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RECEIVED: 12/6/18	REVIEWER:	TYPE: SWD	APP NO: PCEL1835359515
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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: LilyStream Water Solutions, LLC	OGRID Number: 373500
Well Name: Berry SWD No.1	API: 30-015- XXXX 45367
Pool: Proposed: SWD; Devonian-Silurian	Pool Code: 97869

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

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]
- A. Location - Spacing Unit - Simultaneous Dedication
 NSL NSP (PROJECT AREA) NSP (PRORATION UNIT) SD
- 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	
<input type="checkbox"/>	Notice Complete
<input type="checkbox"/>	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.

Ben Stone

 Print or Type Name

 Signature

12/05/2018

 Date

903-488-9850

 Phone Number

ben@sosconsulting.us

 e-mail Address



December 5, 2018

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

Attn: Ms. Heather Riley, Director

Re: Application of LilyStream Water Solutions, LLC to permit for salt water disposal the Berry SWD Well No.1, to be located in Section 20, Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico.

Dear Ms. Riley,

Please find the enclosed form C-108 Application for Authority to Inject, supporting the above-referenced request for salt water disposal. The well will be operated as a commercial endeavor offering operators in the area additional options for produced water disposal.

LilyStream Water Solutions seeks to optimize efficiency, both economically and operationally, of its operations in southeast New Mexico. Approval of this application is consistent with that goal as well as the NMOCD's mission of preventing waste and protection of correlative rights.

I would point out that this application for a proposed Devonian SWD interval includes the currently mandated increased One-Mile Area of Review including pertinent and available seismic information for the area and region. Published legal notice will ran December 4, 2018 in the Artesia Daily Press and all offset operators and other interested parties have been notified individually. The legal notice affidavit is included herein. This application also includes a wellbore schematic, area of review maps, affected party plat and other required information for a complete Form C-108. The well is located on private land and minerals. There are federal lands & minerals and private minerals within the one-mile radius notice area and the Bureau of Land Management and offset operators have been notified of this application.

I respectfully request that the approval of this salt water disposal well proceed swiftly and if you or your staff requires additional information or has any questions, please do not hesitate to call or email me.

Best regards,

A handwritten signature in black ink, appearing to read 'Ben Stone', is written over a white background.

Ben Stone, Partner
SOS Consulting, LLC
Agent for LilyStream Water Solutions, LLC

Cc: Application attachment and file

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: **Salt Water Disposal** and the application **QUALIFIES** for administrative approval.
- II. OPERATOR: **LilyStream Water Solutions, LLC (Ogrid 373500)**
ADDRESS: **1308 W. Ave. N, Lovington, NM 88260**
- CONTACT PARTY: **Agent: SOS Consulting, LLC – Ben Stone (903) 488-9850**
- III. WELL DATA: **All well data and applicable wellbore diagrams are ATTACHED.**
- IV. **This is not an expansion of an existing project.**
- V. **A map is attached** 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. A tabulation is attached of data on all wells of public record within the area of review which penetrate the proposed injection zone. **There are NO (0) Wells in the subject AOR which Penetrate the proposed Devonian interval.** The data includes a description of each well's type, construction, date drilled, location, depth, and a schematic of any plugged well illustrating all plugging detail. **NO P&A Wells penetrate.**
- VII. **The following data is ATTACHED** 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. **Appropriate geologic data on the injection zone is ATTACHED** 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. **Stimulation program – a conventional acid job may be performed to clean and open the formation.**
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). **Well Logs will be filed with OCD.**
- *XI. **There are 3 domestic water wells within one mile of the proposed salt water disposal well. 1 has been sampled and analysis will be forwarded upon receipt. Representative analyses are also ATTACHED.**
- XII. **An affirmative statement is ATTACHED that available geologic and engineering data has been examined and no evidence was found** of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. **"Proof of Notice" section on the next page of this form has been completed and ATTACHED. There are 8 offset operators and/or lessees within 1 mile and BLM minerals - all have been noticed. Well location is Private.**
- 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: **Ben Stone** TITLE: **SOS Consulting, LLC agent for LilyStream Water Solutions, LLC**

SIGNATURE:  DATE: **12/05/2018**

E-MAIL ADDRESS: **ben@sosconsulting.us**

- * 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:

FORM C-108 – APPLICATION FOR AUTHORIZATION TO INJECT (cont.)

III. WELL DATA – *The following information and data is included (See ATTACHED Wellbore Schematic):*

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 *pursuant to the following criteria is ATTACHED.*

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: ***Affidavit is ATTACHED.***

- (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.

C-108 - Items III, IV, V

Item III - Subject Well Data

Wellbore Diagram - PROPOSED

Item IV – Tabulation of AOR Wells

NO wells penetrate the proposed injection interval.

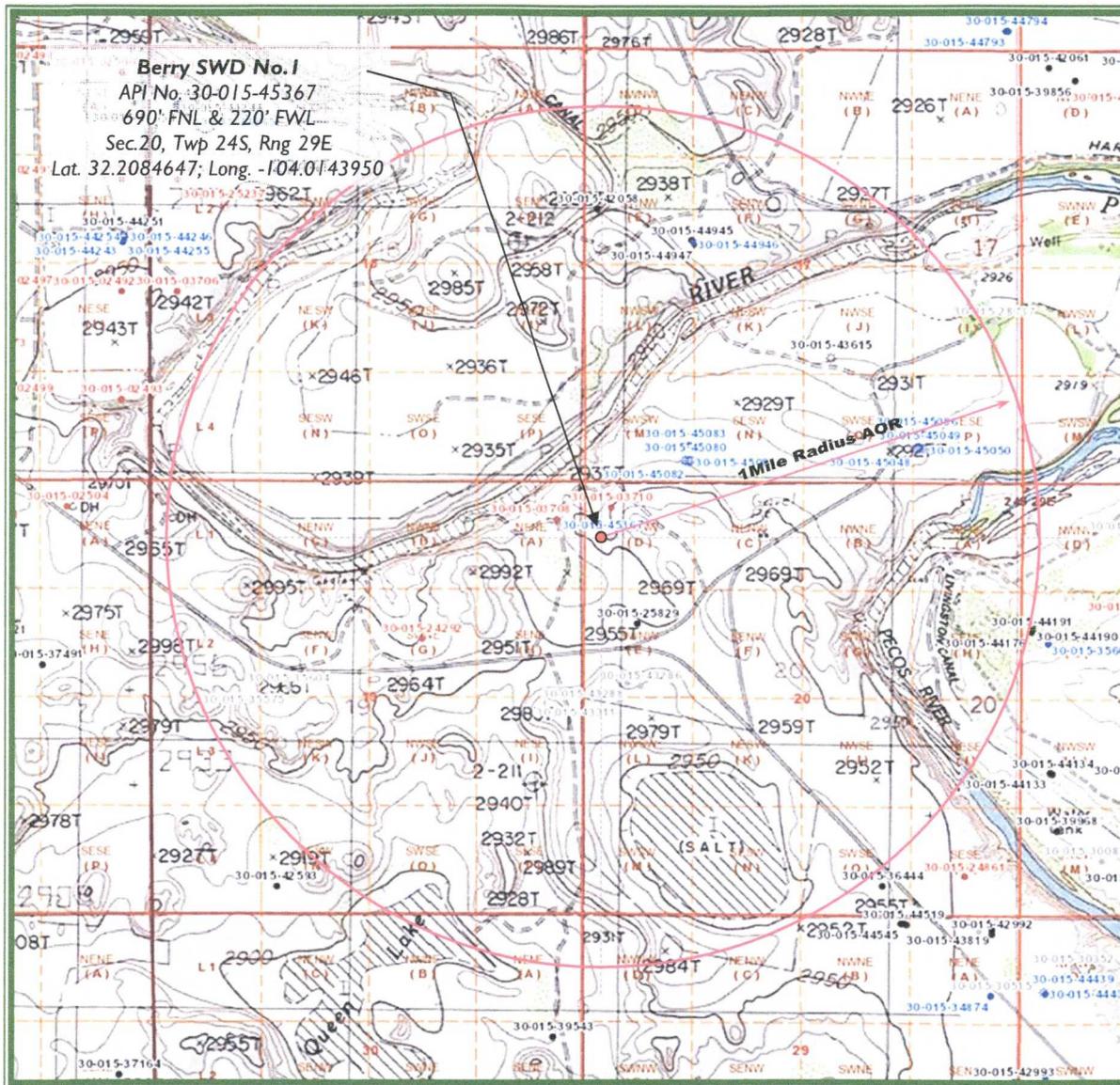
Item V – Area of Review Maps

1. Two Mile AOR Map with One-Mile Fresh Water Well Radius
2. One-Half Mile AOR Map

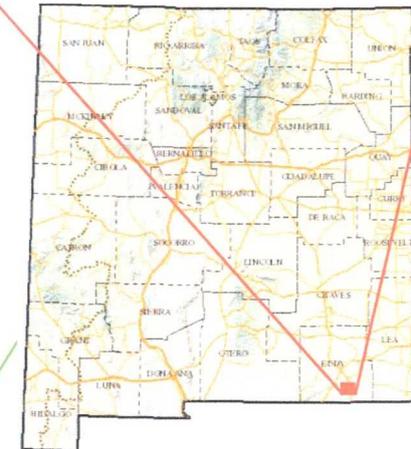
All Above Exhibits follow this page.

Berry SWD Well No.1 – One Mile Area of Review / Overview Map

(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



3.6 miles E/SE of Malaga, NM



C-108 ITEM X

LOGS and AVAILABLE TEST DATA

**A Standard Suite of Logs will be run after
drilling the well and submitted to the Division.**

C-108 ITEM VII – PROPOSED OPERATION

Berry SWD No.1

Commercial SWD Facility

Upon approval of all permits for SWD, operations would begin within 30 days. Completion of the well operations will take approximately 6-8 weeks. Facility construction including installation of the tank battery, berms, plumbing and other and associated equipment would be occurring during the same interval but at a different location from the well. In any event, it is not expected for the construction phase of the project to last more than 60 days, depending on availability of contractors and equipment.

Configure for Salt Water Disposal

Prior to commencing any work, an NOI sundry(ies) will be submitted to configure the well for SWD and will detail the completion workover including all work otherwise described above, any change to the procedure noted herein and to perform mechanical integrity pressure test per OCD test procedures. (Notify NMOCD 24 hours prior.) The casing/tubing annulus will be monitored for communication with injection fluid or loss of casing integrity.

Operational Summary

The SWD facility will not be fenced so that trucks may access for load disposal 24/7.

The well and injection equipment will be a closed system and equipped with pressure limiting devices and volume meters. The annulus, loaded with an inert, anti-corrosion packer fluid, will be monitored for pressure.

The tanks will be equipped with telemetry devices and visual alarms to alert the operator and customers of full tanks or an overflow situation.

Anticipated daily maximum volume is 30,000 bpd and an average of 17,500 bpd at a maximum surface injection pressure of 2860 psi (.2 psi/ft gradient – maximum pressure will be adjusted if the top of interval is modified after well logs are run).

Potential releases will be contained and cleaned up immediately. The operator shall repair or otherwise correct the situation within 48 hours before resuming operations. OCD will be notified within 24 hours of any release greater than 5 bbls. If required, remediation will start as soon as practicable. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC; as necessary and appropriate and OCD form C-141 will be submitted promptly.

C-108 Item VII.5 - Produced Water Data
LilyStream Water Solutions, LLC - Berry SWD Project

SOURCE ZONE

GLO/YESO

API No	3001524754	Lab ID	
Well Name	PLATT PA 009	Sample ID	1146
Location	ULSTR 26 18 S 26 E 330 S 990 W	Sample No	
		Lat / Long	32.71216 -104.35742
Operator (when sampled)	Yates Petroleum Corp.	County	Eddy
	Field ATOKA	Unit	M
Sample Date	8/4/1984	Analysis Date	

	Sample Source Wellhead	Depth (if known)
	Water Typ	Produced Water
ph	7.5	alkalinity_as_caco3_mgL
ph_temp_F		hardness_as_caco3_mgL
specificgravity		hardness_mgL 1800
specificgravity_temp_F		resistivity_ohm_cm
tds_mgL	120382	resistivity_ohm_cm_temp
tds_mgL_180C		conductivity
chloride_mgL	113000	conductivity_temp_F
sodium_mgL	71415	carbonate_mgL 0
calcium_mgL	2560	bicarbonate_mgL 476
iron_mgL	0	sulfate_mgL 2001
barium_mgL		hydroxide_mgL
magnesium_mgL	0	h2s_mgL 0
potassium_mgL		co2_mgL
strontium_mgL		o2_mgL
manganese_mgL		anionremarks

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



C-108 Item VII.5 - Produced Water Data
LilyStream Water Solutions, LLC - Berry SWD Project

SOURCE ZONE

GLO/YESO

API No	3001524619	Lab ID	
Well Name	PLATT PA 008	Sample ID	1207
Location	ULSTR 26 18 S 26 E 430 S 2260 W	Sample No	
		Lat / Long	32.71245 -104.35329
Operator (when sampled)	Yates Petroleum Corporation	County	Eddy
	Field ATOKA	Unit	N
Sample Date	1/19/1985	Analysis Date	
	Sample Source well head	Depth (if known)	
	Water Typ Produced Water		
ph	6	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	11500
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	136324	resistivity_ohm_cm_temp	
tds_mgL_180C		conductivity	
chloride_mgL	121000	conductivity_temp_F	
sodium_mgL	61571	carbonate_mgL	
calcium_mgL	4160	bicarbonate_mgL	104
iron_mgL	0	sulfate_mgL	3720
barium_mgL		hydroxide_mgL	
magnesium_mgL	7340	h2s_mgL	
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



**C-108 Item VII.5 - Produced Water Data
LilyStream Water Solutions, LLC - Berry SWD Project**

SOURCE ZONE

BONE SPRING

API No	3001520225	Lab ID	
Well Name	BIG EDDY UNIT	Sample ID	5847
	012	Sample No	
Location	ULSTR 21 20 S 31 E	Lat / Long	32,56399 -103,87994
	660 N 660 W	County	Eddy
Operator (when sampled)	MALLON OIL COMPANY		
	Field	BIG EDDY	Unit D
Sample Date	8/27/1999	Analysis Date	8/31/1999
	Sample Source	Depth (if known)	
	Water Typ		
ph	5.2	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity	1.125	hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	181697	resistivity_ohm_cm_temp	
tds_mgL_180C		conductivity	
chloride_mgL	123750	conductivity_temp_F	
sodium_mgL	73895.6	carbonate_mgL	
calcium_mgL	5625	bicarbonate_mgL	13.725
iron_mgL	337.5	sulfate_mgL	787.5
barium_mgL		hydroxide_mgL	
magnesium_mgL		h2s_mgL	0
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



**C-108 Item VII.5 - Produced Water Data
LilyStream Water Solutions, LLC - Berry SWD Project**

SOURCE ZONE

WOLFCAMP

API No	3001520138	Lab ID	
Well Name	MAHUN STATE 001	Sample ID	5688
		Sample No	
Location	ULSTR 16 22 S 22 E 1800 N 1980 W	Lat / Long	32.39340 -104.70979
		County	Eddy
Operator (when sampled)			
	Field ROCKY ARROYO	Unit	F
Sample Date	5/17/1968	Analysis Date	
	Sample Sourc DST	Depth (if known)	
	Water Typ		
ph	8.6	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	35495	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	19000	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	830
iron_mgL		sulfate_mgL	2500
barium_mgL		hydroxide_mgL	
magnesium_mgL		h2s_mgL	
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



**C-108 Item VII.5 - Produced Water Data
LilyStream Water Solutions, LLC - Berry SWD Project**

DISPOSAL ZONE

DEVONIAN

API No.	3001510280	Lab ID	
Well Name	JURNEGAN POINT 001	Sample ID	6170
		Sample No	
Location	ULSTR 05 24 S 25 E 660 S 660 W	Lat / Long	32.24037 -104.42375
		County	Eddy
Operator (when sampled)			
	Field WILDCAT	Unit	M
Sample Date	12/14/1964	Analysis Date	
	Sample Source DST	Depth (if known)	
	Water Type		
ph	7	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	229706	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	136964	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	198
iron_mgL		sulfate_mgL	2511
barium_mgL		hydroxide_mgL	
magnesium_mgL		h2s_mgL	
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)



C-108 – Item VIII

Geologic Information

The Devonian and Silurian consist of carbonates including light colored dolomite and chert intervals interspersed with some tight limestone intervals. Several thick sections of porous dolomite capable of taking water are believed present within the subject formations in the area. Depth control data was inferred from deep wells to the south and east. If the base of Devonian and top of Silurian rocks come in as expected the well will only be drilled deep enough for adequate logging rathole.

At a proposed depth of 15,600' BGL (Below Ground Level) the well will TD approximately 1,300' below the estimated top of the Devonian. Mud logging through the interval will ensure the target interval remains in Devonian and Silurian. Once Devonian is determined, the casing shoe depth will be set at an approximate maximum upper depth of 14,300' BGL. Injection will occur through the resulting openhole interval. Should mud or other logs indicate depth adjustment is required to exploit the desired formation as described; sundries with appropriate data will be filed with the OCD.

The Devonian is overlain by the Woodford Shale and Mississippian Lime and underlain by the Middle and Lower Ordovician; Simpson, McKee and Ellenburger.

Fresh water in the area is generally available from valley and basin fill of the Carlsbad-Pecos segment of the lower Pecos Valley complex of Quaternary alluvial sand and gravel deposits. State Engineer's records show water wells in the area with a depth to groundwater of 25 to 150 feet with an average depth to groundwater of 21 feet.

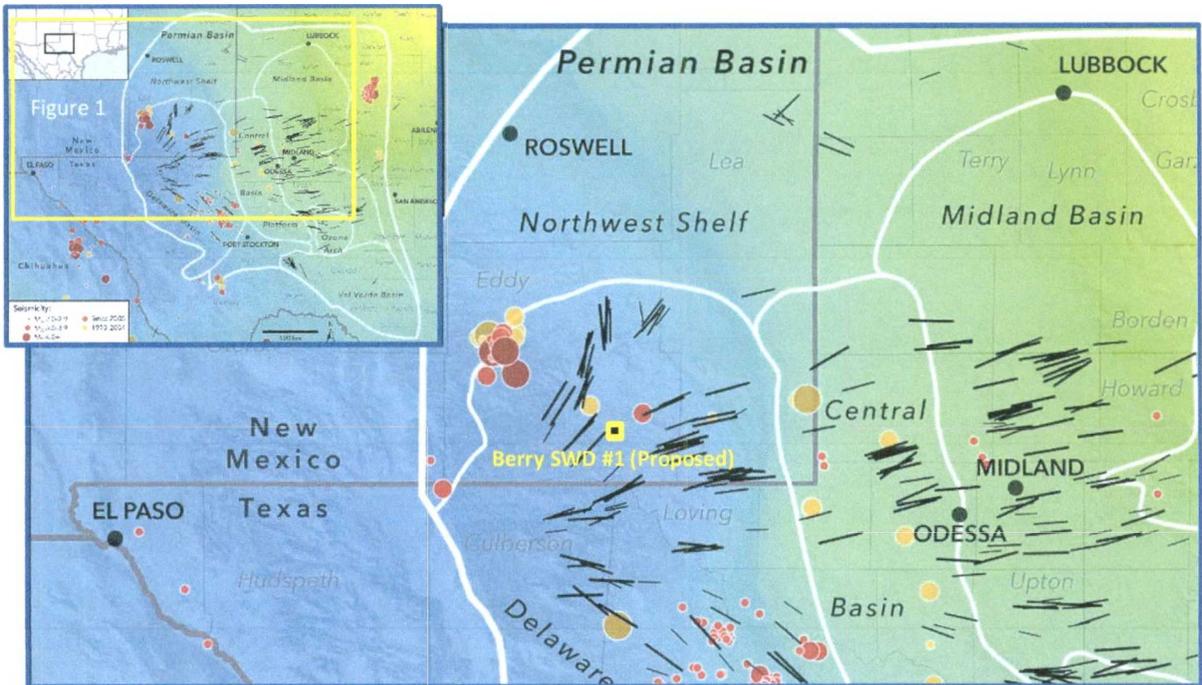
There are 2 water wells located within one mile of the proposed SWD; at least one is being sampled and analyses will be forwarded upon receipt. Additionally, 2 representative samples are included herein that are of similar depth and proximity to the Pecos River.

C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT

Map Source: State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity (Figure 1); Jens-Erik Lund Snee/ Mark Zoback, February 2018



PROJECT VICINITY

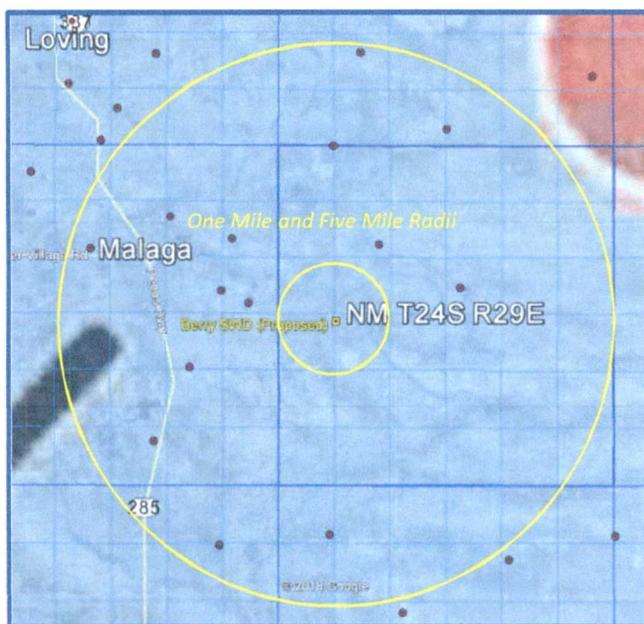


Figure 1. State of stress in the Permian Basin, Texas and New Mexico. Black lines are the measured orientations of the maximum horizontal stress (SHmax), with line length scaled by data quality. The colored background is an interpolation of measured relative principal stress magnitudes (faulting regime) expressed using the $A\phi$ parameter (see text for details) of Simpson (1997). Blue lines are fault traces known to have experienced normal-sense offset within the past 1.6 Ma, from the USGS Quaternary Faults and Folds Database (Crone and Wheeler, 2000). The boundary between the Shawnee and Mazatzal basement domains is from Lund et al. (2015), and the Precambrian Grenville Front is from Thomas (2006). The Permian Basin boundary is from the U.S. Energy Information Administration, and the subs basin boundaries are from the Texas Bureau of Economic Geology Permian Basin Geological Synthesis Project. Earthquakes are from the USGS National Earthquake Information Center, the TexNet Seismic Monitoring Program, and Gan and Frohlich (2013). Focal mechanisms are from Saint Louis University (Herrmann et al., 2011).

C-108 - Item VIII

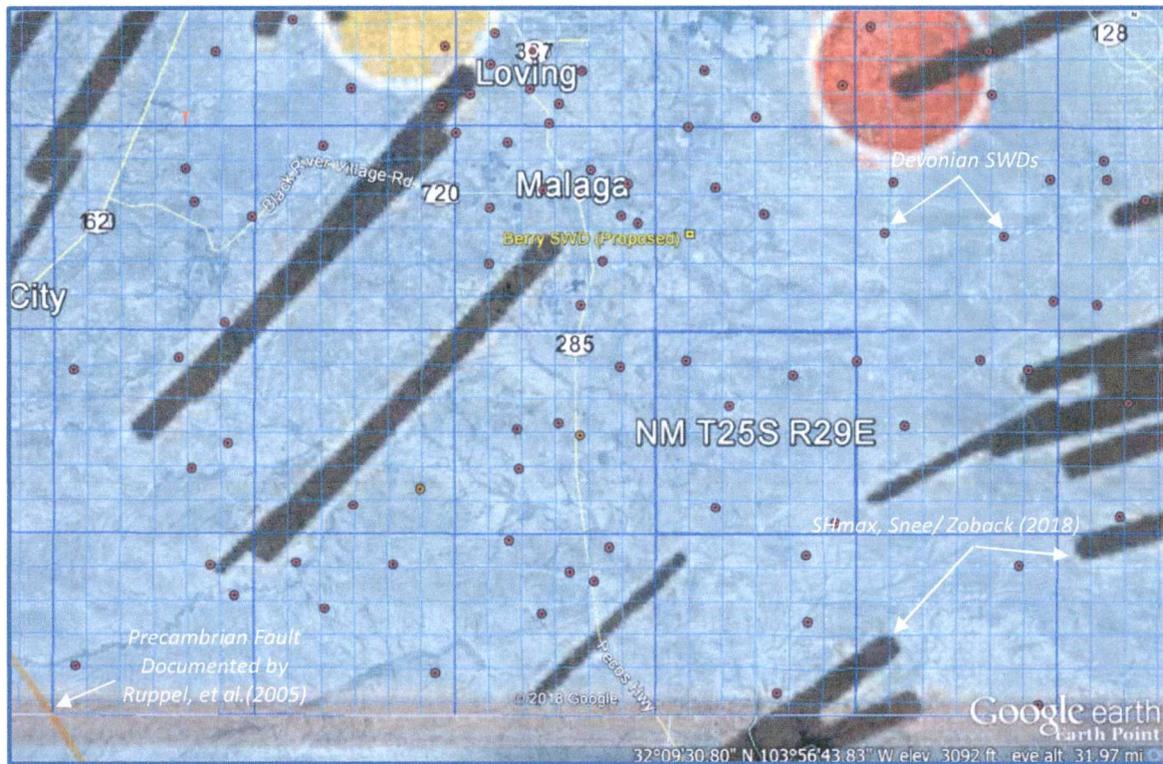
Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

In the following map, a layer with USGS historical earthquake data is overlaid and, a layer showing lines to represent Precambrian faults as documented by Ruppel, et al. (2005). Finally, a layer showing all currently permitted SWDs completed or proposed to be completed in the Devonian (Silurian) formation.

The USGS earthquakes shown are well know to the area. The cluster to the NW represents the seismic events in and around the Dagger Draw area (40.0 miles) in 2002. The 2012 quake located approximately 13 miles due east of Loving is also shown (10.0 miles). This was perhaps the most significant of the area in recent years but was determined to not be related to oil and gas activity.

The Precambrian faults and existing Devonian SWDs are discussed in more detail on the next page.



REGIONAL VIEW - DEVONIAN SWD LOCATIONS, PRECAMBRIAN FAULTS, S_{Hmax} , USGS MAGNITUDE

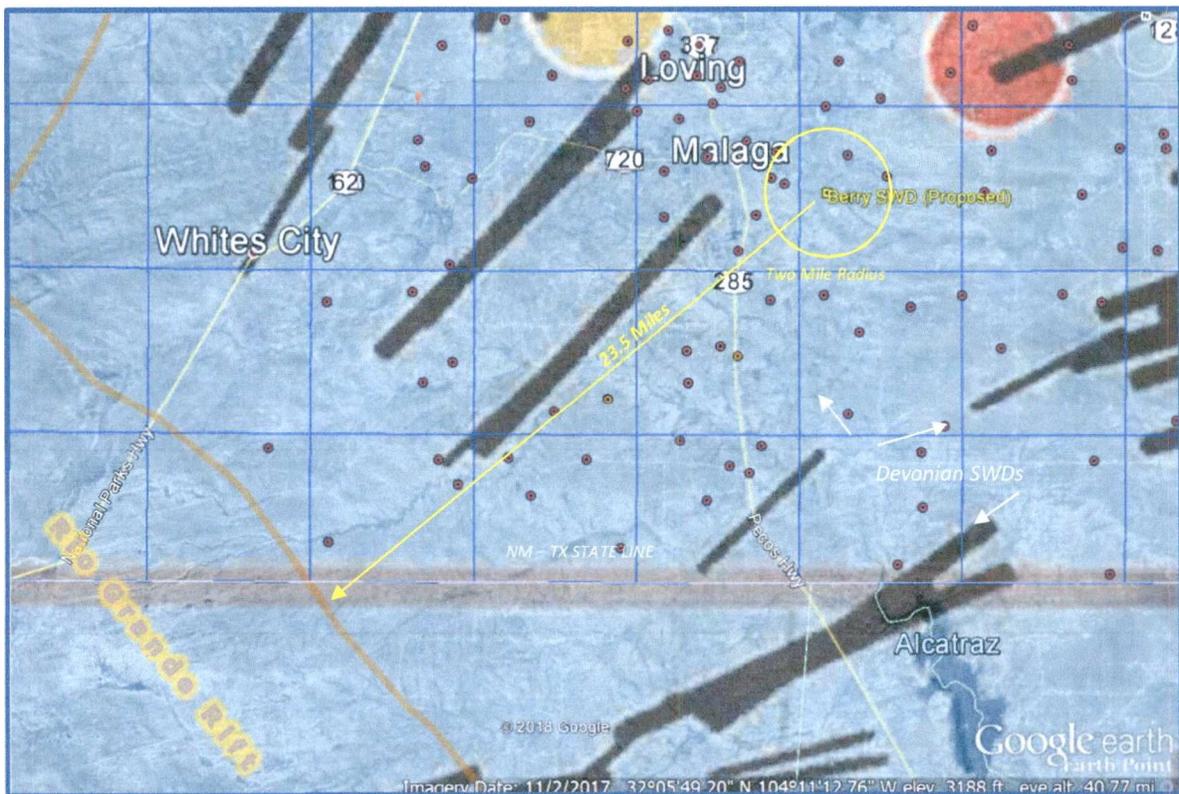
C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

The primary Precambrian fault in the area as documented by Ruppel, et al. (2005) is represented on this map by the tan colored line; the fault is running southeast to northwest. The proposed Berry SWD is located 23.5 miles from the fault. Other Devonian SWDs in the area are also shown by small purple dots completed or proposed to be completed in the Devonian (Silurian) formation.

The previously referenced study by Snee and Zoback evaluated the strike-slip probability using probabilistic FSP (Fault Slip Potential) analysis of known faults in the Permian Basin. The study predicts that the Precambrian fault shown here has less than a 10% probability of being critically stressed to the point of creating an induced seismicity event. The main reason for the low probability is due to the relationship of the strike of the fault to the regional S_{Hmax} orientation in this area.

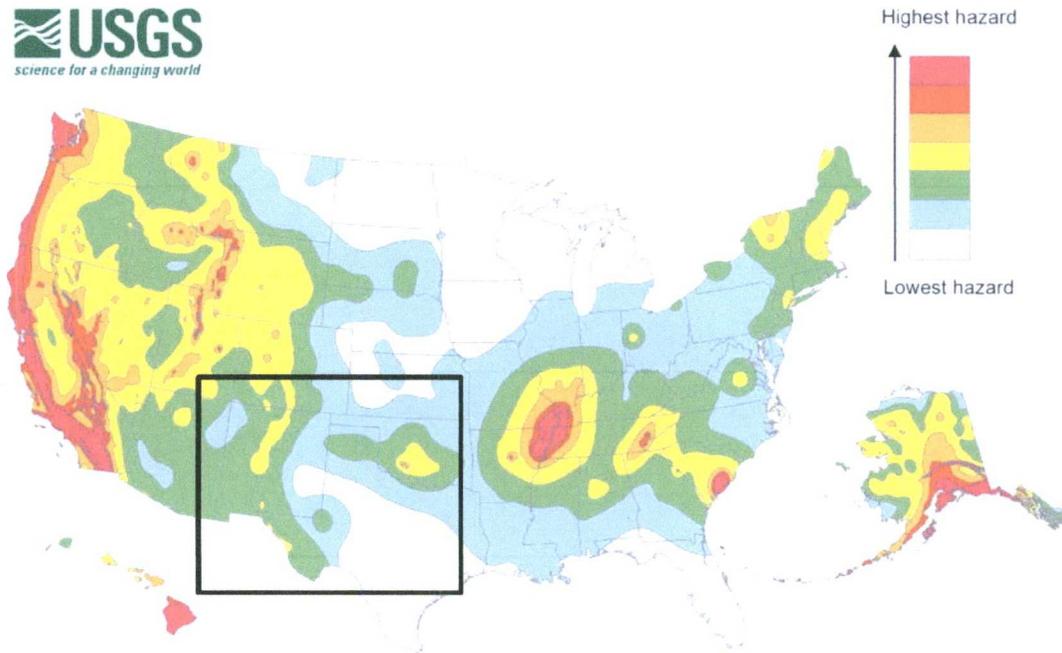


VICINITY - PERMITTED DEVONIAN SWDs, PRECAMBRIAN FAULT, S_{Hmax}

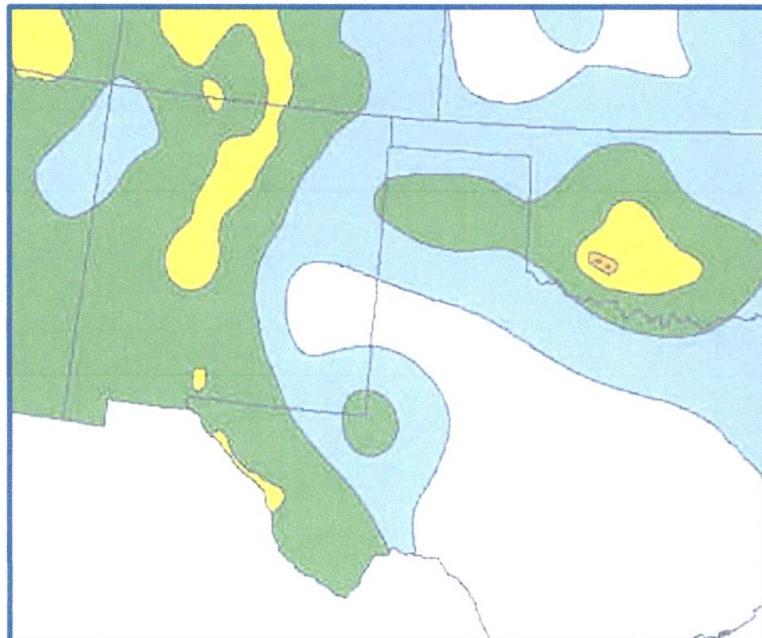
C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)



2014 map data: The USGS notes in its report that [fracking](#) may be to blame for a sizeable uptick in earthquakes in places like [Oklahoma](#). "Some states have experienced increased seismicity in the past few years that may be associated with human activities such as the disposal of wastewater in deep wells," the report says. USGS hopes to use that data in future maps but it isn't included in this one. "Injection-induced earthquakes are challenging to incorporate into hazard models because they may not behave like natural earthquakes and their rates change based on man-made activities," the report says.

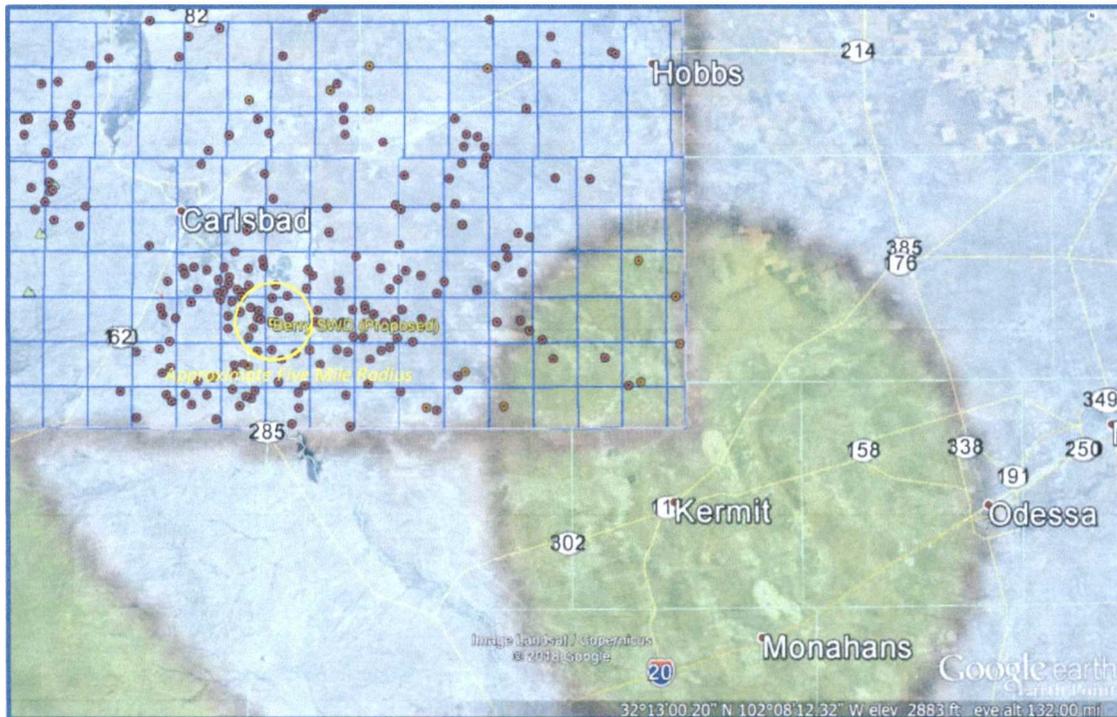


C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

USGS 2014 MAP DATA OVERLAY IN GOOGLE EARTH



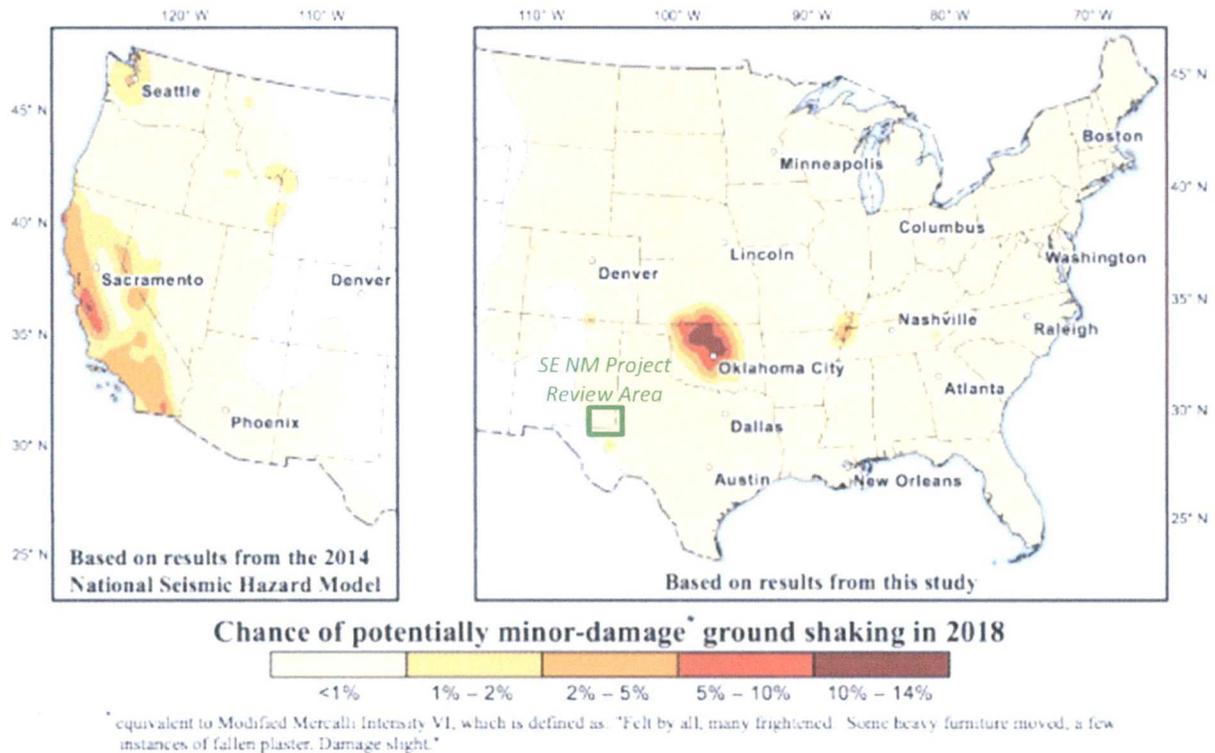
An updated USGS map for 2018 is on the next page. While methodology remained essentially the same according to USGS, the interpreted results and color-coding did have some modification. However, the subject area in southeast New Mexico on both maps remains very low and on the 2018 map, the area is assigned a value of <math><1\%</math> of “potentially minor-damage ground shaking”.

C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

USGS 2018 ONE-YEAR MODEL



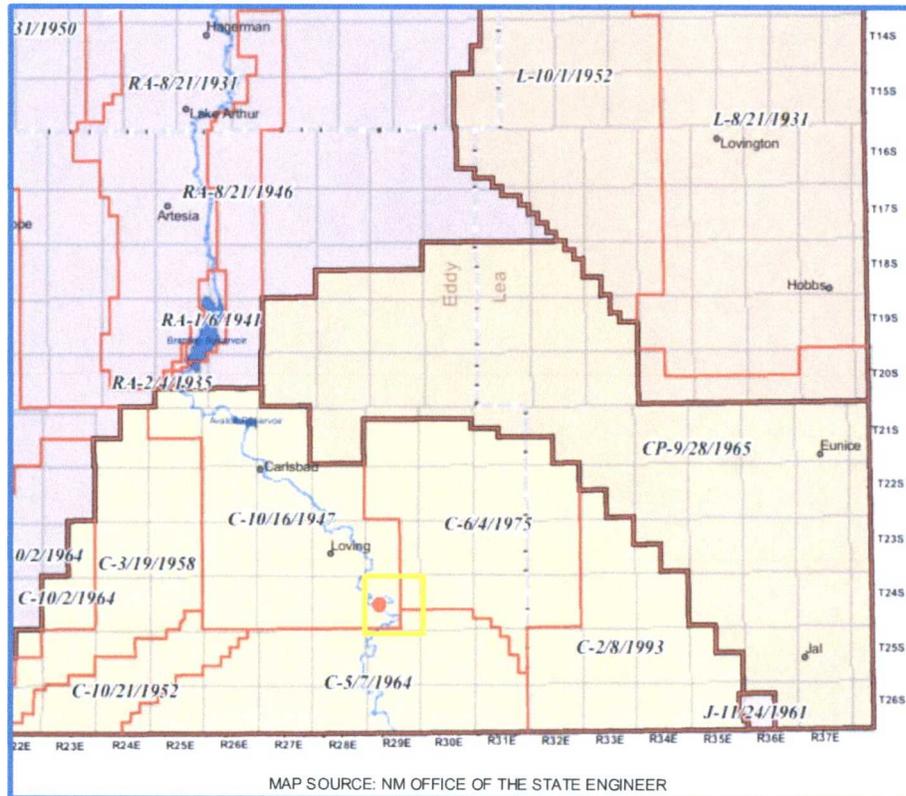
Map showing chance of damage from an earthquake in the Central and Eastern United States during 2018. Percent chances are represented as follows: pale yellow, less than 1 percent; dark yellow, 1 to 2 percent; orange, 2 to 5 percent; red, 5 to 10 percent; dark red, 10 to 12 percent. See Hazard from the western United States from the [2014 National Seismic Hazard Maps \(Petersen et al., 2014\)](#) for comparison.

The USGS has produced the 2018 one-year probabilistic seismic hazard forecast for the central and eastern United States from induced and natural earthquakes. For consistency, the updated 2018 forecast is developed using the same probabilistic seismicity-based methodology as applied in the two previous forecasts.

Based on publicly available data for the subject area, it is reasonable to believe the risk of induced seismic activity due to disposal injection into this well is extremely low.

C-108 - Item XI

Groundwater Basins - Water Column / Depth to Groundwater



The subject well is located within the Carlsbad Basin.

Fresh water in the area is generally available from valley and basin fill of the Carlsbad-Pecos segment of the lower Pecos Valley complex of Quaternary alluvial sand and gravel deposits. State Engineer's records show water wells in 24S-29E with an average depth to water at 21 feet.

There are three (3) water wells (domestic, abandoned) located within one mile of the proposed SWD. Two representative analyses are included with this application. They are from offsetting applications but are closely matched and represent the shallow fresh water available in the area.

C-108 Item XI

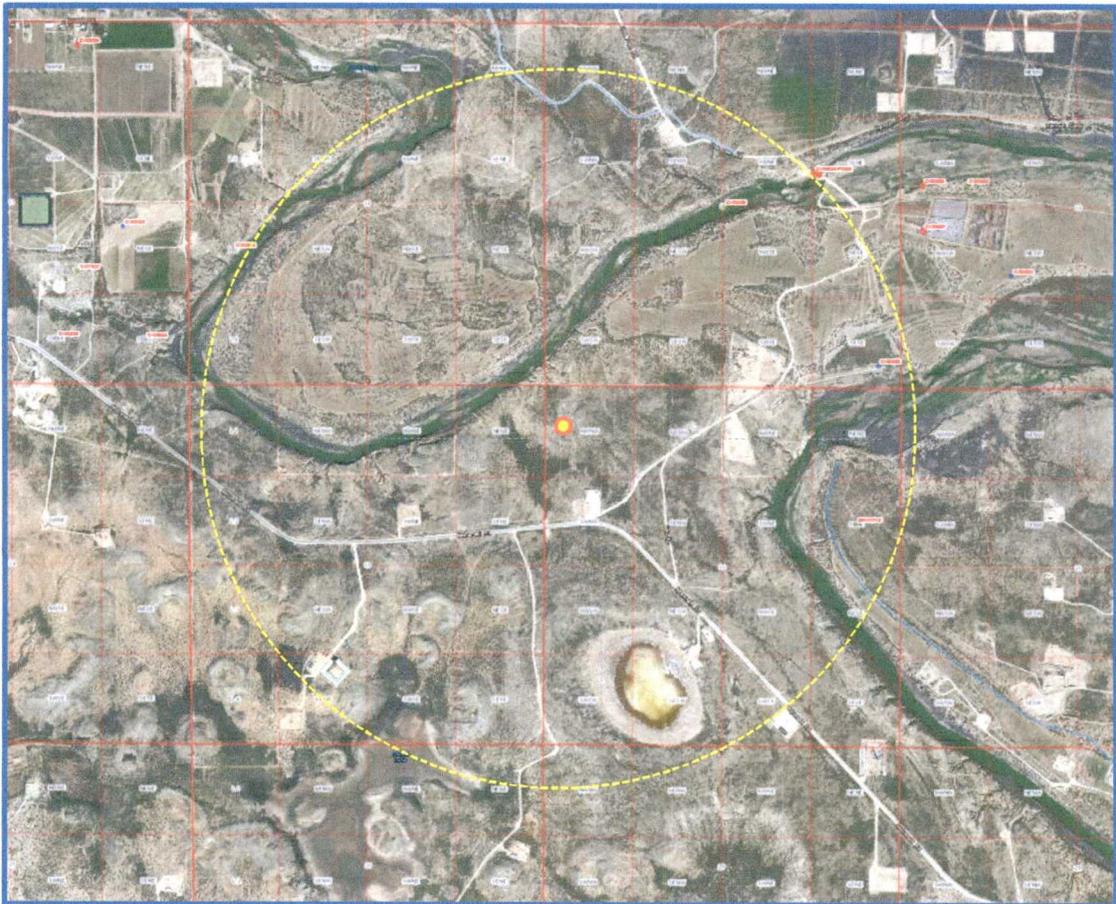
Water Wells Within One Mile

Berry SWD No.1 - Water Well Locator Map

There are 3 water wells/ PODs within a one-mile radius of the proposed SWD.

One or two will be sampled – analyses will be forward upon receipt.

Representative analyses of 2 wells with similar depth and proximity to Pecos River are included.



Data from NM Office of the State Engineer displayed in OSE-GIS System.

C-108 ITEM XI – WATER WELLS IN AOR

Depth to Ground Water



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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned.

C=the file is (quarters are 1=NW 2=NE 3=SW 4=SE)
closed) (quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Twp	Range	X	Y	Depth Well	Depth Water	Water Column
C 00349	C	CUB	ED	1	3	18	24S	29E	591401	3564773*		2734		
C 00381	C	CUB	ED	3	2	3	07	24S	29E	591682	3566297*	2797		
C 00463	C	CUB	ED	4	4	4	17	24S	29E	594332	3564282*	260	4	256
C 00856	C	CUB	ED	1	2	4	30	24S	29E	592538	3561644*	380		
C 00857	C	CUB	ED	3	1	4	30	24S	29E	592135	3561440*	306		
C 00862	C	CUB	ED	1	2	4	30	24S	29E	592538	3561644*	155		
C 00863	C	CUB	ED	3	3	1	16	24S	29E	594524	3565091*	220		
C 00863 CLW199506	O	CUB	ED	3	3	1	16	24S	29E	594524	3565091*	220		
C 02713	C	CUB	ED	4	4	1	16	24S	29E	591633	3565944*	230	18	212
C 03615 POD1	C	CUB	ED	1	3	2	06	24S	29E	591964	3568500*	60	36	24
C 03615 POD2	C	CUB	ED	4	2	4	06	24S	29E	592661	3568013*	60	26	34

Average Depth to Water: 21 feet
Minimum Depth: 4 feet
Maximum Depth: 36 feet

Record Count: 11

PLSS Search:

Township: 24S

Range: 29E

*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.



GE Power & Water
Water & Process Technologies

Customer Analytical Services Laboratory
9669 Grogans Mill Road
The Woodlands, TX 77380
Telephone: 877.251.3479
Fax: 281.363.7724

WATER ANALYSIS REPORT

WESTERN ENVIRONMENTAL MANAGEMENT,CARLSBAD,NM
WESTERN ENVIRONMENTAL MANAGEMENT,3106 EAST GREENE
STRFFT
CARLSBAD, NM 88221
United States
Customer #: 4000101850
Ship To #: 4000101850
Sold To #: 1000090673

Project ID: WDLW170815024

Sales Rep: Laird, Kelly
Receive Date: 15-Aug-2017
Report Date: 24-Aug-2017

Report Authorized By:

Susan Overbeck

24-Aug-2017

The results listed within the report relate only to the samples received on the dates indicated. This report must not be reproduced, except in full, without the written approval from the Customer Analytical Services Laboratory



Customer: WESTERN ENVIRONMENTAL

Project ID: WDLW170815024

Submitted Samples: 2

SAMPLE INFORMATION

Sample Name	Grid	Bottles	Asset	Sampling Point	Sampled Date	Lab Sample ID
#C02256		3		GGNR	08-Aug-2017	WDLW170815067
#C 00329/#C00684/ #C01154		3		GGNR	08-Aug-2017	WDLW170815068

The results listed within the report relate only to the samples received on the dates indicated. This report must not be reproduced, except in full, without the written approval from the Customer Analytical Services Laboratory



Customer: WESTERN ENVIRONMENTAL

Project ID: WDLW170815024

Sample Name: #C02256
Sampled Date: 8-Aug-2017

Lab Sample ID: WDLW170815067

Parameter Name	Result	Units	Reporting Limit
pH Analysis			
pH	7.7	-	1.0
Automated Colorimetric Analysis			
Chloride, as Cl	466	ppm	0.5
ICP Analysis			
Calcium Hardness, Total, as CaCO ₃	969	ppm	0.5
Hardness, Total, as CaCO ₃	1420	ppm	1
Magnesium Hardness, Total, as CaCO ₃	448	ppm	0.5
Total Dissolved Solids			
Solids, Total Dissolved, at 105°C	2620	ppm	20

The results listed within the report relate only to the samples received on the dates indicated. This report must not be reproduced, except in full, without the written approval from the Customer Analytical Services Laboratory



Customer: WESTERN ENVIRONMENTAL

Project ID: WDLW170815024

Sample Name: #C 00329/#C00684/# Lab Sample ID: WDLW170815068
Sampled Date: 8-Aug-2017

Parameter Name	Result	Units	Reporting Limit
pH Analysis			
pH	7.6	-	1.0
Automated Colorimetric Analysis			
Chloride, as Cl	470	ppm	0.5
ICP Analysis			
Calcium Hardness, Total, as CaCO ₃	963	ppm	0.5
Hardness, Total, as CaCO ₃	1420	ppm	1
Magnesium Hardness, Total, as CaCO ₃	451	ppm	0.5
Total Dissolved Solids			
Solids, Total Dissolved, at 105°C	2580	ppm	20

Notes:

- 1) mg/kg = ppm ; 0.1wt% = 1000ppm
- 2) Filtered results may be slightly higher than non-filtered results. This is due to method variances.

The results listed within the report relate only to the samples received on the dates indicated. This report must not be reproduced, except in full, without the written approval from the Customer Analytical Services Laboratory

C-108 ITEM XII – GEOLOGIC AFFIRMATION

We have examined available geologic and engineering data and have found no evidence of open faults or other hydrologic connection between the disposal interval and any underground sources of drinking water.



Ben Stone, Partner
SOS Consulting, LLC

Project: Lilystream Water Solutions, LLC
Berry SWD No.1
Reviewed 12/03/2018

C-108 ITEM XIII – PROOF OF NOTIFICATION

IDENTIFICATION AND NOTIFICATION OF INTERESTED PARTIES

Exhibits for Section

Affected Parties Map

List of Interested Parties

Notification Letter to Interested Parties

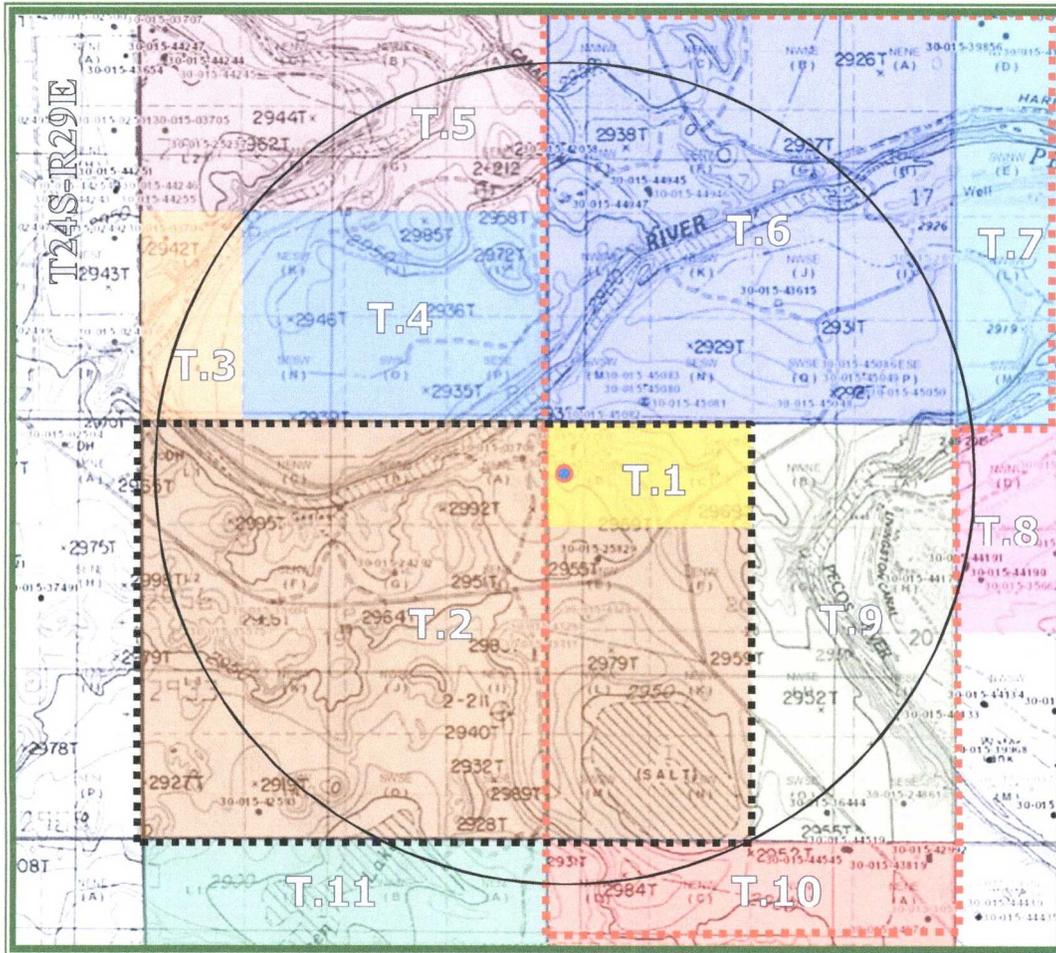
Proof of Certified Mailing

Published Legal Notice

Berry SWD Well No.1 – Affected Parties Plat

~ ONE MILE EXTENDED AREA OF REVIEW ~

(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



LEGEND

- | | |
|--|---|
| T.1 – Private Surface – C.K & B.J. Berry | T.7 – Oxy USA, Inc. |
| T.2 – Strata Production Company
BLM Lease NMNM-017224 ■■■■■ | T.8 – EOG Resources
BLM Lease NMNM-085893 |
| T.3 – MRC Permian Company | T.9 – Oxy USA, Inc. |
| T.4 – Chevron USA, Inc. | T.10 – Oxy USA, Inc. |
| T.5 – Matador Production Company | T.11 – Murchison Oil & Gas, Inc.
BLM Lease NMNM-107384 |
| T.6 – Oxy USA, Inc. ■■■■■ | |

Research performed by Adventure Resources

**C-108 ITEM XIII – PROOF OF NOTIFICATION
AFFECTED PARTIES LIST**

**SOS Consulting is providing electronic delivery of C-108 applications.
ALL APPLICABLE AFFECTED PARTIES ARE PROVIDED A LINK IN THE NOTICE LETTER
TO A SECURE SOS/ CITRIX SHAREFILE® SITE TO VIEW AND DOWNLOAD
A FULL COPY OF THE SUBJECT C-108 APPLICATION IN PDF FORMAT.**

SURFACE OWNER

- 1 C.K. & B.J. BERRY (Notified via USPS Certified Mail)
Barbara J. Berry, Trustee
P.O. Box 352
Eagle Nest, NM 87718-0352
Certified: 7018 0360 0001 8569 5432

OFFSET MINERALS LESSEES and OPERATORS (All Notified via USPS Certified Mail)

BLM Lease NMNM-017224 (T.2 on Plat)

- 2 **Lessee**
STRATA PRODUCTION COMPANY
P.O. Box 1030
Roswell, NM 88202
Certified: 7018 0360 0001 8569 5449
- 3 **Operator**
CHEVRON USA, INC.
Attn: Linda McMurray, Permitting Team
6301 Deauville Blvd.
Midland, TX 79706
Certified: 7018 0360 0001 8569 5456

Fee Lease - McDonald (T.3 on Plat)

- 4 **Lessee**
MRC PERMIAN COMPANY
5400 LBJ Freeway, Ste.1500
Dallas, TX 75240
Certified: 7018 0360 0001 8569 5463

Fee Lease - McDonald (T.4 on Plat)

Lessee
CHEVRON USA, INC.
Attn: Linda McMurray, Permitting Team
6301 Deauville Blvd.
Midland, TX 79706

Fee Lease - McDonald (T.5 on Plat)

- 5 **Lessee**
MATATOR PRODUCTION COMPANY
5400 LBJ Freeway, Ste.1500
Dallas, TX 75240
Certified: 7018 0360 0001 8569 5470

**C-108 ITEM XIII – PROOF OF NOTIFICATION
AFFECTED PARTIES LIST (cont.)**

Fee Lease – McDonald & Brantley; B&D Holdings (T.6, T.7, T.9 & T.10 on Plat)

6 ***Lessee & Operator***
OXY USA, INC.
6001 Deauville Blvd.
Midland, TX 79706
Certified: 7018 0360 0001 8569 5487

BLM Lease NMNM-014777 (T.8 on Plat – cont.)

7 ***Lessee & Operator***
EOG RESOURCES
P.O. Box 4362
Houston, TX 77210-4362
Certified: 7018 0360 0001 8569 5494

Split Fee Surface/ BLM Leases NMNM-013996 (T.11 on Plat)

8 ***Lessee***
MURCHISON OIL & GAS, INC.
7250 Dallas Parkway, Ste.1400
Dallas, TX 75024
Certified: 7018 0360 0001 8569 5500

OFFSET MINERALS OWNERS (Notified via USPS Certified Mail)

9 U.S. DEPARTMENT OF INTERIOR
Bureau of Land Management
Oil & Gas Division
620 E. Greene St.
Carlsbad, NM 88220
Certified: 7018 0360 0001 8569 5517

REGULATORY

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed original and copy)
1220 S. St. Francis Dr.
Santa Fe, NM 87505

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed copy)
811 S. First St.
Artesia, NM 88210



December 3, 2018

NOTIFICATION TO INTERESTED PARTIES
via U.S. Certified Mail – Return Receipt Requested

To Whom It May Concern:

Lilystream Water Solutions, LLC, Lovington, New Mexico, has made application to the New Mexico Oil Conservation Division to drill and complete for salt water disposal the Berry SWD Well No.1. The proposed commercial operation will be for produced water disposal from area operators. As indicated in the notice below, the well is located in Section 20, Township 24 South, Range 29 East in Eddy County, New Mexico.

The published notice states that the interval will be from 14,300 feet to 15,600 feet into the Devonian-Silurian formation.

Following is the notice published in the Artesia Daily Press, Artesia, New Mexico on or about December 4, 2018.

LEGAL NOTICE

Lilystream Water Solutions, LLC, 1308 W. Ave. N, Lovington, NM 88260, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Berry SWD No.1, is located 609' FNL and 220' FWL, Section 20, Township 24 South, Range 29 East, Eddy County, New Mexico; approximately 3.6 miles east/ southeast of Malaga, NM.

Produced water from area production will be commercially disposed into the Devonian and Silurian formations at a maximum interval depth of 13,150' to 14,500' at a maximum surface pressure of 2630 psi and a rate limited only by such pressure.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903)488-9850 or, email info@sosconsulting.us.

You have been identified as a party who may be interested as an offset lessee or operator.

You are entitled to a full copy of the application. A full copy in PDF format is posted on the SOS Consulting **ShareFile** site and is available for immediate download.

Use the URL link: <https://sosconsulting.sharefile.com/d-s20d2efbcb484ef7a>

(Please Note: The ShareFile service is powered by Citrix Systems and is completely secure.*)

The link to this file will be active for 30 days from the date of this letter. Your company can access and download the file a maximum of five (5) times. (One copy may be downloaded and shared as needed amongst your company.)

If preferred, you may call SOS Consulting, LLC at 903-488-9850, or email info@sosconsulting.us, and the same PDF file copy will be expedited to you via email.

Please use a subject like, "**Berry SWD Sept2018 PDF Copy Request**".

Thank you for your attention in this matter.

Best regards,



Ben Stone, SOS Consulting, LLC
Agent for Lilystream Water Solutions, LLC

Cc: Application File

SOS Consulting is committed to providing superior quality work using technology to assist clients and interested parties in obtaining the documentation required. SOS will continue to utilize methods for reducing papers copies and are less energy and resource intensive.

We hope you'll partner with us and appreciate these efforts.

* You will be asked for your email, name and company.

This will not be used by anyone except keeping track of the file downloads.

You will not be solicited by SOS or anyone else. Data is stored on Citrix Systems servers only.

CITRIX



ShareFile

C-108 - Item XIV

Proof of Notice (Certified Mail Receipts)

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Sent To
 Street and A C.K. & B.J. BERRY
 Barbara J. Berry, Trustee
 City, State, P.O. Box 352
 Eagle Nest, NM 87718-0352

PS Form 3800, Domestic Mail Only

Postmark Here: DEC 03 2018

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Postage \$
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Sent To
 Street CHEVRON USA, INC.
 City, State, Attn: Linda McMurray, Permitting Team
 6301 Deauville Blvd

PS Form 3800, Domestic Mail Only

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Sent To
 Street and STRATA PRODUCTION COMPANY
 City, State, P.O. Box 1030
 Roswell, NM 88202

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 Street and MRC PERMIAN COMPANY
 City, State, 5400 LBJ Freeway, Suite 1500
 Dallas, Texas 75240

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 City, State, 5400 LBJ Freeway, Ste. 1500
 Dallas, TX 75240

PS Form 3800, Domestic Mail Only

Postmark Here: DEC 03 2018

C-108 - Item XIV

Proof of Notice (Certified Mail Receipts - cont.)

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 Adult Signature Restricted Delivery \$
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Total Postage and Fees \$ *6.00 US*

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OXY USA, INC.
 6001 Deauville Blvd.
 Midland, TX 79706

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 COMO TX 79701
 DEC 03 2013

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 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
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EOG RESOURCES
 P.O. Box 4362
 Houston, TX 77210-4362

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 COMO TX 77001
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MURCHISON OIL & GAS, INC.
 7250 Dallas Parkway, Ste.1400
 Dallas, TX 75024

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Bureau of Land Management
 Oil & Gas Division
 620 E. Greene St.
 Carlsbad, NM 88220

Postmark Here
 COMO TX 78431
 DEC 03 2013

C-108 - Item XIV

Proof of Notice – Legal Notice
Newspaper of General Circulation

Legal Notice

Lilystream Water Solutions, LLC, 1308 W. Ave. N, Lovington, NM 88260, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Berry SWD No.1, is located 609' FNL and 220' FWL, Section 20, Township 24 South, Range 29 East, Eddy County, New Mexico; approximately 3.6 miles east/southeast of Malaga, NM.

Produced water from area production will be commercially disposed into the Devonian and Silurian formations at a maximum interval depth of 14,300' to 15,600' at a maximum surface pressure of 2860 psi and a rate limited only by such pressure.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903)488-9850 or, email info@sosconsulting.us.

Published in the Artesia Daily Press, Artesia, N.M., Dec. 4, 2018 Legal No. 24932.

The above is the "Proof Copy" sent from the Artesia Daily Press.
The affidavit of publication will be forwarded as soon as it is received.

Affidavit of Publication

No. 24932

State of New Mexico

County of Eddy:

Danny Scott

being duly sworn says that he is the **Publisher** of the Artesia Daily Press, a daily newspaper of General circulation, published in English at Artesia, said county and state, and that the hereto attached

Legal Ad

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 Consecutive weeks/day on the same

day as follows:

First Publication	<u>December 4, 2018</u>
Second Publication	<u></u>
Third Publication	<u></u>
Fourth Publication	<u></u>
Fifth Publication	<u></u>
Sixth Publication	<u></u>
Seventh Publication	<u></u>

Subscribed and sworn before me this 4th day of December 2018



OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 5/12/2019

Latisha Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

Legal Notice

Lilystream Water Solutions, LLC, 1308 W. Ave. N, Lovington, NM 88260, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Berry SWD No.1, is located 609' FNL and 220' FWL, Section 20, Township 24 South, Range 29 East, Eddy County, New Mexico; approximately 3.6 miles east/southeast of Malaga, NM.

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Published in the Artesia Daily Press, Artesia, N.M., Dec. 4, 2018 Legal No. 24932.



FORM C-108 Technical Review Summary [Prepared by reviewer and included with application; V17]

DATE RECORD: First Rec: _____ Admin Complete: _____ or Suspended: _____ Add. Request/Reply: _____

ORDER TYPE: WFX / PMX / SWD Number: _____ Order Date: _____ Legacy Permits/Orders: _____

Well No. 1 Well Name(s): Benny SWD

API: 30-0 15-45367 Spud Date: _____ New or Old (EPA): _____ (UIC Class II Primacy 03/07/1982)

Footages 690FWL 220FWL Lot _____ or Unit D Sec 20 Tsp 245 Rge 29E County El Paso

General Location: 3 miles SE / MALAGA Pool: _____ Pool No.: _____

BLM 100K Map: CA1566 Operator: LILY STATION WATER SOLUTIONS, LLC OGRID: _____ Contact: _____

COMPLIANCE RULE 5.9: Total Wells: _____ Inactive: _____ Fincl Assur: _____ Compl. Order? _____ IS 5.9 OK? _____ Date: _____

WELL FILE REVIEWED Current Status: _____

WELL DIAGRAMS: NEW: Proposed or RE-ENTER: Before Conv. After Conv. Logs in Imaging: N/A

Planned Rehab Work to Well: _____

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement (Sx or Cf)	Cement Top and Determination Method
Planned ___ or Existing ___ Surface	26" / 20"	800	1000	SURFACE / VISUAL
Planned ___ or Existing ___ Interm/Prod	17" / 13 3/8"	2750	1525	SURFACE / VISUAL
Planned ___ or Existing ___ Interm/Prod	12 1/4" / 9 5/8"	10500	2300	SURFACE / VISUAL
Planned ___ or Existing ___ Prod/Liner	8 1/2" / 7 5/8"	14300	400	14200 / C-2
Planned ___ or Existing ___ Liner				
Planned ___ or Existing <input checked="" type="radio"/> OH/PERF	14300 / 1500			

Injection Lithostratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops	Completion/Operation Details:
Adjacent Unit: Litho. Struc. Por.		nd	13950	Drilled TD <u>15600</u> PBDT _____
Confining Unit: Litho. Struc. Por.		nd	14300	NEW TD _____ NEW PBDT _____
Proposed Inj Interval TOP:				NEW Open Hole <input type="radio"/> or NEW Perfs <input type="radio"/>
Proposed Inj Interval BOTTOM:				Tubing Size <u>1 1/2</u> in. Inter Coated? _____
Confining Unit: Litho. Struc. Por.				Proposed Packer Depth <u>14200</u> ft
Adjacent Unit: Litho. Struc. Por.				Min. Packer Depth <u>14200</u> (100-ft limit)
				Proposed Max. Surface Press <u>2800</u> psi
				Admin. Inj. Press. <u>2800</u> (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-P MA Noticed? _____ BLM Sec Ord WIPP Noticed? _____ Salt/Salado T: _____ B: _____ NW: Cliff House fm _____

USDW: Aquifer(s) Guadalupe Max Depth 2235 HYDRO AFFIRM STATEMENT By Qualified Person

NMOSE Basin: CARLSBAD CAPITAN REEF: thru _____ adj NA No. GW Wells in 1-Mile Radius? 2 FW Analysis? Y

Disposal Fluid: Formation Source(s) Y-250, 46, 135, 1 Analysis? Y On Lease Operator Only or Commercial

Disposal Interval: Inject Rate (Avg/Max BWPD): 17.5K/30K Protectable Waters? _____ Source: _____ System: Closed or Open

HC Potential: Producing Interval? N/A Formerly Producing? _____ Method: Logs/DST/P&A/Other region 1 2-Mi Radius Pool Map

AOR Wells: 1/2-M _____ or ONE-M _____ RADIUS MAP/WELL LIST: Total Penetrating Wells: _____ [AOR Hor: _____ AOR SWD 2]

Penetrating Wells: No. Active Wells _____ No. Corrective? _____ on which well(s)? _____ Diagrams? _____

Penetrating Wells: No. P&A Wells 2 No. Corrective? _____ on which well(s)? _____ Diagrams? _____

Induced-Seismicity Risk Assess: analysis submitted historical/catalog review fault-slip model N/A probability < 10^-40

NOTICE: 1/2-M _____ or ONE-M : Newspaper Date 2401 Mineral Owner BLM Surface Owner CRB N. Date 12-03-2011

RULE 26.7(A): Identified Tracts? Y Affected Persons*: Stratton, Cheuron, MRC, Oxy N. Date 12-03-2011

* new definition as of 12/28/2018 [any the mineral estate of United States or state of New Mexico; SWD operators within the notice radius]

Order Conditions: Issues: _____

Additional COAs: _____

5 1/2" -> 5" Surface Int, 5" Liner

Pending Application for High-Volume Devonian Disposal Well
 C-108 Application for Berry SWD No. 1 – LilyStream Water Solutions LLC

