monument; Grayburg-SA	0	11	8.625	1348	500 sx	GL	Circ 105 sx
3002541036					7.875	5.5	4100	790 sx	20'	CBL
F-20-19S-37E										
N Monument	7/25/44	4000	Eunice Monument;							
GSA Unit 433	7/25/14	4000	Grayburg-SA	0	11	8.625	1358	460 sx	GL	Circ 3 sx
3002541704					7.875	5.5	4000	900 sx	GL	CBL
C-20-19S-37E										
N Monument GSA Unit 344	10/23/06	4125	Eunice Monument; Grayburg-SA	0	11	8.625	392	300 sx	GL	Circ
3002538146					7.875	5.5	4125	850 sx	GL	CBL
G-20-19S-37E										
			*			S)				
N Monument GSA Unit 018	9/28/92	4310	Eunice Monument; Grayburg-SA	0	17.5	13.375	477	500 sx	GL	108 sx
3002531588					12.25	9.625	3707	1545 sx	no report	no report
B-20-19S-37E					8.75	7	4309	225 sx	2700	Estimated

SORTED BY DISTANCE FROM NMG/SA UNIT 006

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
			4							
N Monument GSA Unit 007	10/8/36	3997	Eunice Monument; Grayburg-SA	ı	17.5	12.5	196	200 sx	GL	calc.
3002505656					11	8.625	2554	500 sx	604'	calc.
G-20-19S-37E					7.875	6.625	3864	100 sx	2974'	calc.
N Monument GSA Unit 011	10/27/36	3982	Eunice Monument; Grayburg-SA	1	16	13	125	125 sx	GL	calc.
3002505667					12.25	9.625	1362	600 sx	GL	calc.
K-20-19S-37E					8.625	7	3800	350 sx	1560'	calc.
N Monument GSA Unit 005	2/3/36	3996	Eunice Monument; Grayburg-SA	1	17.5	12.5	190	150 sx	GL	calc.
3002505654					11	9.625	2476	500 sx	726'	calc.
E-20-19S-37E					8.75	7	3851	100 x	3211'	calc.
			16							¥
N Monument GSA Unit 003	6/9/36	4020	Eunice Monument; Grayburg-SA	l	17	13	245	250 sx	GL	calc.
3002505669					12	9.625	1392	550 sx	GL	calc.
C-20-19S-37E					8.75	6.625	3906	350 sx	791'	calc.

SORTED BY DISTANCE FROM NMG/SA UNIT 006

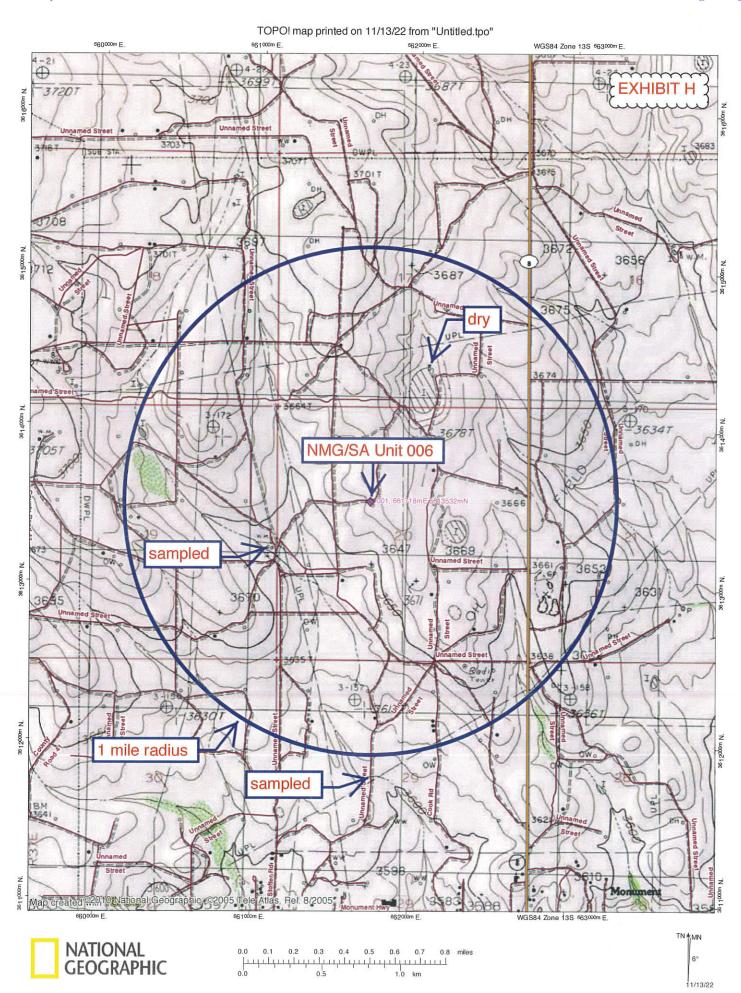
WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 386	6/1/13	4048	Eunice Monument; Grayburg-SA	0	11	8.625	1333	372 sx	GL	Circ 128 sx
3002541038					7.875	5.5	4080	692 sx	40	CBL
K-20-19S-37E		190		-						#/
N Monument GSA Unit 010	12/14/36	4002	Eunice Monument; Grayburg-SA	0	17.25	13	269	275 sx	GL	no report
3002505659					12.25	9.625	1391	275 sx	no report	no report
J-20-19S-37E					8.625	7	3774	260 sx	no report	no report
					6.75	5.5	3759	25 sx	no report	no report
		_*								
N Monument GSA Unit 012	11/16/35	3965	Eunice Monument; Grayburg-SA	0	no report	12.5	258	250 sx	GL	no report
3002505664					no report	9.625	1367	800 sx	no report	no report
L-20-19S-37E			•		no report	7	3811	400 sx	no report	no report
N Monument GSA Unit 002	11/12/36	4000	Eunice Monument; Grayburg-SA	0	17.5	12.5	198	200 sx	GL	no report
3002505657					9	8.625	2585	500 sx	no report	no report
B-20-19S-37E					7.875	6.625	3838	100 sx	no report	no report

SORTED BY DISTANCE FROM NMG/SA UNIT 006

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 004	4/4/36	3973	Eunice Monument; Grayburg-SA	P&A	18	13	225	209 sx	GL	Circ
3002505668					12.25	9.625	1407	600 sx	GL	no report
D-20-19S-37E	2				8.75	7	3876	250 sx	2610	CBL
N Monument										
GSA Unit 014	6/23/61	3960	Eunice Monument; Grayburg-SA	0	no report	12.5	247	250 sx	GL	no report
3002505666					no report	9.625	1361	600 sx	GL	no report
N-20-19S-37E					no report	7	3837	400 sx	GL	no report
N Monument GSA Unit 008	10/30/36	3996	Eunice Monument; Grayburg-SA	0	13.75	10.75	209	100 sx	no report	no report
3002505661		×			9.875	7.625	1413	400 sx	no report	no report
H-20-19S-37E					6.75	5.5	3755	100 sx	no report	no report
				(∗)				-		
State A 17 002	8/21/36	4005	Eunice Monument; Grayburg-SA	P&A	15	10.75	272	200 sx	GL	no report
3002505611					9.625	7.625	1397	425 sx	GL	no report
N-17-19S-37E					6.75	5.5	3843	400 sx	GL	no report

SORTED BY DISTANCE FROM NMG/SA UNIT 006

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 008	3/1/36	4000	Eunice Monument; Grayburg-SA	0	13.75	10.75	238	250 sx	no report	no report
3002505645					9.875	7.625	1368	300 sx	no report	no report
H-19-19S-37E	э				6.75	5.5	3816	300 sx	no report	no report
N Monument GSA Unit 624	10/24/96	5100	Grayburg-SA	wsw	17.5	13.375	500	525 sx	GL	Circ 138 sx
3002533618					12.25	9.625	44070	1350 sx	GL	Circ trace
H-20-19S-37E					<i>8.75</i>	open hole	5100	N/A	N/A	р
Eumont 17 State 001	2/28/95	3890	Eumont; Yates-7 Rvrs- Queen	G	12.25	8.625	425	350 sx	GL	Circ 50 sx
3002532820					7.875	4.5	3890	730 sx	GL	Circ 10 sx
N-17-19S-37E										
						. is				





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

EXHIBIT H

(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													
		Sub-			Q										Water
POD Number	Code		County							X	Y		epthWellDe	epthWater C	olumn
L 05611 POD4	R	L	LE	2	2	1	20	198	37E	661812	3614032*	508	105	53	52
L 14366 POD3		L	LE	2	3	3	20	19S	37E	661477	3612899	677	32		
L 13521 POD1		L	LE	4	4	3	20	19S	37E	661504	3612887	678	34	22	12
L 13926 POD1		L	LE	2	3	3	20	19S	37E	661484	3612874	698	32	21	11
L 13926 POD3		L	LE	2	3	3	20	19S	37E	661485	3612865	705	32	21	11
L 13926 POD2		L	LE	2	3	3	20	19S	37E	661495	3612857	710	32	21	11
L 14366 POD1		L	LE	2	3	3	20	19S	37E	661500	3612840	725	32		
<u>L 10277</u>		L	LE	2	2	4	19	19S	37E	661020	3613219*	764	70	40	30
L 14366 POD2		L	LE	2	3	3	20	19S	37E	661473	3612797 🌑	774	32		
L 00062		L	LE		4	4	18	19S	37E	660903	3614327*	1138	93		
<u>L 01273</u>		L	LE	3	4	4	19	19S	37E	660827	3612617*	1277	62	45	17
<u>L 06933</u>		L	LE	3	2	4	17	19S	37E	662403	3614646*	1307	100	65	35
L 01251		L	LE	4	1	1	29	19S	37E	661434	3612218*	1344	51	38	13
<u>L 00061</u>		L	LE		3	4	18	19S	37E	660501	3614325*	1452	100		
L 14224 POD2		L	LE	2	3	3	18	19S	37E	660549	3614528 🌍	1535	75	59	16
<u>L 02621</u>		L	LE	3	2	3	21	19S	37E	663233	3613050*	1589	83	40	43
<u>L 05433</u>		L	LE		4	1	19	19S	37E	660112	3613518*	1606	5790	1072	4718

Average Depth to Water:

124 feet

Minimum Depth:

21 feet

Maximum Depth:

1072 feet

Record Count: 17

UTMNAD83 Radius Search (in meters):

Easting (X): 661718

Northing (Y): 3613532

Radius: 1610

*UTM location was derived from PLSS - see Help

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.

11/13/22 3:34 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



Analytical Report Lab Order 2211086

Date Reported: 11/14/2022

EXHIBIT

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

Project:

Lab ID:

NMGSAU

2211086-003

Client Sample ID: Sec 19

Collection Date: 11/1/2022 10:20:00 AM Received Date: 11/2/2022 11:33:00 AM

Result Analyses **RL Qual Units DF** Date Analyzed Batch **EPA METHOD 1664B** Analyst: dms N-Hexane Extractable Material ND 9.44 11/9/2022 4:42:00 PM 71367 mg/L **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 110 5.0 mg/L 11/3/2022 9:16:05 AM R92333 SM2540C MOD: TOTAL DISSOLVED SOLIDS Analyst: SNS **Total Dissolved Solids** 515 20.0 11/8/2022 10:21:00 AM 71300 mg/L

Matrix: AQUEOUS

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

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

D Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 4 of 8

Analytical Report Lab Order 2211086

Date Reported: 11/14/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

2211086-001

Client Sample ID: Sec 29

Project: NMGSAU

Lab ID:

Collection Date: 11/1/2022 12:50:00 PM Received Date: 11/2/2022 11:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 1664B						Analys	t: dms
N-Hexane Extractable Material	ND	9.46		mg/L	1	11/9/2022 4:42:00 PM	71367
EPA METHOD 300.0: ANIONS						Analys	: JTT
Chloride	210	50		mg/L	100	11/3/2022 8:38:51 AM	R92333
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst	: SNS
Total Dissolved Solids	720	40.0	*D	mg/L	1	11/8/2022 10:21:00 AM	71300

Matrix: AQUEOUS

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

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL

% Recovery outside of standard limits. If undiluted results may be estimated

Analyte detected in the associated Method Blank

Above Quantitation Range/Estimated Value

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 2 of 8





NM Oil Conservation Division 1220 S. St. Francis Dr. Santa Fe, NM 87505

Re: Geology Statement
Apache Corporation
North Monument G/SA Unit #6
Section 20, T. 19S, R. 37E
Lea County, New Mexico

To whom it may concern:

Publicly available geologic and engineering data related to the proposed well have been thoroughly reviewed, and no evidence for open faults or any other hydrologic connection between the proposed Grayburg injection zone and any underground sources of drinking water has been found. Please see the attached seismic risk assessment for additional information.

Sincerely,

Cory Walk Geologist

EXHIBIT J

Seismic Risk Assessment

Apache Corporation

North Monument G/SA Unit #6

Section 20, Township 19 South, Range 37 East

Lea County, New Mexico

Cory Walk, M.S.

Geologist

Cory Walk

Permits West Inc.

November 17, 2022

Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 1

GENERAL INFORMATION



North Monument G/SA Unit #6 is located in the NW ¼, section 20, T19S, R37E, about 1.5 miles north of Monument, NM in the Central Basin Platform of the greater Permian Basin. Apache Corporation proposes to convert this existing oil well to a water injection well. The proposed injection zone is within the Grayburg Formation through a cased hole from 3,688'-4,015' below ground surface. The Grayburg is primarily a carbonate reservoir with some sandstones present. This report assesses any potential concerns relating to induced seismicity along deep penetrating Precambrian faults or the connection between the injection zone and known underground potable water sources.

SEISMIC RISK ASSESSMENT

Historical Seismicity

Searching the USGS earthquake catalog resulted in no (0) earthquakes above a magnitude 2.5 within 6 miles (9.7 km) of the proposed injection site since 1970 (Fig 1). According to this dataset, the nearest historical earthquake occurred June 28, 2020 about 11.3 miles (~18.1 km) northwest and had a magnitude of 2.7.

Basement Faults and Subsurface Conditions

A structure contour map (Fig. 1) of the Precambrian basement shows the North Monument G/SA Unit #6 is approximately 4.8 miles from the nearest basement-penetrating fault inferred by Ewing et al (1990) and about 59 miles from the nearest surface fault.

Snee and Zoback (2018) state, "In the western part of Eddy County, New Mexico, S_{Hmax} is ~north-south (consistent with the state of stress in the Rio Grande Rift; Zoback and Zoback, 1980) but rotates to ~east-northeast-west-southwest in southern Lea County, New Mexico, and the northernmost parts of Culberson and Reeves counties, Texas." Around the North Monument G/SA Unit #6 site, Snee and Zoback indicate a S_{Hmax} direction of N105°E and an A_{ϕ} of 0.85, indicating a normal/strike-slip faulting stress regime.

Induced seismicity is a growing concern of deep injection wells. Snee and Zoback (2018) show that due to its orientation, the nearest Precambrian fault has a low probability of slipping (Fig. 2). Also, the proposed injection zone is much shallower in the Grayburg Formation and therefore would not affect the deep Precambrian faults. In addition to the existing fault orientation, the vertical (approx. 6900') and horizontal (4.8 miles) separation between the proposed water injection zone and any deep Precambrian faults is large enough to infer that there is no immediate concern or potential of induced seismicity as a result from this injection well.

GROUNDWATER SOURCES

Three principal aquifers are used for potable groundwater in southern Lea County; these geologic units include the Triassic Santa Rosa formation, Tertiary Ogallala formation, and Quaternary alluvium. Nicholson and Clebsch (1961) state, "Potable ground water is not available below the Permian and Triassic unconformity but, because this boundary is not easily defined, the top of the Rustler anhydrite formation is regarded as the effective lower limit of 'potable' ground water." Around the North



Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 2

Monument G/SA Unit #6 well, the top of a thick anhydrite unit interpreted to represent the Rustler Formation lies at a depth of ~1342 feet bgs.

STRATIGRAPHY

A thick permeability barrier (Rustler Anhydrite and Salado Fm; 1100+ ft thick) exists above the targeted Grayburg injection zone. Well data indicates ~2,345 ft of rock separating the top of the injection zone from the previously stated lower limit of potable water at the top of the Rustler anhydrite formation.

CONCLUDING STATEMENT

All available geologic and engineering data evaluated around the North Monument G/SA Unit #6 well show no potential structural or stratigraphic connection between the Grayburg injection zone and any subsurface potable water sources. The shallow injection zone, spatial location and orientation of nearby faults also removes any major concern of inducing seismic activity.



SEISMIC RISK ASSESSMENT PAGE 3

Apache Corporation North Monument G/SA Unit #6

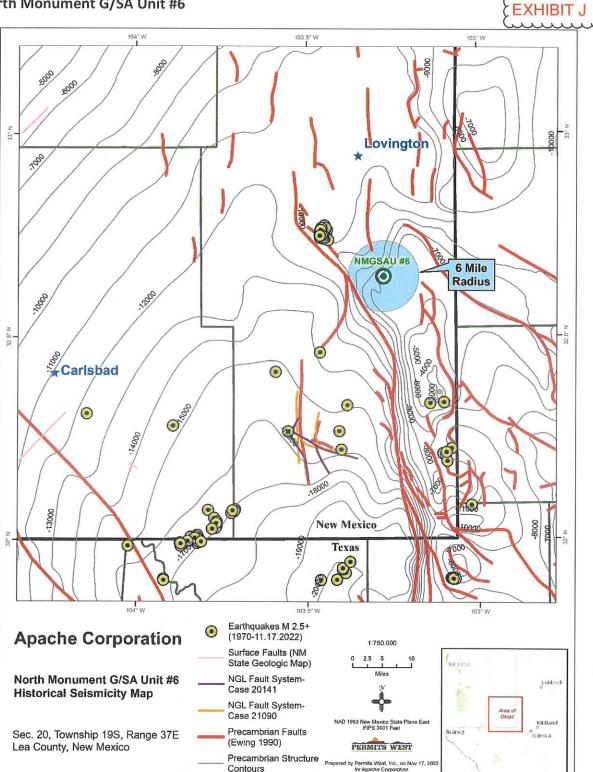


Figure 1. Structural contour map of the Precambrian basement in feet below sea level. Red lines represent the locations of Precambrian basement-penetrating faults (Ewing et al., 1990). The North Monument G/SA Unit #6 well lies ~4.8 miles south of the closest deeply penetrating fault, ~59 miles from the nearest surface fault and ~11.3 miles from the closest historic earthquake.



Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 4 EXHIBIT J 2°W 100°W Hale Arch Motley

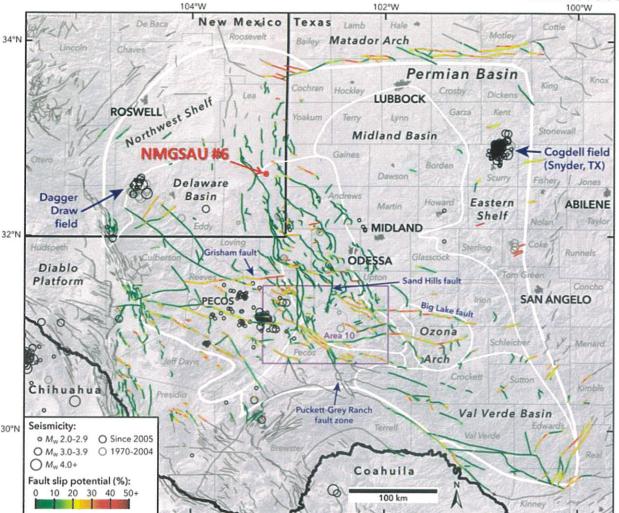


Figure 2. Modified from Snee and Zoback (2018). The nearest deep Precambrian fault lies ~4.8 miles north of the proposed injection well and has a low probability (0%) of slip. Also, the proposed injection zone is much shallower in the Grayburg and therefore removes any major concern of inducing seismicity on any known fault.

Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 5

References Cited



- Ewing, T. E., 1990, The tectonic map of Texas: Austin, Bureau of Economic Geology, The University of Texas at Austin.
- Geologic Map of New Mexico, New Mexico Bureau of Geology and Mineral Resources, 2003, Scale 1:500,000.
- Nicholson, A., Jr., and Clebsch, A., Jr., 1961, Geology and ground-water conditions in southern Lea County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Ground-Water Report 6, 123 pp., 2 plates.
- Snee, J.-E.L., Zoback, M.D., 2018, State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity: Leading Edge, v. 37, p. 127–134.



AE Order Number Banner

Application Number: pAZS2233442618

WFX-1051

APACHE CORPORATION [873]

RECEIVED:	REVIEWER:	TYPE:	APP NO:	
		ABOVE THIS TABLE FOR OCD E	DIVISION USE ONLY	
		O OIL CONSERV cal & Engineering ancis Drive, Sant	g Bureau -	
	ADMINISTR	ATIVE APPLICATI	ON CHECKLIST	
THIS C	HECKLIST IS MANDATORY FOR AL	L ADMINISTRATIVE APPLICA	ATIONS FOR EXCEPTIONS TO DIVIS EDIVISION LEVEL IN SANTA FE	ION RULES AND
Applicant: Apache C	Corporation		OGRID Nu	ımber: 873
	Monument G/SA Unit 006		API: 30-025-0	
Pool: Eunice - Monume	ent; Grayburg - San Andres		Pool Code	23000
		INDICATED BELC		/PE OF APPLICATION
1) TYPE OF APPLICATION A. Location	CATION: Check those was spacing Unit – Simulta SL NSP(PRO	which apply for [A aneous Dedicatio DJECT AREA) \square \square	n	
[1] Comn [II] Inject [II] Inject 2) NOTIFICATION A. Offset of B. Royalty C. Application D. Notification	ningling - Storage - Me DHC	C PC C Te Increase - Enhand TO IPI E Those which apply lers Thornous revenue ow a notice Those intapproval by SLO	anced Oil Recovery OR PPR vners	FOR OCD ONLY Notice Complete Application Content Complete
F. Surface G. For all of H. No not	ce required I hereby certify that the	notification or pu	blication is attached, a built attached with this application best of my knowled	eation for
understand tha	t no action will be take e submitted to the Divis	en on this applica	tion until the required i	nformation and
Note	e: Statement must be complete	ed by an individual with	managerial and/or supervisory	capacity.
Brian Wood			11-23-22 Date	
Print or Type Name	Reliand		505 466-8120 Phone Number	
 Signature)		brian@permitswest.com e-mail Address	

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

т	DUDDOGE VVV C I D
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: 505 466-8120
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-9596
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 selection of any plugged well illustrating all plugging and the illustrations and the interest of any plugged well illustrating all plugging and the illustrations and the interest of any plugged well illustrating all plugging and the illustrations are selected.
	schematic of any plugged well illustrating all plugging detail. NORTH MONUMENT G/SA UNIT 006
VII.	Attach data on the proposed operation, including: 30–025–05655
	 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 TITLE: CONSULTANT
	SIGNATURE: DATE: NOV. 22, 2022
*	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.

RECEIVED:	REVIEWER:	TYPE:	APP NO:	
		ABOVE THIS TABLE FOR OCD E	DIVISION USE ONLY	
		O OIL CONSERV cal & Engineering ancis Drive, Sant	g Bureau -	
	ADMINISTR	ATIVE APPLICATI	ON CHECKLIST	
THIS C	HECKLIST IS MANDATORY FOR AL	L ADMINISTRATIVE APPLICA	ATIONS FOR EXCEPTIONS TO DIVIS EDIVISION LEVEL IN SANTA FE	ION RULES AND
Applicant: Apache C	Corporation		OGRID Nu	ımber: 873
	Monument G/SA Unit 006		API: 30-025-0	
Pool: Eunice - Monume	ent; Grayburg - San Andres		Pool Code	23000
		INDICATED BELC		/PE OF APPLICATION
1) TYPE OF APPLICATION A. Location	CATION: Check those was spacing Unit – Simulta SL NSP(PRO	which apply for [A aneous Dedicatio DJECT AREA) \square \square	n	
[1] Comn [II] Inject [II] Inject 2) NOTIFICATION A. Offset of B. Royalty C. Application D. Notification	ningling - Storage - Me DHC	C PC C Te Increase - Enhand TO IPI E Those which apply lers Thornous revenue ow a notice Those intapproval by SLO	anced Oil Recovery OR PPR vners	FOR OCD ONLY Notice Complete Application Content Complete
F. Surface G. For all of H. No not	ce required I hereby certify that the	notification or pu	blication is attached, a built attached with this application best of my knowled	eation for
understand tha	t no action will be take e submitted to the Divis	en on this applica	tion until the required i	nformation and
Note	e: Statement must be complete	ed by an individual with	managerial and/or supervisory	capacity.
Brian Wood			11-23-22 Date	
Print or Type Name	Reliand		505 466-8120 Phone Number	
 Signature)		brian@permitswest.com e-mail Address	

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 - I - I - I - I - I - I - I - I - I
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: 505 466-8120
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?YesXXXNo If yes, give the Division order number authorizing the project:R-9596
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.
* ***	NORTH MONUMENT G/SA UNIT 006
VII.	Attach data on the proposed operation, including: 30–025–05655
	 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 TITLE: CONSULTANT
	SIGNATURE:DATE: NOV. 22, 2022
*	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.





0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.0 0.0 0.5 1.0 km 0.3 0.4 0.5 0.6 0.7 0.8 miles TN∱MN 11/13/22

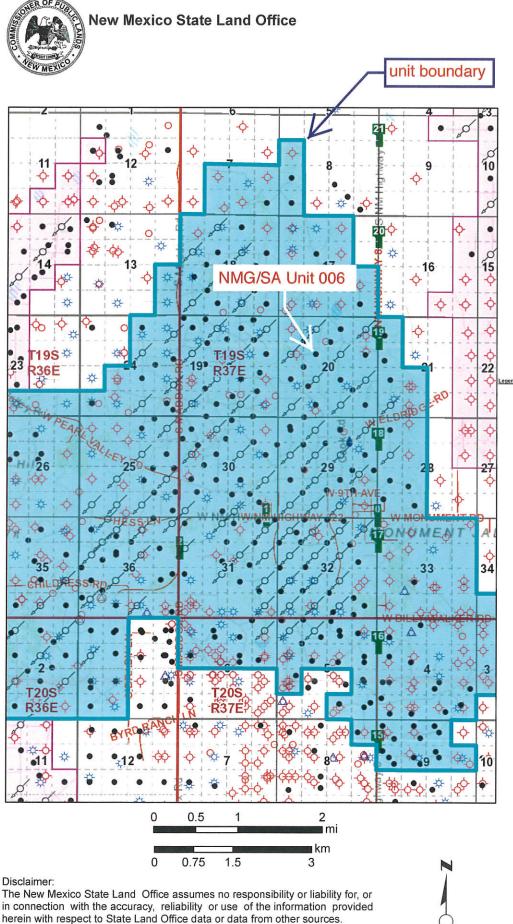
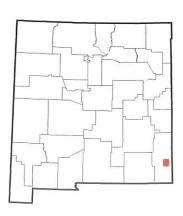


EXHIBIT A

in connection with the accuracy, reliability or use of the information provided herein with respect to State Land Office data or data from other sources.

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.



Side 1

	WELLBO	ORE S "AS IS	SCHEM2 	<u>ATIC</u>				ė.	WELL CO Surface C	NSTRUCTION I	<u>DATA</u>	
	(not	to sca	ale)									
		3846'			12.5" 40# in	a 205'	Hole Size:	17.5"		Casing Size:	12.5"	
		(8)			10C (200 s	x) = GL (calc.)	Cemented with:	200	SX.	or		ft ³
1 (2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		875" prod. tbg					Top of Cement:	SURFACE		Method Determ	ined: CALC.	
#		2.875"			8.625" 32# in 11" hole @ 2545' TOC (500 sx) = 595	5' (calc.)		<u>Ir</u>	ntermediate	e Casing		
							Hole Size:	11"		Casing Size:	8.625"	
							Cemented with:	500	SX.	or		ft ³
							Top of Cement:	SURFACE		Method Determ	ined: CALC.	
								<u> </u>	roduction	Casing		
					le @ 3866'		Hole Size:	7.875"	9	Casing Size:	6.625"	
		ш	10000		sx) = 2976' (calc.) burg perfs 3884' - 39	943'	Cemented with:	100	sx.	or		ft ³
				5.5" - 4.75	5" uncased Grayburg	1	Top of Cement:	2976'		Method Determ	ined: CALC.	
		TD 3950		3867' - 40		2.	Total Depth:	PBTD =	3950'	& $TD = 402$	0'	
	11	D 4020']	Injection In	<u>nterval</u>		
								37	99 feet	to3943'		

(Perforated or Open Hole; indicate which)

OPERATOR: APACHE CORPORATION

WELL NAME & NUMBER: NORTH MONUMENT G/SA UNIT 006

WELL LOCATION: 1980' FNL & 1980' FWL

FOOTAGE LOCATION

UNIT LETTER

20 **SECTION** 19 S

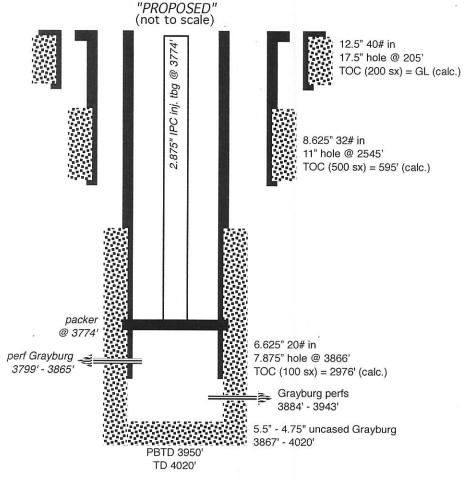
37 E

TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: _____ 17.5" Casing Size: 12.5"

Cemented with: 200 sx.

Top of Cement: SURFACE

Method Determined: CALC.

Intermediate Casing

Hole Size: _____ 11" Casing Size: 8.625"

Cemented with: 500 sx.

Top of Cement:

SURFACE

Method Determined: CALC.

Production Casing

Hole Size: 7.875" Casing Size: 6.625"

Cemented with: 100 sx. or ft^3

Top of Cement: 2976' Method Determined: CALC.

Total Depth: PBTD = 3950' & TD = 4020'

Injection Interval

3799 feet to 3943'

(Perforated or Open Hole; indicate which)

eived by OCD: 11/23/2022 3:08:20 PM

INJECTION WELL DATA SHEET

Tub	oing Size: 2.875" J-55 6.4# Lining Material: INTERNAL PLASTIC COAT
Тур	De of Packer: LOCK SET INJECTION
Pac	eker Setting Depth: 3774 '
Oth	ner Type of Tubing/Casing Seal (if applicable):
	Additional Data
1.	Is this a new well drilled for injection? Yes XXX No
	If no, for what purpose was the well originally drilled? GRAYBURG OIL WELL
2.	Name of the Injection Formation: GRAYBURG
3.	Name of Field or Pool (if applicable): EUNICE-MONUMENT; GRAYBURG-SAN ANDRES (POOL #23000
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) usedNO
5.	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
	OVER: YATES (2654'), SEVEN RIVERS (2870'), & QUEEN (3381')
	UNDER: SAN ANDRES (4025')

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 08, 2022 and ending with the issue dated November 08, 2022.

Publisher

Sworn and subscribed to before me this 8th day of November 2022.

Business Manager

My commission expires

January 29, 2023

(Seal)

GUSSIE BLACK Notary Public - State of New Mexico Commission # 1087526 My Comm. Expires Jan 29, 2023

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

EXHIBIT K

LEGAL NOTICE November 8, 2022

Apache Corporation is applying to convert the North Monument G/SA Unit 6 oil well to a water injection well. The well, API 30-025-05655, is at 1980 FNL & 1980 FWL, Sec. 20, T. 19 S., R. 37 E., Lea County, NM. This is 1.7 miles NNW of the Monument, NM Post Office. Water will be injected at a maximum pressure of 737 psi into the Grayburg formation from 3688' to 4015'. Maximum injection rate will be 700 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 or ocd.engineer@state.nm.us within 15 days. NMOCD Engineering Bureau phone is 505 476-3441. 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

00272841

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





November 22, 2022

James Allan Bryant 8204 Indigo Court NE Albuquerque NM 87112

TYPICAL NOTICE

Apache Corporation is planning (see attached application) to convert its North Monument G/SA Unit 006 oil well (30-025-05655) to a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposal. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: North Monument G/SA Unit 006 (NMSLO lease) TD: 4020'
Proposed Injection Zone: Grayburg from 3799' to 3943'
Where: 1980' FNL & 1980' FWL Sec. 20, T. 19 S., R. 37 E., Lea County, NM Approximate Location: 1.7 miles NNW of the Monument, NM Post Office Applicant Name: Apache Corporation (432) 818-1088
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 NMOCD Enginering Bureau address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Phone number is (505) 476-3441. E-mail address is: ocd.engineer@state.nm.us

Please call me if you have any questions.

Sincerely.

Brian Wood

Received by OCD: 11/23/2022 3:08:20 PM U.S. Postal Ser CERTIFIED MAIL® RECEIPT П Midland, IX 79707 rn TU Certified Mail Fee 口口 Extra Services & Fees (check before es appr TU \$3,75 Postmark Return Receipt (hardcopy) 1000 Return Receipt (electronic) to Here Certified Mail Restricted Delivery Adult Signature Required Adult Signature Restricted Delivery \$0.00 ostage \$0.00 Chantrey Corporation 767 Total Postage and Fees 5505 Highland Ct. Midland TX 797072 ZAPAOTIE NMO/SA Unit 606 П Sent To TU Street and Apt. No., or PO Box No. City, State, ZIP+45

U.S. Postal Service CERTIFIED MAIL® RECEIPT HE mation, visit our m TU 门严 10 Certified Mail Fee \$4.00 Extra Services & Fees (check bp) (2) Fee as appropriate) TU Return Receipt (hardcopy) 1000 Return Receipt (electronic) Harə Lill Lill Cartified Mail Restricted Delivery J#12/1999 Adult Signature Required Adult Signature Restricted Delivery \$ \$17.00 ConocoPhillips Company \$0.00 ostage Total Postage and Fees 600 W. Illinois Ave. Midland TX 797.077 11/ 2 Apache NMG/SA Unit 606 LI Street and Apt. No., or PO Box No. City, State, ZIP+4

> U.S. Postal Service" H LI Midland, TX 79701 Certified Mail Fee П xtra Services & Fees (check by technology) Return Receipt (hardcopy) \$3.75 Postinark 100 Return Receipt (electronic) 201000027 Cartified Mail Restricted Delivery Adult Signature Required \$0.00 Adult Signature Restricted Delivery \$0.00 Total Postage and Fees David H Arrington Oil & Gab Inc. П 500 W Wall St Suite 300 П 11/ 2 Mrdia ad TX 497.017 П Apache NMG/SA Unit 606

U.S. Postal Service CERTIFIED MAIL® RECEI 7 m Tulso, OK 74114 O П Extra Services & Fees (check Return Receipt (hardcopy) \$3Bo2Ehark Return Receipt (electronic) 000 ., Here Cartifled Mail Restricted Delivery 40.00022 \$111 Adult Signature Required Adult Signature Restricted Delivery \$ \$0.00 \$0,00 Empire New Mexico LLC \$0.00 卫 Total Postage and Fees 2200 S Utica Place Suite 150 #1 92 2 Julsa OK 74134 7 2 Apache NMG/SA Unit 606 Sent To 11/П Street and Apt. No.,





Received by OCD: 11/23/2022 3:08:20 PM U.S. Postal Service CERTIFIED MAIL® RECEIPT 507 elivery information, visit our website at www.usps.com TU 2804 \$4,00 Extra Services & Fees (check by Fig. Fee as appropriate) Return Receipt (hardcopy) \$3.75 Postmark Return Receipt (electronic) Certified Mail Restricted Delivery \$0.00 \$0.00 Adult Signature Required Adult Signature Restricted Delivery \$ \$0,00 ostage AJYANI Southwest Royalties
Total Postage and Fees PO Box 53570 \$0.00 Midland TX 79719-24 paghe NMG/\$A Unit 606 11/ Street and Apt. No., or PO Box No. City, State, ZIP+43

1000

20

Л

LI LI

2445

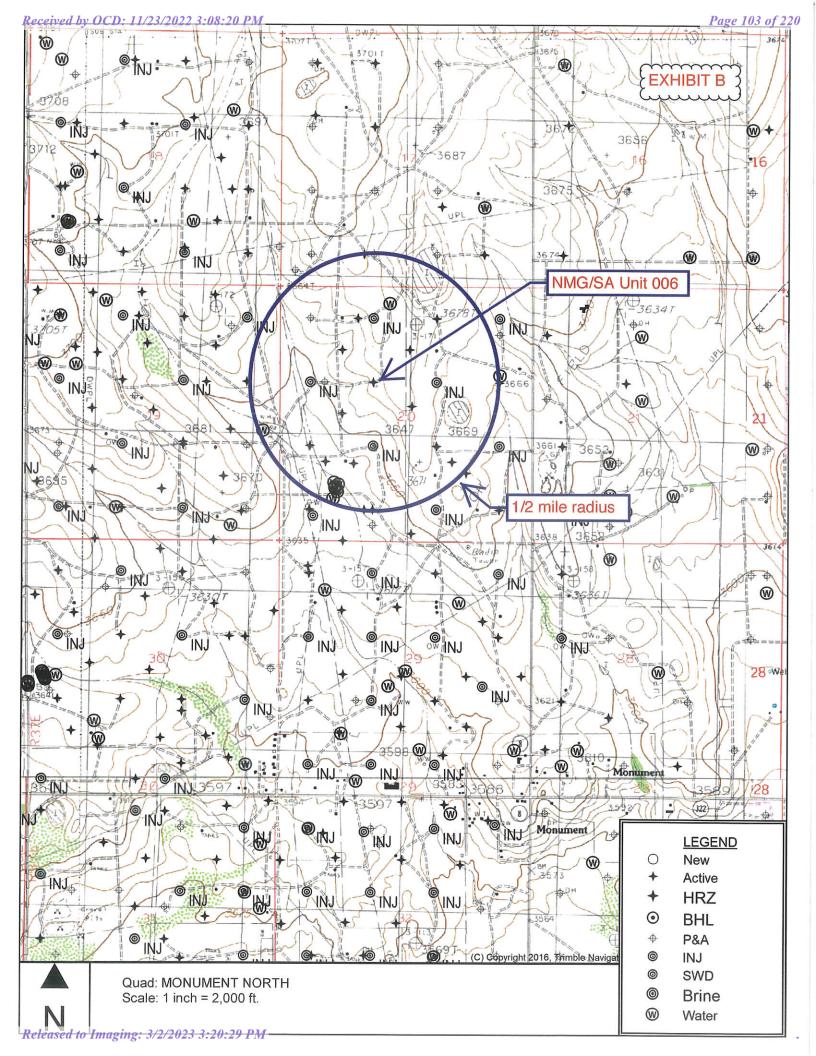
1000

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT For delivery information, visit our *4700 Extra Services & Fees (check box light (ca as appropriate) * Postmark Return Receipt (hardcopy) Return Receipt (electronic) Here Certified Mail Restricted Delivery Adult Signature Required saling. Adult Signature Restricted Delivery \$ 1670 \$0.00 Postage \$0.00 Shell-Western E&P Total Postage and Fees PO Box 576 Houston TX \$10092 7미5 Apache NMG SAlUnit 606 Street and Apt. No., or PO Box No. City, State, ZIP+4*



다 의 유 리	U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only For delivery information, visit our website at www.usps.com®. C = Santa FaraNt 87504 C =
구민민	Certifled Mall Fee
1000	Return Receipt (inardcopy) 15.55 Return Receipt (inardcopy) 15.55 Return Receipt (electronic) Certified Mail Restricted Delivery 3 4.70 Adult Signature Required Adult Signature Restricted Delivery 3 4.70 Adult Signature Restricted Delivery 4 4.70 Adult Signature Restric
1670	Postage \$ NM State Land Office \$0.00 Total Postage and Fees PO Box 1148 \$ Santa Fe NM 87504
702	Sent To Apache NMG/SACTHIT 606 23/2022 \$7.17 Street and Apt. No., or PO Box No. Dity, State, 2IP44*
Rendi	PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

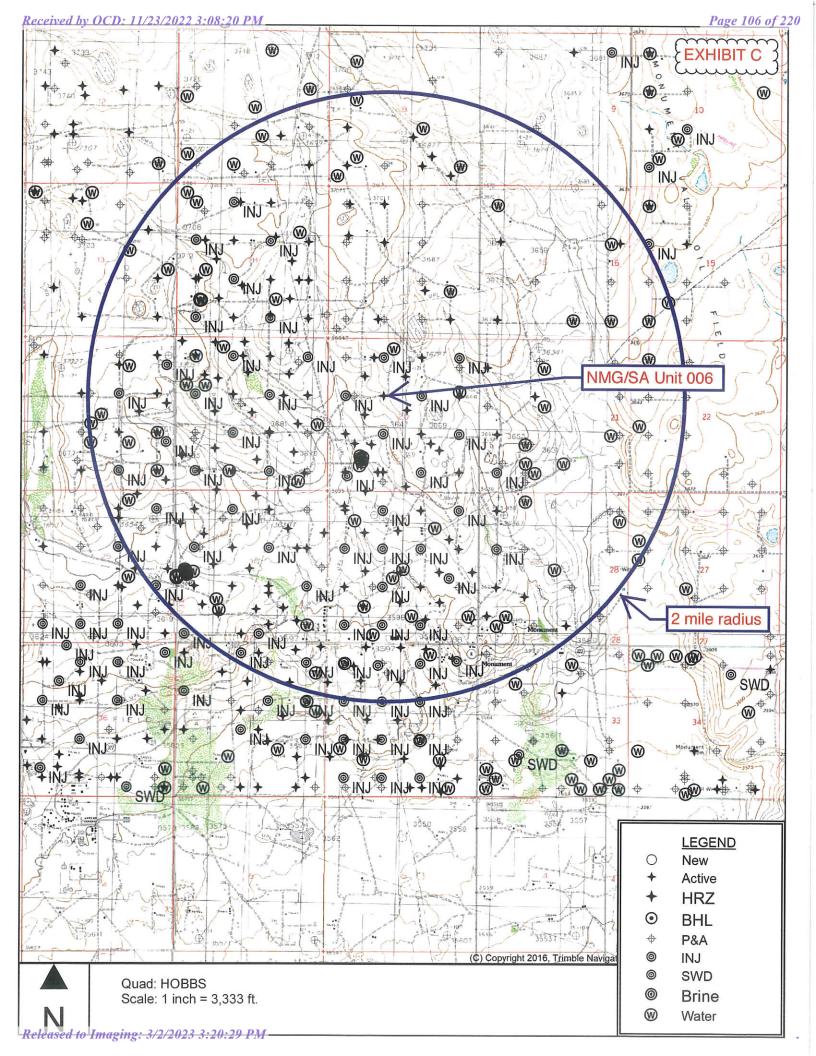
372	Domestic Mail Only
П	THE STATE OF THE S
2804	Certified Mall Fee
FU.	S \$4,00
7,670 0001 ;	Return Receipt (inardcopy) Return Receipt (inardcopy) Return Receipt (electronic) Certified Mail Restricted Delivery U1 Postmark Adult Signature Required Adult Signature Restricted Delivery Postage 10.00 10.00
一	Total Postage and Fees 415 W Wall St Suite 200
	Sent To Midland TX 79701
70	Street and Apt. No., or PO Box No.
	Clfy, State, ŽIP+43
rosecu	PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

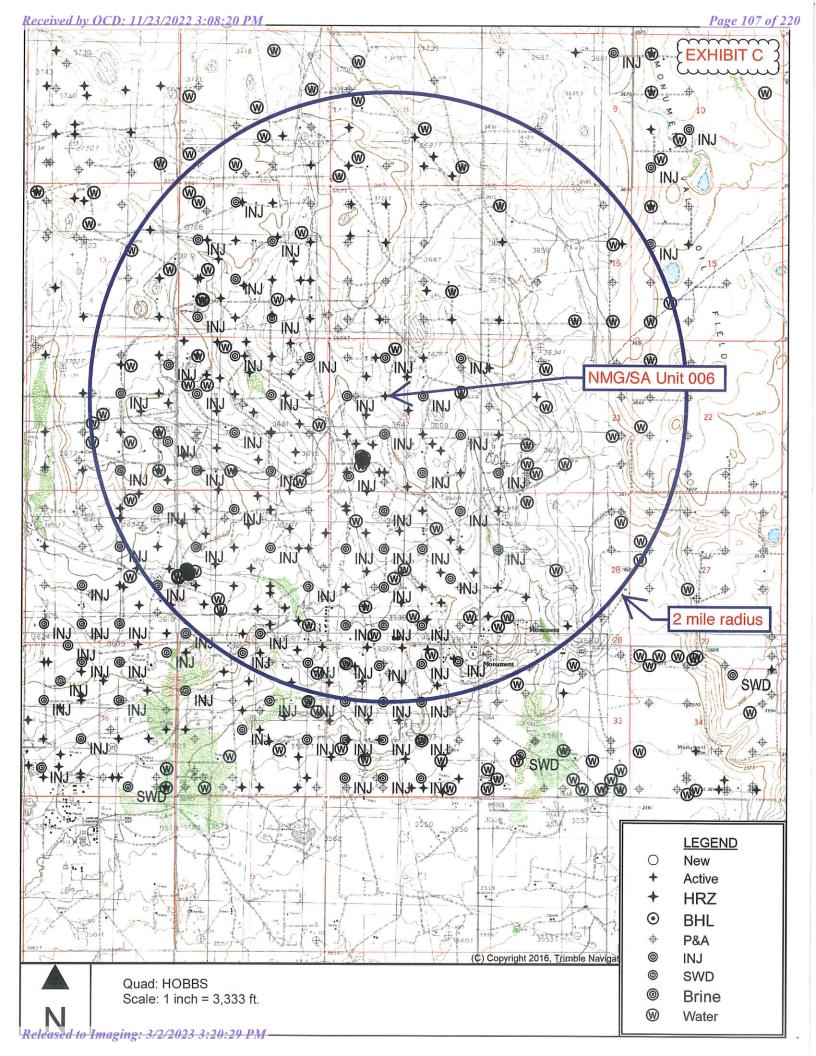


API	OPERATOR	WELL	TYPE WELL	UNIT- SECTION- T19S-R37E	TVD	ZONE @ TD	FEET FROM NMG/SAU 006
3002541036	Apache	NMG/SAU 384	О	F-20	4100	San Andres	914
3002541704	Apache	NMG/SAU 433	0	C-20	4000	Grayburg	932
3002538146	Apache	NMG/SAU 344	0	G-20	4125	San Andres	940
3002531588	Apache	NMG/SAU 018	0	B-20	4310	San Andres	1003
3002526535	Apache	State L Gas Com 003	G	E-20	3630	Queen	1017
3002505656	Apache	NMG/SAU 007	1	G-20	3997	Grayburg	1312
3002505667	Apache	NMG/SAU 011	I	K-20	3982	Grayburg	1316
3002505654	Apache	NMG/SAU 005	I	E-20	3996	Grayburg	1318
3002505669	Apache	NMG/SAU 003	Ī	C-20	4020	Grayburg	1322
3002528087	Energy Acumen	Dority 001	G	C-20	3855	Queen	1361
3002541038	Apache	NMG/SAU 386	0	K-20	4048	Grayburg	1727
3002505659	Apache	NMG/SAU 010	0	J-20	4002	Grayburg	1860
3002505664	Apache	NMG/SAU 012	0	L-20	3965	Grayburg	1861
3002505657	Apache	NMG/SAU 002	0	B-20	4000	Grayburg	1861
3002505668	Apache	NMG/SAU 004	P&A	D-20	3973	Grayburg	1867
3002509885	Empire New Mexico	H T Mattern 005	G	L-20	3639	Queen	1918
3002505660	Empire New Mexico	F W Kutter NCT A Com 003	G	J-20	3700	Queen	2328
3002505666	Apache	NMG/SAU 014	0	N-20	3960	Grayburg	2636
3002505661	Apache	NMG/SAU 008	0	H-20	3996	Grayburg	2640
3002505611	Conoco	State A 17 002	P&A	N-17	4005	Grayburg	2640

Received by OCD: 11/23/2022 3:08:20 PM SORTED BY DISTANCE FROM NORTH MONUMENT G/SA UNIT 006

АРІ	OPERATOR	WELL	TYPE WELL	UNIT- SECTION- T19S-R37E	TVD	ZONE @ TD	FEET FROM NMG/SAU 006
3002505645	Apache	NMG/SAU 008	0	H-19	4000	Grayburg	2640
3002533618	Apache	NMG/SAU 624	wsw	H-20	5100	San Andres	2644
3002530916	Empire New Mexico	HT Mattern 006	G	N-20	3725	Penrose	2646
3002532820	Mewbourne	Eumont 17 State 001	G	N-17	3890	Grayburg	2647

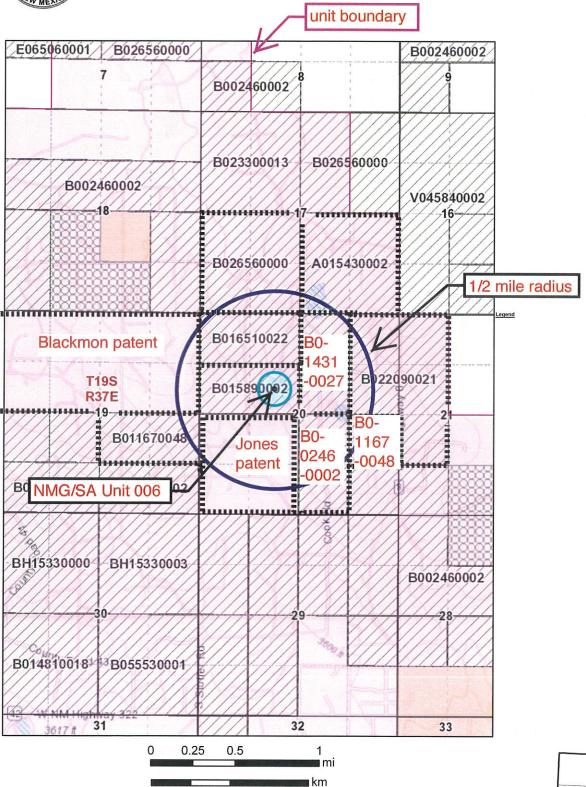






New Mexico State Land Office





Disclaimer:

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 herein with respect to State Land Office data or data from other sources.

0.38

0.75

1.5

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.



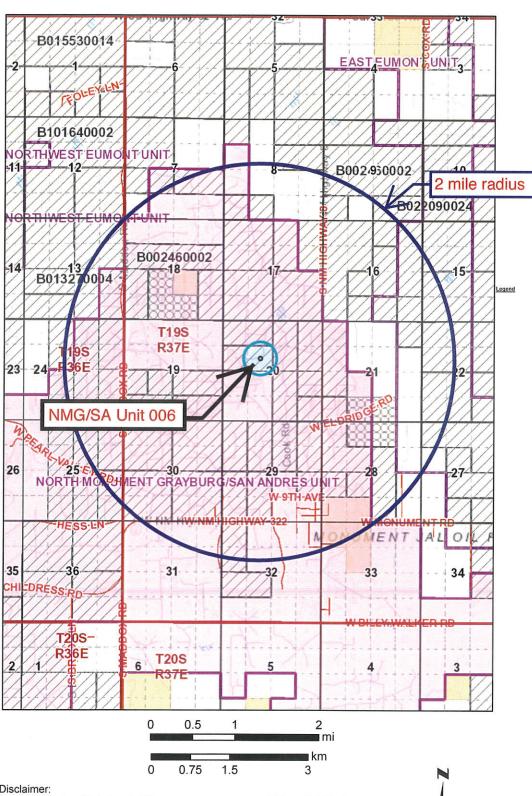
Received by OCD: 11/23/2022 3:08:20 PM NORTH MONUMENT G/SA UNIT 006 AREA OF REVIEW LEASES

Aliquot Parts in Area of Review (T. 19 S., R. 37 E.)	Lessor	Lease	Lessee(s) of Record	Well Operators (all zones)
S2SW4 Sec. 17	NMSLO	B0-2656-0000	ConocoPhillips	Mewbourne Oil
SWSE Sec. 17	NMSLO	A0-1543-0002	Southwest Royalties	Petroleum Exploration
E2NE4 Sec. 19	fee	Blackmon patent	Apache	Apache, Arrington O&G, and Mulloy Operating
NESE Sec. 19	NMSLO	B0-1167-0048	Shell Western E&P	Apache, Arrington O&G, and Mulloy Operating
E2NE4 Sec. 20	NMSLO	B0-2209-0021	Chantrey	Apache
W2NE4 Sec. 20	NMSLO	B0-1431-0027	Leaco NM E&P, aka Apache	Apache
N2NW4 Sec. 20	NMSLO	B0-1651-0022	Mewbourne	Apache, Energy Acumen
S2NW4 Sec. 20	NMSLO	B0-1589-0002	Leaco NM E&P, aka, Apache	Apache
NESE Sec. 20	NMSLO	B0-1167-0048	Shell Western E&P	Apache
W2SE4 Sec. 20	NMSLO	B0-0246-0002	Southwest Royalties	Apache, Empire NM
SW4 Sec. 20	fee	Jones patent	Apache	Apache, Empire NM



New Mexico State Land Office





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 herein with respect to State Land Office data or data from other sources.

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.

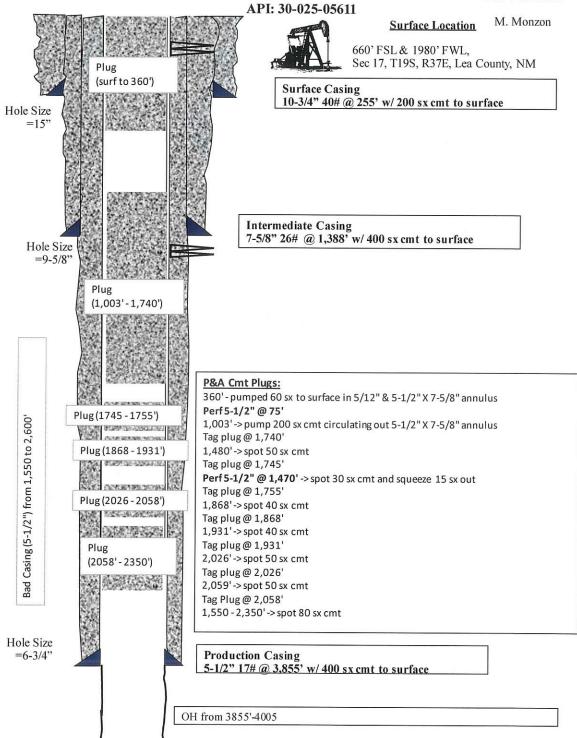




GL=3700' Spud: 8/22/36

Conoco Inc. – State A-17 # 2 Wellbore Diagram – P&A (5/22/1992)

Date: 11/2/2022



TD = 4,005'

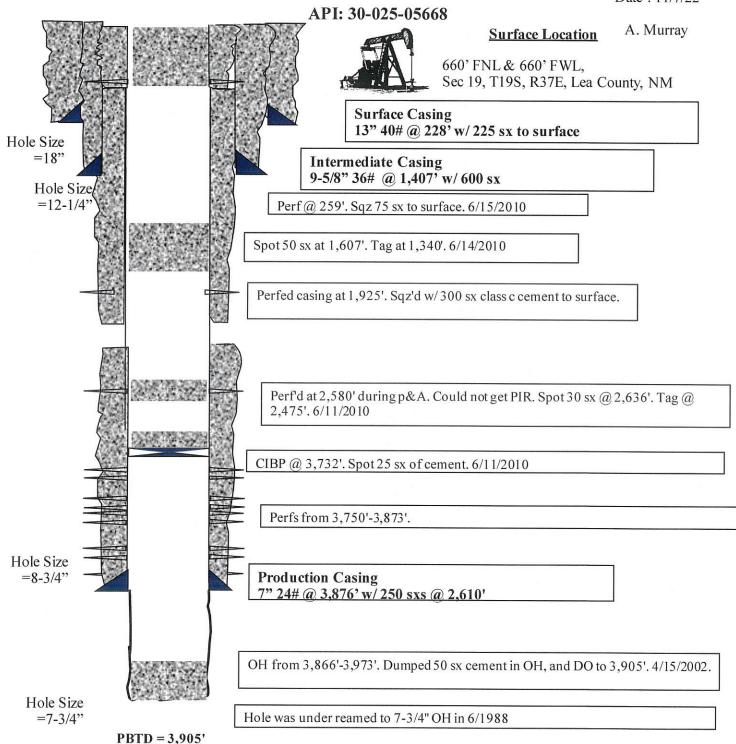
Drawing not to scale

EXHIBIT F

Spud: 4/4/36

Apache Corporation – NMGSAU #004 P&A'd 6/15/2010

Date: 11/7/22



TD = 3.973'

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 384	5/24/13	4100	Eunice Monument; Grayburg-SA	0	11	8.625	1348	500 sx	GL	Circ 105 sx
3002541036					7.875	5.5	4100	790 sx	20'	CBL
F-20-19S-37E										
N Monument	7/25/14	4000	Eunice Monument;	0	11	8.625	1358	460 sx	GL	Circ 3 sx
GSA Unit 433 3002541704			Grayburg-SA		7.875	5.5	4000	900 sx	GL	CBL
C-20-19S-37E								300 3X	GE .	CDL
N Monument GSA Unit 344	10/23/06	4125	Eunice Monument; Grayburg-SA	0	11	8.625	392	300 sx	GL	Circ
3002538146					7.875	5.5	4125	850 sx	GL	CBL
G-20-19S-37E										
						y.				*
N Monument GSA Unit 018	9/28/92	4310	Eunice Monument; Grayburg-SA	0	17.5	13.375	477	500 sx	GL	108 sx
3002531588					12.25	9.625	3707	1545 sx	no report	no report
B-20-19S-37E					8.75	7	4309	225 sx	2700	Estimated

Received by OCD: 11/23/2022 3:08:20 PM

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 007	10/8/36	3997	Eunice Monument; Grayburg-SA	I	17.5	12.5	196	200 sx	GL	calc.
3002505656					11	8.625	2554	500 sx	604'	calc.
G-20-19S-37E					7.875	6.625	3864	100 sx	2974'	calc.
N Monument GSA Unit 011	10/27/36	3982	Eunice Monument; Grayburg-SA	1	16	13	125	125 sx	GL	calc.
3002505667			Grayburg 5A		12.25	9.625	1362	600 sx	GL	calc.
K-20-19S-37E					8.625	7	3800	350 sx	1560'	calc.
N Monument GSA Unit 005	2/3/36	3996	Eunice Monument; Grayburg-SA	ı	17.5	12.5	190	150 sx	GL	calc.
3002505654					11	9.625	2476	500 sx	726'	calc.
E-20-19S-37E					8.75	7	3851	100 x	3211'	calc.
		8				÷				
N Monument GSA Unit 003	6/9/36	4020	Eunice Monument; Grayburg-SA	ĺ	17	13	245	250 sx	GL	calc.
3002505669					12	9.625	1392	550 sx	GL	calc.
C-20-19S-37E					8.75	6.625	3906	350 sx	791'	calc.

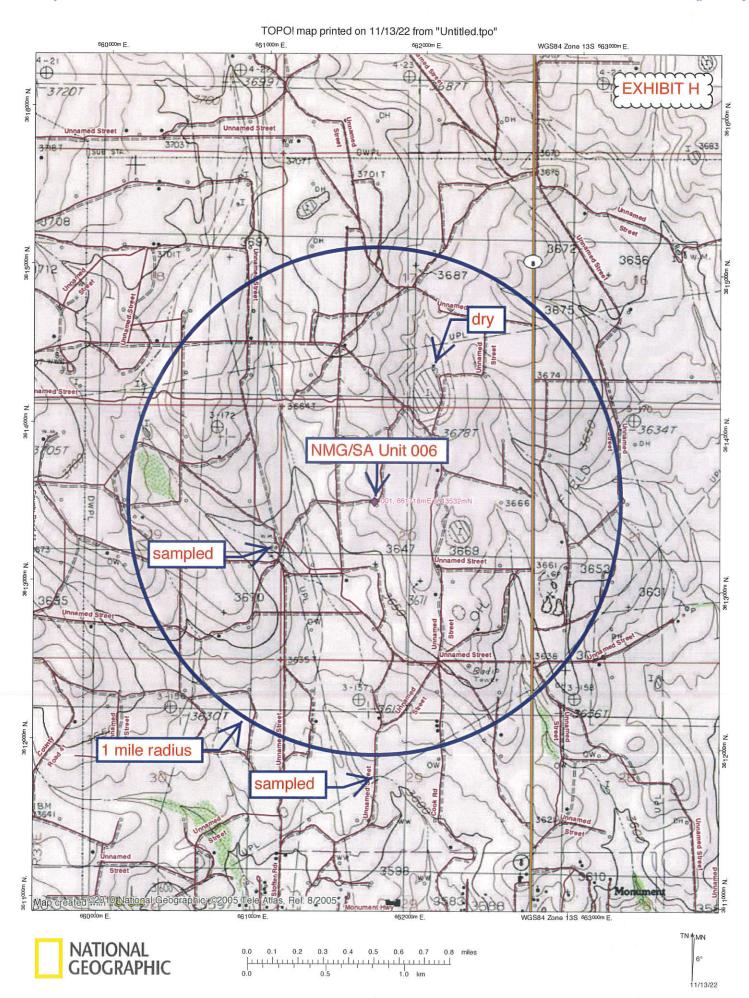
Received by OCD: 11/23/2022 3:08:20 PM

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 386	6/1/13	4048	Eunice Monument; Grayburg-SA	0	11	8.625	1333	372 sx	GL	Circ 128 sx
3002541038					7.875	5.5	4080	692 sx	40	CBL
K-20-19S-37E	Tr'									e)
NI NA										
N Monument GSA Unit 010	12/14/36	4002	Eunice Monument; Grayburg-SA	0	17.25	13	269	275 sx	GL	no report
3002505659					12.25	9.625	1391	275 sx	no report	no report
J-20-19S-37E					8.625	7	3774	260 sx	no report	no report
					6.75	5.5	3759	25 sx	no report	no report
N Monument GSA Unit 012	11/16/35	3965	Eunice Monument; Grayburg-SA	0	no report	12.5	258	250 sx	GL	no report
3002505664					no report	9.625	1367	800 sx	no report	no report
L-20-19S-37E			-		no report	7	3811	400 sx	no report	no report
N Monument GSA Unit 002	11/12/36	4000	Eunice Monument; Grayburg-SA	0	17.5	12.5	198	200 sx	GL	no report
3002505657					9	8.625	2585	500 sx	no report	no report
B-20-19S-37E					7.875	6.625	3838	100 sx	no report	no report

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 004	4/4/36	3973	Eunice Monument; Grayburg-SA	P&A	18	13	225	209 sx	GL	Circ
3002505668					12.25	9.625	1407	600 sx	GL	no report
D-20-19S-37E					8.75	7	3876	250 sx	2610	CBL
NI NA										
N Monument GSA Unit 014	6/23/61	3960	Eunice Monument; Grayburg-SA	0	no report	12.5	247	250 sx	GL	no report
3002505666					no report	9.625	1361	600 sx	GL	no report
N-20-19S-37E					no report	7	3837	400 sx	GL	no report
N Monument GSA Unit 008	10/30/36	3996	Eunice Monument; Grayburg-SA	0	13.75	10.75	209	100 sx	no report	no report
3002505661		X			9.875	7.625	1413	400 sx	no report	no report
H-20-19S-37E					6.75	5.5	3755	100 sx	no report	no report
	720			(*)						
State A 17 002	8/21/36	4005	Eunice Monument; Grayburg-SA	P&A	15	10.75	272	200 sx	GL	no report
3002505611					9.625	7.625	1397	425 sx	GL	no report
N-17-19S-37E					6.75	5.5	3843	400 sx	GL	no report

Received by OCD: 11/23/2022 3:08:20 PM

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 008	3/1/36	4000	Eunice Monument; Grayburg-SA	0	13.75	10.75	238	250 sx	no report	no report
3002505645					9.875	7.625	1368	300 sx	no report	no report
H-19-19S-37E	9				6.75	5.5	3816	300 sx	no report	no report
N Monument GSA Unit 624	10/24/96	5100	Grayburg-SA	wsw	17.5	13.375	500	525 sx	GL	Circ 138 sx
3002533618					12.25	9.625	44070	1350 sx	GL	Circ trace
H-20-19S-37E					8.75	open hole	5100	N/A	N/A	р
Eumont 17 State 001	2/28/95	3890	Eumont; Yates-7 Rvrs- Queen	G	12.25	8.625	425	350 sx	GL	Circ 50 sx
3002532820					7.875	4.5	3890	730 sx	GL	Circ 10 sx
N-17-19S-37E										
						u .				





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

EXHIBIT H

(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													
non v	~ .	Sub-			Q		_ ,		-						Vater
POD Number	Code		County							X	Y	DistanceDep			
L 05611 POD4	R	L	LE	2	2	1	20	198	37E	661812	3614032*	508	105	53	52
<u>L 14366 POD3</u>		L	LE	2	3	3	20	19S	37E	661477	3612899	677	32		
L 13521 POD1		L	LE	4	4	3	20	19S	37E	661504	3612887	678	34	22	12
L 13926 POD1		L	LE	2	3	3	20	19S	37E	661484	3612874	698	32	21	11
L 13926 POD3		L	LE	2	3	3	20	19S	37E	661485	3612865	705	32	21	11
L 13926 POD2		L	LE	2	3	3	20	19S	37E	661495	3612857	710	32	21	11
L 14366 POD1		L	LE	2	3	3	20	19S	37E	661500	3612840 🌑	725	32		
L 10277		L	LE	2	2	4	19	19S	37E	661020	3613219*	764	70	40	30
L 14366 POD2		L	LE	2	3	3	20	19S	37E	661473	3612797 🌑	774	32		
L 00062		L	LE		4	4	18	19S	37E	660903	3614327*	1138	93		
<u>L 01273</u>		L	LE	3	4	4	19	19S	37E	660827	3612617*	1277	62	45	17
<u>L 06933</u>		L	LE	3	2	4	17	19S	37E	662403	3614646*	1307	100	65	35
L 01251		L	LE	4	1	1	29	19S	37E	661434	3612218*	1344	51	38	13
<u>L 00061</u>		L	LE		3	4	18	19S	37E	660501	3614325*	1452	100		
L 14224 POD2		L	LE	2	3	3	18	19S	37E	660549	3614528	1535	75	59	16
<u>L 02621</u>		L	LE	3	2	3	21	198	37E	663233	3613050*	1589	83	40	43
<u>L 05433</u>		L	LE		4	1	19	19S	37E	660112	3613518*	1606	5790	1072	4718
											120			19812119849811	

Average Depth to Water:

124 feet

Minimum Depth:

21 feet

Maximum Depth:

1072 feet

Record Count: 17

UTMNAD83 Radius Search (in meters):

Easting (X): 661718

Northing (Y): 3613532

Radius: 1610

*UTM location was derived from PLSS - see Help

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.

11/13/22 3:34 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



Analytical Report
Lab Order 2211086

Date Reported: 11/14/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

Lab ID:

Project: NMGSAU

2211086-003 Matrix: AQUEOUS

Client Sample ID: Sec 19

Collection Date: 11/1/2022 10:20:00 AM

Received Date: 11/2/2022 11:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 1664B						Analyst:	dms
N-Hexane Extractable Material	ND	9.44		mg/L	1	11/9/2022 4:42:00 PM	71367
EPA METHOD 300.0: ANIONS						Analyst:	JTT
Chloride	110	5.0		mg/L	10	11/3/2022 9:16:05 AM	R92333
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst:	SNS
Total Dissolved Solids	515	20.0	*	mg/L	1	11/8/2022 10:21:00 AM	71300

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- D Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 4 of 8

Analytical Report Lab Order 2211086

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/14/2022

CLIENT: Permits West

Client Sample ID: Sec 29

EXHIBIT

Project: NMGSAU

Collection Date: 11/1/2022 12:50:00 PM

Lab ID: 2211086-001

Matrix: AQUEOUS

Received Date: 11/2/2022 11:33:00 AM

Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 1664B						Analys	t: dms
N-Hexane Extractable Material	ND	9.46		mg/L	1	11/9/2022 4:42:00 PM	71367
EPA METHOD 300.0: ANIONS						Analys	t: JTT
Chloride	210	50		mg/L	100	11/3/2022 8:38:51 AM	R92333
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analys	t: SNS
Total Dissolved Solids	720	40.0	*D	mg/L	1	11/8/2022 10:21:00 AM	71300

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

Qualifiers:

* 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 standard limits. If undiluted results may be estimated

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 2 of 8





NM Oil Conservation Division 1220 S. St. Francis Dr. Santa Fe, NM 87505

Re: Geology Statement
Apache Corporation
North Monument G/SA Unit #6
Section 20, T. 19S, R. 37E
Lea County, New Mexico

To whom it may concern:

Publicly available geologic and engineering data related to the proposed well have been thoroughly reviewed, and no evidence for open faults or any other hydrologic connection between the proposed Grayburg injection zone and any underground sources of drinking water has been found. Please see the attached seismic risk assessment for additional information.

Sincerely,

Cory Walk Geologist

EXHIBIT J

Seismic Risk Assessment

Apache Corporation

North Monument G/SA Unit #6

Section 20, Township 19 South, Range 37 East

Lea County, New Mexico

Cory Walk, M.S.

Geologist

Cory Walk

Permits West Inc.

November 17, 2022

Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 1

GENERAL INFORMATION



North Monument G/SA Unit #6 is located in the NW ¼, section 20, T19S, R37E, about 1.5 miles north of Monument, NM in the Central Basin Platform of the greater Permian Basin. Apache Corporation proposes to convert this existing oil well to a water injection well. The proposed injection zone is within the Grayburg Formation through a cased hole from 3,688'-4,015' below ground surface. The Grayburg is primarily a carbonate reservoir with some sandstones present. This report assesses any potential concerns relating to induced seismicity along deep penetrating Precambrian faults or the connection between the injection zone and known underground potable water sources.

SEISMIC RISK ASSESSMENT

Historical Seismicity

Searching the USGS earthquake catalog resulted in no (0) earthquakes above a magnitude 2.5 within 6 miles (9.7 km) of the proposed injection site since 1970 (Fig 1). According to this dataset, the nearest historical earthquake occurred June 28, 2020 about 11.3 miles (~18.1 km) northwest and had a magnitude of 2.7.

Basement Faults and Subsurface Conditions

A structure contour map (Fig. 1) of the Precambrian basement shows the North Monument G/SA Unit #6 is approximately 4.8 miles from the nearest basement-penetrating fault inferred by Ewing et al (1990) and about 59 miles from the nearest surface fault.

Snee and Zoback (2018) state, "In the western part of Eddy County, New Mexico, S_{Hmax} is ~north–south (consistent with the state of stress in the Rio Grande Rift; Zoback and Zoback, 1980) but rotates to ~east-northeast-west-southwest in southern Lea County, New Mexico, and the northernmost parts of Culberson and Reeves counties, Texas." Around the North Monument G/SA Unit #6 site, Snee and Zoback indicate a S_{Hmax} direction of N105°E and an A_{ϕ} of 0.85, indicating a normal/strike-slip faulting stress regime.

Induced seismicity is a growing concern of deep injection wells. Snee and Zoback (2018) show that due to its orientation, the nearest Precambrian fault has a low probability of slipping (Fig. 2). Also, the proposed injection zone is much shallower in the Grayburg Formation and therefore would not affect the deep Precambrian faults. In addition to the existing fault orientation, the vertical (approx. 6900') and horizontal (4.8 miles) separation between the proposed water injection zone and any deep Precambrian faults is large enough to infer that there is no immediate concern or potential of induced seismicity as a result from this injection well.

GROUNDWATER SOURCES

Three principal aquifers are used for potable groundwater in southern Lea County; these geologic units include the Triassic Santa Rosa formation, Tertiary Ogallala formation, and Quaternary alluvium. Nicholson and Clebsch (1961) state, "Potable ground water is not available below the Permian and Triassic unconformity but, because this boundary is not easily defined, the top of the Rustler anhydrite formation is regarded as the effective lower limit of 'potable' ground water." Around the North



Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 2

Monument G/SA Unit #6 well, the top of a thick anhydrite unit interpreted to represent the Rustler Formation lies at a depth of ~1342 feet bgs.

STRATIGRAPHY

A thick permeability barrier (Rustler Anhydrite and Salado Fm; 1100+ ft thick) exists above the targeted Grayburg injection zone. Well data indicates ~2,345 ft of rock separating the top of the injection zone from the previously stated lower limit of potable water at the top of the Rustler anhydrite formation.

CONCLUDING STATEMENT

All available geologic and engineering data evaluated around the North Monument G/SA Unit #6 well show no potential structural or stratigraphic connection between the Grayburg injection zone and any subsurface potable water sources. The shallow injection zone, spatial location and orientation of nearby faults also removes any major concern of inducing seismic activity.



SEISMIC RISK ASSESSMENT PAGE 3

Apache Corporation North Monument G/SA Unit #6

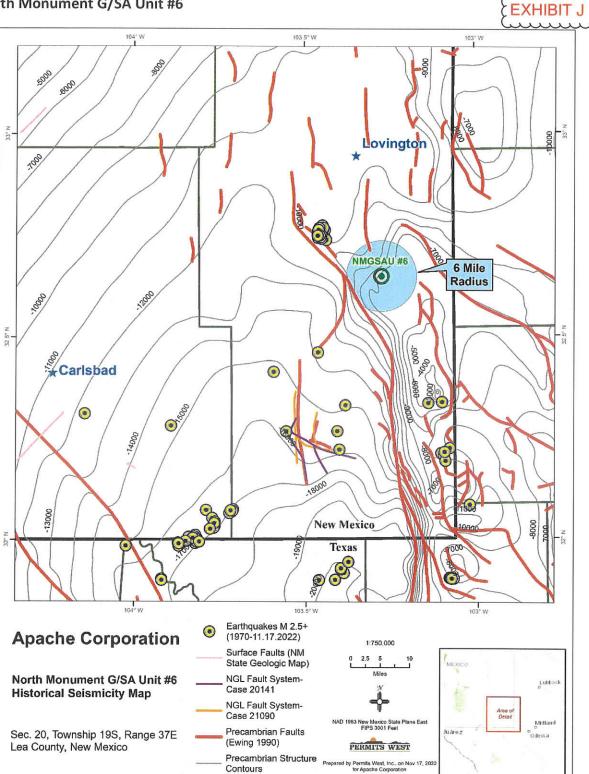


Figure 1. Structural contour map of the Precambrian basement in feet below sea level. Red lines represent the locations of Precambrian basement-penetrating faults (Ewing et al., 1990). The North Monument G/SA Unit #6 well lies ~4.8 miles south of the closest deeply penetrating fault, ~59 miles from the nearest surface fault and ~11.3 miles from the closest historic earthquake.



SEISMIC RISK ASSESSMENT PAGE 4

Apache Corporation North Monument G/SA Unit #6

Fault slip potential (%): 0 10 20 30 40 50+

EXHIBIT 102°W 100°W Mexico Texas Motle 34°N Matador Arch Permian Basin Northwest Shelf LUBBOCK ROSWELL Terry Lynn Midland Basin Cogdell field (Snyder, TX) Dawson Delaware Basin Dagger Eastern ABILENE 0 Draw Shelf field & MIDLAND Grisham faul Diablo Sand Hills faul Platform SAN ANGELO Big Lake fault Ozona Puckett-Grey Ranch Val Verde Basin Seismicity: o M_w 2.0-2.9 O Since 2005 O Mw 3.0-3.9 O 1970-2004 O M_w 4.0+ Coahuila

Figure 2. Modified from Snee and Zoback (2018). The nearest deep Precambrian fault lies ~4.8 miles north of the proposed injection well and has a low probability (0%) of slip. Also, the proposed injection zone is much shallower in the Grayburg and therefore removes any major concern of inducing seismicity on any known fault.

100 km



Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 5





- Ewing, T. E., 1990, The tectonic map of Texas: Austin, Bureau of Economic Geology, The University of Texas at Austin.
- Geologic Map of New Mexico, New Mexico Bureau of Geology and Mineral Resources, 2003, Scale 1:500,000.
- Nicholson, A., Jr., and Clebsch, A., Jr., 1961, Geology and ground-water conditions in southern Lea County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Ground-Water Report 6, 123 pp., 2 plates.
- Snee, J.-E.L., Zoback, M.D., 2018, State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity: Leading Edge, v. 37, p. 127–134.



AE Order Number Banner

Application Number: pAZS2233442618

WFX-1051

APACHE CORPORATION [873]

RECEIVED:	REVIEWER:	TYPE:	APP NO:	
		ABOVE THIS TABLE FOR OCD E	DIVISION USE ONLY	
		O OIL CONSERV cal & Engineering ancis Drive, Sant	g Bureau -	
	ADMINISTR	ATIVE APPLICATI	ON CHECKLIST	
THIS C	HECKLIST IS MANDATORY FOR AL	L ADMINISTRATIVE APPLICA	ATIONS FOR EXCEPTIONS TO DIVIS EDIVISION LEVEL IN SANTA FE	ION RULES AND
Applicant: Apache C	Corporation		OGRID Nu	ımber: 873
	Monument G/SA Unit 006		API: 30-025-0	
Pool: Eunice - Monume	ent; Grayburg - San Andres		Pool Code	23000
		INDICATED BELC		/PE OF APPLICATION
1) TYPE OF APPLICATION A. Location	CATION: Check those was spacing Unit – Simulta SL NSP(PRO	which apply for [A aneous Dedicatio DJECT AREA) \square \square	n	
[1] Comn [II] Inject [II] Inject 2) NOTIFICATION A. Offset of B. Royalty C. Application D. Notification	ningling - Storage - Me DHC	C PC C Te Increase - Enhand TO IPI E Those which apply lers Thornous revenue ow a notice Those interproval by SLO	anced Oil Recovery OR PPR vners	FOR OCD ONLY Notice Complete Application Content Complete
F. Surface G. For all of H. No not	ce required I hereby certify that the	notification or pu	blication is attached, a built attached with this application best of my knowled	eation for
understand tha	t no action will be take e submitted to the Divis	en on this applica	tion until the required i	nformation and
Note	e: Statement must be complete	ed by an individual with	managerial and/or supervisory	capacity.
Brian Wood			11-23-22 Date	
Print or Type Name	Reliand		505 466-8120 Phone Number	
 Signature)		brian@permitswest.com e-mail Address	

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 - I - I - I - I - I - I - I - I - I									
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: 505 466-8120									
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?YesXXXNo If yes, give the Division order number authorizing the project:R-9596									
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.									
* ***	NORTH MONUMENT G/SA UNIT 006									
VII.	Attach data on the proposed operation, including: 30–025–05655									
	 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 TITLE: CONSULTANT									
	SIGNATURE:DATE: NOV. 22, 2022									
*	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.

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:						
		ABOVE THIS TABLE FOR OCC	DIVISION USE ONLY						
		cal & Engineerin		THE WASHINGTON					
	ADMINISTR	ATIVE APPLICAT	ION CHECKLIST						
THIS	CHECKLIST IS MANDATORY FOR AL	L ADMINISTRATIVE APPLIC	CATIONS FOR EXCEPTIONS TO E E DIVISION LEVEL IN SANTA FE	DIVISION RULES AND					
Applicant: Apache			OGRID Number: 873						
	Monument G/SA Unit 006		API: 30-02	25-05655					
Pool: Eunice - Monum	nent; Grayburg - San Andres		Pool Co	ode: 23000					
		INDICATED BEL	OW	E TYPE OF APPLICATION					
A. Location	CATION: Check those v - Spacing Unit - Simult NSL NSP	aneous Dedicatio	A] din SP _(proration unit)						
[1] Com [II] Inject 2) NOTIFICATION A. Offset B. Royalt C. Applic D. Notific E. Notific F. Surfact G. For all H. No no	ne only for [1] or [1] mingling – Storage – Ma DHC	easurement C PC C re Increase - Enh VD IPI E hose which apply ders vners, revenue oved notice nt approval by SI notification or pu	OLS OLM anced Oil Recovery OR PPR y. vners O M ublication is attached	FOR OCD ONLY Notice Complete Application Content Complete d, and/or,					
understand the notifications a	approval is accurate a at no action will be take the submitted to the Divi	en on this applica sion.	ation until the require	ed information and					
No	te: Statement must be complet	ea by an individual with	ı managerial and/or supervi	sory capacity.					
Brian Wood Print or Type Name	Reliand		11-23-22 Date 505 466-8120 Phone Number						
 Signature) s		brian@permitswest.c e-mail Address	com					

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 - I - I - I - I - I - I - I - I - I		
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: 505 466-8120		
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?YesXXXNo If yes, give the Division order number authorizing the project:R-9596		
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.		
* ***	NORTH MONUMENT G/SA UNIT 006		
VII.	Attach data on the proposed operation, including: 30–025–05655		
	 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 TITLE: CONSULTANT		
	SIGNATURE:DATE: NOV. 22, 2022		
*	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.

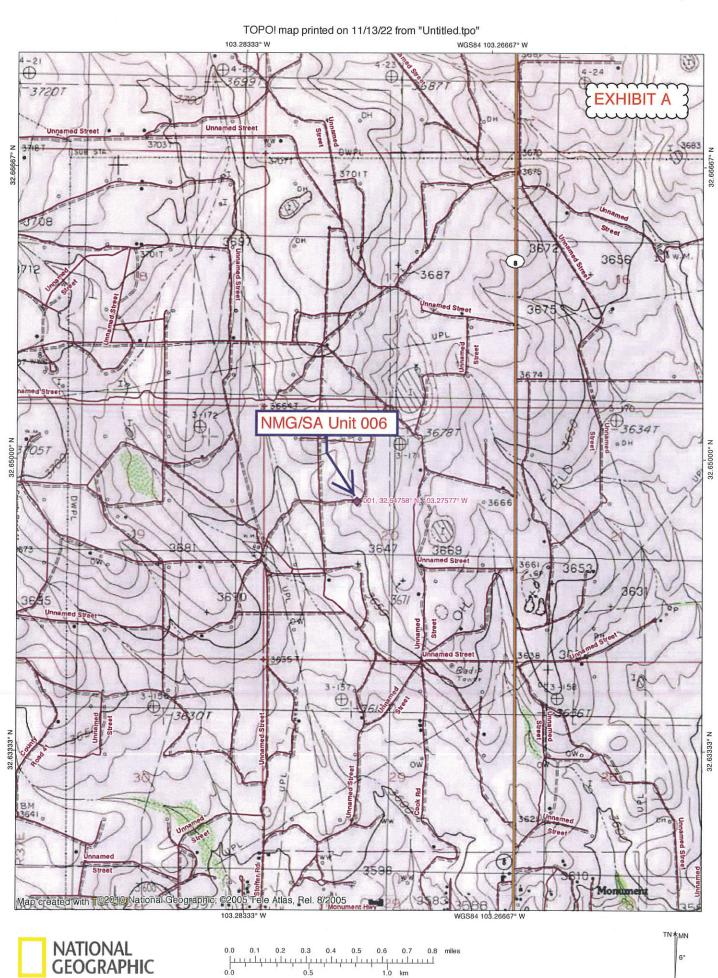
Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

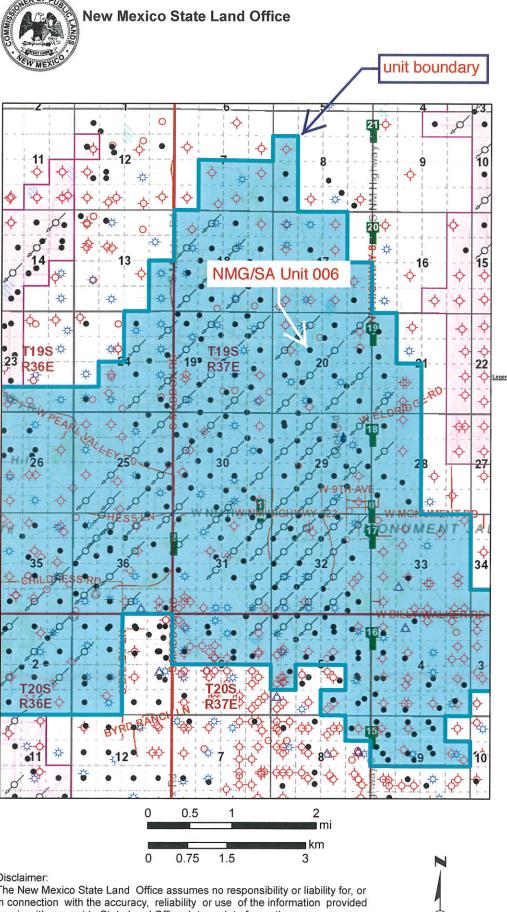
- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates 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.

11/13/22





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 herein with respect to State Land Office data or data from other sources.

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.



Side 1

INJECTION WELL DATA SHEET

PER ATOR.	APACHE	CORPORATION

WELL NAME & NUMBER: NORTH MONUMENT G/SA UNIT 006

WELL LOCATION: 1980' FNL & 1980' FWL 20 37 E 19 S **FOOTAGE LOCATION**

WELLBORE SCHEMATIC

UNIT LETTER

SECTION

TOWNSHIP

RANGE

WELL CONSTRUCTION DATA

(not to scale) 17.5" hole @ 205' TOC (200 sx) = GL (calc.)(8) 8.625" 32# in .875" 11" hole @ 2545' TOC (500 sx) = 595' (calc.)6.625" 20# in 7.875" hole @ 3866' TOC (100 sx) = 2976' (calc.)Grayburg perfs 3884' - 3943' 5.5" - 4.75" uncased Grayburg 3867' - 4020' PBTD 3950' TD 4020'

Surface Casing

Hole Size: ______ 17.5" Casing Size: _____ 12.5"

Cemented with: 200 sx.

Top of Cement: SURFACE

Method Determined: CALC.

Intermediate Casing

Hole Size: _____ 11" Casing Size: 8.625"

Cemented with: 500 sx.

Top of Cement: SURFACE

Method Determined: CALC.

Production Casing

Hole Size: 7.875" Casing Size: 6.625"

Cemented with: 100 sx.

Top of Cement: 2976' Method Determined: CALC.

Total Depth: PBTD = 3950' & TD = 4020'

Injection Interval

3799 feet to 3943'_____

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

OPERATOR:	APACHE	CORPORATION

WELL NAME & NUMBER: NORTH MONUMENT G/SA UNIT 006

WELL LOCATION: 1980' FNL & 1980' FWL

FOOTAGE LOCATION UNIT LETTER

8.625" 32# in

11" hole @ 2545'

TOC (500 sx) = 595' (calc.)

TOC (200 sx) = GL (calc.)

20 **SECTION** 19 S

37 E

TOWNSHIP RANGE

WELLBORE SCHEMATIC

0

tbg

2.875" IPC inj.

PBTD 3950' TD 4020'

packer @ 3774'

perf Grayburg

3799' - 3865'

"PROPOSED" (not to scale) 17.5" hole @ 205'

6.625" 20# in

3867' - 4020'

7.875" hole @ 3866'

Grayburg perfs 3884' - 3943'

TOC (100 sx) = 2976' (calc.)

5.5" - 4.75" uncased Grayburg

WELL CONSTRUCTION DATA

Surface Casing

emented with:	200	SX.	or	ft^3
---------------	-----	-----	----	-----------------

Hole Size: 17.5" Casing Size: 12.5"

Top of Cement: SURFACE Method Determined: CALC.

Intermediate Casing

Cemented with: 500 sx.

Top of Cement:

SURFACE

Method Determined: CALC.

Production Casing

Hole Size: 7.875" Casing Size: 6.625"

Cemented with: 100 sx.

Top of Cement: 2976' Method Determined: CALC.

Total Depth: PBTD = 3950' & TD = 4020'

Injection Interval

3799 feet to 3943'

(Perforated or Open Hole; indicate which)

ived by OCD: 11/23/2022 3:08:20 PM

INJECTION WELL DATA SHEET

Tubing Size: 2.875" J-55 6.4# Lining Material: INTERNAL PLASTIC COAT			
Type of Packer: LOCK SET INJECTION			
Pac	acker Setting Depth: 3774'		
Oth	ther Type of Tubing/Casing Seal (if applicable):		
	Additional Data		
l.	Is this a new well drilled for injection? Yes XXX No		
	If no, for what purpose was the well originally drilled? GRAYBURG OIL WELL		
2.	Name of the Injection Formation: GRAYBURG		
3.	Name of Field or Pool (if applicable): <u>EUNICE-MONUMENT</u> ; <u>GRAYBURG-SAN ANDRES (PO</u> OL #2	23000	
ł .	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) usedNO		
	intervals and give plugging detail, i.e. sacks of ecinent of plug(s) used		
5.	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:		
	OVER: YATES (2654'), SEVEN RIVERS (2870'), & QUEEN (3381')		
	UNDER: SAN ANDRES (4025')		

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 08, 2022 and ending with the issue dated November 08, 2022.

Publisher

Sworn and subscribed to before me this 8th day of November 2022.

MINI

Business Manager

My commission expires

January 29, 2023

(Seal)

GUSSIE BLACK Notary Public - State of New Mexico Commission # 1087526 My Comm. Expires Jan 29, 2023

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

EXHIBIT K

LEGAL NOTICE November 8, 2022

Apache Corporation is applying to convert the North Monument G/SA Unit 6 oil well to a water injection well. The well, API 30-025-05655, is at 1980 FNL & 1980 FWL, Sec. 20, T. 19 S., R. 37 E., Lea County, NM. This is 1.7 miles NNW of the Monument, NM Post Office. Water will be injected at a maximum pressure of 737 psi into the Grayburg formation from 3688' to 4015'. Maximum injection rate will be 700 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 or ocd.engineer@state.nm.us within 15 days. NMOCD Engineering Bureau phone is 505 476-3441. 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

00272841

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





November 22, 2022

James Allan Bryant 8204 Indigo Court NE Albuquerque NM 87112

TYPICAL NOTICE

Apache Corporation is planning (see attached application) to convert its North Monument G/SA Unit 006 oil well (30-025-05655) to a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposal. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: North Monument G/SA Unit 006 (NMSLO lease) TD: 4020'
Proposed Injection Zone: Grayburg from 3799' to 3943'
Where: 1980' FNL & 1980' FWL Sec. 20, T. 19 S., R. 37 E., Lea County, NM Approximate Location: 1.7 miles NNW of the Monument, NM Post Office Applicant Name: Apache Corporation (432) 818-1088
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 NMOCD Enginering Bureau address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Phone number is (505) 476-3441. E-mail address is: ocd.engineer@state.nm.us

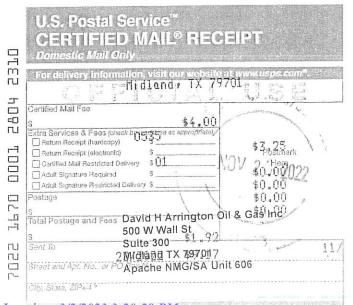
Please call me if you have any questions.

Sincerely.

Brian Wood







	U.S. Postal Service™ EXHIBIT L
	CERTIFIED MAIL® RECEIPT
귀	Domestic Mail Only
m	For delivery information, visit our website at www.usps.com ² .
ru	O = FTU1sc, OK 74114 718 E
804	Certified Mail Fee
	S Extra Services & Fees (check box, add fee as appropriate) [] Return Receipt (hardcopy) 12.3.2
⊢귀	1 4 7 7 7
1000	□ Return Receipt (electronic) \$ \$ \$\$\frac{1}{2}\$\$ \$\frac{1}{2}\$\$ \$\frac{1}{2}\$\$ \$\frac{1}{2}\$\$ \$\frac{1}{2}\$\$\$ \$\frac{1}{2}\$\$\$\$ \$\frac{1}{2}\$
	Adult Signature Restricted Delivery \$ \$11.00
7	Postage \$0.00
	S Empire New Mexico LLC \$0.001
ш	Sent To Suite 150 + 97
П	Sent To 23 Ulsa, 9K 7413477 11/ Street and Apt. No., or P Apacific NMG/SA Unit 606
7	
	City, State, ZIP+4*
	PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions





EXHIBIT

Received by OCD: 11/23/2022 3:08:20 PM U.S. Postal Service CERTIFIED MAIL® RECEIPT 507 elivery information, visit our website at www.usps.com TU 2804 \$4,00 Extra Services & Fees (check by Fig. Fee as appropriate) Return Receipt (hardcopy) \$3.75 Postmark 1000 Return Receipt (electronic) Certified Mail Restricted Delivery \$0.00 \$0.00 Adult Signature Required Adult Signature Restricted Delivery \$ \$0,00 ostage 20 AJYANI Southwest Royalties
Total Postage and Fees PO Box 53570 \$0.00 Л Midland TX 79719-24 paghe NMG/\$A Unit 606 LI LI 11/ Street and Apt. No., or PO Box No. City, State, ZIP+43

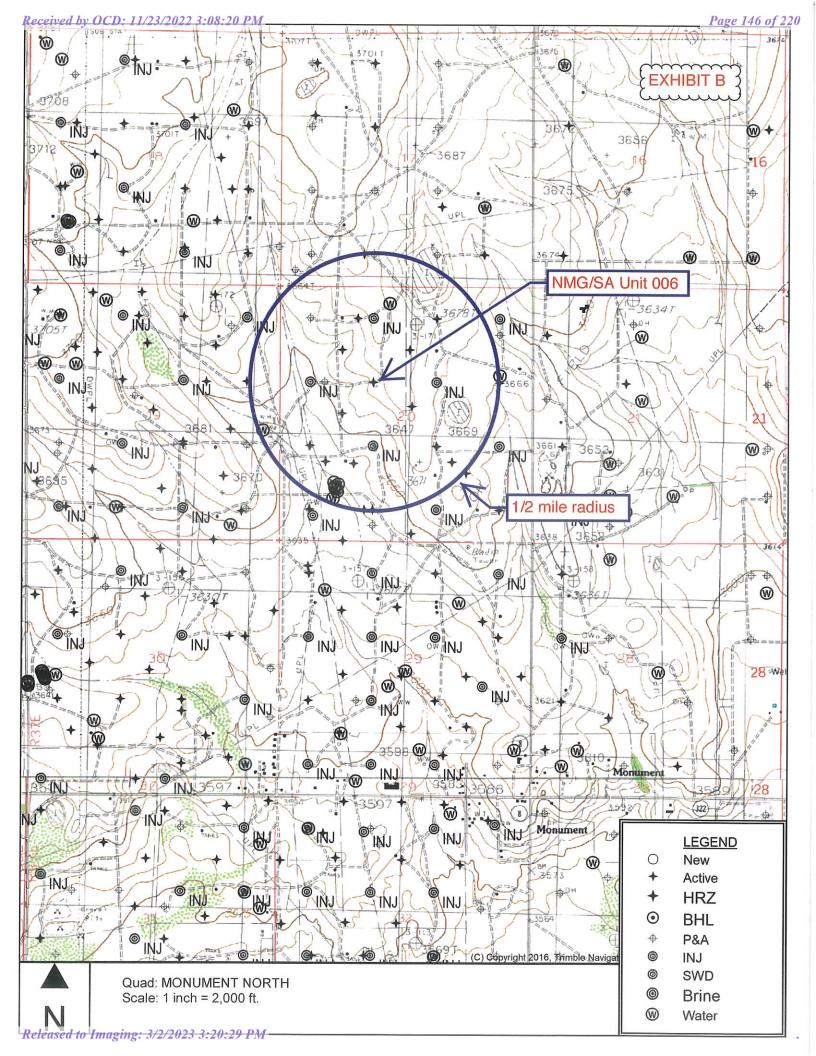
U.S. Postal Service™ CERTIFIED MAIL® RECEIPT For delivery information, visit our 1000 *4700 Extra Services & Fees (check box light (ca as appropriate) * Postmark Return Receipt (hardcopy) Return Receipt (electronic) Here Certified Mail Restricted Delivery Adult Signature Required saling. Adult Signature Restricted Delivery \$ \$0.00 1670 Postage \$0.00 Shell-Western E&P Total Postage and Fees PO Box 576 Houston TX \$20012 П Apache NMG SAlUnit 606 705 Street and Apt. No., or PO Box No. City, State, ZIP+4

2445



7022 167	U.S. Postal Service CERTIFIED MAIL® RECEIPT Domestic Mail Only For delivery information, visit our website at www.usps.com. Certifled Mail Fee Services & Fees (check box, add fee as appropriate) Return Receipt (hardcopy) Certifled Mail Restricted Delivery Return Receipt (electronic) Certifled Mail Restricted Delivery Search Signature Restricted Delivery Solition State Land Office Total Postage and Fees PO Box 1448 Santa Fe NM 87504 Search To 23/2022 Search To 23/2022 Signed and Apt. No., or PO Box No. 211/
님	23/2022 \$9.17 11/
L- A	.,
E	See Reverse for Instructions

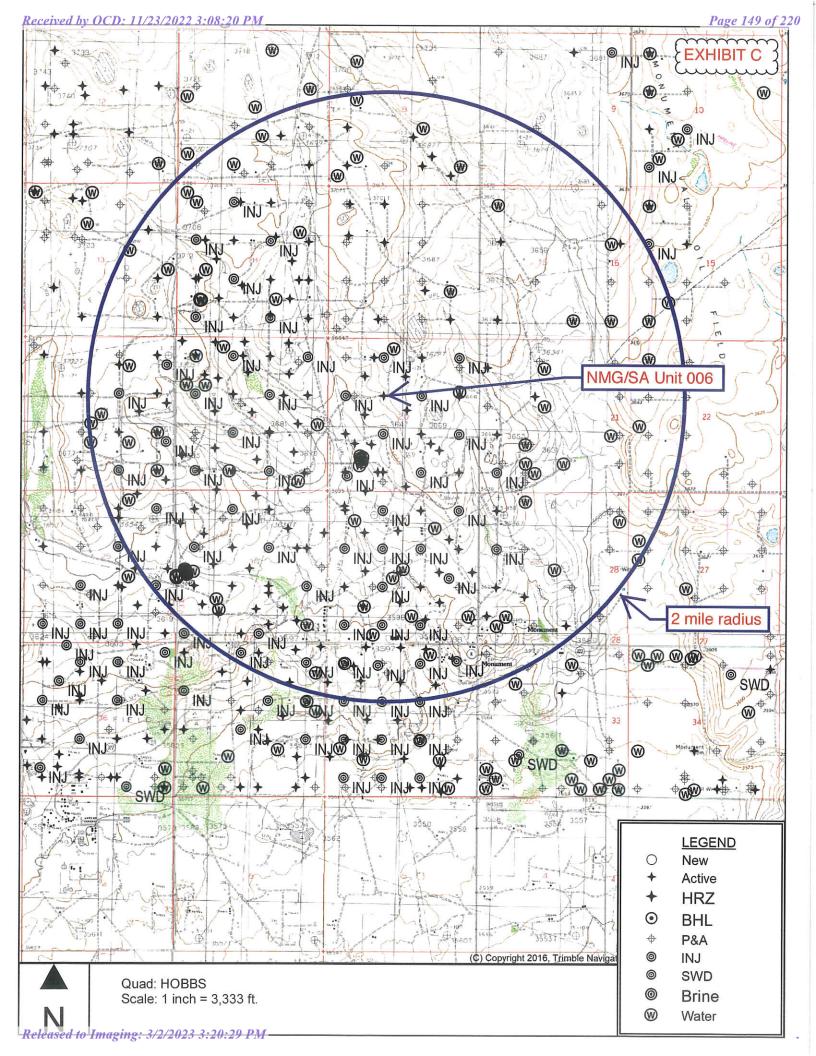
372	Domestic Mail Only
ru	For delivery information, visit our website at www.usps.com*.
7007	Certified Mail Fee
=0	\$ \$4,00
000	Extra Services & Fees (check by Tipe as appropriate) Return Receipt (hardcopy) Return Receipt (alectronic) Certified Mail Restricted Delivery Tipe as appropriate Adult Signature Required Adult Signature Restricted Delivery Tipe as appropriate Adult Signature Restricted Delivery Tipe as
	Postage During Planting
1670	Mulloy Operating Inc \$0.00
戸	rotal Postage and Fees 415 W Wall St
LI LI	Suite 200 Sent To Midjand TX 797017
	Street and Apt. No., or PO Box No.
1	City, State, ŽIP+43
a and a	PS Form 3800, April 2015 PSN 7500-02-000-5047 See Reverse for Instructions

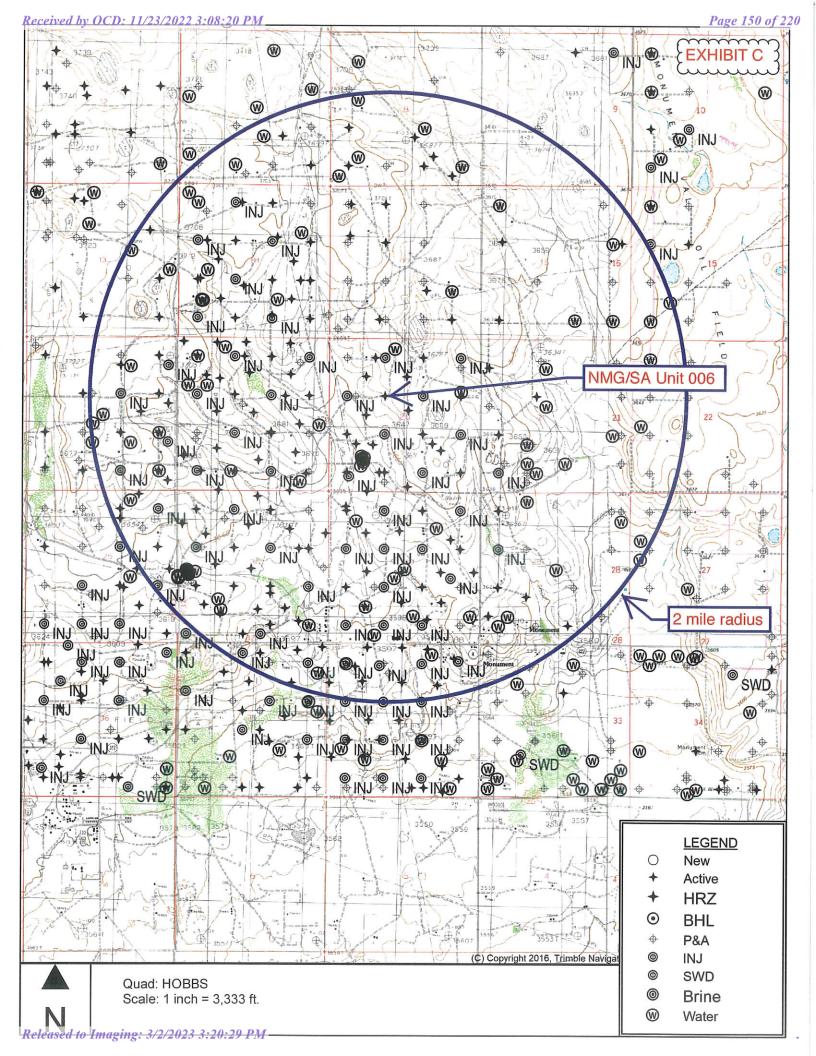


API	OPERATOR	WELL	TYPE WELL	UNIT- SECTION- T19S-R37E	TVD	ZONE @ TD	FEET FROM NMG/SAU 006
3002541036	Apache	NMG/SAU 384	О	F-20	4100	San Andres	914
3002541704	Apache	NMG/SAU 433	0	C-20	4000	Grayburg	932
3002538146	Apache	NMG/SAU 344	0	G-20	4125	San Andres	940
3002531588	Apache	NMG/SAU 018	0	B-20	4310	San Andres	1003
3002526535	Apache	State L Gas Com 003	G	E-20	3630	Queen	1017
3002505656	Apache	NMG/SAU 007	1	G-20	3997	Grayburg	1312
3002505667	Apache	NMG/SAU 011	I	K-20	3982	Grayburg	1316
3002505654	Apache	NMG/SAU 005	I	E-20	3996	Grayburg	1318
3002505669	Apache	NMG/SAU 003	Ī	C-20	4020	Grayburg	1322
3002528087	Energy Acumen	Dority 001	G	C-20	3855	Queen	1361
3002541038	Apache	NMG/SAU 386	0	K-20	4048	Grayburg	1727
3002505659	Apache	NMG/SAU 010	0	J-20	4002	Grayburg	1860
3002505664	Apache	NMG/SAU 012	0	L-20	3965	Grayburg	1861
3002505657	Apache	NMG/SAU 002	0	B-20	4000	Grayburg	1861
3002505668	Apache	NMG/SAU 004	P&A	D-20	3973	Grayburg	1867
3002509885	Empire New Mexico	H T Mattern 005	G	L-20	3639	Queen	1918
3002505660	Empire New Mexico	F W Kutter NCT A Com 003	G	J-20	3700	Queen	2328
3002505666	Apache	NMG/SAU 014	0	N-20	3960	Grayburg	2636
3002505661	Apache	NMG/SAU 008	0	H-20	3996	Grayburg	2640
3002505611	Conoco	State A 17 002	P&A	N-17	4005	Grayburg	2640

Received by OCD: 11/23/2022 3:08:20 PM SORTED BY DISTANCE FROM NORTH MONUMENT G/SA UNIT 006

АРІ	OPERATOR	WELL	TYPE WELL	UNIT- SECTION- T19S-R37E	TVD	ZONE @ TD	FEET FROM NMG/SAU 006
3002505645	Apache	NMG/SAU 008	0	H-19	4000	Grayburg	2640
3002533618	Apache	NMG/SAU 624	wsw	H-20	5100	San Andres	2644
3002530916	Empire New Mexico	HT Mattern 006	G	N-20	3725	Penrose	2646
3002532820	Mewbourne	Eumont 17 State 001	G	N-17	3890	Grayburg	2647

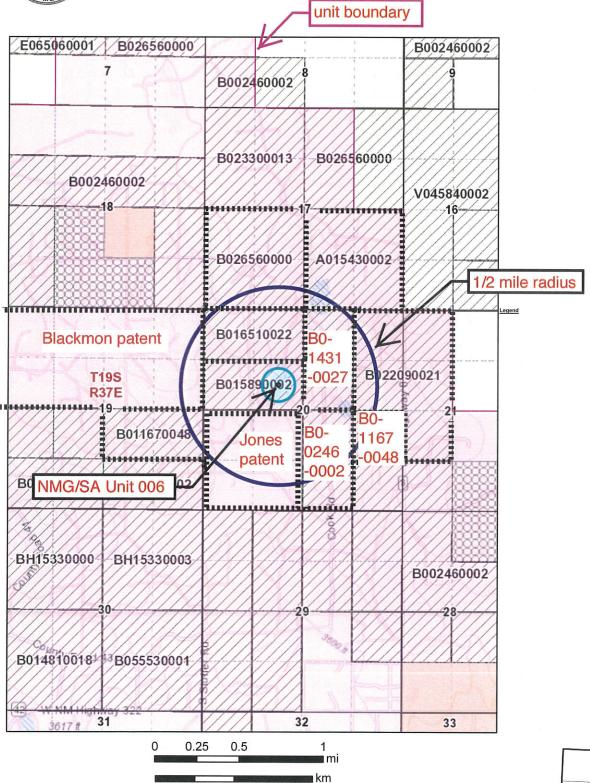






New Mexico State Land Office





Disclaimer:

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 herein with respect to State Land Office data or data from other sources.

0.38

0.75

1.5

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.



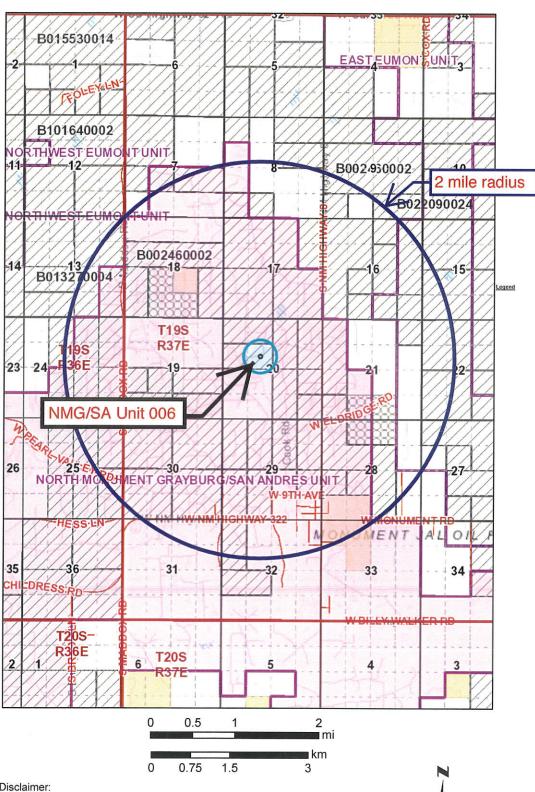
Received by OCD: 11/23/2022 3:08:20 PM NORTH MONUMENT G/SA UNIT 006 AREA OF REVIEW LEASES

Aliquot Parts in Area of Review (T. 19 S., R. 37 E.)	Lessor	Lease	Lessee(s) of Record	Well Operators (all zones)
S2SW4 Sec. 17	NMSLO	B0-2656-0000	ConocoPhillips	Mewbourne Oil
SWSE Sec. 17	NMSLO	A0-1543-0002	Southwest Royalties	Petroleum Exploration
E2NE4 Sec. 19	fee	Blackmon patent	Apache	Apache, Arrington O&G, and Mulloy Operating
NESE Sec. 19	NMSLO	B0-1167-0048	Shell Western E&P	Apache, Arrington O&G, and Mulloy Operating
E2NE4 Sec. 20	NMSLO	B0-2209-0021	Chantrey	Apache
W2NE4 Sec. 20	NMSLO	B0-1431-0027	Leaco NM E&P, aka Apache	Apache
N2NW4 Sec. 20	NMSLO	B0-1651-0022	Mewbourne	Apache, Energy Acumen
S2NW4 Sec. 20	NMSLO	B0-1589-0002	Leaco NM E&P, aka, Apache	Apache
NESE Sec. 20	NMSLO	B0-1167-0048	Shell Western E&P	Apache
W2SE4 Sec. 20	NMSLO	B0-0246-0002	Southwest Royalties	Apache, Empire NM
SW4 Sec. 20	fee	Jones patent	Apache	Apache, Empire NM



New Mexico State Land Office





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 herein with respect to State Land Office data or data from other sources.

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.

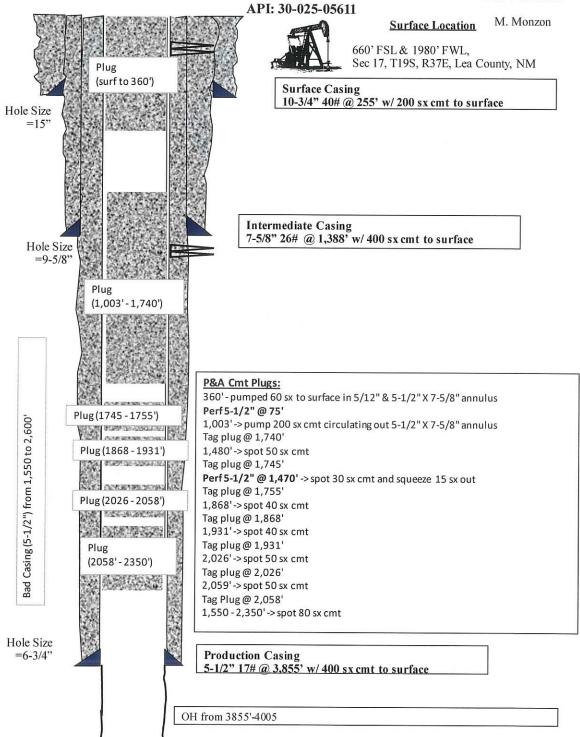




GL=3700' Spud: 8/22/36

Conoco Inc. – State A-17 # 2 Wellbore Diagram – P&A (5/22/1992)

Date: 11/2/2022



TD = 4,005'

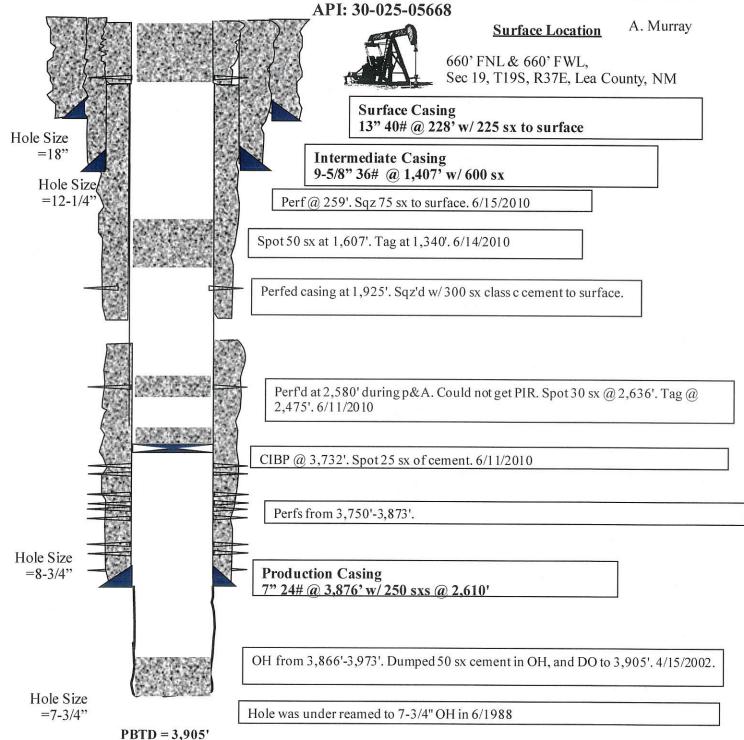
Drawing not to scale

EXHIBIT F

Spud: 4/4/36

Apache Corporation – NMGSAU #004 P&A'd 6/15/2010

Date: 11/7/22



TD = 3.973'

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 384	5/24/13	4100	Eunice Monument; Grayburg-SA	0	11	8.625	1348	500 sx	GL	Circ 105 sx
3002541036					7.875	5.5	4100	790 sx	20'	CBL
F-20-19S-37E										
N Monument	7/25/14	4000	Eunice Monument;	0	11	0.635	1250	460		
GSA Unit 433	7/23/14	4000	Grayburg-SA	0	11	8.625	1358	460 sx	GL	Circ 3 sx
3002541704					7.875	5.5	4000	900 sx	GL	CBL
C-20-19S-37E							·			
N Monument GSA Unit 344	10/23/06	4125	Eunice Monument; Grayburg-SA	0	11	8.625	392	300 sx	GL	Circ
3002538146					7.875	5.5	4125	850 sx	GL	CBL
G-20-19S-37E										
						D.				*
N Monument GSA Unit 018	9/28/92	4310	Eunice Monument; Grayburg-SA	0	17.5	13.375	477	500 sx	GL	108 sx
3002531588					12.25	9.625	3707	1545 sx	no report	no report
B-20-19S-37E					8.75	7	4309	225 sx	2700	Estimated

Received by OCD: 11/23/2022 3:08:20 PM

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 007	10/8/36	3997	Eunice Monument; Grayburg-SA	ı	17.5	12.5	196	200 sx	GL	calc.
3002505656					11	8.625	2554	500 sx	604'	calc.
G-20-19S-37E					7.875	6.625	3864	100 sx	2974'	calc.
N Monument GSA Unit 011	10/27/36	3982	Eunice Monument; Grayburg-SA	I	16	13	125	125 sx	GL	calc.
3002505667			Grayburg-SA		12.25	9.625	1362	600 sx	GL	calc.
K-20-19S-37E					8.625	7	3800	350 sx	1560'	calc.
N Monument GSA Unit 005	2/3/36	3996	Eunice Monument; Grayburg-SA	I	17.5	12.5	190	150 sx	GL	calc.
3002505654					11	9.625	2476	500 sx	726'	calc.
E-20-19S-37E					8.75	7	3851	100 x	3211'	calc.
						é				
N Monument GSA Unit 003	6/9/36	4020	Eunice Monument; Grayburg-SA	I	17	13	245	250 sx	GL	calc.
3002505669					12	9.625	1392	550 sx	GL	calc.
C-20-19S-37E					8.75	6.625	3906	350 sx	791'	calc.

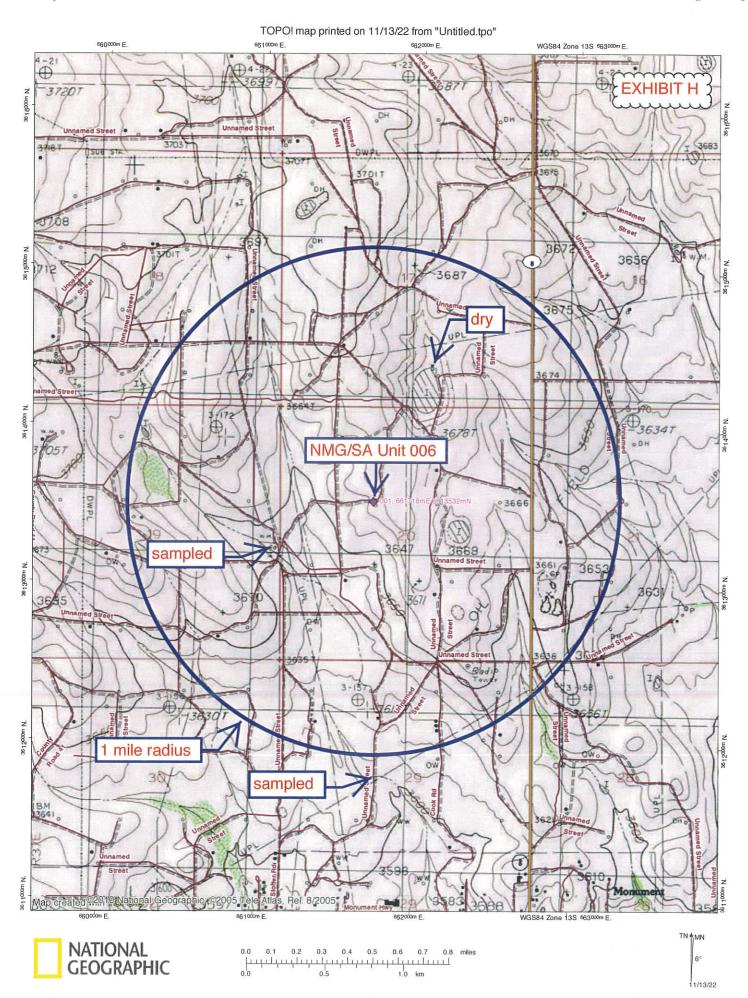
Received by OCD: 11/23/2022 3:08:20 PM

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 386	6/1/13	4048	Eunice Monument; Grayburg-SA	0	11	8.625	1333	372 sx	GL	Circ 128 sx
3002541038					7.875	5.5	4080	692 sx	40	CBL
K-20-19S-37E	n'	12.		-						×
N Monument	12/14/26	4002	Eunice Monument;			20000				
GSA Unit 010	12/14/36	4002	Grayburg-SA	0	17.25	13	269	275 sx	GL	no report
3002505659					12.25	9.625	1391	275 sx	no report	no report
J-20-19S-37E					8.625	7	3774	260 sx	no report	no report
					6.75	5.5	3759	25 sx	no report	no report
N Monument GSA Unit 012	11/16/35	3965	Eunice Monument; Grayburg-SA	0	no report	12.5	258	250 sx	GL	no report
3002505664					no report	9.625	1367	800 sx	no report	no report
L-20-19S-37E			-		no report	7	3811	400 sx	no report	no report
N Monument GSA Unit 002	11/12/36	4000	Eunice Monument; Grayburg-SA	0	17.5	12.5	198	200 sx	GL	no report
3002505657					9	8.625	2585	500 sx	no report	no report
B-20-19S-37E					7.875	6.625	3838	100 sx	no report	no report

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 004	4/4/36	3973	Eunice Monument; Grayburg-SA	P&A	18	13	225	209 sx	GL	Circ
3002505668					12.25	9.625	1407	600 sx	GL	no report
D-20-19S-37E					8.75	7	3876	250 sx	2610	CBL
NI NA										
N Monument GSA Unit 014	6/23/61	3960	Eunice Monument; Grayburg-SA	0	no report	12.5	247	250 sx	GL	no report
3002505666					no report	9.625	1361	600 sx	GL	no report
N-20-19S-37E					no report	7	3837	400 sx	GL	no report
N Monument GSA Unit 008	10/30/36	3996	Eunice Monument; Grayburg-SA	0	13.75	10.75	209	100 sx	no report	no report
3002505661		X			9.875	7.625	1413	400 sx	no report	no report
H-20-19S-37E					6.75	5.5	3755	100 sx	no report	no report
	720			(*)						
State A 17 002	8/21/36	4005	Eunice Monument; Grayburg-SA	P&A	15	10.75	272	200 sx	GL	no report
3002505611					9.625	7.625	1397	425 sx	GL	no report
N-17-19S-37E					6.75	5.5	3843	400 sx	GL	no report

Received by OCD: 11/23/2022 3:08:20 PM

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 008	3/1/36	4000	Eunice Monument; Grayburg-SA	0	13.75	10.75	238	250 sx	no report	no report
3002505645					9.875	7.625	1368	300 sx	no report	no report
H-19-19S-37E	В				6.75	5.5	3816	300 sx	no report	no report
N Monument GSA Unit 624	10/24/96	5100	Grayburg-SA	wsw	17.5	13.375	500	525 sx	GL	Circ 138 sx
3002533618					12.25	9.625	44070	1350 sx	GL	Circ trace
H-20-19S-37E					8.75	open hole	5100	N/A	N/A	р
Eumont 17 State 001	2/28/95	3890	Eumont; Yates-7 Rvrs- Queen	G	12.25	8.625	425	350 sx	GL	Circ 50 sx
3002532820					7.875	4.5	3890	730 sx	GL	Circ 10 sx
N-17-19S-37E										
						-				





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

EXHIBIT H

(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													
		Sub-		Q	Q	Q								7	Water
POD Number	Code		County	64	16	4	Sec	Tws	Rng	X	Y	DistanceD	epthWellDe	pthWater C	olumn
L 05611 POD4	R	L	LE	2	2	1	20	19S	37E	661812	3614032*	508	105	53	52
<u>L 14366 POD3</u>		L	LE	2	3	3	20	19S	37E	661477	3612899	677	32		
<u>L 13521 POD1</u>		L	LE	4	4	3	20	19S	37E	661504	3612887	678	34	22	12
L 13926 POD1		L	LE	2	3	3	20	19S	37E	661484	3612874	698	32	21	11
L 13926 POD3		L	LE	2	3	3	20	19S	37E	661485	3612865	705	32	21	11
L 13926 POD2		L	LE	2	3	3	20	19S	37E	661495	3612857	710	32	21	11
L 14366 POD1		L	LE	2	3	3	20	19S	37E	661500	3612840 🌑	725	32		
<u>L 10277</u>		L	LE	2	2	4	19	19S	37E	661020	3613219*	764	70	40	30
<u>L 14366 POD2</u>		L	LE	2	3	3	20	19S	37E	661473	3612797 🌑	774	32		
<u>L 00062</u>		L	LE		4	4	18	19S	37E	660903	3614327*	1138	93		
<u>L 01273</u>		L	LE	3	4	4	19	19S	37E	660827	3612617*	1277	62	45	17
<u>L 06933</u>		L	LE	3	2	4	17	19S	37E	662403	3614646*	1307	100	65	35
<u>L 01251</u>		L	LE	4	1	1	29	19S	37E	661434	3612218*	1344	51	38	13
<u>L 00061</u>		L	LE		3	4	18	19S	37E	660501	3614325*	1452	100		
L 14224 POD2		L	LE	2	3	3	18	198	37E	660549	3614528 🌍	1535	75	59	16
L 02621		L	LE	3	2	3	21	198	37E	663233	3613050*	1589	83	40	43
<u>L 05433</u>		L	LE		4	1	19	19S	37E	660112	3613518*	1606	5790	1072	4718

Average Depth to Water:

124 feet

Minimum Depth:

21 feet

Maximum Depth:

1072 feet

Record Count: 17

UTMNAD83 Radius Search (in meters):

Easting (X): 661718

Northing (Y): 3613532

Radius: 1610

*UTM location was derived from PLSS - see Help

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.

11/13/22 3:34 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



Analytical Report Lab Order 2211086

Date Reported: 11/14/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

Lab ID:

Project: NMGSAU 2211086-003 Matrix: AQUEOUS Client Sample ID: Sec 19

Collection Date: 11/1/2022 10:20:00 AM Received Date: 11/2/2022 11:33:00 AM

Analyses	Result	RL	Qual U	nits	DF	Date Analyzed	Batch
EPA METHOD 1664B						Analys	: dms
N-Hexane Extractable Material	ND	9.44	m	ng/L	1	11/9/2022 4:42:00 PM	71367
EPA METHOD 300.0: ANIONS						Analys	:: JTT
Chloride	110	5.0	m	ng/L	10	11/3/2022 9:16:05 AM	R92333
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analys	:: SNS
Total Dissolved Solids	515	20.0	* m	ng/L	1	11/8/2022 10:21:00 AM	71300

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

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated.

Analyte detected in the associated Method Blank

Above Quantitation Range/Estimated Value

Analyte detected below quantitation limits

Sample pH Not In Range

Reporting Limit RL

Page 4 of 8

Analytical Report Lab Order 2211086

Date Reported: 11/14/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

2211086-001

Client Sample ID: Sec 29

Collection Date: 11/1/2022 12:50:00 PM

Project: NMGSAU

Lab ID:

Matrix: AQUEOUS

Received Date: 11/2/2022 11:33:00 AM

Analyses	Result	RL	Qual Ur	iits	DF	Date Analyzed	Batch
EPA METHOD 1664B						Analys	t: dms
N-Hexane Extractable Material	ND	9.46	mg	g/L	1	11/9/2022 4:42:00 PM	71367
EPA METHOD 300.0: ANIONS						Analys	t: JTT
Chloride	210	50	mg	g/L	100	11/3/2022 8:38:51 AM	R92333
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analys	t: SNS
Total Dissolved Solids	720	40.0	*D mg	J/L	1	11/8/2022 10:21:00 AM	71300

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

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

D Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 2 of 8





NM Oil Conservation Division 1220 S. St. Francis Dr. Santa Fe, NM 87505

Re: Geology Statement
Apache Corporation
North Monument G/SA Unit #6
Section 20, T. 19S, R. 37E
Lea County, New Mexico

To whom it may concern:

Publicly available geologic and engineering data related to the proposed well have been thoroughly reviewed, and no evidence for open faults or any other hydrologic connection between the proposed Grayburg injection zone and any underground sources of drinking water has been found. Please see the attached seismic risk assessment for additional information.

Sincerely,

Cory Walk Geologist

EXHIBIT J

Seismic Risk Assessment

Apache Corporation

North Monument G/SA Unit #6

Section 20, Township 19 South, Range 37 East

Lea County, New Mexico

Cory Walk, M.S.

Geologist

Cory Walk

Permits West Inc.

November 17, 2022

Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 1

GENERAL INFORMATION

EXHIBIT J

North Monument G/SA Unit #6 is located in the NW ¼, section 20, T19S, R37E, about 1.5 miles north of Monument, NM in the Central Basin Platform of the greater Permian Basin. Apache Corporation proposes to convert this existing oil well to a water injection well. The proposed injection zone is within the Grayburg Formation through a cased hole from 3,688'-4,015' below ground surface. The Grayburg is primarily a carbonate reservoir with some sandstones present. This report assesses any potential concerns relating to induced seismicity along deep penetrating Precambrian faults or the connection between the injection zone and known underground potable water sources.

SEISMIC RISK ASSESSMENT

Historical Seismicity

Searching the USGS earthquake catalog resulted in no (0) earthquakes above a magnitude 2.5 within 6 miles (9.7 km) of the proposed injection site since 1970 (Fig 1). According to this dataset, the nearest historical earthquake occurred June 28, 2020 about 11.3 miles (~18.1 km) northwest and had a magnitude of 2.7.

Basement Faults and Subsurface Conditions

A structure contour map (Fig. 1) of the Precambrian basement shows the North Monument G/SA Unit #6 is approximately 4.8 miles from the nearest basement-penetrating fault inferred by Ewing et al (1990) and about 59 miles from the nearest surface fault.

Snee and Zoback (2018) state, "In the western part of Eddy County, New Mexico, S_{Hmax} is ~north—south (consistent with the state of stress in the Rio Grande Rift; Zoback and Zoback, 1980) but rotates to ~east-northeast—west-southwest in southern Lea County, New Mexico, and the northernmost parts of Culberson and Reeves counties, Texas." Around the North Monument G/SA Unit #6 site, Snee and Zoback indicate a S_{Hmax} direction of N105°E and an A_{ϕ} of 0.85, indicating a normal/strike-slip faulting stress regime.

Induced seismicity is a growing concern of deep injection wells. Snee and Zoback (2018) show that due to its orientation, the nearest Precambrian fault has a low probability of slipping (Fig. 2). Also, the proposed injection zone is much shallower in the Grayburg Formation and therefore would not affect the deep Precambrian faults. In addition to the existing fault orientation, the vertical (approx. 6900') and horizontal (4.8 miles) separation between the proposed water injection zone and any deep Precambrian faults is large enough to infer that there is no immediate concern or potential of induced seismicity as a result from this injection well.

GROUNDWATER SOURCES

Three principal aquifers are used for potable groundwater in southern Lea County; these geologic units include the Triassic Santa Rosa formation, Tertiary Ogallala formation, and Quaternary alluvium. Nicholson and Clebsch (1961) state, "Potable ground water is not available below the Permian and Triassic unconformity but, because this boundary is not easily defined, the top of the Rustler anhydrite formation is regarded as the effective lower limit of 'potable' ground water." Around the North



Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 2

Monument G/SA Unit #6 well, the top of a thick anhydrite unit interpreted to represent the Rustler Formation lies at a depth of ~1342 feet bgs.

STRATIGRAPHY

A thick permeability barrier (Rustler Anhydrite and Salado Fm; 1100+ ft thick) exists above the targeted Grayburg injection zone. Well data indicates ~2,345 ft of rock separating the top of the injection zone from the previously stated lower limit of potable water at the top of the Rustler anhydrite formation.

CONCLUDING STATEMENT

All available geologic and engineering data evaluated around the North Monument G/SA Unit #6 well show no potential structural or stratigraphic connection between the Grayburg injection zone and any subsurface potable water sources. The shallow injection zone, spatial location and orientation of nearby faults also removes any major concern of inducing seismic activity.



SEISMIC RISK ASSESSMENT PAGE 3

Apache Corporation North Monument G/SA Unit #6

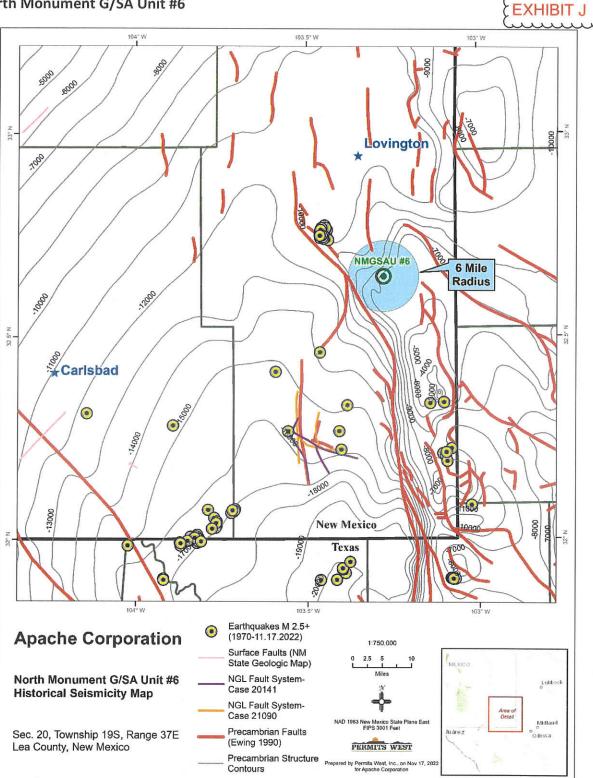


Figure 1. Structural contour map of the Precambrian basement in feet below sea level. Red lines represent the locations of Precambrian basement-penetrating faults (Ewing et al., 1990). The North Monument G/SA Unit #6 well lies ~4.8 miles south of the closest deeply penetrating fault, ~59 miles from the nearest surface fault and ~11.3 miles from the closest historic earthquake.



SEISMIC RISK ASSESSMENT PAGE 4

Apache Corporation North Monument G/SA Unit #6

EXHIBIT 102°W 100°W Mexico Texas Motle 34°N Matador Arch Permian Basin Northwest Shelf LUBBOCK ROSWELL Terry Lynn Midland Basin Cogdell field (Snyder, TX) Dawson Delaware Basin Dagger Eastern **ABILENE** 0 Draw Shelf field & MIDLAND Grisham faul Diablo Sand Hills faul Platform SAN ANGELO Big Lake fault Ozona Puckett-Grey Ranch Val Verde Basin Seismicity: o M_w 2.0-2.9 O Since 2005 O Mw 3.0-3.9 O 1970-2004 O M_w 4.0+

Figure 2. Modified from Snee and Zoback (2018). The nearest deep Precambrian fault lies ~4.8 miles north of the proposed injection well and has a low probability (0%) of slip. Also, the proposed injection zone is much shallower in the Grayburg and therefore removes any major concern of inducing seismicity on any known fault.

Coahuila

100 km



Fault slip potential (%): 0 10 20 30 40 50+

Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 5

References Cited



- Ewing, T. E., 1990, The tectonic map of Texas: Austin, Bureau of Economic Geology, The University of Texas at Austin.
- Geologic Map of New Mexico, New Mexico Bureau of Geology and Mineral Resources, 2003, Scale 1:500,000.
- Nicholson, A., Jr., and Clebsch, A., Jr., 1961, Geology and ground-water conditions in southern Lea County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Ground-Water Report 6, 123 pp., 2 plates.
- Snee, J.-E.L., Zoback, M.D., 2018, State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity: Leading Edge, v. 37, p. 127–134.



AE Order Number Banner

Application Number: pAZS2233442618

WFX-1051

APACHE CORPORATION [873]

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:			
	NIEW MEVIC	ABOVE THIS TABLE FOR OCD		E OF NEW MG.		
			ATION DIVISION			
		al & Engineerin		· E		
	1220 South St. Fra	ancis Drive, San	ta Fe, NM 87505	S COMPENATION THE		
THIS C	ADMINISTRA CHECKLIST IS MANDATORY FOR ALL	ATIVE APPLICAT	ION CHECKLIST	DIVISION DI IL EC AND		
,,,,,	REGULATIONS WHICH REC	QUIRE PROCESSING AT TH	E DIVISION LEVEL IN SANTA F	E		
Applicant: Apache (**************************************	OGRIE	Number: <u>873</u>		
Well Name: North	Monument G/SA Unit 006		API : 30-025-05655			
Pool: Eunice - Monum	ent; Grayburg - San Andres		Pool C	ode: 23000		
		INDICATED BELO	OW	HE TYPE OF APPLICATION		
1) TYPE OF APPLI	CATION: Check those v - Spacing Unit - Simulta	which apply for [A	4]			
	ISL NSP _{(PRO}		SP(proration unit)	D		
	ISC INST (PRO	JECTAREA)	OF (PRORATION UNIT)	D		
B. Check or	ne only for [I] or [II]					
[1] Com	minalina – Storage – Me	easurement				
	mingling – Storage – Me DHC □CTB □PL		ols Dolm			
	tion – Disposal – Pressur			V		
	lwfx ⊡pmx □sw	/D IPI E				
		2 	9. 3	FOR OCD ONLY		
NOTIFICATION	REQUIRED TO: Check the	nose which apply	у.			
	operators or lease hold			Notice Complete		
B. 🔳 Royalt	y, overriding royalty ow	ners, revenue ov	vners	Application		
	ation requires publishe			Content		
	ation and/or concurre			Complete		
	ation and/or concurre	nt approval by Bl	_M	Оотпріссе		
	e owner					
G. For all	of the above, proof of	notification or pu	iblication is attache	ed, and/or,		
H. No not	tice required					
3) CERTIFICATION	· I haraby cartify that the	o information cu	hmittad with this ar	aplication for		
administrative	: I hereby certify that that the approval is accurate a	nd complete to t	brillited with this ap	oplication for		
understand tha	at no action will be take	en on this applica	ation until the requir	rod information and		
notifications ar	e submitted to the Divis	ion	ation until the requi	ed information and		
No	te: Statement must be complete	d by an individual with	managerial and/or super	visory capacity.		
			11-23-22			
Brian Wood			Date			
200						
Print or Type Name	12-11-1		505 166 0130			
	KILL		505 466-8120			
	1 Wille	J	Phone Number			
			hrien@noit	taom		
Signature			brian@permitswess e-mail Address	t.com		
o.g. ideal o			C-111all Addless			

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: 505 466-8120						
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-9596						
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 such a representation of the proposed well illustration all places in a description.						
anauni.	schematic of any plugged well illustrating all plugging detail. NORTH MONUMENT G/SA UNIT 006						
VII.	Attach data on the proposed operation, including: 30–025–05655						
	 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 TITLE: CONSULTANT						
	SIGNATURE: DATE: NOV. 22, 2022						
ŧ	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.

Revised March 23, 2017

NEW MEXICO DI CONSERVATION DIVISION - Geological & Engineering Bureau – 1220 South St. Francis Drive, Santa Fe, NM 87505 ADMINISTRATIVE APPLICATION CHECKLIST Indiscreculations MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS FOR DIVISION BLEES AND RECOLUMNOS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTAR APPLICATIONS FOR EXCEPTIONS FOR DIVISION BREES AND RECOLUMNOS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTAR APPLICATIONS FOR EXCEPTIONS FOR DIVISION BREES AND RECOLUMNOS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTAR APPLICATION FOR THE DIVISION BREES AND RECOLUMNOS FOR THE TYPE OF APPLICATION INDICATED BELOW 1) TYPE OF APPLICATION: Check those which apply for [A] A. Location – Spacing Unit – Simultaneous Dedication NSL NSP PROCECULARLA NSP PRICAMION WHITE SD B. Check one only for [1] or [1] [1] Commingling – Storage – Measurement DHC CITB PLC PC OLS OLM [II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery WFX PMX SWD PP COR PPR 2) NOTIFICATION REQUIRED TO: Check those which apply. A Offset operators or lease holders B. Royalty, overfling royalty owners, revenue owners C Application requires published notice D. Notification and/or concurrent approval by SLO Application Content Complete For Oction Content Complete Application Content on The Division of Publication of Publication of 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	RECEIVED:	REVIEWER:	TYPE:	APP NO:	
- Geological & Engineering Bureau – 1220 South St. Francis Drive, Santa Fe, NM 87505 ADMINISTRATIVE APPLICATION CHECKLIST THIS CHECKLIST SMANDAIONY FOR ALL ADMINISTRATE APPLICATION CHECKLIST THIS CHECKLIST SMANDAIONY FOR ALL ADMINISTRATE APPLICATIONS FOR EXCEPTIONS TO DRIVISION RULES AND REQUIRED TO PROCESSING AT THE DIVISION LEVEL IN SANTATE APPLICATION WHICH REQUIREP PROCESSING AT THE DIVISION LEVEL IN SANTATE APPLICATION SWHICH REQUIREP PROCESSING AT THE DIVISION LEVEL IN SANTATE APPLICATION SANTATE POOL COde: 23000 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-PROJECTARA: NSP-PROJECTARA: NSP-PROBATION UNIT) B. Check one only for [1] or [1] [1] [1] Comminingling – Storage – Measurement OHC CTB PIC PC OLS OLM			ABOVE THIS TABLE FOR OCD E	DIVISION USE ONLY	
Applicant: Appache Corporation Applicant: Appache Corporation Well Name: North Monument G/SA Unit 006 API: 30-025-05655 Pool Emice - Monument: Grayburg - San Andres Pool: Emice - Monument: Grayburg - San Andres Pool Code: 23000 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 PRODUCTAREA NSP PROCESS THE TYPE OF APPLICATION INDICATED BELOW 1) TYPE OF APPLICATION: Check those which apply for [A] B. Check one only for [1] or [1] [1] Commingling - Storage - Measurement DHC C1B PLC PC OLS OLM [1] 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 SLO E. Notification and/or concurrent approval by SLO 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 **Description**		- Geologia	cal & Engineering	g Bureau – 🕡	The state of the s
THIS CHECKLIST IS MANDATIONY TOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIMISION RULES AND BEQULATIONS WHICH REQUIRE PROCESSING AT HILD DIVISION LEVEL IN SANTATE Applicant: Apache Corporation Well Name: North Monument (Fis Unit 1006 API: 30-025-05655 Pool Code: 23000 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		ADMINISTR	ATIVE APPLICATI	ON CHECKLIST	
Name: North Monument G/SA Unit 006	TH	HIS CHECKLIST IS MANDATORY FOR AL	L ADMINISTRATIVE APPLICA	ATIONS FOR EXCEPTIONS TO DIVISION RU	JLES AND
Well Name: North Monument G/SA Unit 006 POOI: Eunice - Monument Grayburg - San Andres Pool: Eunice - Monument Grayburg - San Andres 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 NSP N	Applicant: Apac	he Corporation		OGRID Numbe	er: 873
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					
INDICATED BELOW 1) TYPE OF APPLICATION: Check those which apply for [A] A. Location – Spacing Unit – Simultaneous Dedication NSL	Pool: Eunice - Mor	nument; Grayburg - San Andres		Pool Code: 230	000
A. Location – Spacing Unit – Simultaneous Dedication NSL			INDICATED BELC	OW	OF APPLICATION
[1] Commingling - Storage - Measurement	A. Location	on – Spacing Unit – Simult	aneous Dedicatio	n	
F. Surface owner G. For all of the above, proof of notification or publication is attached, and/or, H. No notice required 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 505 466-8120 Phone Number brian@permitswest.com	[1] Co [11] Inj 2) NOTIFICATIO A. Offs B. Roy C. App D. Noti	mmingling – Storage – Me DHC CTB PL ection – Disposal – Pressu WFX PMX SV ON REQUIRED TO: Check to et operators or lease hold alty, overriding royalty ovolication requires publisher fication and/or concurre	C PC C re Increase - Enha VD IPI E hose which apply ders vners, revenue ow ed notice nt approval by SL	enced Oil Recovery OR PPR F No ners O	otice Complete oplication ontent
notifications are submitted to the Division. Note: Statement must be completed by an individual with managerial and/or supervisory capacity. 11-23-22 Date	F. Surf. G. For A H. No I 3) CERTIFICATIO administrativ	ace owner all of the above, proof of notice required ON: I hereby certify that to we approval is accurate a	notification or pune information sub	blication is attached, and/openitted with this application he best of my knowledge. I	n for also
Brian Wood Print or Type Name 505 466-8120 Phone Number brian@permitswest.com	notifications	are submitted to the Divi	sion.		
Print or Type Name 505 466-8120 Phone Number brian@permitswest.com		Note: Statement must be complete	ed by an individual with	managerial and/or supervisory capa	city.
Phone Number brian@permitswest.com				Date	
COLUMN CO		I Want		Phone Number brian@permitswest.com	

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: 505 466-8120						
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-9596						
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.						
VII.	NORTH MONUMENT G/SA UNIT 006						
V 11.	Attach data on the proposed operation, including: 1. 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 TITLE: CONSULTANT						
	SIGNATURE: DATE: NOV. 22, 2022						
3455	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.

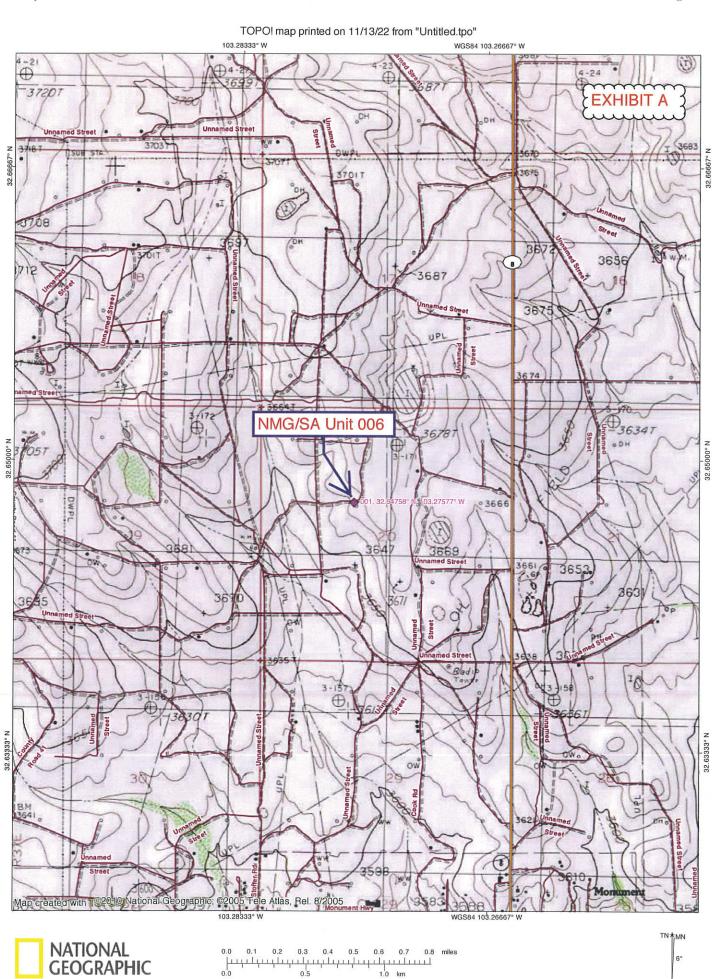
Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

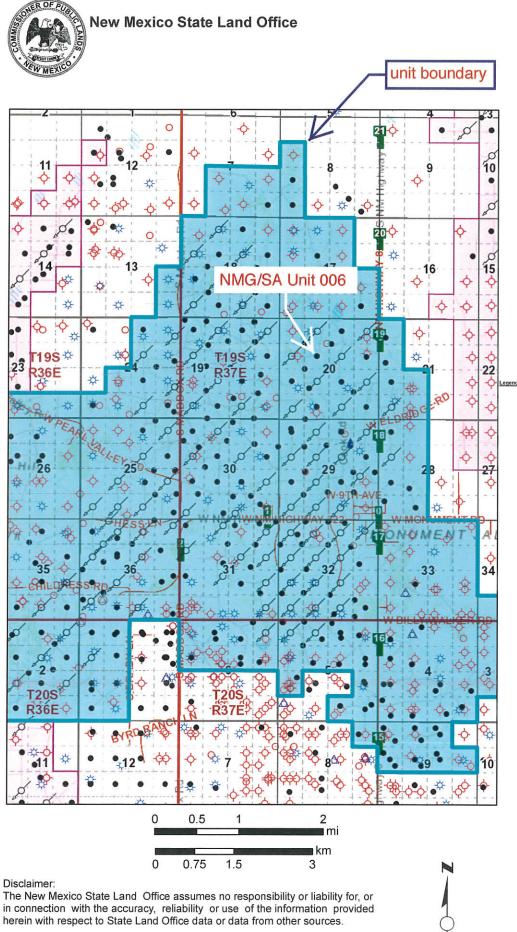
- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates 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.

11/13/22







Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.



(Perforated or Open Hole; indicate which)

OPERATOR: _	APACHE	CORPORATION					
WELL NAME &	& NUMBER	: NORTH MON	UMENT G/SA UNIT	006	1		
WELL LOCATI	ION: 1980	' FNL & 1980'	FWL ION U	F	20	19 S	37 E
	FC	OTAGE LOCAT	ION U	NIT LETTER	SECTION	TOWNSHIP	RANGE
	WELLBORE "AS (not to s	IS"			WELL CO Surface (ONSTRUCTION D Casing	<u> PATA</u>
	@ 3846'	Cale)	12.5" 40# in 17.5" hole @ 205' TOC (200 sx) = GL (calc	Hole Size:	17.5"	Casing Size:	12.5"
SVSV	8 8		100 (200 0X) = GE (0dio	Cemented with:	200 sx.	or	ft ³
1994 1993 1993	2.875" prod. tbg		8.625" 32# in	Top of Cement:	SURFACE	Method Determi	ned: CALC.
	2.875"		6.025 32# III 11" hole @ 2545' TOC (500 sx) = 595' (calc.)		Intermediat	e Casing	
_				Hole Size:	11"	Casing Size:	8.625"
		1010		Cemented with:	500 sx.	or	ft ³
				Top of Cement:	SURFACE	Method Determi	ned: CALC.
					Production	Casing	
	5250 5250 5250 5250 5250	6.625" 20# 7.875" hol	# in e @ 3866'	Hole Size:	7.875"	Casing Size:	6.625"
	5000 5000 5000 5000		sx) = 2976' (calc.) burg perfs 3884' - 3943'	Cemented with:	100 sx.	or	ft ³
		1	" uncased Grayburg	Top of Cement:	2976'	Method Determin	ned: CALC.
,	PBTD 3 TD 402	3867' - 402 950'		Total Depth:	PBTD = 3950'	& $TD = 4020$)'
	10 402	:0			Injection I	nterval	
					3799 feet	to 2012!	

Page 183 of 220

(Perforated or Open Hole; indicate which)

OPERATOR:	APACI	HE	CORPORATION							
WELL NAME &	NUMB:	ER:	NORTH MON	UMENT G/SA UNI	T 0	06				
WELL LOCATIO					IDI	F	20	19 S		
		FU	OTAGE LOCAT	ION	UN.	IT LETTER	SECTION	TOWNSHIP	RANG	E
<u>N</u>	WELLBORE SCHEMATIC							ONSTRUCTION L	<u>DATA</u>	
	"PRC (not	POS to so	SED"		•		Surface (asing		
		3774'		12.5" 40# in 17.5" hole @ 205'		Hole Size:	17.5"	Casing Size:	12.5"	
		tbg @		TOC (200 sx) = GL	(calc.)	Cemented with:	200 sx.	or		ft ³
19345 19345 19345		875" IPC inj.				Top of Cement:	SURFACE	Method Determ	ined: CALC.	
		2.875"		8.625" 32# in 11" hole @ 2545' TOC (500 sx) = 595' (calc.)			Intermediat	e Casing		
_			_			Hole Size:	11"	Casing Size:	8.625"	
10 m 0 m 10 m 10 m 10 m	%					Cemented with:	500 sx.	or		_ ft ³
1 () () () () () () () () () (1000 1000 1000			Top of Cement:	SURFACE	Method Determine	ined: CALC.	
packer			(2000) (2000) (2000)				Production	Casing		
@ 3774' perf Grayburg _ <u>∡</u>				le @ 3866'		Hole Size:	7.875"	Casing Size:	6.625"	
3799' - 3865'			10.00.00	sx) = 2976' (calc.)		Cemented with:	100 sx.	or		_ ft ³
# 1		2/2/2	10,000	rburg perfs I' - 3943' 5" uncased Gravburg		Top of Cement:	2976'	Method Determi	ned: CALC.	
X.		D 39	3867' - 40 50'	, 3		Total Depth:	PBTD = 3950'	& $TD = 402$	0 '	
	11.	4020	J				Injection I	nterval		
						-	3799 feet	to3943'		

INJECTION WELL DATA SHEET

Γut	bing Size: 2.875" J-55 6.4# Lining Material: INTERNAL PLASTIC COAT	
Туј	pe of Packer: LOCK SET INJECTION	
Pac	cker Setting Depth: 3774'	
Otł	her Type of Tubing/Casing Seal (if applicable):	
	Additional Data	
1.	Is this a new well drilled for injection? Yes XXX No	
	If no, for what purpose was the well originally drilled? GRAYBURG OIL WELL	
2.	Name of the Injection Formation: GRAYBURG	
3.	Name of Field or Pool (if applicable): <u>EUNICE-MONUMENT</u> ; <u>GRAYBURG-SAN ANDRES</u> (PO	OL #23000
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) usedNO	
5.	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:	
	OVER: YATES (2654'), SEVEN RIVERS (2870'), & QUEEN (3381')	
	UNDER: SAN ANDRES (4025')	

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 08, 2022 and ending with the issue dated November 08, 2022.

Publisher

Sworn and subscribed to before me this 8th day of November 2022.

Business Manager

My commission expires

January 29, 2023

(Seal)

GUSSIE BLACK Notary Public - State of New Mexico Commission # 1087526 My Comm. Expires Jan 29, 2023

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

EXHIBIT K

LEGAL NOTICE November 8, 2022

Apache Corporation is applying to convert the North Monument G/SA Unit 6 oil well to a water injection well. The well, API 30-025-05655, is at 1980 FNL & 1980 FWL, Sec. 20, T. 19 S., R. 37 E., Lea County, NM. This is 1.7 miles NNW of the Monument, NM Post Office. Water will be injected at a maximum pressure of 737 psi into the Grayburg formation from 3688' to 4015'. Maximum injection rate will be 700 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 or ocd.engineer@state.nm.us within 15 days. NMOCD Engineering Bureau phone is 505 476-3441. 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

00272841

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





November 22, 2022

James Allan Bryant 8204 Indigo Court NE Albuquerque NM 87112

TYPICAL NOTICE

Apache Corporation is planning (see attached application) to convert its North Monument G/SA Unit 006 oil well (30-025-05655) to a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposal. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: North Monument G/SA Unit 006 (NMSLO lease) TD: 4020'
Proposed Injection Zone: Grayburg from 3799' to 3943'
Where: 1980' FNL & 1980' FWL Sec. 20, T. 19 S., R. 37 E., Lea County, NM Approximate Location: 1.7 miles NNW of the Monument, NM Post Office Applicant Name: Apache Corporation (432) 818-1088
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 NMOCD Enginering Bureau address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Phone number is (505) 476-3441. E-mail address is: ocd.engineer@state.nm.us

Please call me if you have any questions.

Sincerely.

Brian Wood







	U.S. Postal Service [™] EXHIBIT L
	CERTIFIED MAIL® RECEIPT
귀	Domestic Mail Only
m	For delivery information, visit our website at www.usps.com*.
	O = =Tulsa, DK 74114 7, 3 =
	Certified Mail Fee
근용미부	S Extra Services & Fees (check box, add fee as appropriate) [Return Receipt (hardcopy) U.3.3.]
	47 ME
1000	Certified Mall Restricted Dalivery Spin AUV 2 ., Here
	Adult Signature Required \$ 40 000000000000000000000000000000000
	Postage \$0.00
1670	5 Empire New Mexico LLC \$0.001
H	2200 S Otica Place
П	Sent To Suite 150 \$1 92 Sent To 23 Ulga OK 74 134 17 11/
705	7-Julea BK /4-13-4; 7 Street and Apr. No., or PCA pagine NMG/SA Unit 606
1	
	City, State, ZiP+4 ⁵
	PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions





EXHIBIT

Received by OCD: 11/23/2022 3:08:20 PM U.S. Postal Service CERTIFIED MAIL® RECEIPT 507 elivery information, visit our website at www.usps.com \$4,00 Extra Services & Fees (check bp 52,769 as appropriate) Return Receipt (hardcopy) \$3.75 Postmark Return Receipt (electronic) Certified Mail Restricted Delivery \$0.00 \$0.00 Adult Signature Required Adult Signature Restricted Delivery \$ \$0,00 ostage AJYANI Southwest Royalties
Total Postage and Fees PO Box 53570 \$0.00 Midland TX 79719-24 paghe NMG/\$A Unit 606 11/ Street and Apt. No., or PO Box No. City, State, ZIP+43

TU

2804

1000

20

Л

LI LI

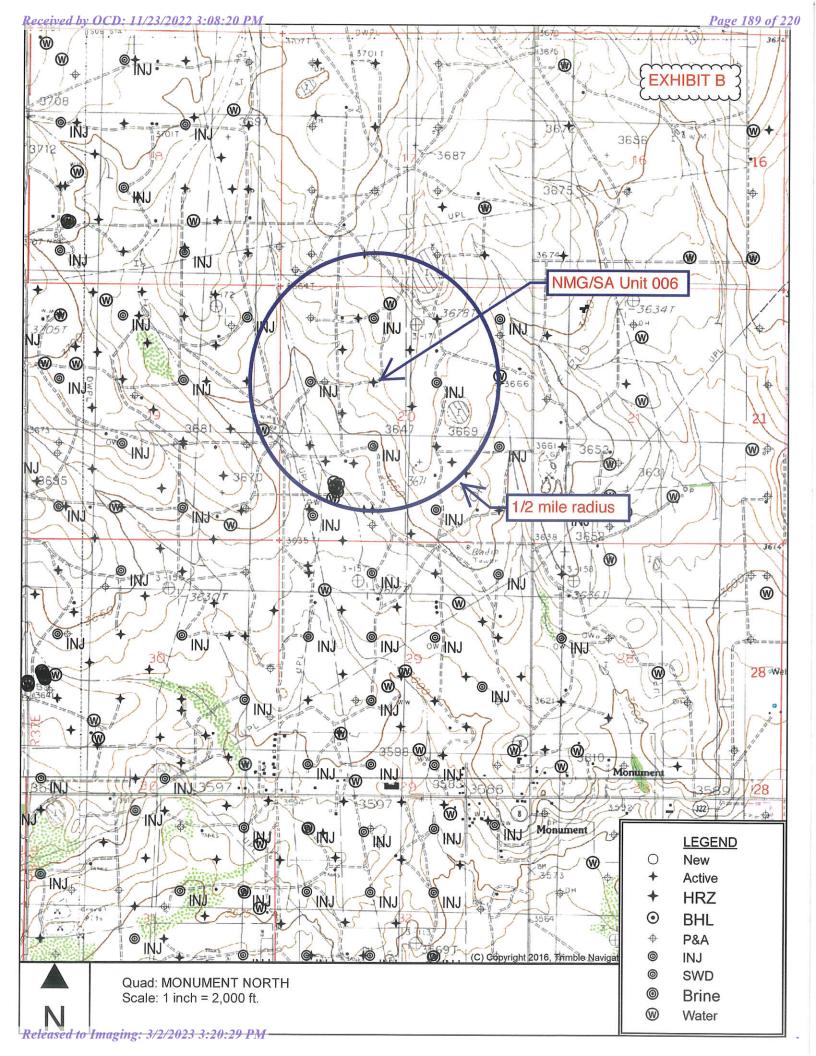
2445

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT For delivery information, visit our 1000 *4700 Extra Services & Fees (check box light (ca as appropriate) * Postmark Return Receipt (hardcopy) Return Receipt (electronic) Here Certified Mail Restricted Delivery Adult Signature Required saling. Adult Signature Restricted Delivery \$ 1670 \$0.00 Postage \$0.00 Shell-Western E&P Total Postage and Fees PO Box 576 Houston TX \$10092 П Apache NMG SAlUnit 606 Sent To 705 Street and Apt. No., or PO Box No. City, State, ZIP+4*



-B	U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only
m M	For delivery information, visit our website at www.usps.com [®] .
	Certifled Mall Fee
ョ	5 /0 /
2 1000	Extra Services & Fees (check box, add fee as aphichaeld) Return Receipt (hardcopy)
	Postage
1670	\$ NM State Land Office \$0.00
픠	lotal Postage and Fees PO Box 1448
ru	\$ Santa Fe NM 87504 3 Sent To Apache NMC/SATTHIL 606
믭	Street and Apt. No., or PO Box No.
L- A	Ölly, Siale, ZIP-48
Linearity	PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

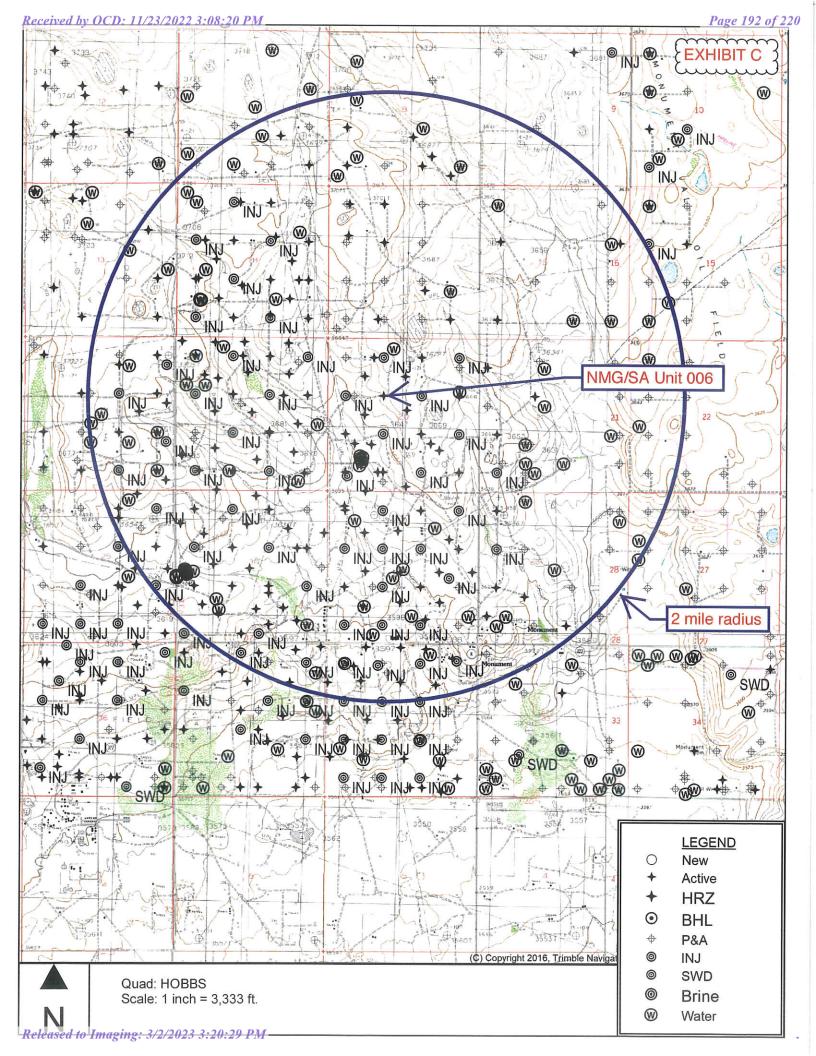
372	Domestic Mail Only
ru	For delivery information, visit our website at www.usps.com*.
7007	Certified Mail Fee
=0	\$ \$4,00
000	Extra Services & Fees (check by Tipe as appropriate) Return Receipt (hardcopy) Return Receipt (delectronic) Certified Mail Restricted Delivery Tipe as appropriate Adult Signature Required Adult Signature Restricted Delivery Tipe as appropriate Adult Signature Restricted Delivery Tipe as
	Postage \$11.00
1670	Mulloy Operating Inc \$0.00
戸	rotal Postage and Fees 415 W Wall St
LI LI	Suite 200 Sent To Midjand TX 797017
	Street and Apt. No., or PO Box No.
1	City, State, ŽIP+43
a de la companya de l	PS Form 3800, April 2015 PSN 7500-02-000-5047 See Reverse for Instructions

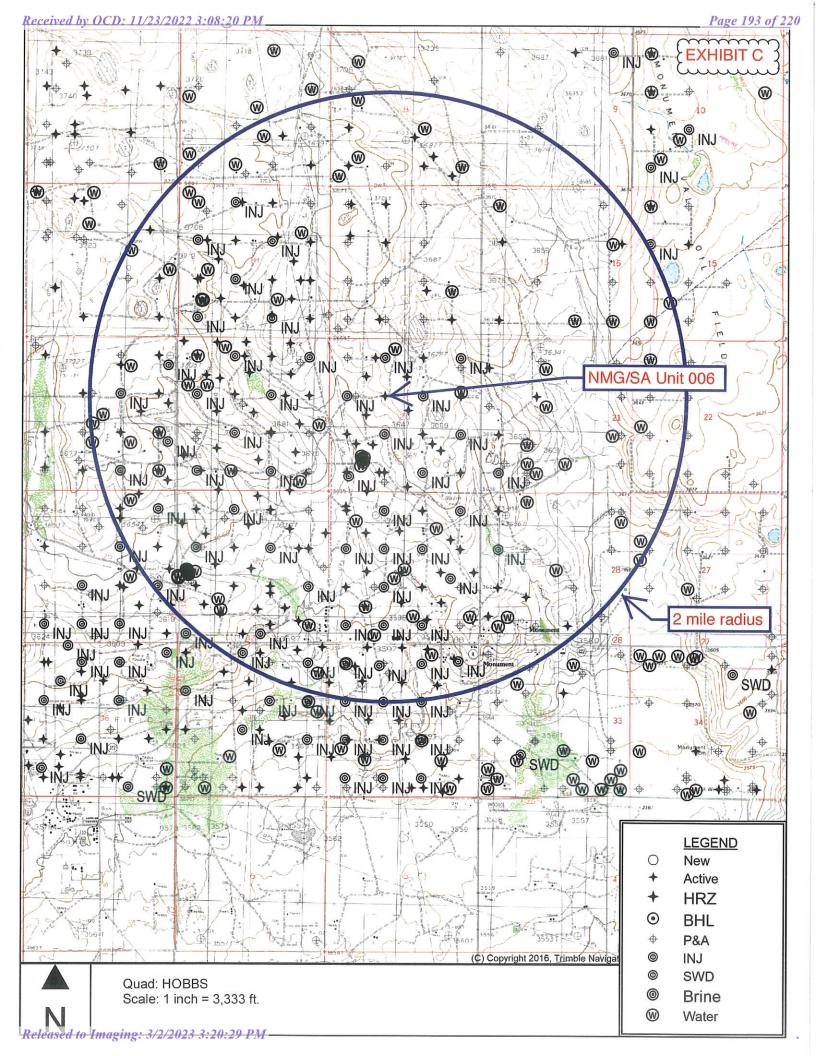


API	OPERATOR	WELL	TYPE WELL	UNIT- SECTION- T19S-R37E	TVD	ZONE @ TD	FEET FROM NMG/SAU 006
3002541036	Apache	NMG/SAU 384	О	F-20	4100	San Andres	914
3002541704	Apache	NMG/SAU 433	0	C-20	4000	Grayburg	932
3002538146	Apache	NMG/SAU 344	0	G-20	4125	San Andres	940
3002531588	Apache	NMG/SAU 018	0	B-20	4310	San Andres	1003
3002526535	Apache	State L Gas Com 003	G	E-20	3630	Queen	1017
3002505656	Apache	NMG/SAU 007	1	G-20	3997	Grayburg	1312
3002505667	Apache	NMG/SAU 011	I	K-20	3982	Grayburg	1316
3002505654	Apache	NMG/SAU 005	I	E-20	3996	Grayburg	1318
3002505669	Apache	NMG/SAU 003	Ī	C-20	4020	Grayburg	1322
3002528087	Energy Acumen	Dority 001	G	C-20	3855	Queen	1361
3002541038	Apache	NMG/SAU 386	0	K-20	4048	Grayburg	1727
3002505659	Apache	NMG/SAU 010	0	J-20	4002	Grayburg	1860
3002505664	Apache	NMG/SAU 012	0	L-20	3965	Grayburg	1861
3002505657	Apache	NMG/SAU 002	0	B-20	4000	Grayburg	1861
3002505668	Apache	NMG/SAU 004	P&A	D-20	3973	Grayburg	1867
3002509885	Empire New Mexico	H T Mattern 005	G	L-20	3639	Queen	1918
3002505660	Empire New Mexico	F W Kutter NCT A Com 003	G	J-20	3700	Queen	2328
3002505666	Apache	NMG/SAU 014	0	N-20	3960	Grayburg	2636
3002505661	Apache	NMG/SAU 008	0	H-20	3996	Grayburg	2640
3002505611	Conoco	State A 17 002	P&A	N-17	4005	Grayburg	2640

Received by OCD: 11/23/2022 3:08:20 PM SORTED BY DISTANCE FROM NORTH MONUMENT G/SA UNIT 006

АРІ	OPERATOR	WELL	TYPE WELL	UNIT- SECTION- T19S-R37E	TVD	ZONE @ TD	FEET FROM NMG/SAU 006
3002505645	Apache	NMG/SAU 008	0	H-19	4000	Grayburg	2640
3002533618	Apache	NMG/SAU 624	wsw	H-20	5100	San Andres	2644
3002530916	Empire New Mexico	HT Mattern 006	G	N-20	3725	Penrose	2646
3002532820	Mewbourne	Eumont 17 State 001	G	N-17	3890	Grayburg	2647

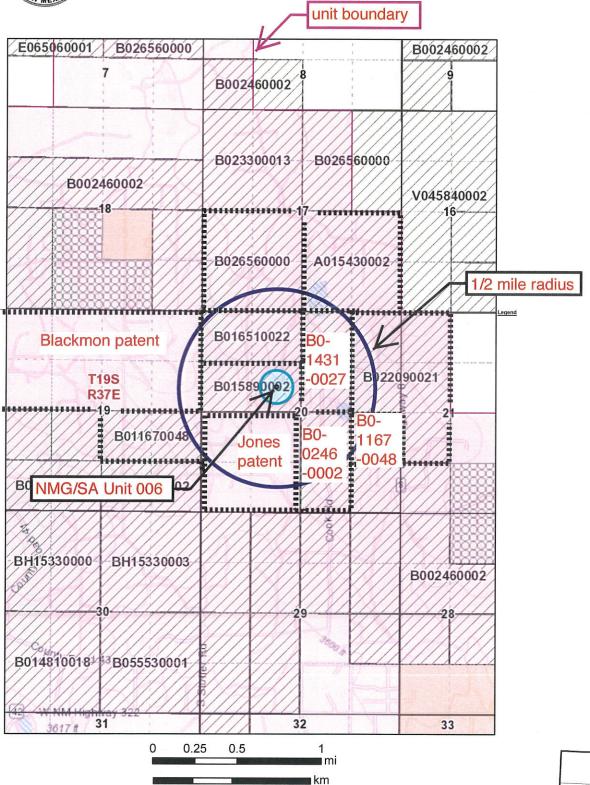






New Mexico State Land Office





Disclaimer:

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 herein with respect to State Land Office data or data from other sources.

0.38

0.75

1.5

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.



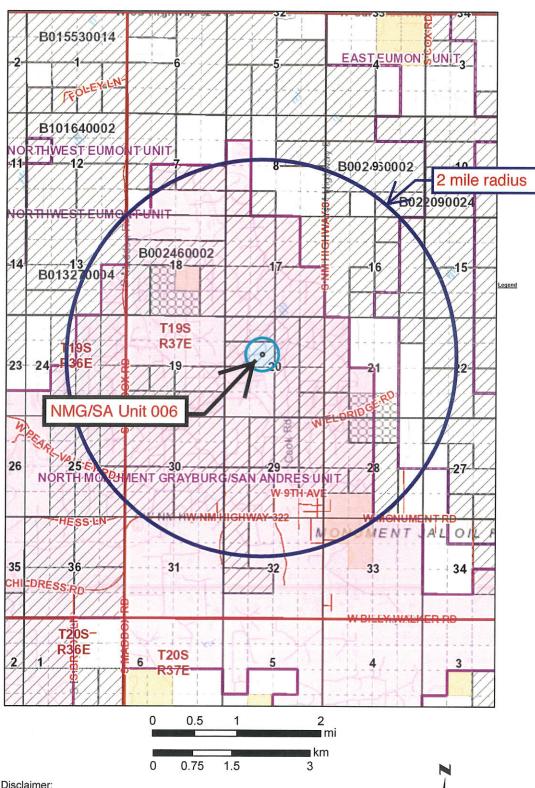
Received by OCD: 11/23/2022 3:08:20 PM NORTH MONUMENT G/SA UNIT 006 AREA OF REVIEW LEASES

Aliquot Parts in Area of Review (T. 19 S., R. 37 E.)	Lessor	Lease	Lessee(s) of Record	Well Operators (all zones)
S2SW4 Sec. 17	NMSLO	B0-2656-0000	ConocoPhillips	Mewbourne Oil
SWSE Sec. 17	NMSLO	A0-1543-0002	Southwest Royalties	Petroleum Exploration
E2NE4 Sec. 19	fee	Blackmon patent	Apache	Apache, Arrington O&G, and Mulloy Operating
NESE Sec. 19	NMSLO	B0-1167-0048	Shell Western E&P	Apache, Arrington O&G, and Mulloy Operating
E2NE4 Sec. 20	NMSLO	B0-2209-0021	Chantrey	Apache
W2NE4 Sec. 20	NMSLO	B0-1431-0027	Leaco NM E&P, aka Apache	Apache
N2NW4 Sec. 20	NMSLO	B0-1651-0022	Mewbourne	Apache, Energy Acumen
S2NW4 Sec. 20	NMSLO	B0-1589-0002	Leaco NM E&P, aka, Apache	Apache
NESE Sec. 20	NMSLO	B0-1167-0048	Shell Western E&P	Apache
W2SE4 Sec. 20	NMSLO	B0-0246-0002	Southwest Royalties	Apache, Empire NM
SW4 Sec. 20	fee	Jones patent	Apache	Apache, Empire NM



New Mexico State Land Office





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 herein with respect to State Land Office data or data from other sources.

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.

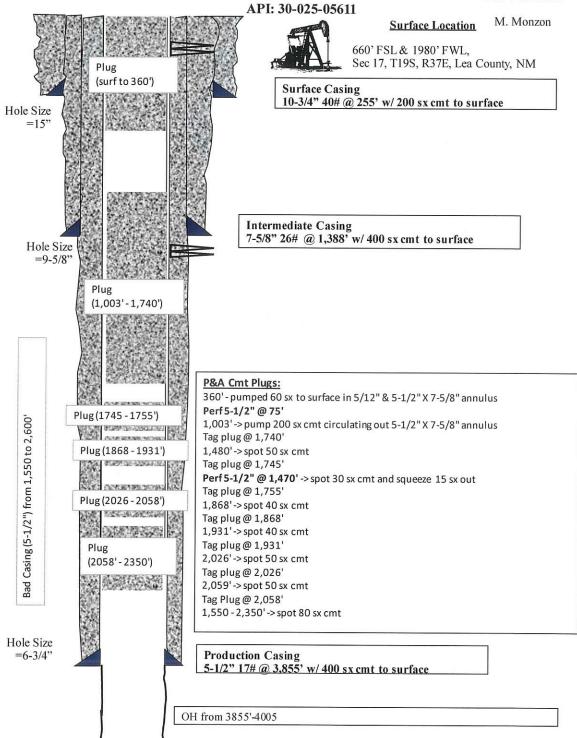




GL=3700' Spud: 8/22/36

Conoco Inc. – State A-17 # 2 Wellbore Diagram – P&A (5/22/1992)

Date: 11/2/2022



TD = 4,005'

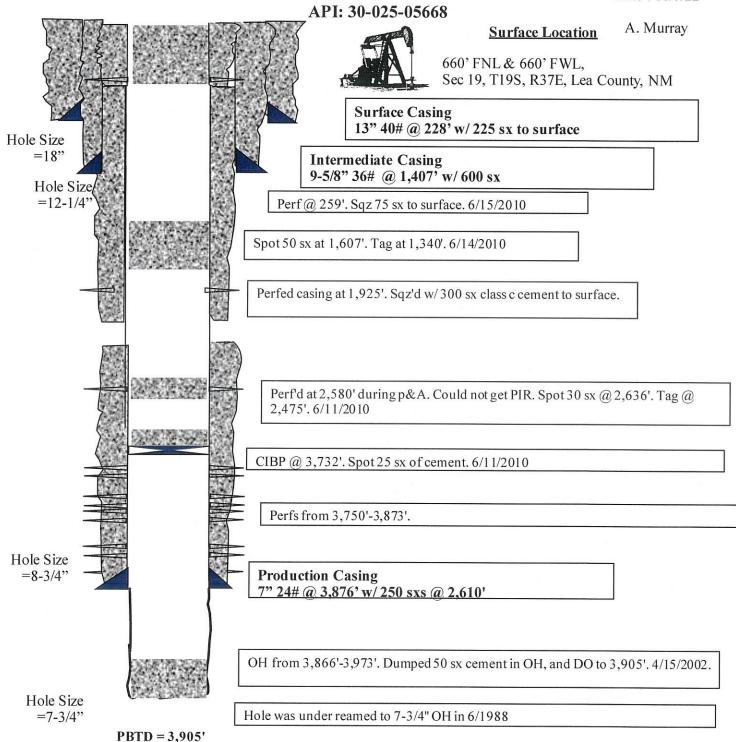
Drawing not to scale

EXHIBIT F

Spud: 4/4/36

Apache Corporation – NMGSAU #004 P&A'd 6/15/2010

Date: 11/7/22



TD = 3.973'

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 384	5/24/13	4100	Eunice Monument; Grayburg-SA	0	11	8.625	1348	500 sx	GL	Circ 105 sx
3002541036					7.875	5.5	4100	790 sx	20'	CBL
F-20-19S-37E										
N Monument	7/25/44	4000	Eunice Monument;							
GSA Unit 433	7/25/14	4000	Grayburg-SA	0	11	8.625	1358	460 sx	GL	Circ 3 sx
3002541704					7.875	5.5	4000	900 sx	GL	CBL
C-20-19S-37E										
N Monument GSA Unit 344	10/23/06	4125	Eunice Monument; Grayburg-SA	0	11	8.625	392	300 sx	GL	Circ
3002538146					7.875	5.5	4125	850 sx	GL	CBL
G-20-19S-37E										
			*			S)				
N Monument GSA Unit 018	9/28/92	4310	Eunice Monument; Grayburg-SA	0	17.5	13.375	477	500 sx	GL	108 sx
3002531588					12.25	9.625	3707	1545 sx	no report	no report
B-20-19S-37E					8.75	7	4309	225 sx	2700	Estimated

Received by OCD: 11/23/2022 3:08:20 PM

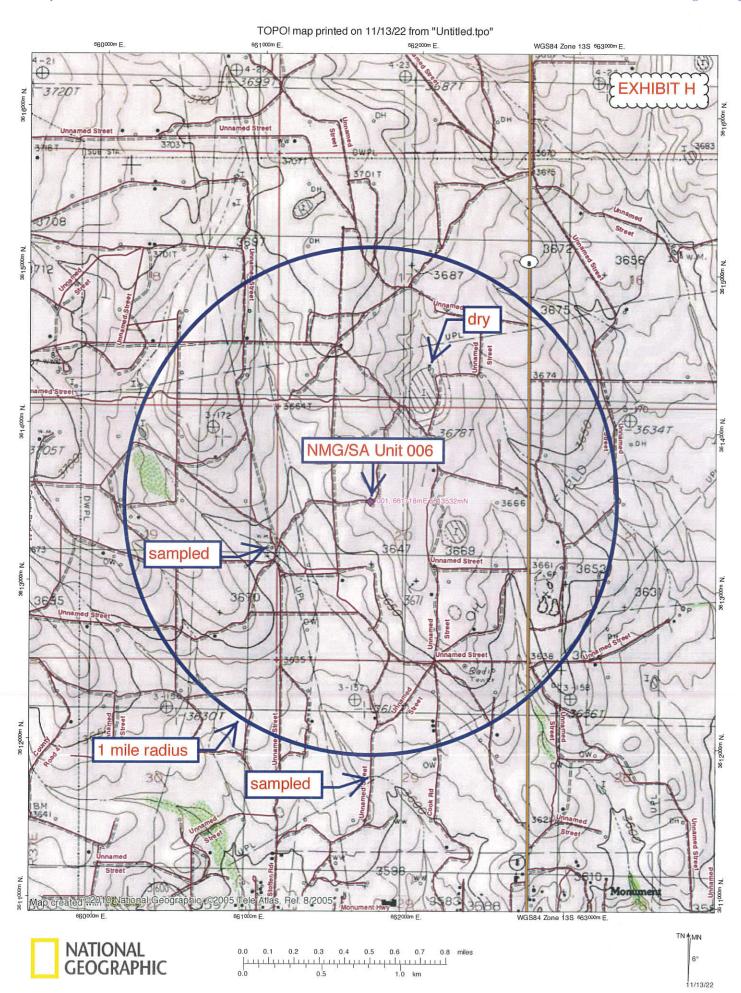
WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
			4							
N Monument GSA Unit 007	10/8/36	3997	Eunice Monument; Grayburg-SA	1	17.5	12.5	196	200 sx	GL	calc.
3002505656					11	8.625	2554	500 sx	604'	calc.
G-20-19S-37E					7.875	6.625	3864	100 sx	2974'	calc.
N Monument	10/27/36	3982	Eunice Monument;	1	16	13	125	125 sx	GL	
GSA Unit 011	.,,		Grayburg-SA		10		123	125 SX	GL	calc.
3002505667					12.25	9.625	1362	600 sx	GL	calc.
K-20-19S-37E					8.625	7	3800	350 sx	1560'	calc.
N Monument GSA Unit 005	2/3/36	3996	Eunice Monument; Grayburg-SA	I	17.5	12.5	190	150 sx	GL	calc.
3002505654					11	9.625	2476	500 sx	726'	calc.
E-20-19S-37E					8.75	7	3851	100 x	3211'	calc.
			196			£				*
N Monument GSA Unit 003	6/9/36	4020	Eunice Monument; Grayburg-SA	l	17	13	245	250 sx	GL	calc.
3002505669					12	9.625	1392	550 sx	GL	calc.
C-20-19S-37E					8.75	6.625	3906	350 sx	791'	calc.

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
			j.							
N Monument GSA Unit 386	6/1/13	4048	Eunice Monument; Grayburg-SA	0	11	8.625	1333	372 sx	GL	Circ 128 sx
3002541038					7.875	5.5	4080	692 sx	40	CBL
K-20-19S-37E	Tr.	12								
N Monument			Eunice Monument;							
GSA Unit 010	12/14/36	4002	Grayburg-SA	0	17.25	13	269	275 sx	GL	no report
3002505659					12.25	9.625	1391	275 sx	no report	no report
J-20-19S-37E					8.625	7	3774	260 sx	no report	no report
					6.75	5.5	3759	25 sx	no report	no report
N Monument GSA Unit 012	11/16/35	3965	Eunice Monument; Grayburg-SA	0	no report	12.5	258	250 sx	GL	no report
3002505664					no report	9.625	1367	800 sx	no report	no report
L-20-19S-37E			-		no report	7	3811	400 sx	no report	no report
N Monument GSA Unit 002	11/12/36	4000	Eunice Monument; Grayburg-SA	0	17.5	12.5	198	200 sx	GL	no report
3002505657					9	8.625	2585	500 sx	no report	no report
B-20-19S-37E					7.875	6.625	3838	100 sx	no report	no report

WELL	SPUD	TVD	POOL	WELL STATUS	HOLE O.D.	CASING O.D.	SET @	CEMENT	тос	HOW TOC DETERMINED
N Monument GSA Unit 004	4/4/36	3973	Eunice Monument; Grayburg-SA	P&A	18	13	225	209 sx	GL	Circ
3002505668					12.25	9.625	1407	600 sx	GL	no report
D-20-19S-37E					8.75	7	3876	250 sx	2610	CBL
N Monument										
GSA Unit 014	6/23/61	3960	Eunice Monument; Grayburg-SA	0	no report	12.5	247	250 sx	GL	no report
3002505666					no report	9.625	1361	600 sx	GL	no report
N-20-19S-37E					no report	7	3837	400 sx	GL	no report
N Monument GSA Unit 008	10/30/36	3996	Eunice Monument; Grayburg-SA	0	13.75	10.75	209	100 sx	no report	no report
3002505661		X			9.875	7.625	1413	400 sx	no report	no report
H-20-19S-37E					6.75	5.5	3755	100 sx	no report	no report
				(∗)				-		
State A 17 002	8/21/36	4005	Eunice Monument; Grayburg-SA	P&A	15	10.75	272	200 sx	GL	no report
3002505611					9.625	7.625	1397	425 sx	GL	no report
N-17-19S-37E					6.75	5.5	3843	400 sx	GL	no report

Received by OCD: 11/23/2022 3:08:20 PM

WELL	SPUD	TVD	POOL	WELL STATUS	SFT @		SET @	CEMENT	тос	HOW TOC DETERMINED	
N Monument GSA Unit 008	3/1/36	4000	Eunice Monument; Grayburg-SA	0	13.75	10.75	238	250 sx	no report	no report	
3002505645					9.875	7.625	1368	300 sx	no report	no report	
H-19-19S-37E	3				6.75	5.5	3816	300 sx	no report	no report	
N Monument GSA Unit 624	10/24/96	5100	Grayburg-SA	WSW	17.5	13.375	500	525 sx	GL	Circ 138 sx	
3002533618					12.25	9.625	44070	1350 sx	GL	Circ trace	
H-20-19S-37E					8.75	open hole	5100	N/A	N/A	р	
Eumont 17 State 001	2/28/95	3890	Eumont; Yates-7 Rvrs- Queen	G	12.25	8.625	425	350 sx	GL	Circ 50 sx	
3002532820					7.875	4.5	3890	730 sx	GL	Circ 10 sx	
N-17-19S-37E											





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

EXHIBIT H

(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		112	100	923									
DOD NL	C 1	Sub-	0		Q		C.	m	T	**					Water
POD Number L 05611 POD4	Code R	basin L	County		2		Sec 20	1ws 19S	Rng 37E	X	Y 2614022*		170	epthWater C	
L 03011 FOD+	K	L	LE	2	2	1	20	193	SIE	661812	3614032*	508	105	53	52
L 14366 POD3		L	LE	2	3	3	20	19S	37E	661477	3612899 🌍	677	32		
L 13521 POD1		L	LE	4	4	3	20	19S	37E	661504	3612887	678	34	22	12
L 13926 POD1		L	LE	2	3	3	20	19S	37E	661484	3612874	698	32	21	11
L 13926 POD3		L	LE	2	3	3	20	19S	37E	661485	3612865	705	32	21	11
L 13926 POD2		L	LE	2	3	3	20	19S	37E	661495	3612857	710	32	21	11
L 14366 POD1		L	LE	2	3	3	20	19S	37E	661500	3612840	725	32		
L 10277		L	LE	2	2	4	19	19S	37E	661020	3613219*	764	70	40	30
L 14366 POD2		L	LE	2	3	3	20	19S	37E	661473	3612797	774	32		
<u>L 00062</u>		L	LE		4	4	18	19S	37E	660903	3614327*	1138	93		
<u>L 01273</u>		L	LE	3	4	4	19	19S	37E	660827	3612617*	1277	62	45	17
<u>L 06933</u>		L	LE	3	2	4	17	19S	37E	662403	3614646*	1307	100	65	35
<u>L 01251</u>		L	LE	4	1	1	29	19S	37E	661434	3612218*	1344	51	38	13
<u>L 00061</u>		L	LE		3	4	18	19S	37E	660501	3614325*	1452	100		
L 14224 POD2		L	LE	2	3	3	18	198	37E	660549	3614528 🌍	1535	75	59	16
<u>L 02621</u>		L	LE	3	2	3	21	198	37E	663233	3613050*	1589	83	40	43
<u>L 05433</u>		L	LE		4	1	19	19S	37E	660112	3613518*	1606	5790	1072	4718

Average Depth to Water:

124 feet

Minimum Depth:

21 feet

Maximum Depth:

1072 feet

Record Count: 17

UTMNAD83 Radius Search (in meters):

Easting (X): 661718

Northing (Y): 3613532

Radius: 1610

*UTM location was derived from PLSS - see Help

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.

11/13/22 3:34 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



Analytical Report Lab Order 2211086

Date Reported: 11/14/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

Project: NMGSAU

Client Sample ID: Sec 19

Collection Date: 11/1/2022 10:20:00 AM

Lab ID: 2211086-003 Matrix: AQUEOUS Received Date: 11/2/2022 11:33:00 AM

Analyses	Result	RL	Qual Ur	iits	DF	Date Analyzed	Batch
EPA METHOD 1664B						Analyst:	dms
N-Hexane Extractable Material	ND	9.44	mg	g/L	1	11/9/2022 4:42:00 PM	71367
EPA METHOD 300.0: ANIONS						Analyst:	JTT
Chloride	110	5.0	mg	g/L	10	11/3/2022 9:16:05 AM	R92333
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst:	SNS
Total Dissolved Solids	515	20.0	* mo	g/L	1	11/8/2022 10:21:00 AM	71300

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

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated.

Analyte detected in the associated Method Blank

Above Quantitation Range/Estimated Value

Analyte detected below quantitation limits

Sample pH Not In Range

Reporting Limit RL

Page 4 of 8

Analytical Report Lab Order 2211086

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/14/2022

CLIENT: Permits West

Client Sample ID: Sec 29

EXHIBIT

Project: NMGSAU

Collection Date: 11/1/2022 12:50:00 PM

Lab ID: 2211086-001 Matrix: AQUEOUS

Received Date: 11/2/2022 11:33:00 AM

Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 1664B						Analys	t: dms
N-Hexane Extractable Material	ND	9.46		mg/L	1	11/9/2022 4:42:00 PM	71367
EPA METHOD 300.0: ANIONS						Analys	t: JTT
Chloride	210	50		mg/L	100	11/3/2022 8:38:51 AM	R92333
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analys	t: SNS
Total Dissolved Solids	720	40.0	*D	mg/L	1	11/8/2022 10:21:00 AM	71300

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

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 2 of 8





NM Oil Conservation Division 1220 S. St. Francis Dr. Santa Fe, NM 87505

Re: Geology Statement
Apache Corporation
North Monument G/SA Unit #6
Section 20, T. 19S, R. 37E
Lea County, New Mexico

To whom it may concern:

Publicly available geologic and engineering data related to the proposed well have been thoroughly reviewed, and no evidence for open faults or any other hydrologic connection between the proposed Grayburg injection zone and any underground sources of drinking water has been found. Please see the attached seismic risk assessment for additional information.

Sincerely,

Cory Walk Geologist

EXHIBIT J

Seismic Risk Assessment

Apache Corporation

North Monument G/SA Unit #6

Section 20, Township 19 South, Range 37 East

Lea County, New Mexico

Cory Walk, M.S.

Geologist

Cory Walk

Permits West Inc.

November 17, 2022

Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 1

GENERAL INFORMATION

EXHIBIT J

North Monument G/SA Unit #6 is located in the NW ¼, section 20, T19S, R37E, about 1.5 miles north of Monument, NM in the Central Basin Platform of the greater Permian Basin. Apache Corporation proposes to convert this existing oil well to a water injection well. The proposed injection zone is within the Grayburg Formation through a cased hole from 3,688'-4,015' below ground surface. The Grayburg is primarily a carbonate reservoir with some sandstones present. This report assesses any potential concerns relating to induced seismicity along deep penetrating Precambrian faults or the connection between the injection zone and known underground potable water sources.

SEISMIC RISK ASSESSMENT

Historical Seismicity

Searching the USGS earthquake catalog resulted in no (0) earthquakes above a magnitude 2.5 within 6 miles (9.7 km) of the proposed injection site since 1970 (Fig 1). According to this dataset, the nearest historical earthquake occurred June 28, 2020 about 11.3 miles (~18.1 km) northwest and had a magnitude of 2.7.

Basement Faults and Subsurface Conditions

A structure contour map (Fig. 1) of the Precambrian basement shows the North Monument G/SA Unit #6 is approximately 4.8 miles from the nearest basement-penetrating fault inferred by Ewing et al (1990) and about 59 miles from the nearest surface fault.

Snee and Zoback (2018) state, "In the western part of Eddy County, New Mexico, S_{Hmax} is ~north–south (consistent with the state of stress in the Rio Grande Rift; Zoback and Zoback, 1980) but rotates to ~east-northeast-west-southwest in southern Lea County, New Mexico, and the northernmost parts of Culberson and Reeves counties, Texas." Around the North Monument G/SA Unit #6 site, Snee and Zoback indicate a S_{Hmax} direction of N105°E and an A_{ϕ} of 0.85, indicating a normal/strike-slip faulting stress regime.

Induced seismicity is a growing concern of deep injection wells. Snee and Zoback (2018) show that due to its orientation, the nearest Precambrian fault has a low probability of slipping (Fig. 2). Also, the proposed injection zone is much shallower in the Grayburg Formation and therefore would not affect the deep Precambrian faults. In addition to the existing fault orientation, the vertical (approx. 6900') and horizontal (4.8 miles) separation between the proposed water injection zone and any deep Precambrian faults is large enough to infer that there is no immediate concern or potential of induced seismicity as a result from this injection well.

GROUNDWATER SOURCES

Three principal aquifers are used for potable groundwater in southern Lea County; these geologic units include the Triassic Santa Rosa formation, Tertiary Ogallala formation, and Quaternary alluvium. Nicholson and Clebsch (1961) state, "Potable ground water is not available below the Permian and Triassic unconformity but, because this boundary is not easily defined, the top of the Rustler anhydrite formation is regarded as the effective lower limit of 'potable' ground water." Around the North



Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 2

Monument G/SA Unit #6 well, the top of a thick anhydrite unit interpreted to represent the Rustler Formation lies at a depth of ~1342 feet bgs.

STRATIGRAPHY

A thick permeability barrier (Rustler Anhydrite and Salado Fm; 1100+ ft thick) exists above the targeted Grayburg injection zone. Well data indicates ~2,345 ft of rock separating the top of the injection zone from the previously stated lower limit of potable water at the top of the Rustler anhydrite formation.

CONCLUDING STATEMENT

All available geologic and engineering data evaluated around the North Monument G/SA Unit #6 well show no potential structural or stratigraphic connection between the Grayburg injection zone and any subsurface potable water sources. The shallow injection zone, spatial location and orientation of nearby faults also removes any major concern of inducing seismic activity.



SEISMIC RISK ASSESSMENT PAGE 3

Apache Corporation North Monument G/SA Unit #6

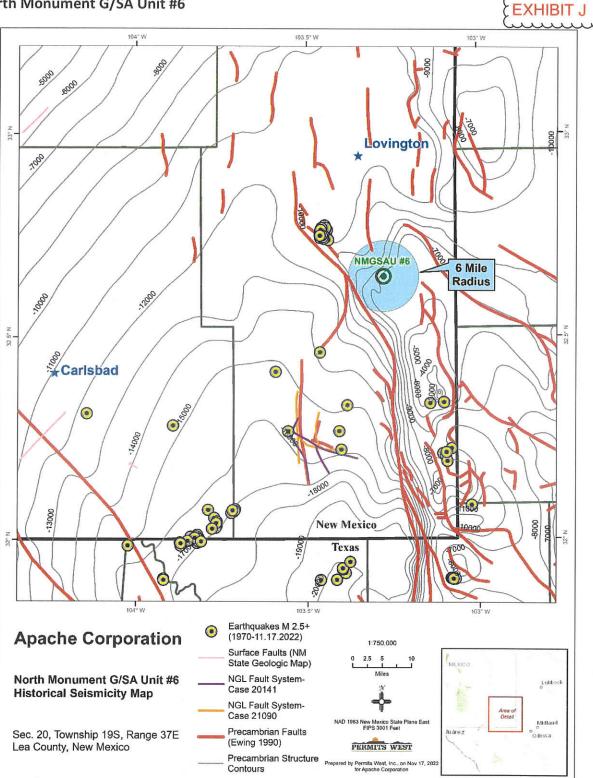


Figure 1. Structural contour map of the Precambrian basement in feet below sea level. Red lines represent the locations of Precambrian basement-penetrating faults (Ewing et al., 1990). The North Monument G/SA Unit #6 well lies ~4.8 miles south of the closest deeply penetrating fault, ~59 miles from the nearest surface fault and ~11.3 miles from the closest historic earthquake.



SEISMIC RISK ASSESSMENT PAGE 4

Apache Corporation North Monument G/SA Unit #6

O Mw 3.0-3.9 O 1970-2004

Fault slip potential (%): 0 10 20 30 40 50+

O M_w 4.0+

EXHIBIT 102°W 100°W Mexico Texas Motle 34°N Matador Arch Permian Basin Northwest Shelf LUBBOCK ROSWELL Terry Lynn Midland Basin Cogdell field (Snyder, TX) Dawson Delaware Basin Dagger Eastern ABILENE 0 Draw Shelf field & MIDLAND Grisham faul Diablo Sand Hills faul Platform SAN ANGELO Big Lake fault Ozona Puckett-Grey Ranch Val Verde Basin Seismicity: o M_w 2.0-2.9 O Since 2005

Figure 2. Modified from Snee and Zoback (2018). The nearest deep Precambrian fault lies ~4.8 miles north of the proposed injection well and has a low probability (0%) of slip. Also, the proposed injection zone is much shallower in the Grayburg and therefore removes any major concern of inducing seismicity on any known fault.

Coahuila

100 km



Apache Corporation North Monument G/SA Unit #6

SEISMIC RISK ASSESSMENT PAGE 5

References Cited



- Ewing, T. E., 1990, The tectonic map of Texas: Austin, Bureau of Economic Geology, The University of Texas at Austin.
- Geologic Map of New Mexico, New Mexico Bureau of Geology and Mineral Resources, 2003, Scale 1:500,000.
- Nicholson, A., Jr., and Clebsch, A., Jr., 1961, Geology and ground-water conditions in southern Lea County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Ground-Water Report 6, 123 pp., 2 plates.
- Snee, J.-E.L., Zoback, M.D., 2018, State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity: Leading Edge, v. 37, p. 127–134.



Application Number: pAZS2233442618

WFX-1051

Application Number: pAZS2233442618

WFX-1051

Application Number: pAZS2233442618

WFX-1051

Application Number: pAZS2233442618

WFX-1051

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 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 161283

CONDITIONS

Operator:	OGRID:
APACHE CORPORATION	873
303 Veterans Airpark Ln	Action Number:
Midland, TX 79705	161283
	Action Type:
	[C-108] Fluid Injection Well (C-108)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	3/2/2023