AE Order Number Banner

Application Number: pMSG2436445229

SWD-2641

SOLARIS WATER MIDSTREAM, LLC [371643]

ACE Energy Advisors

November 27, 2024

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

Subject: Solaris Water Midstream, LLC
Application for Authorization to Inject
Powderhorn SWD #1

OCD Director,

Solaris Water Midstream, LLC (Solaris) is applying for administrative approval of the attached Application for Authorization to Inject (Form C-108) for their proposed Powderhorn SWD #1. The application is requesting authorization to dispose of saltwater from oil and gas production in the area via commercial disposal into the Bell Canyon & Cherry Canyon formations in Lea County, NM.

Questions regarding this application or the included materials can be directed to Nate Alleman (Solaris Regulator Advisor Contractor) via telephone at 918-237-0559 or via email at nate.alleman@aceadvisors.com.

Sincerely,

Nathan Alleman

Nate Alleman
Chief Regulatory Advisor
Ace Energy Advisors

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:

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: Powderhorn SWD #1 **API:** 30-025-xxxxx
Pool: SWD; Delaware **Pool Code:** 96100

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
☐ Notice Complete
☐ 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.

Nathan Alleman
Print or Type Name

Nathan Alleman
Signature

11/27/2024
Date

918-237-0559
Phone Number

nate.alleman@aceadvisors.com
e-mail Address

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance X Disposal _____Storage
Application qualifies for administrative approval? X Yes _____No

II. OPERATOR: Solaris Water Midstream, LLC

ADDRESS: 907 Tradewinds Blvd, Midland, TX 79706

CONTACT PARTY: Ace Energy Advisors - Nate Alleman PHONE: (918) 237-0559

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____Yes X No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Nate Alleman TITLE: Regulatory Consultant

SIGNATURE:  DATE: 11/27/2024

E-MAIL ADDRESS: nate.alleman@aceadvisors.com

* 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

III. Well Data

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

Operator: Solaris Water Midstream, LLC (OGRID# 371643)
Lease/Well Name & Number: Powderhorn SWD #1
Legal Location: 558' FSL & 315' FEL - Unit P – Section 1 T25S R34E – Lea County
Coordinates: 32.15373969, -103.41615936

(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.

Casing String	Hole Size (in)	Casing Size (in)	Casing Depth (ft)	Sacks Cement (sx)	Top of Cement (ft)	Method Determined
Surface	24	20	923	915	0	Circulation
Intermediate	17-1/2	13-3/8	5,537	2,445	0	Circulation
Production	12-1/4	9-5/8	8,093	1.580	0	Circulation

A wellbore diagram is included in ***Attachment 1***.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

7" fiberglass-coated tubing set at 5,544’

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Arrowset AS-1X Retrievable Packer (or equivalent) set at 5,544’

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.

Injection Formation Name - Bell Canyon & Cherry Canyon
Pool Name - SWD; Delaware
Pool Code – 96100

(2) The injection interval and whether it is perforated or open-hole.

Cased-hole injection between 5,594’ - 8,093’

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

New drill for injection

(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.

None

(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.

- **Overlying:** None
- **Underlying**
  - T. Avalon Shale/Bone Spring perfs @ approx. 9,000’)
  - T. Wolfcamp perfs @ (approx.12,500’)

V. AOR Maps

Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

The following figures are included in ***Attachment 2***:

- Well Map & List
- Leaseholder Map
- Surface Ownership Map
- Mineral Ownership Map
- DMG SWD & AGI Proximity Map
    - The nearest DMG SWD is the Beaza SWD #1 (30-025-49600) located approximately 2.43 miles (12,803 ft) to the north, and the nearest DMG AGI well is located approximately 7.5 miles (39,684 ft) to the northwest.

VI. AOR List

Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

Details of the wells within the 0.5-mle AOR are included in ***Attachment 2***. One well (plugged) penetrates the proposed injection interval within the 0.5-mile AOR. Plugging records and a plugged wellbore diagram are attached for reference. There are 11 additional drilled horizontal wells whose surface hole locations are located outside the AOR, and therefore do not penetrate the injection interval within the AOR, but whose horizontal wellbores pass beneath the proposed injection interval within the AOR radius.

VII. Operational Information

Attach data on the proposed operation, including:

(1) Proposed average and maximum daily rate and volume of fluids to be injected;

Maximum: 20,000 bpd
Average: 15,000 bpd

(2) Whether the system is open or closed;

The system will be closed.

(3) Proposed average and maximum injection pressure;

Maximum: 1118 psi (surface)
Average: approx. 800 psi (surface)

(4) Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water;

It is anticipated that produced water from Bone Spring & Wolfcamp production wells in the Delaware Basin will be injected into the proposed SWD. Therefore, water analyses from these formations was obtained and is included in ***Attachment 3***.

(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.).

The proposed injection interval for this SWD includes the Bell Canyon & Cherry Canyon formations, which are non-productive zones known to be compatible with formation water from the Bone Spring & Wolfcamp formations. Water analyses of samples collected from the proposed injection formations in the area were obtained and are included in ***Attachment 4***.

VIII. Geologic Description

Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

The proposed injection interval, between depths of 5,594 and 8,093 feet below ground level, will span the Bell and Cherry Canyon Formations, which are subdivisions of the Delaware Mountain Group. These formations consist of interbedded sequences composed predominantly of sandstone, siltstone, and shale, with minor limestone beds.

The base of the lowermost Underground Source of Drinking Water (USDW), identified as the top of the first anhydrite, is determined to occur at the top of the Rustler Formation, at a depth of 898 feet below ground level.

Upper confinement, separating the injection interval from the overlying USDW, will be provided by the low-porosity carbonate and low-permeability shale of the Lamar Formation, as well as the impervious salts and anhydrites of the Castile, Salado, and Rustler Formations, which collectively are expected to be 4,646 feet thick. Lower confinement will be ensured by an approximately 100-foot-thick package of interbedded shales, siltstones, and limestones at the top of the upper Brushy Canyon.

All depths and thicknesses stated here are estimated from mapping based on offset logs that have penetrated the Delaware Mountain Group. A full set of open-hole wireline logs will be collected for the subject well if conditions permit, including, but not limited to, gamma-ray, resistivity, neutron-density, sonic, and image logs.

IX. Proposed Stimulation Program

Describe the proposed stimulation program, if any.

A minor acid job utilizing 15-20% hydrochloric acid may be used to cleanup the wellbore.

X. Logging and Test Data

Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

Logs will be run and submitted to the Division once the well is completed.

XI. Groundwater Wells

Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

Based on data obtained from the New Mexico Office of the State Engineer (OSE), a total of 2 groundwater wells (1 possibly active and 1 pending) are located within 1 mile of the proposed SWD location. One well was determined to be a potential sampling candidate. We are currently attempting to contact owners of water well sampling candidates to collect samples and the analyses of any collected samples will be submitted to OCD upon receipt.

Attachment 5 includes a table with details of the water wells within 1-mile and a water well map.

XII. No Hydrologic Connection Statement

Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

A geologic review conducted on offset wireline log data and published regional studies did not identify any faulting in the vicinity of the proposed locations that would allow for the hydraulic communication between the injection interval and overlying USDWs. The base of the lowermost Underground Source of Drinking Water (USDW), identified as the top of the first anhydrite, was determined to occur at the top of the Rustler formation at a depth of 898'. Water wells in the area for domestic/livestock use are drilled to a depth of approximately 135' - 203'.

An Affirmative Statement signed by a qualified individual is included as ***Attachment 6***.

XIII. Proof of Notice

Applicants must complete the "Proof of Notice" section on the reverse side of this form.

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.

A copy of the application was mailed to the Affected Persons, including the OCD District Office, surface owner, leasehold operators within the AOR, and BLM/SLO if they own minerals within the AOR. ***Attachment 7*** includes a list of the Affected Persons receiving notice of the application and the associated certified mailing receipts (green sheets).

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.

A Public Notice was published in the Hobbs NewsSun, a newspaper of general circulation in the area, and the associated affidavit is included in ***Attachment 7***.

Attachment 1

Santa Fe Main Office
Phone: (505) 476-3441 Fax: (55) 476-3462
General Information
Phone: (505) 629-6116

Online Phone Directory Visit:
https://www.emnrd.nm.gov/ocd/contact-us/

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

C-102
Revised July 9, 2024
Submit Electronically via OCD Permitting

Submittal Type: ☐ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code 96100	Pool Name SWD; DELAWARE	
Property Code	Property Name POWDERHORN SWD		Well Number #1
OGRID No. 331374	Operator Name SOLARIS WATER MIDSTREAM, LLC.		Ground Level Elevation 3375'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☐ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☐ Federal	

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	1	25-S	34-E		558 FSL	315 FEL	32.15373969° N	103.41615936° W	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code

Order Numbers.	Well setbacks are under Common Ownership: ☐Yes ☐No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☐ Horizontal ☐ Vertical	Ground Floor Elevation:

OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Nathan Alleman 11/27/2024
Signature Date

Nathan Alleman
Printed Name

nate.alleman@aceadvisors.com
Email Address

SURVEYOR CERTIFICATIONS

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Chris Carlson 9/19/2024
Signature and Seal of Professional Surveyor

CHRIS E. CARLSON NEW MEXICO 24876 PROFESSIONAL SURVEYOR

Certificate Number 24876

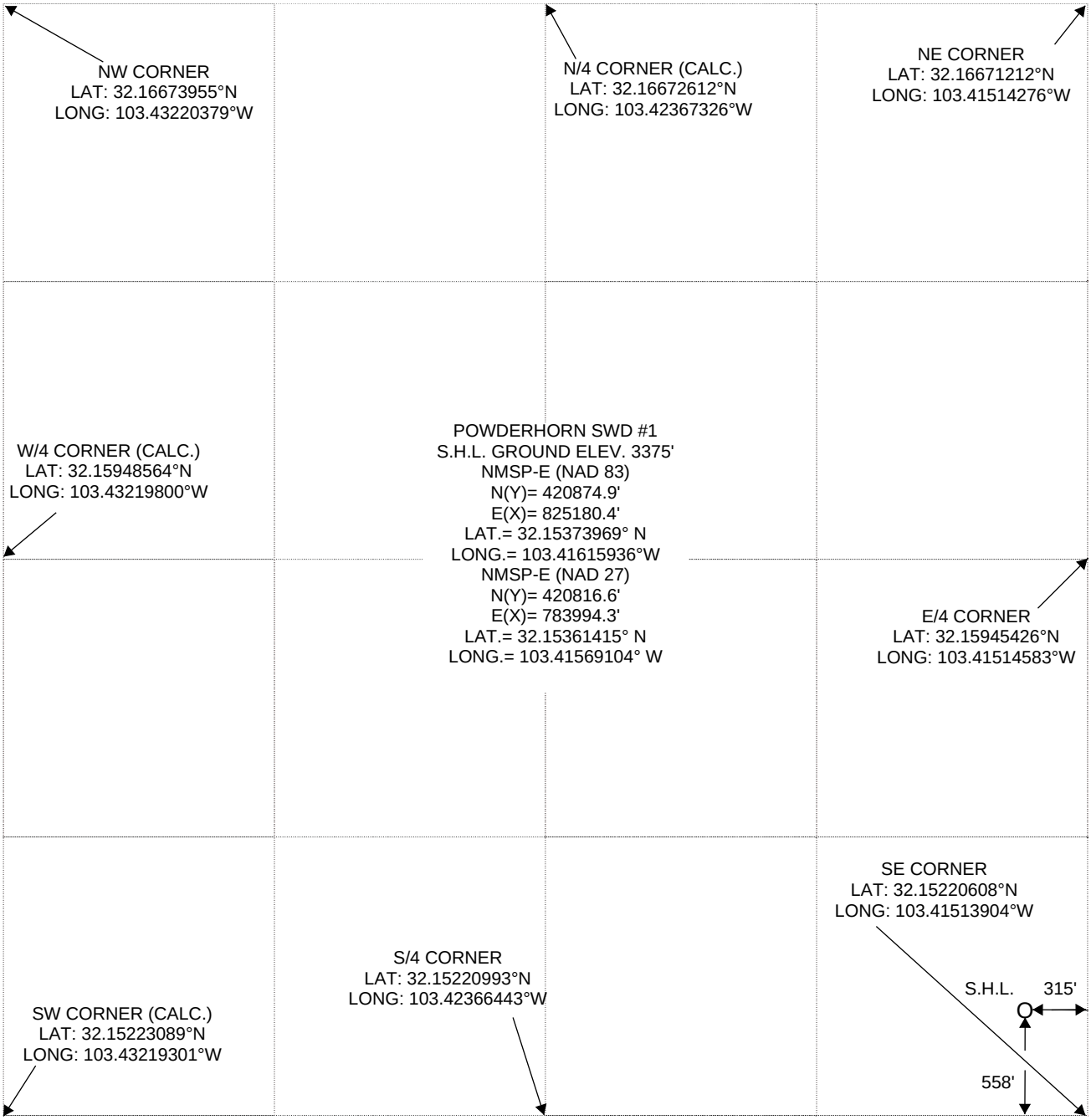
Date of Survey 9-13-2024

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

ACREAGE DEDICATION PLATS

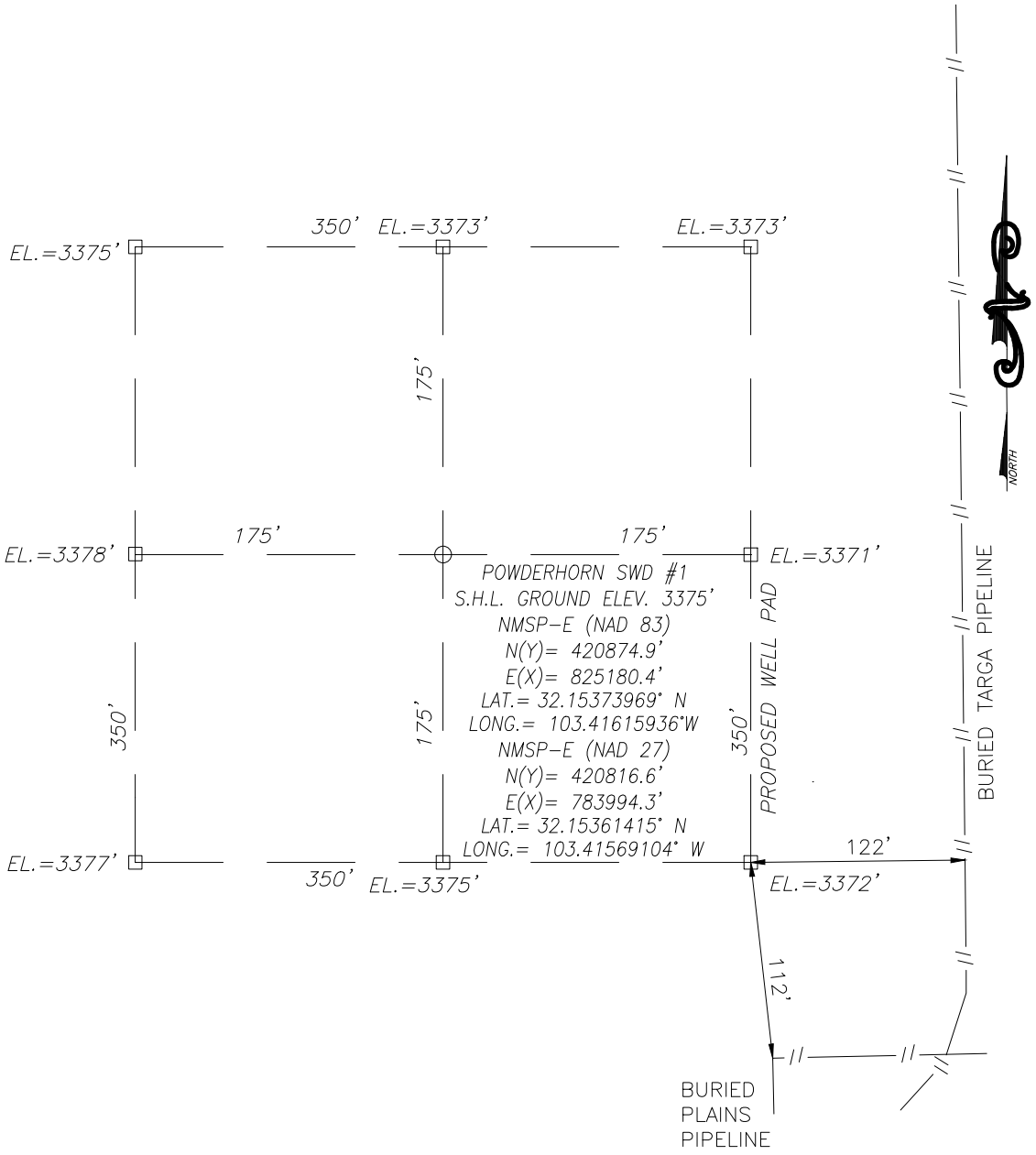
This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



SECTION 1, TOWNSHIP 25 SOUTH, RANGE 34 EAST, N.M.P.M.,

LEA COUNTY NEW MEXICO



DIRECTIONS TO LOCATION:

BEGINNING IN JAL, NEW MEXICO AT THE INTERSECTION OF ST. HWY. 18 AND STATE HWY. 128 HEAD WEST ON ST. HWY. 128 ±14.0 MILES. TURN LEFT AND HEAD SOUTH ON ACCESS ROAD ±2.3 MILES. THE WELL STAKED LOCATION FLAG IS WEST ±370 FEET.

ELEVATIONS SHOWN WERE DERIVED FROM STATIC GPS AND ARE IN N.A.V.D. 1988 DATUM.

100 0 100 200 Feet

Scale: 1"=100'

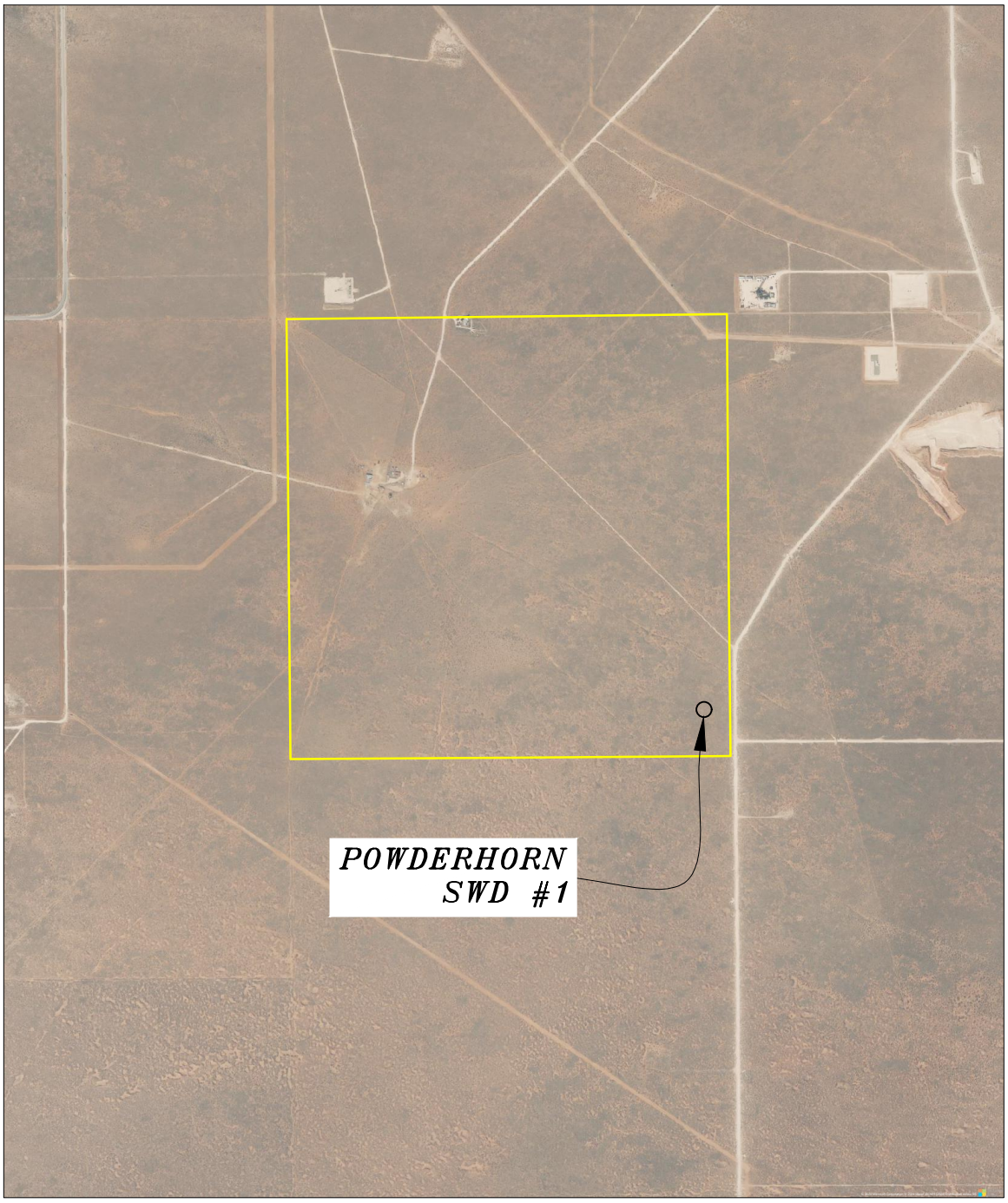
DOWNTOWN DESIGN SERVICES, INC.
16 EAST 16th STREET, SUITE 400
TULSA, OK 74119
Tel: 918-592-3374 Fax: 918-221-3940
www.ddsiglobal.com

SOLARIS WATER MIDSTREAM, LLC.

POWDERHORN SWD #1
LOCATED 558 FEET FROM THE SOUTH LINE
AND 315 FEET FROM THE EAST LINE OF SECTION 1,
TOWNSHIP 25 SOUTH, RANGE 34 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO

SURVEY DATE: SEP. 13, 2024	PAGE: 1 OF 1
DRAFTING DATE: SEP. 16, 2024	
APPROVED BY: CEC / DRAWN BY: TJA	FILE: POWDERHORN SWD #1

VICINITY MAP



NORTH

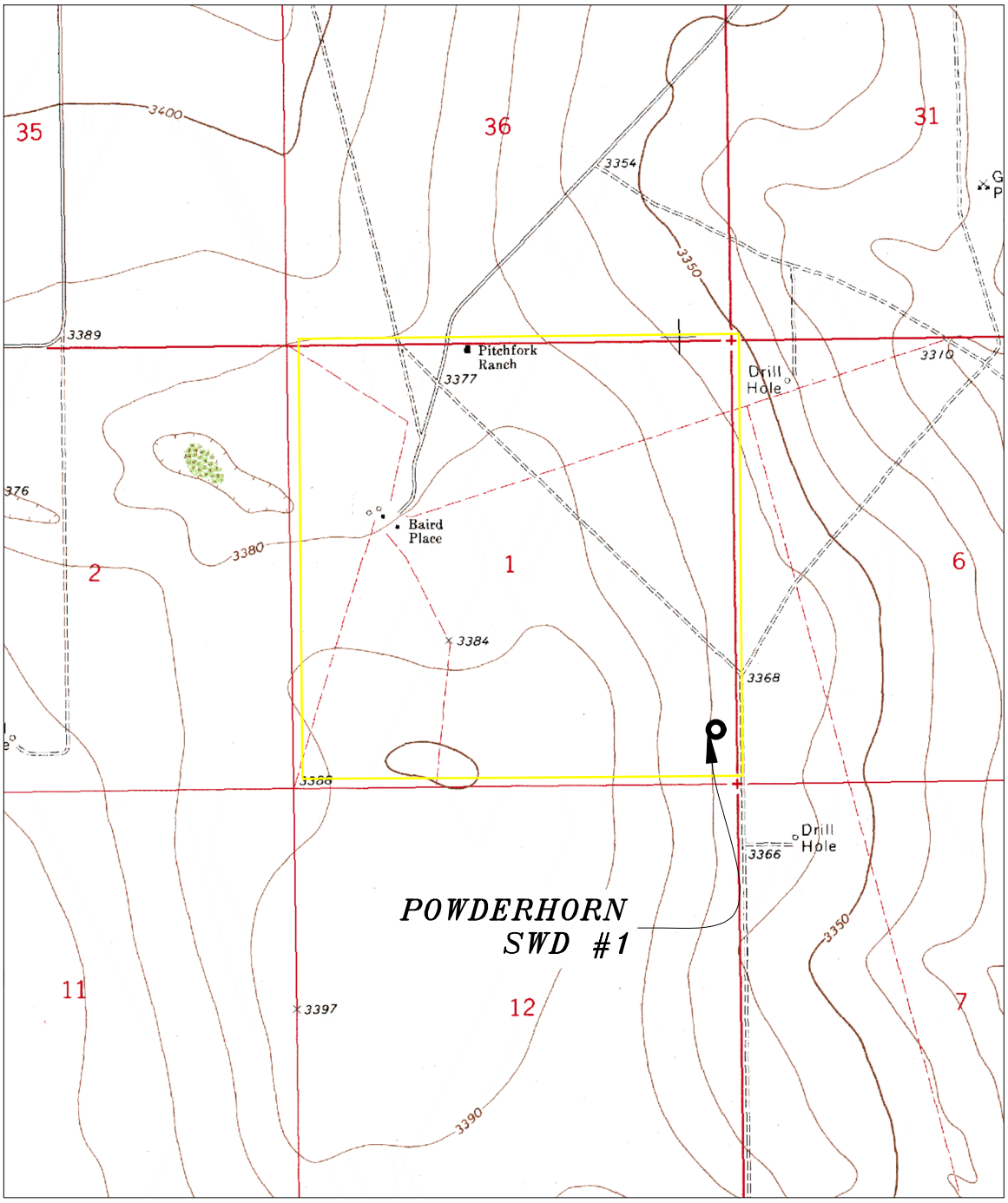
SEC. 1 TWP. 25-S RGE. 34-E
SURVEY N.M.P.M.
COUNTY LEA STATE NEW MEXICO
DESCRIPTION 558' F.S.L. & 315' F.E.L.
N.A.V.D. 88 ELEVATION 3375'
OPERATOR SOLARIS WATER MIDSTREAM, LLC.
LEASE POWDERHORN SWD #1
U.S.G.S. TOPOGRAPHIC MAP
LEA, N.M.

SCALE: 1" = 2000'

ELEVATIONS SHOWN WERE DERIVED FROM STATIC GPS AND ARE IN N.A.V.D 1988 DATUM.

SOLARIS WATER MIDSTREAM, LLC.		
SURVEY DATE: SEP. 13, 2024	PAGE: 1 OF 1	
DRAFTING DATE: SEP 16, 2024		
APPROVED BY: CEC	DRAWN BY: TJA	FILE: POWDERHORN SWD#1

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'

SEC. 1 TWP. 25-S RGE. 34-E
SURVEY N.M.P.M.
COUNTY LEA STATE NEW MEXICO
DESCRIPTION 558 F.S.L. & 315' F.E.L.
N.A.V.D. 88 ELEVATION 3375'
OPERATOR SOLARIS WATER MIDSTREAM, LLC.
LEASE POWDERHORN SWD #1
U.S.G.S. TOPOGRAPHIC MAP
LEA, N.M.

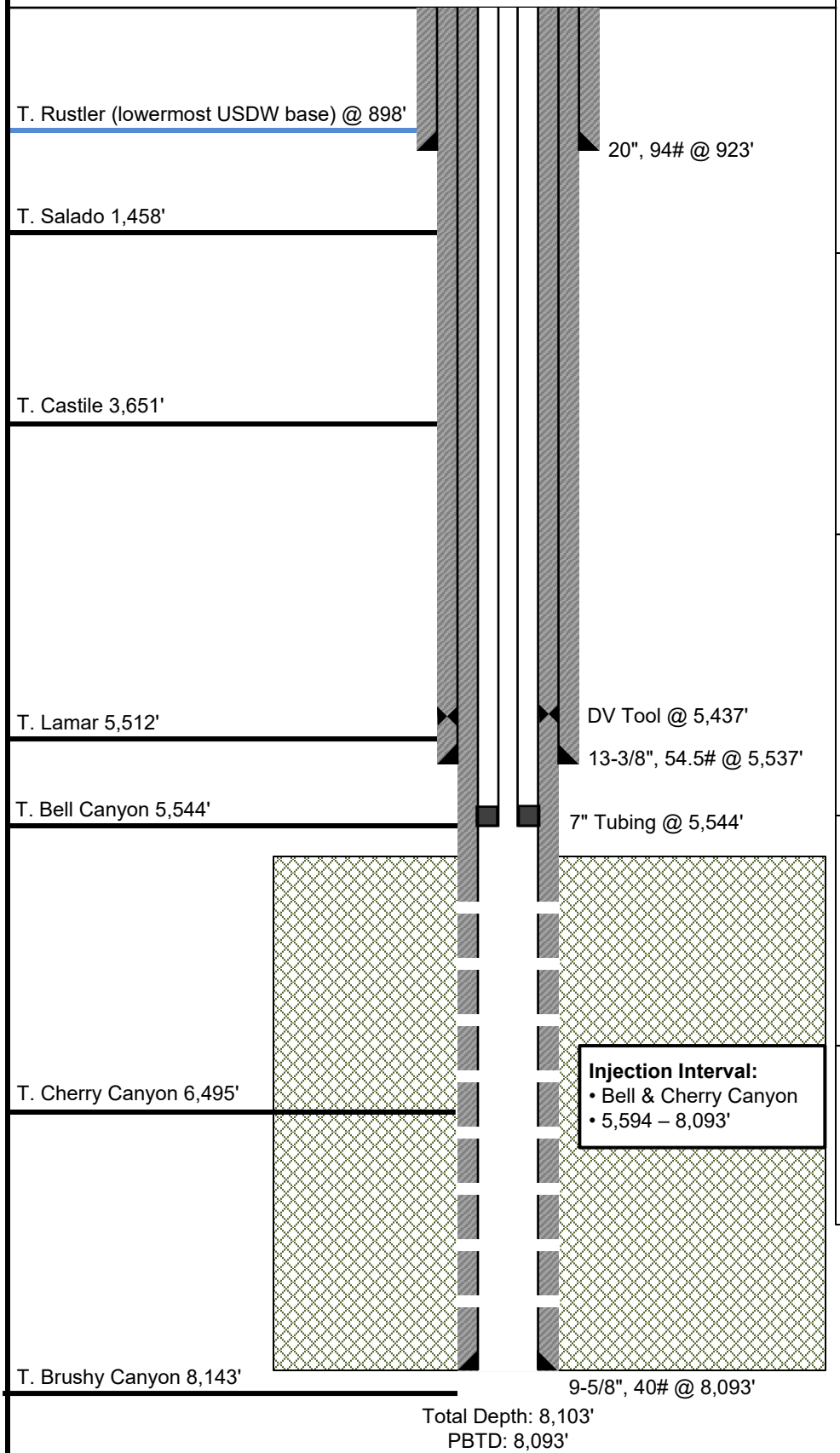
ELEVATIONS SHOWN WERE DERIVED FROM STATIC GPS AND ARE IN N.A.V.D 1988 DATUM.

SOLARIS WATER MIDSTREAM, LLC.		
SURVEY DATE: SEP. 13, 2024	PAGE: 1 OF 1	
DRAFTING DATE: SEP. 16, 2024		
APPROVED BY: CEC	DRAWN BY: TJA	FILE: POWDERHORN SWD#1

Solaris Water Midstream, LLC

Powderhorn SWD #1

Wellbore Diagram



Surface Casing

Casing Size (in):	20
Casing Weight (lb/ft):	94
Casing Depth (ft):	923
Hole Depth (ft):	933
Hole Size (in):	24
Top of Cement (ft):	0 (circulation)
Sks Cement:	915 (Class C)

Intermediate Casing

Casing Size (in):	13-3/8
Casing Weight (lb/ft):	54.5
Casing Depth (ft):	5,537
Hole Depth (ft):	5,547
Hole Size (in):	17-1/2
Top of Cement (ft):	0 (circulation)
Sks Cement:	2,445 (Class C)

Production Casing

Casing Size (in):	9-5/8
Casing Weight (lb/ft):	40
Casing Depth (ft):	8,093
Hole Depth (ft):	8,103
Hole Size (in):	12-1/4
Top of Cement (ft):	0 (circulation)
Sks Cement:	1.580 (Class C & HSLD)

Tubing

Tubing Size (in):	7
Tubing Weight (lb/ft):	26
Tubing Depth (ft):	5,544
Packer Type:	Arrowset AS-1X Retrievable
Packer Depth (ft):	5,544

Injection Interval

Formations:	Bell & Cherry Canyon
Top (ft):	5,594
Bottom (ft):	8,093
Cased or Open-Hole:	Cased

Note: Listed depths and cement volumes are approximates based on available information.

NOT TO SCALE

Weatherford®

Packer Systems

Arrowset I-X, I-X 10K, and I-X HP Mechanical Packers

Weatherford's Arrowset I-X, I-X 10K, and I-X HP mechanical packers are versatile, field-proven retrievable double-grip packers for most production, stimulation, and injection. The packers can be set with tension or compression.

A large internal bypass reduces the swabbing effect during run-in and retrieval and closes securely when the packer is set. During release, the bypass is opened to equalize the pressure before the upper slips are released. A patented upper-slip releasing system reduces the force required to release the packer. A nondirectional slip is released first, making it easier to release the other slips.

The I-X 10K packer has all the features of the I-X packer and can withstand 10,000 psi (69 MPa) of differential pressure above or below. The I-X HP packer can withstand 7,500 psi (52 MPa) of differential pressure above or below.

Applications

- Production
- Pumping
- Injection
- Fiberglass tubing
- Zonal isolation

Features, Advantages and Benefits

- The design holds high differential pressure from above or below, enabling the packer to meet most production, stimulation, and injection needs.
- The packer can be set with compression, tension, or wireline, enabling deployment in shallow and deep applications.
- The packer can be set and released with only a one-quarter turn of the tubing.
- The bypass valve is below the upper slips so that debris is washed from the slips when the valve is opened, reducing the times for circulation and total retrieval.
- The full opening enables unrestricted flow and the passage of wireline tools and other packer systems.
- The packer can be run with Weatherford's T-2 on-off tool, which enables the tubing to be disconnected and retrieved without retrieving the packer.

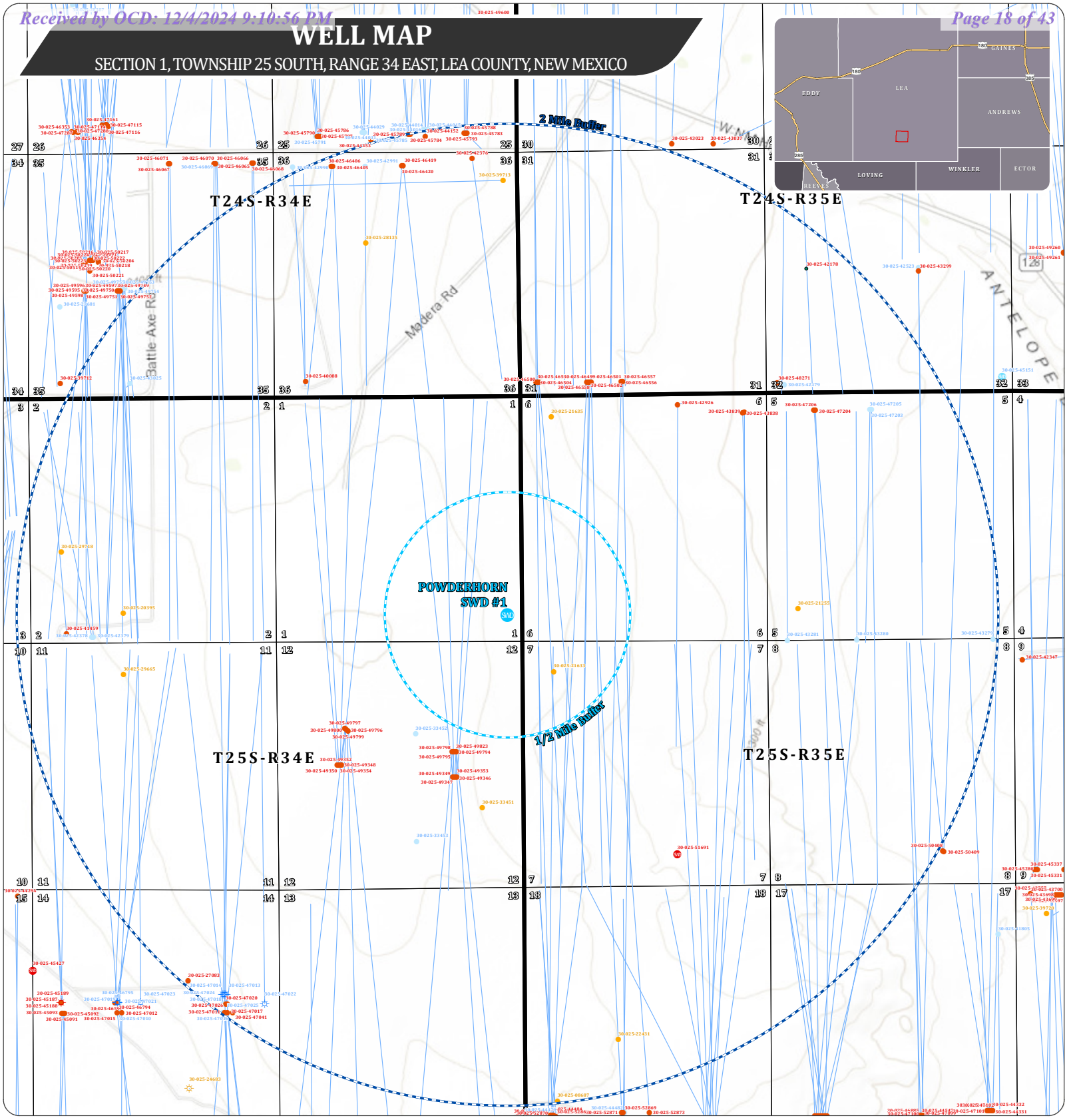
Weatherford International Ltd.
515 Post Oak Blvd., Suite 600
Houston, Texas 77027 USA
Tel. 713-693-4000
weatherford.com

 2556.00

Attachment 2

WELL MAP

SECTION 1, TOWNSHIP 25 SOUTH, RANGE 34 EAST, LEA COUNTY, NEW MEXICO



1:33,000	0	2,000	4,000	6,000 Feet

Project Managed By:
ACE Energy Advisors
(918) 237-0559
nate.alleman@aceadvisors.com

Map Prepared By:
COOSA CONSULTING
(432) 631-4738
info@coosaconsulting.com

Coordinate System:
NAD 1983 StatePlane New Mexico East FIPS 3001 Feet
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 541,337.5000
False Northing: 0.0000
Central Meridian: -104.3333
Scale Factor: 0.9999
Latitude Of Origin: 31.0000
Units: Foot US

Rev: 0

Legend

- Proposed SWD
- 1/2 Well Buffer
- 2 Mile Buffer
- Gas, Active
- Gas, Cancelled
- Gas, Plugged
- Gas, Temporary Abandonment
- Injection, Active
- Injection, Plugged
- Injection, Temporary Abandonment (expired)
- Oil, Active
- Oil, Cancelled
- Oil, Plugged
- Oil, Temporary Abandonment
- Oil, Zone Plugged (permanent)
- Salt Water Disposal, Active
- Salt Water Disposal, Cancelled
- Salt Water Disposal, Plugged
- Water, Active
- Water, Plugged

POWDERHORN SWD #1

OPERATOR:
SOLARIS WATER MIDSTREAM, LLC.

SOLARIS WATER MIDSTREAM

0.5-mile Well List (Top of Injection Interval: 5,594')								
Well Name	API#	Well Type	Operator	Status	Spud Date	Location (Sec., Tn., Rng.)	Total Vertical Depth (feet)	Penetrate Inj. Zone?
PRE-ONGARD WELL #001	30-025-21633	Oil	PRE-ONGARD WELL OPERATOR	Plugged	2/17/1966	D-07-25S-35E	5,664	Yes

Notes:
- One (1) plugged well penetrates the injection interval within the AOR.
*- ** Operator of active, drilled well within AOR and will receive notification of this application.*

Wells w/ Surface Location Outside the 0.5-mile AOR						
Well Name	API#	Well Type	Operator	Field	Status	TVD
BIGGERS FEDERAL COM - 222H	30-025-52873	OIL	Matador Resources	WILDCAT-025 G-09 S243532M; Wolfbone	Permitted	0
BIGGERS FEDERAL COM - 221H	30-025-52872	OIL	Matador Resources	WILDCAT-025 G-09 S243532M; Wolfbone	Permitted	13,085
BIGGERS FEDERAL COM - 122H	30-025-52871	OIL	Matador Resources**	WILDCAT-025 G-08 S253534O; Bone Spring	Completed	11,148
BIGGERS FEDERAL COM - 121H	30-025-52870	OIL	Matador Resources**	WILDCAT-025 G-08 S253534O; Bone Spring	DUC	11,153
BIGGERS FEDERAL COM - 111H	30-025-52868	OIL	Matador Resources**	WILDCAT-025 G-08 S253534O; Bone Spring	DUC	10,651
GREEN EYESHADE FEDERAL COM -- 602H	30-025-49347	OIL	ConocoPhillips**	WILDCAT-025 G-09 S243532M; Wolfbone	Active	12,686
GREEN EYESHADE FEDERAL COM -- 702H	30-025-49349	OIL	ConocoPhillips**	WILDCAT-025 G-09 S243532M; Wolfbone	Active	12,969
GREEN EYESHADE FEDERAL COM -- 601H	30-025-49346	OIL	ConocoPhillips**	WILDCAT-025 G-09 S243532M; Wolfbone	Active	12,636
GREEN EYESHADE FEDERAL COM -- 701H	30-025-49353	OIL	ConocoPhillips	WILDCAT-025 G-09 S243532M; Wolfbone	Expired Permit	12,936
STOVE PIPE FEDERAL COM - 707H	30-025-46504	OIL	ConocoPhillips**	WILDCAT-025 G-09 S243532M; Wolfbone	Inactive	12,894
STOVE PIPE FEDERAL COM - 706H	30-025-46503	OIL	ConocoPhillips**	WILDCAT-025 G-09 S243532M; Wolfbone	Active	12,635
STOVE PIPE FEDERAL COM - 601H	30-025-46556	OIL	ConocoPhillips**	WILDCAT-025 G-09 S243532M; Wolfbone	Active	12,617
STOVE PIPE FEDERAL COM - 702H	30-025-46557	OIL	ConocoPhillips**	WILDCAT-025 G-09 S243532M; Wolfbone	Active	12,859
STOVE PIPE FEDERAL COM - 705H	30-025-46502	OIL	ConocoPhillips	WILDCAT-025 G-09 S243532M; Wolfbone	Expired Permit	12,789
STOVE PIPE FEDERAL COM - 703H	30-025-46558	OIL	ConocoPhillips	WILDCAT-025 G-09 S243532M; Wolfbone	Expired Permit	N/A
STOVE PIPE FEDERAL COM - 704H	30-025-46501	OIL	ConocoPhillips	WILDCAT-025 G-09 S243532M; Wolfbone	Expired Permit	12,939
STOVE PIPE FEDERAL COM - 602H	30-025-46499	OIL	ConocoPhillips	WILDCAT-025 G-09 S243532M; Wolfbone	Expired Permit	12,615
STOVE PIPE FEDERAL COM - 603H	30-025-46501	OIL	ConocoPhillips**	WILDCAT-025 G-09 S243532M; Wolfbone	Active	12,915

Notes:
- Eleven (11) drilled, horizontal wellbores intersect the AOR radius but do not penetrate the injection interval within the AOR.
*- ** Operator of active, drilled well within AOR and will receive notification of this application.*

Penetrating Well Casing and Cement Details								
Well Name	API#	Type	Hole	Size	Depth	Sacks	TOC	Method
PRE-ONGARD WELL #001	30-025-21633	Surface	11"	8-5/8"	368'	175	Surface	Circulated

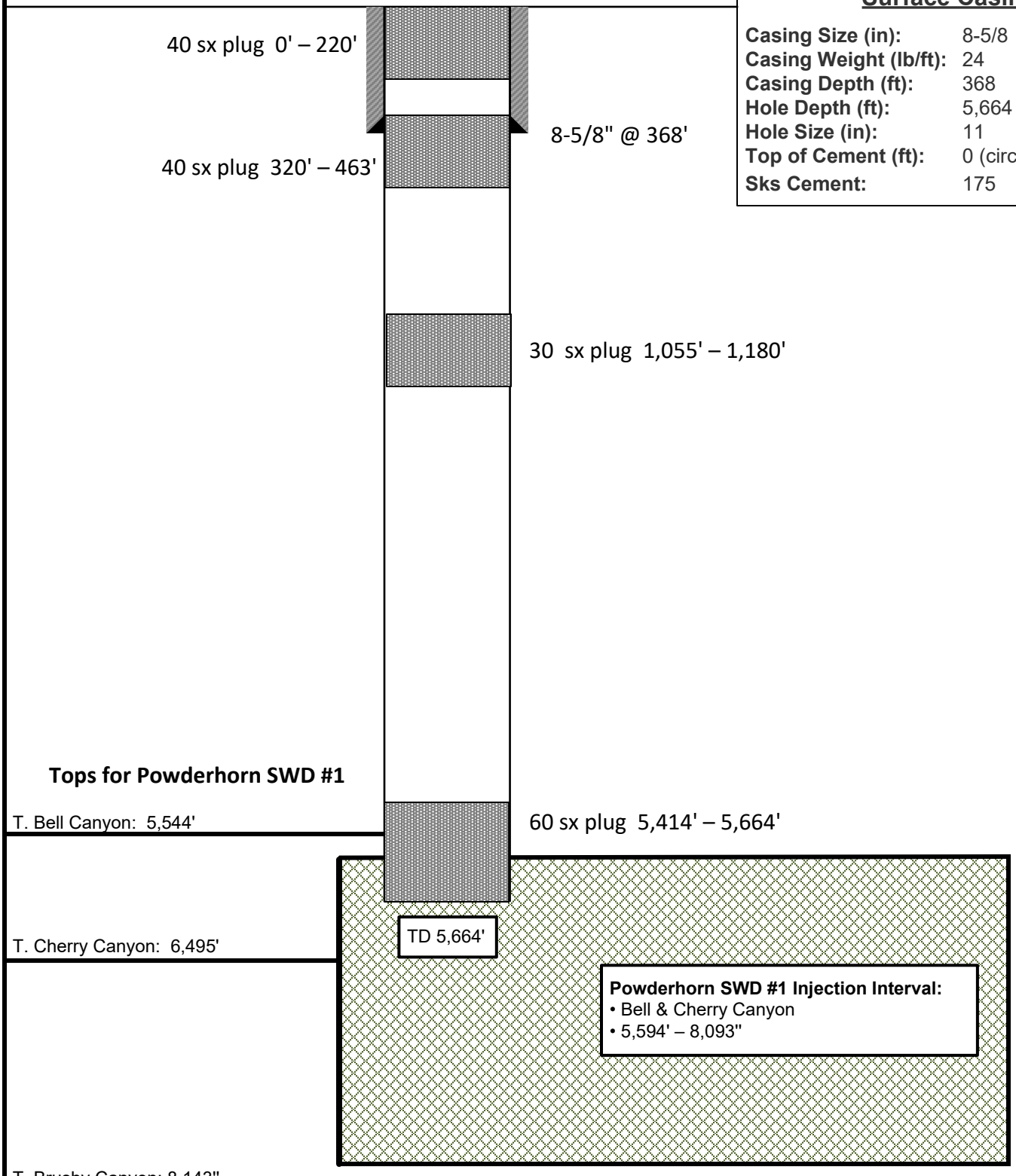
Plugged Penetrating Wells			
API#	Perfs	Casing Pulled	Plugs
30-025-21633	OH 368' - 5,664'	None	60 sx plug 5,414' - 5,664'
			30 sx plug 1,055' - 1,180'
			40 sx plug 320' - 463'
			65 sx plug 0' - 220'

30-025-21633

Wellbore Diagram

Surface Casing

Casing Size (in):	8-5/8
Casing Weight (lb/ft):	24
Casing Depth (ft):	368
Hole Depth (ft):	5,664
Hole Size (in):	11
Top of Cement (ft):	0 (circulation)
Sks Cement:	175



Note: Listed depths and cement volumes are approximates based on available information.

NOT TO SCALE

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
HOBBS OFFICE GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: NM-07054

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL [X] GAS WELL [ ] OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: Gulf Oil Corporation

8. FARM OR LEASE NAME: Mounsey "A" Federal

3. ADDRESS OF OPERATOR: P. O. Box 980, Kermit, Texas

9. WELL NO.: 1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 660 feet from North & West Lines

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 7, T-25S, R-35E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 3363.7 GR

12. COUNTY OR PARISH: Lea

13. STATE: N. Mex.

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[X]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			
(Other)							

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Abbott Brothers cable tools spudded 8" surface hole @ 12:30 P. M. 2-17-66 and reamed 12½" hole to 85'. 2-20-66, moved out cable tools and rigged up Highland Drilling Company rotary rig and drilled 11" hole to 390'. Ran 11 jts. (355') of 8-5/8" 24# J-55 casing set @ 368', and cemented with 175 sacks regular neat cement with 2% $CaCl_2$. Circulated approximately 5 sacks. Plug down @ 6:00 A. M. 2-21. WOC. NU and tested to 1000# for 30 minutes. No drop in pressure. Drilling ahead.

18. I hereby certify that the foregoing is true and correct

SIGNED ORIGINAL SIGNED BY H. F. SWANNACK TITLE Area Production Manager DATE 2-22-66

H. F. Swannack

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

FEB 25 1966

*See Instructions on Reverse Side

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE (Other instructions reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

JUL 5 11 27 AM '66

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Gulf Oil Corporation

3. ADDRESS OF OPERATOR: P. O. Box 980, Hobbs, New Mexico

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 660 feet from North & West Lines

5. LEASE DESIGNATION AND SERIAL NO.: NM-07954

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Mamsey "A" Federal

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 7, T-25S, R-37E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 3363.7 GR

12. COUNTY OR PARISH: Lea

13. STATE: New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[X]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

Well was completed dry at a total depth of 5664' at 2:15 P. M., March 1, 1966. Ran drill pipe open ended and spotted 60 sacks cement from 5664' to 5414'; mud to 1180'; 30 sacks cement 1055'; mud to 463'; 40 sacks cement 320'; mud to 25'; 10 sacks cement to surface, leaving 355' of 8-5/8" casing in hole. Installed well marker.

Location is cleaned up and ready for inspection.

18. I hereby certify that the foregoing is true and correct

SIGNED ORIGINAL SIGNED BY H. F. SWANNACK TITLE Area Production Manager DATE May 25, 1966

H. F. Swannack

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED

JUL 1 1966

J. L. GORDON
ACTING DISTRICT ENGINEER

*See Instructions on Reverse Side

COPY TO O. C. C.

30-025-21633

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: NM-07054

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL [X] GAS WELL [ ] OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: Gulf Oil Corporation

8. FARM OR LEASE NAME: Mounsey "A" Federal

3. ADDRESS OF OPERATOR: Box 670, Hobbs, N.M. 88240

9. WELL NO.: 1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 660' FNL & 660' FWL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 7-25S-35E

14. PERMIT NO.: 30-025-21633

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 3347.1' GL

12. COUNTY OR PARISH: Lea

13. STATE: N.M.

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Replug previously abandoned well			
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Went in hole with 2-3/8" tubing to 220'. Pumped 65 sacks 2% CaCl2 cement plug back to surface. Installed dry hole marker. Replugging operations started and completed December 7, 1978.

Will advise when location is ready for inspection.

RECEIVED
DEC 12 1978
U. S. GEOLOGICAL SURVEY
HOBBS, NEW MEXICO

18. I hereby certify that the foregoing is true and correct

SIGNED N. B. Sikes, Jr. TITLE Area Engineer DATE 12-11-78

(This space for Federal or State office use)

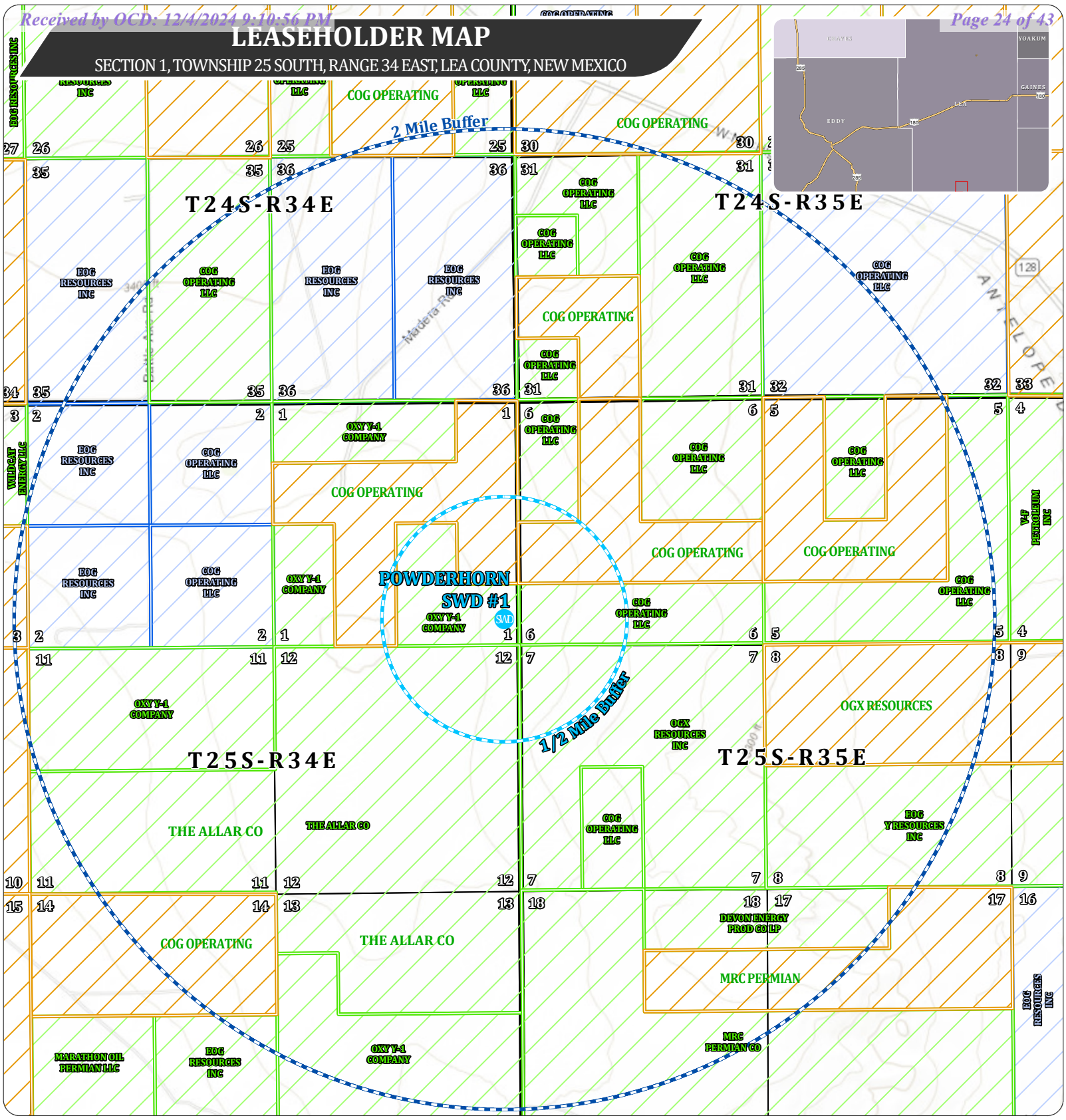
APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

LEASEHOLDER MAP

SECTION 1, TOWNSHIP 25 SOUTH, RANGE 34 EAST, LEA COUNTY, NEW MEXICO



1:33,000

0 2,000 4,000 6,000 Feet

Legend

- Proposed SWD
- 1/2 Mile Buffer
- 2 Mile Buffer
- BLM Mineral Leases
- NMSLO Mineral
- Private Mineral

POWDERHORN SWD #1

OPERATOR:
SOLARIS WATER MIDSTREAM, LLC.

Project Managed By:
ACE Energy Advisors
(918) 237-0559
nate.alleman@aceadvisors.com

Map Prepared By:
COOSA CONSULTING
(432) 631-4738
info@coosaconsulting.com

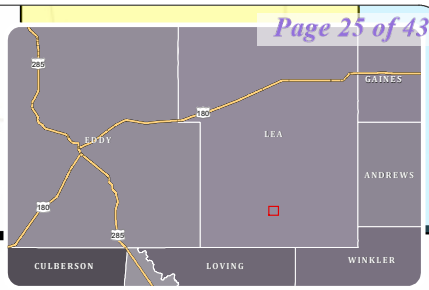
Coordinate System:
NAD 1983 StatePlane New Mexico East FIPS 3001 Feet
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 541,337.5000
False Northing: 0.0000
Central Meridian: -104.3333
Scale Factor: 0.9999
Latitude Of Origin: 31.0000
Units: Foot US

Released to Imaging: 12/29/2024 12:37:33 PM

Rev: 0

SURFACE OWNERSHIP MAP

SECTION 1, TOWNSHIP 25 SOUTH, RANGE 34 EAST, LEA COUNTY, NEW MEXICO



T24

POWDERHORN SWD #1

1/2 Mile Buffer

T25S-R34E

T25S-R35E

3395 ft

1:18,000	0	1,000	2,000	3,000 Feet

Project Managed By:
ACE Energy Advisors
(918) 237-0559
nate.alleman@aceadvisors.com

Map Prepared By:
COOSA CONSULTING
(432) 631-4738
info@coosaconsulting.com

Coordinate System:
NAD 1983 StatePlane New Mexico East FIPS 3001 Feet
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 541,337.5000
False Northing: 0.0000
Central Meridian: -104.3333
Scale Factor: 0.9999
Latitude Of Origin: 31.0000
Units: Foot US

Legend

- Proposed SWD
- 1/2 Mile Buffer
- Federal Land
- State of NM Land
- Private Land

POWDERHORN SWD #1

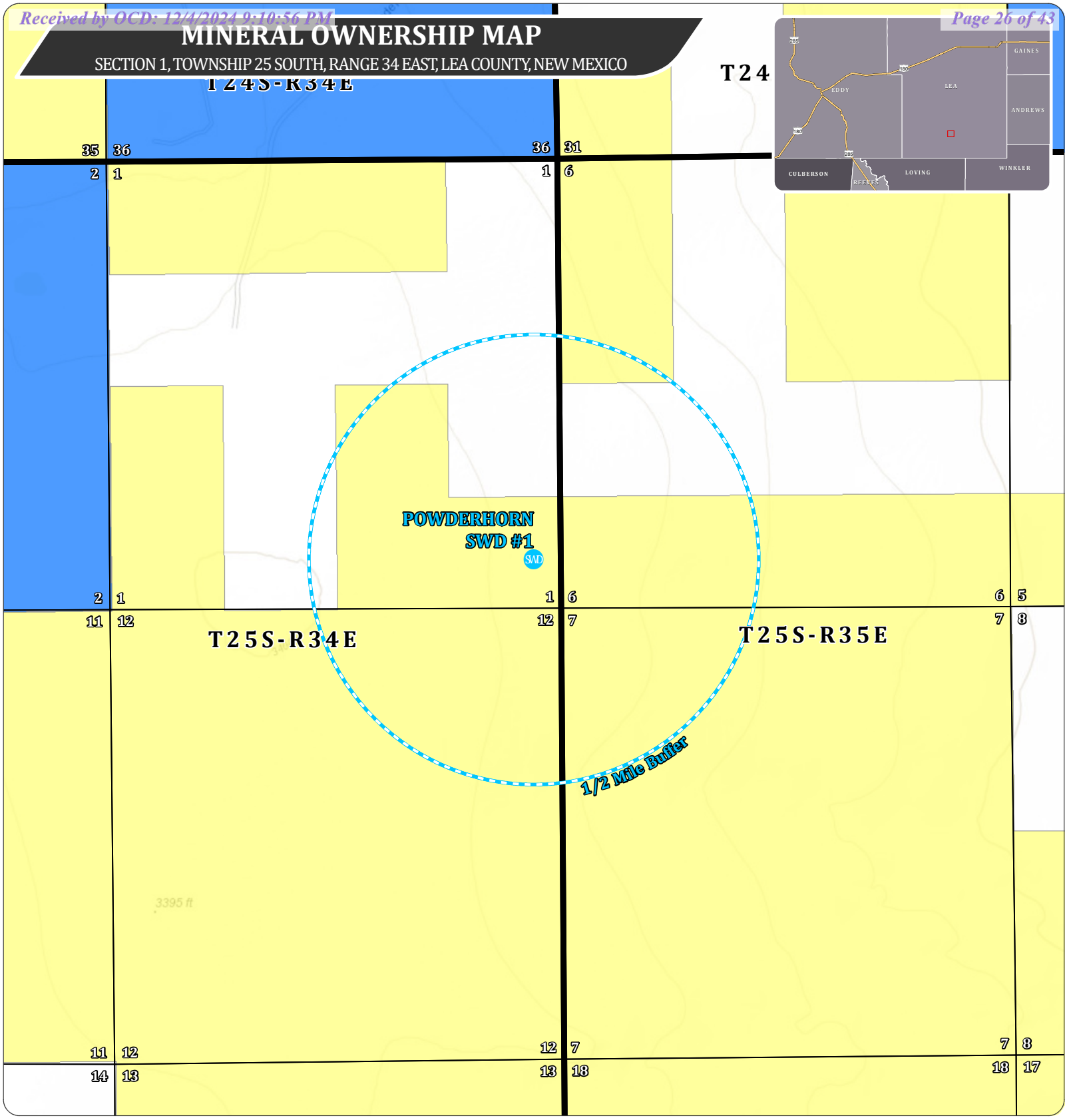
OPERATOR:
SOLARIS WATER MIDSTREAM, LLC.

SOLARIS WATER MIDSTREAM

Rev: 0

MINERAL OWNERSHIP MAP

SECTION 1, TOWNSHIP 25 SOUTH, RANGE 34 EAST, LEA COUNTY, NEW MEXICO



1:18,000

0 1,000 2,000 3,000 Feet

Project Managed By:
ACE Energy Advisors
(918) 237-0559
nate.alleman@aceadvisors.com

Map Prepared By:
COOSA CONSULTING
(432) 631-4738
info@coosaconsulting.com

Coordinate System:
NAD 1983 StatePlane New Mexico East FIPS 3001 Feet
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 541,337.5000
False Northing: 0.0000
Central Meridian: -104.3333
Scale Factor: 0.9999
Latitude Of Origin: 31.0000
Units: Foot US

Released to Imaging: 12/29/2024 12:37:33 PM Rev: 0

Legend

- Proposed SWD
- 1/2 Mile Buffer
- Subsurface minerals (NMSLO)
- All minerals are owned by U.S. (BLM)
- Private minerals

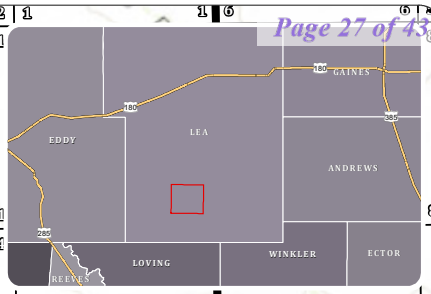
POWDERHORN SWD #1

OPERATOR:
SOLARIS WATER MIDSTREAM, LLC.

SOLARIS® WATER MIDSTREAM

DMG SWD & AGI MAP

SECTION 1, TOWNSHIP 25 SOUTH, RANGE 34 EAST, LEA COUNTY, NEW MEXICO



RED HILLS
AGI #003
30-025-51970

BEAZA SWD #001
30-025-49600

39684'

12803'

POWDERHORN
SWD #1

T24S-R33E

T24S-R34E

T24S-R35E

T25S-R33E

T25S-R34E

T25S-R35E

WOODLEY FLAT

Vaca Ln

Madera Rd

1:60,000

0 4,000 8,000 12,000 Feet

Project Managed By:
ACE Energy Advisors
(918) 237-0559
nate.alleman@aceadvisors.com

Map Prepared By:
COOSA CONSULTING
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info@coosaconsulting.com

Coordinate System:
NAD 1983 StatePlane New Mexico East FIPS 3001 Feet
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 541,337.5000
False Northing: 0.0000
Central Meridian: -104.3333
Scale Factor: 0.9999
Latitude Of Origin: 31.0000
Units: Foot US

Legend

- Proposed SWD
- DMG SWD
- DMG AGI

POWDERHORN SWD #1

OPERATOR:
SOLARIS WATER MIDSTREAM, LLC.

SOLARIS WATER MIDSTREAM

Rev: 0

Attachment 3

Source Formation Water Analysis

Well Name	API	Latitude	Longitude	Section	Township	Range	Unit	Ftgns	Ftgew	County	State	Formation	Sampled	PH	TDS (Mg/L)	Sodium (Mg/L)	Calcium (MG/L)	Iron (MG/L)	Magnesium (MG/L)	Chloride (MG/L)	Bicarbonate (MG/L)	Sulfate (MG/L)
BELL LAKE 19 STATE #002H	30-025-41515	32.1964722	-103.609108	19	24S	33E	O	200S	1920E	Lea	NM	BONE SPRING 2ND SAND	2015	6.2		47148	6419	15	854	86572	232	670
BELL LAKE 19 STATE #004H	30-025-41517	32.1964722	-103.6087875	19	24S	33E	O	200S	1820E	Lea	NM	BONE SPRING 2ND SAND	2015	6.3		47537	6950	11	886	88389	171	650
BELL LAKE 19 STATE #001H	30-025-41024	32.1964722	-103.6176224	19	24S	33E	M	200S	700W	Lea	NM	BONE SPRING 2ND SAND		7		60725	8703	52	1020	113193	145	700
BELL LAKE 19 STATE #004H	30-025-41517	32.1964722	-103.6087875	19	24S	33E	O	200S	1820E	Lea	NM	BONE SPRING 2ND SAND	2015	6.3		76378	6238	11	834	131397	159	670
BELL LAKE 19 STATE #003H	30-025-41516	32.1964722	-103.6089478	19	24S	33E	O	200S	1870E	Lea	NM	BONE SPRING 2ND SAND	2015	6.7		59599	7326	11	942	108190	171	680
BELL LAKE 19 STATE #001H	30-025-41024	32.1964722	-103.6176224	19	24S	33E	M	200S	700W	Lea	NM	BONE SPRING 2ND SAND	2015	6.2		47047	11772	39	1452	98637	98	680
BELL LAKE 19 STATE #002H	30-025-41515	32.1964722	-103.609108	19	24S	33E	O	200S	1920E	Lea	NM	BONE SPRING 2ND SAND	2015	6.3		46235	9427	14	1212	92405	207	740
BELL LAKE 19 STATE #003H	30-025-41516	32.1964722	-103.6089478	19	24S	33E	O	200S	1870E	Lea	NM	BONE SPRING 2ND SAND	2015	6.3		44784	10098	21	1248	91618	146	690
BELL LAKE 19 STATE #004H	30-025-41517	32.1964722	-103.6087875	19	24S	33E	O	200S	1820E	Lea	NM	BONE SPRING 2ND SAND	2015	6.3		55502	11149	25	1361	110592	146	630
BELL LAKE 19 STATE #001H	30-025-41024	32.1964722	-103.6176224	19	24S	33E	M	200S	700W	Lea	NM	BONE SPRING 2ND SAND	2014	6.5	157801	53081	7589	36	882	93442	122	903
BELL LAKE 19 STATE #002H	30-025-41515	32.1964722	-103.609108	19	24S	33E	O	200S	1920E	Lea	NM	BONE SPRING 2ND SAND	2015	6.4		44270	6421	18	730	81981	73	580
BELL LAKE 19 STATE #004H	30-025-41517	32.1964722	-103.6087875	19	24S	33E	O	200S	1820E	Lea	NM	BONE SPRING 2ND SAND	2015	6.2		43120	4938	26	585	77034	134	760
BELL LAKE 19 STATE #001H	30-025-41024	32.1964722	-103.6176224	19	24S	33E	M	200S	700W	Lea	NM	BONE SPRING 2ND SAND	2015	6.7		47763	10366	59	1527	96000	159	638
BELL LAKE 19 STATE #002H	30-025-41515	32.1964722	-103.609108	19	24S	33E	O	200S	1920E	Lea	NM	BONE SPRING 2ND SAND	2015	6.8		47629	8214	18	1182	91000	220	550
BELL LAKE 19 STATE #004H	30-025-41517	32.1964722	-103.6087875	19	24S	33E	O	200S	1820E	Lea	NM	BONE SPRING 2ND SAND	2015	6.7		41736	10300	79	1689	87000	220	658
BELL LAKE 19 STATE #003H	30-025-41516	32.1964722	-103.6089478	19	24S	33E	O	200S	1870E	Lea	NM	BONE SPRING 2ND SAND	2015	6.7		45768	8523	25	1237	89000	195	349
BELL LAKE 19 STATE #001H	30-025-41024	32.1964722	-103.6176224	19	24S	33E	M	200S	700W	Lea	NM	BONE SPRING 2ND SAND	2015	6.77	134649.2	44573	6215	38	759	81682	244	765
BELL LAKE 19 STATE #002H	30-025-41515	32.1964722	-103.609108	19	24S	33E	O	200S	1920E	Lea	NM	BONE SPRING 2ND SAND	2015	7.01	128413.3	44428	4207	42	706	77483	366	910
BELL LAKE 19 STATE #003H	30-025-41516	32.1964722	-103.6089478	19	24S	33E	O	200S	1870E	Lea	NM	BONE SPRING 2ND SAND	2015	6.67	138617.2	46648	5778	41	732	84081	244	710
BELL LAKE 19 STATE #004H	30-025-41517	32.1964722	-103.6087875	19	24S	33E	O	200S	1820E	Lea	NM	BONE SPRING 2ND SAND	2015	6.68	133460.5	44483	5917	31	718	80982	244	675
SALADO DRAW 6 FEDERAL #001H	30-025-41293	32.0657196	-103.5146942	06	26S	34E	M	200S	875W	Lea	NM	BONE SPRING 3RD SAND	2014	6.6	99401.9	34493	3295	0	397	59987	110	710
SALADO DRAW 6 FEDERAL #001H	30-025-41293	32.0657196	-103.5146942	06	26S	34E	M	200S	875W	Lea	NM	BONE SPRING 3RD SAND	2014	6.5	99612.7	34587	3244	10	418	59987	159	820
SALADO DRAW 6 FEDERAL #001H	30-025-41293	32.0657196	-103.5146942	06	26S	34E	M	200S	875W	Lea	NM	BONE SPRING 3RD SAND	2014	6.7	95604	31066	3196	10	394	59071	183	0
SALADO DRAW 6 FEDERAL #001H	30-025-41293	32.0657196	-103.5146942	06	26S	34E	M	200S	875W	Lea	NM	BONE SPRING 3RD SAND	2014	7			3289	0	475		220	
SALADO DRAW 6 FEDERAL #001H	30-025-41293	32.0657196	-103.5146942	06	26S	34E	M	200S	875W	Lea	NM	BONE SPRING 3RD SAND	2014	7	98321.4	33892	3267	10	535	59387	220	635
SNAPPING 2 STATE #014H	3001542688	32.0655599	-103.7413815	02	26S	31E	P	250S	330E	EDDY	NM	WOLFCAMP	2015	7.3	81366	26319	2687	26	327	50281		400
BELLOQ 2 STATE #002H	3001542895	32.3400704	-103.7515914	02	23S	31E	C	200N	1720W	EDDY	NM	WOLFCAMP	2015	6.8	119472	37359	5659	22	746	73173		1036
SINCLAIR STATE #002	3002503123	32.7386246	-103.4561005	21	18S	35E	A	660N	660E	LEA	NM	WOLFCAMP	1960	7.1	60950					33568	1087	3049
MAHUN STATE #001	3001520138	32.3933983	-104.7103424	16	22S	22E	F	1800N	1980W	EDDY	NM	WOLFCAMP	1968	8.6	35495					19000	830	2500
MAHUN STATE #001	3001520138	32.3933983	-104.7103424	16	22S	22E	F	1800N	1980W	EDDY	NM	WOLFCAMP	1968	8	4568					426	695	2100

Attachment 4

Injection Formation Water Analysis																		
Well Name	API	Latitude	Longitude	Section	Township	Range	Unit	Ftgns	Ftgew	County	State	Formation	Sampled	PH	TDS (Mg/L)	Chloride (MG/L)	Bicarbonate (MG/L)	Sulfate (MG/L)
BELL LAKE UNIT A #007	30-025-08367	32.252037	-103.5196075	01	24S	33E	A	660N	660E	LEA	NM	DELAWARE			87686	53920	391	749
NORTH EL MAR UNIT #017	30-025-08430	32.0166054	-103.617691	30	26S	33E	E	1880N	660W	LEA	NM	DELAWARE			254756	159400	80	210
NORTH EL MAR UNIT #057	30-025-08440	32.0019455	-103.6131134	31	26S	33E	F	1935N	2090W	LEA	NM	DELAWARE			259554	163000	61	253
GOEDEKE #002	30-025-08407	32.0597992	-103.5579987	10	26S	33E	G	1980N	1980E	LEA	NM	DELAWARE			293925	184000	85	210
NORTH EL MAR UNIT #017	30-025-08430	32.0166054	-103.617691	30	26S	33E	E	1880N	660W	LEA	NM	DELAWARE			254756	159400	80	210
NORTH EL MAR UNIT #057	30-025-08440	32.0019455	-103.6131134	31	26S	33E	F	1935N	2090W	LEA	NM	DELAWARE			259554	163000	61	253
GOEDEKE #002	30-025-08407	32.0597992	-103.5579987	10	26S	33E	G	1980N	1980E	LEA	NM	DELAWARE			293925	184000	85	210
NORTH EL MAR UNIT #022	30-025-08278	32.0116615	-103.6262207	25	26S	32E	J	1980S	1980E	LEA	NM	DELAWARE			244815	153500	88	220
NORTH EL MAR UNIT #032	30-025-08291	32.0080185	-103.6434479	26	26S	32E	O	660S	1980E	LEA	NM	DELAWARE			254895			
NORTH EL MAR UNIT #028	30-025-08296	32.0116539	-103.6521072	26	26S	32E	L	1980S	660W	LEA	NM	DELAWARE			249479	156000	976	373
NORTH EL MAR UNIT #045	30-025-08308	32.0043869	-103.6381302	35	26S	32E	A	660N	330E	LEA	NM	DELAWARE			255115	160000	85	310
MARSHALL #001	30-025-08358	32.284832	-103.6176224	19	23S	33E	M	660S	660W	LEA	NM	DELAWARE			238931	148600	127	156
BELL LAKE UNIT #002	30-025-08489	32.2701836	-103.5112457	30	23S	34E	N	660S	3300E	LEA	NM	DELAWARE			52115	32200	451	529
ICHABOD 7 FEDERAL #004H	30-025-40574	32.0509529	-103.5018997	07	26S	34E	P	108S	455E	Lea	NM	DELAWARE-BRUSHY CANYON	2014	6.3	232755	140558	244	0
RATTLESNAKE 13 FEDERAL #002H	30-025-41247	32.050499	-103.4204483	13	26S	34E	B	25N	1650E	Lea	NM	DELAWARE-BRUSHY CANYON	2014	6	227045	143469	122	0
RAGIN CAJUN 13 FEDERAL #001H	30-025-41259	32.0369835	-103.4278412	13	26S	34E	N	330S	1345W	Lea	NM	DELAWARE-BRUSHY CANYON	2014	6.7	165213	105060	244	18
RAGIN CAJUN 13 FEDERAL #002H	30-025-41273	32.0369835	-103.428009	13	26S	34E	M	330S	1295W	Lea	NM	DELAWARE-BRUSHY CANYON	2014	6.4	174604	109315	232	18
RAGIN CAJUN 12 FEDERAL #002H	30-025-42256	32.05060893	-103.4284847	12	26S	34E	M	10S	1135W	Lea	NM	DELAWARE-BRUSHY CANYON	2014	5.9	234275	147046	244	36
RATTLESNAKE 13 12 FEDERAL COM #001H	30-025-40912	32.0369568	-103.416214	13	26S	34E	P	330S	330E	Lea	NM	DELAWARE-BRUSHY CANYON	2014	6.2	243517	149966	49	560
RAGIN CAJUN 12 FEDERAL #001H	30-025-41188	32.0505981	-103.4205627	12	26S	34E	O	10S	1685E	Lea	NM	DELAWARE-BRUSHY CANYON	2014	5.8	234081	143968	61	560
RAGIN CAJUN 13 FEDERAL #001H	30-025-41259	32.0369835	-103.4278412	13	26S	34E	N	330S	1345W	Lea	NM	DELAWARE-BRUSHY CANYON	2014	6.2	194590	119973	49	710

Attachment 5

WATER WELL MAP

SECTION 1, TOWNSHIP 25 SOUTH, RANGE 34 EAST, LEA COUNTY, NEW MEXICO

1:18,000

0 1,000 2,000 3,000 Feet

Project Managed By:
ACE Energy Advisors
(918) 237-0559
nate.alleman@aceadvisors.com
Map Prepared By:
COOSA CONSULTING
(432) 631-4738
info@coosaconsulting.com

Coordinate System:
NAD 1983 StatePlane New Mexico East FIPS 3001 Feet
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 541,337.5000
False Northing: 0.0000
Central Meridian: -104.3333
Scale Factor: 0.9999
Latitude Of Origin: 31.0000
Units: Foot US

Date: 12/2/2024 Rev: 0

Legend

- Proposed SWD
- 1 Mile Buffer

NMOSE Points of Diversion

- Active
- Pending
- Changed Location of Well
- Inactive
- Capped
- Plugged
- Unknown

POWDERHORN SWD #1

OPERATOR:
SOLARIS WATER MIDSTREAM, LLC.

SOLARIS WATER MIDSTREAM

Water Well Sampling Table							
Water Well ID	**OSE Status**	**Owner**	**Available Contact Information**	**Use**	**Latitude**	**Longitude**	**Notes**
C 02401	Declaration	Quail Ranch, LLC	Dylan Van Brunt, One Concho Center 600 W Illinois Ave Midland, TX 79701	Livestock watering	32.165756	-103.424714	Potential sampling candidate.
C 04020 POD1	Pending	Bert Madera	PO Box 2795, Ruidoso, NM 88345	Exploration	32.151139	-103.399695	Not considered sampling candidate based on use.
Note: We are currently attempting to contact owners of water well sampling candidates to collect samples and the analyses of any collected samples will be submitted to OCD upon receipt from the lab.							

Attachment 6

NM Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Re: Geology Statement
Solaris Water Midstream, LLC
Powderhorn SWD #1
Section 1, T. 25S, R. 34E
Lea County, New Mexico

To whom it may concern:

Publicly available geologic and engineering data related to the proposed well have been thoroughly reviewed, and no evidence for open faults or any other hydrologic connection between the proposed Delaware Mountain Group injection zone and any underground sources of drinking water have been found.

Sincerely,

Patrick Ryan
Sr. Geologist

Attachment 7

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
November 21, 2024
and ending with the issue dated
November 21, 2024.

Publisher

Sworn and subscribed to before me this
21st day of November 2024.

Business Manager

My commission expires
January 29, 2027
(Seal)

STATE OF NEW MEXICO
NOTARY PUBLIC
GUSSIE RUTH BLACK
COMMISSION # 1087526
COMMISSION EXPIRES 01/29/2027

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 publication has been made.

LEGAL LEGAL

LEGAL NOTICE
November 21, 2024

Solaris Water Midstream, LLC, 907 Tradewinds Blvd, Midland, TX 79706, (OGRID# 331374), is filing Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for commercial saltwater injection into its Powderhorn SWD #1. This will be a new well located 558' FSL & 315' FEL in Section 1 Township 25S Range 34E in Lea County, NM, which is approximately 13.4 miles west of Jal, NM. The purpose of the well is to inject produced water from permitted oil and gas wells in the area for commercial disposal into the Bell Canyon & Cherry Canyon formations at depths of 5,594' – 8,093' at a maximum surface injection pressure of 1,118 psi and a maximum injection rate of 20,000 barrels of water per day.

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objection or request for hearing should be mailed to the Oil Conservation Division, 1220 South St. Francis Dr. Additional information may be obtained by contacting the operator contact, Nate Alleman, at (918) 237-0559 or info@aceadvisors.com.
#00296214

67117907 00296214

NATE ALLEMAN
ACE ENERGY ADVISORS
501 E. FRANK PHILLIPS BLVD.
SUITE 201
BARTLESVILLE, OK 74006

Statement of Affected Person Notification

A copy of the C-108 application has been provided to the following Affected Persons as notification of the subject Application for Authorization to Inject (C-108).

Entity Name	Entity Address	Mailing Date
Site Surface Owner		
Quail Ranch, LLC	600 W. Illinois Avenue Midland, TX 79701	11/27/2024
Applicable Mineral Owners		
Bureau of Land Management	Oil and Gas Division 620 E Greene St. Carlsbad, NM 88220	11/27/2024
OCD District Office		
OCD - District 1	1625 N. French Drive Hobbs, NM 88240	11/27/2024
Leaseholders within 1-Mile AOR		
COG Operating, LLC	600 W Illinois Ave Midland, TX 79701	11/27/2024
OXY Y-1 Company	726 E Michigan, Ste 330 Hobbs, NM 88240	11/27/2024
OGX Resources	P.O. Box 11148 Midland, TX 79702	11/27/2024
The Allar Co.	206 S Coronado Ave, Espanola, NM 87532	11/27/2024
Well Operators within AOR		
Matador Resources	5400 LBJ Freeway, Ste 1500 Dallas, TX 75240	11/27/2024
ConocoPhillips	600 W Illinois Ave Midland, TX 79701	11/27/2024

Nathan Alleman
Ace Energy Advisors
501 Se Fph Blvd Ste 201
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OGX Resources
PO Box 11148
Midland TX 79702-8148

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The Allar Co.
206 S Coronado Ave
Espanola NM 87532-2792

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501 Se Fph Blvd Ste 201
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5400 Lyndon B Johnson Fwy Ste 1500
Dallas TX 75240-1017

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501 Se Fph Blvd Ste 201
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Midland TX 79701-4882

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Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: SOLARIS WATER MIDSTREAM, LLC 9651 Katy Fwy Houston, TX 77024	OGRID: 371643
	Action Number: 408785
	Action Type: [C-108] Fluid Injection Well (C-108)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	12/29/2024