Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO. 30-025-42461

5. Indicate Type of Lease STATE ☑ FEE ☐

6. State Oil & Gas Lease No.

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" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Wild Cobra 1 State SWD

1. Type of Well: Oil Well ☐ Gas Well ☐ Other SWD

8. Well Number 2

2. Name of Operator: Solaris Water Midstream, LLC

9. OGRID Number: 371643

3. Address of Operator: 907 Tradewinds Blvd, Midland, TX 79706

10. Pool name or Wildcat

4. Well Location
Unit Letter C : 660 feet from the North line and 1650 feet from the West line
Section 1 Township 19S Range 34E NMPM County Lea

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*: 3963.5' (GR)

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: Step-Rate Test ☒		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Solaris Water Midstream, LLC (Solaris) intends to perform an acid job and Step Rate Test (SRT) on the Wild Cobra 1 State SWD #2 to determine the fracture pressure of the injection interval and the associated injection rate. The test results will be used to support a request to amend the current Injection Order (SWD-1525) to increase the maximum tubing size from 4.5" to 5" and request a maximum injection rate and surface injection pressure that are based on the results of the test. The SRT will be performed with a BHP gauge down the current 4.5" tubing to identify a fracture breakover point. If the fracture breakover point is not reached, Eaton's equation will be used to calculate the expected rates and pressures extrapolated from the current 4.5" tubing to the proposed 5" tubing. The following documents are included in support of this Notice of Intent:

1. Proposed SRT Procedure
2. Expected Wellhead Diagram
3. Current Wellbore Diagram
4. Injection History Table
5. Summary of Well Treatment and Historical ISIP

Spud Date: 3/29/2015 Rig Release Date: 5/29/2015

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Nathan Alleman TITLE Regulatory Consultant DATE 11/11/2024

Type or print name Nathan Alleman E-mail address: nate.alleman@aceadvisors.com PHONE: 918-237-0559

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any):

Attachment 1
SRT Procedure

ACE Energy Advisors

Proposed Step-Rate Test (SRT) Procedure

General Well Information

Operator Name: Solaris Water Midstream, LLC (OGRID# 371643)
Well Name: Wild Cobra 1 State SWD #2
API#: 30-025-42461
Injection Permit Order#: SWD-1525
Permitted Injection Formation: Devonian, Silurian, and Upper Ordovician formations
Permitted Injection Interval Depths: 14,400 – 16,100 ft
Permitted Maximum Injection Pressure: 2,880 psi
Permitted Maximum Injection Rate: Not Included in Permit

Testing Procedure

Acid Job

1. Rig up goathead with sleeve and pump 26,100 gallons (gal) of 20% HCL below the expected fracture pressure. Divert with Rock Salt, over-flush with fresh water, let sit for 2-4 hours, then over-displace with approximately 2 well volumes of produced water.
2. Run in hole and tag bottom of hole to confirm the hole is still open. If still open, proceed with SRT.

Step-Rate Test

1. Notify OCD of Bradenhead Test, Mechanical Integrity Test (MIT), and SRT at least 72 hours before the SRT.
2. Shut in well for at least 48 hours to allow bottomhole pressure to stabilize.
3. Perform Bradenhead Test with OCD witness, if available.
4. Perform MIT, at expected SRT pressures, with OCD witness, if available.
5. MIRU pumping equipment and produced water sufficient to perform test at proposed pressures and volumes.
6. RIH with BHP
7. Perform SRT according to pump schedule included in Exhibit A below. Bottomhole and surface pressures will be monitored and logged throughout the entirety of the testing using a Viatran Model 511 for surface pressures and bottomhole pressures will be measured using a MEMS Model P583275 10K Sapphire gauge.

   The SRT pump schedule is designed to achieve at least three (3) injection steps below and above the expected fracture pressure. Injection rate, surface pressures, bottomhole pressure, casing pressure, and bradenhead pressure will be monitored throughout the test. The test will conclude three (3) steps after observing a clear indication that the formation fracture pressure has been exceeded or at the end of the proposed pump schedule.
8. Grab samples of water and perform density measurement utilizing a calibrated hydrometer and take digital density readings with frac equipment during each pump stage.
9. Perform hard shutdown and let the pressure falloff, obtaining Instantaneous Shut-In Pressure (ISIP) as well as subsequent pressures at 5, 10, 15, 20, 25, and 30 minutes.
10. Monitor and record BHP falloff for 12 hours.

11. Rig down remaining equipment and conclude test.
12. Data will be reviewed and analyzed and an SRT Report will be prepared and submitted to OCD in accordance with OCD's Guidance for Conducting a Step-Rate Test Ver. 2023.

SRT Pump Schedule

Step #	Time (min)	Rate (bpm)	Rate (bpd)	Water Vol. Per Step	
				(bbl)	(gal)
1	30	2.08	3,000	62.50	2,625
2	30	5.56	8,000	166.67	7,000
3	30	9.03	13,000	270.83	11,375
4	30	12.50	18,000	375.00	15,750
5	30	15.97	23,000	479.17	20,125
6	30	19.44	28,000	583.33	24,500
7	30	22.92	33,000	687.50	28,875
8	30	26.39	38,000	791.67	33,250
9	30	29.86	43,000	895.83	37,625
10	30	33.33	48,000	1000.00	42,000
11	30	36.81	53,000	1104.17	46,375
Total	**330**			**6,416.7**	**269,500**

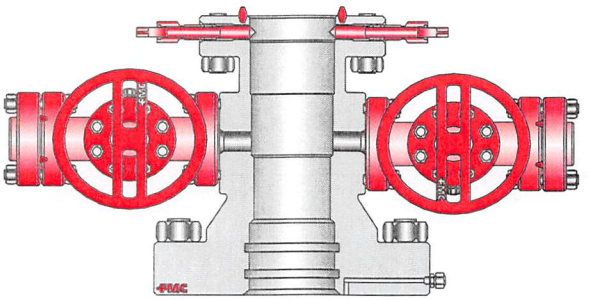
Attachment 2
Diagrams of Christmas Tree, Wellhead, and Wellbore

CUSTOMER: COG

LOCATION: WILD COBRA 1 STATE SWD 2

ATTN: TIM SMITH

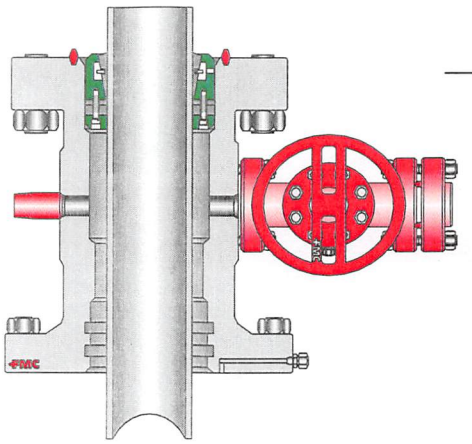
11" 10K X 7 1/16" 10K TUBING HEAD. COG OWNS THIS HEAD, TRAVELS FROM WELL TO WELL. WILL BE REPLACED ON PULLING UNIT WITH 11" 3K X 7" 3K HEAD



25 ½" TALL

7" CASING

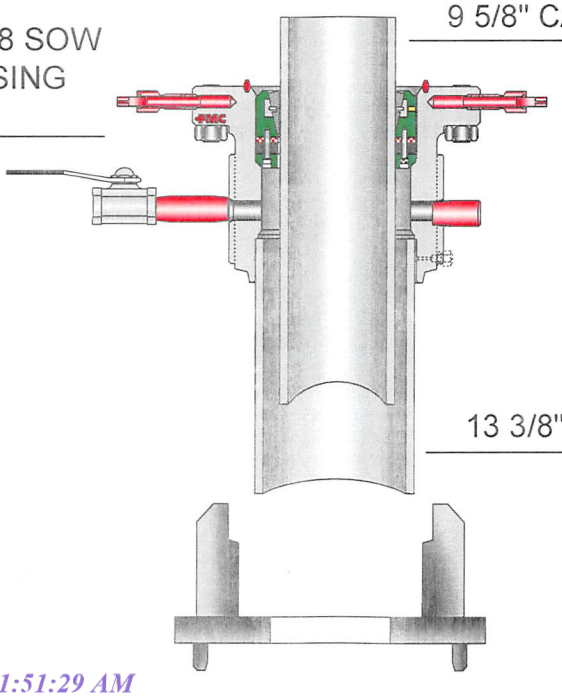
13 5/8 5K x 11" 10K, C-22, BG, SSO CASING SPOOL



25 ½" TALL

9 5/8" CASING

13 5/8 5K X 13 3/8 SOW C-22, LPO CASING HEAD



22" TALL

13 3/8" CASING

ASSEMBLY DRAWING

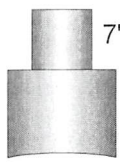
CUSTOMER_____ DATE_____
WELLNAME_____ B/L#_____
ORDERED BY_____

LOOSE MATERIAL

ASSEMBLY MATERIAL

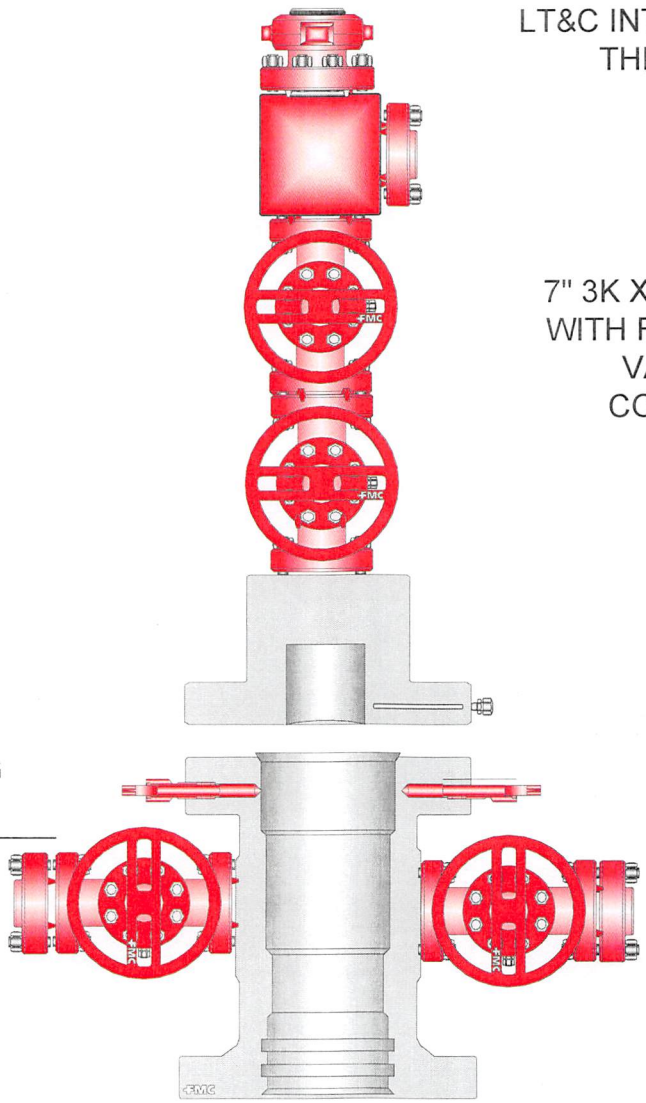
TREE CAP HAS 4 ½ LT&C INTERNAL LIFT THREADS.

7" 3K X 4 1/16" 5K TREE WITH FULL STAINLESS VALVES AND COMPONENTS



7" X 4 ½" buttress, type H bpv prep, tubing hanger

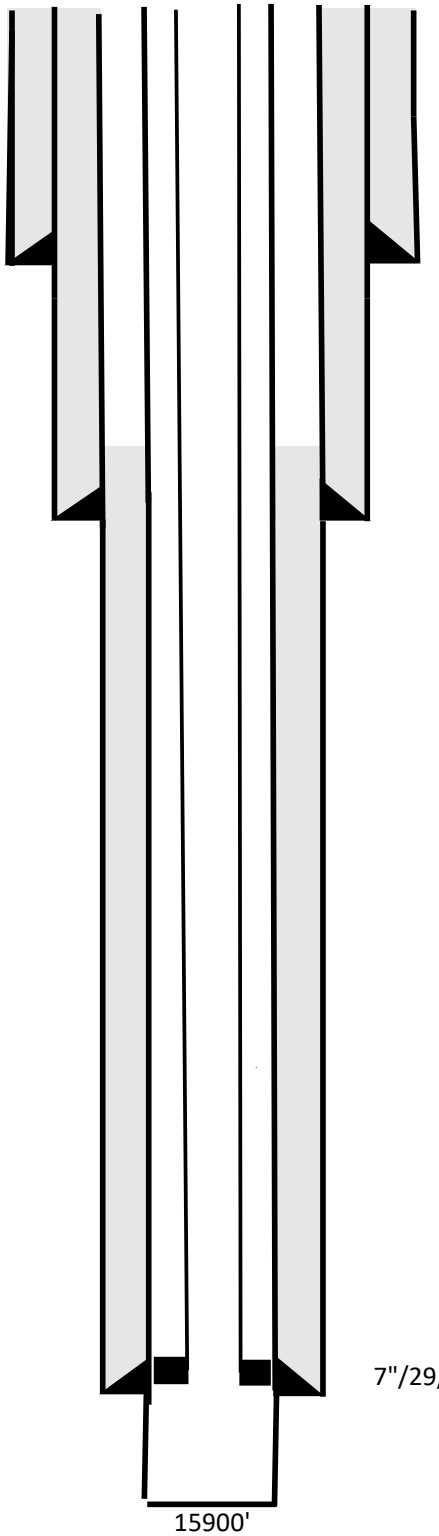
11" 3k x 7" 3k TUBING HEAD



660' FNL, 1650' FWL
C-1-19s-34e
Lea, NM
30-025-42461

Zero: 25' agl
KB elev: 3989'
GL elev: 3964'

SWD-1525
14400-16100' Permit
14809-15900' Actual
2880 psi Max Press
20-Feb-15



13-3/8"/54.5/J55/STC @ 1926'
1150 sx C 4% gel + 250 sx C
(Circ 196 sx)

9-5/8"/40/HCL80/LTC @ 5948'
1150 sx Econolite + 250 sx C
(Circ 272 sx)

Tubing: Inconel 718 5" latched seal assembly
348 jts 4.5"/13.1/P110/BTC TK Liner
1-10', 2-8', 1-6', 1-2', 1-4' 4.5" Tk Liner sub
4.5" Inconel 718 BTC pin x BTC pin XO

Packer: Inconel 718 7"x5"x4" Permapak Pkr D&L
Inconel 718 4" x 2.812" "R" nipple

Wellhead: 7-1/16" 2205 Duplex tbg hngr BTC
7-1/16" 5k x 4-1/16" 5k 316ss THA
4-1/16" 5k 316ss tree (2 master,
tee, crown cap--3600 psi WP)

7"/29/HCP110/LTC @ 14809'
1200 sx Econocem + 400 sx H
(TOC 5320' CBL)

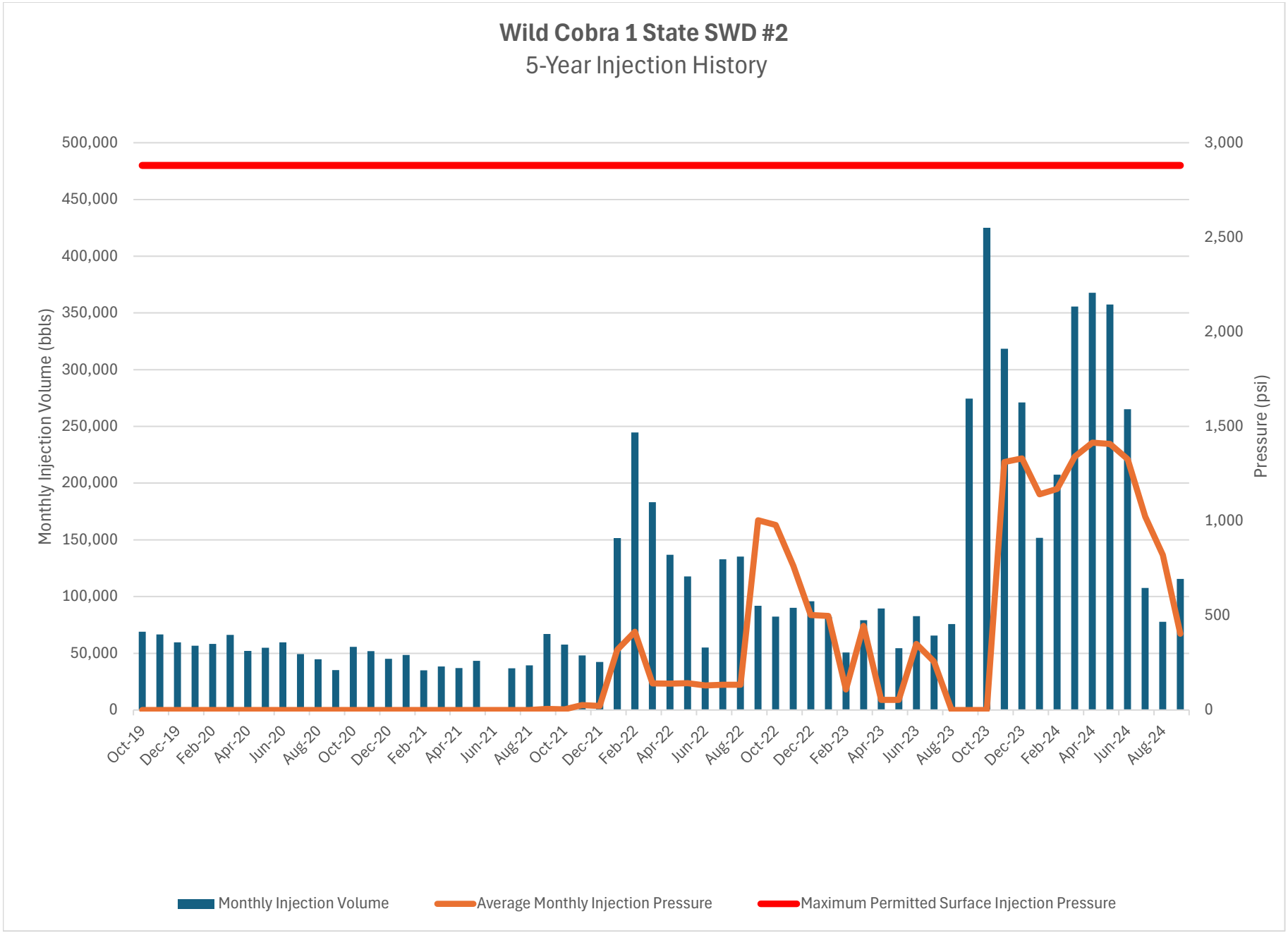
Devonian/Silurian OH

17-Sep-19

Aug 2015: In service.
Mar 2019: Return to service after extended shut in.

Attachment 3
5-Year Injection Rate and Pressure Data

Date	Injection Volume (bbls)	Average Surface Injection Pressure (psig)	Maximum Permitted Surface Injection Pressure (psi)
10/1/2019	69,022	0	2,880
11/1/2019	66,555	0	2,880
12/1/2019	59,730	0	2,880
1/1/2020	56,742	0	2,880
2/1/2020	58,285	0	2,880
3/1/2020	66,176	0	2,880
4/1/2020	52,083	0	2,880
5/1/2020	54,874	0	2,880
6/1/2020	59,626	0	2,880
7/1/2020	49,257	0	2,880
8/1/2020	44,668	0	2,880
9/1/2020	35,227	0	2,880
10/1/2020	55,638	0	2,880
11/1/2020	51,891	0	2,880
12/1/2020	45,138	0	2,880
1/1/2021	48,459	0	2,880
2/1/2021	34,970	0	2,880
3/1/2021	38,334	0	2,880
4/1/2021	36,959	0	2,880
5/1/2021	43,428	0	2,880
6/1/2021	0	0	2,880
7/1/2021	36,841	0	2,880
8/1/2021	39,456	0	2,880
9/1/2021	67,008	6	2,880
10/1/2021	57,741	4	2,880
11/1/2021	48,101	26	2,880
12/1/2021	42,387	21	2,880
1/1/2022	151,506	319	2,880
2/1/2022	244,689	414	2,880
3/1/2022	183,133	141	2,880
4/1/2022	136,796	139	2,880
5/1/2022	117,827	142	2,880
6/1/2022	55,078	130	2,880
7/1/2022	132,866	134	2,880
8/1/2022	135,179	134	2,880
9/1/2022	91,909	1,003	2,880
10/1/2022	82,334	979	2,880
11/1/2022	90,019	763	2,880
12/1/2022	95,794	502	2,880
1/1/2023	82,089	497	2,880
2/1/2023	50,663	109	2,880
3/1/2023	79,165	445	2,880
4/1/2023	89,479	54	2,880
5/1/2023	54,563	54	2,880
6/1/2023	82,817	350	2,880
7/1/2023	65,608	256	2,880
8/1/2023	75,753	0	2,880
9/1/2023	274,405	0	2,880
10/1/2023	424,967	0	2,880
11/1/2023	318,386	1,311	2,880
12/1/2023	271,036	1,330	2,880
1/1/2024	151,812	1,141	2,880
2/1/2024	207,452	1,169	2,880
3/1/2024	355,640	1,340	2,880
4/1/2024	367,847	1,414	2,880
5/1/2024	357,347	1,407	2,880
6/1/2024	265,145	1,327	2,880
7/1/2024	107,511	1,023	2,880
8/1/2024	77,718	820	2,880
9/1/2024	115,573	403	2,880


Wild Cobra 1 State SWD #2
5-Year Injection History
Monthly Injection Volume (bbls)
Pressure (psi)
500,000
450,000
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
3,000
2,500
2,000
1,500
1,000
500
0
Oct-19
Dec-19
Feb-20
Apr-20
Jun-20
Aug-20
Oct-20
Dec-20
Feb-21
Apr-21
Jun-21
Aug-21
Oct-21
Dec-21
Feb-22
Apr-22
Jun-22
Aug-22
Oct-22
Dec-22
Feb-23
Apr-23
Jun-23
Aug-23
Oct-23
Dec-23
Feb-24
Apr-24
Jun-24
Aug-24
Monthly Injection Volume
Average Monthly Injection Pressure
Maximum Permitted Surface Injection Pressure

Attachment 4
Summary of Past Well Treatments

Summary of Well Treatments

Two well treatments, both acid treatments, have been conducted on this well to-date.

The first acid treatment was performed as a part of completion operations on 07/21/2015 with 40,000 gallons of 20% HCl and 2,000 lbs of rock salt.

The second acid treatment was performed 10/16/2018 – 10/18/2018 and included the following general steps:

- Pump acid treatment with 400 gal of flowtec green solvent,
- flush with 238 bbls of treated produced water,
- SI for 1 hour to soak,
- pump 20K gal of 15% HCL acid and 20K gal of 2500 PPM CLO2 in 16 stages,
- flush with 700 BBLS of treated produced water, max injection rate of 8.6 BPM, avg rate of 7.5 BPM

No tests have been performed to-date that resulted in the Instantaneous Shut-In Pressures (ISIP) being determined.

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

Action 401401

CONDITIONS

Operator: SOLARIS WATER MIDSTREAM, LLC 9651 Katy Fwy Houston, TX 77024	OGRID: 371643
	Action Number: 401401
	Action Type: [C-103] NOI General Sundry (C-103X)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	11/14/2024