

RECEIVED: 1-04-2019	REVIEWER:	TYPE: SWD	APP NO: pAm19004 44961
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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: Solaris Water Midstream, LLC **OGRID Number:** 371643
Well Name: Mr. Belding State SWD No.1 (REVISED LOCATION) **API:** 30-025-45363
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

SWD-1882

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

FOR OCD ONLY

- ☐ Notice Complete
☐ Application Content Complete

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

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

Ben Stone

Print or Type Name

Signature

1/04/2019

Date

903-488-9850

Phone Number

ben@sosconsulting.us

e-mail Address

SOS Consulting, LLC

Oil & Gas Accounting — Regulatory Processing Assistance — Oil Field Technical Assistance

January 4, 2019

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

Attn: OCD Director

*Re: Application of Solaris Water Midstream, LLC to drill and permit for salt water disposal
the Mr. Belding State SWD Well No.1, to be located in Section 22, Township 25 South, Range
34 East, NMPM, Lea County, New Mexico.*

Dear Director,

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.

This proposed SWD was originally applied for at a location approximately $\frac{3}{4}$ mile north of the new location. It was adjusted to accommodate an offset operator's planning concerns.

Solaris Water Midstream is a major provider of salt water disposal services to operators in southeast New Mexico and seeks to optimize efficiency, both economically and operationally, of all its operations. Approval of this application is consistent with that goal as well as the NMOCD's mission of preventing waste and protection of correlative rights.

This application includes the currently mandated increased One-Mile Area of Review including pertinent and available seismic information for Devonian SWDs in the area. Published legal notice ran January 3, 2019 in the Hobbs News-Sun and all offset operators and other interested parties have been notified individually. The legal notice affidavit is included with this application. The application also includes appropriate exhibits and data for a complete Form C-108. The well is located on state land and BLM minerals and offset affected parties within one mile have been notified of the 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,



Ben Stone, Partner
SOS Consulting, LLC
Agent for Solaris Water Midstream, LLC

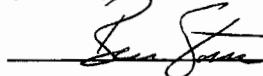
Cc: Application attachment and file

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: ***Salt Water Disposal*** and the application ***QUALIFIES*** for administrative approval.
- II. OPERATOR: ***Solaris Water Midstream, LLC***
ADDRESS: ***701 Tradewinds Blvd., Suite C, Midland, TX 79706***

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 NO water wells/ PODs within one mile of the proposed salt water disposal well.***
- 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 4 offset lessees and/or operators within 1 mile and state and federal minerals - all have been noticed. Well location is State.***
- 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 Solaris Water Midstream, LLC***

SIGNATURE:  DATE: ***1/04/2019***

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:

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

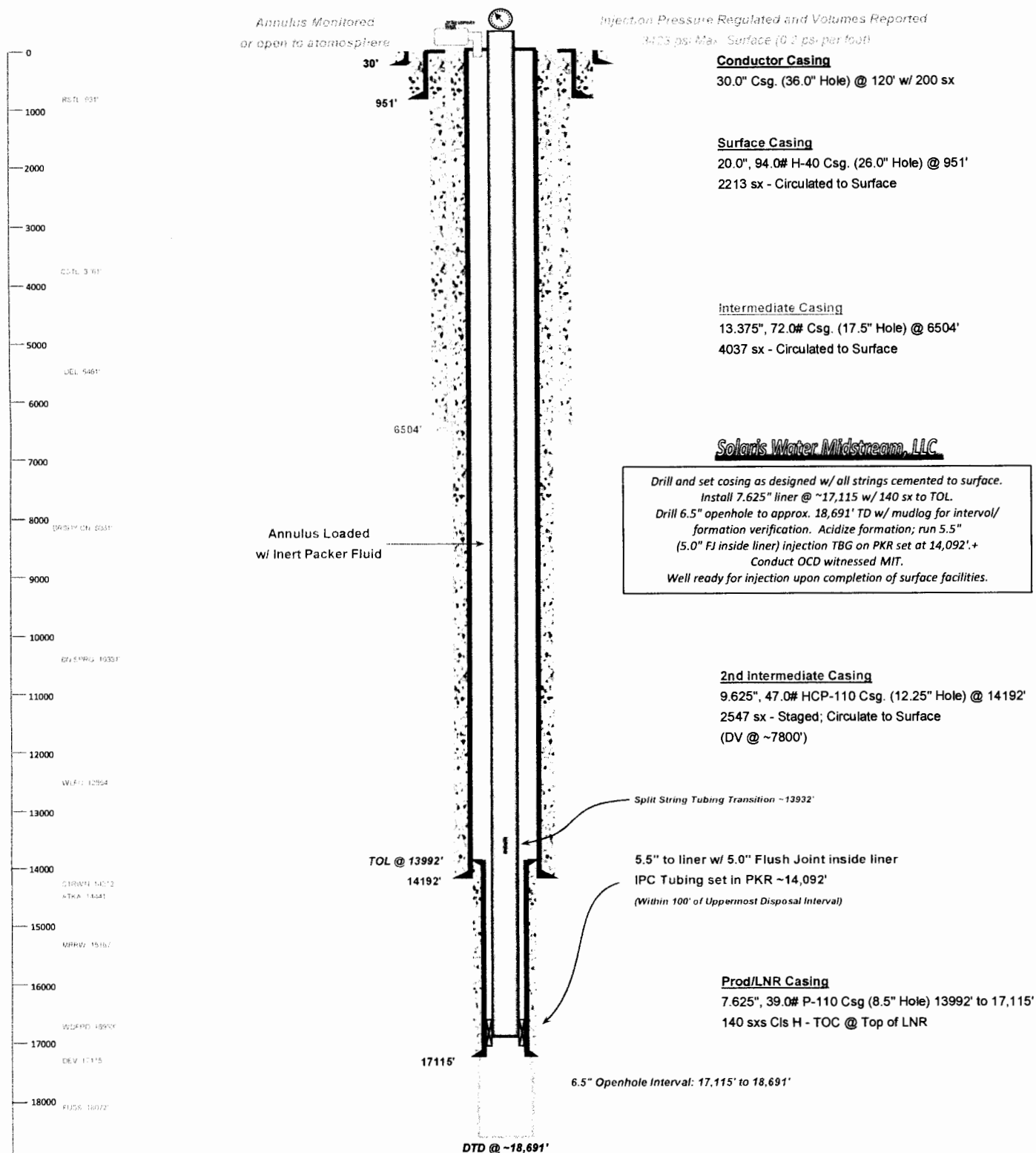


WELL SCHEMATIC - PROPOSED Mr. Belding State SWD Well No.1

API 30-025-45363
1080' FSL & 275' FWL, SEC. 22-T25S-R34E
LEA COUNTY, NEW MEXICO

SWD; Devonian-Silurian (97869)

Spud Date: 3/01/2019
SWD Config Dt: 4/01/2019

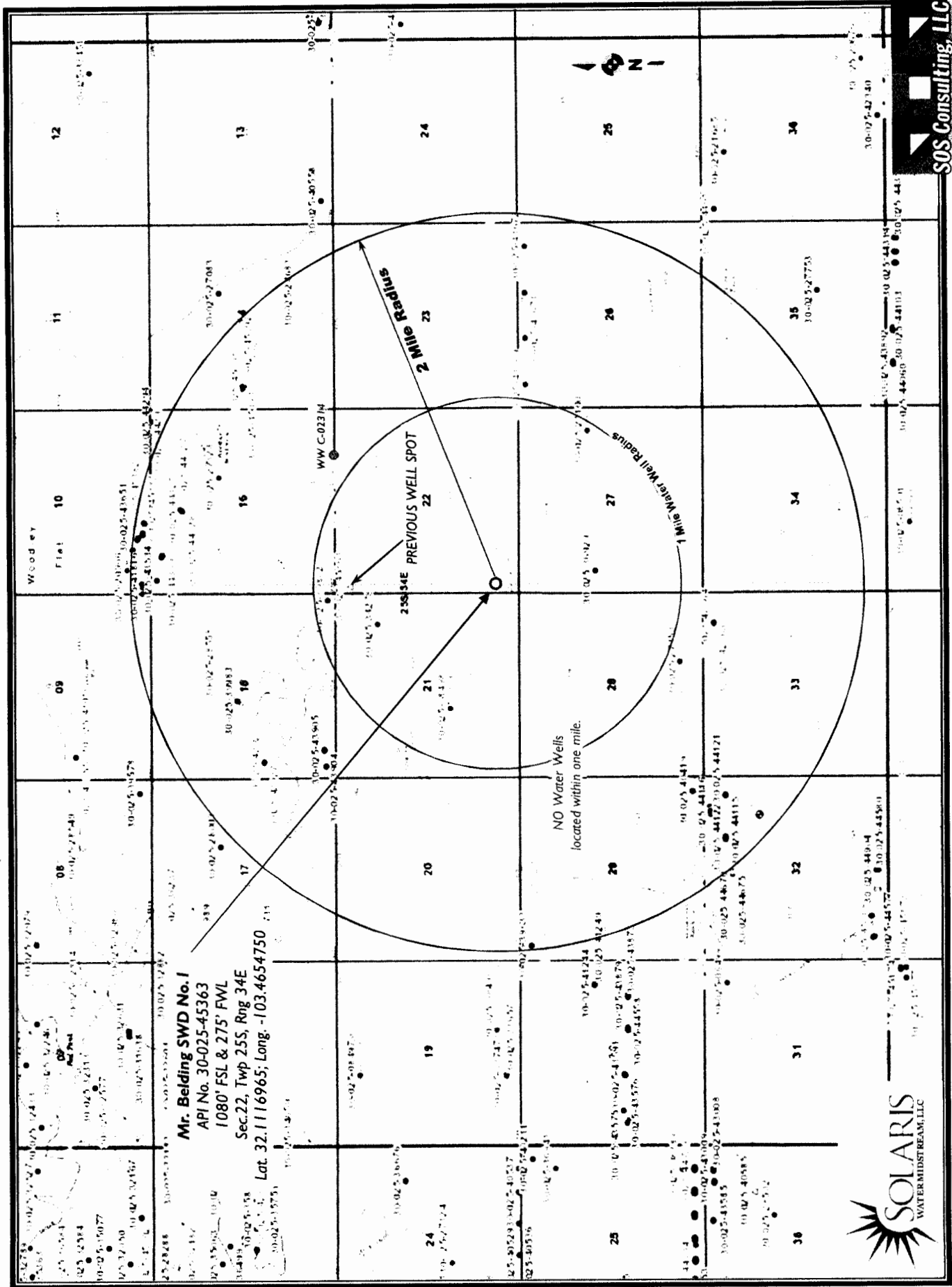


Drawn by: Ben Stone, 12/09/2018



Mr. Belding SWD No.1 - Area of Review / 2 Miles

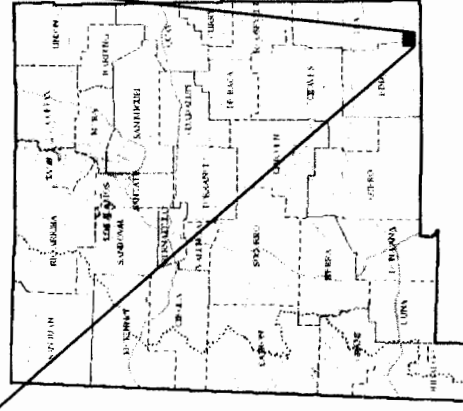
(Attachment to NMOCD Form C-108 - Item V)



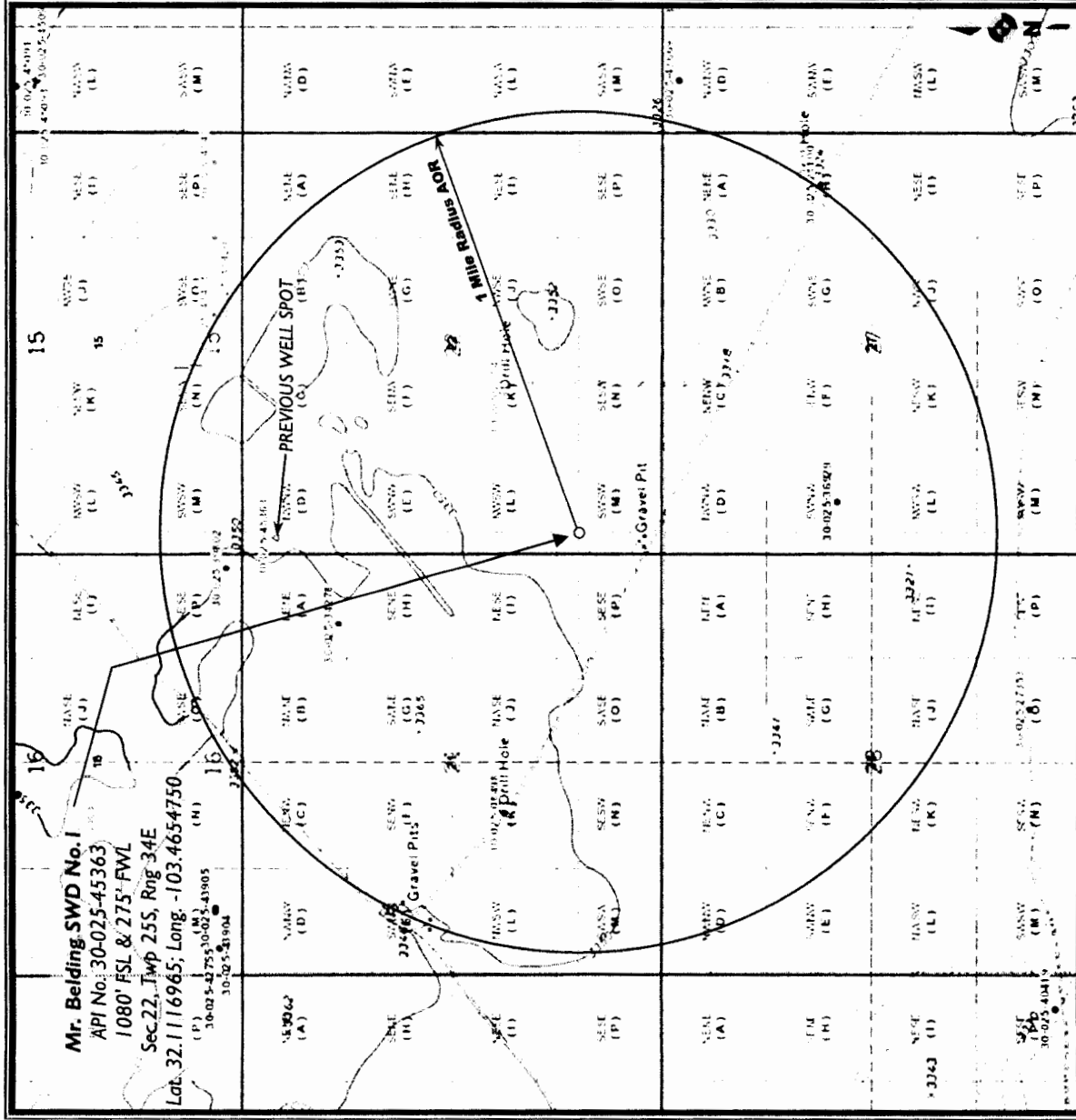
Mr. Belding SWD Well No.1 - Area of Review / Overview Map

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

15.6 miles West of Jal, NM



Lea County, New Mexico



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

Mr. Belding State 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 75 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 40,000 bpd and an average of 25,000 bpd at a maximum surface injection pressure of 3423 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.

C-108 ITEM VII – PRODUCED WATER ANALYSES

Item VII.4 – Water Analysis of Source Zone Water

San Andres

Bone Spring

Wolfcamp

Item VII.5 – Water Analysis of Disposal Zone Water

Devonian

Analyses follow this page.

C-108 Item VII.5 - Produced Water Data
Solaris Water Midsteam, LLC - Mr. Belding SWD Project

Source Zone - San Andres

SAN ANDRES

API No	3002523275	Lab ID	
Well Name	HUGH	Sample ID	2814
	013	Sample No	
Location	ULSTR 14 22 S 37 E	Lat / Long	32.39811 -103.13935
	330 N 820 W	County	Lea
Operator (when sampled)	ANADARKO PETROLEUM CORP.		
	Field	EUNICE SOUTH	Unit D
Sample Date	2/19/1998	Analysis Date	3/2/1998
	Sample Sourc	Depth (if known)	
	Water Typ		
ph	7.6	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity	1.011	hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	14215.2	resistivity_ohm_cm_temp	
tds_mgL_180C		conductivity	
chloride_mgL	6494.66	conductivity_temp_F	
sodium_mgL	4424.14	carbonate_mgL	0
calcium_mgL	299.256	bicarbonate_mgL	2528.51
iron_mgL	0.1011	sulfate_mgL	191.079
barium_mgL	1.011	hydroxide_mgL	
magnesium_mgL	179.958	h2s_mgL	151.65
potassium_mgL	232.53	co2_mgL	
strontium_mgL	20.22	o2_mgL	
manganese_mgL		anionremarks	

Remarks

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



C-108 Item VII.5 - Produced Water Data
Solaris Water Midsteam, LLC - Mr. Belding SWD Project

Source Zone - Bone Spring

BONE SPRING

API No	3002527250	Lab ID	
Well Name	BERRY APN STATE 001	Sample ID	6070
		Sample No	
Location	ULSTR 05 21 S 34 E 1980 S 660 W	Lat / Long	32.50569 -103.49786
		County	Lea
Operator (when sampled)	YATES PETROLEUM CORPORATION		
	Field	BERRY NORTH	Unit L
Sample Date	1/12/1998	Analysis Date	1/21/1998
	Sample Source	Depth (if known)	
	Water Type		
ph	7.18	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity	1.08	hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	128117	resistivity_ohm_cm_temp	
tds_mgL_180C		conductivity	
chloride_mgL	82351.1	conductivity_temp_F	
sodium_mgL	49793.4	carbonate_mgL	0
calcium_mgL	2715.12	bicarbonate_mgL	567
iron_mgL	0.216	sulfate_mgL	1722.6
barium_mgL	1.62	hydroxide_mgL	
magnesium_mgL	631.8	h2s_mgL	
potassium_mgL	466.56	co2_mgL	
strontium_mgL	116.64	o2_mgL	
manganese_mgL		anionremarks	

Remarks

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



C-108 Item VII.5 - Produced Water Data
Solaris Water Midsteam, LLC - Mr. Belding SWD Project

Source Zone - Wolfcamp

WOLFCAMP

API No		3002531756		Lab ID		
Well Name		INCA FEDERAL		Sample ID		3575
		012		Sample No		
Location	ULSTR	17	18	S	32	E
		2310	N		330	W
Lat / Long	32.74837				-103.79584	
	County	Lea				
Operator (when sampled)		COASTAL MANAGEMENT				
	Field	YOUNG NORTH				Unit E
Sample Date	7/22/1999		Analysis Date	8/2/1999		
	Sample Source	Depth (if known)				
	Water Type					
ph		6.1	alkalinity_as_caco3_mgL			
ph_temp_F			hardness_as_caco3_mgL			
specificgravity		1.123	hardness_mgL			
specificgravity_temp_F			resistivity_ohm_cm			
tds_mgL		187007	resistivity_ohm_cm_temp			
tds_mgL_180C			conductivity			
chloride_mgL		127936	conductivity_temp_F			
sodium_mgL		66744.4	carbonate_mgL		0	
calcium_mgL		10171	bicarbonate_mgL		175.188	
iron_mgL		10.107	sulfate_mgL		970.272	
barium_mgL		0.5615	hydroxide_mgL			
magnesium_mgL		2103.38	h2s_mgL			
potassium_mgL		1509.31	co2_mgL			
strontium_mgL		389.681	o2_mgL			
manganese_mgL			anionremarks			

Remarks

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



C-108 Item VII.5 - Produced Water Data
Solaris Water Midsteam, LLC - Mr. Belding SWD Project

DISPOSAL ZONE

DEVONIAN

API No	3002502432	Lab ID	
Well Name	LEA UNIT 009	Sample ID	5035
		Sample No	
Location	ULSTR 13 20 S 34 E	Lat / Long	32.57779 -103.51152
	660 N 2130 E	County	Lea
Operator (when sampled)			
	Field LEA	Unit B	
Sample Date		Analysis Date	
	Sample Source UNKNOWN	Depth (if known)	
	Water Type		
ph		alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	45778	resistivity_ohm_cm_temp	
tds_mgL_180C		conductivity	
chloride_mgL	26440	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	1145
iron_mgL		sulfate_mgL	729
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 18,691' BGL (Below Ground Level) the well will TD approximately 1,570' 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 17,115' 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 the Santa Rosa formation and some alluvial deposits. State Engineer's records show 5 water wells in the township with a depth to groundwater of 50 to 300 feet with an average depth to groundwater of 155 feet.

There are NO water wells located within one mile of the proposed SWD. A representative analysis for the area is included.

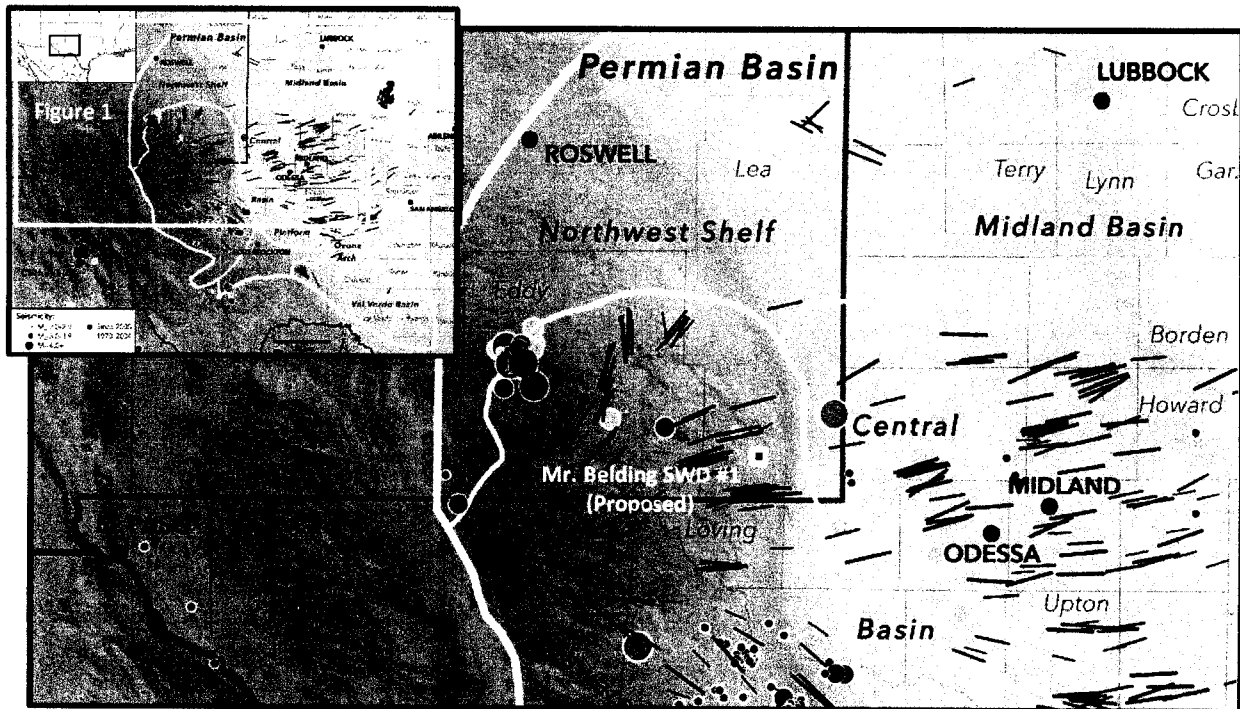
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Geological Data

Note: The REVISED Location to the South does not substantially change this assessment.

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

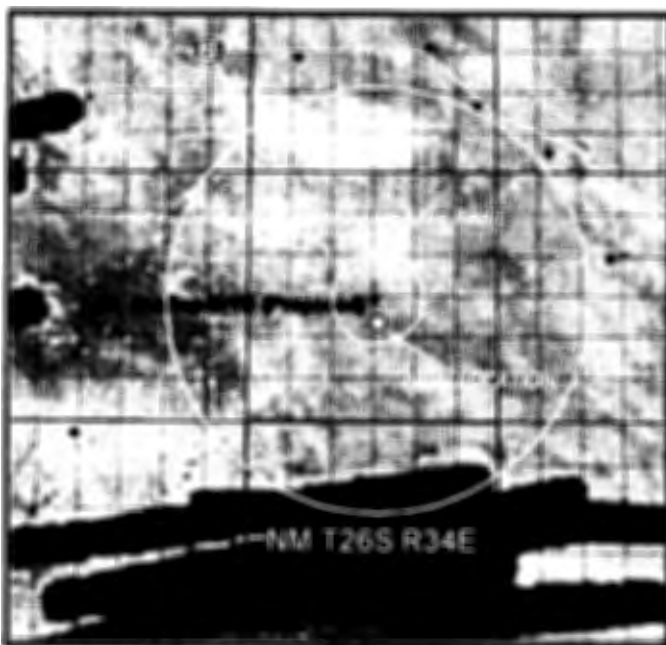


Figure 1. State of stress in the Permian Basin, Texas and New Mexico. Black lines are the measured orientations of the maximum horizontal stress (SHmax), with line length scaled by data quality. The colored background is an interpolation of measured relative principal stress magnitudes (faulting regime) 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 subbasin 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).

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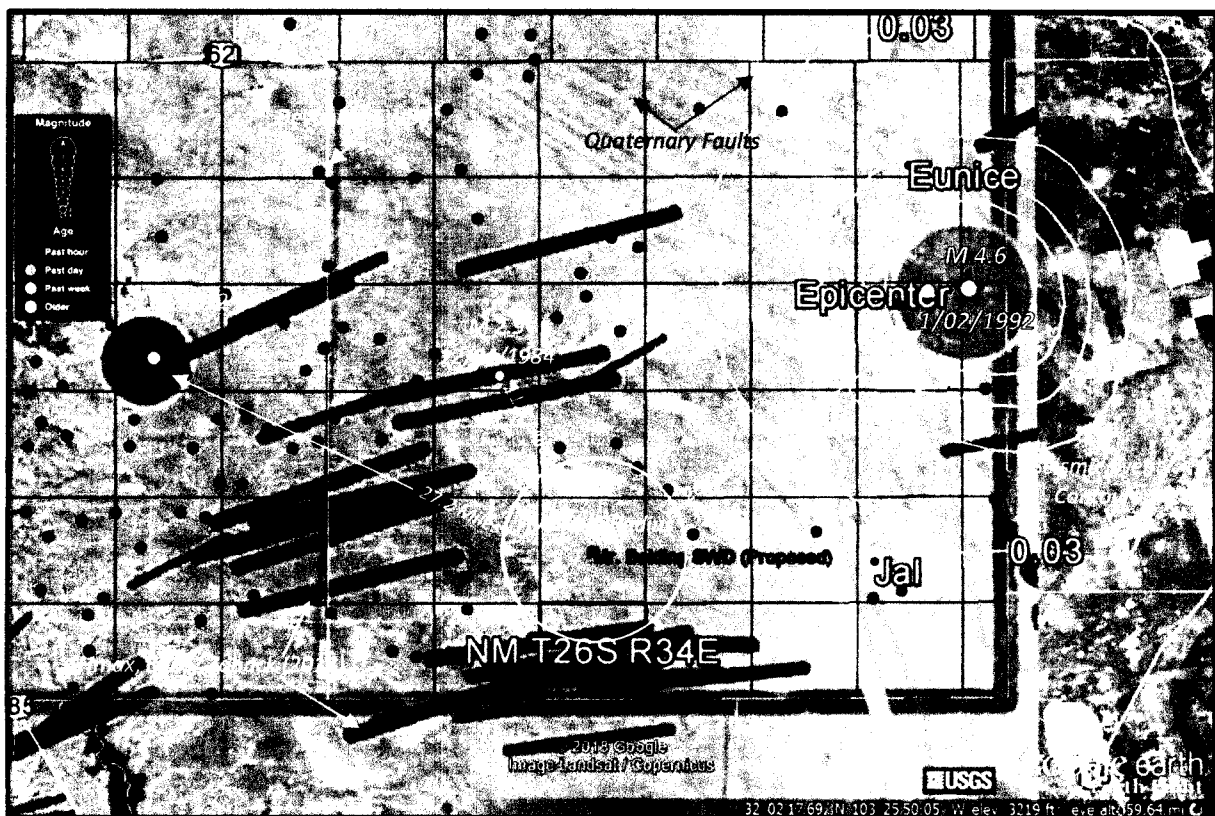
Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

In the following map, a layer with USGS historical earthquake data is overlain with a layer showing Quaternary Faults from a USGS dataset (2000) and 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 known to the area. The most significant in the region was 4.6 magnitude in 1992 south of Eunice, New Mexico and was 26.0 miles from the proposed SWD. The 2012 quake 27.2 miles to the west is also shown and was determined to not be related to oil and gas activity. A small 2.9 magnitude occurred 11.2 miles to the north of the proposed site in 1984.

The Precambrian and Quaternary faults are discussed on the next page.



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

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.

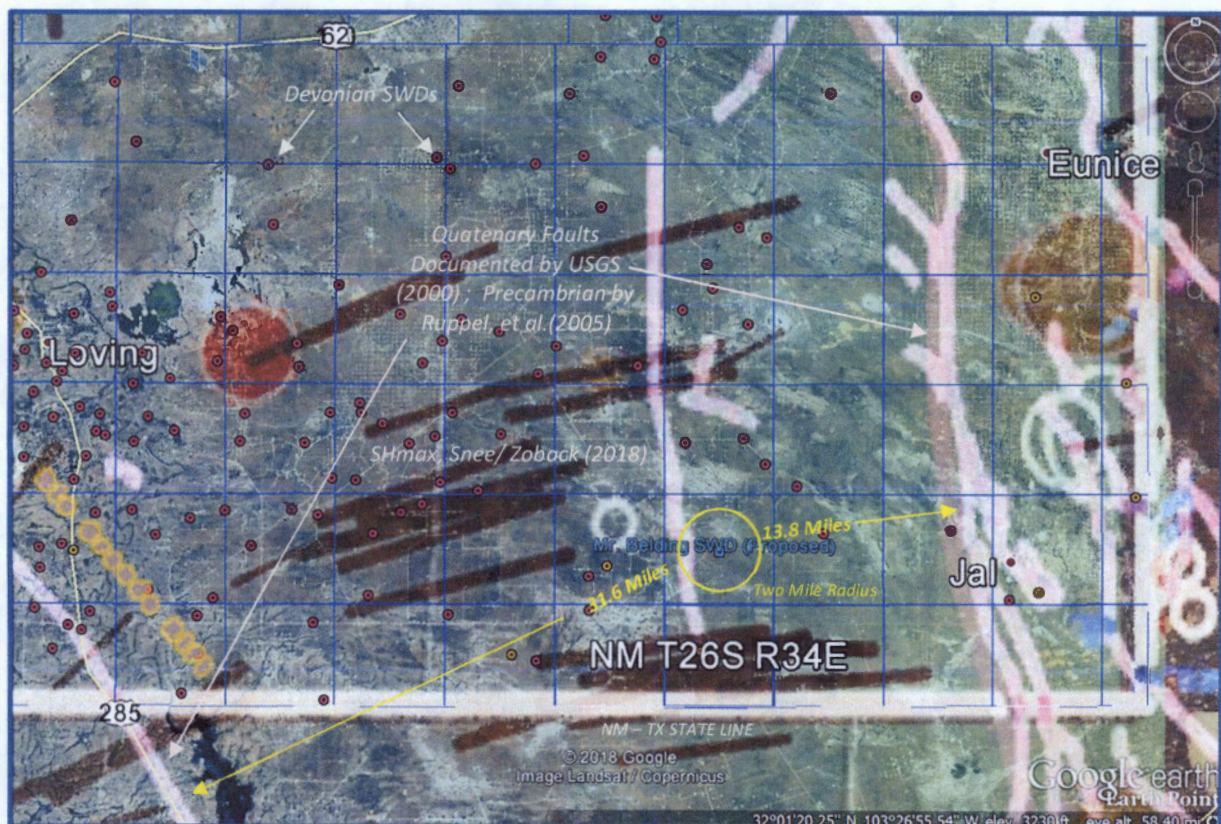
C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

The primary Precambrian faults in the area as documented by Ruppel, et al. (2005) is represented on this map by the thick, pink colored lines. The most significant of these is the fault associated with the Rio Grande Rift, running southeast to northwest and, runs adjacent to a portion of Hwy 285 as seen in the map below. Other documented faults (USGS, 2000) are shown for eastern Lea County and extending into west Texas. The proposed Mr. Belding SWD is located some 30 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.



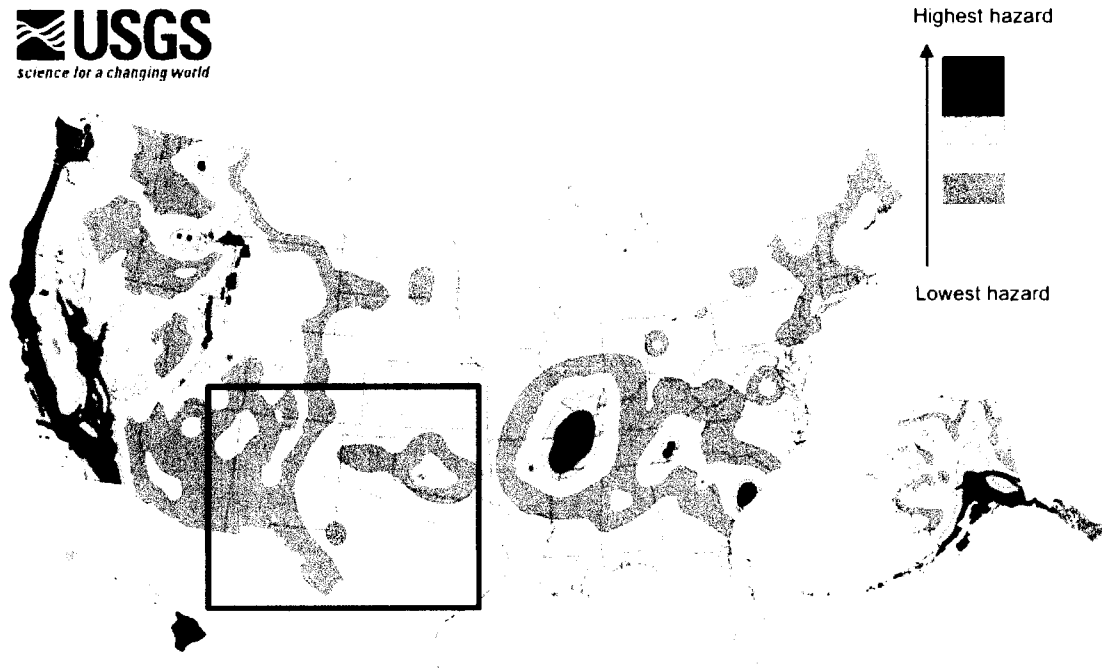
VICINITY - PERMITTED DEVONIAN SWDs, COMPOSITE FAULTS, S_{Hmax}

C-108 - Item VIII

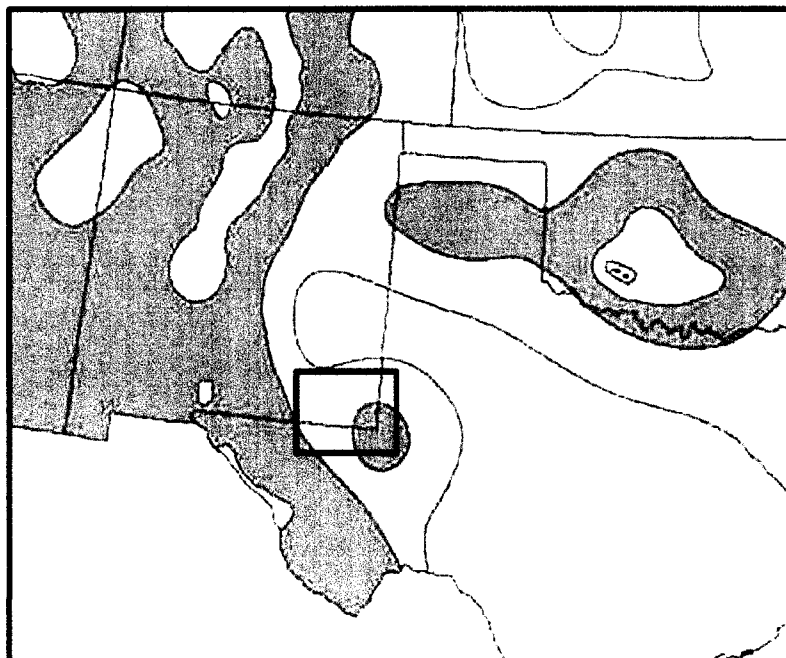
Geological Data

HISTORICAL

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.



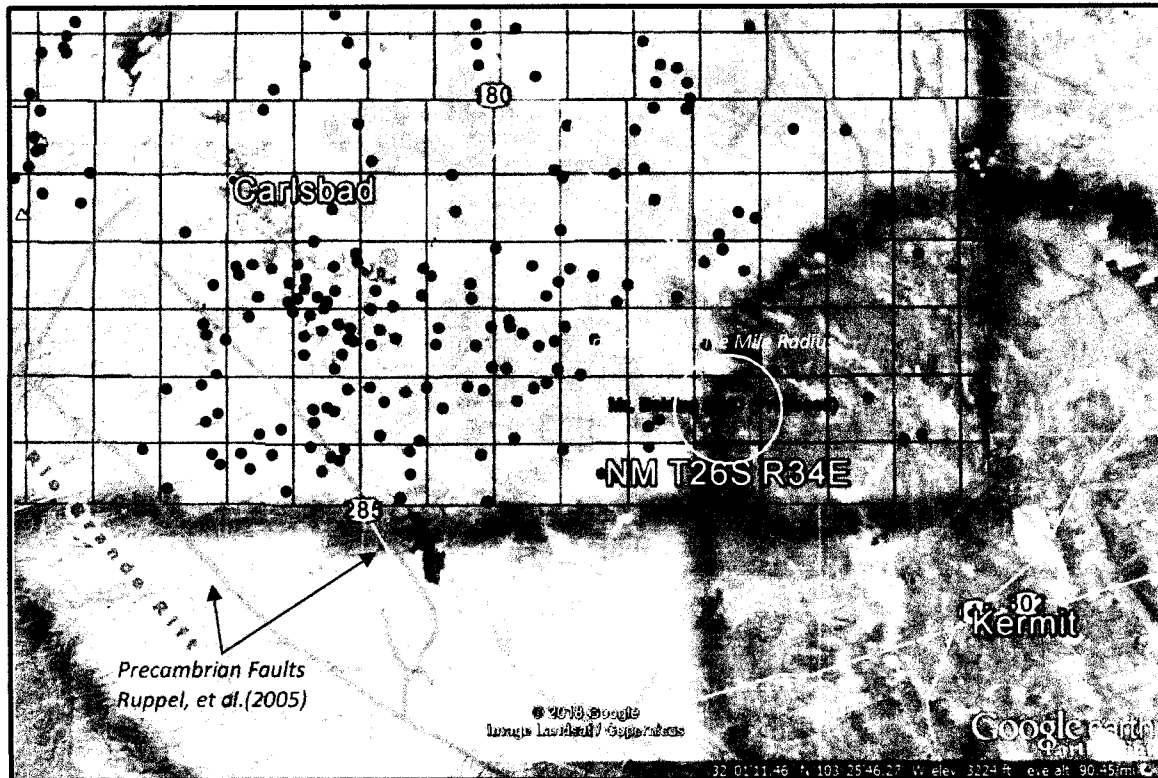
C-108 - Item VIII

Geological Data

HISTORICAL

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

USGS 2014 MAP DATA OVERLAY IN GOOGLE EARTH



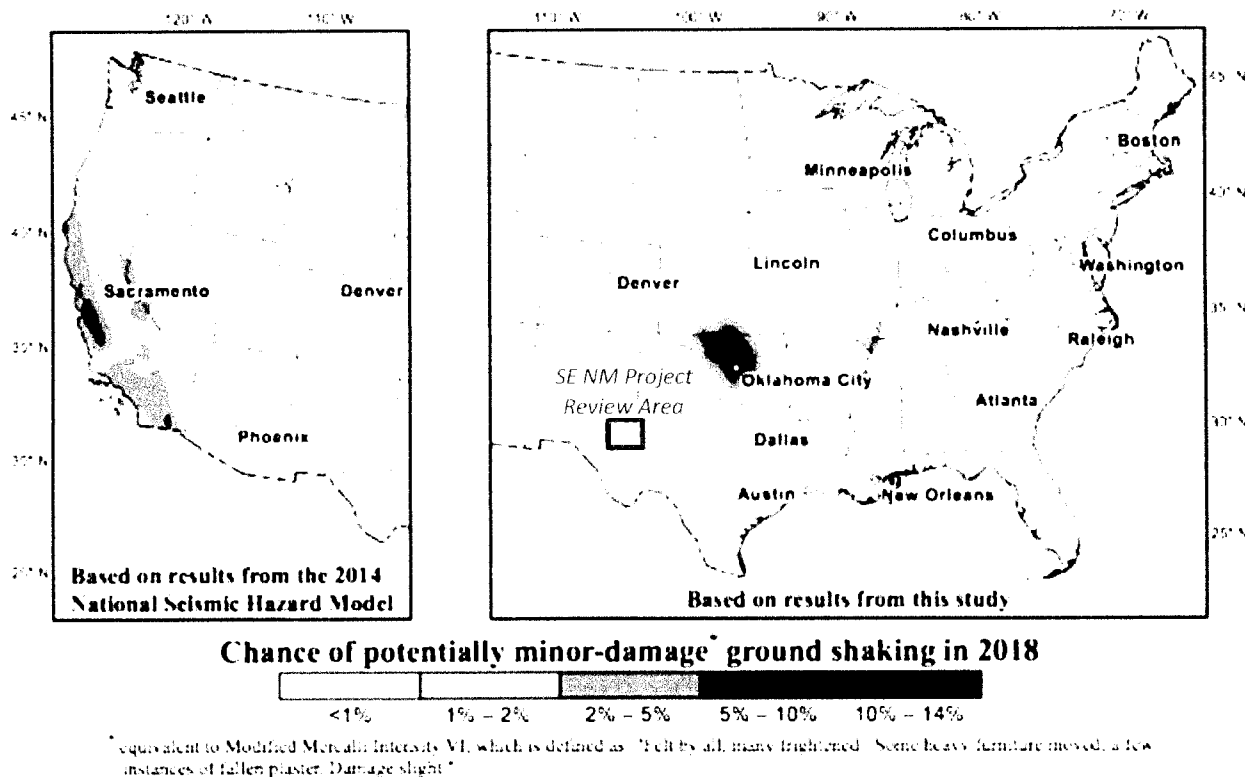
An updated USGS map for 2018 is on the next page. While methodology remained essentially the same according to USGS, the interpreted results and color-coding did have some modification. However, the subject area in southeast New Mexico on both maps remains very low and on the 2018 map, the area is assigned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

Geologic Information

FORMATION TOPS

Mr. Belding SWD No. 1

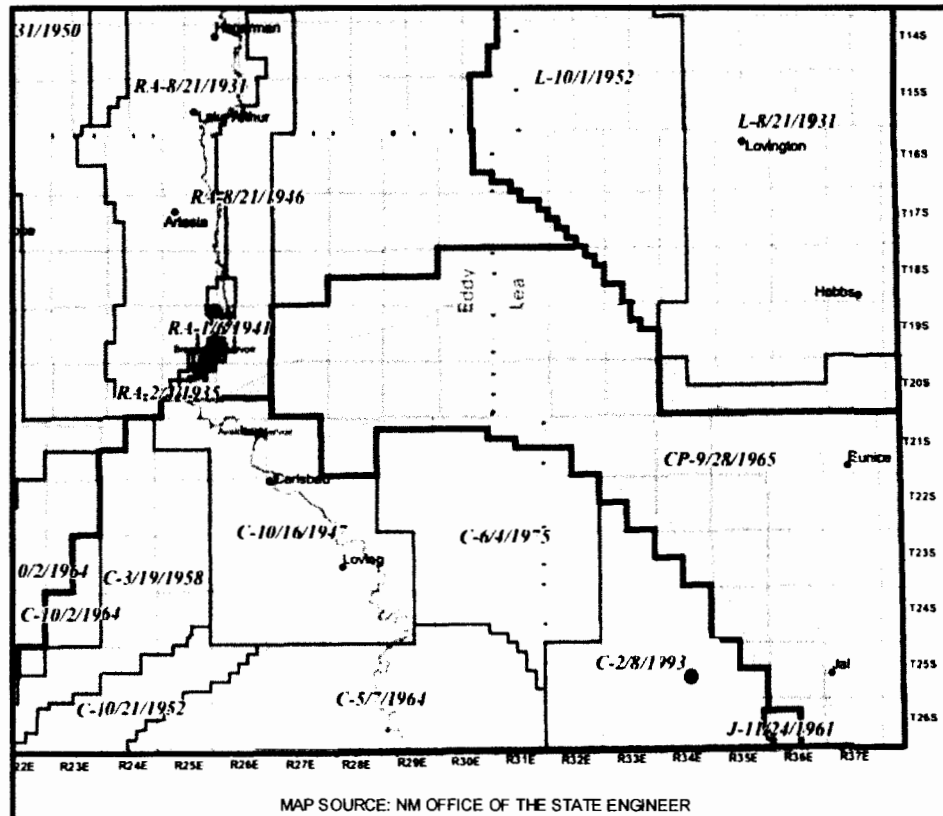
Formation	GL	3412
	KB	3442
	SS	TVD
	2511	931
Castile	-319	3761
Lamar	-2019	5461
Bell Canyon	-2064	5506
Cherry Canyon	-3012	6454
Brushy Canyon	-4639	8081
Bone Spring Ls	-6012	9454
First BS Lime	-6889	10331
First BS Sand	-6993	10435
2nd BS lime	-7413	10855
2nd BS Sand	-7633	11075
Third BS Lime	-8581	12023
Third BS Sand	-8733	12175
Wolfcamp upper	-9112	12554
Wolfcamp lower	-9655	13097
Strawn	-10770	14212
Atoka	-10999	14441
Morrow	-11725	15167
Mississippian	-13060	16502
Woodford	-13491	16933
Sillurian	-13673	17115
Fusselman	-14630	18072
Montoya	-15449	18891
Simpson	-15854	19296

Injection Interval

17,115' to 18,691'

C-108 - Item XI

Groundwater Basins - Water Column / Depth to Groundwater



The subject well is located in the Carlsbad Basin, west and south of the apparent boundary with the Capitan Basin.

Fresh water in the area is generally available from the Santa Rosa and similar aged deposits of the basin and not associated with the High Plains portion or the Ogallala Aquifer itself. State Engineer's records show water wells in 25S-34E with a average depth of approximately 155 feet.

There are NO (0) water wells located within one mile of the proposed SWD.

C-108 Item XI

Water Wells in AOR

There are NO water wells or PODs within one mile of the proposed SWD.



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	(acre ft per annum)				County	POD Number	(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE) C=the file is closed)			(quarters are smallest to largest) (NAD83 UTM in meters)						
	Sub basin	Use	Diversion	Owner			Well Tag	Code	Grant	Source	6416 4	Sec	Tws	Rng	X	Y
C 02314	CUB	DOM	3	NGL WATER SOLUTIONS PERMIAN	LE	C 02314				2 4 2 15 25S 34E	646170	3556243*				
C 02315	CUB	STK	3	NGL WATER SOLUTIONS PERMIAN	LE	C 02315				2 4 2 15 25S 34E	646170	3556243*				

Outside 1-Mile Radius (Same Location).

Record Count: 2

PLSS Search:

Section(s): 15, 16, 21, 22 Township: 25S Range: 34E

Sorted by: File Number

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

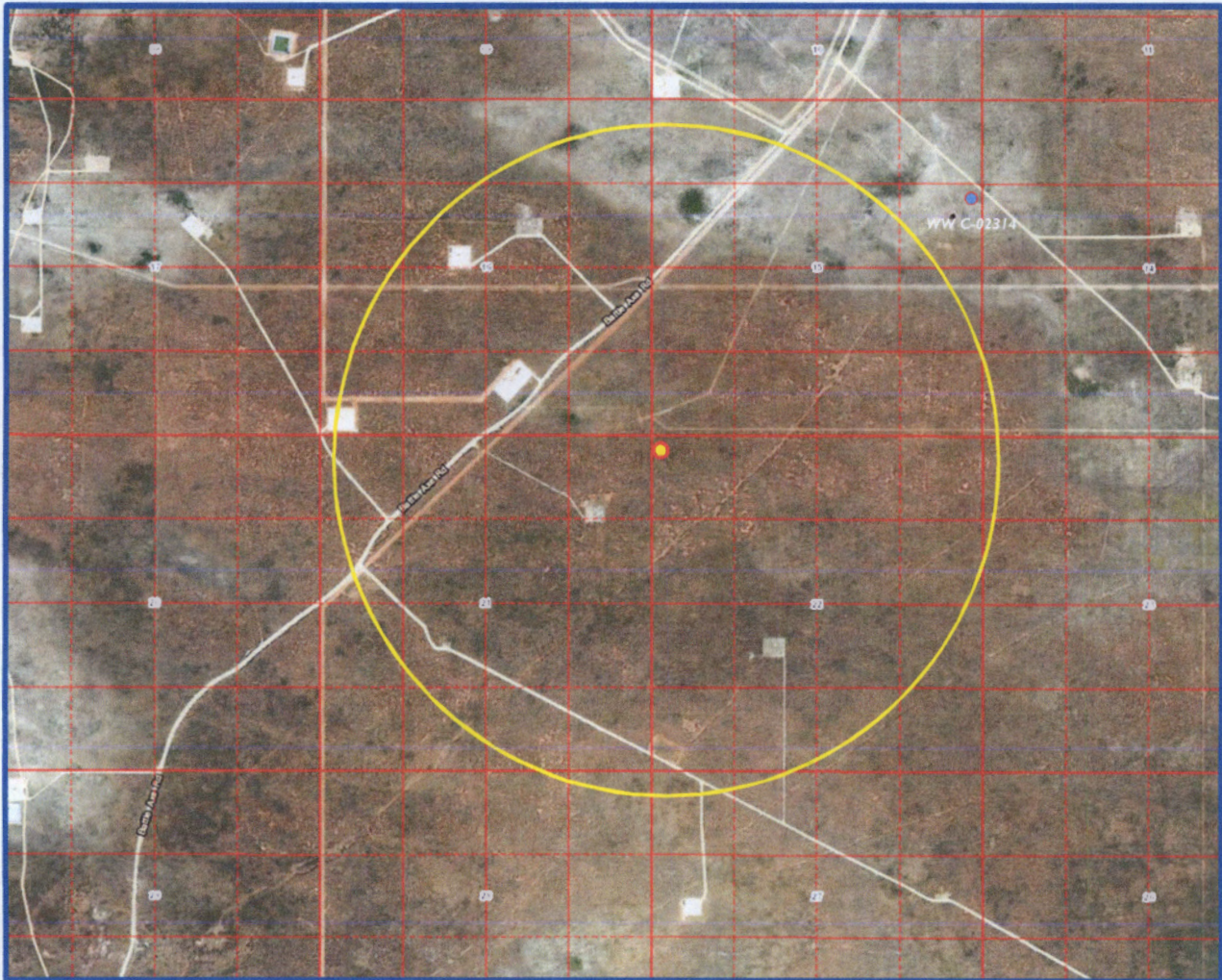
12/6/18 9:26 AM

Page 1 of 1

ACTIVE & INACTIVE POINTS OF DIVERSION

C-108 ITEM XI – WATER WELLS IN AOR

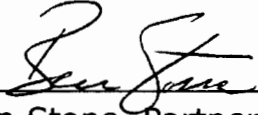
Mr. Belding SWD (Proposed) Water Well Locator Map



NM OSE records indicates NO water wells located within one mile of the proposed SWD.

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: Solaris Water Midstream, LLC
 Mr. Belding State SWD No.1
 Reviewed 12/09/2018

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

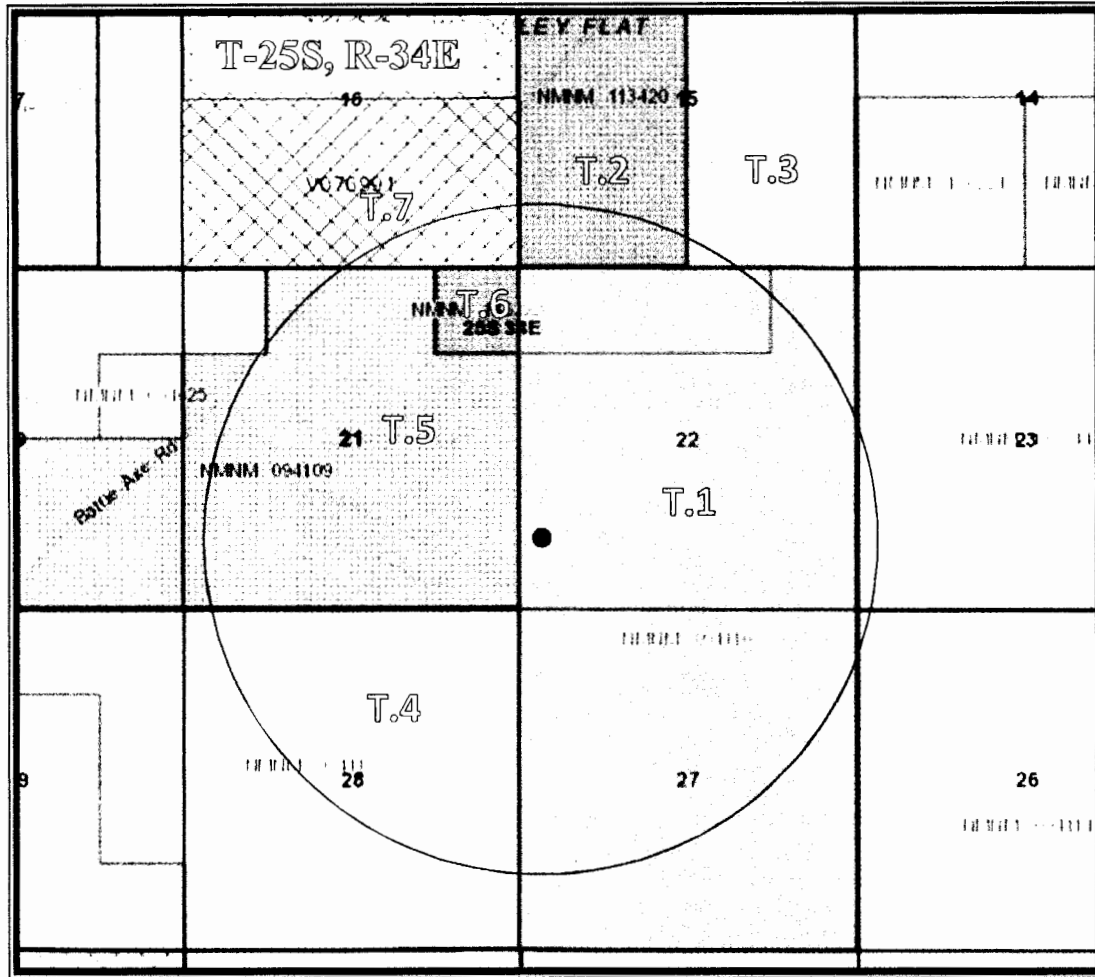
Proof of Certified Mailing

Published Legal Notice

Mr. Belding State SWD Well No.1 – Affected Parties Plat

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

REVISED from original application – well spot moved south.



LEGEND

- | | |
|--|--|
| T.1 – NMNM-094110 – EOG Resources, Inc.
<i>Split Estate – State Surface/ BLM Minerals</i> | T.5 – NMNM-094109 – EOG Resources, Inc. |
| T.2 – NMNM-113420 – Oxy Y-1 Company
<i>Split Estate – State Surface/ BLM Minerals</i> | T.6 – NMNM-136222 – Crown Oil Prtnrs V, LP |
| T.3 – Private – McCloy - Santo Operating, LLC | T.7 – V0-76991 – EOG Resources, Inc. |
| T.4 – NMNM-094115 – EOG Resources, Inc. | |

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.

"AFFECTED PERSON" MEANS THE DIVISION DESIGNATED OPERATOR; IN THE ABSENCE OF AN OPERATOR, A LESSEE WHOSE INTEREST IS EVIDENCED BY A WRITTEN CONVEYANCE DOCUMENT EITHER OF RECORD OR KNOWN TO THE APPLICANT AS OF THE DATE THE APPLICANT FILES THE APPLICATION; OR IN THE ABSENCE OF AN OPERATOR OR LESSEE, A MINERAL INTEREST OWNER WHOSE INTEREST IS EVIDENCED BY A WRITTEN CONVEYANCE DOCUMENT EITHER OF RECORD OR KNOWN TO THE APPLICANT AS OF THE DATE THE APPLICANT FILED THE APPLICATION FOR PERMIT TO INJECT.; PER OCD RULES NMAC 19.15.26.7, A. AND 19.15.26.8, B.2.

SURFACE OWNER

- 1 STATE OF NEW MEXICO (Notified via USPS Certified Mail)
Oil, Gas and Minerals Division
310 Old Santa Fe Trail
Santa Fe, NM 87504
Certified: 7018 0360 0001 8569 6118

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

BLM Leases NMNM-094110, NMNM-094115, NMNM-094109, NMNM-122625 (including Split Estate) and State Lease V-076991 (T.1, T.4, T.5 and T.7 on Map)

Lessee and Operator

- 2 EOG RESOURCES, INC.
P.O. Box 4362
Houston, TX 77210-4362
Certified: 7018 0360 0001 8569 6101

BLM Lease NMNM-013420 (T.2 on Map)

Lessee

- 3 OXY Y-1 COMPANY
6001 Deauville Blvd.
Midland, TX 79706
Certified: 7018 0360 0001 8569 6088

Private Lease - McCloy (T.3 on Map)

Operator

- 4 SANTO OPERATING, LLC
P.O. Box 1020
Artesia, NM 88211-1020
Certified: 7018 0360 0001 8569 6095

BLM Lease NMNM-136222 (T.6 Map)

Lessee & Operator

- 5 CROWN OIL PARTNERS V, LP
4000 North Big Spring, Ste.310
Midland, TX 79705-4628
Certified: 7018 0360 0001 8569 6071

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

OFFSET MINERALS OWNERS (Notified via USPS Certified Mail)

6 U.S. DEPARTMENT OF INTERIOR
Bureau of Land Management
Oil & Gas Division
620 E. Greene St.
Carlsbad, NM 88220
Certified: 7018 0360 0001 8569 6064

STATE OF NEW MEXICO
Oil, Gas and Minerals Division
310 Old Santa Fe Trail
Santa Fe, NM 87504

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)
1625 N. French Drive
Hobbs, NM 88240

January 2, 2019

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

To Whom It May Concern:

Solaris Water Midstream, LLC, Midland, Texas, has made application to the New Mexico Oil Conservation Division to drill and complete for salt water disposal the Mr. Belding State 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 22, Township 25 South, Range 34 East in Lea County, New Mexico.

The published notice states that the interval will be from 17,115 feet to 18,691 feet into the Devonian, Silurian and Fusselman formations.

Following is the notice published in the Hobbs News-Sun, Hobbs, New Mexico on or about January 3, 2019.

Note Revision: Location has been moved south to accommodate offset concerns.

LEGAL NOTICE

Solaris Water Midstream, LLC, 701 Tradewinds Blvd., Suite C, Midland, TX 79706, 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 Mr. Belding State SWD No.1, will be located 1080' FSL and 275' FWL, Section 22, Township 25 South, Range 34 East, Lea County, New Mexico. (Footages were adjusted to accommodate offset concerns on previous well spot.) Produced water from area production will be commercially disposed into the Devonian, Silurian and Fusselman formations at a depth of 17,115' to 18,691' at a maximum surface pressure of 3423 psi and a rate limited only by such pressure. The proposed SWD well is located approximately 15.6 miles west of Jal, NM.

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-sb673f00d4fa4e5fa>
(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 among 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 "**Belding SWD Jan 2019 PDF Copy Request**".

Thank you for your attention in this matter.

Best regards,



Ben Stone, SOS Consulting, LLC
Agent for Solaris Water Midstream, LLC

Cc: Application File

SOS Consulting is committed to providing superior quality work using technology to assist clients and affected parties in obtaining the documentation required. SOS will continue to utilize methods which are less energy and resource intensive including, the reduction of paper copies.

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)

7018 0360 0001 8569 6071 7018 0360 0001 8569 6071 7018 0360 0001 8569 6071 7018 0360 0001 8569 6071

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only		
For delivery information, visit our website at www.usps.com ®.		
OFFICIAL USE		
Certified Mail Fee \$	Postmark Here JAN 02 2019	
Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$		
Postage \$		
Total Postage and Fees \$ 6.70		
Sent To Street and Ap City, State		
STATE OF NEW MEXICO Oil, Gas and Minerals Division 310 Old Santa Fe Trail Santa Fe, NM 87504		
PS Form 3841 Domestic Mail Only		
For delivery information, visit our website at www.usps.com ®.		
OFFICIAL USE		
Certified Mail Fee \$	Postmark Here JAN 02 2019	
Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$		
Postage \$		
Total Postage and Fees \$ 6.70		
Sent To Street and Ap City, State		
OXY Y-1 COMPANY 6001 Deauville Blvd. Midland, TX 79706		
PS Form 3841 Domestic Mail Only		
For delivery information, visit our website at www.usps.com ®.		
OFFICIAL USE		
Certified Mail Fee \$	Postmark Here JAN 02 2019	
Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$		
Postage \$		
Total Postage and Fees \$ 6.70		
Sent To Street and Ap City, State		
CROWN OIL PARTNERS V, LP 4000 North Big Spring, Ste. 310 Midland, TX 79705-4628		
PS Form 3841 Domestic Mail Only		

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only		
For delivery information, visit our website at www.usps.com ®.		
OFFICIAL USE		
Certified Mail Fee \$	Postmark Here JAN 02 2019	
Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$		
Postage \$		
Total Postage and Fees \$ 6.70		
Sent To Street and Ap City, State, Zi		
EOG RESOURCES, INC. 5509 Champions Drive Midland, TX 79706		
PS Form 3841 Domestic Mail Only		
For delivery information, visit our website at www.usps.com ®.		
OFFICIAL USE		
Certified Mail Fee \$	Postmark Here JAN 02 2019	
Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$		
Postage \$		
Total Postage and Fees \$ 6.70		
Sent To Street and Ap City, State, Zi		
SANTO OPERATING, LLC P.O. Box 1020 Artesia, NM 88211-1020		
PS Form 3841 Domestic Mail Only		
For delivery information, visit our website at www.usps.com ®.		
OFFICIAL USE		
Certified Mail Fee \$	Postmark Here JAN 02 2019	
Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$		
Postage \$		
Total Postage and Fees \$ 6.70		
Sent To Street and Ap City, State, Zi		
Bureau of Land Management Oil & Gas Division 620 E. Greene St. Carlsbad, NM 88220		
PS Form 3841 Domestic Mail Only		

C-108 - Item XIV

Proof of Notice – Legal Notice Newspaper of General Circulation

LEGAL NOTICE JANUARY 3, 2019

Solaris Water Midstream, LLC, 701 Tradewinds Blvd., Suite C, Midland, TX 79706, 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 Mr. Belding State SWD No.1, will be located 1080' FSL and 275' FWL, Section 22, Township 25 South, Range 34 East, Lea County, New Mexico. (Footages were adjusted to accommodate offset concerns on previous well spot.) Produced water from area production will be commercially disposed into the Devonian, Silurian and Fusselman formations at a depth of 17,115' to 18,691' at a maximum surface pressure of 3423 psi and a rate limited only by such pressure. The proposed SWD well is located approximately 15.6 miles west of Jal, NM.

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.

#33603

The above is the "Proof Copy" sent from the Hobbs News-Sun.
The affidavit of publication will be forwarded as soon as it is received.

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

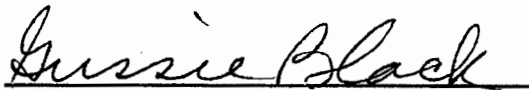
I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
January 03, 2019
and ending with the issue dated
January 03, 2019.



Publisher

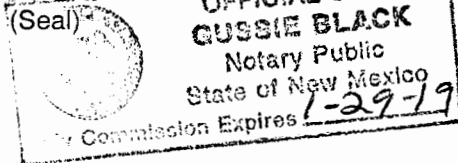
Sworn and subscribed to before me this
3rd day of January 2019.



Business Manager

My commission expires

January 29, 2019



This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGALS

LEGAL NOTICE JANUARY 3, 2019

Solaris Water Midstream, LLC, 701 Tradewinds Blvd., Suite C, Midland, TX 79706, 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 Mr. Belding State SWD No. 1, will be located 1080' FSL and 275' FWL, Section 22, Township 25 South, Range 34 East, Lea County, New Mexico. (Footages were adjusted to accommodate offset concerns on previous well spot.) Produced water from area production will be commercially disposed into the Devonian, Silurian and Fusselman formations at a depth of 17,115' to 18,691' at a maximum surface pressure of 3423 psi and a rate limited only by such pressure. The proposed SWD well is located approximately 15.6 miles west of Jal, NM.

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67104420

00222900

BEN STONE
SOS CONSULTING, LLC.
P.O. BOX 300
COMO, TX 75431



APPLICATION PROTESTED

APPLICANT: SOLARIS WATER MIDSTREAM, LLC

APPLICATION TYPE: SUD

WELL NAME: MR. Belding State SUD #1

API NUMBER: 30-025-45363

ADMIN. APPL. NO.: PMAM1900449161

UL-S-T-R: _____

PROTESTANT: NGL WATER SOLUTIONS

DATE PROTEST RECEIVED: January 7, 2019

DATE AND METHOD OF NOTIFICATION OF APPLICANT:

1-07-2019, E-mail

RESOLUTION:

- ☐ Hearing
- ☐ Negotiated/Withdrawn
- ☐ Denied/Cancelled by Division

NOTES/COMMENTS:

Make sure to confirm application status in E-permitting
and entered into Protest Tracking Spreadsheet

McMillan, Michael, EMNRD

From: McMillan, Michael, EMNRD
Sent: Monday, January 7, 2019 4:18 PM
To: Ben Stone
Cc: Deana M. Bennett; Goetze, Phillip, EMNRD; Lowe, Leonard, EMNRD; Jones, William V, EMNRD
Subject: Notification of Protest for Application to Inject -Mr. Belding State SWD No. 1 NGL Water Solutions January 7, 2019
Attachments: Solaris MrBeldingStateSWD1 NGL Protest.pdf

RE:: Mr. Belding State SWD Well No. 1 (API 30-025-45363; Admin. Appl pMAM1900449161) Unit D; Sec 22, T25S, R34E, NMPM, Lea County

Mr. Stone:

OCD was notified by NGL Water Solutions that it is protesting this application. This party is identified as an affected person for the location being considered for the application. You are being notified that if Solaris Water Midstream LLC wishes for this application to be considered, they must either go to hearing or may be reviewed administratively if the protest is withdrawn as a result of a negotiated resolution with this party. The application will be retained pending resolution of the protest. Please continue to provide OCD with information regarding the standing of this application. Please me call with any questions on this matter.

Contact for EOG Water Solutions
Deana M. Bennett
Lawyer
Modrall Sperling
PO Box 2168
Albuquerque, NM 87102
Phone: 505.848.1834
E-mail: dmb@modrall.com

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448
Michael.mcmillan@state.nm.us

From: Deana M. Bennett <dmb@modrall.com>
Sent: Monday, January 7, 2019 3:32 PM
To: Goetze, Phillip, EMNRD; Jones, William V, EMNRD; McMillan, Michael, EMNRD
Cc: Murphy, Kathleen A, EMNRD; Lowe, Leonard, EMNRD; Davidson, Florene, EMNRD
Subject: [EXT] NGL_SWD Protest,_Solaris Mr. Belding State SWD application

Good afternoon,

NGL would like to protest Solaris' recent **Mr. Belding State SWD** disposal application.

It is in Section 22, Township 25 S, Range 34 E. NGL's protest is based on the proximity of that well to a proposed NGL well.

Thanks much,

Deana



Deana M. Bennett
Lawyer
Modrall Sperling | www.modrall.com
P.O. Box 2168 | Albuquerque, NM 87103-2168
500 4th St. NW, Ste. 1000 | Albuquerque, NM 87102
D: 505.848.1834 | O: 505.848.1800

This e-mail may be a confidential attorney-client communication. If you received it in error, please delete it without forwarding it to others and notify the sender of the error.