

# Initial Application Part I

Received: 11/15/2018

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

SWD-1851

Revised March 23, 2017

RECEIVED: 11/15/18	REVIEWER:	TYPE: SWD	APP NO: P/EL 18324 54691
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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

<b>Applicant:</b> Solaris Water Midstream, LLC	<b>OGRID Number:</b> 371643
<b>Well Name:</b> Centaurus SWD No.1	<b>API:</b> 30-015-xxxxx
<b>Pool:</b> Proposed: SWD; Devonian-Silurian	<b>Pool Code:</b> 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

FOR OCD ONLY	
<input type="checkbox"/>	Notice Complete
<input type="checkbox"/>	Application Content Complete

- 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

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

11/13/2018  
Date

Signature

903-488-9850  
Phone Number

ben@sosconsulting.us  
e-mail Address



November 13, 2018

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

Attn: Ms. Heather Riley, Director

*Re: Application of Solaris Water Midstream, LLC to drill and permit for salt water disposal the Centaurus SWD Well No.1, to be located in Section 19, Township 25 South, Range 28 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.

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.

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 ran today, November 13, 2018 in the Artesia Daily Press and all offset operators and other interested parties have been notified individually. The legal notice affidavit will be forwarded upon receipt. 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 state lands & minerals and private minerals within the one-mile radius notice area; the State Land Office 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,

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.** To come
- \*XI. **There is 1 (one) water well POD within one mile of the proposed salt water disposal well. Analysis will be forwarded.**
- 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 2 offset lessees and/or operators within 1 mile and State 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 Solaris Water Midstream, LLC**

SIGNATURE:  DATE: **11/13/2018**

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:

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

**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:

- (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.

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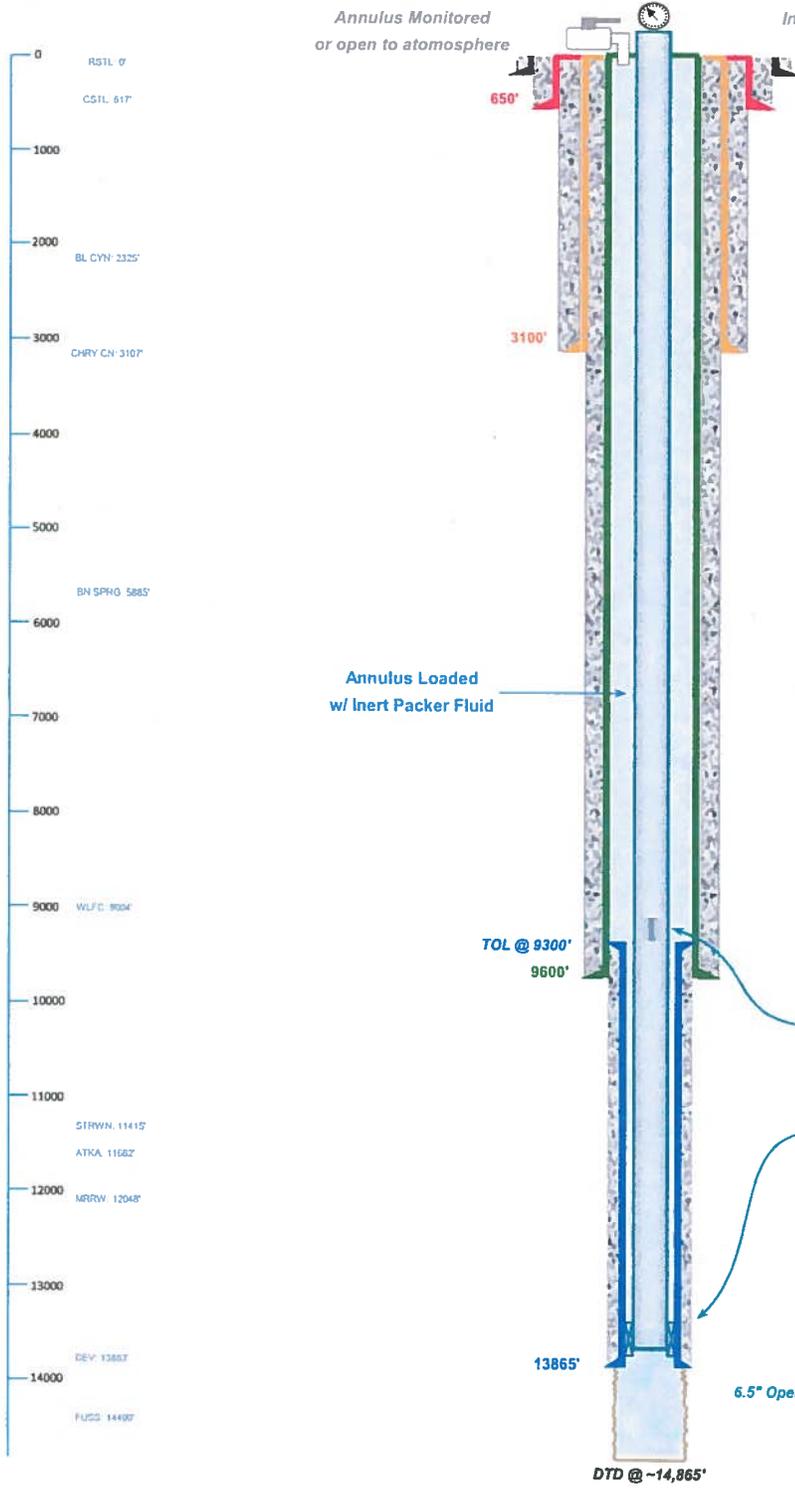
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.



**WELL SCHEMATIC - PROPOSED**  
**Centaurus SWD Well No.1**

API 30-015-xxxxx  
 2437' FSL & 1' FWL, SEC. 19-25S-28E  
 EDDY COUNTY, NEW MEXICO

**SWD; Devonian-Silurian (97869)**  
 Spud Date: 2/01/2019  
 SWD Config Dt: 3/01/19



Injection Pressure Regulated and Volumes Reported  
 2773 psi Max. Surface (0.2 psi per foot)

**Conductor Casing**  
 30.0" Csg. (36.0" Hole) @ 120' w/ 200 sx

**Surface Casing**  
 20.0", 94.0# K-55 Csg. (26.0" Hole) @ 650'  
 750 sx - Circulated to Surface

**Intermediate Casing**  
 13.375", 68.0# Csg. (17.5" Hole) @ 3100'  
 1900 sx - Circulated to Surface

**Solaris Water Midstream, LLC**

Drill and set casing as designed w/ all strings cemented to surface.  
 Install 7.625" liner @ ~13,865' w/ 450 sx to TOL.  
 Drill 6.5" openhole to approx. 14,865' TD w/ mudlog for interval/  
 formation verification. Acidize formation; run 5.5"  
 (5.0" FJ inside liner) injection TBG on PKR set at 15,100'.+  
 Conduct OCD witnessed MIT.  
 Well ready for injection upon completion of surface facilities.

**2nd Intermediate Casing**  
 9.625", 53.5# P-110 Csg. (12.25" Hole) @ 9600'  
 1650 sx - Staged; Circulate to Surface  
 (DV @ ~6000')

Split String Tubing Transition ~9240'

5.5" to liner w/ 5.0" Flush Joint inside liner  
 IPC Tubing set in PKR ~13,765'  
 (Within 100' of Uppermost Disposal Interval)

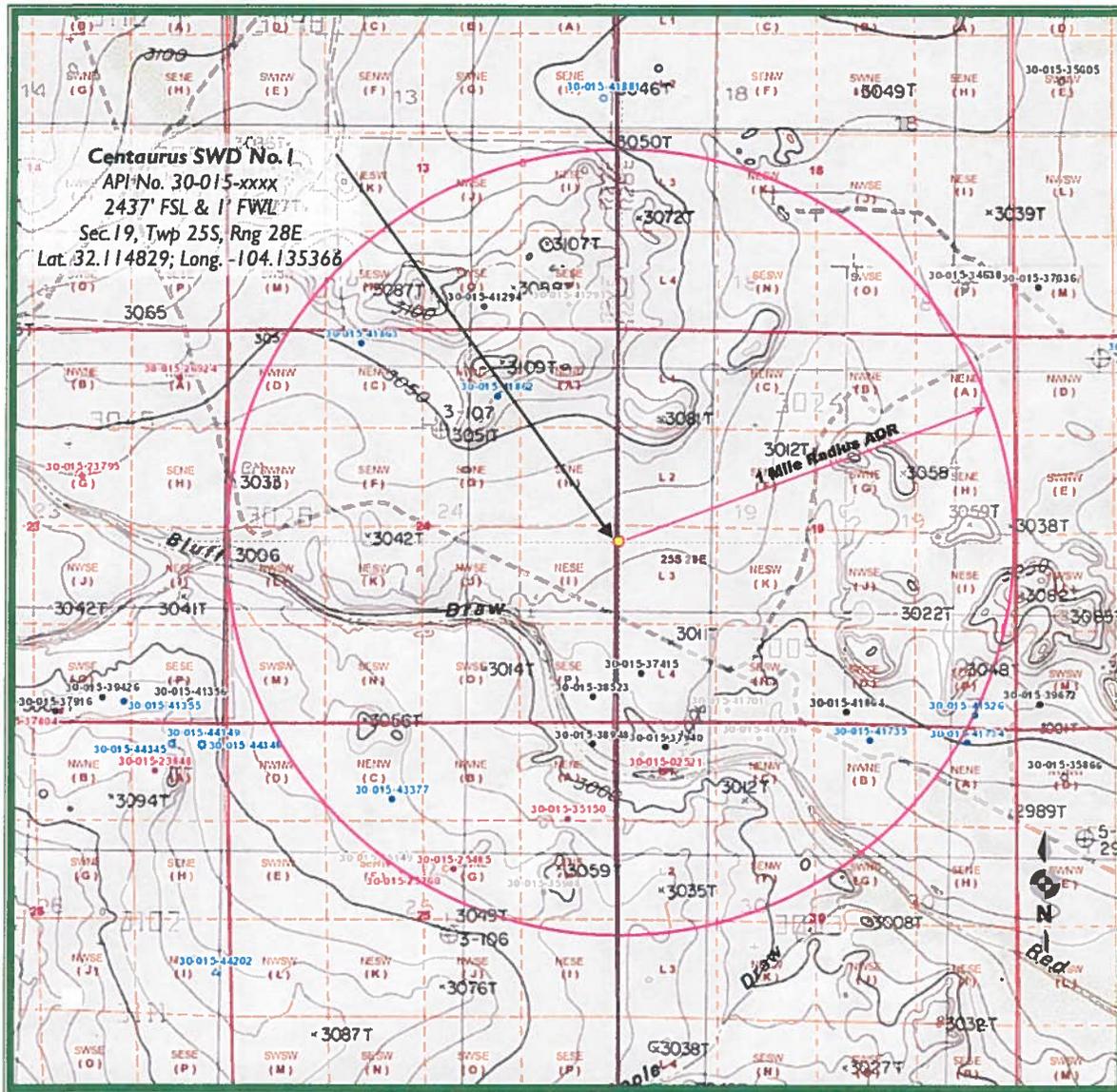
**Prod/LNR Casing**  
 7.625", 39.0# P-110 Csg (8.5" Hole) 9600' to 13,865'  
 450 sxs Cls H - TOC @ Top of LNR

6.5" Openhole interval: 13,865' to 14,865'



# Centaurus SWD Well No.1 - Area of Review / Overview Map

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



**C-108 - Item VI**

Area of Review Well Data

**THERE ARE NO WELLS WHICH PENETRATE THE  
PROPOSED DEVONIAN FORMATION IN THE  
ONE MILE AREA of REVIEW.**

## **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**

### **Centaurus 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 35,000 bpd and an average of 25,000 bpd at a maximum surface injection pressure of 2773 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**

Glorieta/ Yeso  
Bone Spring  
Wolfcamp  
Morrow

### **Item VII.5 – Water Analysis of Disposal Zone Water**

Devonian

**Water Analyses follow this page.**

**C-108 Item VII.5 - Produced Water Data  
Solaris Water Midstream, LLC - Centaurus SWD Well No.1**

**SOURCE ZONE**

**DELAWARE**

<b>API No</b>	3002508367	<b>Lab ID</b>	
<b>Well Name</b>	BELL LAKE UNIT	<b>Sample ID</b>	4347
	007	<b>Sample No</b>	
<b>Location</b>	ULSTR 01 24 S 33 E	<b>Lat / Long</b>	32.25143 -103.51924
	660 N 660 E	<b>County</b>	Lea
<b>Operator (when sampled)</b>			
	Field SWD	<b>Unit</b>	1
<b>Sample Date</b>		<b>Analysis Date</b>	
	<b>Sample Source</b> UNKNOWN	<b>Depth (if known)</b>	
	<b>Water Type</b>		
ph		alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	87686	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	53920	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	391
iron_mgL		sulfate_mgL	749
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**  
**Solaris Water Midstream, LLC - Centaurus SWD Project**

**SOURCE ZONE**

**GLO/YESO**

<b>API No</b>	3001524754	<b>Lab ID</b>	
<b>Well Name</b>	PLATT PA 009	<b>Sample ID</b>	1146
<b>Location</b>	ULSTR 26 18 S 26 E 330 S 990 W	<b>Sample No</b>	
		<b>Lat / Long</b>	32.71216 -104.35742
		<b>County</b>	Eddy
<b>Operator (when sampled)</b>	Yates Petroleum Corp.		
	Field ATOKA	<b>Unit</b>	M
<b>Sample Date</b>	8/4/1984	<b>Analysis Date</b>	
	<b>Sample Source Wellhead</b>	<b>Depth (if known)</b>	
	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**  
**Solaris Water Midstream, LLC - Centaurus SWD Project**

**SOURCE ZONE**

**GLO/YESO**

<b>API No</b>	3001524619	<b>Lab ID</b>	
<b>Well Name</b>	PLATT PA 008	<b>Sample ID</b>	1207
<b>Location</b>	ULSTR 26 18 S 26 E 430 S 2260 W	<b>Sample No</b>	
		<b>Lat / Long</b>	32.71245 -104.35329
		<b>County</b>	Eddy
<b>Operator (when sampled)</b>	Yates Petroleum Corporation		
	Field ATOKA	<b>Unit</b>	N
<b>Sample Date</b>	1/19/1985	<b>Analysis Date</b>	
	<b>Sample Source</b> well head	<b>Depth (if known)</b>	
	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	
trls_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**  
**Solaris Water Midstream, LLC - Centaurus SWD Project**

**SOURCE ZONE**

**BONE SPRING**

<b>API No</b>	3001520225	<b>Lab ID</b>	
<b>Well Name</b>	BIG EDDY UNIT	<b>Sample ID</b>	5847
	012	<b>Sample No</b>	
<b>Location</b>	ULSTR 21 20 S 31 E	<b>Lat / Long</b>	32,56399 -103,87994
	660 N 660 W	<b>County</b>	Eddy
<b>Operator (when sampled)</b>	MALLON OIL COMPANY		
	Field	BIG EDDY	Unit D
<b>Sample Date</b>	8/27/1999	<b>Analysis Date</b>	8/31/1999
	<b>Sample Source</b>		<b>Depth (if known)</b>
	<b>Water Typ</b>		
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	
<b>Remarks</b>			

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



**C-108 Item VII.5 - Produced Water Data**  
**Solaris Water Midstream, LLC - Centaurus SWD Well No.1**

**SOURCE ZONE**

**BONE SPRING**

<b>API No</b>	3002502429	<b>Lab ID</b>	
<b>Well Name</b>	LEA UNIT	<b>Sample ID</b>	4916
	005	<b>Sample No</b>	
<b>Location</b>	ULSTR 12 20 S 34 E	<b>Lat / Long</b>	32.58504 -103.51106
	1980 S 1980 E	<b>County</b>	Lea
<b>Operator (when sampled)</b>		<b>Unit J</b>	
	Field LEA		
<b>Sample Date</b>		<b>Analysis Date</b>	
	Sample Sourc DST	<b>Depth (if known)</b>	
	Water Typ		
ph		alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	202606	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	118100	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	5196
iron_mgL		sulfate_mgL	992
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  
Solaris Water Midstream, LLC - Centaurus SWD Project**

**SOURCE ZONE**

**WOLFCAMP**

<b>API No</b>	3001520138	<b>Lab ID</b>	
<b>Well Name</b>	MAHUN STATE 001	<b>Sample ID</b>	5688
		<b>Sample No</b>	
<b>Location</b>	ULSTR 16 22 S 22 E 1800 N 1980 W	<b>Lat / Long</b>	32.39340 -104.70979
		<b>County</b>	Eddy
<b>Operator (when sampled)</b>			
	<b>Field</b> ROCKY ARROYO	<b>Unit</b>	F
<b>Sample Date</b>	5/17/1968	<b>Analysis Date</b>	
	<b>Sample Source</b> DST	<b>Depth (if known)</b>	
	<b>Water Typ</b>		
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  
Solaris Water Midstream, LLC - Centuarus SWD Well No.1**

**SOURCE ZONE**

**MORROW**

<b>API No</b>	3002520756	<b>Lab ID</b>	
<b>Well Name</b>	CUSTER MOUNTAIN UNIT 001	<b>Sample ID</b>	2434
<b>Location</b>	ULSTR 09 24 S 35 E 1980 S 1980 W	<b>Sample No</b>	
		<b>Lat / Long</b>	32.22999 -103.37431
		<b>County</b>	Lea
<b>Operator (when sampled)</b>			
	<b>Field</b> CINTA ROJA	<b>Unit</b>	K
<b>Sample Date</b>		<b>Analysis Date</b>	
	<b>Sample Source</b> DST	<b>Depth (if known)</b>	
	<b>Water Typ</b>		
ph		alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	282741	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	176800	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	161
iron_mgL		sulfate_mgL	650
barium_mgL		hydroxide_mgL	
magnesium_mgL		h2s_mgL	
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	
<b>Remarks</b>			

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



**C-108 Item VII.5 - Produced Water Data  
Solaris Water Midstream, LLC - Centuarus SWD Well No.1**

**DISPOSAL ZONE**

**DEVONIAN**

<b>API No.</b>	3002508483	<b>Lab ID</b>	
<b>Well Name</b>	BELL LAKE UNIT	<b>Sample ID</b>	5733
	006	<b>Sample No</b>	
<b>Location</b>	ULSTR 06 23 S 34 E	<b>Lat / Long</b>	32.32821 -103.50663
	660 S 1980 E	<b>County</b>	Lea
<b>Operator (when sampled)</b>			
	<b>Field</b> BELL LAKE NORTH	<b>Unit</b>	O
<b>Sample Date</b>		<b>Analysis Date</b>	
	<b>Sample Source</b> HEATER/TREATER	<b>Depth (if known)</b>	
	<b>Water Type</b>		
ph	7	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	71078	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	42200	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	500
iron_mgL		sulfate_mgL	1000
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  
Solaris Water Midstream, LLC - Centuarus SWD Well No.1**

**DISPOSAL ZONE**

**DEVONIAN**

<b>API No.</b>	3002521082	<b>Lab ID</b>	
<b>Well Name</b>	ANTELOPE RIDGE UNIT 003	<b>Sample ID</b>	5720
<b>Location</b>	ULSTR 34 23 S 34 E 1980 S 1650 W	<b>Sample No</b>	
		<b>Lat / Long</b>	32.25922 -103.46068
		<b>County</b>	Lea
<b>Operator (when sampled)</b>			
	<b>Field</b> ANTELOPE RIDGE	<b>Unit</b>	K
	<b>Sample Date</b> 11/14/1967	<b>Analysis Date</b>	
	<b>Sample Source</b> UNKNOWN	<b>Depth (if known)</b>	
	<b>Water Type</b>		
<b>ph</b>	6.9	<b>alkalinity_as_caco3_mgL</b>	
<b>ph_temp_F</b>		<b>hardness_as_caco3_mgL</b>	
<b>specificgravity</b>		<b>hardness_mgL</b>	
<b>specificgravity_temp_F</b>		<b>resistivity_ohm_cm</b>	
<b>tds_mgL</b>	80187	<b>resistivity_ohm_cm_temp_</b>	
<b>tds_mgL_180C</b>		<b>conductivity</b>	
<b>chloride_mgL</b>	47900	<b>conductivity_temp_F</b>	
<b>sodium_mgL</b>		<b>carbonate_mgL</b>	
<b>calcium_mgL</b>		<b>bicarbonate_mgL</b>	476
<b>iron_mgL</b>		<b>sulfate_mgL</b>	900
<b>barium_mgL</b>		<b>hydroxide_mgL</b>	
<b>magnesium_mgL</b>		<b>h2s_mgL</b>	
<b>potassium_mgL</b>		<b>co2_mgL</b>	
<b>strontium_mgL</b>		<b>o2_mgL</b>	
<b>manganese_mgL</b>		<b>anionremarks</b>	
<b>Remarks</b>			

*(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 14,865' BGL (Below Ground Level) the well will TD approximately 1,000' 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 13,865' 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 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 12 to 19 feet with an average depth to groundwater of 15 feet.

There is 1 water well located within one mile of the proposed SWD. It is being located, sampled and analyzed. Analysis will be forwarded when available.

There are no water wells within one mile of the proposed SWD.

SOLARIS WATER MIDSTREAM, LLC  
PROPOSED DEVON CENTAURUS C SWD 1  
GEOLOGIC PROGNOSIS

5-30-2018

Bruce C. Miller  
Petroleum Geologist

KB: 3,080' (estimated from offset wells)  
Proposed TD: 15,000'  
Proposed injection interval: 13,865 – 14,865  
Silurian ("Devonian"), Fusselman

LOCATION: 330' FSL  
300' FWL  
T25S R27E  
Section 24  
Eddy County, NM

*Original geology review from one mile west.*

*Final completion depths will be adjusted to  
mudlogging evaluation.*

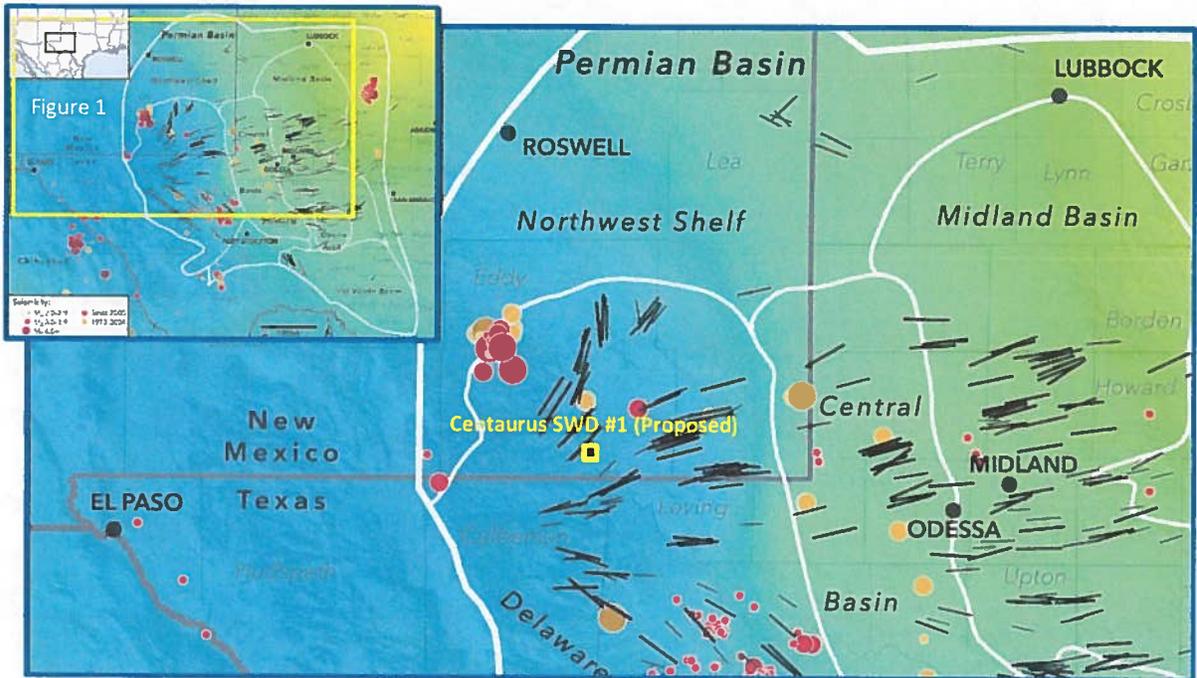
TOPS	MD	SUBSEA
Castile	617	+2,463
Lamar	2,265	+815
Bell Canyon	2,325	+775
Cherry Canyon	3,107	-27
Brushy Canyon	4,250	-1,170
Bone Springs ls	5,885	-2,805
First Bone Springs lime	6,569	-3,489
First Bone Springs ss	6,825	-3,745
Second Bone Springs lime	7,154	-4,074
Second Bone Springs ss	7,512	-4,432
Third Bone Springs lime	8,403	-5,323
Third Bone Springs ss	8,662	-5,582
Wolfcamp upper	9,004	-5,924
Wolfcamp lower	10,315	-7,325
Strawn	11,415	-8,335
Atoka	11,662	-8,582
Morrow	12,048	-9,004
Lower Morrow	12,761	-9,681
Barnett	12,958	-9,878
Mississippian (lower)	13,411	-10,331
Woodford	13,740	-10,660
Silurian ("Devonian")	13,863	-10,783
Fusselman	14,400	-11,320
Montoya	14,886	-11,806

# 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 Sneek/ Mark Zoback, February 2018



#### PROJECT VICINITY

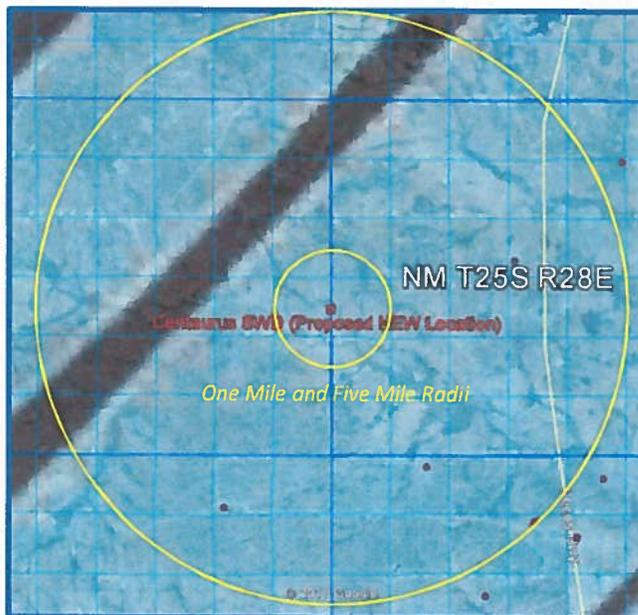


Figure 1. State of stress in the Permian Basin, Texas and New Mexico. Black lines are the measured orientations of the maximum horizontal stress (SHmax), with line length scaled by data quality. The colored background is an interpolation of measured relative principal stress magnitudes (faulting regime) expressed using the  $A\sigma$  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 (43.8 miles) in 2002. The 2012 quake located approximately 13 miles due east of Loving is also shown (17.4 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

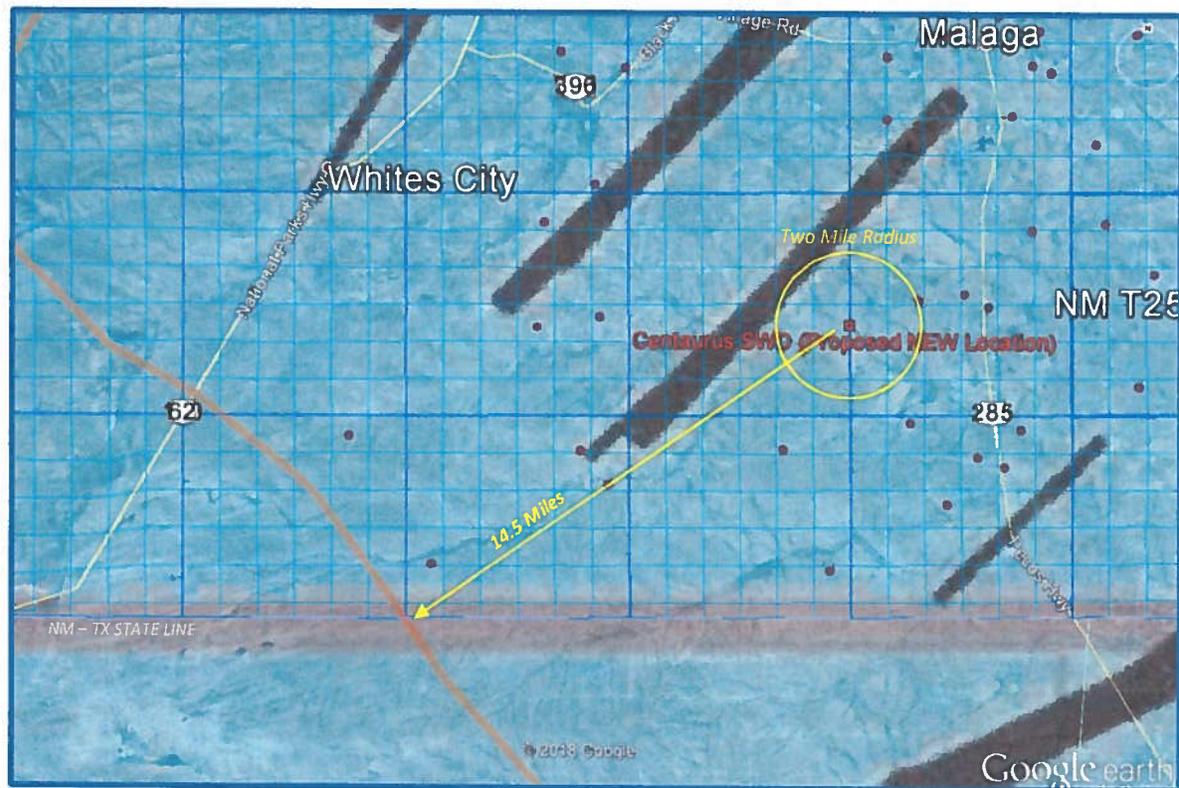
## C-108 - Item VIII

### 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 Centaurus SWD is located 14.5 miles from the primary southern 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.

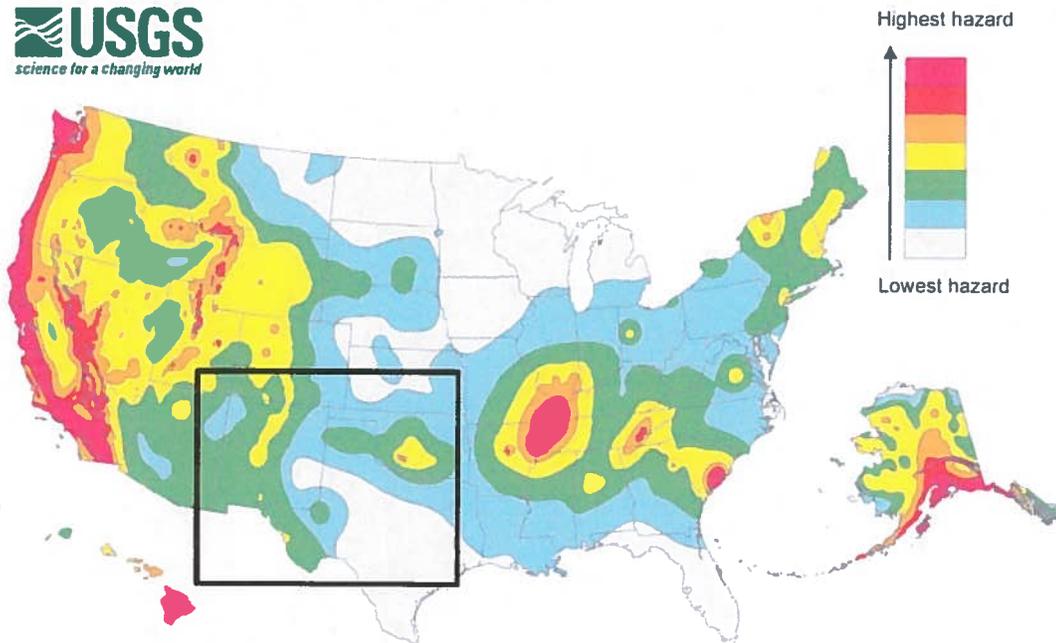


VICINITY - PERMITTED DEVONIAN SWDs, PRECAMBRIAN FAULT,  $S_{Hmax}$

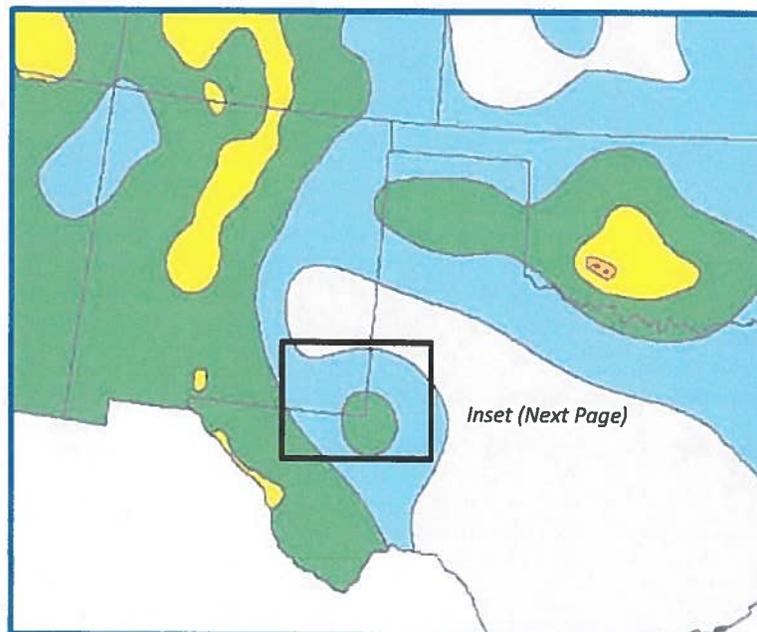
# C-108 - Item VIII

## 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.

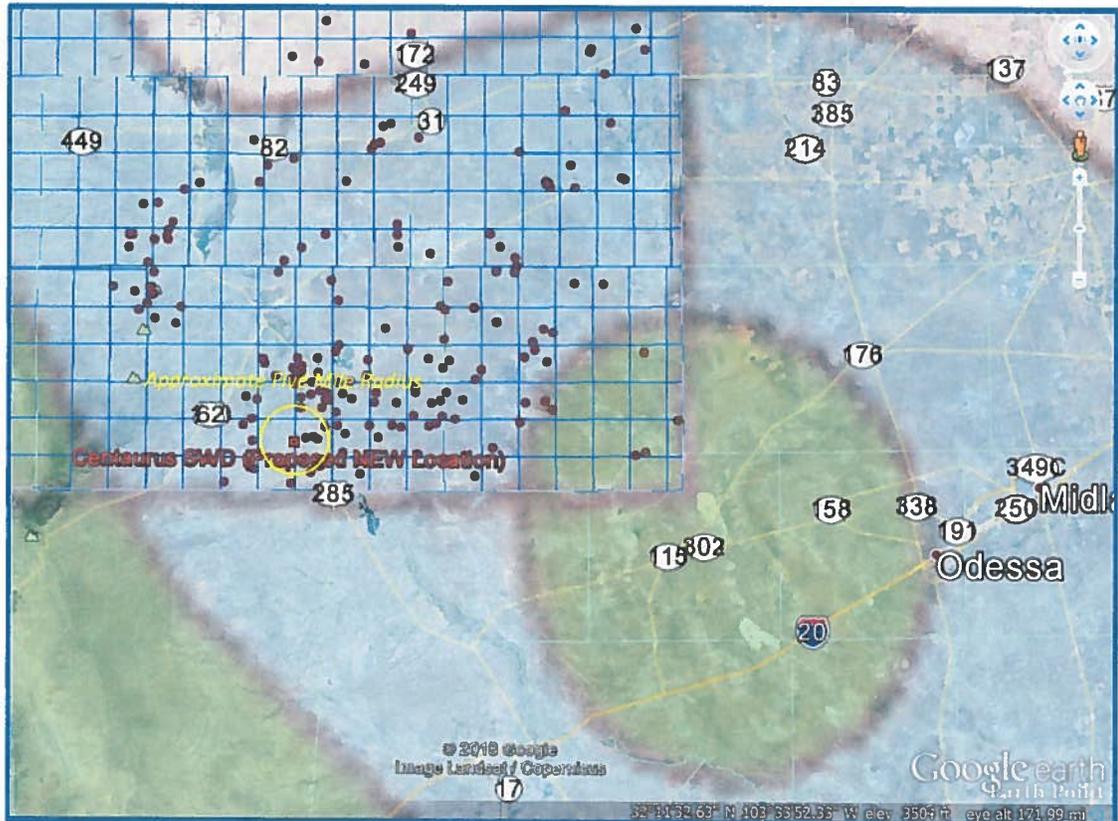


# C-108 - Item VIII

## Geological Data

### EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

USGS 2014 MAP DATA OVERLAY IN GOOGLE EARTH



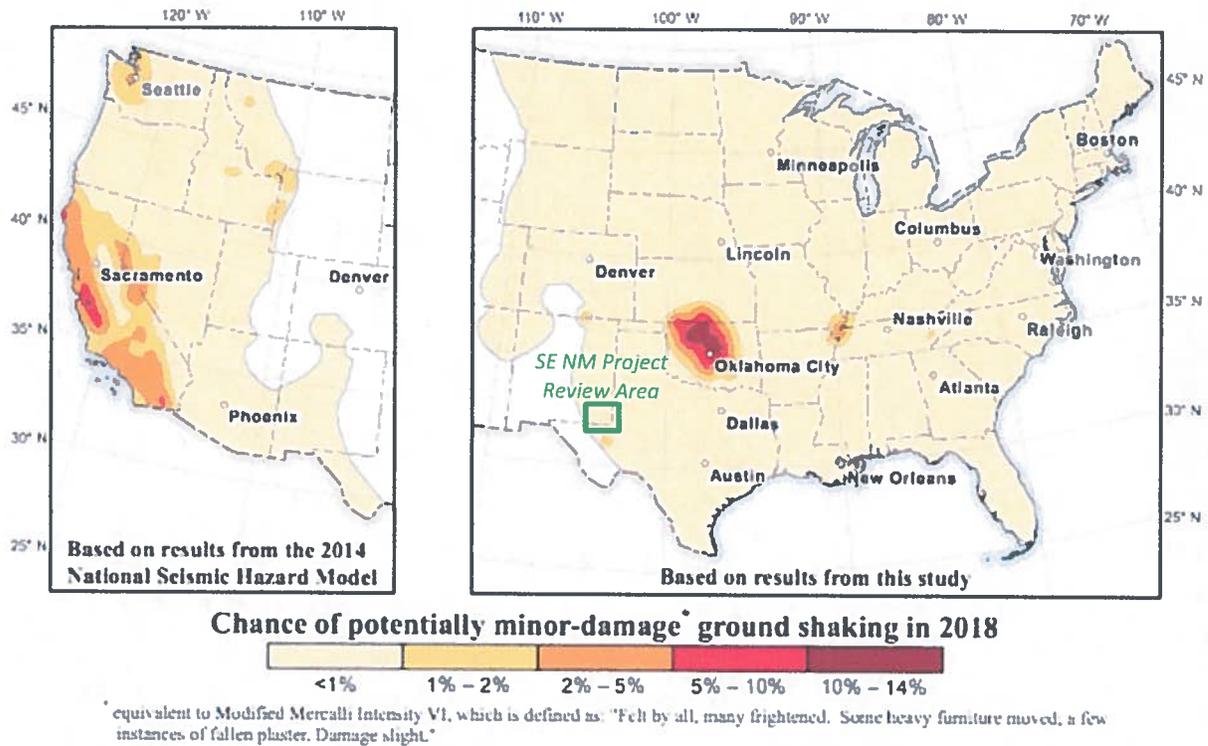
An updated USGS map for 2018 is on the next page. While methodology remained essentially the same according to USGS, the interpreted results and color-coding did have some modification. However, the subject area in southeast New Mexico on both maps remains very low and on the 2018 map, the area is assigned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

# C-108 - Item VIII

## Geological Data

### EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

#### USGS 2018 ONE-YEAR MODEL



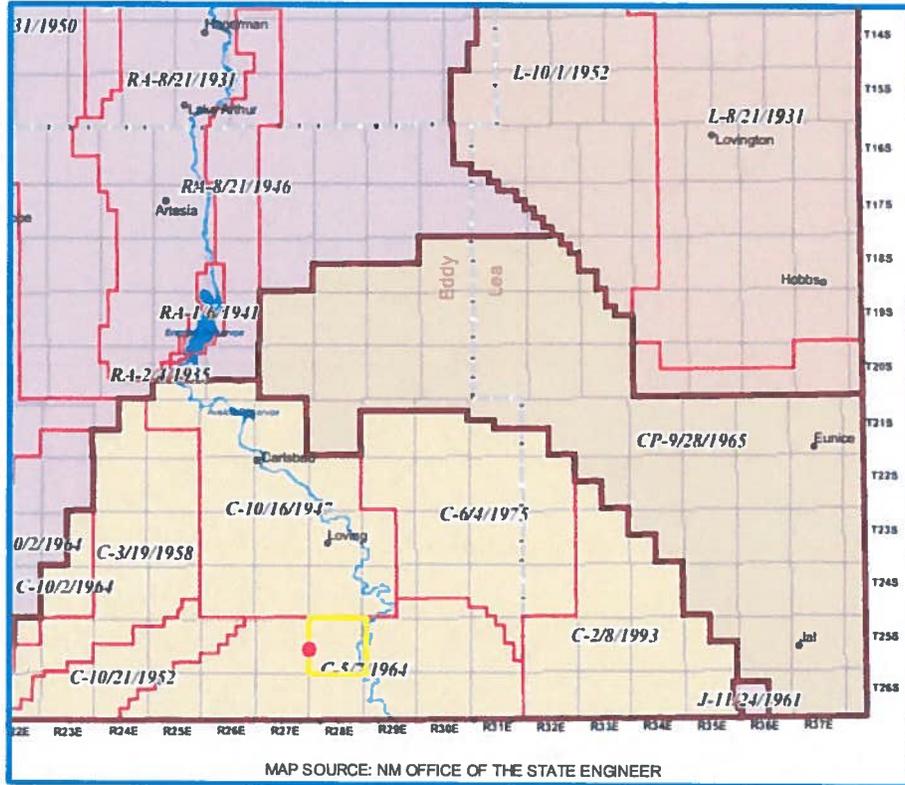
Map showing chance of damage from an earthquake in the Central and Eastern United States during 2018. Percent chances are represented as follows: pale yellow, less than 1 percent; dark yellow, 1 to 2 percent; orange, 2 to 5 percent; red, 5 to 10 percent; dark red, 10 to 12 percent. See Hazard from the 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 XI

### Groundwater Basins - Water Column / Depth to Groundwater



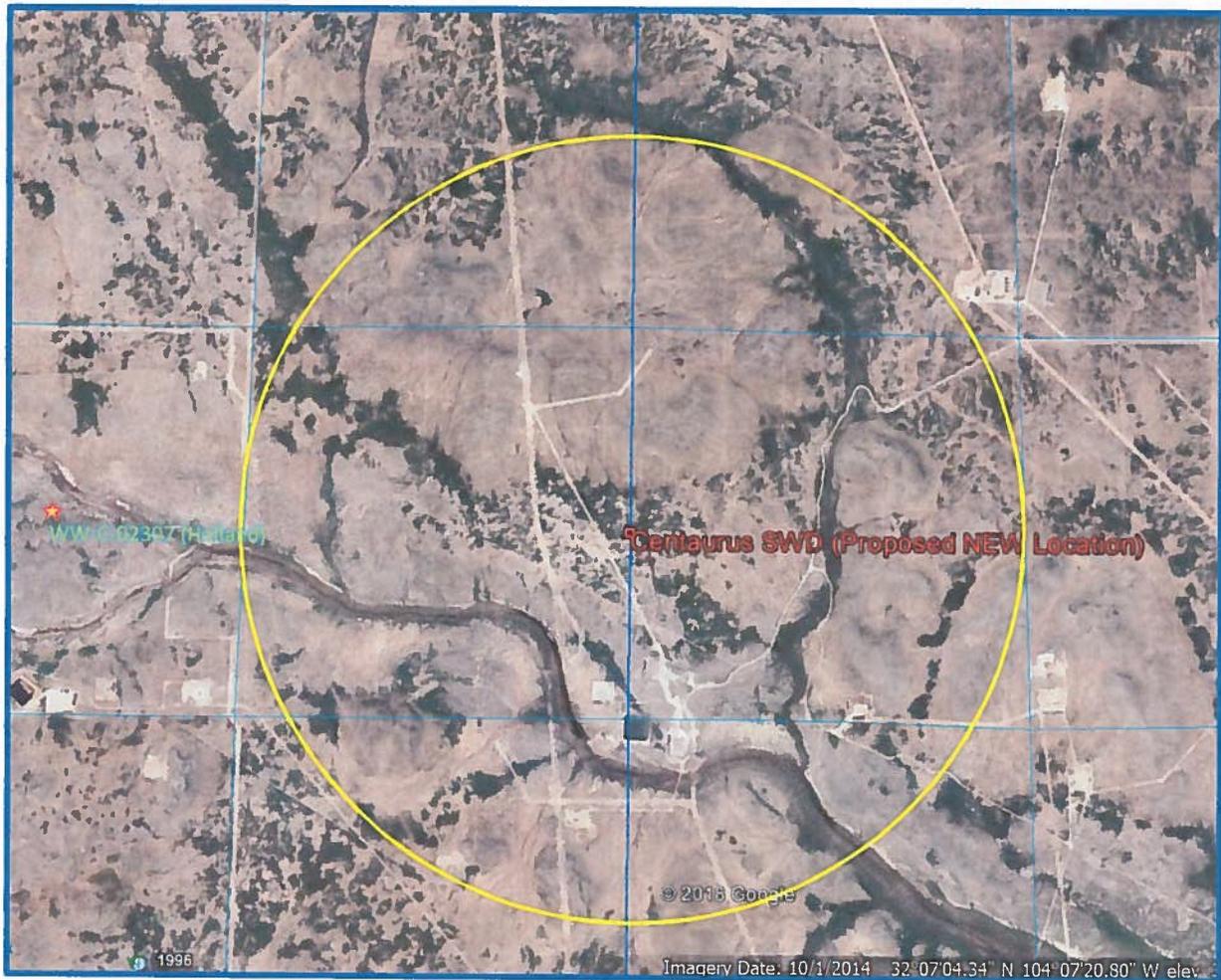
The subject well is located within the Carlsbad Basin.

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 25S-28E with an average depth to water at 15 feet.

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

## C-108 ITEM XI – WATER WELLS IN AOR

### Centaurus SWD (Proposed) Water Well Locator Map



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

# C-108 ITEM XI – WATER WELLS IN AOR

NO Water Well Spots (based on coordinates)  
 Within ONE MILE of Proposed SWD.

**PLEASE SEE WATER WELL LOCATOR MAP – NEXT PAGE.**



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

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q q q			X	Y				
									6416 4	Sec	Tws Rng						
<del>C 62397</del>	<del>C</del>	<del>STK</del>	<del>3</del>	<del>HORAGE HOLLAND</del>	<del>ED</del>	<del>C 62367</del>	<del>NON</del>	<del>Shallow</del>	<del>2</del>	<del>2</del>	<del>2</del>	<del>25</del>	<del>25S</del>	<del>27E</del>	<del>579170</del>	<del>3553530</del>	
<del>C 62938</del>	<del>CUB</del>	<del>MON</del>	<del>8</del>	<del>CONCHO OPERATING LLC</del>	<del>ED</del>	<del>C 62938</del>	<del>POD1</del>	<del>NON</del>	<del>Shallow</del>	<del>2</del>	<del>2</del>	<del>2</del>	<del>25</del>	<del>25S</del>	<del>27E</del>	<del>581481</del>	<del>3552616</del>

Record Count: 2

**PLSS Search:**

Section(s): 23, 24, 25, 26 Township: 25S Range: 27E

No PODs found.

**PLSS Search:**

Section(s): 19 Township: 25S Range: 28E

No PODs found.

**PLSS Search:**

Section(s): 30 Township: 25S Range: 28E

*NM OSE GIS system indicates 0 (zero) water wells within one mile.*

# 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 closed) (quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 6	Q 4	Q 3	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">C 02588</a>	C	ED	3 4 3 33	25S	27E	575645	3549575*	81	19	62				
<a href="#">C 03261 POD1</a>	CUB	ED	3 2 1 20	25S	27E	574007	3554006*	351						
<a href="#">C 03262 POD1</a>	CUB	ED	2 1 2 22	25S	27E	577837	3554244*	75						
<a href="#">C 03264 POD1</a>	CUB	ED	2 1 2 02	25S	27E	579391	3559099*							
<a href="#">C 03938 POD1</a>	CUB	ED	2 2 2 25	25S	27E	581482	3552616	21	12	9				

Average Depth to Water: 15 feet

Minimum Depth: 12 feet

Maximum Depth: 19 feet

Record Count: 5

PLSS Search:

Township: 25S Range: 27E

\*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.

## **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.

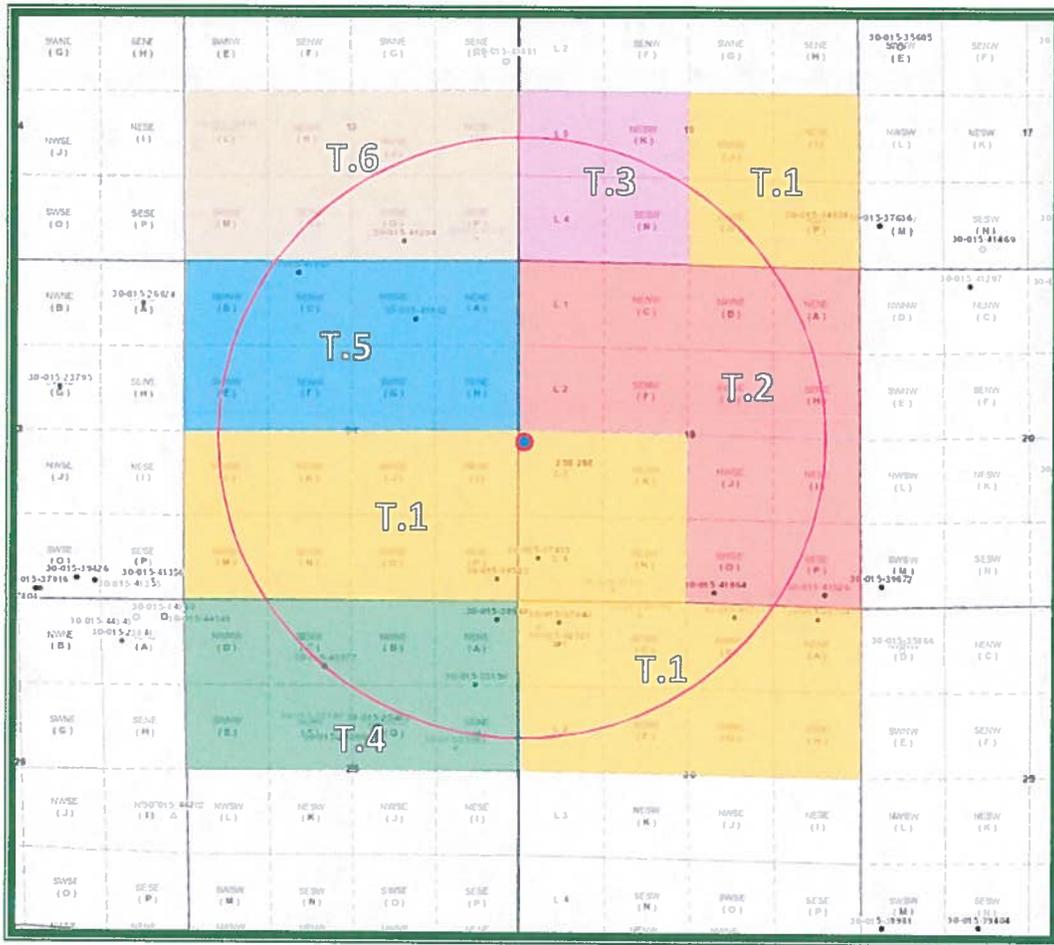


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Ben Stone, Partner  
SOS Consulting, LLC

Project: Solaris Water Midstream, LLC  
Centaurus SWD No.1  
Reviewed 11/12/2018

**Centaurus SWD Well No.1 – Affected Parties Plat**  
 (Attachment to NMOCD Form C-108, Application for Authority to Inject.)



**LEGEND**

- T.1 – Private – Devon Energy Production Co.
- T.2 – VB-0812-0001 – Concho Oil & Gas, LLC
- T.3 – VA-2809-0002 – Concho Oil & Gas, LLC
- T.4 – VB-1007-0001 – Concho Oil & Gas, LLC
- T.5 – VB-1006-0001 – Concho Oil & Gas, LLC
- T.6 – VB-1795-0001 – Devon Energy Production Co.

# 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 & MINERALS OWNER**

- 1 DEVON ENERGY PRODUCTION CO., LP (T.1 on plat.)  
333 W. Sheridan Avenue  
OKC, OK 73102-5010  
Certified: 7018 0360 0001 8569 5241

## **MINERALS LESSEES (All Notified via USPS Certified Mail)**

- State Leases VB-0812; VA-2809; VB-1007; VB-1006 (T.2 - T.5 on plat.)**  
***Lessee and Operator***
- 2 CONCHO OIL & GAS, LLC  
Attn: Brian Collins  
2208 W. Main Street  
Artesia, New Mexico 88210-3720  
Certified: 7018 0360 0001 8569 5258

**State Leases VB-1795 (T.6 on plat.)**  
***Lessee and Operator***  
DEVON ENERGY PRODUCTION CO., LP  
333 W. Sheridan Avenue  
OKC, OK 73102-5010

## **OFFSET MINERAL OWNERS**

- 3 STATE OF NEW MEXICO  
Oil, Gas and Minerals Division  
310 Old Santa Fe Trail  
Santa Fe, NM 87504  
Certified: 7018 0360 0001 8569 5265

## **REGULATORY**

NEW MEXICO OIL CONSERVATION DIVISION  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505

NMOCD DISTRICT II OFFICE  
811 S. First Street  
Artesia, NM 88210



November 13, 2018

**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 Centaurus 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 19, Township 25 South, Range 28 East in Eddy County, New Mexico.

The published notice states that the interval will be from 13,865 feet to 14,865 feet into the Devonian, Silurian and Fusselman formations.

Following is the notice published in the Artesia Daily Press, Artesia, New Mexico on or about November 13, 2018.

**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 Centaurus SWD No.1, will be located 2437' FSL and 1' FWL, Section 19, Township 25 South, Range 28 East, Eddy County, New Mexico. Produced water from area production will be commercially disposed into the Devonian (Silurian) and Fusselman formations at a depth of 13,865' to 14,865' at a maximum surface pressure of 2773 psi and a rate limited only by such pressure. (Final completion depths may be adjusted per mudlogging and reported to the NMOCD on form C-105; pressure will remain at the standard gradient of 0.2 psi/ ft of the uppermost injection interval depth.) The proposed SWD well is located approximately 8.5 miles southwest of Malaga, 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](mailto: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-s5b8e1adc2dc48ca9>  
(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](mailto:info@sosconsulting.us), and the same PDF file copy will be expedited to you via email.

Please use a subject like "**Centaurus SWD Nov 2018 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.



# C-108 - Item XIV

## Proof of Notice (Certified Mail Receipts)

7018 0360 0001 8569 5241

**U.S. Postal Service™  
CERTIFIED MAIL® RECEIPT**  
*Domestic Mail Only*

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

**OFFICIAL USE**

Certified Mail Fee \$ \_\_\_\_\_

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ \_\_\_\_\_

Return Receipt (electronic) \$ \_\_\_\_\_

Certified Mail Restricted Delivery \$ \_\_\_\_\_

Adult Signature Required \$ \_\_\_\_\_

Adult Signature Restricted Delivery \$ \_\_\_\_\_

Postage \$ \_\_\_\_\_

Total Postage and Fees \$ \_\_\_\_\_

Sent To  
Street and \_\_\_\_\_  
City, State \_\_\_\_\_

**DEVON ENERGY PRODUCTION  
COMPANY, LP**  
333 W. Sheridan Ave.  
OKC, OK 73102

PS Form \_\_\_\_\_

Postmark Here  
NOV 13 2018  
OWR

7018 0360 0001 8569 5258

**U.S. Postal Service™  
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Certified Mail Fee \$ \_\_\_\_\_

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ \_\_\_\_\_

Return Receipt (electronic) \$ \_\_\_\_\_

Certified Mail Restricted Delivery \$ \_\_\_\_\_

Adult Signature Required \$ \_\_\_\_\_

Adult Signature Restricted Delivery \$ \_\_\_\_\_

Postage \$ \_\_\_\_\_

Total Postage and Fees \$ \_\_\_\_\_

Sent To  
Street and \_\_\_\_\_  
City, State \_\_\_\_\_

**CONCHO OIL & GAS, LLC**  
Attn: Brian Collins  
2208 W. Main Street  
Artesia, New Mexico 88210-

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## **C-108 - Item XIV**

**Proof of Notice – Legal Notice  
Newspaper of General Circulation**

### **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 Centaurus SWD No.1, will be located 2437' FSI and 1' FWL, Section 19, Township 25 South, Range 28 East, Eddy County, New Mexico. Produced water from area production will be commercially disposed into the Devonian (Silurian) and Fusselman formations at a depth of 13,865' to 14,865' at a maximum surface pressure of 2773 psi and a rate limited only by such pressure. (Final completion depths may be adjusted per mudlogging and reported to the NMOCD on form C-105; pressure will remain at the standard gradient of 0.2 psi/ ft of the uppermost injection interval depth.) The proposed SWD well is located approximately 8.5 miles southwest of Malaga, 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.

Published in the Artesia Daily Press, Artesia, N.M., Nov. 13, 2018 Legal No. 24906.

**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.**

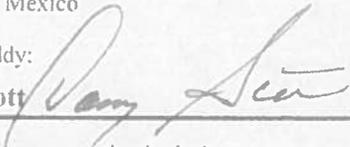
# Affidavit of Publication

No. 24906

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:

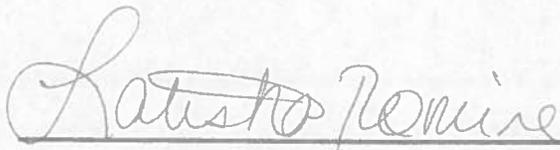
First Publication	<u>November 9, 2018</u>
Second Publication	<u></u>
Third Publication	<u></u>
Fourth Publication	<u></u>
Fifth Publication	<u></u>
Sixth Publication	<u></u>
Seventh Publication	<u></u>

Subscribed and sworn before me this 13th day of November 2018



OFFICIAL SEAL  
Latisha Romine  
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 5/12/2019



Latisha Romine

Notary Public, Eddy County, New Mexico

# Copy of Publication:

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