

500772018-402112



MODRALL SPERLING

L A W Y E R S

August 24, 2018

Florene Davidson
NM Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Jennifer L. Bradfute
505.848.1845
Fax: 505.848.1882
jlb@modrall.com

**Re: APPLICATION OF NGL WATER SOLUTIONS
PERMIAN, LLC TO APPROVE SALT WATER
DISPOSAL WELLS IN LEA AND EDDY COUNTY, NEW
MEXICO.**

Dear Ms. Davidson:

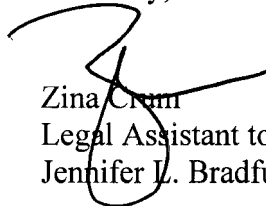
Case 16441

Enclosed please find three copies of the following:

1. NGL Water Solutions Permian, LLC's Application – Minuteman
No. _____ .

Thank you for your assistance. Please contact me if you have any questions.

Sincerely,


Zina Cram
Legal Assistant to
Jennifer L. Bradfute

JLB/zc
Enclosure

Modrall Sperling
Roehl Harris & Sisk
P.A.

Bank of America
Centre
500 Fourth Street
NW
Suite 1000
Albuquerque,
New Mexico 87102

PO Box 2168
Albuquerque,
New Mexico
87103-2168

Tel: 505 848 1800

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

**APPLICATION OF NGL WATER
SOLUTIONS PERMIAN, LLC
TO APPROVE SALT WATER
DISPOSAL WELL IN LEA
COUNTY, NEW MEXICO.**

CASE NO. 16441

APPLICATION

NGL Water Solutions Permian, LLC ("NGL"), OGRID No. 372338, through its undersigned attorneys, hereby makes this application to the Oil Conservation Division pursuant to the provisions of N.M. Stat. Ann. § 70-2-12, for an order approving drilling of a salt water disposal well in Lea County, New Mexico. In support of this application, NGL states as follows:

(1) NGL proposes to drill the Minuteman SWD #1 well at a surface location 659 feet from the South line and 449 feet from West line of Section 14, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico for the purpose of operating a salt water disposal well.

(2) NGL seeks authority to inject salt water into the Devonian and Silurian formations at a depth of 16,691' – 18,326'.

(3) NGL further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day.

(4) NGL anticipates using an average pressure of 2,503 psi for this well, and it requests that a maximum pressure of 3,338 psi be approved for the well.

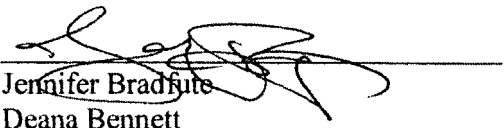
(5) A proposed C-108 for the subject well is attached hereto in Attachments A.

(6) The granting of this application will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.

WHEREFORE, NGL requests that this application be set for hearing before an Examiner of the Oil Conservation Division on October 4, 2018; and that after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,

MODRALL, SPERLING, ROEHL, HARRIS
& SISK, P.A.

By: 

Jennifer Bradfute

Deana Bennett

Post Office Box 2168

Bank of America Centre

500 Fourth Street NW, Suite 1000

Albuquerque, New Mexico 87103-2168

Telephone: 505.848.1800

Attorneys for Applicant

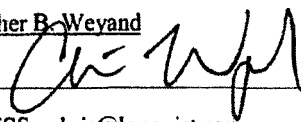
CASE NO. 16441 : Application of NGL Water Solutions Permian, LLC for approval of salt water disposal well in Lea County, New Mexico. Applicant seeks an order approving disposal into the Devonian and Silurian formations through the Minuteman SWD #1 well. NGL proposes to drill this well at a surface location 659 feet from the South line and 449 feet from West line of Section 14, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico. The target injection interval is the Devonian and Silurian formations at a depth of 16,691' – 18,326'. NGL further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day. Said area is located approximately 22 miles west of Jal, New Mexico.

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, TX 79701
CONTACT PARTY: SARAH JORDAN PHONE: (432) 685-0005 x1989
- 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 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

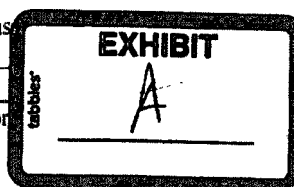
SIGNATURE: 

DATE: 8/20/2018

E-MAIL ADDRESS: chris@lonquist.com

- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, 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 applicant



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.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLC

WELL NAME & NUMBER: MINUTEMAN SWD #1

WELL LOCATION: 659 FSL & 449' FWL M 14 24S 33E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 24.000"

Casing Size: 20.000"

Cemented with: 1,730 sx.

or _____ ft³

Top of Cement: Surface

Method Determined: Circulation

1st Intermediate Casing

Hole Size: 17.500"

Casing Size: 13.375"

Cemented with: 2,600 sx.

or _____ ft³

Top of Cement: Surface

Method Determined: Circulation

2nd Intermediate Casing

Hole Size: 12.250"

Casing Size: 9.625"

Cemented with: 2,771 sx.

or _____ ft³

Top of Cement: Surface

Method Determined: Circulation

Production Liner

Hole Size: 8.500"

Casing Size: 7.625"

Cemented with: 325 sx.

or _____ ft³

Top of Cement: 11,800'

Method Determined: Calculation

Total Depth: 18,326'

Injection Interval

16,691 feet to 18,326 feet

(Open Hole)

INJECTION WELL DATA SHEET

Tubing Size: 7", 26 lb/ft, P-110, TCPC from 0'- 11,700' and 5.500", 17 lb/ft, P-110 TCPC from 11,700'- 16,641'

Lining Material: Duoline

Type of Packer: 7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and Full Inconel

Packer Setting Depth: 16,641'

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:

Bone Spring: 9,130'

Wolfcamp: 12,100'

McCloy Ranch SWD Project

McCloy Ranch Drilling Prognosis	Structural tops from regional	Priority #5 - McCloy Minuteman (old East) SWD 1, KMZ #17		
Well		McCloy Minuteman SWD 1		
UIC/TXWDB no.		Permit no		
County/Area	Structural tops from Regional mapping	Lea Co., NM	TD MNTY	22 mi W of Jal NM
Loc		32.211719/-103.550778		
API/ TD/logs	McCloy Minuteman	30-025-xxxxx	18326	
Depths		Depth	Elev	Thickness
KB Elev		Prelim elev	3617	
Surface Elev		Ground Elev fr	3593	24
Quaternary				
Top Fresh water				
Cenozoic Alluvium		24	3593	185
Cretaceous				
Triassic		209	3408	450
Permian Dewey Lake		659	2958	575
Rustler				
Rustler Anhydrite		1234	2383	260
Salado Siliciclastics				
Salado Anh (base Silic)		1494	2123	2186
Top Salt (Tx) NM		1494	2123	
Castile		3680	-63	1460
Base Salt (Bx) NM		5140	-1523	92
Prog Datum		5232	-1615	
Delaware Mtn Group (shale mkr)	-1615	5232	-1615	2
Lamar Limestone		5234	-1617	36
Bell Canyon (Ramsey sand)	-1655	5270	-1653	995
Cherry Canyon		6265	-2648	1595
Brushy Canyon		7860	-4243	1270
Bone Spring (Leonard)	-5520	9130	-5513	2970
Bone Spring Lime 1				
Bone Spring Sd 1				
Bone Spring Lime 2				
Bone Spring Sd 2				
Bone Spring Lime 3				
Bone Spring Sd 3				
Wolfcamp	-8700	12100	-8483	1130
Penn Struc map needs work	-10200	13230	-9613	240
Strawn (NM) Struc map needs work!		13470	-9853	225
Atoka (NM) Struc map needs work!	-10400	13695	-10078	730
Datum (NM)				
Morrow	-10500	14425	-10808	51
Morrow Lime (NM)		14476	-10859	270
Morrow Clastic (NM)		14746	-11129	710
Mid Morrow				
Lwr Morrow				
Mississippian		15456	-11839	410
Barnett		15866	-12249	245
Miss Lst	-12580	16111	-12494	370
Woodford Struc map needs work	-12760	16481	-12864	210
Devonian (Sil-Dev) Struc map needs	-13200	16691	-13074	380
Silurian		17071	-13454	580
Fusselman	-14180	17651	-14034	575
Montoya	-14760	18226	-14609	364
Simpson Struc needs work, too few data points		18590	-14973	760
Ellenburger	-15830	19350	-15733	1200
Cambrian/Granite Wash		20550	-16933	150
Precambrian		20700	-17083	
TD		18326	Projected TD	
Fm at TD		Montoya		
Comments				



NGL McCloy Minuteman SWD #1

Location - 23.2 miles west of Jal NM
on Hwy 128.

TD: 18,326

Directions to Site - Lat/Long 32.211719/-103.550778

Vertical Injection - Devonian, Silurian, Fusselman

Lea County NM

GL/KB: 3593'/3617'

Geologic Tops (MD ft)	Section	Bit/BHA	Casing	Logging	Cement (HOLD)	Injection String
Triassic - 209 Permian Dewey Lake - 659 Rustler Anhydrite - 1234 Surface TD - 1400	Surface Drill 24" 0' - 1400 Set and Cement 20" Casing	24" Tricone 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5" DP to surface	1400' of 20" 106.5# J55 BTC Centralizers - bottom 2 joints and every 3rd jt thereafter, Cement basket 5th jt from surface	No Logs	Thixotropic Cement 13.2 ppg Class C - 1,730 sks 3hr TT 25% Excess 1000psi CSD after 10hrs	11700' of 7" P110 26# TCPC
Base of Silicates 1494 Top Salt - 1,494' Castile - 3680 Base Salt - 5140 ECP DV Tool - 5150 1st Int TD - 5200	1st Intermediate Drill 3800' of 17-1/2" Hole 1400' - 5200' Set and Cement 13-3/8" Casing	17-1/2" PDC 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5" DP to surface	5M A Section Casing Bowl 5200' of 13-3/8" 68# HCL80 BTC Centralizers - bottom jt, every 3rd joint in open hole and 2 jt inside the surface casing	Mudlogger on site by 1250'	13.2 ppg Class C - 2,600 sks 4hr TT 10% Excess 1000psi CSD after 10 hrs Cement to Surface	
Delaware Mtn Group - 5232 Lamar Limestone - 5234 Bell Canyon - 5270 Cherry Canyon - 6265 Brushy Canyon - 7860 DV Tool - 9000 Bone Spring - 9130 3rd Int Liner Top - 11,800 Wolfcamp - 12100 2nd Int TD - 12,300	2nd Intermediate Drill 7100' of 12-1/4" Hole 5200' - 12300' Set 9-5/8" Intermediate Casing and Cement in 3 Stages	12-1/4" PDC 8" MM 9jts: 8" DC 8" Drilling Jars 21 jts: 5" HWDP 5" DP to Surface	10M B Section 12300' of 9-5/8" 53.5# P110 BTC Special Drift to 8.535" Externally Coat 4000' Between DV Tools DV tool at at 8940' ECP DV Tool 15' Inside Previous Casing Centralizers - bottom jt, 100' aside of DV tool, every 3rd joint in open hole and 5 within the surface casing	MWD GR Triple combo + CBL of 13-3/8" Casing	Stage 3: 13.2 ppg Class C - 981 sks 5hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface Stage 2: 13.2 ppg Class H - 964 sks 5hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface Stage 1: 13.2 ppg Class H - 827 sks 6hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface	
Penn - 13230 Strawn - 13470 Atoka - 13695 Morrow - 14425 Miss Lst - 14476 Woodford - 16481 Perm Packer - 16641 3rd Int TD - 16691	3rd Intermediate Drill 4381' of 8-1/2" Hole 12300' - 16691' Set 7-5/8" Liner and Cement in Single Stage	8-1/2" PDC 6-3/4" MM 9 jts: 6" DC 21 jts: 5" HWDP 5" DP to Surface	4891' of 7-5/8" 39# Q125 - DTL (FJ4) FJ (Gas Tight) VersaFlex Packer Hanger Centralizers on and 1 jt above shoe jt and then every 2nd jt.	MWD GR Triple combo, CBL of 9- 5/8" Casing	15.6 ppg Class H - 325 sks 8hr TT 10% Excess 1000psi CSD after 10hrs	
Devonian - 16,691 Silurian - 17071 Fusselman - 17651 Montoya - 18,226' TD - 18,326'	Injection Interval Drill 1635' of 6-1/2" hole 16691+L57' - 18,326'	6-1/2" PDC 4-3/4" MM 9 jts: 4-3/4" DC 4-3/4" Drilling Jars 18 jts: 4" FH HWDP 4" FH DP to Surface	Openhole completion	MWD GR Triple Combo with FMI, CBL of 7-5/8"	Displace with 3% KCl (or heavier brine if necessary)	7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and full Inconel 925 trim

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	³ Pool Name
⁴ Property Code	⁵ Property Name MINUTEMAN SWD	
⁷ OGRID No.	⁸ Operator Name NGL WATER SOLUTIONS	
		⁶ Well Number 1
		⁹ Elevation 3594.00'±

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	14	24 S	33 E	N/A	659'	SOUTH	449'	WEST	EDDY

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	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.

PROPOSED MINUTEMAN SWD 1 NMSP-E (NAD27) N: 441,826.45' E: 742,500.05' NMSP-E (NAD83) N: 441,885.13' E: 783,684.53' Lat: N32°12'44.61" Long: W103°32'59.06"	SECTION 14		¹⁷ 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 a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature _____ Date _____ Printed Name _____ E-mail Address _____
			¹⁸ SURVEYOR 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. 08/17/2018 Date of Survey COLE A. CLARK NEW MEXICO 23001 SURVEYOR Signature and Seal of Professional Surveyor Cody R. Brown Certificate Number