

SWD Initial Application

Received: 11/4/2019



November 1, 2019

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Subject: Select Energy Services – Cersei State SWD #3
Application for Authorization to Inject

To Whom It May Concern,

On behalf of Select Energy Services (Select), ALL Consulting, LLC (ALL) is submitting the enclosed Application for Authorization to Inject for the Cersei State SWD #3, a proposed salt water disposal well, in Eddy County, NM.

Should you have any questions regarding the enclosed application, please contact Nate Alleman at (918) 382-7581 or nalleman@all-llc.com.

Sincerely,
ALL Consulting

Nate Alleman
Sr. Regulatory Specialist

LJUXC-191104-C-1080

Revised March 23, 2017

RECEIVED: 11/4/19	REVIEWER: BLL	TYPE: SWD	APP NO: pBL1932658509
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

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

**ADMINISTRATIVE APPLICATION CHECKLIST**

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

Applicant: _____ OGRID Number: _____
 Well Name: _____ API: _____
 Pool: _____ Pool Code: _____

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

1) **TYPE OF APPLICATION:** Check those which apply for [A]

A. Location – Spacing Unit – Simultaneous Dedication

☐ NSL☐ NSP (PROJECT AREA)☐ NSP (PRORATION UNIT)☐ SD

SWD-2316

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

[I] Commingling – Storage – Measurement

☐ DHC☐ CTB☐ PLC☐ PC☐ OLS☐ OLM

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

☐ WFX☐ PMX☐ SWD☐ IPI☐ EOR☐ PPR2) **NOTIFICATION REQUIRED TO:** Check those which apply.A. ☐ Offset operators or lease holdersB. ☐ Royalty, overriding royalty owners, revenue ownersC. ☐ Application requires published noticeD. ☐ Notification and/or concurrent approval by SLOE. ☐ Notification and/or concurrent approval by BLMF. ☐ Surface ownerG. ☐ For all of the above, proof of notification or publication is attached, and/or,H. ☐ No notice required**FOR OCD ONLY**☐

Notice Complete

☐Application
Content
Complete

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

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

Date

Print or Type Name

Phone Number

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: _____ Secondary Recovery _____ Pressure Maintenance _____ ☒ Disposal
_____ Storage Application qualifies for administrative approval? _____ ☒ Yes _____ No
- II. OPERATOR: Select Energy Services
ADDRESS: 1820 N I-35, Gainesville, TX 76240
CONTACT PARTY RJ Metzler PHONE: (940)-665-7000
- 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 _____ ☒ No
If yes, give the Division order number authorizing the project: _____
- 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:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
NAME: Nate Alleman TITLE: Regulatory Specialist - ALL Consulting
SIGNATURE:  DATE: 11/01/2019
E-MAIL ADDRESS: nalleman@all-llc.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: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

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.

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

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 97869	Pool Name SWD; DEVONIAN - SILURIAN
Property Code	Property Name CERSEI STATE SWD	Well Number 3
OGRID No. 289068	Operator Name SELECT ENERGY SERVICES, LLC	Elevation 3270.4'

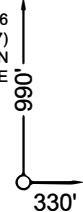
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	25 S	30 E		990	NORTH	330	EAST	EDDY

Bottom Hole Location If Different From Surface


UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres		Joint or Infill		Consolidated Code		Order No.			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

		N 1/4 COR SEC 16 NMSP-E (NAD 27) Y = 414098.93' N X = 679729.66' E	NE COR SEC 16 NMSP-E (NAD 27) Y = 414121.56' N X = 682401.37' E
		CERSEI STATE SWD 3 SHL NMSP-E (NAD 83) Y = X = 413128.76' N LAT 32 2075.62' E LONG 32 134953" -103.878657" NMSP-E (NAD 27) Y = X = 413070.54' N LAT 32 0890.61' E LONG 32 134829" N -103.878175" W	
			E 1/4 COR SEC 16 NMSP-E (NAD 27) Y = 411459.45' N X = 682412.77' E

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.


11/01/2019

Signature _____ Date _____
Nate Alleman
 Print Name _____
nalleman@all-llc.com
 E-mail Address _____

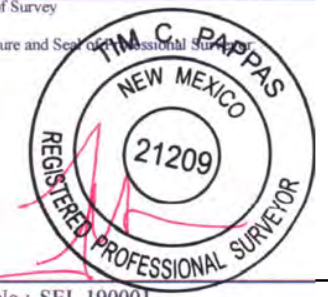
SURVEYORS CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

AUGUST 15, 2019

Date of Survey _____

Signature and Seal of Professional Surveyor _____



Job No.: SEL190001

Application for Authorization to Inject
Well Name: Cersei State SWD #3

III – Well Data *(The Wellbore Diagram is included as Attachment 1)*

A.

(1) General Well Information:

Operator: Select Energy Services (OGRID No. 289068)
Lease Name & Well Number: Cersei State SWD #3
Location Footage Calls: 990' FNL & 330' FEL
Legal Location: Unit Letter A, S16 T25S R30E
Ground Elevation: 3,270'
Proposed Injection Interval: 16,400' – 17,770'
County: Eddy

(2) Casing Information:

Type	Hole Size	Casing Size	Casing Weight	Setting Depth	Sacks of Cement	Estimated TOC	Method Determined
Surface	24"	20"	133.0 lb/ft	1,015'	1,030	Surface	Circulation
Intermediate 1	14-3/4"	13-3/8"	68.0 lb/ft	4,050'	905	Surface	Circulation
Intermediate 2	12-1/4"	9-5/8"	53.5 lb/ft	13,430'	4,960	Surface	Circulation
Liner	8-1/2"	7-5/8"	39.0 lb/ft	16,400'	260	13,230'	CBL

Note: A DV Tool will be set at 5,000'.

(3) Tubing Information:

5.5" (composite weight string) of fiberglass-coated tubing with setting depth of 16,380'

(4) Packer Information: Baker SC-2 or equivalent packer set at 16,380'

B.

(1) Injection Formation Name: Devonian and Silurian-Fusselman formations

Pool Name: SWD; DEVONIAN - SILURIAN

Pool Code: 97869

(2) Injection Interval: Open-hole injection between 16,400' – 17,770'

(3) Drilling Purpose: New Drill for Salt Water Disposal

(4) Other Perforated Intervals: No other perforated intervals exist.

(5) Overlying Oil and Gas Zones: Below are the approximate formation tops for known oil and gas producing zones in the area.

- Delaware (4,050')
- Bone Springs (7,720')
- Wolfcamp (11,050')
- Atoka (13,615')
- Morrow (14,330')

Underlying Oil and Gas Zones: No underlying oil and gas zones exist.

V – Well and Lease Maps

The following maps are included in **Attachment 2**:

- 2-mile Oil & Gas Well Map
- 2-mile Lease Map
- 2-mile Mineral Ownership Map
- 2-mile Surface Ownership Map
- 1.5-mile Deep SWD Map (Devonian/Silurian SWDs)
- 1-mile Well Detail List
- Potash Lease Map
- 2-mile Karst Potential Map

VI – AOR Well List

There are no wells within the 1-mile AOR that penetrate the proposed injection zone.

A list of the wells within the 1-mile AOR is included in **Attachment 2**.

VII – Proposed Operation

- (1) **Proposed Maximum Injection Rate:** 30,000 bpd
Proposed Average Injection Rate: 15,000 bpd
- (2) A closed system will be used.
- (3) **Proposed Maximum Injection Pressure:** 3,280 psi (surface)
Proposed Average Injection Pressure: approximately 1,500 – 2,000 psi (surface)
- (4) **Source Water Analysis:** It is expected that the injectate will consist of produced water from production wells completed in the Wolfcamp and Bone Springs formations. Analysis of water from these formations is included in **Attachment 3**.
- (5) **Injection Formation Water Analysis:** The proposed SWD will be injecting water into the Devonian and Silurian-Fusselman formations which is a non-productive zone known to be compatible with formation water from the Wolfcamp and Bone Springs formations. Water analyses from the Devonian-Silurian formation in the area are included in **Attachment 4**.

VIII – Geologic Description

The proposed injection interval includes the Devonian and Silurian-Fusselman formations from 16,400 – 17,770 feet. These formations consist of carbonates including light colored dolomite and chert intervals interspersed with some tight limestone intervals. Several thick sections of porous dolomite capable of taking water are present within the subject formations in the area.

The base of the USDW is at a depth of approximately 990 feet. Water well depths in the area range from approximately 325 - 429 feet below ground surface.

IX – Proposed Stimulation Program

A small cleanup acid job may be used to remove mud and drill cuttings from the formation. However, no other formation stimulation is currently planned.

X – Logging and Test Data

Logs will be submitted to the Division upon completion of the well.

XI – Fresh Groundwater Samples

Based on a review of data from the New Mexico Office of the State Engineer, there is one groundwater well located within 1-mile of the proposed SWD location; however, after multiple phone calls, and a letter sent via certified mail (10/22/2019), the landowner was not able to be contacted. Therefore, no groundwater samples were collected in association with this application.

A water well map of the area is included in **Attachment 5**.

XII – No Hydrologic Connection Statement

No faulting is present in the area that would provide a hydrologic connection between the injection interval and overlying USDWs. Additionally, the casing program has been designed to ensure there will be no hydrologic connection between the injection interval and overlying USDWs. A letter from a knowledgeable and qualified expert stating that there is a low risk of seismic activity from the proposed injection activities is included in **Attachment 6**.

XIII – Proof of Notice

A Public Notice was filed with the Carlsbad Current Argus newspaper and an affidavit is included in **Attachment 7**.

A copy of the application was mailed to the OCD District Office, landowner, and leasehold operators within 1-mile of the proposed SWD location. A list of the recipients, as well as delivery confirmations, are included in **Attachment 7**.

Attachments

Attachment 1: Wellbore Diagram

Attachment 2: Area of Review Information:

- 2-mile Oil & Gas Well Map
- 2-mile Lease Map
- 2-mile Mineral Ownership Map
- 2-mile Surface Ownership Map
- 1.5-mile Deep SWD Map (Devonian/Silurian SWDs)
- 1-mile Well Detail List
- Potash Lease Map
- 2-mile Karst Potential Map

Attachment 3: Source Water Analyses

Attachment 4: Injection Formation Water Analyses

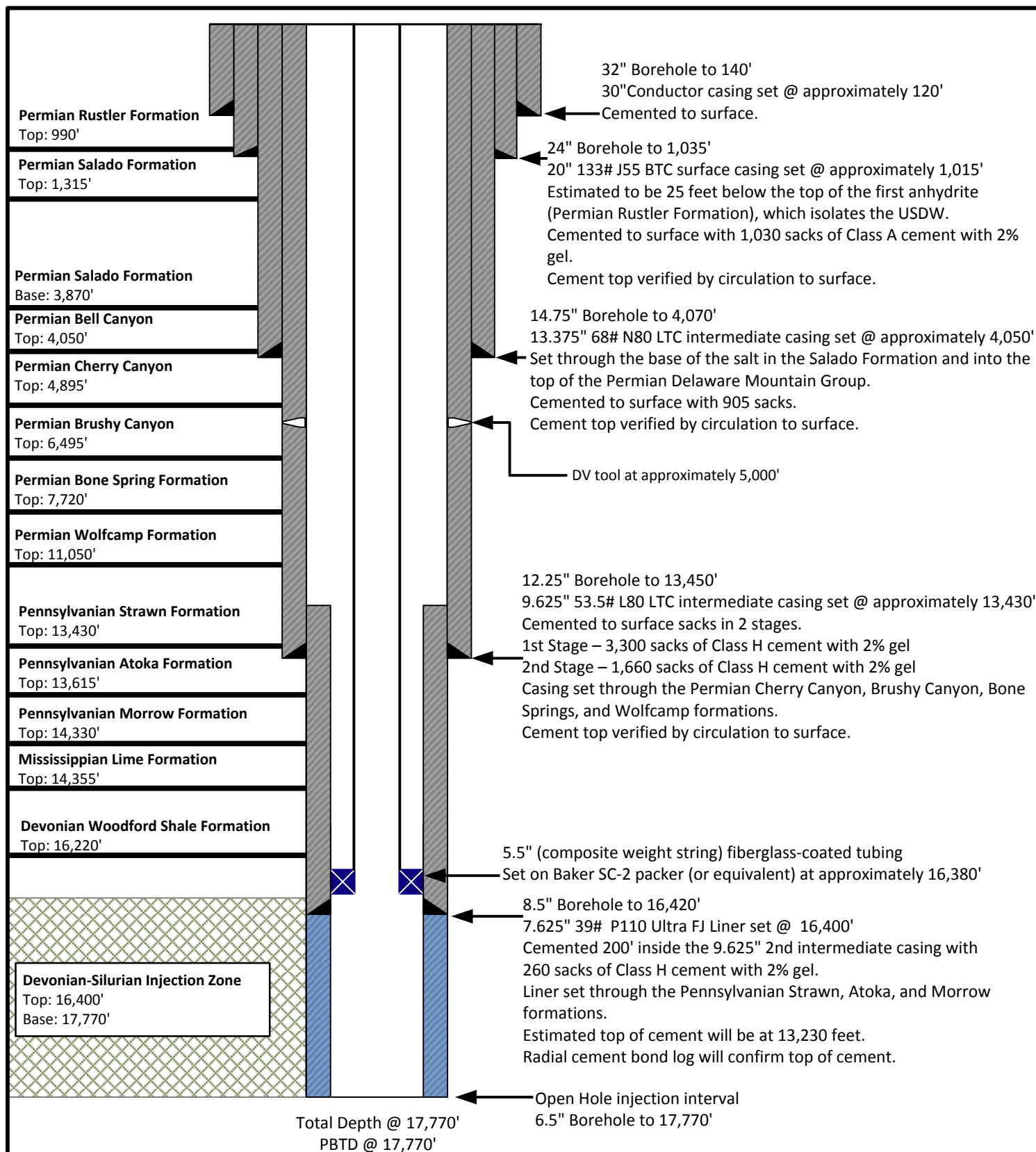
Attachment 5: Water Well Map and Well Data

Attachment 6: Induced Seismicity Assessment Letter

Attachment 7: Public Notice Affidavit and Notice of Application Confirmations

Attachment 1

Wellbore Diagram



NOT TO SCALE

Note: Listed depths and cement volumes are approximates based on available information. All cement calculations use yield of 1.18 cubic foot per sack and include 25% excess.

Prepared by:

ALLCONSULTING

Drawn by: Joshua Ticknor

Project Manager:
Dan Arthur

Date: 10/21/2019

Select Energy Services
Cersei State SWD #3
Section 15, Twp 25S, Rng 30E
990' FNL & 330' FEL
Eddy County, NM

Retrievable Packer Systems

A-3 and AL-2 LOK-SET Retrievable Casing Packers

Product Family No. H64630 and H64628

APPLICATION

The A-3™ LOK-SET™ packer combines advantages of a retrievable packer with the features of a permanent packer. An ability to lock down tubing forces makes the A-3 suitable for a broad range of applications, including production, injection, zone isolation, and remedial operations. The AL-2™ LOK-SET packer is similar to the A-3, and has a larger bore.

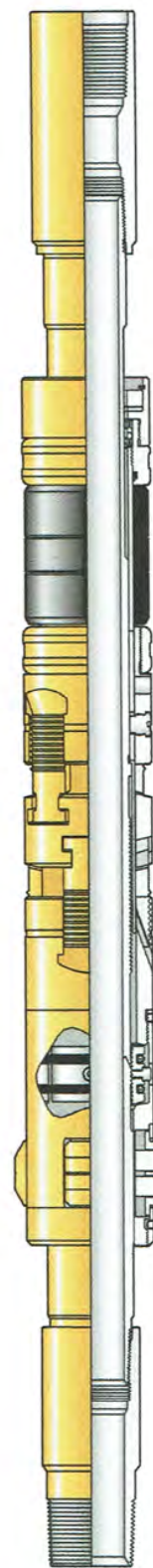
Advantages

- Holds pressure from above and below, without relying on set-down weight, tubing tension, or hydraulic hold down
- Provides tubing anchoring with tension applied, suitable for pumping wells or injection, controlling tubing forces related to change fluid temperatures
- Opposed, non-transferring, dovetail slips prevent packer movement associated with changing differential pressures, while allowing the landing of the tubing in tension, neutral or compression
- Right-hand tubing rotation controls setting and releasing
- Packing element compression locks in by ratcheting action of lock segments, which restricts rotation to one direction

Accessories

To provide a simple and reliable injection system for retrieving an injection string without having to unseat the packer:

L-10 or L-316 on-off sealing connectors, Product Family Nos. H68420 and H68422. Baker Hughes blanking plug can be used in the seating nipple profile of the on-off sealing connector to provide a means of plugging the lower zone while the tubing is being pulled.



A-3 LOK-SET
Retrievable Casing Packer
Product Family No. H64630

Retrievable Packer Systems

SPECIFICATION GUIDES

A-3™ LOK-SET Retrievable Casing Packer, Product Family No. H64630

Casing			Packer				
OD		Weight *	Size	Nom ID		Max Gage Ring OD	
in.	mm	lb/ft		in.	mm	in.	mm
4	101.6	9.5–12.9	41A2	1.500	38.1	3.244	82.4
4-1/2	144.3	21.6–23.6	41A2	1.500	38.1	3.244	82.4
4	101.6	9.5	41A4	1.500	38.1	3.423	112.4
4-1/2	114.3	18.8	41A4	1.500	38.1	3.423	112.4
		13.5–17.7	41B			3.578	90.9
		11.6–13.5	43A2	1.978	50.2	3.786	96.2
		9.5–10.5	43A4			3.786	96.2
5	127.0	15–18	43B	1.978	50.2	4.140	105.2
		11.5–15	43C			4.265	108.3
5-1/2	139.7	26	43C	1.978	50.2	4.265	108.3
		20–23	45A2			4.515	114.7
		15.5–20	45A4			4.656	118.3
		13–15.5	45B			4.796	121.8
6	152.4	26	45B	1.978	50.2	4.796	121.8
		20–23	45C			5.078	129.0
		15–18	45D			5.171	131.3
6-5/8	168.3	34	45E	1.978	50.2	5.421	137.7
		24–32	45F			5.499	139.7
		24	47A2	2.441	62.0	5.671	144.0
		17–24	45G	1.978	50.2	5.796	147.2
		17–20	47A4	2.441	62.0	5.827	148.0
7	177.8	38	47A2	2.441	62.0	5.671	144.0
		32–35	47A4			5.827	148.0
		26–29	47B2			5.983	152.0
		23–26	47B4			6.093	154.8
		17–20	47C2			6.281	159.5
7-5/8	193.7	33.7–39	47C4	2.441	62.0	6.468	164.3
		24–29.7	47D2			6.687	169.9
		20–24	47D4			6.827	173.4
8-5/8	219.1	44–49	49A2	3.500	88.9	7.327	186.1
		32–40	49A4			7.546	191.7
		20–28	49B			7.796	198.0
9-5/8	244.5	47–53.5	51A2	3.500	88.9	8.234	209.1
		40–47	51A4			8.452	214.7
		29.3–36	51B			8.608	218.6

AL-2™ Large Bore LOK-SET Retrievable Casing Packer Product Family No. H64628

Casing			Packer					
OD		Weight *	Size	Nom ID		Max Gage Ring OD		Max Diameter of Compressed Drag Block
in.	mm	lb/ft		in.	mm	in.	mm	in.
5-1/2	139.7	20	45A2 x 2-3/8	2.375	60.3	4.562	115.9	4.592
		15.5–17	45A4 x 2-3/8			4.656	118.3	4.750
		13	45B x 2-3/8			4.796	121.8	4.902
6	152.4	26	45B x 2-3/8	2.375	60.3	4.796	121.8	4.902

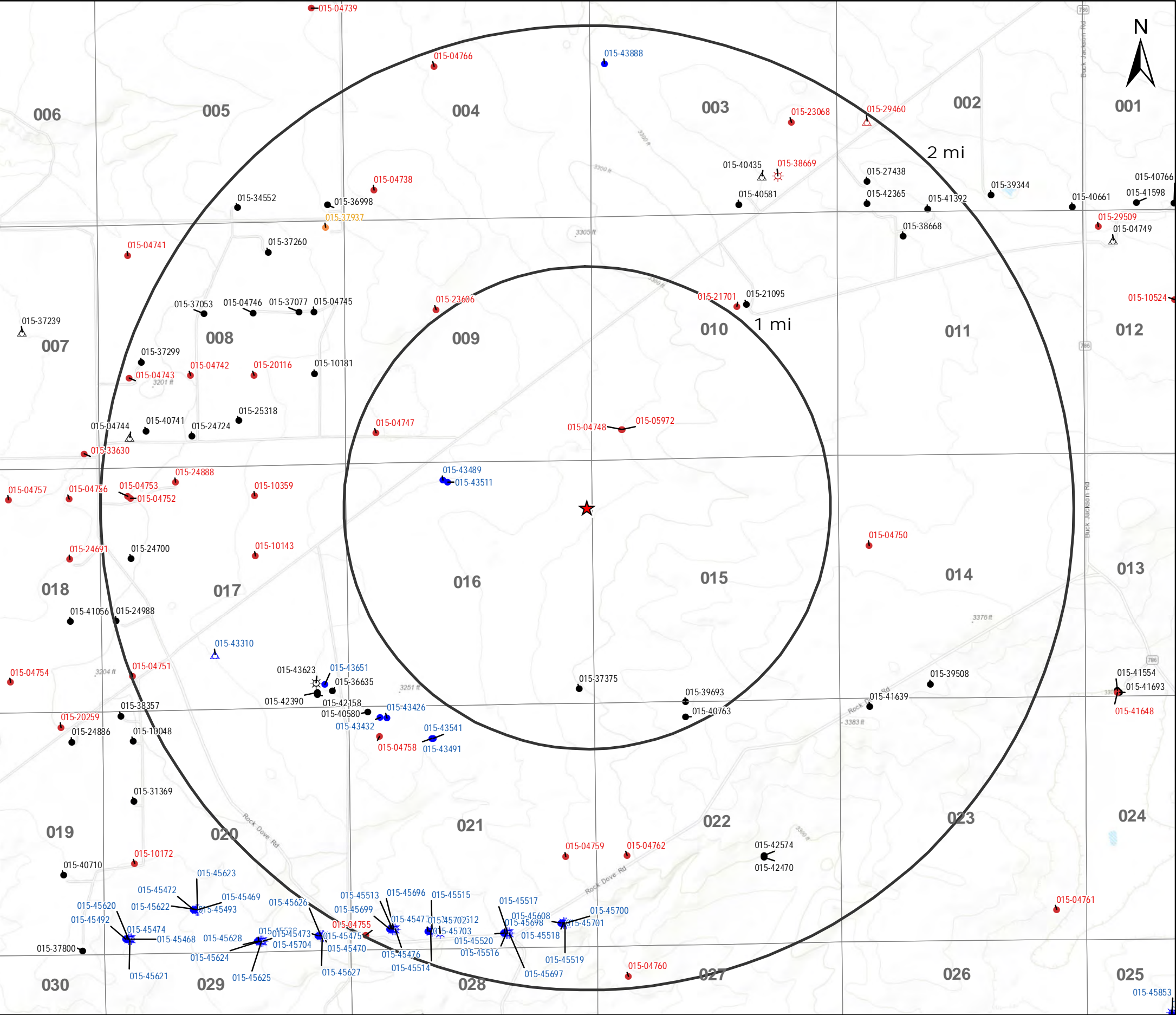
- When selecting a packer for a casing weight common to two weight ranges (same OD), choose the packer size shown for the lighter of the two weight ranges. Example: for 7-in. (177.8 mm) OD 26 lb/ft casing use packer size 47B4. Under certain circumstances the other packer size may be run, such as when running in mixed casing strings.

Repair kits, including such items as packing elements, seal rings, etc., are available for redressing Baker Retrievable Packers. Contact your Baker Hughes representative. Use only Baker Hughes repair parts.

Attachment 2

Area of Review Information:

- 2-mile Oil & Gas Well Map
- 2-mile Lease Map
- 2-mile Mineral Ownership Map
- 2-mile Surface Ownership Map
- 1.5-mile Deep SWD Map (Devonian/Silurian SWDs)
- 1-mile Well Detail List
- Potash Lease Map
- 2-mile Karst Potential Map



Legend

- ★ Proposed SWD
- ☼ Gas, Active (1)
- ⚙ Gas, New (25)
- ☼ Gas, Plugged (1)
- Oil, Active (44)
- Oil, New (25)
- Oil, Plugged (36)
- Oil, Temporarily Abandoned (1)
- △ Salt Water Injection, Active (4)
- △ Salt Water Injection, New (1)
- △ Salt Water Injection, Plugged (1)

O&G Wells Area of Review

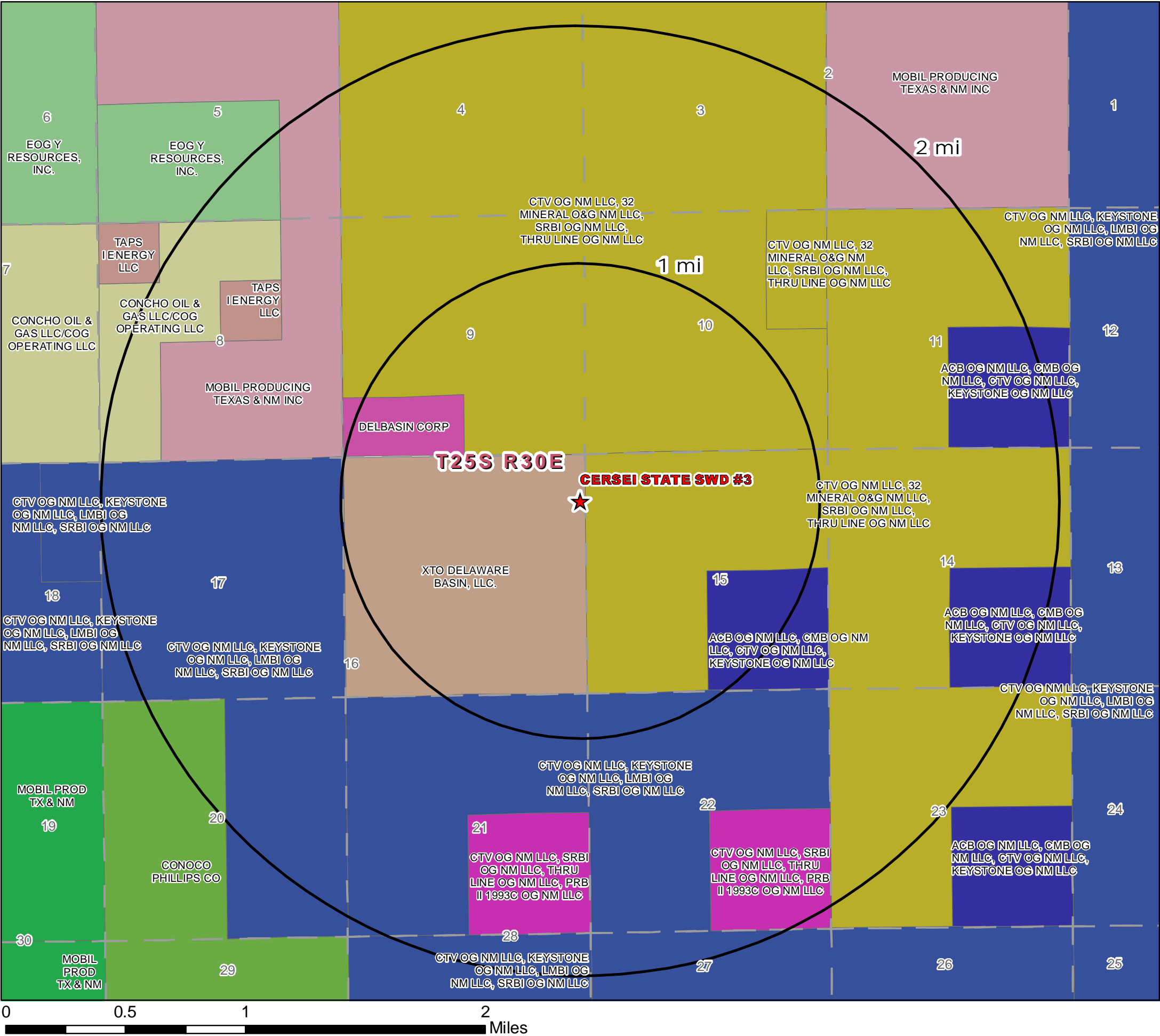
CERSEI STATE SWD #3
Eddy County, New Mexico

Proj Mgr: Dan Arthur	October 18, 2019	Mapped by: Ben Bockelmann
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Prepared by:
ALLCONSULTING



Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



Prepared for:

SELECT
ENERGY SERVICES

N

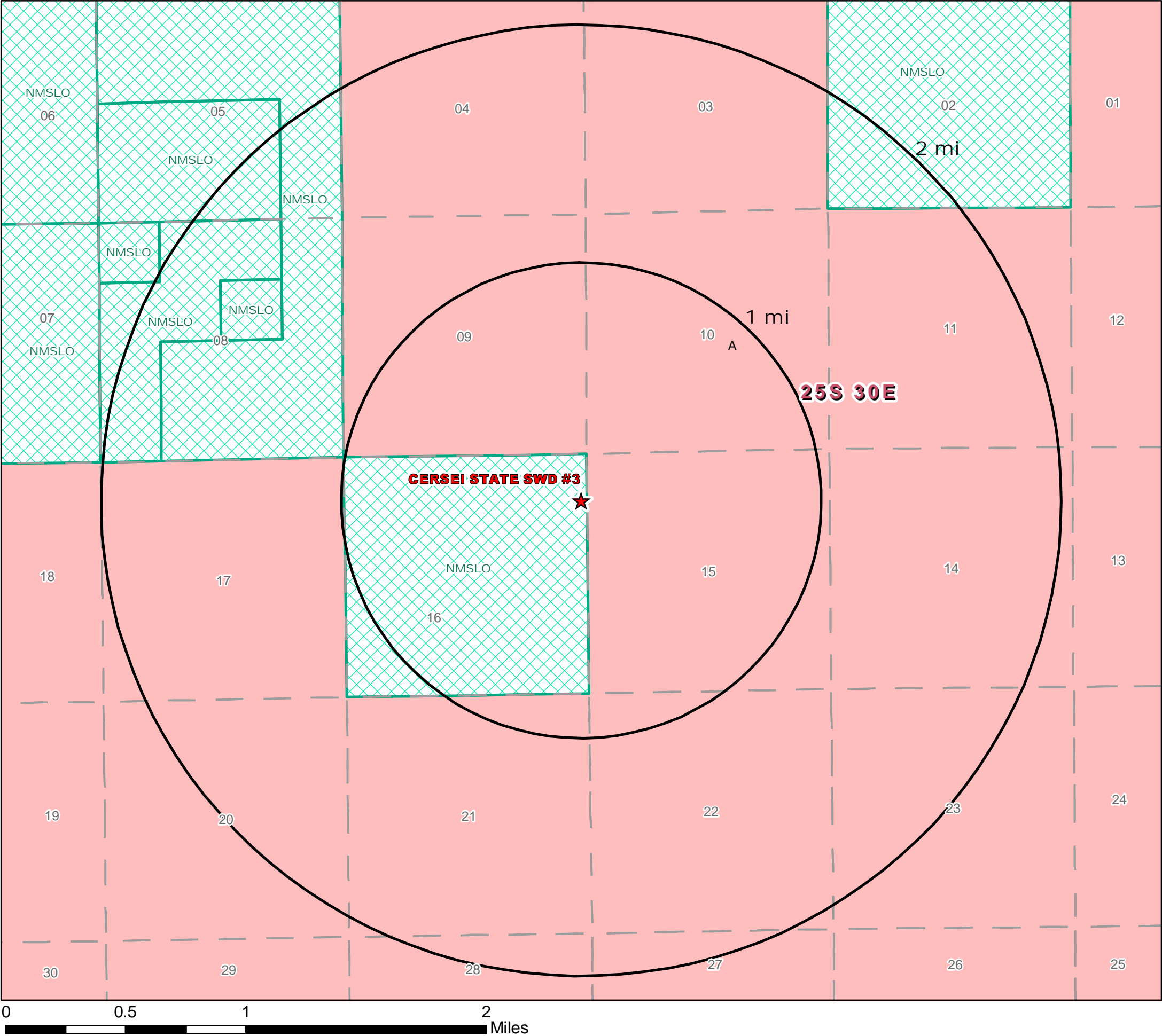
**Mineral Lease
Area of Review**

**CERSEI STATE SWD #3
Eddy County, New Mexico**

Proj Mgr: Dan Arthur	October 31, 2019	Mapped by: Ben Bockelmann
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Prepared by:

ALLCONSULTING



Legend

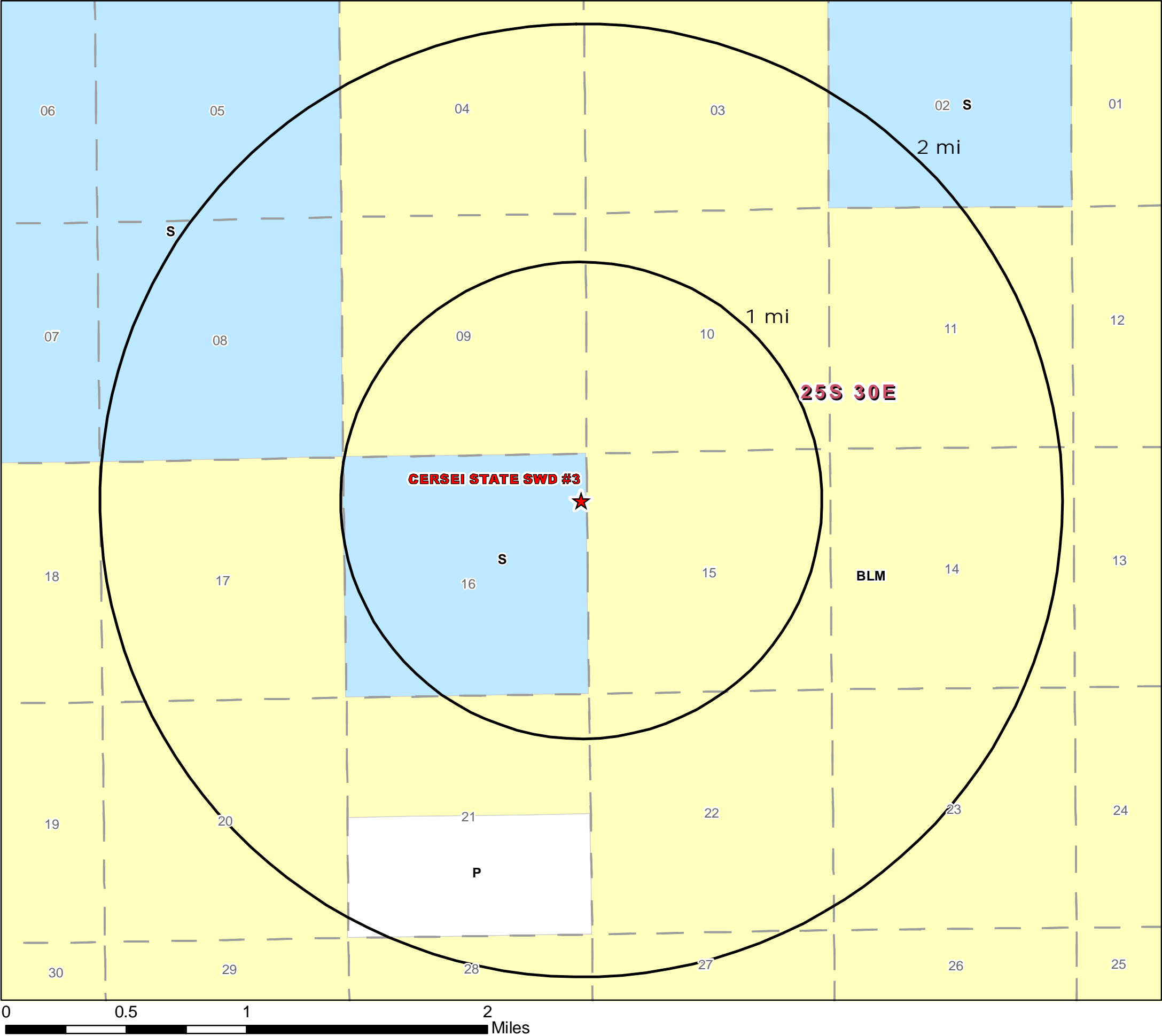
★ Proposed SWD

NMSLO Lease

Mineral Ownership

A - All minerals are owned by U.S.

Mineral Ownership Area of Review		
CERSEI STATE SWD #3 Eddy County, New Mexico		
Proj Mgr: Dan Arthur	October 30, 2019	Mapped by: Ben Bockelmann
Prepared by: 		



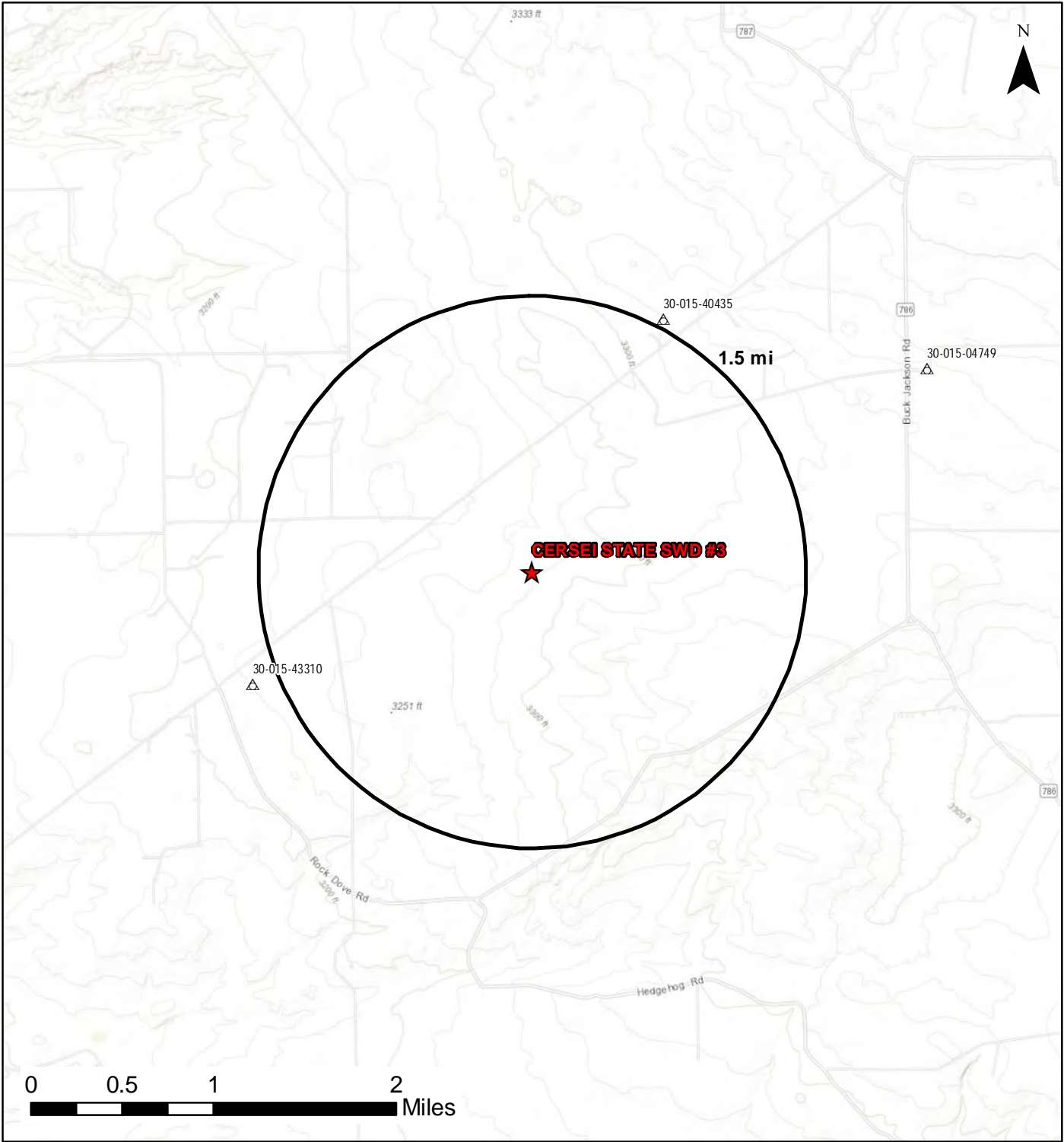
Legend



★ Proposed SWD

Surface Ownership

- BLM
- Private
- State

Surface Ownership Area of Review		
CERSEI STATE SWD #3 Eddy County, New Mexico		
Proj Mgr: Dan Arthur	October 30, 2019	Mapped by: Ben Bockelmann
Prepared by: 		

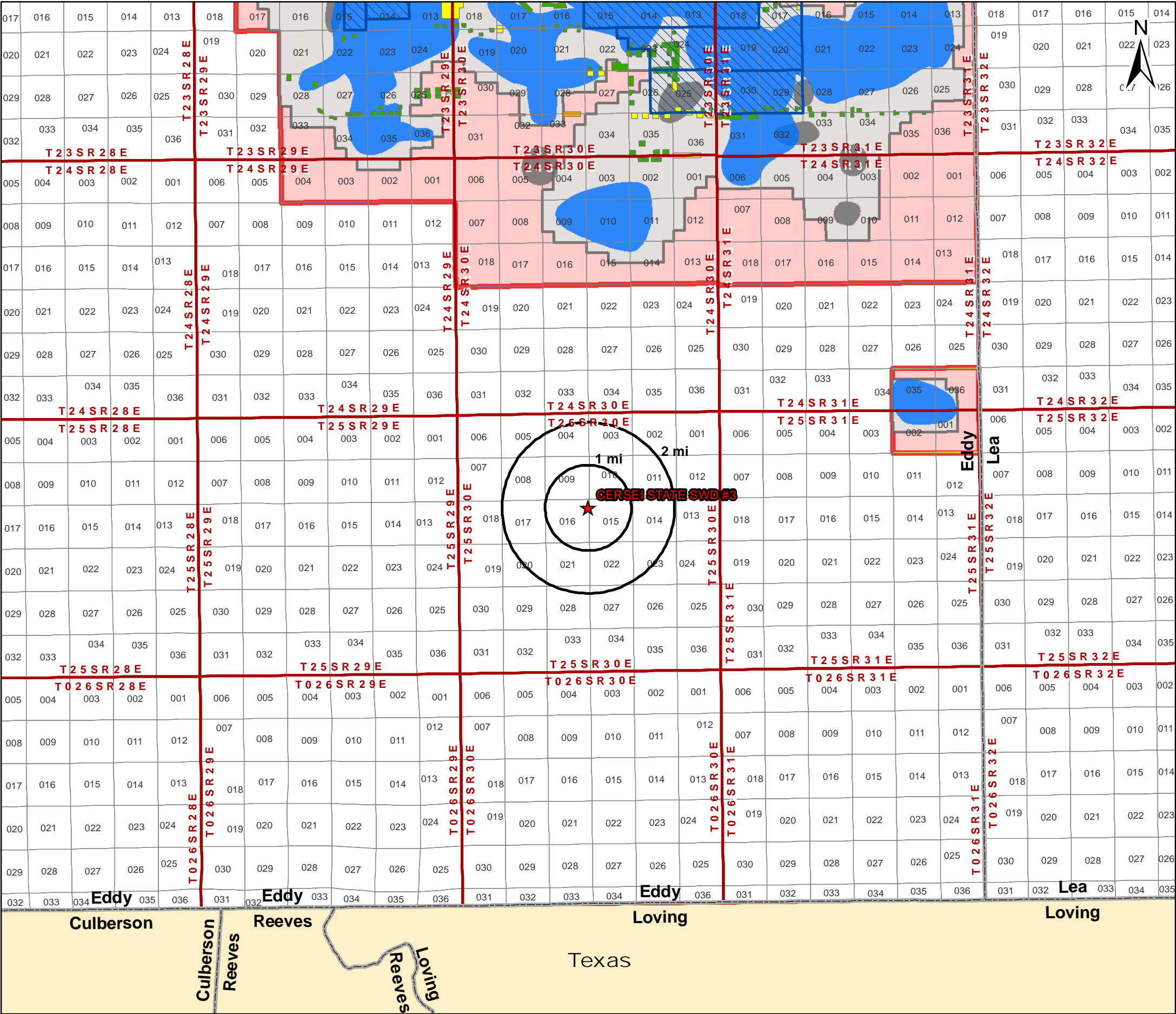


CERSEI STATE SWD #3 Deep SWDs AOR			Legend	
Proj Mgr: Dan Arthur	Oct 30, 2019	Mapped by: Ben Bockelmann	★ Proposed SWD	Devonian/Silurian SWDs
			△	Salt Water Injection, Active (3)
Prepared for: 		Prepared by: 		
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community				

AOR Tabulation for Cersei State SWD #3 (Top of Injection Interval: 16,400')							
Well Name	API#	Well Type	Operator	Spud Date	Location (Sec., Tn., Rng.)	Total Vertical Depth (feet)	Penetrate Inj. Zone?
PRE-ONGARD WELL #005	30-015-04748	Plugged	PRE-ONGARD WELL OPERATOR (Alamo Corporation)	2/11/1958	M-10-25S-30E	Pluggged (3930)	No
PRE-ONGARD WELL #001	30-015-04747	Plugged	PRE-ONGARD WELL OPERATOR (Fred Pool Drilling Co.)	10/5/1962	M-09-25S-30E	Plugged (3762)	No
PRE-ONGARD WELL #005	30-015-05972	Plugged	PRE-ONGARD WELL OPERATOR (Alamo Corporation)	*Unknown	M-10-25S-30E	Plugged (0)	No
POKER LAKE CVX JV BS #011H	30-015-39693	O	XTO PERMIAN OPERATING LLC.	2/29/2012	C-22-25S-30E	8449	No
POKER LAKE CVX JV PB #005H	30-015-40763	O	XTO PERMIAN OPERATING LLC.	12/1/2012	C-22-25S-30E	9086	No
POKER LAKE CVX JV PC #009H	30-015-37375	O	XTO PERMIAN OPERATING LLC.	4/22/2011	P-16-25S-30E	8359	No
POKER LAKE UNIT #482H	30-015-43511	O	XTO PERMIAN OPERATING LLC.	Not Drilled	C-16-25S-30E	Proposed (7287)	No
POKER LAKE UNIT #483H	30-015-43489	O	XTO PERMIAN OPERATING LLC.	Not Drilled	C-16-25S-30E	Proposed (7624)	No

Notes: No wells within the 1-mile AOR penetrate the injection interval.

Unknown* - Data not available from the NMOCD Imaging - Well Files Data Base.



Legend

- ★ Proposed SWD
- Potash Leases
- Ore Type - Measured
- Ore Type - Indicated
- KPLA
- SOPA

Drill Islands

Status

- Approved
- Nominated
- Withdrawn

Potash Leases
Area of Review

CERSEI STATE SWD #3
Eddy County, New Mexico

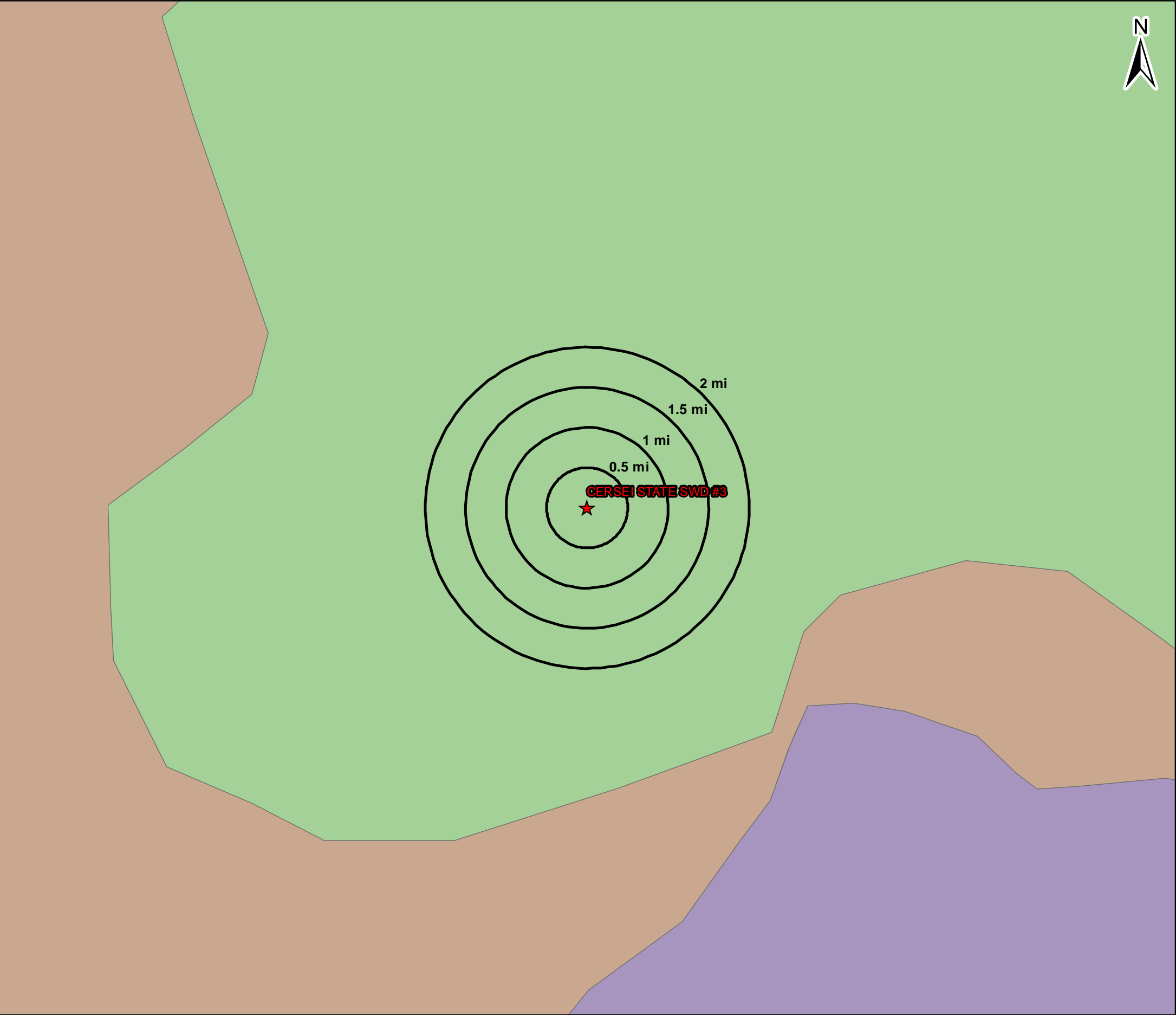
Proj Mgr:
Dan Arthur

October 18, 2019

Mapped by:
Ben Bockelmann

Prepared by:

ALLCONSULTING



Legend

★ Proposed SWD

Karst Potential

High

Low

Medium

Karst Potential
Area of Review

CERSEI STATE SWD #3
Eddy County, New Mexico

Proj Mgr:
Dan Arthur

October 18, 2019

Mapped by:
Ben Bockelmann

Prepared by:

ALLCONSULTING

0 1.5 3 6 Miles

Attachment 3

Source Water Analyses

Wolfcamp



Water Analysis

Date: 23-Aug-11

2708 West County Road, Hobbs NM 88240

Phone (575) 392-5556 Fax (575) 392-7307

Analyzed For

Brushy Draw 1#1

Company	Well Name	County	State
	BD	Lea	New Mexico

Sample Source

Swab Sample

Sample #

1

Formation

Depth

Specific Gravity 1.170

SG @ 60 °F

1.172

pH 6.30

Sulfides

Absent

Temperature (°F) 70

Reducing Agents

Cations

Sodium (Calc)	in Mg/L	77,962	in PPM	66,520
Calcium	in Mg/L	4,000	in PPM	3,413
Magnesium	in Mg/L	1,200	in PPM	1,024
Soluble Iron (FE2)	in Mg/L	10.0	in PPM	9

Anions

Chlorides	in Mg/L	130,000	in PPM	110,922
Sulfates	in Mg/L	250	in PPM	213
Bicarbonates	in Mg/L	127	in PPM	108
Total Hardness (as CaCO3)	in Mg/L	15,000	in PPM	12,799
Total Dissolved Solids (Calc)	in Mg/L	213,549	in PPM	182,209
Equivalent NaCl Concentration	in Mg/L	182,868	in PPM	156,031

Scaling Tendencies

*Calcium Carbonate Index

507,520

Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable

*Calcium Sulfate (Gyp) Index

1,000,000

Below 500,000 Remote / 500,000 - 10,000,000 Possible / Above 10,000,000 Probable

*This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.

Remarks

RW=.048@70F

Report #

3188

Sec 22, T25S, R28E

Bone Spring

Water Analysis Report by Baker Petrolite

North Permian Basin Region

P.O. Box 740

Sundown, TX 79372-0740

(806) 229-8121

Lab Team Leader - Sheila Hernandez

(432) 495-7240

Company:		Sales RDT:	33514.1
Region:	PERMIAN BASIN	Account Manager:	TONY HERNANDEZ (575) 910-7135
Area:	ARTESIA, NM	Sample #:	534665
Lease/Platform:	PINOCHLE 'BPN' STATE COM	Analysis ID #:	106795
Entity (or well #):	2 H	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 534665 @ 75 F					
Sampling Date:	03/10/11	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	03/18/11	Chloride:	109618.0	3091.92	Sodium:	70275.7	3056.82
Analyst:	SANDRA GOMEZ	Bicarbonate:	2135.0	34.99	Magnesium:	195.0	18.04
TDS (mg/l or g/m3):	184911.1	Carbonate:	0.0	0.	Calcium:	844.0	42.12
Density (g/cm3, tonne/m3):	1.113	Sulfate:	747.0	15.55	Strontium:	220.0	5.02
Anion/Cation Ratio:	1	Phosphate:			Barium:	0.8	0.01
		Borate:			Iron:	6.5	0.23
		Silicate:			Potassium:	889.0	22.22
					Aluminum:		
Carbon Dioxide:	0.50 PPM	Hydrogen Sulfide:		0 PPM	Chromium:		
Oxygen:		pH at time of sampling:		7	Copper:		
Comments:		pH at time of analysis:			Lead:		
		pH used in Calculation:		7	Manganese:	0.100	0.
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄		CO ₂ Press
F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	1.06	188.52	-1.20	0.00	-1.18	0.00	-0.11	0.00	0.58	0.29	1.72
100	0	1.10	206.05	-1.29	0.00	-1.20	0.00	-0.15	0.00	0.35	0.29	2.35
120	0	1.12	224.17	-1.38	0.00	-1.19	0.00	-0.17	0.00	0.16	0.00	3.17
140	0	1.13	243.17	-1.42	0.00	-1.18	0.00	-0.18	0.00	0.00	0.00	4.21

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO₂ pressure is actually the calculated CO₂ fugacity. It is usually nearly the same as the CO₂ partial pressure.

Attachment 4

Injection Formation Water Analyses

Injection Formation Water Analysis																			
Select Energy Services - Devonian , Fusselman & Silurian formations																			
Wellname	API	Latitude	Longitude	Section	Township	Range	Unit	ftgns	ftgew	County	State	company	Field	Formation	Depth	tds_mgL	chloride_mgL	bicarbonate_mgL	sulfate_mgL
FARNSWORTH FEDERAL #006	3002511950	32.0777245	-103.162468	4	26S	37E	A	660N	990E	LEA	NM		CROSBY	DEVONIAN		31,931	20,450	302	591
ARNOTT RAMSAY NCT-B #003	3002511863	32.0922279	-103.1784439	32	25S	37E	A	660N	660E	LEA	NM		CROSBY	DEVONIAN	8797		100,382	476	
STATE NJ A #001	3002511398	32.1647491	-103.1273346	2	25S	37E	A	663N	660E	LEA	NM		JUSTIS NORTH	DEVONIAN		105,350	59,300	660	4,950
COPPER #001	3002511818	32.0994835	-103.1656723	28	25S	37E	J	1980S	1981E	LEA	NM		CROSBY	DEVONIAN		27,506	15,270	1,089	1,079
ARNOTT RAMSAY NCT-B #003	3002511863	32.0922279	-103.1784439	32	25S	37E	A	660N	660E	LEA	NM		CROSBY	DEVONIAN		158,761			
BELL LAKE UNIT #006	3002508483	32.3282585	-103.507103	6	23S	34E	O	660S	1980E	LEA	NM		BELL LAKE NORTH	DEVONIAN		71,078	42,200	500	1,000
CLINE FEDERAL #001	3002510717	32.3025551	-103.1358261	14	23S	37E	K	1980S	1980W	LEA	NM		CLINE	DEVONIAN		118,979	71,280	462	2,593
E C HILL B FEDERAL #001	3002510945	32.2658463	-103.1443634	34	23S	37E	A	810N	660E	LEA	NM		TEAGUE	DEVONIAN		112,959	67,390	288	2,765
E C HILL D FEDERAL #001	3002510947	32.2622147	-103.1443634	34	23S	37E	H	2131N	660E	LEA	NM		TEAGUE	DEVONIAN		35,639			
E C HILL D FEDERAL #004	3002510950	32.2653503	-103.1443634	34	23S	37E	A	990N	660E	LEA	NM		TEAGUE	DEVONIAN		236,252	147,000	129	781
ANTELOPE RIDGE UNIT #003	3002521082	32.2593155	-103.4610748	34	23S	34E	K	1980S	1650W	LEA	NM		ANTELOPE RIDGE	DEVONIAN		80,187	47,900	476	900
REMUDA BASIN UNIT #001	3001503691	32.2886238	-103.9360428	24	23S	29E	J	1980S	1980E	EDDY	NM		REMUDA	DEVONIAN		64,582	37,500	610	1,700
REMUDA BASIN UNIT #001	3001503691	32.2886238	-103.9360428	24	23S	29E	J	1980S	1980E	EDDY	NM		REMUDA	DEVONIAN		56,922	29,000	1,740	4,980
STATE B COM #001	3002509716	32.1794052	-103.2212524	36	24S	36E	C	600N	1880W	LEA	NM		CUSTER	DEVONIAN		176,234	107,400	128	1,004
WHITE CITY PENN GAS COM UNIT 1 #001	3001500408	32.1937523	-104.3088455	29	24S	26E	A	660N	660E	EDDY	NM			DEVONIAN			10,120	653	1,336
BIG EDDY UT #001	3001502475	32.4421539	-104.042305	36	21S	28E	C	660N	1980W	EDDY	NM			DEVONIAN		16,223	7,000	1,030	2,290
BIG EDDY UT #001	3001502475	32.4421539	-104.042305	36	21S	28E	C	660N	1980W	EDDY	NM			DEVONIAN		19,941	10,700	640	1,130
Source: http://gotech.nmt.edu/gotech/Water/producedwater.aspx																			

Attachment 5

Water Well Map and Well Data



Legend

★ Proposed SWD

NMOSE PODs

Status

- Active (1)
- Pending (0)
- Change Location of Well (0)
- Capped (0)
- Plugged (0)
- Incomplete (0)
- Unknown (0)

Water Wells Area of Review

CERSEI STATE SWD #3
Eddy County, New Mexico

Proj Mgr: Dan Arthur	October 18, 2019	Mapped by: Ben Bockelmann
-------------------------	------------------	------------------------------

Prepared by:

ALLCONSULTING

Water Well Sampling Rationale					
Cerule State SWD #3					
Water Wells	Owner	Available Contact Information	Use	Sampling Required	Notes
C-01379	Buck Jackson	Buck Jackson P.O. Box 671 Pecos, Texas	Livestock Watering	No	Multiple phone calls, and a letter sent via certified mail, were attempted in order to contact Mr. Johnson; however, Mr. Johnson did not respond to any of the attempts to contact. The certified mailing label is attached.
Note: None of the water wells within 1 mile of the proposed SWD location are currently in use.					



October 31, 2019

Buck Jackson
P.O. Box 671
Pecos, TX 79772

Subject: Permission to Sample Water Well C-0002337

Mr. Jackson:

My name is Oliver Seekins and I work for ALL-Consulting, an environmental consulting firm out of Tulsa, Oklahoma. As part of the requirements to file a C-108 application with the New Mexico Oil Conservation Division, we are writing to you to request additional information pertaining to a water well that you own. Please confirm the status of the water well listed below (Active – has a functioning pump currently installed at the well; Non-active – water is removed by a manual system, or the well is not in use) and indicate if the well produces freshwater well.

- C-002337 (SE ¼ NW ¼ S35 T23S R32E)

If the water well is operational and producing freshwater, we would like to request permission to collect or have a third-party water sampling company collect a sample.

Please let me know if you need further information, or if there are any questions.

Sincerely,
ALL Consulting

A handwritten signature in blue ink that reads "Oliver W. Seekins".

Oliver W. Seekins
Consultant
Email: Oseekins@all-llc.com
Work: 918-382-7581
Cell: 918-805-5037

Place label at top of the center of the envelope and fold at dotted line.

Place label at top of the center of the envelope and fold at dotted line.

ALL Consulting
1718 S. Cheyenne Ave.
Tulsa, OK 74119

\$5.600
US POSTAGE
FIRST-CLASS
FROM 74119
OCT 22 2019
stamps.com

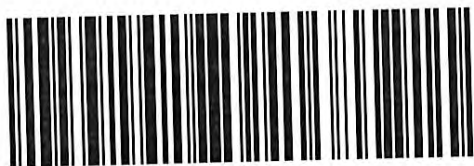
062S0008663991

Place label at top of the center of the envelope and fold at dotted line.

Place label at top of the center of the envelope and fold at dotted line.

CERTIFIED MAIL®
CERTIFIED MAIL®

CERTIFIED MAIL®
CERTIFIED MAIL®



9414 8118 9956 1959 7837 53

Buck Jackson
PO Box 671
Pecos TX 79772-0671

Attachment 6

Induced Seismicity Assessment Letter



October 31, 2019

Mr. Phillip Goetze, P.G.
NM EMNRD – Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Subject: Induced Seismicity Potential Statement for the Cersei State SWD #3

Dear Mr. Goetze,

This letter provides information regarding the seismic potential associated with injection operations associated with Select Energy Services, LLC (Select), proposed Cersei State SWD #3, hereinafter referred to as the “Subject Well.”

As outlined herein, based on my experience as an expert on the issue of induced seismicity, it is my opinion that the potential for the proposed injection well to cause injection-induced seismicity is expected to be minimal, at best. This conclusion is based on (1) the lack of historic seismic activity and faulting in the area, (2) the low fault slip potential (FSP) of Precambrian faults in the area, (3) the presence of confining layers, and (4) the overall vertical distance between the proposed injection zone and basement rock.

The Subject Well, is located 990’ FNL & 330 FEL of Section 16, in T25-S and R30-E of Eddy County, New Mexico. Historically, the Eddy and Lea Counties area has experienced very limited recorded seismic activity (per the U.S. Geological Survey [USGS] earthquake catalog database). There has been one known seismic events located within a 25-mile radius of the proposed Subject Well. The closest recorded seismic event was a M3.1 that occurred on March 18th, 2012 and was located approximately 10.1 miles northwest of the Subject Well (See Exhibit 1). The closest Class IID wells injecting into the same formations (Devonian-Silurian) of the Subject Well is approximately 1.6 miles to the southwest, and northeast (See Exhibit 1).

Select does not own either 2D or 3D seismic reflection data in the area of the Subject Well. Fault data from USGS indicates that the closest known fault is approximately 7.6 miles northwest of the Subject Well (See Exhibit 1).

In a recent paper written by Snee and Zoback (2018) entitled “State of Stress in the Permian Basin, Texas and New Mexico: Implications for Induced Seismicity,”, the authors found that large groups of mostly north-south striking Precambrian basement faults, predominantly located along the Central Basin Platform, the western Delaware Basin, and large parts of the Northwest Shelf (which includes Eddy and Lea counties, New Mexico) have low FSP at the modeled fluid-pressure

Induced Seismicity Potential Statement for the Cersei State SWD #3
October 31, 2019

perturbation. The map in Exhibit 2 depicts the low probability risk of FSP for the Delaware Basin and Northwest Shelf areas (Snee and Zoback 2018).

Geologic analysis indicates that the proposed Devonian-Silurian injection zone is overlain by approximately 200 to 400 feet of Woodford Shale, which is the upper confining zone and will serve as a barrier for upward injection fluid migration. Additionally, the Simpson Group that lies directly below the Montoya Formation will act as a lower confining zone to prohibit fluids from migrating downward into the underlying Ellenburger Formation and Precambrian basement rock. See the stratigraphic column for the Delaware Basin included in Exhibit 3.

In the Eddy and Lea Counties area of New Mexico, the Simpson Group is comprised of a series of Middle to Upper Ordovician carbonates, several sandstones, and sandy shales that range from approximately 350 to 650 feet thick (Jones 2008). This group of rocks is capped by the limestones of the Bromide Formation, which is approximately 200 feet thick in this area (Jones 2008). The closest deep well drilled into the Precambrian basement was completed by the Skelly Oil Company in 1975. This well is located in Section 17, Range 36E, Township 25S of Lea County (API No.30-025-25046) and encountered 602 feet of Ellenburger Formation before reaching the top of the Precambrian granite at a depth of 18,920 feet. Based on the estimated thickness of the Simpson Group and Ellenburger Formation in this area, the Precambrian basement should be approximately 1,000 to 1,200 feet below the bottom of the proposed injection zones in the Subject Well.

Conclusion

As an expert on the issue of induced seismicity, it is my opinion that the potential for the proposed injection well to cause injection-induced seismicity is expected to be minimal, at best. This conclusion is based on (1) the lack of historic seismic activity and faulting in the area, (2) the low FSP of Precambrian faults in the area, (3) the presence of confining layers, and (4) the overall vertical distance between the proposed injection zone and basement rock.

Sincerely,
ALL Consulting



J. Daniel Arthur, P.E., SPEC
President and Chief Engineer

Enclosures
References
Exhibits

Induced Seismicity Potential Statement for the Cersei State SWD #3
October 31, 2019

References

Induced Seismicity Potential Statement for the Cersei State SWD #3
October 31, 2019

Ball, Mahlon M. 1995. "Permian Basin Province (044)." In *National Assessment of United States Oil and Gas Resources—Results, Methodology, and Supporting Data*. U.S. Geological Survey. <https://certmapper.cr.usgs.gov/data/noga95/prov44/text/prov44.pdf> (accessed June 18, 2018).

Green, G.N., and G.E. Jones. 1997. "The Digital Geologic Map of New Mexico in ARC/INFO Format." U.S. Geological Survey Open-File Report 97-0052. <https://mrdata.usgs.gov/geology/state/state.php?state=NM> (accessed June 14, 2018).

Jones, Rebecca H. 2008. "The Middle-Upper Ordovician Simpson Group of the Permian Basin: Deposition, Diagenesis, and Reservoir Development." http://www.beg.utexas.edu/resprog/permianbasin/PBGSP_members/writ_synth/Simpson.pdf (accessed June 19, 2018).

Snee, Jens-Erik Lund, and Mark D. Zoback. 2018. "State of Stress in the Permian Basin, Texas and New Mexico: Implications for Induced Seismicity." *The Leading Edge* 37, no. 2 (February 2018): 127-34.

U.S. Geological Survey (USGS). No date. Earthquakes Hazard Program: Earthquake Catalog. <https://earthquake.usgs.gov/earthquakes/search/> (accessed June 14, 2018).

Induced Seismicity Potential Statement for the Cersei State SWD #3
October 31, 2019

Exhibits

Induced Seismicity Potential Statement for the Cersei State SWD #3
October 31, 2019

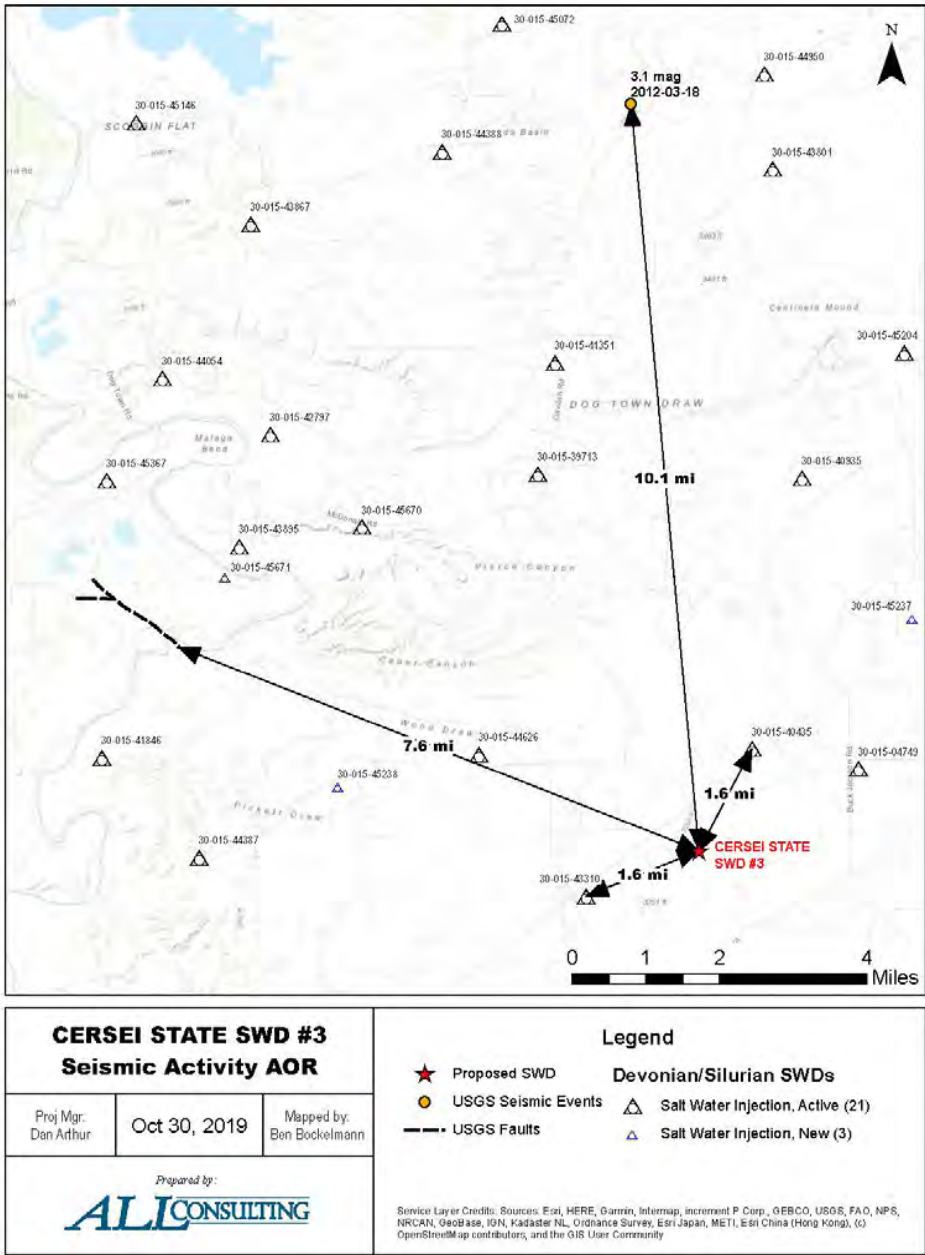


Exhibit 1. Map Showing the Distances from Known and Inferred Faults, Seismic Event, and Closest Deep Injection Well

Induced Seismicity Potential Statement for the Cersei State SWD #3
October 31, 2019

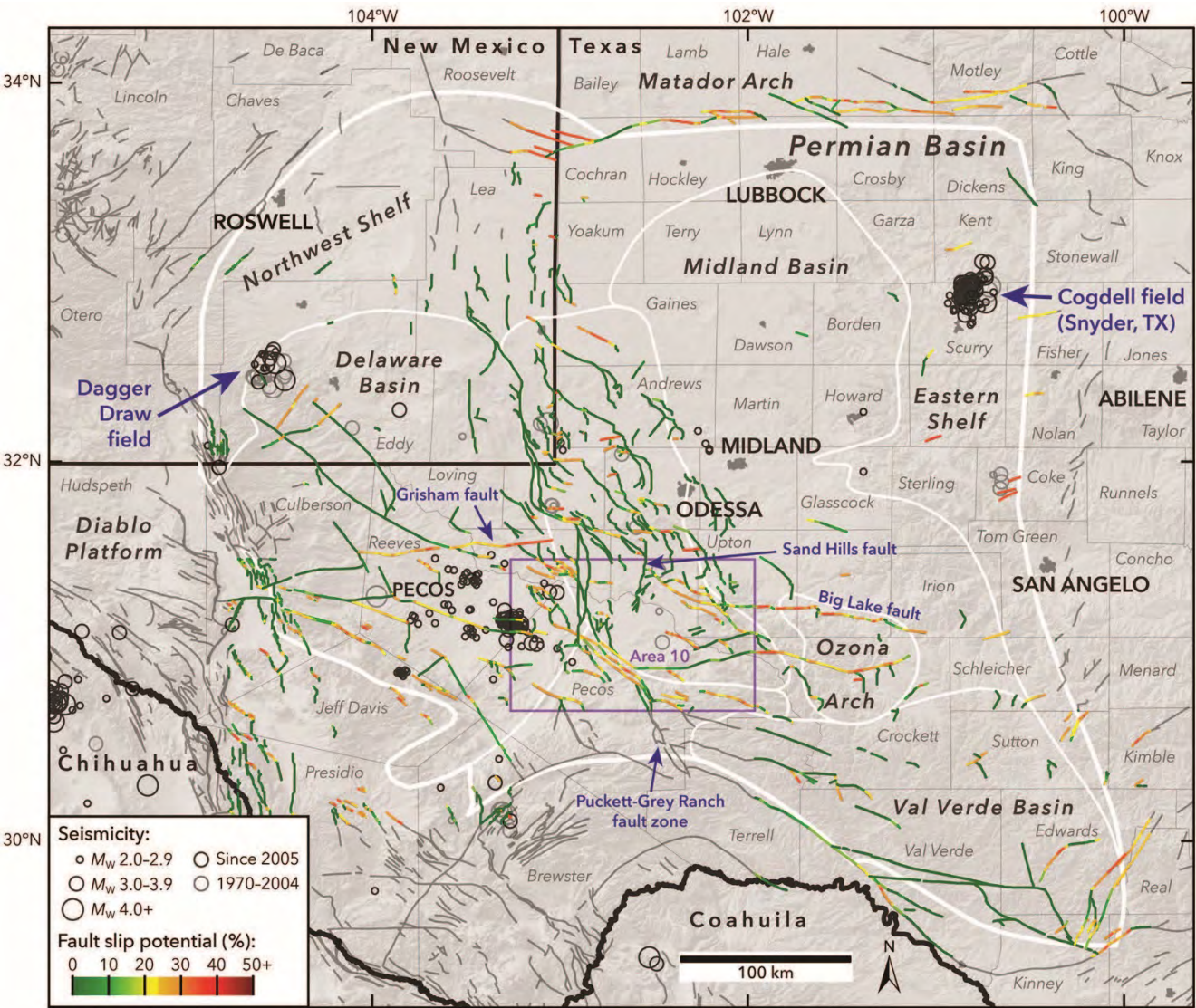


Exhibit 2. Results of the Snee and Zoback (2018) Probabilistic FSP Analysis Across the Permian Basin

Induced Seismicity Potential Statement for the Cersei State SWD #3
October 31, 2019

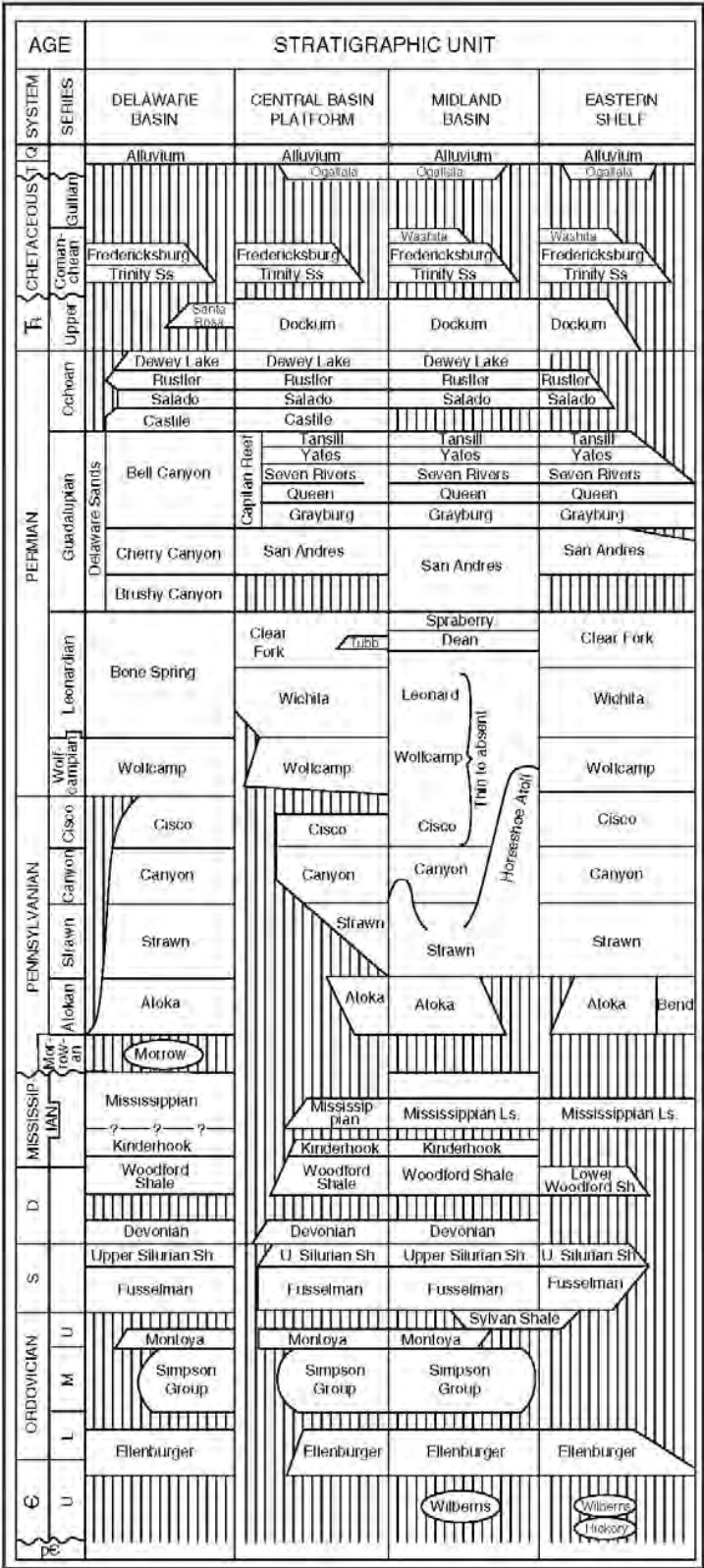


Exhibit 3. Delaware Basin Stratigraphic Chart (Ball 1995)

Attachment 7

Public Notice Affidavit and Notice of Application Confirmations

APPLICATION FOR AUTHORIZATION TO INJECT

NOTICE IS HEREBY GIVEN: That Select Energy Services, 1820 N I-35, Gainesville, TX 76240, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORIZATION TO INJECT as follows:

PURPOSE: The intended purpose of the injection well is to dispose of saltwater produced from permitted oil and gas wells.

WELL NAME AND LOCATION: Cersei State SWD #3
Located 13 miles southeast of Malaga, NM
NE ¼ NE ¼, Section 16, Township 25S, Range 30E
990' FNL & 330' FEL
Eddy County, NM

NAME AND DEPTH OF DISPOSAL ZONE: Devonian - Silurian (16,400 – 17,700')
EXPECTED MAXIMUM INJECTION RATE: 30,000 Bbls/day
EXPECTED MAXIMUM INJECTION PRESSURE: 3,280 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objection or request for hearing should be mailed to the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505.

Additional information may be obtained by contacting Nate Alleman at 918-382-7581.

Carlsbad Current Argus.

PART OF THE USA TODAY NETWORK

Affidavit of Publication

Ad # 0003861184

ALL CONSULTING- CARL SBAD
1718 SOUTH CHEYENNE AVENUE

TULSA, OK 74119

APPLICATION FOR AUTHORIZATION TO INJECT

NOTICE IS HEREBY GIVEN:
That Select Energy Services,
1820 N I-35, Gainesville, TX
76240, is requesting that the
New Mexico Oil Conserva-
tion Division administrative-
ly approve the APPLICATION
FOR AUTHORIZATION TO IN-
JECT as follows:

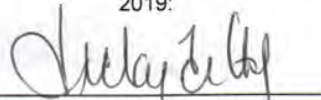
PURPOSE: The intended pur-
pose of the injection well is
to dispose of saltwater pro-
duced from permitted oil
and gas wells.

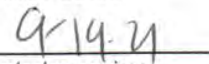
I, a legal clerk of the **Carlsbad Current Argus**, a
newspaper published daily at the City of Carlsbad, in
said county of Eddy, state of New Mexico and of
general paid circulation in said county; that the same
is a duly qualified newspaper under the laws of the
State wherein legal notices and advertisements may
be published; that the printed notice attached hereto
was published in the regular and entire edition of said
newspaper and not in supplement thereof on the date
as follows, to wit:

October 24, 2019


Legal Clerk

Subscribed and sworn before me this October 24,
2019:


State of WI, County of Brown
NOTARY PUBLIC


My commission expires

WELL NAME AND LOCA-
TION: Cersei State SWD #3
Located 13 miles southeast
of Malaga, NM
NE 1/4 NE 1/4, Section 16,
Township 25S, Range 30E
990' FNL & 330' FEL
Eddy County, NM

NAME AND DEPTH OF DIS-
POSAL ZONE:
Devonian - Silurian (16,400 -
17,700')
EXPECTED MAXIMUM IN-
JECTION RATE: 30,000
Bbls/day
EXPECTED MAXIMUM IN-
JECTION PRESSURE 3,280 psi
(surface)

Objections or requests for
hearing must be filed with
the New Mexico Oil Conser-
vation Division within fif-
teen (15) days. Any objec-
tion or request for hearing
should be mailed to the Oil
Conservation Division, 1220
South St. Francis Dr., Santa
Fe, New Mexico 87505.

Additional information may
be obtained by contacting
Nate Alleman at 918-382-
7581.

October 24, 2019

Ad # 0003861184
PO #: Cersei State SWD #3
of Affidavits : 1



Cersei State SWD #3 - Notice of Application Recipients				
Entity	Address	City	State	Zip Code
Land & Mineral Owner				
Commision of Public Lands - State Land Office	310 Old Santa Fe Trail	Santa Fe	NM	87501
OCD District				
NMOCD District 2	811 S. 1st St.	Artesia	NM	88210
Leasehold Operators				
32 Mineral Oil & Gas New Mexico, LLC (32 MINERAL O&G NM LLC)	123 E Marcy St., Suite 101	Santa Fe	NM	87501
ACB Oil & Gas New Mexico, LLC (ACB OG NM LLC)	201 Main Street, Suite 2700	Fort Worth	TX	76102
CMB Oil & Gas New Mexico, LLC (CMB OG NM LLC)	201 Main Street	Fort Worth	TX	76102
CTV Oil & Gas New Mexico, LLC (CTV OG NM LLC)	201 Main Street, Suite 2700	Fort Worth	TX	76102
Delbasin Corporation (DELBASIN CORP)	201 Main Street, Suite 2300	Fort Worth	TX	76102
Keystone Petroleum NM, LLC (KEYSTONE OG NM LLC)	222 W. Las Colinas Blvd.	Irving	TX	75039
LMBI Oil & Gas New Mexico, LLC (LMBI OG NM LLC)	201 Main Street, Ste 2700	Fort Worth	TX	76102
New Mexico BLM	620 E Greene St.	Carlsbad	NM	88220
SRBI O&G NM, LLC (SRBI OG NM LLC)	201 Main Street, Suite 3200	Fort Worth	TX	76102
Thru Line Oil & Gas New Mexico, LLC (THRU LINE OG NM LLC)	201 Main Street, Ste 2700	Fort Worth	TX	76102
XTO Delaware Basin, LLC	22777 Springwood Village Pkwy.	Spring	TX	77389
XTO Permian Operating, LLC (XTO PERMIAN OPERATING LLC.)	6401 Holiday Hill Rd.	Midland	TX	79707
Notes: The table above shows the Entities who were identified as parties of interest requiring notification on either the 1-mile well detail list (Attachment 2) or on the 2-mile Mineral Lease Map (Attachment 2). The names listed above in parenthesis, are the abbreviated entity names used on either the 1-mile well detail list (Attachment 2) or on the 2-mile Mineral Lease Map (Attachment 2).				

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201 Main Street
Fort Worth TX 76102-3105

CTV Oil & Gas New Mexico, LLC
201 Main Street, Ste 2700
Fort Worth TX 76102-3131

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Delbasin Corporation
201 Main Street, Suite 2300
Fort Worth TX 76102-3137

Keystone Petroleum NM, LLC
222 Las Colinas Blvd. W.
Irving TX 75039-5421

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LMBI Oil & Gas New Mexico, LLC
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Fort Worth TX 76102-3131

New Mexico BLM
620 E. Greene St.
Carlsbad NM 88220-6292

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NMOCD District 2
811 S. 1st St.
Artesia NM 88210-2834

SRBI O&G NM, LLC
201 Main Street, Ste 3200
Fort Worth TX 76102-3134

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Commission of Public Lands
State Land Office
310 Old Santa Fe Trail
Santa Fe NM 87501-2708

Thru Line Oil & Gas New Mexico, LLC
201 Main Street, Ste 2700
Fort Worth TX 76102-3131

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XTO Delaware Basin, LLC
22777 Springwoods Village Pkwy.
Spring TX 77389-1425

XTO Permian Operating, LLC
6401 Holiday Hill Rd.
Midland TX 79707-2156