

Initial Application Part I

Received: 05/16/2022

This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete

RECEIVED: 05/16/2022	REVIEWER:	TYPE: SWD	APP NO: pJZT2215950601
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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: Mack Energy Corporation **OGRID Number:** 13837
Well Name: Jasper SWD #1 **API:** 30-005-00443
Pool: SWD; Devonian **Pool Code:** 96101

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

- 1) **TYPE OF APPLICATION:** Check those which apply for [A] **SWD-2487**
- A. Location – Spacing Unit – Simultaneous Dedication
☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD
- B. Check one only for [I] or [II]
- [I] Commingling – Storage – Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
- [II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

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

FOR OCD ONLY

- ☐ Notice Complete
☐ Application Content Complete

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

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

Deana Weaver

Print or Type Name

Signature

5/12/2022

Date

575-748-1288

Phone Number

dweaver@mec.com

e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance XXX Disposal _____ Storage
Application qualifies for administrative approval? XXX Yes _____ No
- II. OPERATOR: Mack Energy Corporation
ADDRESS: P.O. Box 960 Artesia, NM 88210
CONTACT PARTY: Deana Weaver PHONE: 575-748-1288
- 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: _____
- 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: Deana Weaver TITLE: Regulatory Technician II
SIGNATURE: Deana Weaver DATE: 5/13/2022
E-MAIL ADDRESS: dweaver@mec.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

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

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

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

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

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

XIV. PROOF OF NOTICE

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

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

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

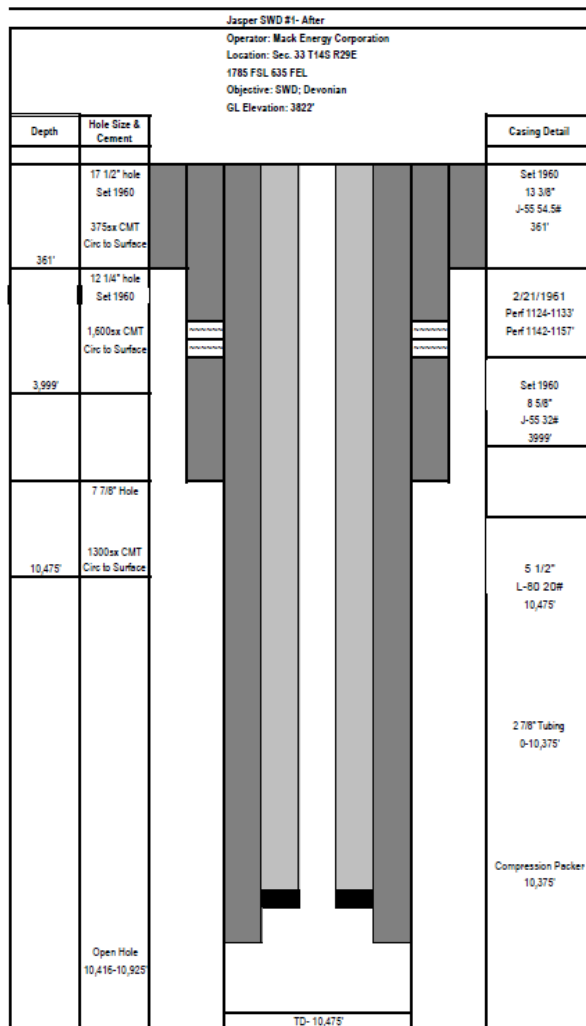
NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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

INJECTION WELL DATA SHEET

OPERATOR: Mack Energy CorporationWELL NAME & NUMBER: Jasper SWD #1

WELL LOCATION: 1780 FSL 660 FEL I 33 14S 29E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 17 1/2" Casing Size: 13 3/8"Cemented with: 375sx sx. *or* _____ ft³Top of Cement: 0 Method Determined: CircIntermediate CasingHole Size: 12 1/4" Casing Size: 8 5/8"Cemented with: 1600sx sx. *or* _____ ft³Top of Cement: 0 Method Determined: CircProduction CasingHole Size: 7 7/8" Casing Size: 5 1/2"Cemented with: 1300 sx. *or* _____ ft³Top of Cement: 0 Method Determined: CircTotal Depth: 10,475'Injection Interval10,416' feet to 10,925' Open Hole

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8" Lining Material: IPC

Type of Packer: Compression Packer

Packer Setting Depth: 10,375'

Other Type of Tubing/Casing Seal (if applicable): N/A

Additional Data

1. Is this a new well drilled for injection? Yes XX No
If no, for what purpose was the well originally drilled? Oil Well

2. Name of the Injection Formation: Devonian

3. Name of Field or Pool (if applicable): SWD; Devonian

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. Yes,
1,124'-1,157' Yates

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: None

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 96101	³ Pool Name SWD; Devonian
⁴ Property Code	⁵ Property Name JASPER SWD	⁶ Well Number 1
⁷ OGRID No. 13837	⁸ Operator Name MACK ENERGY CORPORATION	⁹ Elevation 3822.0

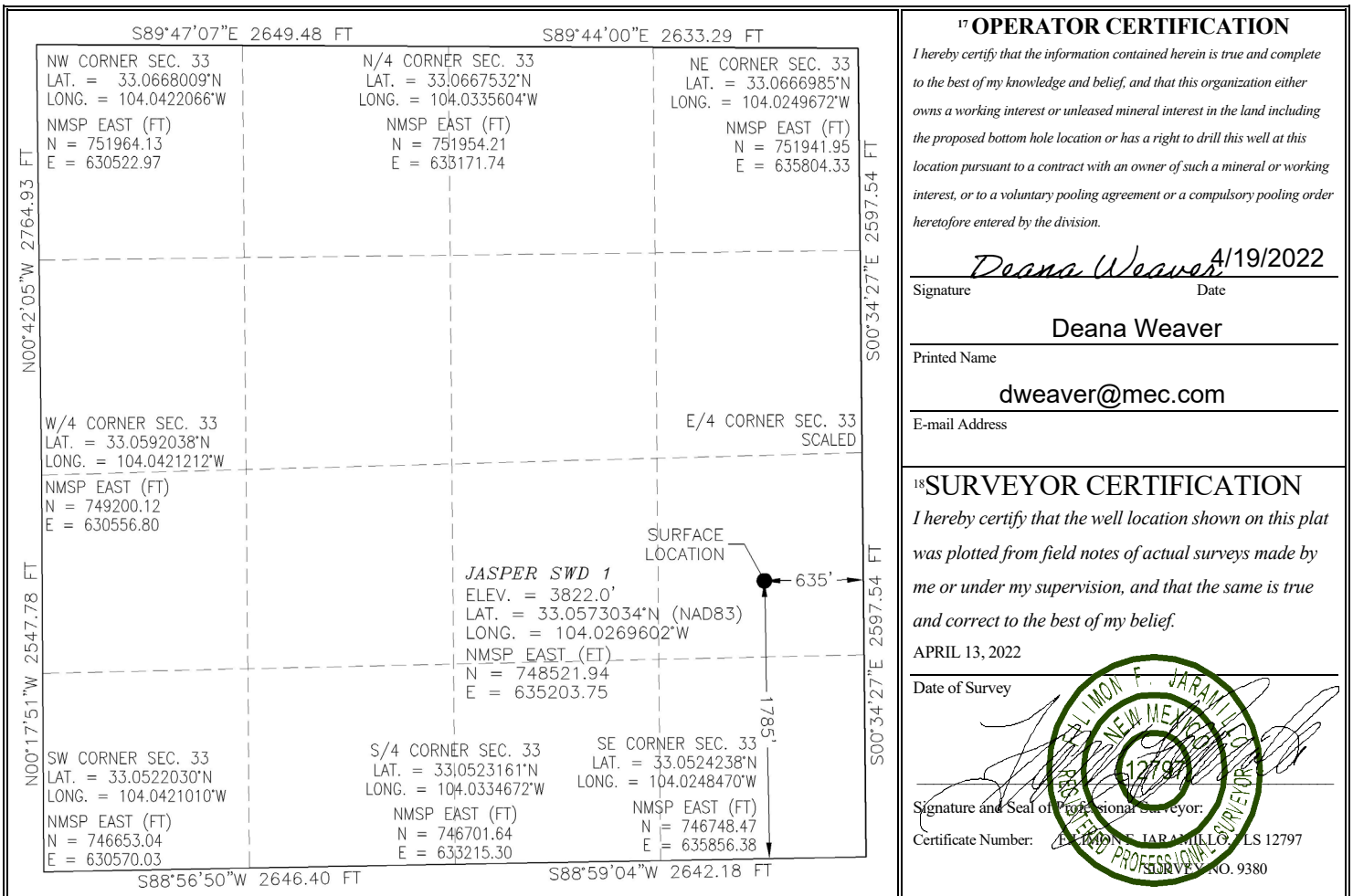
¹⁰ Surface Location

UL or lot no. I	Section 33	Township 14 S	Range 29 E	Lot Idn	Feet from the 1785	North/South line SOUTH	Feet from the 635	East/West line EAST	County CHAVES
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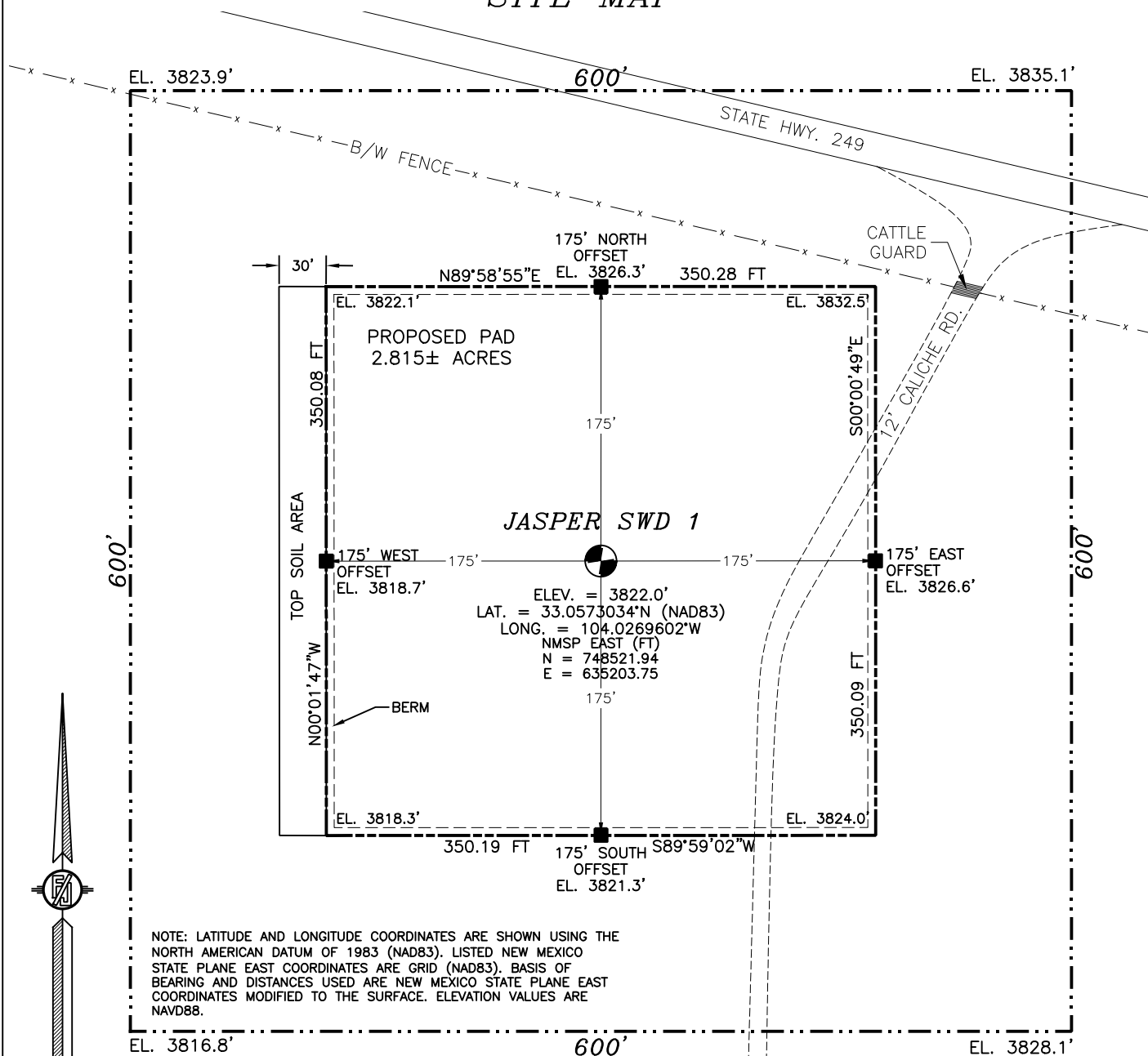
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.



SECTION 33, TOWNSHIP 14 SOUTH, RANGE 29 EAST, N.M.P.M.
CHAVES COUNTY, STATE OF NEW MEXICO
SITE MAP



010 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HWY 249 & JEMINA ROAD, GO NORTHWEST ON 249 APPROX. 1.0 MILE, TURN LEFT (SOUTHWEST) ON 12' CALICHE LEASE ROAD AND GO 200' (CROSS CATTLE GUARD) TO THE EAST EDGE OF PAD FOR THIS LOCATION.

I, FILIMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR, CERTIFY THAT I HAVE PERSONALLY CONDUCTED THIS SURVEY, THAT THE DATA AND INFORMATION HEREON ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE MET THE MINIMUM STANDARDS FOR SURVEYING PRACTICE.

FILIMON F. JARAMILLO, REGISTERED PROFESSIONAL SURVEYOR NO. 7880

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

**MACK ENERGY CORPORATION
JASPER SWD 1**

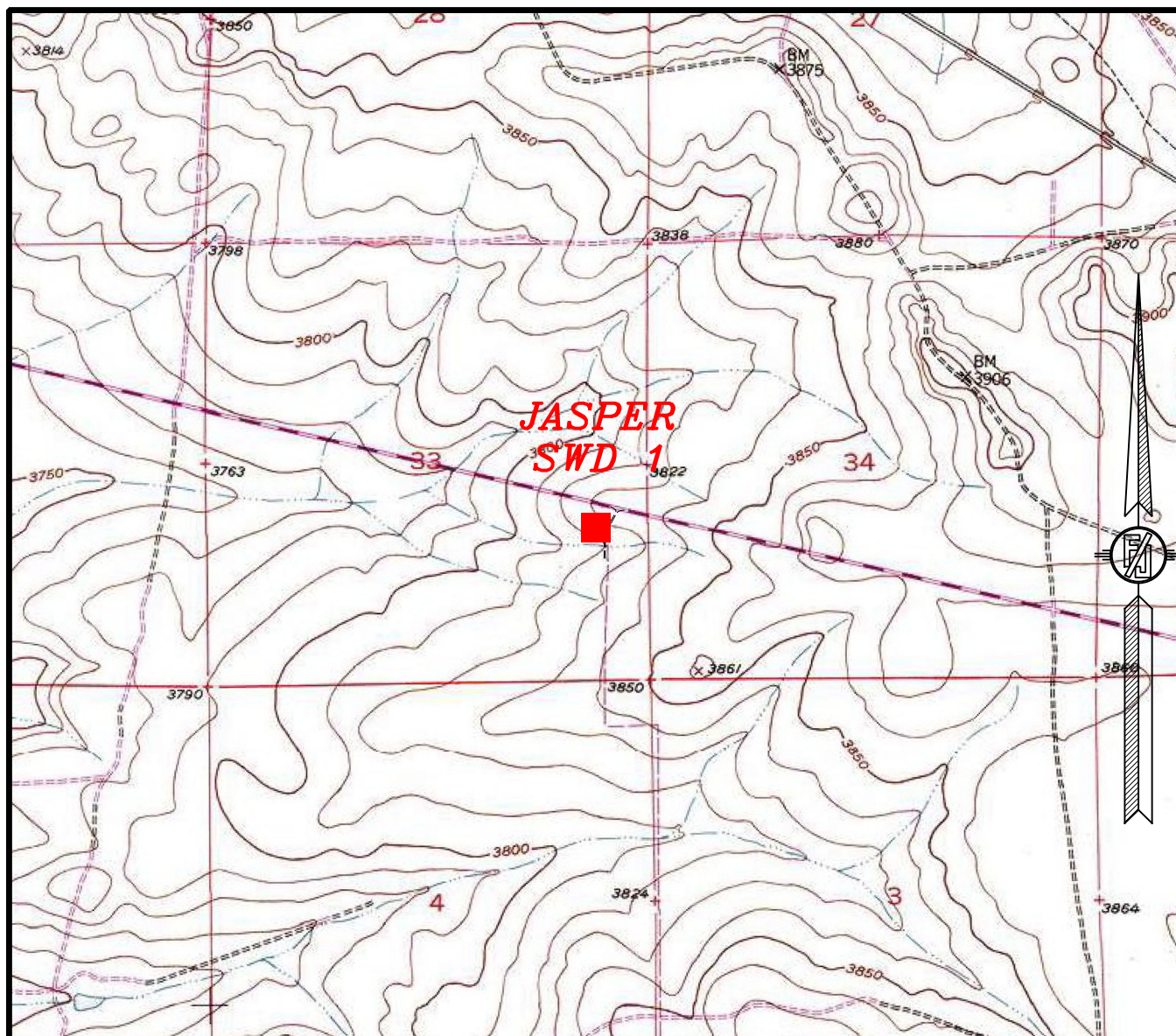
LOCATED 1785 FT. FROM THE SOUTH LINE
AND 635 FT. FROM THE EAST LINE OF
SECTION 33, TOWNSHIP 14 SOUTH,
RANGE 29 EAST, N.M.P.M.
CHAVES COUNTY, STATE OF NEW MEXICO

APRIL 13, 2022

SURVEY NO. 9380

CARLSBAD, NEW MEXICO

SECTION 33, TOWNSHIP 14 SOUTH, RANGE 29 EAST, N.M.P.M.
CHAVES COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
KING CAMP

NOT TO SCALE

MACK ENERGY CORPORATION
JASPER SWD 1
LOCATED 1785 FT. FROM THE SOUTH LINE
AND 635 FT. FROM THE EAST LINE OF
SECTION 33, TOWNSHIP 14 SOUTH,
RANGE 29 EAST, N.M.P.M.
CHAVES COUNTY, STATE OF NEW MEXICO

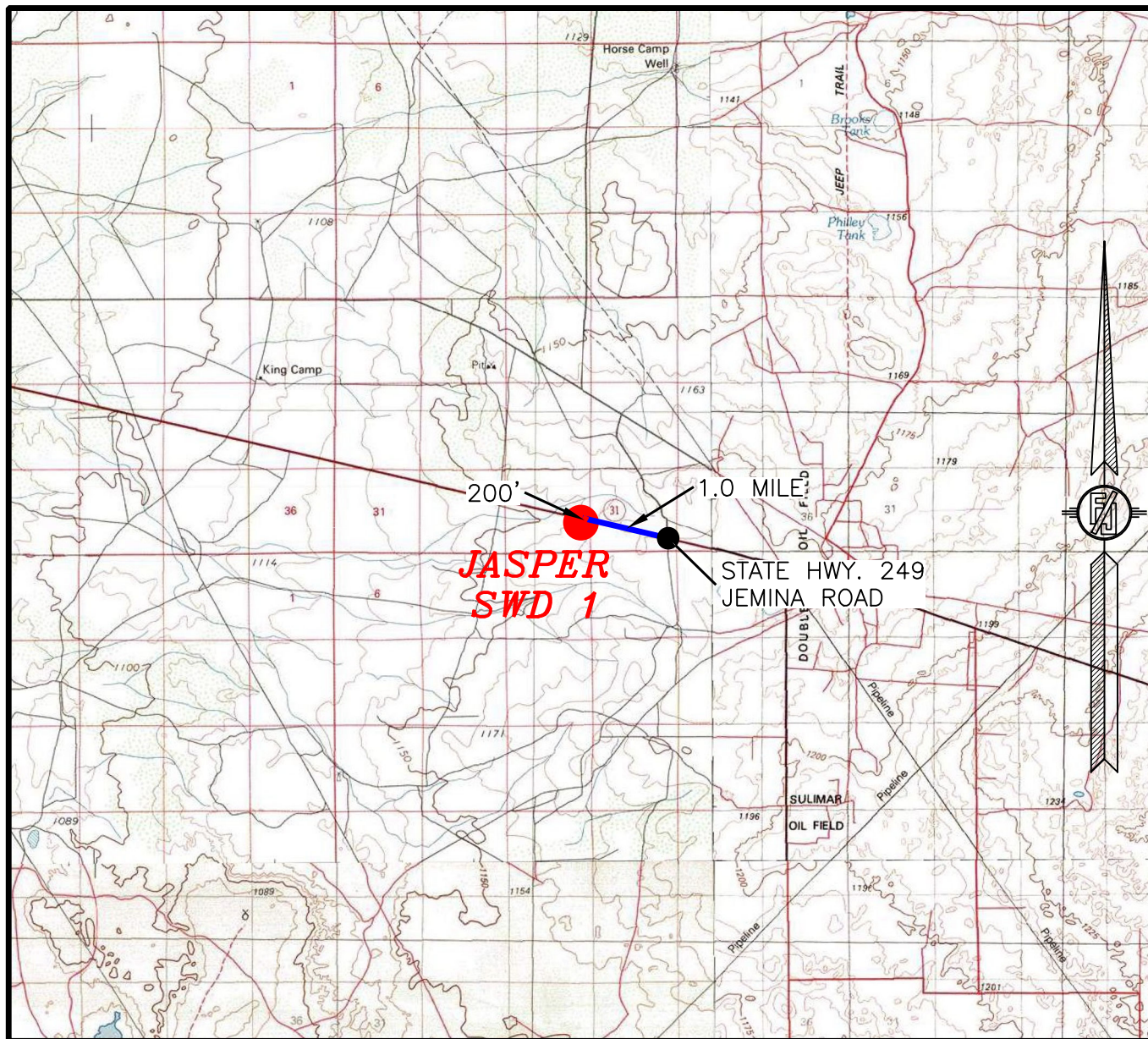
APRIL 13, 2022

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

SURVEY NO. 9380
CARLSBAD, NEW MEXICO

SECTION 33, TOWNSHIP 14 SOUTH, RANGE 29 EAST, N.M.P.M.
CHAVES COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HWY. 249 & JEMINA ROAD, GO NORTHWEST ON 249 APPROX. 1.0 MILE, TURN LEFT (SOUTHWEST) ON 12' CALICHE LEASE ROAD AND GO 200' (CROSS CATTLE GUARD) TO THE EAST EDGE OF PAD FOR THIS LOCATION.

**MACK ENERGY CORPORATION
JASPER SWD 1**

LOCATED 1785 FT. FROM THE SOUTH LINE
AND 635 FT. FROM THE EAST LINE OF
SECTION 33, TOWNSHIP 14 SOUTH,
RANGE 29 EAST, N.M.P.M.
CHAVES COUNTY, STATE OF NEW MEXICO

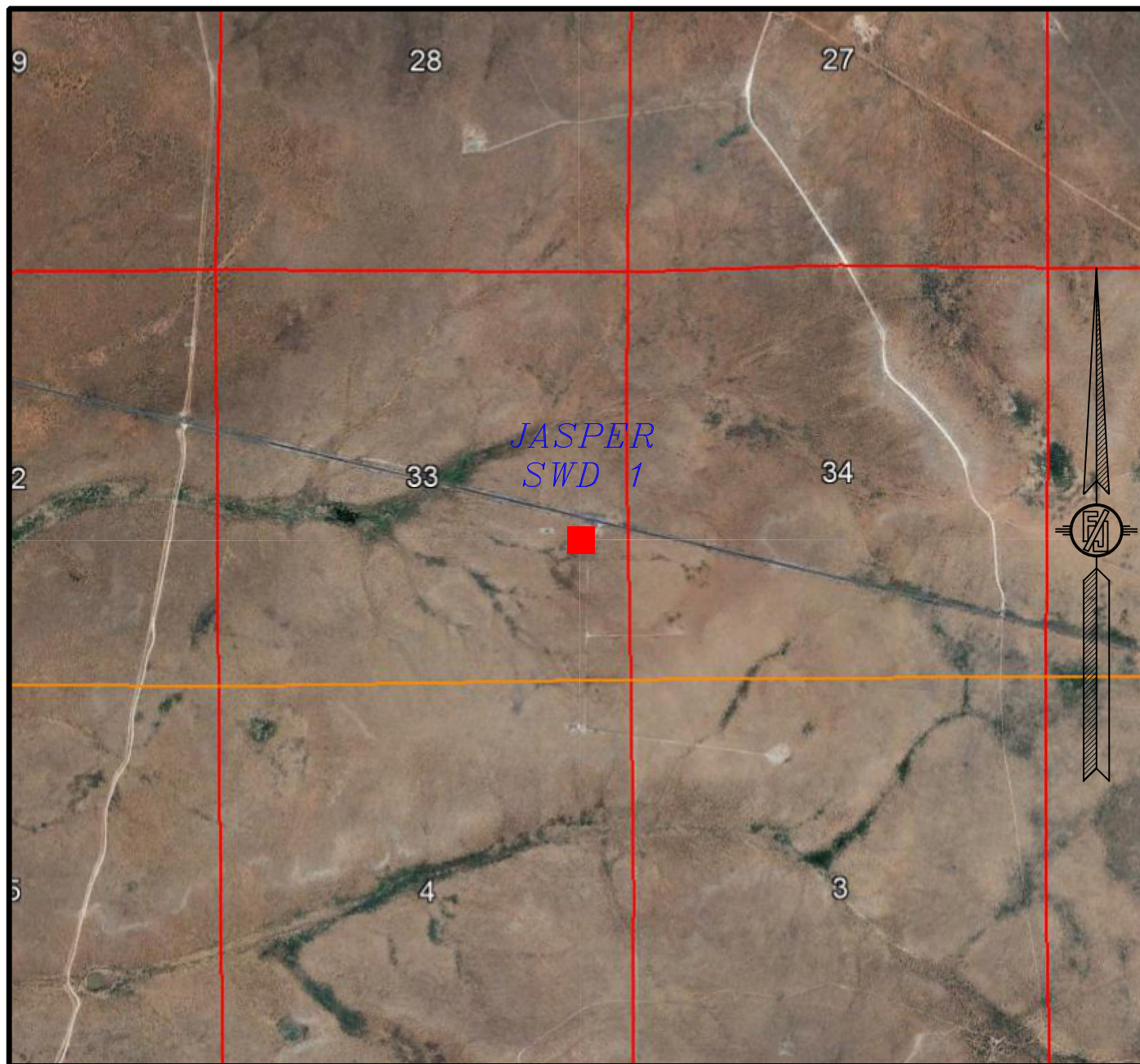
APRIL 13, 2022

SURVEY NO. 9380

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 33, TOWNSHIP 14 SOUTH, RANGE 29 EAST, N.M.P.M.
CHAVES COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
JUN. 2019

MACK ENERGY CORPORATION
JASPER SWD 1
LOCATED 1785 FT. FROM THE SOUTH LINE
AND 635 FT. FROM THE EAST LINE OF
SECTION 33, TOWNSHIP 14 SOUTH,
RANGE 29 EAST, N.M.P.M.
CHAVES COUNTY, STATE OF NEW MEXICO

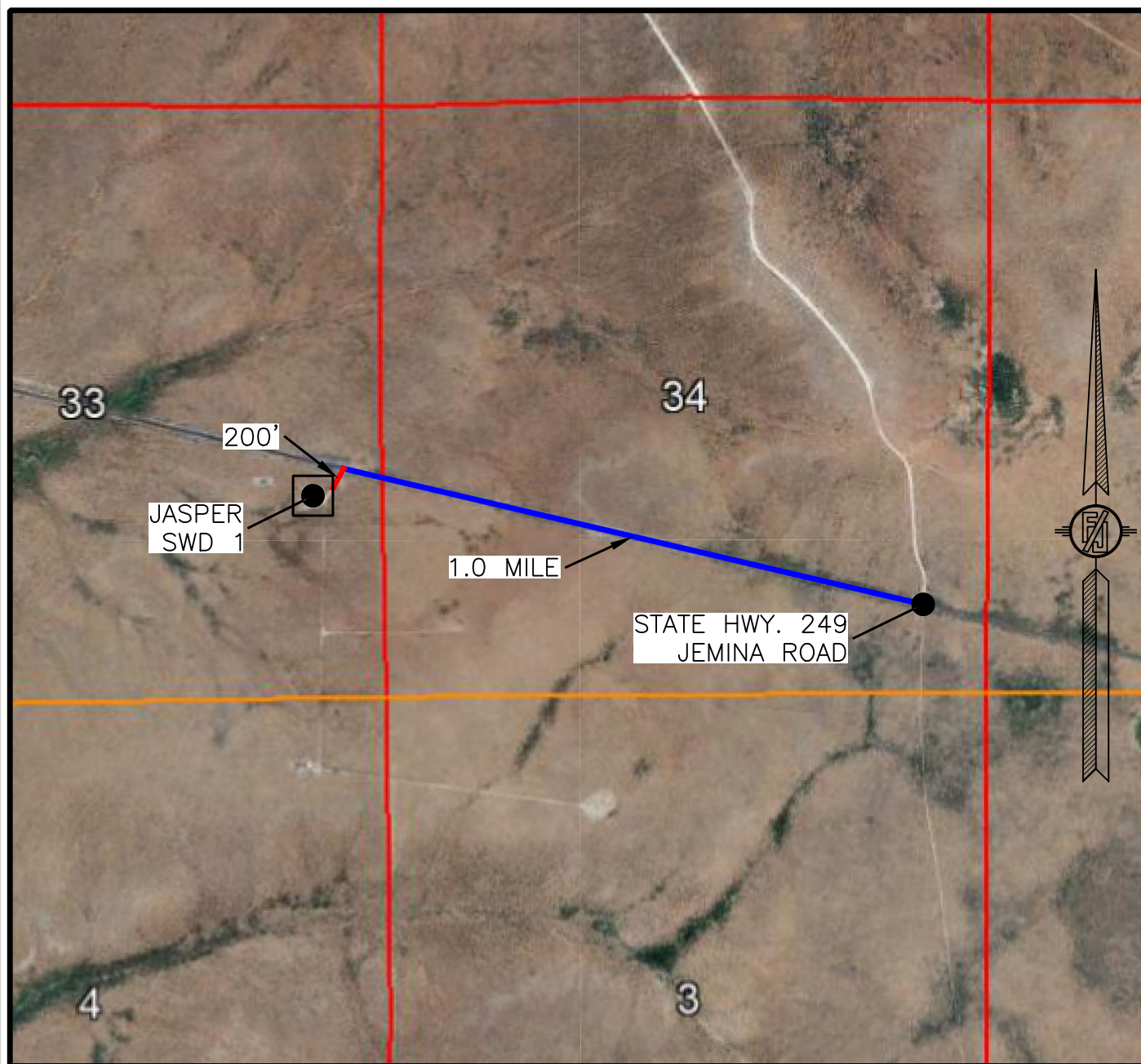
APRIL 13, 2022

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

SURVEY NO. 9380
CARLSBAD, NEW MEXICO

SECTION 33, TOWNSHIP 14 SOUTH, RANGE 29 EAST, N.M.P.M.
CHAVES COUNTY, STATE OF NEW MEXICO
AERIAL ACCESS ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
JUN. 2019

MACK ENERGY CORPORATION
JASPER SWD 1
LOCATED 1785 FT. FROM THE SOUTH LINE
AND 635 FT. FROM THE EAST LINE OF
SECTION 33, TOWNSHIP 14 SOUTH,
RANGE 29 EAST, N.M.P.M.
CHAVES COUNTY, STATE OF NEW MEXICO

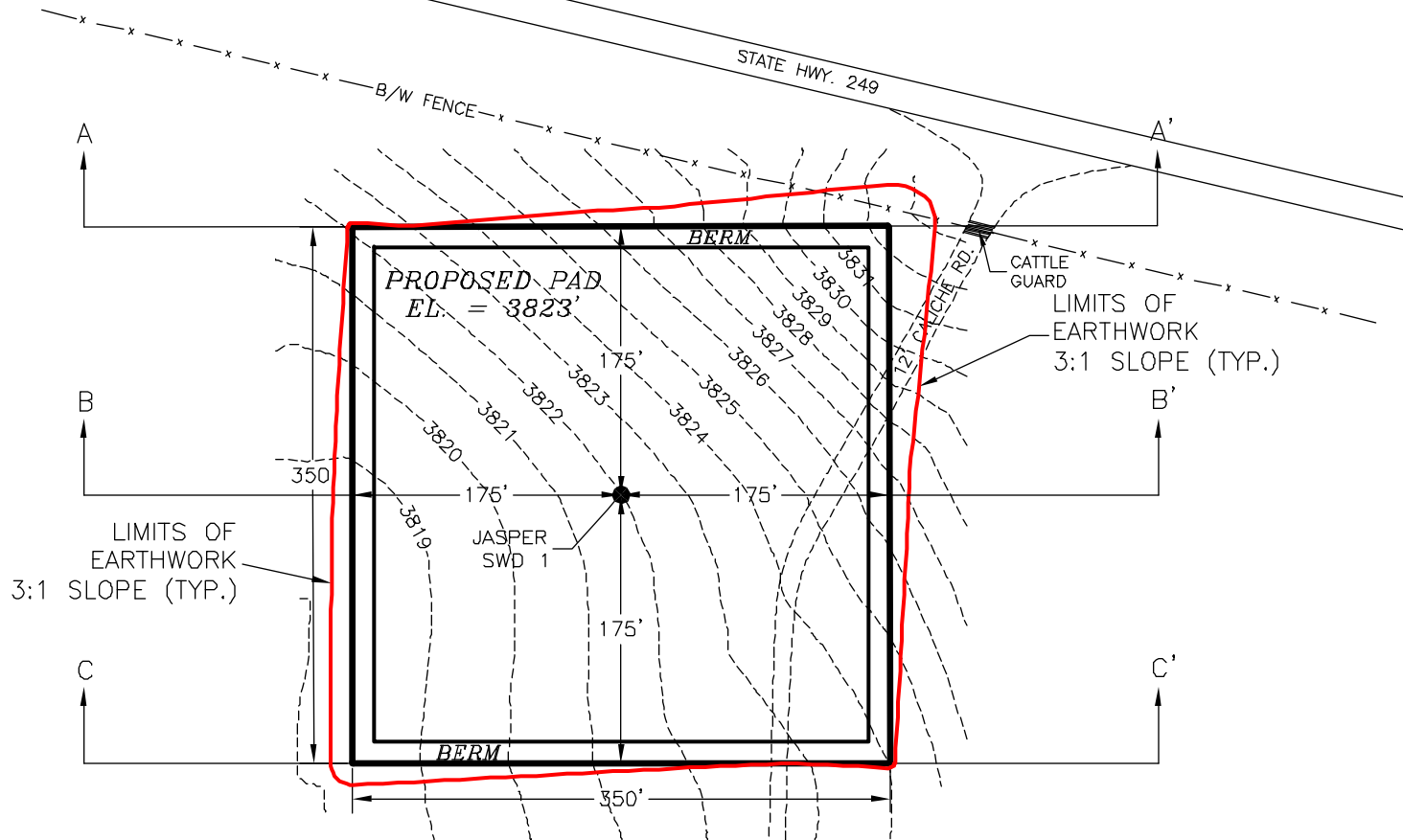
APRIL 13, 2022

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

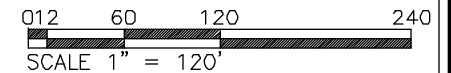
SURVEY NO. 9380
CARLSBAD, NEW MEXICO

PLAN VIEW



I, FILIMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

MACK ENERGY CORPORATION
PAD GRADING AND CROSS SECTIONS
FOR JASPER SWD 1
 SECTION 33, TOWNSHIP 14 SOUTH,
 RANGE 29 EAST, N.M.P.M.
 CHAVES COUNTY, STATE OF NEW MEXICO



CUT	FILL	NET
6306 CU. YD	5707 CU. YD	499 CU. YD (CUT)

EARTHWORK QUANTITIES ARE ESTIMATED

APRIL 13, 2022

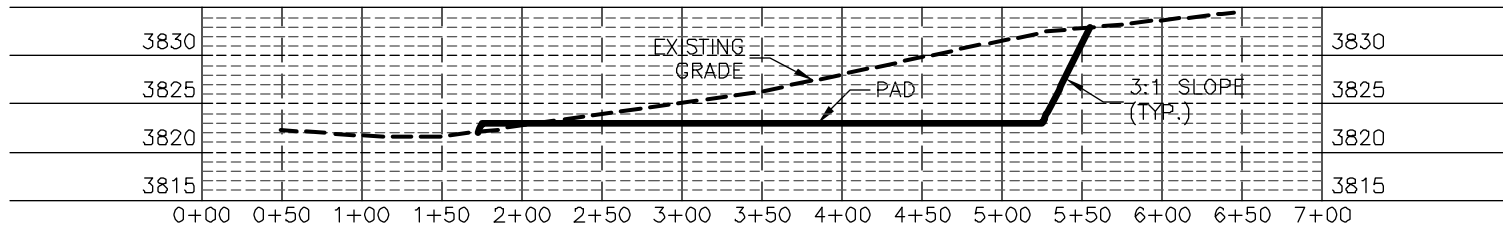
FILIMON F. JARAMILLO, P.E. 12187

DRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO (575) 234-3341

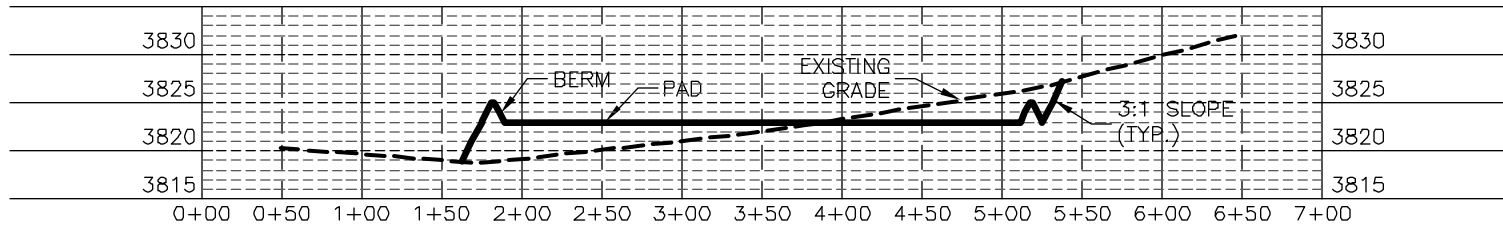
SHEET 1-2
SURVEY NO. 9380

CROSS-SECTIONS

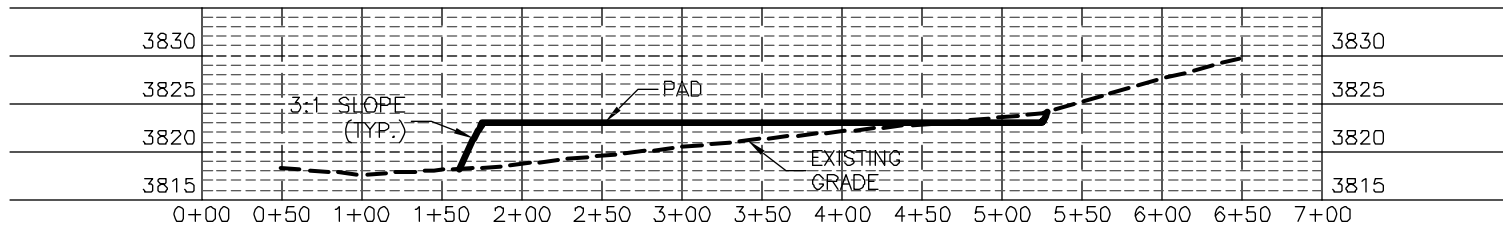
SECTION A-A'



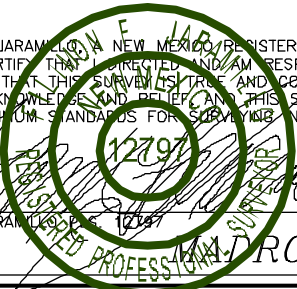
SECTION B-B'



SECTION C-C'



I, FILIMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



MACK ENERGY CORPORATION
PAD GRADING AND CROSS SECTIONS
FOR JASPER SWD 1
 SECTION 33, TOWNSHIP 14 SOUTH,
 RANGE 29 EAST, N.M.P.M.
 CHAVES COUNTY, STATE OF NEW MEXICO

APRIL 13, 2022

301 SOUTH CANAL
 (575) 234-3341

CARLSBAD, NEW MEXICO

0 12 60 120 240
 SCALE 1" = 120' - 1" = 20' VER

CUT	FILL	NET
6306 CU. YD	5707 CU. YD	499 CU. YD (CUT)

EARTHWORK QUANTITIES ARE ESTIMATED

FILIMON F. JARAMILLO, P.E. 12797

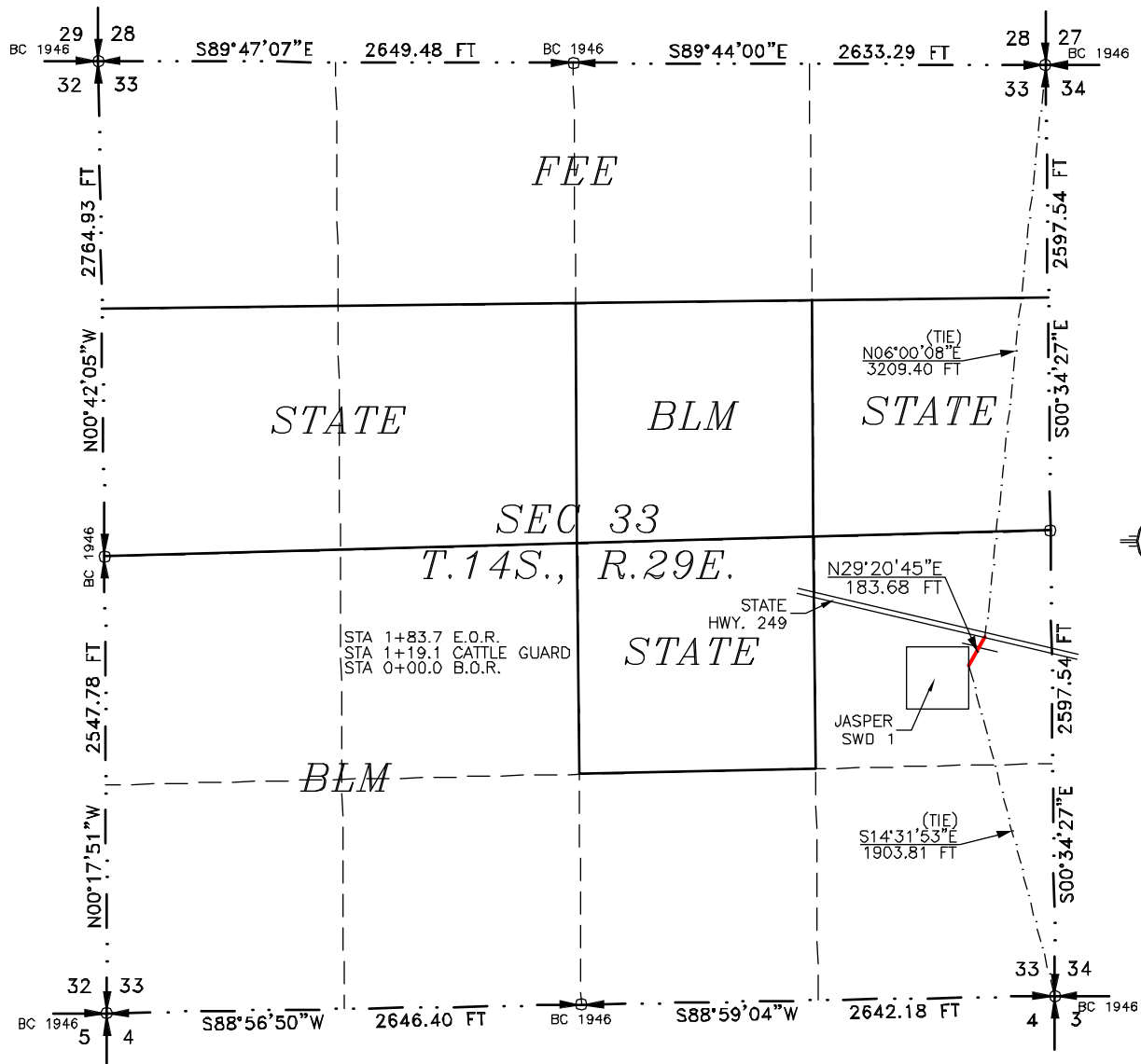
REGISTERED PROFESSIONAL SURVEYOR

DRON SURVEYING, INC.

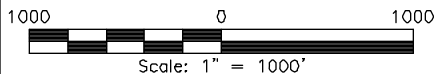
SHEET 2-2
 SURVEY NO. 9380

ACCESS ROAD PLAT
EXISTING ROAD FOR ACCESS TO JASPER SWD 1

MACK ENERGY CORPORATION
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 33, TOWNSHIP 14 SOUTH, RANGE 29 EAST, N.M.P.M.
CHAVES COUNTY, STATE OF NEW MEXICO
APRIL 13, 2022



SEE NEXT SHEET (2-2) FOR DESCRIPTION



GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 18th DAY OF APRIL 2022

FILMON F. JARAMILLO, PLS. 12797
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SHEET: 1-2

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO 88220 (575) 234-3341

SURVEY NO. 9380

ACCESS ROAD PLAT
EXISTING ROAD FOR ACCESS TO JASPER SWD 1

MACK ENERGY CORPORATION
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 33, TOWNSHIP 14 SOUTH, RANGE 29 EAST, N.M.P.M.
CHAVES COUNTY, STATE OF NEW MEXICO
APRIL 13, 2022

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 33, TOWNSHIP 14 SOUTH, RANGE 29 EAST, N.M.P.M., CHAVES COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NE/4 SE/4 OF SAID SECTION 33, TOWNSHIP 14 SOUTH, RANGE 29 EAST, N.M.P.M., WHENCE THE SOUTHEAST CORNER OF SAID SECTION 33, TOWNSHIP 14 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS S14°31'53"E, A DISTANCE OF 1903.81 FEET;
THENCE N29°20'45"E A DISTANCE OF 183.68 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHEAST CORNER OF SAID SECTION 33, TOWNSHIP 14 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS N06°00'08"E, A DISTANCE OF 3209.40 FEET;

SAID STRIP OF LAND BEING 183.68 FEET OR 11.13 RODS IN LENGTH, CONTAINING 0.127 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 SE/4 183.68 L.F. 11.13 RODS 0.127 ACRES

GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 13TH DAY OF APRIL 2022

FILIMON F. JARAMILLO
12797
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SHEET: 2-2

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 234-3341

SURVEY NO. 9380

Jasper SWD #1- Before						
Operator: Mack Energy Corporation						
Location: Sec. 33 T14S R29E						
1785 FSL 635 FEL						
Objective:						
GL Elevation: 3822'						
Depth	Hole Size & Cement					Casing Detail
377'	17 1/2" hole 13 3/8" Set in 1960 375sx CMT Circ to Surface					13 3/8" 375sx Cmt 0-377' 8 5/8" 1600sx Cmt 0-3999' Capped w/ bull plug
3,999'	12 1/4" hole 8 5/8" Set in 1960 1,600sx CMT Circ to Surface					Perf 1124-1133' Perf 1142-1157'
				XXXXX XXXXXXXXXXXXX		CIBP @ 1400'
						Plug @ 3840-4,000 w/ 50sx cmt
10,475'	8 3/4" hole					Plug @ 6040-6200' w/ 50sx cmt
						Plug @ 8,240-8,400' w/ 50sx cmt
						Plug @ 10,315-10,475' w/ 50sx cmt
				TD- 10,475'		




Operator: Mack Energy Corporation
Location: Sec. 33 T14S R29E
1785 FSL 635 FEL
Objective: SWD; Devonian
GL Elevation: 3822'

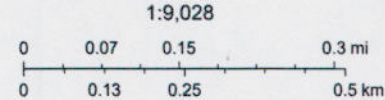
Depth	Hole Size & Cement		Casing Detail
361'	17 1/2" hole Set 1960 375sx CMT Circ to Surface		Set 1960 13 3/8" J-55 54.5# 361'
3,999'	12 1/4" hole Set 1960 1,600sx CMT Circ to Surface		2/21/1961 Perf 1124-1133' Perf 1142-1157'
			Set 1960 8 5/8" J-55 32# 3999'
10,475'	7 7/8" Hole 1300sx CMT Circ to Surface		5 1/2" L-80 20# 10,475'
	Open Hole 10,416-10,925'		2 7/8" Tubing 0-10,375'
			Compression Packer 10,375'
		TD- 10,475'	

OSE POD Locations Map



3/23/2022, 10:12:12 AM

-  OSE District Boundary
 -  Both Estates
 -  SiteBoundaries
- New Mexico State Trust Lands



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, U.S. Department of Energy Office of Legacy



New Mexico Office of the State Engineer
Active & Inactive Points of Diversion
(with Ownership Information)

No PODs found.

PLSS Search:

Section(s): 33

Township: 14S

Range: 29E

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.

3/22/22 2:11 PM

ACTIVE & INACTIVE POINTS OF DIVERSION



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

No PODs found.

PLSS Search:

Section(s): 32 Township: 14S Range: 29E

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.



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)						(R=POD has been replaced and no longer serves this file, C=the file is closed)		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)												
WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Well	q	q	q	Source	6416 4	2	2	34	14S	29E	X	Y
	Tag							Code												
LWD 03190	RA	PLS		2.97	BOGLE FARMS	CH	LWD 03190 POD1												592451	3658936*

Record Count: 1

PLSS Search:

Section(s): 34 Township: 14S Range: 29E

Sorted by: File Number

*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.



New Mexico Office of the State Engineer

Water Right Summary


[get image list](#)

WR File Number: LWD 03190 **Subbasin:** RA **Cross Reference:** LWD-RA-246
Primary Purpose: PLS NON 72-12-1 LIVESTOCK WATERING
Primary Status: DCL DECLARATION
Total Acres: 0.743 **Subfile:** - **Header:** -
Total Diversion: 2.97 **Cause/Case:** -
Owner: BOGLE FARMS
Contact: SCOTT BOGLE

Documents on File

	Trn #	Doc	File/Act	Status		Transaction Desc.	From/		Acres	Diversion	Consumptive
				1	2		To				
get images	694069	DCL	1991-07-10	DCL	PRC	LWD-RA-246	T		0.743	2.97	

Current Points of Diversion

POD Number	Well Tag	Source	Q		X	Y	Other Location Desc
			64	Q16Q4Sec TwS Rng			
LWD 03190 POD1			2	2 34 14S 29E	592451	3658936*	

An () after northing value indicates UTM location was derived from PLSS - see Help

Priority Summary

Priority	Status	Acres	Diversion	Pod Number
12/31/1930	DCL	0.743	2.97	LWD 03190 POD1

Place of Use

Q Q		Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
256	64 Q16 Q4Sec TwS Rng							
2	2 34 14S 29E	0.743	2.97		PLS	12/31/1930	DCL	

Source

Acres	Diversion	CU	Use	Priority	Source Description
0.743	2.97		PLS	12/31/1930	SW

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.

3/22/22 2:12 PM

 WATER RIGHT
SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64 Q16 Q4	Sec	Tws	Rng	X	Y		
	LWD 03190 POD1	2 2 34	14S	29E		592451	3658936*		

Driller License:**Driller Company:****Driller Name:****Drill Start Date:****Drill Finish Date:****Plug Date:****Log File Date:****PCW Rcv Date:****Source:****Pump Type:****Pipe Discharge Size:****Estimated Yield:****Casing Size:****Depth Well:****Depth Water:**

*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.

3/22/22 2:12 PM

POINT OF DIVERSION SUMMARY

Legal Notice

Mack Energy Corporation, Post Office Box 960, Artesia, NM 88211-1370, has filed an Application with the New Mexico Oil Conservation Division seeking authorization to inject produced water into the Jasper SWD #1 1785 FSL 635 FEL of Section 33, T14S, R29E, NMPM, Chaves County, New Mexico. The water will be injected into the Devonian at a disposal depth of 10,416-10,925'. Water will be injected at a maximum surface pressure of 1440# and a maximum injection rate of 4,000-6,000 BWPD. Any interest party with questions or comments may contact Deana Weaver at Mack Energy Corporation, Post Office Box 960, Artesia, NM 88211-1370 or call 575-748-1288. Objections to this application or requests for hearing must be filed with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within fifteen days of the date of publication of this notice.

Published in the Artesia Daily Press, Artesia, N.M., May 19, 2022 Legal No. 26151.

Legal Notice

Mack Energy Corporation, Post Office Box 960, Artesia, NM 88211-1370, has filed an Application with the New Mexico Oil Conservation Division seeking authorization to inject produced water into the Jasper SWD #1 1785 FSL 635 FEL of Section 33, T14S, R29E, NMPM, Chaves County, New Mexico. The water will be injected into the Devonian at a disposal depth of 10,416-10,925'. Water will be injected at a maximum surface pressure of 1440# and a maximum injection rate of 4,000-6,000 BWPD. Any interest party with questions or comments may contact Deana Weaver at Mack Energy Corporation, Post Office Box 960, Artesia, NM 88211-1370 or call 575-748-1288. Objections to this application or requests for hearing must be filed with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within fifteen days of the date of publication of this notice.

NMNM105445986

NESE, SESE, SWSE, NENW, NWNE, NENE, SWNE Sec. 33 T14S R29E

NWNW Sec. 34 T14S R29E

Leon M. Lampert

1134 The 600 Bldg.

Corpus Christi TX 78473

Burk Royalty CO LTD

P.O. Box 94903

Wichita Falls, TX 76308-0903

Vintage Lease Services LLC

P.O. Box 248

Artesia, NM 88211-0248

NMNM105503185

NENW Sec. 34 T14S R29E

Burk Royalty CO LTD

P.O. Box 94903

Wichita Falls, TX 76308-0903

Vintage Lease Services LLC

P.O. Box 248

Artesia, NM 88211-0248

NMNM-105559194 SWSW, NWSW NESW, SESW Sec. 34 T14S R29E

Vintage Drilling LLC

P.O. Box 248

Artesia, NM 88211-0248

NMNM-105369011 SENW Sec. 34 T14S R29E

Antelope Energy CO

P.O. Box 577

Kimball, NE 69145-0577

NMNM-105311942 SESW, NESE Sec. 33 T14S R29E

Speerex LTD Ptnrship

P.O. Box 266

Roswell, NM 88202-0266

NMNM105470205 Lot 1, Lot 2, Lot 3 Sec. 4 T14S 29E
Fred L Engle
P.O. Box 26245
Milwaukee, WI 53226-0245

NMNM105517548 Lot 3 Sec. 3 T14S R29E
Sam Shackelford
1096 Mechem Dr. Ste. G16
Ruidoso, NM 88345-7075

NMNM-105366121 Lot 3, Lot 4 Sec. 3 T14S R29E
EOG A. Resources Inc.
105 S. 4th St
Artesia, NM 88210-2177

Oxy Y-1 CO
5 Greenway Plz Ste 110
Houston, TX 77046-0521

EOG M. Resources Inc
105 S 4th St
Artesia, NM 88210

EOG Resources Inc
1111 Bagby St Lobby 2
Houston, TX 77002-2589

Commissioner of Public Lands
State Land Office
P.O. Box 1148
Santa Fe, NM 87504-1148

Bureau of Land Management
2909 W. 2nd St.
Roswell, NM 88201-1287



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7021 2720 0000 2140 7539

Return Receipt Requested

New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, NM 87501

To all Interest Owners:

Enclosed for you review is a copy of Mack Energy Corporation's application for a Devonian SWD well. Produced water will be injected at a proposed depth of 10,416-10,925'. The Jasper SWD #1 located 1785 FSL & 635 FEL, Sec. 33 T14S R29E, Chaves County.

The letter will serve as a notice that Mack Energy Corporation has requested administrative approval from the NMOCD to drill this well as a water disposal. If you have any objections, you must notify the Oil Conservation Division in Santa Fe in writing at 1220 South St. Francis Drive, Santa Fe, NM 87505 within fifteen (15) days of receiving this letter.

Sincerely,

Mack Energy Corporation

Deana Weaver
Regulatory Technician II

DW/

Attachments



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7021 2720 0000 2140 7522

Return Receipt Requested

Leon M. Lampert
1134 The 600 Bldg.
Corpus Christi TX 78473

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Mack Energy Corporation

Deana Weaver
Regulatory Technician II

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P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7021 2720 0000 2140 7515

Return Receipt Requested

Burk Royalty CO LTD
P.O. Box 94903
Wichita Falls, TX 76308-0903

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Regulatory Technician II

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P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7021 2720 0000 2140 7898
Return Receipt Requested

Vintage Lease Services LLC
P.O. Box 248
Artesia, NM 88211-0248

To all Interest Owners:

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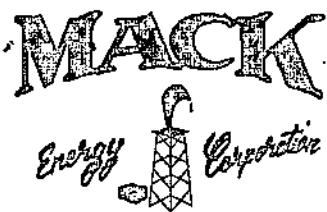
Mack Energy Corporation

Deana Weaver

Deana Weaver
Regulatory Technician II

DW/

Attachments



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7021 2720 0000 2140 7881

Return Receipt Requested

Vintage Drilling LLC
P.O. Box 248
Artesia, NM 88211-0248

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Sincerely,

Mack Energy Corporation

A handwritten signature in cursive script that reads "Deana Weaver".

Deana Weaver
Regulatory Technician II

DW/

Attachments



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7021 2720 0000 2140 7874
Return Receipt Requested

Antelope Energy CO
P.O. Box 577
Kimball, NE 69145-0577

To all Interest Owners:

Enclosed for your review is a copy of Mack Energy Corporation's application for a Devonian SWD well. Produced water will be injected at a proposed depth of 10,416-10,925'. The Jasper SWD #1 located 1785 FSL & 635 FEL, Sec. 33 T14S R29E, Chaves County.

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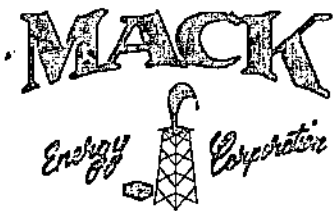
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Deana Weaver
Regulatory Technician II

DW/

Attachments



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7021 2720 0000 2140 7867

Return Receipt Requested

Speerex LTD Ptnrship
P.O. Box 266
Roswell, NM 88202-0266

To all Interest Owners:

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Regulatory Technician II

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Attachments



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7021 2720 0000 2140 7850

Return Receipt Requested

Fred L Engle
P.O. Box 26245
Milwaukee, WI 53226-0245

To all Interest Owners:

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Regulatory Technician II

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Attachments



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7021 2720 0000 2140 7843

Return Receipt Requested

Sam Shackelford
1096 Mechem Dr. Ste. G16
Ruidoso, NM 88345-7075

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Regulatory Technician II

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Attachments



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7021 2720 0000 2140 7836

Return Receipt Requested

EOG A. Resources Inc.
105 S. 4th St
Artesia, NM 88210-2177

To all Interest Owners:

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Regulatory Technician II

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Attachments



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7021 2720 0000 2140 7829

Return Receipt Requested

EOG M. Resources Inc.
105 S. 4th St
Artesia, NM 88210-2177

To all Interest Owners:

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Regulatory Technician II

DW/

Attachments



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7021 2720 0000 2140 7812

Return Receipt Requested

Oxy Y-1 CO
5 Greenway Plz Ste 110
Houston, TX 77046-0521

To all Interest Owners:

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Regulatory Technician II

DW/

Attachments



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7021 2720 0000 2140 7805

Return Receipt Requested

EOG Resources Inc
1111 Bagby St Lobby 2
Houston, TX 77002-2589

To all Interest Owners:

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Attachments



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

May 13, 2022

Via Certified Mail 7019 1640 0002 0377 9563
Return Receipt Requested

Bureau of Land Management
2909 W. 2nd St.
Roswell, NM 88201-1287

To all Interest Owners:

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Mack Energy Corporation

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Deana Weaver
Regulatory Technician II

DW/

Attachments



Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Customer: Mack Energy Corporation Sample #: 81463
Area: Artesia Analysis ID #: 80383
Lease: Prince Rupert
Location: Fed #4H 0
Sample Point: Wellhead

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	1/10/2019	Chloride:	89383.7	Sodium:	53970.0
Analysis Date:	1/22/2019	Bicarbonate:	175.7	Magnesium:	1013.0
Analyst:	Catalyst	Carbonate:		Calcium:	2725.0
TDS (mg/l or g/m3):	150968.6	Sulfate:	2800.0	Potassium:	644.4
Density (g/cm3):	1.102	Borate*:	190.4	Strontium:	55.6
Hydrogen Sulfide:	5	Phosphate*		Barium:	0.9
Carbon Dioxide:	97	*Calculated based on measured elemental boron and phosphorus.		Iron:	9.0
Comments:				Manganese:	0.857
				Conductivity (micro-ohms/cm):	200079
				Resistivity (ohm meter):	.0500
		pH at time of sampling:	6.65		
		pH at time of analysis:			
		pH used in Calculation:	6.65		
		Temperature @ lab conditions (F):	75		

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0.05	0.91	-0.13	0.00	-0.13	0.00	-0.11	0.00	1.22	0.60
100	0.13	2.72	-0.20	0.00	-0.13	0.00	-0.13	0.00	1.02	0.30
120	0.22	4.84	-0.26	0.00	-0.11	0.00	-0.15	0.00	0.84	0.30
140	0.30	7.26	-0.30	0.00	-0.06	0.00	-0.15	0.00	0.69	0.30
160	0.37	9.68	-0.34	0.00	0.00	6.96	-0.15	0.00	0.56	0.30
180	0.45	12.70	-0.37	0.00	0.08	166.07	-0.14	0.00	0.45	0.30
200	0.52	15.73	-0.40	0.00	0.18	328.81	-0.13	0.00	0.36	0.30
220	0.60	18.75	-0.42	0.00	0.28	485.19	-0.11	0.00	0.28	0.30



Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Customer:	Mack Energy Corporation	Sample #:	78595
Area:	Artesia	Analysis ID #:	76096
Lease:	Chilliwick		
Location:	Fed Com 1H		0
Sample Point:	Wellhead		

		mg/l		meq/l	mg/l		meq/l
Sampling Date:	11/28/2018	Anions			Cations		
Analysis Date:	12/3/2018	Chloride:		2941.72	Sodium:		2764.27
Analyst:	Catalyst	Bicarbonate:		2.16	Magnesium:		84.49
TDS (mg/l or g/m3):	175963.5	Carbonate:			Calcium:		143.81
Density (g/cm3):	1.118	Sulfate:		66.62	Potassium:		18.08
		Borate*:		0.68	Strontium:		1.45
		Phosphate*			Barium:		0.01
Hydrogen Sulfide:	4	*Calculated based on measured elemental boron and phosphorus.			Iron:		0.
Carbon Dioxide:	108				Manganese:		0.01
Comments:				pH at time of sampling:			
				pH at time of analysis:			
				pH used in Calculation:			
				Temperature @ lab conditions (F):			
					Conductivity (micro-ohms/cm):		200381
					Resistivity (ohm meter):		.0499

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0.28	2.95	-0.07	0.00	-0.05	0.00	-0.04	0.00	1.17	0.30
100	0.32	3.84	-0.14	0.00	-0.06	0.00	-0.07	0.00	0.97	0.30
120	0.36	5.02	-0.21	0.00	-0.05	0.00	-0.09	0.00	0.79	0.30
140	0.39	6.20	-0.26	0.00	-0.01	0.00	-0.10	0.00	0.63	0.30
160	0.43	7.38	-0.31	0.00	0.05	111.64	-0.10	0.00	0.50	0.30
180	0.46	9.16	-0.34	0.00	0.12	261.08	-0.09	0.00	0.38	0.30
200	0.50	10.93	-0.38	0.00	0.21	418.50	-0.08	0.00	0.29	0.30
220	0.55	12.99	-0.41	0.00	0.31	573.26	-0.07	0.00	0.21	0.30



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Water Analysis Report

Customer: Mack Energy Corporation Sample #: 81533
Area: Artesia Analysis ID #: 80615
Lease: Saskatoon
Location: Fed Com 1H 0
Sample Point: Wellhead

Sampling Date:	1/10/2019	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	1/23/2019	Chloride:	91681.1	2585.99	Sodium:	54050.0	2351.04
Analyst:	Catalyst	Bicarbonate:	153.7	2.52	Magnesium:	1173.0	96.5
		Carbonate:			Calcium:	2767.0	138.07
TDS (mg/l or g/m3):	151377.2	Sulfate:	700.0	14.57	Potassium:	647.0	16.55
Density (g/cm3):	1.105	Borate*:	144.3	0.91	Strontium:	60.1	1.37
		Phosphate*			Barium:	0.6	0.01
Hydrogen Sulfide:	4	*Calculated based on measured elemental boron and phosphorus.			Iron:	0.0	0.
Carbon Dioxide:	90				Manganese:	0.416	0.02
Comments:		pH at time of sampling:		7.23			
		pH at time of analysis:					
		pH used in Calculation:		7.23			
		Temperature @ lab conditions (F):		75	Conductivity (micro-ohms/cm):		197210
					Resistivity (ohm meter):		.0507

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Temp	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
°F										
80	0.57	6.35	-0.72	0.00	-0.71	0.00	-0.66	0.00	0.45	0.30
100	0.57	7.26	-0.79	0.00	-0.72	0.00	-0.69	0.00	0.25	0.00
120	0.58	8.77	-0.84	0.00	-0.69	0.00	-0.70	0.00	0.07	0.00
140	0.59	10.28	-0.89	0.00	-0.65	0.00	-0.71	0.00	-0.08	0.00
160	0.60	12.10	-0.93	0.00	-0.59	0.00	-0.70	0.00	-0.21	0.00
180	0.63	13.91	-0.96	0.00	-0.51	0.00	-0.70	0.00	-0.32	0.00
200	0.66	16.03	-0.99	0.00	-0.41	0.00	-0.69	0.00	-0.42	0.00
220	0.71	18.45	-1.01	0.00	-0.31	0.00	-0.67	0.00	-0.49	0.00



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Gardendale, TX 79758
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Water Analysis Report

Customer:	Mack Energy Corporation	Sample #:	118208
Area:	Artesia	Analysis ID #:	107555
Lease:	Montreal		
Location:	1H		0
Sample Point:	Wellhead		

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	2/13/2020	Chloride:	101615.8	Sodium:	62440.0
Analysis Date:	3/4/2020	Bicarbonate:	197.6	Magnesium:	965.3
Analyst:	Catalyst	Carbonate:		Calcium:	2569.0
TDS (mg/l or g/m3):	172020.9	Sulfate:	3400.0	Potassium:	660.8
Density (g/cm3):	1.116	Borate*:	110.4	Strontium:	57.8
		Phosphate*		Barium:	3.4
Hydrogen Sulfide:	7.4	*Calculated based on measured elemental boron and phosphorus.		Iron:	0.2
Carbon Dioxide:	102			Manganese:	0.550
Comments:		pH at time of sampling:	7.14		
		pH at time of analysis:			
		pH used in Calculation:	7.14		
		Temperature @ lab conditions (F):	75	Conductivity (micro-mhos/cm):	199270
				Resistivity (ohm meter):	.0502

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Temp	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
°F										
80	0.58	8.60	-0.09	0.00	-0.08	0.00	-0.05	0.00	1.83	1.78
100	0.59	10.08	-0.16	0.00	-0.08	0.00	-0.08	0.00	1.63	1.78
120	0.60	11.86	-0.23	0.00	-0.07	0.00	-0.10	0.00	1.45	1.78
140	0.61	13.93	-0.28	0.00	-0.03	0.00	-0.10	0.00	1.30	1.78
160	0.63	16.01	-0.32	0.00	0.03	69.97	-0.10	0.00	1.16	1.78
180	0.65	18.38	-0.36	0.00	0.11	226.51	-0.10	0.00	1.05	1.78
200	0.68	21.05	-0.39	0.00	0.19	391.65	-0.09	0.00	0.95	1.48
220	0.73	24.01	-0.42	0.00	0.29	555.31	-0.08	0.00	0.87	1.48



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Water Analysis Report

Customer:	Mack Energy Corporation	Sample #:	100487
Area:	Drilling	Analysis ID #:	94751
Lease:	Maple Ridge		
Location:	Fed #1		0
Sample Point:	Wellhead		

Sampling Date:	7/29/2019	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	8/8/2019	Chloride:	84902.3	2394.79	Sodium:	51250.0	2229.25
Analyst:	Catalyst	Bicarbonate:	241.6	3.96	Magnesium:	1177.0	96.82
		Carbonate:			Calcium:	2566.0	128.04
TDS (mg/l or g/m3):	144232	Sulfate:	3300.0	68.71	Potassium:	564.2	14.43
Density (g/cm3):	1.097	Borate*:	173.9	1.1	Strontium:	53.5	1.22
		Phosphate*			Barium:	1.5	0.02
Hydrogen Sulfide:	14	*Calculated based on measured elemental boron and phosphorus.			Iron:	1.5	0.05
Carbon Dioxide:	162.8				Manganese:	0.460	0.02
Comments:		pH at time of sampling:					
		pH at time of analysis:					
		pH used in Calculation:	6.41				
		Temperature @ lab conditions (F):	75		Conductivity (micro-mhos/cm):	194536	
					Resistivity (ohm meter):	.0514	

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	-0.09	0.00	-0.09	0.00	-0.09	0.00	-0.04	0.00	1.52	0.91
100	0.01	0.30	-0.15	0.00	-0.08	0.00	-0.06	0.00	1.33	0.91
120	0.10	3.96	-0.20	0.00	-0.06	0.00	-0.08	0.00	1.15	0.61
140	0.21	8.22	-0.25	0.00	-0.01	0.00	-0.08	0.00	1.00	0.61
160	0.31	12.48	-0.28	0.00	0.06	131.82	-0.08	0.00	0.87	0.61
180	0.41	17.35	-0.31	0.00	0.14	299.86	-0.07	0.00	0.76	0.61
200	0.51	21.92	-0.33	0.00	0.24	471.86	-0.06	0.00	0.67	0.61
220	0.61	26.79	-0.35	0.00	0.35	637.46	-0.04	0.00	0.60	0.61



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Water Analysis Report

Customer: Mack Energy Corporation Sample #: 55880
Area: Artesia Analysis ID #: 53988
Lease: White Rock
Location: Federal #1H 0
Sample Point: Wellhead

		Anions		mg/l	meq/l	Cations		mg/l	meq/l
Sampling Date:	12/21/2017	Chloride:		93901.4	2648.62	Sodium:		58100.0	2527.21
Analysis Date:	1/6/2018	Bicarbonate:		241.6	3.96	Magnesium:		969.6	79.76
Analyst:	Catalyst	Carbonate:				Calcium:		2737.0	136.58
TDS (mg/l or g/m3):	161820.5	Sulfate:		5000.0	104.1	Potassium:		571.6	14.62
Density (g/cm3):	1.107	Borate*:		229.5	1.45	Strontium:		66.0	1.51
		Phosphate*				Barium:		0.0	0.
Hydrogen Sulfide:	11	*Calculated based on measured elemental boron and phosphorus.				Iron:		3.8	0.14
Carbon Dioxide:	242					Manganese:		0.000	0.
Comments:					pH at time of sampling:				
					pH at time of analysis:				
					pH used in Calculation:				
					Temperature @ lab conditions (F):			Conductivity (micro-ohms/cm):	176042
								Resistivity (ohm meter):	.0568

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Temp	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
°F										
80	0.43	9.88	0.10	359.72	0.11	305.55	0.18	14.96	0.00	0.00
100	0.49	12.27	0.03	111.03	0.10	296.88	0.16	13.17	0.00	0.00
120	0.55	14.96	-0.03	0.00	0.13	355.53	0.14	11.97	0.00	0.00
140	0.60	17.96	-0.08	0.00	0.17	467.16	0.13	11.67	0.00	0.00
160	0.64	20.95	-0.12	0.00	0.23	615.30	0.14	11.67	0.00	0.00
180	0.69	24.54	-0.15	0.00	0.31	784.69	0.14	12.27	0.00	0.00
200	0.75	28.13	-0.18	0.00	0.40	962.15	0.15	12.87	0.00	0.00
220	0.80	31.72	-0.20	0.00	0.51	1137.23	0.17	13.77	0.00	0.00

Jasper SWD #1
C-108
Well Tabulation Penetrating Injection Zone in Review Area
Mack Energy Corporation
Proposed Disposal Well

Operator	Well Name	API #	County	Footage	Sec	TWN	RNG	Type	Status	Spud Date	Comp Date	TD	PBTD	Comp Zone	Comp Interval	Casing Prog	Cement
Vintage Drilling LLC	Strange Federal Com #1	30-005-61925	Chaves	660 FSL 660 FWL	34	14S	29E	Gas	Producing	1/27/1983	2/8/1983	1950'	1920'	Double L, Queen	1811-1819'	8 5/8" 24# @ 243' 4 1/2" 10.5# @ 1950'	175sx Circ 250sx
Dalport Oil Corporation	Ling Federal #1	30-005-61971	Chaves	990 FNL 1980 FWL	3	15S	29E	Oil (Dry Hole)	P&A 4/4/1983	3/31/1983	44/4/1983	1870'	1870'	Wildcat Queen		8 5/8" 24# @212'	150sx
Jack L McClellan	Mark Federal #1	30-005-60134	Chaves	660 FNL 660 FEL	4	15S	29E	Oil (Dry Hole)	P&A 3/37/1972	8/21/1970	9/14/1970	1925'	1925'	Wildcat		8 5/8" 20# @ 286'	150sx

VII. DATA SHEET: PROPOSED OPERATIONS

1. Proposed average and maximum daily rate and volume of fluids to be injected;
Respectively, 2000 BWPD and 4000 BWPD
2. The system is closed or open;
Closed
3. Proposed average and maximum injection pressure;
0-2,030#
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produced water;
We will be re-injecting produced water
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;
N/A

VIII. GEOLOGICAL DATA

1. Lithologic Detail; Dolomite
2. Geological Name; Devonian
3. Thickness; 510'
4. Depth; 10,475' Open Hole 10,416-10,925'

IX. PROPOSED STIMULATION PROGRAM

1. To be treated with 10000 gallons 15% acid

X. LOGS AND TEST DATA

1. Well data will be filed with the OCD.

XI. ANALYSIS OF FRESHWATER WELLS

Additional Information

Waters Injected: San Andres

XII. AFFIRMATIVE STATEMENT

RE: Jasper SWD #1

We have examined the available geologic and engineering data and find no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water.

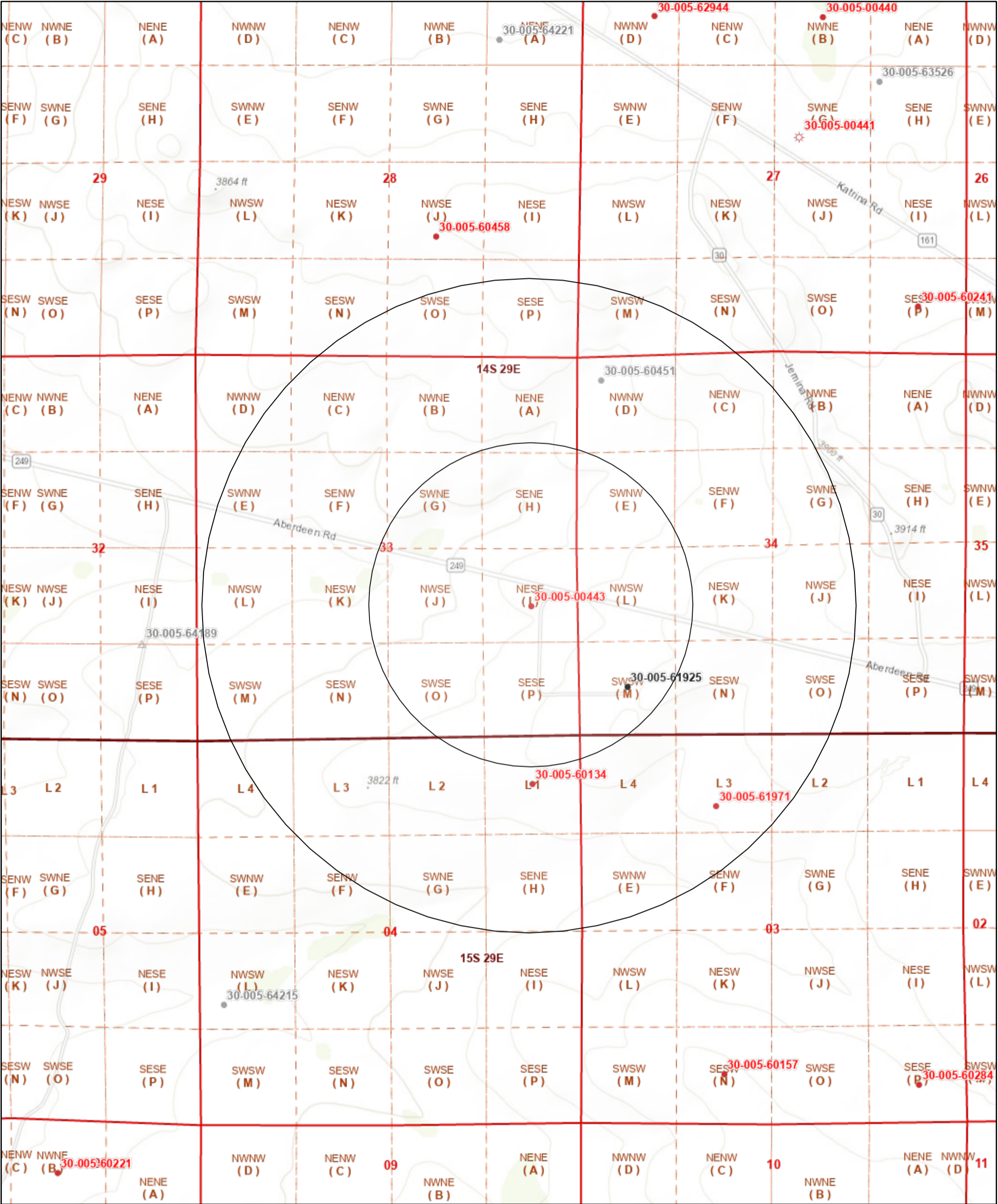
Mack Energy Corporation

Date: 4/21/22



Charles Sadler, Geologist

OCD Well Locations



4/28/2022, 9:46:23 AM

- Override 1
- Wells - Large Scale
- Oil, Plugged
- Oil, Active
- Oil, Cancelled
- △

Salt Water Injection, Cancelled
- ⚙

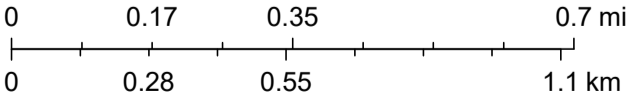
Gas, Plugged
- ⬜

PLSS Second Division
- ⬜

PLSS First Division
- ⬜

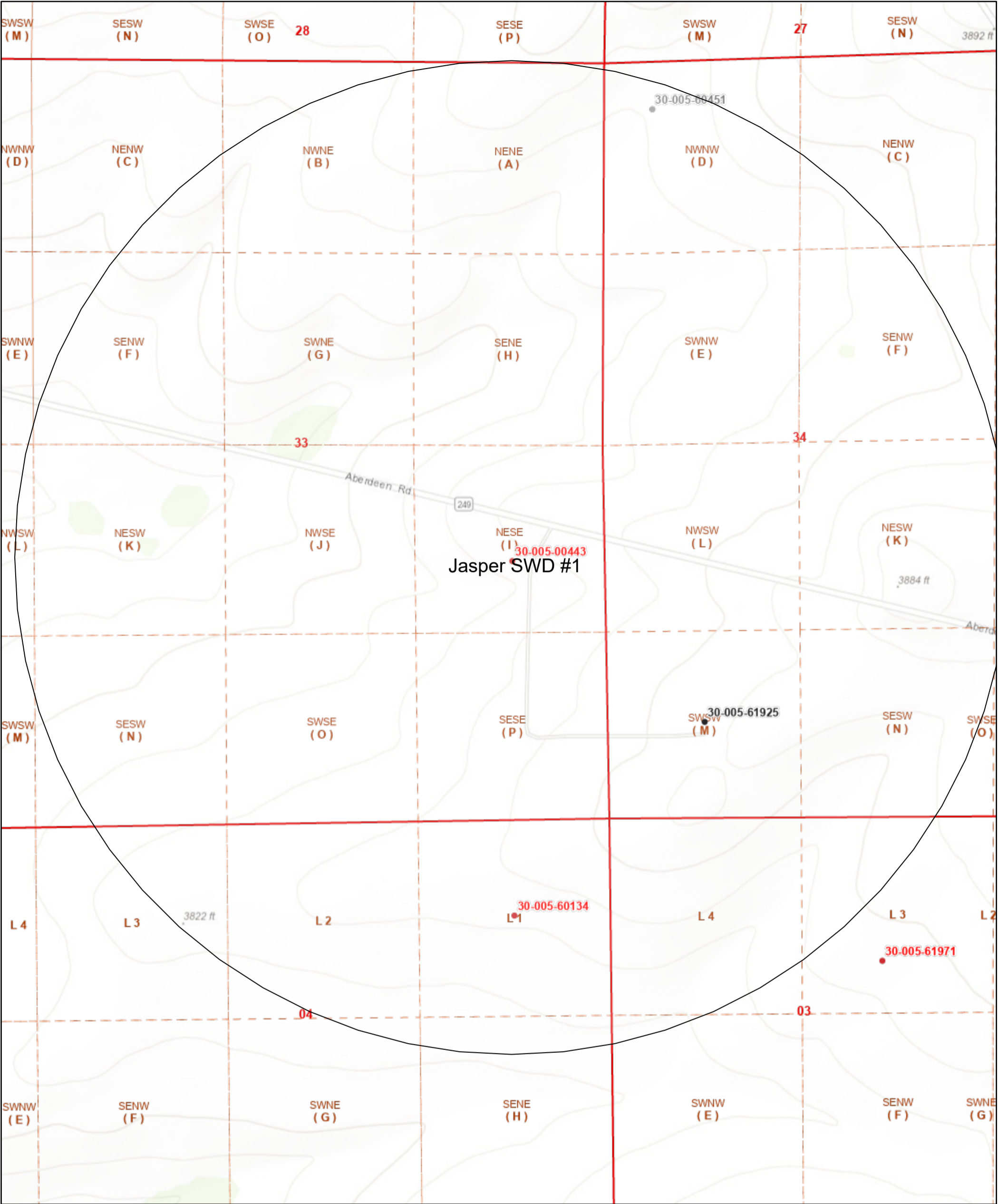
PLSS Townships

1:18,056



Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., 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

OCD Well Locations



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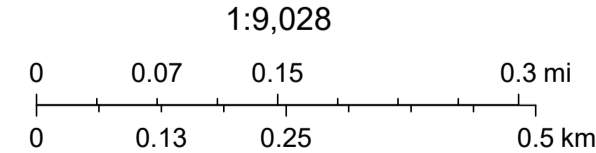
- Override 1

Oil, Plugged
- Wells - Large Scale

Oil, Active

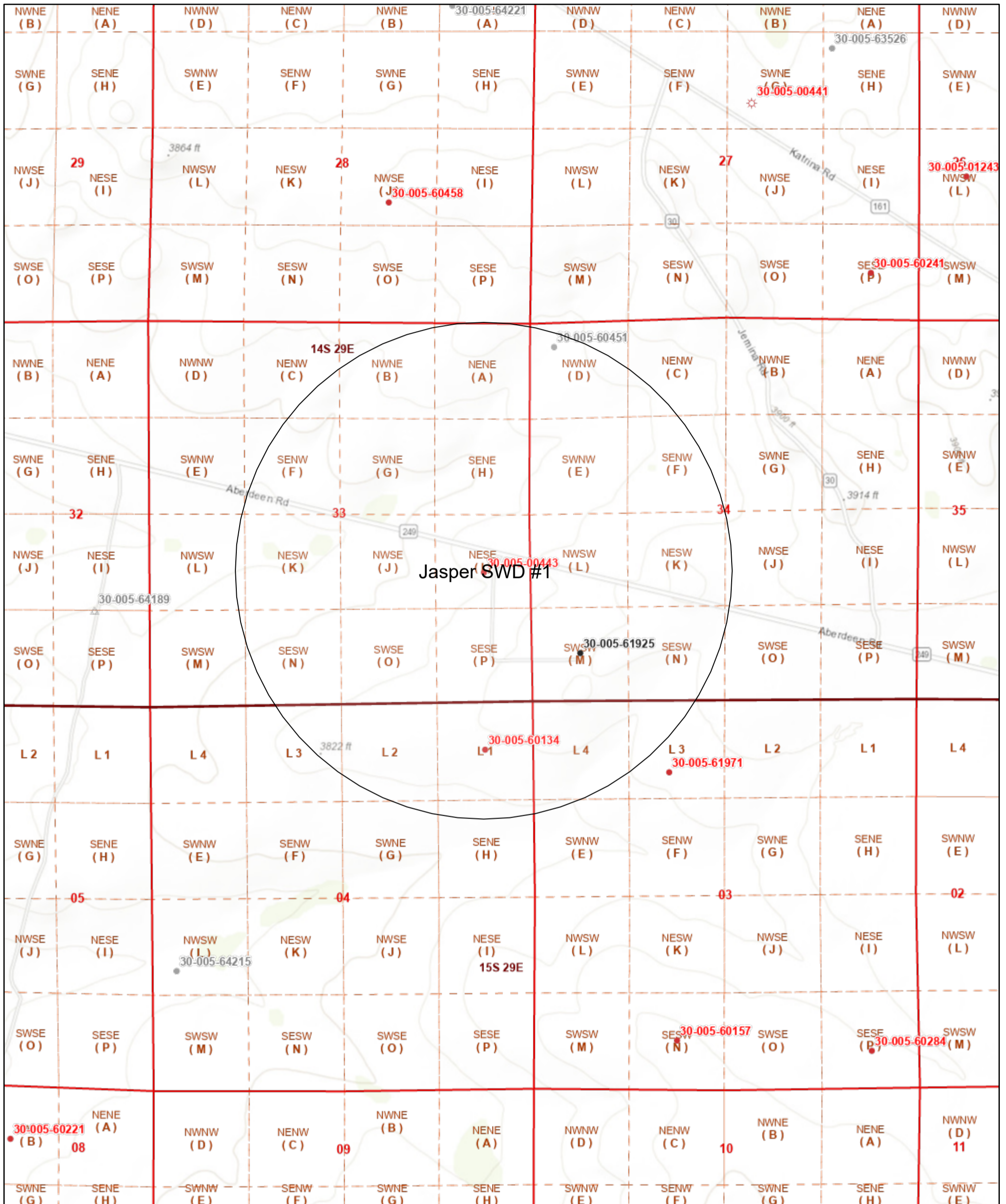
Oil, Cancelled
- PLSS Second Division

PLSS First Division



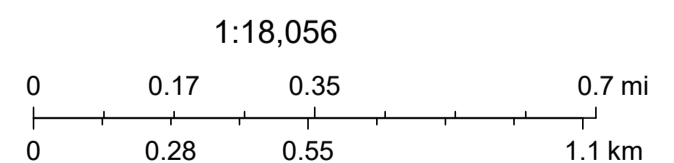
Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the

OCD Well Locations



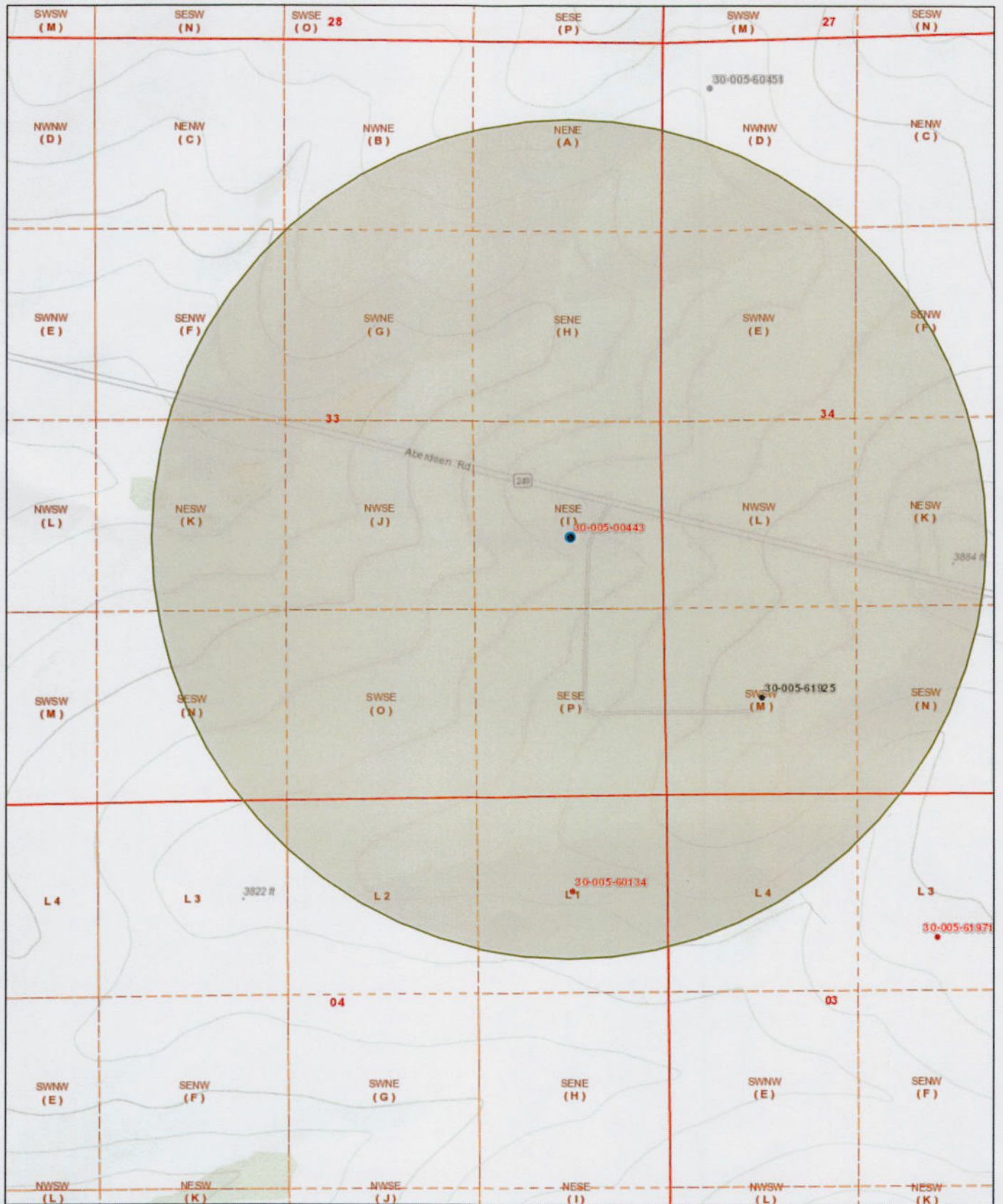
4/28/2022, 9:26:15 AM

- Override 1
- Oil, Plugged
- ▲ Salt Water Injection, Cancelled
- ✱ Gas, Plugged
- PLSS Second Division
- Oil, Active
- PLSS First Division
- Oil, Cancelled
- PLSS Townships



Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., 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

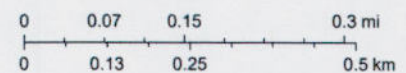
OCD Well Locations



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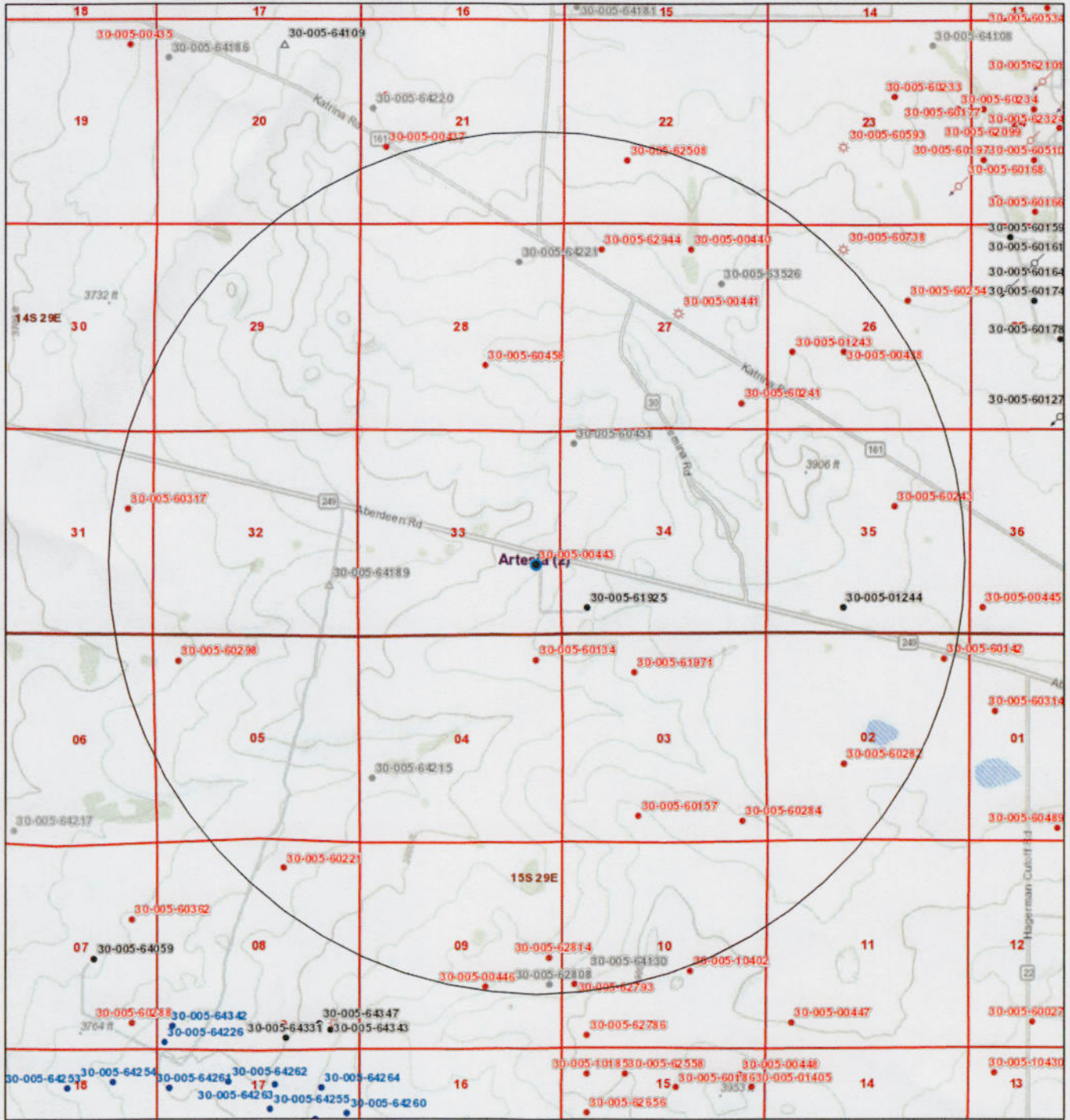
- | | | | |
|--|--|---|---|
| <ul style="list-style-type: none"> Override 1 Wells - Large Scale undefined Miscellaneous CO2, Active CO2, Cancelled CO2, New CO2, Plugged | <ul style="list-style-type: none"> CO2, Temporarily Abandoned Gas, Active Gas, Cancelled Gas, New Gas, Plugged Gas, Temporarily Abandoned Injection, Active Injection, Cancelled | <ul style="list-style-type: none"> Injection, New Injection, Plugged Injection, Temporarily Abandoned Oil, Active Oil, Cancelled Oil, New Oil, Plugged Oil, Temporarily Abandoned | <ul style="list-style-type: none"> Salt Water Injection, Active Salt Water Injection, Cancelled Salt Water Injection, New Salt Water Injection, Plugged |
|--|--|---|---|

1:9,028



Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department. 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

OCD Well Locations



3/22/2022, 12:43:32 PM

1:36,112

☐ Override 1

Wells - Large Scale

undefined

● Miscellaneous

☀ CO2, Active

* CO2, Cancelled

☀ CO2, New

☀ CO2, Plugged

☀ CO2, Temporarily Abandoned

Gas, Active

Gas, Cancelled


Gas. New

- Gas, Plugged


- Gas, Temporarily Abandoned

Injection, Active

 Injection, Cancelled

 Injection, New

 Injection, Plugged

 Injection, Temporary

- Oil, Active


- Oil Cancelled

- Oil, New

- Oil, Plugged

- Oil Temporarily Absorbed

△ Salt Water Injection

 Salt Water Injection, Cancelled

 Salt Water Injection, New

▲ Salt Water Injection, Plugged

▲ Salt Water Injection, Temporarily Abandoned

• **Water, Active**

Water, Cancelled

- Water, New

- Water, Plugged

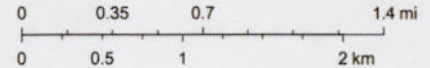
Water, Temporary

OCD Districts

★ **OCD District Offices**

PLSS First Division

☐ PLSS Townships



Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., OCD, Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, METI/NASA, EPA, USDA, BLM