

# Additional Information

Injection Authority Extension  
Request 5/6/21

## Lamkin, Baylen, EMNRD

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**From:** Whitney McKee <whitney.mckee@solariswater.com>  
**Sent:** Thursday, May 6, 2021 7:28 AM  
**To:** Lamkin, Baylen, EMNRD  
**Subject:** [EXT] C-108 Extension Request - Three Bars SWD #1 (SWD-1897)  
**Attachments:** 210506 - Three Bars SWD #1 - Injection Permit Extension Request.pdf

Baylen,

Attached is a C-108 extension request for Three Bars SWD #1. The AOR does not include any new affected parties. If anything else is needed please let me know.

Thanks,

**Whitney McKee**  
Solaris Water Midstream, LLC  
O: 432.203.9020 | M: 832.247.3399

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May 6, 2021

New Mexico Oil Conservation Division  
1220 S. St. Francis  
Santa Fe, New Mexico 87504

Attn: Ms. Adrienne Sandoval, Director

Re: Request for Extension of Solaris Water Midstream, LLC Injection Permit-Three Bars SWD #1  
Administrative Order SWD-1897  
Located: Unit D, Sec 32, T24S, R27E, NMPM, Eddy County, New Mexico  
Order Date: June 22, 2020  
Injection Formations: Devonian formation; 13,260 feet to 14,285 feet

Dear Ms. Sandoval:

Solaris Water Midstream, LLC ("Solaris") hereby requests approval from the Division for a one (1) year extension from the deadline stipulated in Order SWD-1897 to commence injection on the Three Bars SWD #1 well.

The well has not yet been drilled for various reasons, including the ongoing Covid-19 situation.

According to the GIS on the NMOCD website the AOR for the above referenced well has not changed.

I have enclosed a copy of the approved permit for your convenience. If you or your staff have any questions or require additional information, please do not hesitate to contact me at [whitney.mckee@solariswater.com](mailto:whitney.mckee@solariswater.com) or 432-203-9020.

Best regards,

A handwritten signature in blue ink, appearing to read "Whitney McKee", is written over a horizontal line.

Whitney McKee  
Solaris Water Midstream, LLC  
Regulatory Specialist

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Michelle Lujan Grisham**  
Governor

**Sarah Cottrell Propst**  
Cabinet Secretary

**Todd E. Leahy, JD, PhD**  
Deputy Secretary

**Adrienne Sandoval**, Director  
Oil Conservation Division



Administrative Order SWD-1897  
June 22, 2020

**ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION**

Pursuant to the provisions of the Oil Conservation Division (OCD) Rule 19.15.26.8(B) NMAC, Solaris Water Midstream, LLC. ("the operator") seeks an administrative order for its Three Bars SWD No.1 ("the well") with a location of 988 feet from the North line and 143 feet from the West line, Unit letter D of Section 32, Township 24 South, Range 27 East, NMPM, Eddy County, New Mexico, for the purpose of commercial disposal of produced water.

**THE OCD DIRECTOR FINDS THAT:**

The application has been duly filed under the provisions of OCD Rule 19.15.26.8(B) NMAC and satisfactory information has been provided that affected parties have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in OCD Rule 19.15.26.8 NMAC have been met and the operator is in compliance with OCD Rule 19.15.5.9 NMAC.

**Application for Disposal in Devonian and Silurian Formations:** Due to the potential for the projected injection volume of the proposed well to impact an area greater than the one-half mile radius applied in OCD Form C-108 and OCD rule, the applicant has provided the following supplementary information:

1. Notification following OCD Rule 19.15.26.8(B) NMAC for a radius of one mile from the surface location of the proposed well;
2. An expanded Area of Review for wells penetrating the disposal interval for a radius of one mile from the surface location of the proposed well; and
3. A statement by a qualified person assessing the potential of induced-seismic events associated with the disposal activities for the predicted service life of the proposed well.

**IT IS THEREFORE ORDERED THAT:**

The applicant, Solaris Water Midstream, LLC. (OGRID 371643), is hereby authorized to utilize its Three Bars SWD No.1 (API 30-015-Pending) with a location of 988 feet from the North line and 143 feet from the West line, Unit letter D of Section 32, Township 24 South, Range 27 East, NMPM, Eddy County, for disposal of oil field produced water (UIC Class II only) through open-hole completion into an interval consisting of the Devonian and Silurian formations from

approximately 13,260 feet to approximately 14,285 feet. Injection will occur through internally-coated, 5½-inch or smaller tubing within the 9⅝-inch production casing and 5 inch or smaller tubing within the 7⅝-inch liner with a packer set within 100 feet of the top of the disposal interval. This permit does not allow disposal into:

1. The Woodford Shale and formations above the lower contact of the Woodford Shale;
2. Formations below the Silurian formations including the Montoya formation and the Ellenburger formation (lower Ordovician); and
3. Any lost circulation intervals directly on top and obviously connected to these formations.

*Prior to commencing disposal, the operator shall submit mudlog and geophysical logs information (Triple Combo; Gamma Ray, Resistivity, Density/Porosity), to the OCD District geologist and Santa Fe Engineering Bureau, showing evidence agreeable that only the permitted formation is open for disposal including a summary of depths (picks) for contacts of the formations which the OCD shall use to amend this order for a final description of the depth for the injection interval. If significant hydrocarbon shows occur while drilling, the operator shall notify the OCD's District office and the operator shall be required to receive written permission prior to commencing disposal.*

*The operator shall set surface casing 25 feet below the top of the Rustler anhydrite in order to seal off protectable water.*

*The operator shall circulate to surface the cement for the 9⅝-inch production casing.*

*If cement does not circulate on any casing string, the operator shall run a cement bond log ("CBL") or other log to determine top of cement and shall notify the Artesia District with the top of cement on the emergency phone number prior to continuing with any further cement activity with the proposed well. If cement did not tie back into the next higher casing shoe, the operator shall perform remedial cement job to bring cement, at a minimum, 200 feet above the next higher casing shoe.*

*The operator shall run a CBL (or equivalent) for the 7⅝-inch liner to demonstrate the placement of cement and the cement bond with the tie-in with 9⅝-inch production casing string. The operator shall provide a copy of the CBL to the OCD's District office prior to commencing disposal.*

*Prior to commencing disposal, the operator shall obtain a bottom-hole pressure measurement representative of the open-hole completion. This information shall be provided with the written notice of the date of commencement of disposal.*

**IT IS FURTHER ORDERED THAT:**

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface. This includes the completion and construction of the well as described in the application and, if

necessary, as modified by the District Supervisor, or the Bureau of Land Management.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT procedures and schedules shall follow the requirements in OCD Rule 19.15.26.11(A) NMAC. The OCD Director retains the right to require at any time wireline verification of completion and packer setting depths in this well.

Without limitation on the duties of the operator as provided in OCD Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the OCD's District II office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

If the disposal well fails a MIT or if there is evidence that the mechanical integrity of said well is impacting correlative rights, the public health, any underground sources of fresh water, or the environment, the OCD Director shall require the well to be shut-in within 24 hours of discovery and the operator shall redirect all disposal waters to another facility. The operator shall take the necessary actions to address the impacts resulting from the mechanical integrity issues in accordance with OCD Rule 19.15.26.10 NMAC, and the well shall be tested pursuant to Rule 19.15.26.11 NMAC prior to returning to injection.

The wellhead injection pressure on the well shall be limited to **no more than 2,652 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the OCD may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formations. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable step-rate test.

The operator shall notify the supervisor of the OCD's District II office of the date and time of the installation of disposal equipment and of any MIT so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the OCD's District II office. The operator shall submit monthly reports of the disposal operations that includes number of days of operation, injection volume, and injection pressure on OCD Form C-115, in accordance with OCD Rules 19.15.26.13 and 19.15.7.24 NMAC.

The injection authority granted under this order is not transferable except upon OCD approval. The OCD may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The OCD may revoke this injection order after notice and hearing if the operator is in violation of Rule 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate one (1) year after the effective date of this Order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the OCD shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The OCD, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this Order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the OCD for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the OCD may, after notice and hearing, terminate the disposal authority granted herein.



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ADRIENNE SANDOVAL  
Director

AS/bl

cc: Oil Conservation Division – Artesia District Office  
Bureau of Land Management – Carlsbad Field Office

Attachment: C-108 well completion diagram

SURFACE ELEVATION 3,415.4' TOTAL DEPTH 14,385'

MUD LOGGING E LOGGING/ DIRECTIONAL	CASING SIZE (IN.) CEMENT (SACKS)	RKB DRILL DEPTH MD TVD	BOPE	FORMATION	HOLE SIZE (IN.)	MUD WT.	FRAC GRAD	TUBING
GRND LEVEL	RKB	32						
GL ELEV.		3,415.4'						
30"		120 / 120	OPEN		32"	8.8		
GROUT TO SURFACE								
					24"	8.4		
20"		550		PERMIAN RUSTLER FM (USDW)				
94# J55 BTC		575 / 575	26-3/4"-3M ANNULAR/DIVERTER			8.4		
500 SACKS, CEMENTED TO SURFACE						9.5		
MUD LOGGING TO BEGIN AT 2500'					17 1/2"	9.5 to 10.0		
		2,255		PERMIAN DELAWARE MTN. GROUP				
13 3/8"		2,255 / 2,255	21-3/4" -5M ANNULAR			10.0		
54.5# J-55			21-3/4" -5M BOP			9.4		
1,375 SACKS, CEMENTED TO SURFACE								
DV TOOL AT ±3,300'IN 9 5/8" OPEN HOLE, ECP BELOW		5,845		PERMIAN BONE SPRING FM.		9.4 to 10.0		
		8945		PERMIAN WOLFCAMP FM.	12 1/4"			
		10,100/ 10,100						
9 5/8"		10,300 / 10,300	13-5/8" -10M ANNULAR			10.0		
53.5# P110 BTC			13-5/8" -10M BOP			12.5		
2,800 SACKS, CEMENTED TO SURFACE IN TWO STAGES		10,895		PENNSYLVANIAN STRAWN FM.				
		11,070		PENNSYLVANIAN ATOKA FM.	8 1/2"	12.5 to 14.6		
		11,605		PENNSYLVANIAN MORROW FM.				
		13,260		DEVONIAN				
7 5/8"		13,260 / 13,260	13-5/8" -10M ANNULAR			14.6		
39# P110, ST-L			13-5/8" -10M BOP					
230 SACKS, EST. TOC 10,100' BACK UP INTO THE 9 5/8" CASING (VERIFIED WITH RADIAL CEMENT BOND LOG)					6 1/2"	9.0		
RUN #1 GR/NEUTRON	14,385 - 0		13-5/8" -10M ANNULAR	Base of FUSSELMAN FM				
USIT/CBL	13,260 - 0	DUAL 0"	13-5/8" -10M BOP					
		14,285						
		TD 14,385/ 14,385						

5 1/2" (23#) IPC TUBING

5" (18#) IPC TUBING

10,000

13,240'

## THREE BARS SWD #1

SECTION 32 T-24-S, R-27-E  
988' FNL & 143' FWL  
EDDY COUNTY, NEW MEXICO

PN # 1680.NM.00

JULY 2018



**ALLCONSULTING**  
GOVERNMENT RELATIONS - ENERGY - PLANNING - TECHNOLOGY  
ENGINEERING - ENVIRONMENTAL

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SIZE  
A

SCALE

NTS

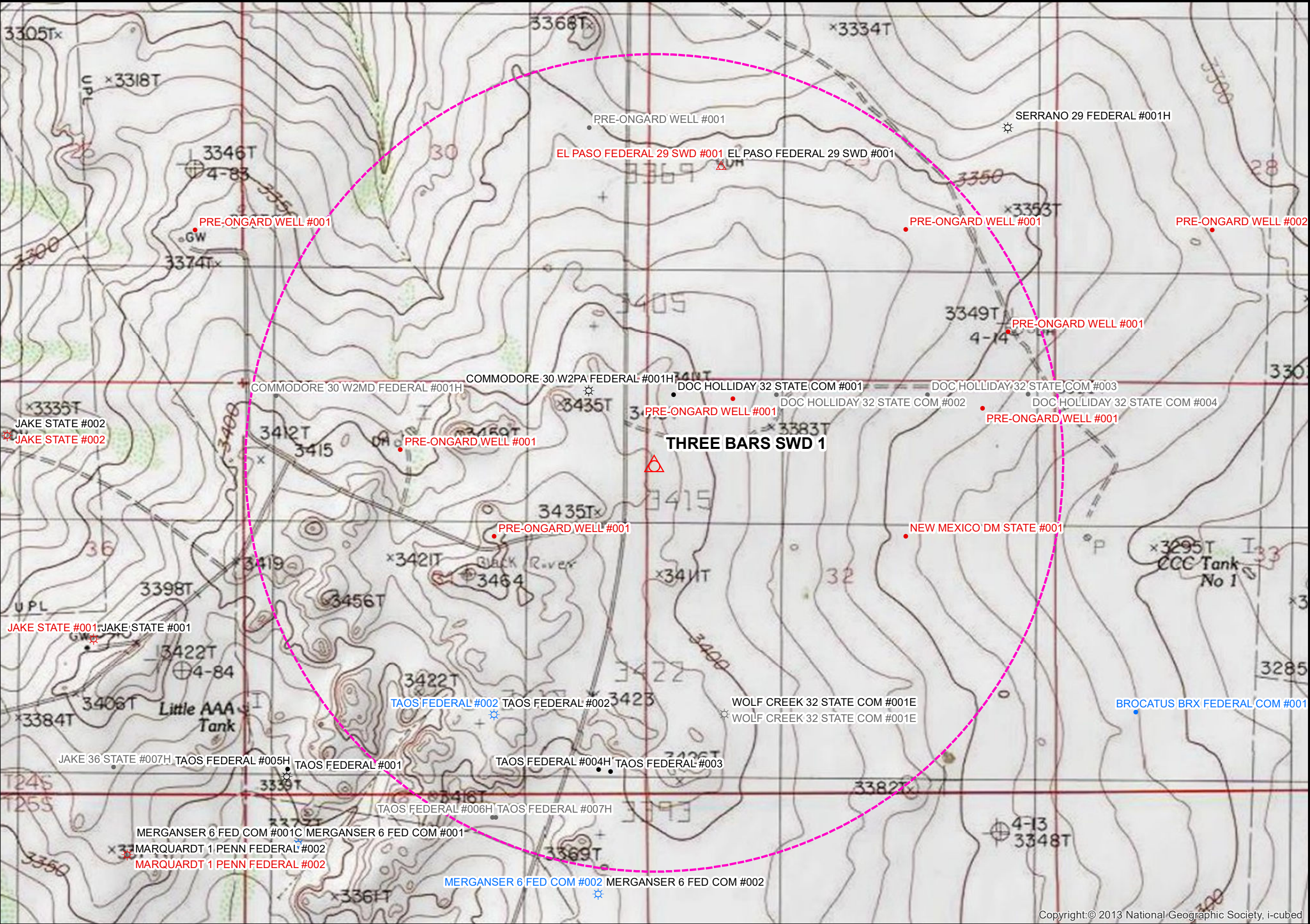
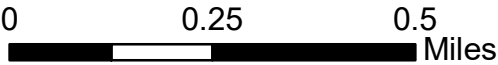
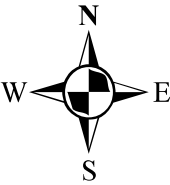
WELL BORE DATA SHEET





Legend

- THREE BARS SWD 1
- 1.0 Mile Radius
- NM Wells
  - Oil, Active
  - Oil, Cancelled
  - Oil, New
  - Oil, Plugged
  - Gas, Active
  - Gas, Cancelled
  - Gas, New
  - Gas, Plugged
  - Injection, Active
  - Injection, Cancelled
  - Injection, New
  - Injection, Plugged
  - Salt Water Disposal, Active
  - Salt Water Disposal, Cancelled
  - Salt Water Disposal, New
  - Salt Water Disposal, Plugged



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Vicinity Wells

Solaris Water Midstream - Three Bars SWD #1 - Eddy County NM

Date: 5/5/2021







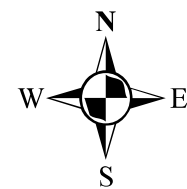
API	Well Name	Well Type	Well Status	ogrid	ogrid_name	ULSTR	Measured Depth	Vertical Depth
30-015-21026	PRE-ONGARD WELL #001	Oil	Plugged	214263	PRE-ONGARD WELL OPERATOR	C-31-24S-27E	0	0
30-015-41759	TAOS FEDERAL #006H	Oil	Cancelled	215099	CIMAREX ENERGY CO.	B-06-25S-27E	0	0
30-015-41760	TAOS FEDERAL #007H	Oil	Cancelled	215099	CIMAREX ENERGY CO.	B-06-25S-27E	0	0
30-015-36436	TAOS FEDERAL #002	Gas	New	215099	CIMAREX ENERGY CO.	O-31-24S-27E	0	0
30-015-01137	PRE-ONGARD WELL #001	Oil	Plugged	214263	PRE-ONGARD WELL OPERATOR	G-31-24S-27E	0	0
30-015-38248	TAOS FEDERAL #003	Oil	Active	215099	CIMAREX ENERGY CO.	P-31-24S-27E	14525	10591
30-015-22210	PRE-ONGARD WELL #001	Oil	Cancelled	214263	PRE-ONGARD WELL OPERATOR	H-30-24S-27E	0	0
30-015-41270	TAOS FEDERAL #004H	Oil	Active	215099	CIMAREX ENERGY CO.	P-31-24S-27E	12145	9
30-015-23526	PRE-ONGARD WELL #001	Oil	Plugged	214263	PRE-ONGARD WELL OPERATOR	J-29-24S-27E	0	0
30-015-36749	WOLF CREEK 32 STATE COM #001E	Gas	Cancelled	162683	CIMAREX ENERGY CO. OF COLORADO	M-32-24S-27E	0	0
30-015-01138	PRE-ONGARD WELL #001	Oil	Plugged	214263	PRE-ONGARD WELL OPERATOR	D-32-24S-27E	0	0
30-015-41145	DOC HOLLIDAY 32 STATE COM #001	Oil	Active	6137	DEVON ENERGY PRODUCTION COMPANY, LP	D-32-24S-27E	12135	0
30-015-43796	COMMODORE 30 W2MD FEDERAL #001H	Oil	Cancelled	14744	MEWBOURNE OIL CO	D-31-24S-27E	0	0
30-015-23275	PRE-ONGARD WELL #001	Oil	Plugged	214263	PRE-ONGARD WELL OPERATOR	A-32-24S-27E	0	0
30-015-01135	PRE-ONGARD WELL #001	Oil	Plugged	214263	PRE-ONGARD WELL OPERATOR	P-29-24S-27E	0	0
30-015-41152	DOC HOLLIDAY 32 STATE COM #004	Oil	Cancelled	6137	DEVON ENERGY PRODUCTION COMPANY, LP	A-32-24S-27E	0	0
30-015-41151	DOC HOLLIDAY 32 STATE COM #003	Oil	Cancelled	6137	DEVON ENERGY PRODUCTION COMPANY, LP	B-32-24S-27E	0	0
30-015-24513	NEW MEXICO DM STATE #001	Oil	Plugged	11830	J & G ENTERPRISE LTD. CO.	G-32-24S-27E	99999	99999
30-015-22084	EL PASO FEDERAL 29 SWD #001	Salt Water Disposal	Plugged	6137	DEVON ENERGY PRODUCTION COMPANY, LP	E-29-24S-27E	12400	12400
30-015-41146	DOC HOLLIDAY 32 STATE COM #002	Oil	Cancelled	6137	DEVON ENERGY PRODUCTION COMPANY, LP	C-32-24S-27E	0	0
30-015-43296	COMMODORE 30 W2PA FEDERAL #001H	Gas	Active	14744	MEWBOURNE OIL CO	A-31-24S-27E	15060	10114



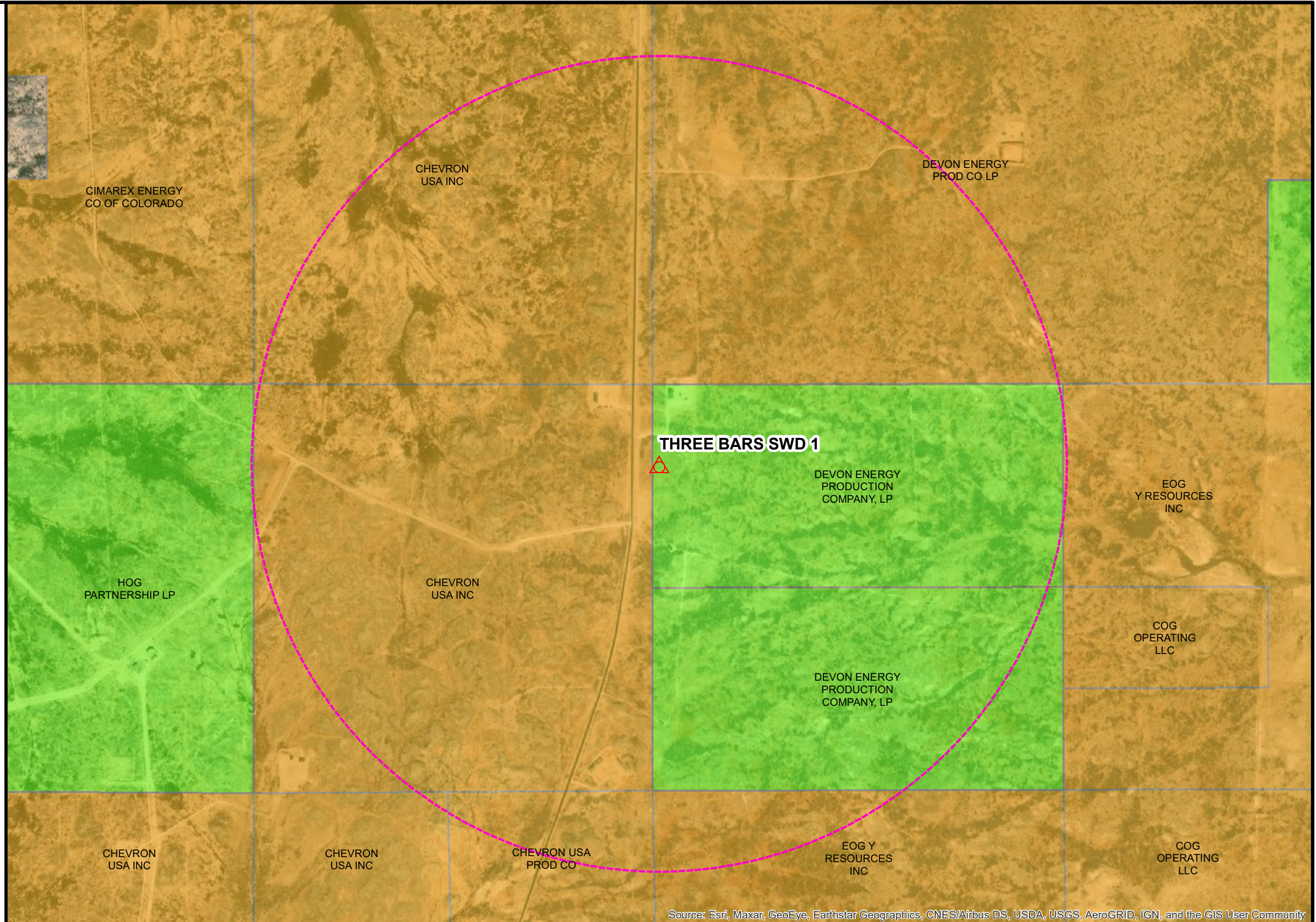


**Legend**

-  THREE BARS SWD 1
-  1.0 Mile Radius
-  BLM Lease
-  SLO Lease



0 0.25 0.5  
Miles



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

**State and Federal Leases**  
**Solaris Water Midstream - Three Bars SWD #1 - Eddy County NM**

Date: 5/5/2021



5/5/2021

Table 2  
BLM Leases Within 1 Mile

Solaris Water Midstream  
Three Bars SWD #1

SerialNum	Name1	Name3	Name2	Name4	Name5	Name6
NMNM 096209	VLADIN LLC	COG OPERATING LLC	EOG RESOURCES INC	OXY Y-1 COMPANY	CONCHO OIL & GAS LLC	
NMNM 096208	CHEVRON USA INC					
NMNM 100332	CHEVRON USA PROD CO					
NMNM 096210	EOG RESOURCES INC	OXY Y-1 COMPANY		OXY Y-1 COMPANY		
NMNM 110348	CHEVRON USA INC	MARSHALL & WINSTON INC	ESSEX DAVID H	ICA ENERGY INC	MBOE INC	LONGHORN PARTNERS
NMNM 112269	DEVON ENERGY PROD CO LP					
NMNM 116027	CHEVRON USA INC					

5/5/2021

Table 3  
SLO Leases Within 1 Mile

Solaris Water Midstream  
Three Bars SWD #1

Lease Number	Lessee
K0-4593-0003	HOG PARTNERSHIP LP
VB-1764-0001	DEVON ENERGY PRODUCTION COMPANY, LP
VB-1765-0001	DEVON ENERGY PRODUCTION COMPANY, LP





**Legend**

 THREE BARS SWD 1

 1.0 Mile Radius

 PLSSTownship

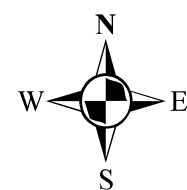
 PLSSFirstDivision

**NM Surface Ownership**

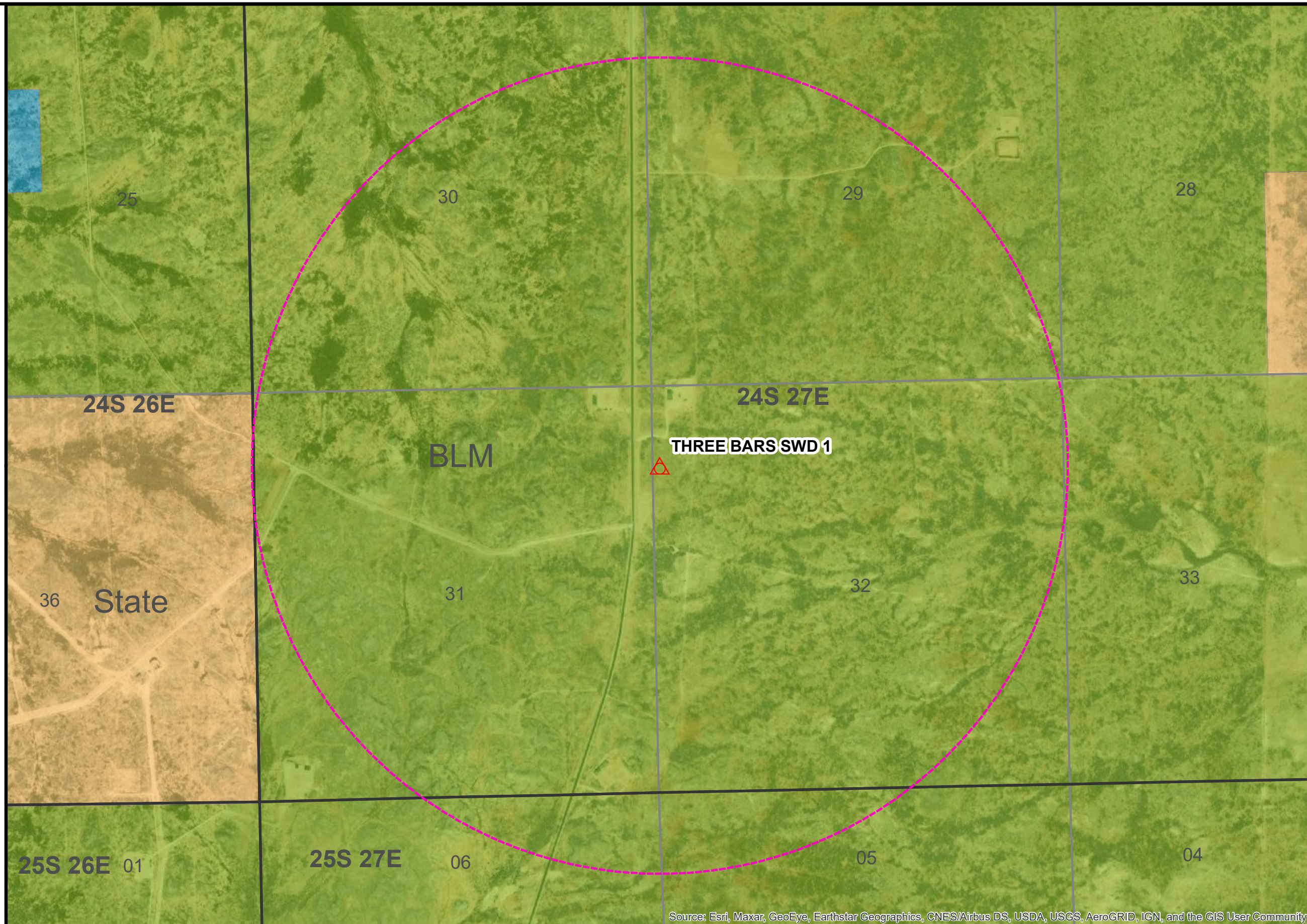
 BLM

 State

 Private



0 0.25 0.5  
Miles



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

**Surface Ownership**

**Solaris Water Midstream - Three Bars SWD #1 - Eddy County NM**

Date: 5/5/2021



5/5/2021

Table 4  
Surface Owners Within 1 Mile

Solaris Water Midstream  
Three Bars SWD #1

Owner Name
STATE OF NEW MEXICO
BUREAU OF LAND MANAGEMENT