

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 and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address NGL WATER SOLUTIONS PERMIAN, LLC 1509 W WALL ST, STE 306 MIDLAND, TEXAS 79701		² OGRID Number 372338 ³ API Number 30-015-TBD 44416
⁴ Property Code 319466	⁵ Property Name STRIKER 2 SWD	⁶ Well No. 1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
D	23	24S	31E		1,025	NORTH	440	WEST	EDDY

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
-	-	-	-	-	-	-	-	-	-

9. Pool Information

Pool Name SWD; Silurian-Devonian	Pool Code 96101
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Additional Well Information

¹¹ Work Type N	¹² Well Type SWD	¹³ Cable/Rotary R	¹⁴ Lease Type Private	¹⁵ Ground Level Elevation 3,565'
¹⁶ Multiple N	¹⁷ Proposed Depth 17,850'	¹⁸ Formation Siluro-Devonian	¹⁹ Contractor TBD	²⁰ Spud Date ASAP
Depth to Ground water <530'		Distance from nearest fresh water well > 1 mile		Distance to nearest surface water > 1 mile

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	26"	20"	94 lb/ft	850'	1,840	Surface
Intermediate	17.5"	13.375"	68 lb/ft	4,450'	2,480	Surface
Production	12.25"	9.625"	47 lb/ft	11,900'	2,110	Surface
Prod. Liner	8.5"	7.625"	42.8 lb/ft	11,600' – 16,300'	595	11,600'
Tubing	N/A	5.5"	17 lb/ft	11,600'	N/A	N/A
Tubing	N/A	4.5"	11.6 lb/ft	11,600' – 16,250'	N/A	N/A

Casing/Cement Program: Additional Comments

See attached schematic.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Hydraulic/Blinds, Pipe	5,000 psi	8,000 psi	TBD – Schaffer/Cameron

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> , if applicable. Signature: Printed name: Chris Weyand Title: Consulting Engineer E-mail Address: chris@lonquist.com Date: 8/15/2017	<div style="text-align: center; border-bottom: 1px solid black; padding-bottom: 5px;"> OIL CONSERVATION DIVISION </div> <div style="text-align: center;"> Approved By: Title: Geologist Approved Date: 9-6-17 Expiration Date: 9-6-19 </div> <div style="text-align: center; border-top: 1px solid black; padding-top: 5px;"> Conditions of Approval Attached C-108 Approval. </div>
Phone: 512-600-1764	

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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 30-015-44416	² Pool Code 96101	³ Pool Name SWD; Silurian-Devonian
⁴ Property Code 319466	⁵ Property Name STRIKER 2 SWD	
⁷ OGRID No. 372338	⁶ Well Number #1	
⁸ Operator Name NGL WATER SOLUTIONS PERMIAN, LLC		⁹ Elevation 3564.62'

*** Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	23	24 S	31 E		1,025'	NORTH	440'	WEST	EDDY

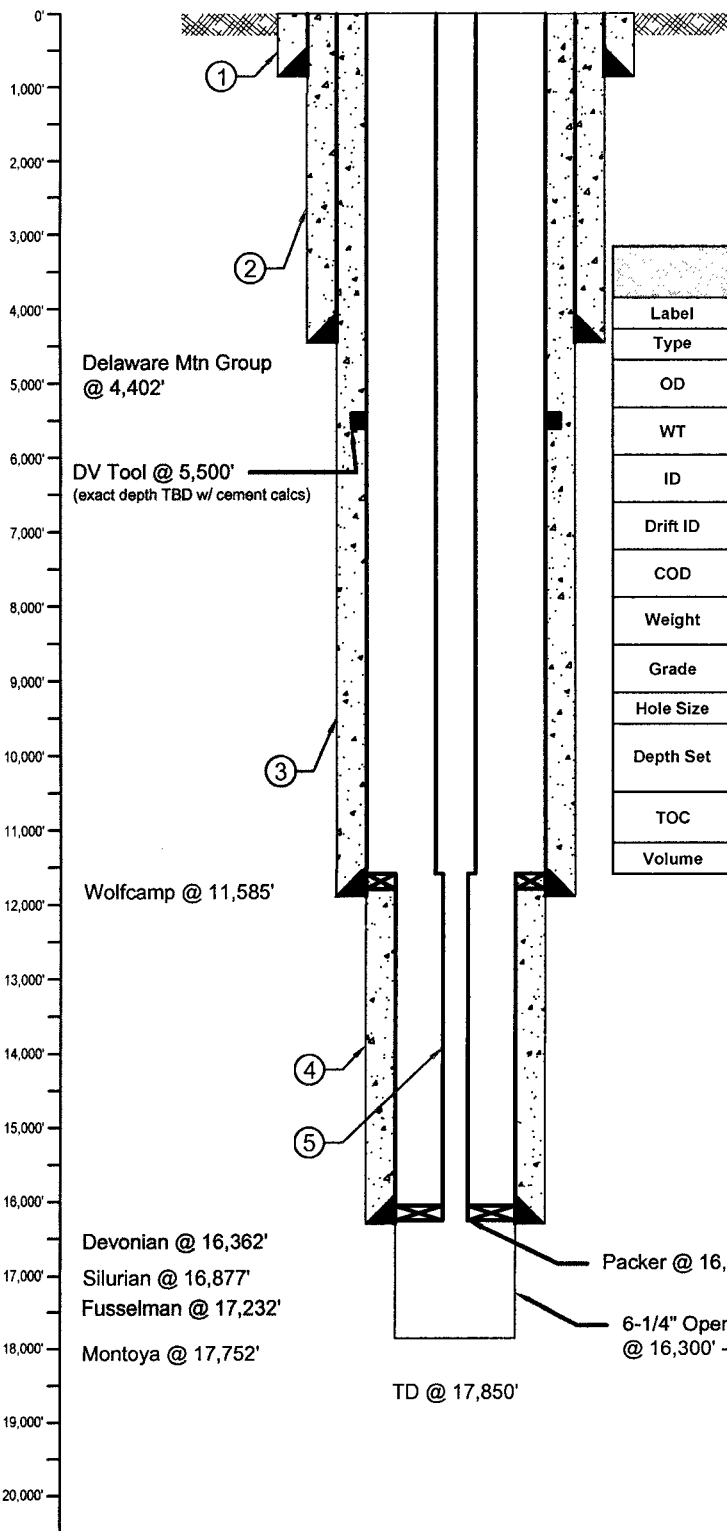
" Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	-	-	-		-	-	-	-	-

¹¹ Dedicated Acres	¹² Joint or Infill	¹³ Consolidation Code	¹⁵ Order No.
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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.

<div data-bbox="162 1029 341 1239"> <p>1025'</p> <p>440'</p> <p>STRIKER 2 SWD #1</p> </div> <div data-bbox="487 1302 730 1596"> <p>GEODETIC DATA NAD 83 GRID - NM EAST STRIKER 2 SWD #1 Y=439623.42 N X=719982.94 E LAT=32.207282°N LONG=-103.755737°W ELEV=3564.62'</p> <p>CORNER DATA NAD 83 GRID - NM EAST A - Y=440845.94, X=719536.67 B - Y=440678.25, X=724819.63 C - Y=435395.56, X=724854.17 D - Y=435365.76, X=719569.54</p> </div>
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KB:	NA
BHF:	NA
GL:	3564.62'
Spud:	NA

Casing/Tubing Information					
Label	1	2	3	4	5
Type	Surface	Intermediate 1	Intermediate 2	Liner	Tubing
OD	20"	13-3/8"	9-5/8"	7-5/8"	5-1/2" 4-1/2"
WT	0.438"	0.480"	0.472"	0.562"	0.304" 0.250"
ID	19.124"	12.415"	8.681"	6.501"	4.892" 4.000"
Drift ID	18.936"	12.259"	8.525"	6.376"	4.767" 3.976"
COD	21.000"	14.375"	10.625"	7.625"	6.050" 5.000"
Weight	94 lb/ft	68 lb/ft	47 lb/ft	42.8 lb/ft	17 lb/ft 11.6 lb/ft
Grade	J-55 STC	HCL-80 STC	HCL-80 LTC	P-110 UFJ	L-80 BTC HCP-110 LTC
Hole Size	26"	17-1/2"	12-1/4"	8-1/2"	Varies
Depth Set	850'	4,450'	11,900'	11,600' - 16,300'	0' - 11,600' 11,600' - 16,250'
TOC	Surface (circulation)	Surface (circulation)	Surface (circulation)	11,600'	NA
Volume	1,840 sks	2,480 sks	2,110 sks	595 sks	NA

LONQUIST

FIELD SERVICE

WISLA WICHITA
TULSA OKLAHOMA

NGL Water Solutions Permian LLC

Striker 2 SWD No. 1

Country: USA

State/Province: New Mexico

County/Parish: Eddy

Location:

Site:

Survey/STR: 23-24S-31E

API No:

Field:

Well Type/Status: SWD

Texas License F-9147

State ID No:

Project No: 1469

Date: 8/9/17

3345 Bee Cave Road, Suite 201
Austin, Texas 78746
Tel: 512.732.9812
Fax: 512.732.9816

Drawn: CJG

Reviewed: CW

Approved: CW

Rev No: 1

Notes:

LONQUIST & CO. LLC

PETROLEUM
ENGINEERS

ENERGY
ADVISORS

AUSTIN HOUSTON WICHITA DENVER CALGARY

August 15, 2017

New Mexico Energy, Minerals, and Natural Resources Department
Oil Conservation Division District II
811 S. First St.
Artesia, New Mexico 88210
(575) 748-1283

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 21 2017

RE: STRIKER 2 SWD NO. 1 AUTHORIZATION TO INJECT

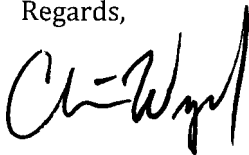
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To Whom It May Concern:

Attached for your review is Form C-108, Application for Authorization to Inject, and its supplemental documents prepared for NGL Water Solutions Permian, LLC's Striker 2 SWD No. 1. In addition, Forms C-101 and C-102 have also been included with this package. Notices have been sent to offset leaseholders and the surface owner. Proof of notice will be sent to the OCD upon receipt.

Any questions should be directed towards NGL Water Solutions Permian, LLC's agent Lonquist & Co., LLC.

Regards,



Christopher B. Weyand
Staff Engineer
Lonquist & Co., LLC

(512) 600-1764
chris@lonquist.com

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
---------	----------	----------	-----------	------	---------

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - 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

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
 [A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

- [D] Other: Specify _____

NM OIL CONSERVATION
 ARTESIA DISTRICT

AUG 21 2017

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- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ Does Not Apply
 [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
 [B] ☒ Offset Operators, Leaseholders or Surface Owner
 [C] ☒ Application is One Which Requires Published Legal Notice
 [D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
 [E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,
 [F] ☐ Waivers are Attached

- [3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

- [4] **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.

Chris Weyand
 Print or Type Name

Signature

Consulting Engineer
 Title

8/15/2017
 Date

chris@lonquist.com
 e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance X Disposal _____ Storage
Application qualifies for administrative approval? X Yes _____ No

II. OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLC

ADDRESS: 1509 W WALL ST // STE 306 // MIDLAND, TEXAS 79701

CONTACT PARTY: SARAH JORDAN PHONE: (432) 685-0005 x1989

NM OIL CONSERVATION
ARTESIA DISTRICT

AUG 21 2017

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.

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IV. Is this an expansion of an existing project? _____ Yes X 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: Christopher B. Weyand

TITLE: Consulting Engineer

SIGNATURE: 

DATE: 9/15/2017

E-MAIL ADDRESS: chris@lonquist.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: NGL WATER SOLUTIONS PERMIAN, LLCWELL NAME & NUMBER: STRIKER 2 SWD #1WELL LOCATION: 1,025' FNL & 440' FWL D 23 24S 31E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

Hole Size: 26.000" Casing Size: 20.000"

Cemented with: 1,840 sx. *or* _____ ft³

Top of Cement: surface Method Determined: circulation

1st Intermediate Casing

Hole Size: 17.500" Casing Size: 13.375"

Cemented with: 2,480 sx. *or* _____ ft³

Top of Cement: surface Method Determined: circulation

2nd Intermediate Casing

Hole Size: 12.250" Casing Size: 9.625"

Cemented with: 2,110 sx. *or* _____ ft³

Top of Cement: surface Method Determined: circulation

Production Liner

Hole Size: 8.500"

Casing Size: 7.625"

Cemented with: 595 sx.

or _____ ft³

Top of Cement: 11,600'

Method Determined: calculation

Total Depth: 17,850'

Injection Interval

16,300 feet to 17,850 feet

(Open Hole)

INJECTION WELL DATA SHEET

Tubing Size: 5.500", 17 lb/ft. L-80, BT&C from 0' - 11,600' and 4,500", 11.6 lb/ft. HCP-110 LTC from 11,600' - 16,250'
 Lining Material: Duoline

Type of Packer: D&L Oil Tools 7.625" Permapack Packer – Single Bore

Packer Setting Depth: 16,250'

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

Additional Data

1. Is this a new well drilled for injection? X Yes No

If no, for what purpose was the well originally drilled? N/A

2. Name of the Injection Formation: Devonian, Silurian, Fusselman and Montoya (Top 100')

3. Name of Field or Pool (if applicable): SWD; Silurian-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. No, new drill.

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

Delaware: 4,402'

Bone Spring: 8,242'

Wolfcamp: 11,585'

Pennsylvanian: 13,152'

Atoka: 13,632'

NGL Water Solutions Permian, LLC

Striker 2 SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information	
Lease Name	Striker 2 SWD
Well No.	1
Location	S-23 T-24S R-31E
Footage Location	1,025' FNL & 440' FWL

2.

a. Wellbore Description

Casing Information				
Type	Surface	Intermediate	Production	Liner
OD	20"	13.375"	9.625"	7.625"
WT	0.438"	0.480"	0.472"	0.562"
ID	19.124"	12.415"	8.681"	6.501"
Drift ID	18.936"	12.259"	8.525"	6.376"
COD	21.000"	14.375"	10.625"	7.625"
Weight	94 lb/ft	68 lb/ft	47 lb/ft	42.8 lb/ft
Grade	J-55	HCL-80	HCL-80	P-110
Hole Size	26"	17.5"	12.25"	8.5"
Depth Set	850'	4,450'	11,900'	11,600' – 16,300'

b. Cementing Program

Cement Information				
Casing String	Surface	Intermediate	Production	Liner
Lead Cement	C	C	NeoCem	H
Lead Cement Volume	815 sks	1,800 sks	Stage 1: 895 sks Stage 2: 675 sks	595 sks
Tail Cement	C	C	NeoCem/HALCEM	
Tail Cement Volume	1,025 sks	680 sks	Stage 1: 390 sks Stage 2: 150 sks	
Cement Excess	100%	25%	25%	25%
TOC	Surface	Surface	Surface	11,600'
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged

3. Tubing Description

Tubing Information		
OD	5.5"	4.5"
WT	0.304"	0.250"
ID	4.892"	4.000"
Drift ID	4.767"	3.976"
COD	6.050"	5.000"
Weight	17 lb/ft	11.6 lb/ft
Grade	L-80 BTC	HCP-110 LTC
Depth Set	0'-11,600'	11,600'-16,250'

Tubing will be lined with Duoline.

4. Packer Description

D&L Oil Tools 7.625" Permapack Packer – Single Bore

B. Completion Information

1. Injection Formation: Devonian, Silurian, Fusselman, Montoya (Top 100')
2. Gross Injection Interval: 16,300' – 17,850'

Completion Type: Open Hole

3. Drilled for injection.

4. See the attached wellbore schematic.
5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Delaware	4,402'
Bone Spring	8,242'
Wolfcamp	11,585'
Pennsylvanian	13,152'
Atoka	13,632'

VI. Area of Review

No wells within the area of review penetrate the proposed injection zone.

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injection:

Average Volume: 26,000 BPD
Maximum Volume: 32,500 BPD

2. Closed System

3. Anticipated Injection Pressure:

Average Injection Pressure: 2,200 PSI (surface pressure)
Maximum Injection Pressure: 3,260 PSI (surface pressure)

4. The injection fluid is to be locally produced water. Attached are produced water sample analyses taken from the closest wells that feature samples from the Delaware, Bone Spring, Wolfcamp, and Atoka formations.
5. The disposal interval is non-productive. No water samples are available from the surrounding area.

VIII. Geological Data

The Devonian formation is a dolomitic ramp carbonate that occurs below the Woodford shale and above the Fusselman formation. Strata found in the Devonian formation include two major groups, the Wristen Buildups and the Thirtyone Deepwater Chert, with the Wristen being more abundant. The Wristen Groups is composed of mixed limestone and dolomites with mudstone to grainstone and boundstone textures. Porosity in the Wristen group is a result of both primary and secondary development. Present are moldic, vugular, karstic (including collapse breccia) features that allow for higher porosities and permeabilities. The Thirtyone Formation contains two end-member reservoir facies, skeletal packstones/grainstones and spiculitic chert, with most of the porosity and permeability found in the coarsely crystalline cherty dolomite. These particular characteristics allow for this formation to be a tremendous Salt Water Disposal horizon.

A. Injection Zone: Siluro-Devonian Formation

Formation	Depth
Rustler Anhydrite	530'
Salado	850'
Delaware	4,402'
Bone Spring	8,242'
Wolfcamp	11,585'
Pennsylvanian	13,152'
Strawn	13,392'
Atoka	13,632'
Mississippian Lime	15,210'
Woodford	16,242'
Devonian	16,362'

B. Underground Sources of Drinking Water

There is limited data on USDWs in the area. The most closely offsetting water wells were drilled to 350' or shallower. One in Section 2-24s-31E (C-02460) noted water from 278' – 228'. In general, any USDWs would be expected to fall above the salt. The top of the Rustler Anhydrite is estimated at approximately 530'.

IX. Proposed Stimulation Program

No proposed stimulation program.

X. Logging and Test Data on the Well

There are no logs or test data on the well. During the process of drilling and completion resistivity, gamma ray, and density logs will be run.

XI. Chemical Analysis of Fresh Water Wells

No fresh water wells exist within one mile of the well location as shown on the attached map. As a result, fresh water samples were not obtained for analysis purposes.

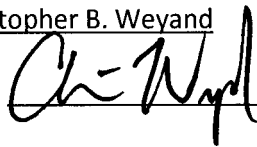
XII. Affirmative Statement of Examination of Geologic and Engineering Data

Based on the available engineering and geologic data we find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

NAME: Christopher B. Weyand

TITLE: Consulting Engineer

SIGNATURE: _____



DATE: _____

8/15/2017

Striker 2 SWD #1 2 mile Area of Review

Eddy County, NM

NGL Water Solutions Permian, LLC

Projection: NAD 1983 State Plane NM East FIPS 3001

Drawn by: SAH Date: 6/16/2017 Approved by: NLB

LONQUIST & CO. LLC

**PETROLEUM
ENGINEERS ENERGY
ADVISORS**

AUSTIN HOUSTON WICHITA DENVER CALGARY

☉ Striker 2 SWD #1

☼ Gas Well

⊗ Plugged Gas Well

● Oil Well

○ Permitted Oil Well

✱ Plugged Oil Well

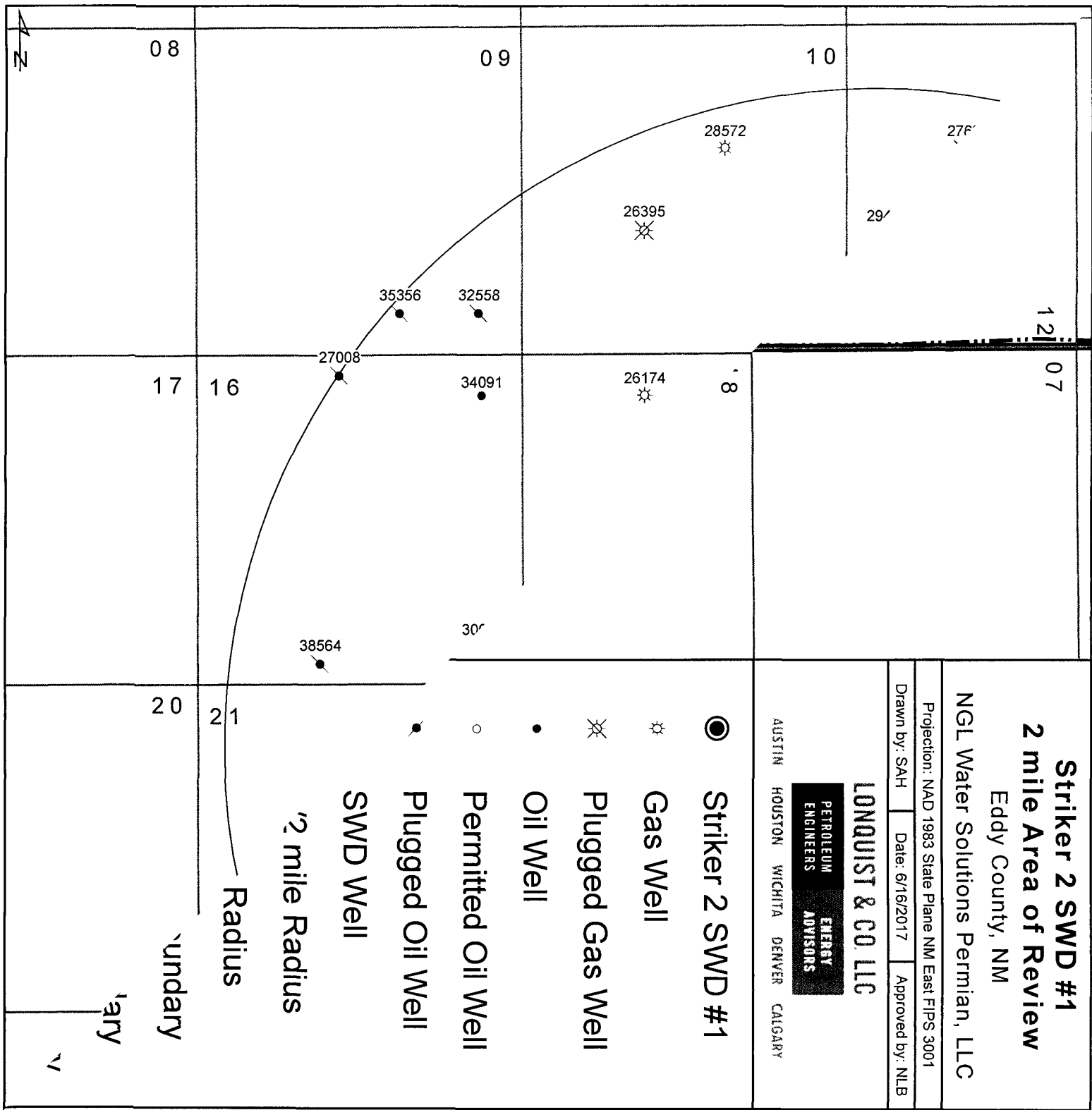
SWD Well

2 mile Radius

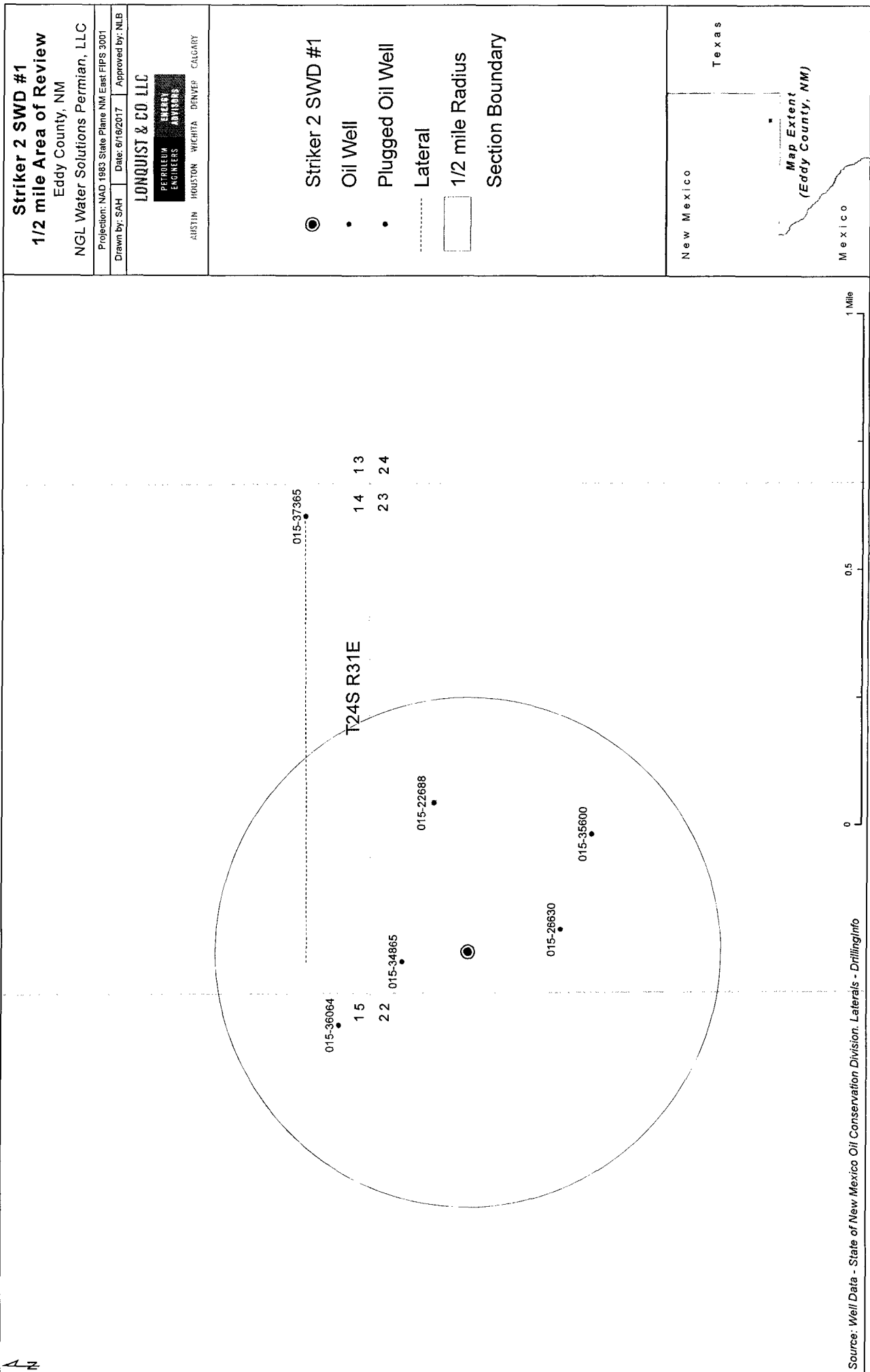
Radius

Boundary

County



42



Half-Mile AOR
Striker 2 SWD #1

API (30-015-)	Well Name	Well Type	Status	Operator	TD (TVD)	Location	Date Drilled
22688	PRE-ONGARD WELL #001	Oil	Plugged	PRE-ONGARD WELL OPERATOR	4624	C-23-24S-31E	9/15/1978
26630	COTTON DRAW AJT FEDERAL #001	Oil	Active	EOG Y RESOURCES, INC.	15450	E-23-24S-31E	2/10/1991
34865	POKER BIX #001	Oil	Active	EOG Y RESOURCES, INC.	8508	D-23-24S-31E	7/17/2006
35600	COTTON DRAW AJT FEDERAL #002	Oil	Active	EOG Y RESOURCES, INC.	8600	F-23-24S-31E	12/8/2007
36064	LOTOS 15 FEDERAL #001	Oil	Active	CHEVRON U S A INC	8664	P-15-24S-31E	1/30/2008
37365	PETROGULF BIT FEDERAL #001H	Oil	Active	EOG Y RESOURCES, INC.	8312	P-14-24S-31E	10/28/2009

NGL Water Solutions Permian, LLC

Projection: NAD 1983 State Plane NM East FIPS 3001

Drawn by: SAH	Date: 6/16/2017	Approved by: NLB
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LONQUIST & CO. LLC

**PETROLEUM
ENGINEERS**

ALISTYN HOUSTON WICHITA DENVER CALGARY

Striker 2 SWD #1

1/2 mile Radius

Section Boundary

Lessee

CHEVRON USA INC

CTV OG NM LLC, KEYSTONE OG NM LLC, LMBI OG NM LLC, SRBI OG NM LLC, & THRU LINE OG NM LLC

CTV OG NM LLC, SRBI OG NM LLC,
THRU LINE OG NM LLC, PRB II 1993C
OG NM LLC, ACB OG NM LLC, CMB
OG NM LLC, MLB OG NM LLC, RFB
1993C OG NM LLC, & SSB 1993C OG
NM LLC

EOG RESOURCES ASSETS LLC,
YATES JOHN A, EOG Y RESOURCES
INC, & EOG A RESOURCES INC
EOG Y RESOURCES INC

MAGNUM HUNTER PRODUCTION INC
MCLEOD DOUGLAS C

New Mexico

Texas

Map Extent
(Eddy County, NM)

Mexico

1207

81

F

11

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14

5

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15

21

CTV OG NM LLC, KEYSTONE
OG NM LLC, LMBI OG
NM LLC, SRBI OG NM LLC,
& THRU LINE OG NM LLC

CHEVRON
USA INC

**MCLEOD
DOUGLAS C**

23 24

EOG RESOURCES ASSETS
LLC, YATES JOHN A,
EOG Y RESOURCES INC,
& EOG A RESOURCES INC

28

27

26

5

25
30

1 Mile

0.5

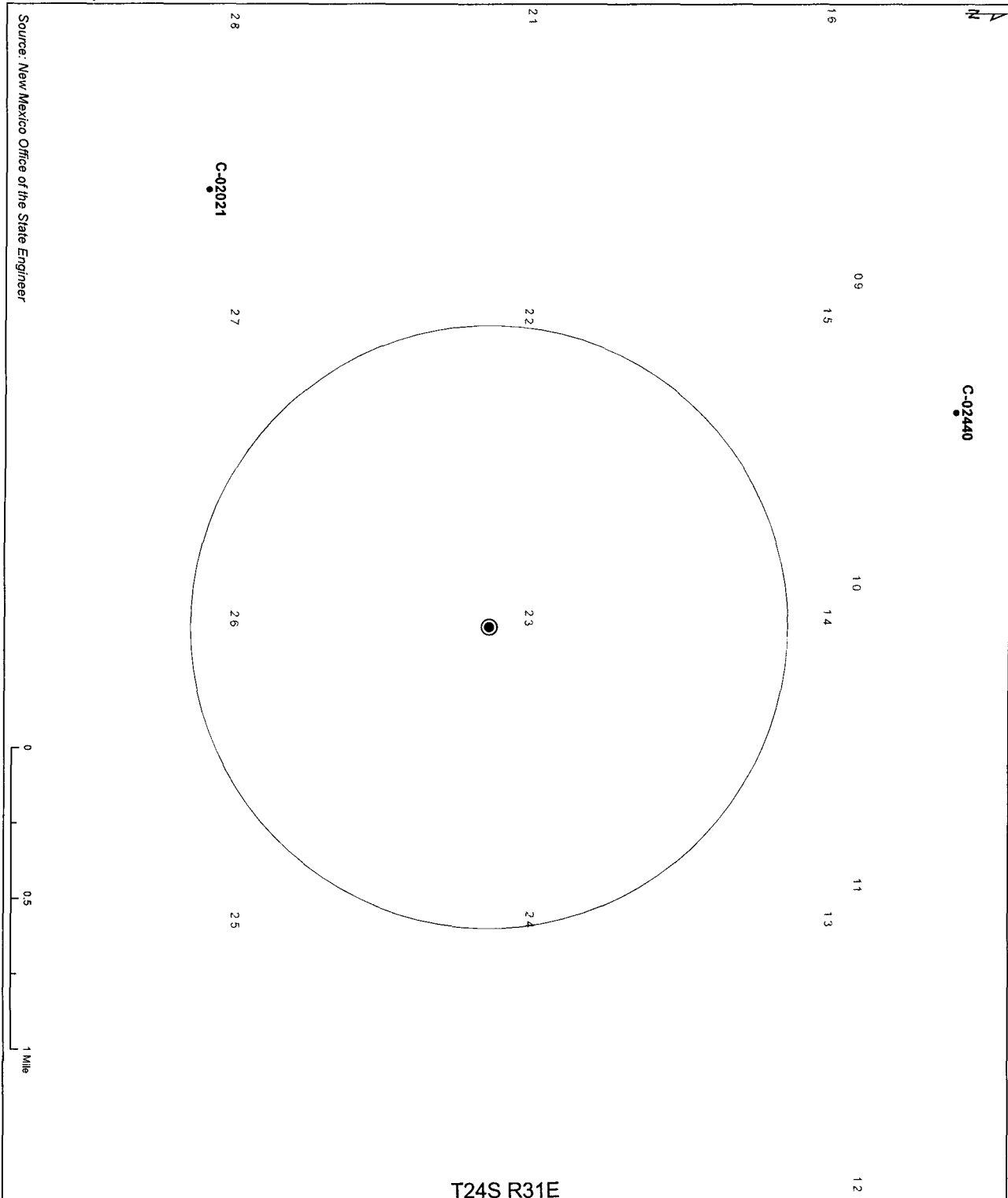
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Source: Bureau of Land Management & State of New Mexico Oil Conservation Division

Striker 2 SWD No. 1 Notice List			
Notice	Address	Phone Number	Date Noticed
Oil Conservation Division District IV	1220 South St. Francis Drive, Santa Fe, NM 87505	(505) 476-3440	8/15/2017
Oil Conservation Division District II	811 S. First St., Artesia, NM 88210	(575) 748-1283	8/15/2017
Surface Owner			
NGL WATER SOLUTIONS PERMIAN, LLC	1509 W Wall St., Ste. 306, Midland, TX 79701	(432) 685-0005	N/A
Leasehold Operators - 1/2 Mile			
CHEVRON U S A INC	6301 DEAUVILLE, MIDLAND, TX 79706	(866) 212-1212	8/15/2017
MAGNUM HUNTER PRODUCTION INC	202 S CHEYENNE AVE STE 1000, TULSA, OK 74103		8/15/2017
EOG A RESOURCES, INC.	105 S 4TH ST, ARTESIA, NM 88210		8/15/2017
EOG Y RESOURCES, INC.	105 S 4TH ST, ARTESIA, NM 88210		8/15/2017
EOG RESOURCES ASSETS LLC	105 S 4TH ST, ARTESIA, NM 88210		8/15/2017
JOHN A YATES	105 S 4TH ST, ARTESIA, NM 88210		8/15/2017
DOUGLAS C MCLEOD	PO BOX 18481, DENVER, CO 80218		8/15/2017
ACB OG NM LLC	201 MAIN ST STE 2700, FORT WORTH, TX 76102		8/15/2017
CMB OG NM LLC	201 MAIN ST STE 2700, FORT WORTH, TX 76102		8/15/2017
CTV OG NM LLC	201 MAIN ST STE 2700, FORT WORTH, TX 76102		8/15/2017
MLB OG NM LLC	201 MAIN ST STE 2700, FORT WORTH, TX 76102		8/15/2017
PRB II 1993C OG NM LLC	201 MAIN ST STE 2700, FORT WORTH, TX 76102		8/15/2017
RFB 1993C OG NM LLC	201 MAIN ST STE 2700, FORT WORTH, TX 76102		8/15/2017
SRBI OG NM LLC	201 MAIN ST STE 2700, FORT WORTH, TX 76102		8/15/2017
SSB 1993C OG NM LLC	201 MAIN ST STE 2700, FORT WORTH, TX 76102		8/15/2017
THRU LINE OG NM LLC	201 MAIN ST STE 2700, FORT WORTH, TX 76102		8/15/2017
TRB OG NM LLC	201 MAIN ST STE 2700, FORT WORTH, TX 76102		8/15/2017
KEYSTONE OG NM LLC	201 MAIN ST STE 2700, FORT WORTH, TX 76102		8/15/2017
LMBI OG NM LLC	201 MAIN ST STE 2700, FORT WORTH, TX 76102		8/15/2017

Shiner 2 SMD #1 Offsetting Produced Water Analysis																
Wellname	api	S-T-R	county	formation	ph	ids_mg	resistivity_ohm_cm	sodium_mg/l	calcium_mg/l	iron_mg/l	magnesium_mg/l	manganese_mg/l	chloride_mg/l	bicarbonate_mg/l	sulfate_mg/l	co2_mg/l
WELLHEAD																
EDDY 26 G FEDERAL #001	3001520241	26-25S-31E	EDDY	ATOKA	6.7	202478		65970	15480	31	2650	123000	93	540	2500	0
COTTON DRAK UNIT #115H	3001537898	34-24S-31E	EDDY	AVACON LOWER	6.2	247257.5		44632.3	514	57	86	160100	122	0	4300	0
COTTON DRAK UNIT #115H	3001537898	34-24S-31E	EDDY	AVACON LOWER	6.9	118579.6		50515.3	8327.8	41.1	1105.1	93761.5	122	0	300.5	0
COTTON DRAK UNIT #220H	3001541847	26-24S-31E	EDDY	BOHE SPRING AND SAND	6.1	155993.9		50208.1	8326.3	38.3	1099.4	93359.6	122	0	200	0
COTTON DRAK UNIT #220H	3001541847	26-24S-31E	EDDY	BOHE SPRING AND SAND	6.4	155270.6		50208.1	8326.3	38.3	1099.4	93359.6	122	0	200	0
COTTON DRAK UNIT #205H	3001542071	26-24S-31E	EDDY	BOHE SPRING AND SAND	7	151345.4		44611.9	8090.5	79.4	9324.8	93688	1053.3	3003.3	1033.3	0
COTTON DRAK UNIT #205H	3001542071	26-24S-31E	EDDY	BOHE SPRING AND SAND	7.1	146155.3		44611.9	8090.5	79.4	9324.8	93688	1053.3	3003.3	1033.3	0
COTTON DRAK UNIT #244H	3001542331	36-24S-31E	EDDY	BOHE SPRING AND SAND	6.2	113122.8		34288.2	4893.6	24.8	608.1	71466.5	527	527	527	0
COTTON DRAK UNIT #244H	3001542331	36-24S-31E	EDDY	BOHE SPRING AND SAND	6.6	110826.1		35027.6	4893.6	30.8	619.4	66879.3	520.1	520.1	520.1	0
COTTON DRAK UNIT #244H	3001542331	36-24S-31E	EDDY	BOHE SPRING AND SAND	6.7	104968.4		31515.4	4562.1	30.8	587.4	66879.3	517.4	517.4	517.4	0
COTTON DRAK UNIT #244H	3001542331	36-24S-31E	EDDY	BOHE SPRING AND SAND	6.7	104968.4		31515.4	4562.1	30.8	587.4	66879.3	517.4	517.4	517.4	0
COTTON DRAK UNIT #244H	3001542331	36-24S-31E	EDDY	BOHE SPRING AND SAND	6.7	104968.4		31515.4	4562.1	30.8	587.4	66879.3	517.4	517.4	517.4	0
COTTON DRAK UNIT #244H	3001542331	36-24S-31E	EDDY	BOHE SPRING AND SAND	6.7	104968.4		31515.4	4562.1	30.8	587.4	66879.3	517.4	517.4	517.4	0
COTTON DRAK UNIT #244H	3001542331	36-24S-31E	EDDY	BOHE SPRING AND SAND	6.7	104968.4		31515.4	4562.1	30.8	587.4	66879.3	517.4	517.4	517.4	0
COTTON DRAK UNIT #244H	3001542331	36-24S-31E	EDDY	BOHE SPRING AND SAND	6.7	104968.4		31515.4	4562.1	30.8	587.4	66879.3	517.4	517.4	517.4	0
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COTTON DRAK UNIT #244H	3001542331	36-24S-31E	EDDY	BOHE SPRING AND SAND	6.7	104968.4		31515.4	4562.1							

C-02440



Striker 2 SWD #1
Offset Water Wells

Eddy County, NM
NGL Water Solutions Permian, LLC

Projection: NAD 1983 State Plane NM East FIPS 3001
Drawn by: SAH Date: 6/16/2017 Approved by: NLB



AUSTIN HOUSTON WICHITA DENVER CALGARY

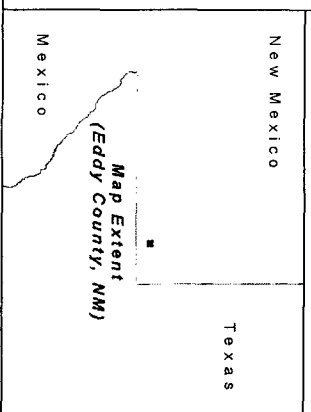
- Striker 2 SWD #1
- Water Well

1 mile Radius

Section Boundary

Township Boundary

No water well found within the 1 mile AOR.



Source: New Mexico Office of the State Engineer