

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

NM OIL CONSERVATION State of New Mexico
ARTESIA DISTRICT Energy Minerals and Natural Resources
NOV 15 2017 Oil Conservation Division
RECEIVED 1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address OKY USA WTP LP P.O. Box 50250 Midland, TX 79710		OGRID Number 192463
Property Code		API Number 30-015-3031P
Property Name Pagan State		Well No.

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
D	26	18S	28E		800	North	660	West	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

9. Pool Information

Pool Name Illinois Camp Bone Spring, EAST	Pool Code 96632
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Additional Well Information

11. Work Type P	12. Well Type O	13. Cable/Rotary N/A	14. Lease Type S	15. Ground Level Elevation 3520'
16. Multiple NO	17. Proposed Depth 8343'	18. Formation Bone Springs	19. Contractor N/A	20. Spud Date After Permit Approval
Depth to Ground water N/A		Distance from nearest fresh water well N/A		Distance to nearest surface water N/A

☐ We will be using a closed-loop system in lieu of lined pits Above ground steel tanks will be utilized.

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17 1/2"	13 3/8"	48	448'	400	Surface
Int	12 1/4"	9 5/8"	36	2968'	875	149'
Prod.	8 3/4"	7"	23-26	10135'	1100	500'

Casing/Cement Program: Additional Comments

See attached for C102, procedure and WBD.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	

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

I further certify that I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.

Signature:

Printed name:

Title:

E-mail Address:

Date:

Phone:

OIL CONSERVATION DIVISION

Approved By:

Title:

Approved Date:

Expiration Date:

Conditions of Approval Attached

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-05-30316	² Pool Code 96632	³ Pool Name Illinois Camp Bone Springs, East
⁴ Property Code	⁵ Property Name Pagan State	⁶ Well Number 1
⁷ OGRID No. 192463	⁸ Operator Name OXY USA WTP LP	⁹ Elevation 3520'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	26	18S	28E		800	North	660	West	Eddy

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 40	¹³ Joint or Infill N	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

				<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and 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 such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>David Stewart</i> 11/9/17 Signature Date</p> <p>David Stewart SR Reg. Act Printed Name</p> <p>david_stewart@oxy.com E-mail Address</p>
				<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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.</p>
				<p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p>
				<p>Certificate Number</p>

ATTACHMENT C-101 – OXY USA INC. – PAGAN STATE #1 – 30-015-30316

Equipment Pull MIRU pulling unit and reverse unit.

1. Record SITP. Ensure well is dead.
2. If pressure exists on well, try to bleed off any psi and kill the well with fresh water or 10# brine if needed.
3. Ensure well is dead. Remove pumping unit head. Refer to standing Level 5 MOC.
4. Pressure test tubing to 500 psi for 5 min. Note in report whether successful or not.
5. Prepare tools to pull rods. Unset pump. Pump tubing capacity of 10 ppg brine to ensure well is dead.
6. Pull and inspect rods and pump.
7. Install tubing hanger & TWC with dry rods.
8. Add pressure gauge to production casing to monitor buildup pressure.
9. Function test and NU 5K BOP with VBR's for both 2-7/8" tubing size.
10. Retrieve TWC with dry rods and pull out tubing hanger.
11. Prepare rig floor to pull tubing. Unset TAC and POOH with 2-7/8" tubing. Scan tubing on TOOH

Bit / Scraper Run

1. Pick up 2-7/8" workstring (~9675')
2. RIH w/ 6" Bit (Casing Drift is 6.151") and 7" 26# Scraper to 9675 (50' below plug set depth)
3. Pull out of hole with bit and scraper, making note of any paraffin or scale seen during cleanout run.
4. POOH and LD bit & scraper BH
5. **PU CIBP and RIH to 9624'**. Set CIBP and pressure up to 500 psi for 5 min to ensure good set.
6. MIRU WL. Pressure test lubricator 4500 psi
7. **RIH w/ tbg & tag CIBP, M&P 40sx CI H cmt to ~9455', PUH to 8555'. M&P 25sx CL H cmt to 8445', PUH, WOC. RIH & tag cmt @ 8445', POOH.**
8. PU and RIH with 7" Peak Set- A- Seat Plug and set at 7,400' MD, RDMO WL
9. PU 7" retrievable packer and RIH with packer on 4-1/2" Frac String to 7100' MD.
10. Set packer and test string and packer to 4344 (60% of Casing burst)
11. RDMO Pulling Unit

Stimulation Procedure

1. MIRU stimulation equip. Pressure test lines, hydraulic pop-off valve(s) and global pump kick-outs to pressures in Table 1.
2. Stagger electronic kick-outs at 50–100psi increments below the global kick-out. Verify the lowest kick-out is greater than the estimated treating pressure.
3. Do not exceed max pressure (5792 psi) during active pumping.
4. Prior to frac, ensure that computer van is monitoring all rates and pressures accurately.
5. Review the frac treatment schedules. Execute the appropriate frac schedule for the current stage.
6. Be prepared to modify pump schedule as needed.
7. Report the following pressures for each stage: Break down pressure, ISIP, estimated F.G., Shut-in pressure and shut-in time when the well is opened for the pump down perforating run.
8. Break down the perforations.
9. Use rate diversion for acid stages, increasing rate in ~5 bpm increments as pressure break-back dictates until the design treatment rate is achieved.
10. Monitor pressures to avoid high-rate screen out events.
11. Screen-out Guideline: If screen out leaves excessive proppant in the wellbore, flowback the well. Do not exceed 4320 bpd (~5-8 bpm). Once proppant has been unloaded, flowback one additional casing volume to verify the casing is clean. Establish injection rate and displace 100 vis sweep to the perforations to clean the wellbore for the following stage.
12. Flush Procedure: When the in-line densitometer proppant concentration falls to 0.2 ppg, pump a 20 bbl slick water spacer and then mark flush. Flush with slick water to the top perforation depth. This should over-flush the 20 bbls spacer into the perforations. Shut down and record ISIP and F.G. Shut in the well and prepare for pump down perforating.

Table 1 – Pressures and Rates

CATEGORY	PRESSURES (PSI)
Max Allowable Pressure	5792
Max Pressure	5,500
Global Kick Outs (Computer Control)	5,550
Pop Offs (Mechanical)	5,600
Test lines	5,600
Expected Treating Pressure	5,000

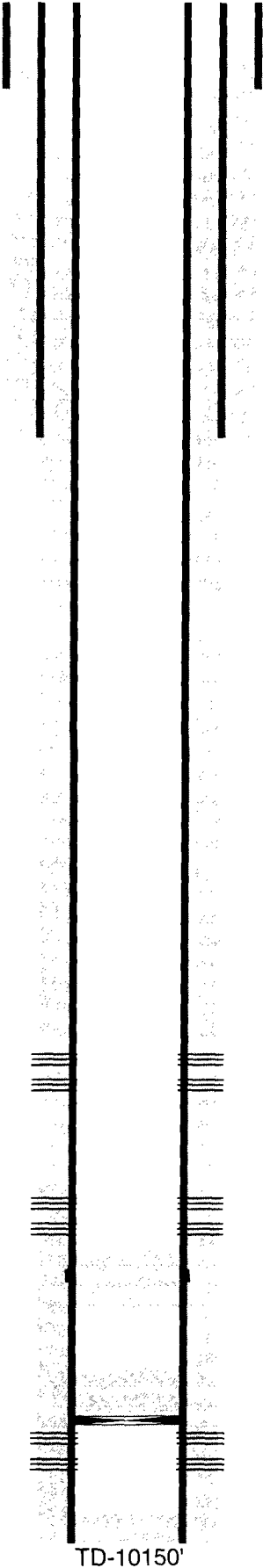
Pump Down Plug & Perforating Procedure

1. On the initial plug-and-perf run, tie-in the CCL with the markers listed in the casing summary.
2. Make a CCL correlation log section while POOH.
3. Mark the perforation depths for each stage on the correlation log. Adjust perforation intervals to avoid shooting csg collars.
4. MU the plug-and-perf assembly as per service company standard procedures. Implement radio silence procedure to deploy and recover the plug-and-perf assembly
5. NU the lubricator and test to 1000 psi over previous stage ISIP.
6. Equalize lubricator to wellbore pressure.
7. Turn on two-way radios and data acquisition system when the guns are 200' below the surface.
8. Begin RIH to the perf depth. Tie in depth in the vertical section.
9. Idle the pump-down pumps at 1-2 bpm in the vertical section.
10. Monitor CCL to verify the tools are moving past collars at the expected speed.
11. Be prepared to POH if the next stage cannot be reached, and attempt to clean the wellbore with viscous sweeps.
12. Shut off the pumps when 20' below the depth. Log up to the setting depth and set the solid composite bridge plug. Setting depths to be verified by the WSM.
13. Log up to the perforation depth and perforate each cluster. Perforation depths to be verified by WSM.
14. POOH no faster than 600'/min in vertical section.
15. Verify that the tool string passes through the tool trap and the tool trap closes.
16. Close the upper master valve and document with valve sign-off sheet.
17. Bleed off pressure & close the crown valve.
18. LD the tool string using service company standard procedures. Report the number of shots fired. Implement radio silence procedures to deploy and recover the perforating gun.
19. Drop the ball. Verify ball was dropped.
20. Open the crown valve. Close the crown valve. Open the upper master (hydraulic) valve and listen for the ball to drop.

			Fluid Information				Proppant Information				
#	Time [min]	Type	Rate [bpm]	Clean [gals]	Dirty [gals]	Cum. Dirty [gals]	Description	Prop. Conc. [PPA]	Description	Stage Sand [lbs]	Cum. Sand [lbs]
1	2.38	Breakdown	20	2000	2,000	2,000	Slick Water			-	-
2	3.17	Acid	30	1000	1,000	3,000	15% HCl			-	-
3	7.14	Pad	60	10000	10,000	13,000	Slick Water			-	-
4	9.13	Sand-Laden	60	5000	5,057	18,057	Slick Water	0.25	100 Mesh	1,250	1,250
5	11.90	Sand-Laden	60	7000	7,158	25,215	Slick Water	0.50	100 Mesh	3,500	4,750
6	16.67	Sand-Laden	60	12000	12,407	37,622	Slick Water	0.75	100 Mesh	9,000	13,750
7	23.41	Sand-Laden	60	17000	17,769	55,391	Slick Water	1.00	100 Mesh	17,000	30,750
8	29.76	Sand-Laden	60	16000	16,905	72,296	Slick Water	1.25	100 Mesh	20,000	50,750
9	38.49	Sand-Laden	60	22000	23,493	95,789	Slick Water	1.50	100 Mesh	33,000	83,750
10	39.68	Sweep	60	3000	3,000	98,789	Slick Water			-	83,750
11	43.65	Sand-Laden	60	10000	10,226	109,016	Slick Water	0.50	40/70 White	5,000	88,750
12	48.41	Sand-Laden	60	12000	12,543	121,559	Slick Water	1.00	40/70 White	12,000	100,750
13	53.17	Sand-Laden	60	12000	12,679	134,237	Slick Water	1.25	40/70 White	15,000	115,750
14	58.73	Sand-Laden	60	14000	14,950	149,188	Slick Water	1.50	40/70 White	21,000	136,750
15	65.08	Sand-Laden	60	16000	17,267	166,454	Slick Water	1.75	40/70 White	28,000	164,750
16	72.22	Sand-Laden	60	18000	19,629	186,083	Slick Water	2.00	40/70 White	36,000	200,750
17	0.00	Flush	80				Slick Water		(Flush to Top Perf)		200,750

Stage or Cluster No.	Total Shots	EHD (in)	Gun Length (ft) & Charge Loaded Length (ft)	Description (carrier type, charge name, spf, phasing, and API EHD and TTP)		
Stage 1-2	24	0.42	2	6 spf, 60 deg		
Stage 1				8133-34, 8183-84, 8211-12, 8342-43		
Stage 2				7148-49, 7167-68, 7304-05, 7344-45		
Composite Plug Set for Stage No.	Plug Size (in) (casing size)	Running Tool	Description (make, model, WP)	Ball OD (in)	Ball Material or Description	
Stage #1	4.5" / 13.5#	Baker	Peak Set-A-Seat	n/a	n/a	

OXY USA WTP LP - Proposed
Pagan State #1
API No. 30-015-30316



17-1/2" hole @ 450'
13-3/8" csg @ 448'
w/ 400sx-TOC-Surf-Circ

12-1/4" hole @ 2968'
9-5/8" csg @ 2968'
w/ 875sx-TOC-149'-Calc

Perfs @ 7148-7345'

Perfs @ 8133-8343'

8-3/4" hole @ 10150'
7" csg @ 10135'
w/ 1100sx-TOC-500'-Calc
DVT @ 8501'

Perfs @ 9674-9786'

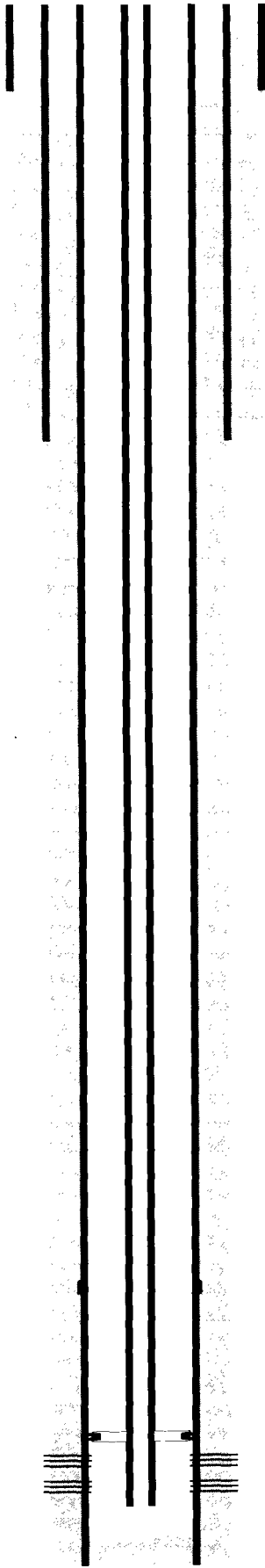
25sx @ 8555-8445' WOC-Tag

CIBP @ 9624' w/ 40sx cmt to 9455'

PB-10039'

TD-10150'

OXY USA WTP LP - Current
Pagan State #1
API No. 30-015-30316



17-1/2" hole @ 450'
13-3/8" csg @ 448'
w/ 400sx-TOC-Surf-Circ

12-1/4" hole @ 2968'
9-5/8" csg @ 2968'
w/ 875sx-TOC-149'-Calc

8-3/4" hole @ 10150'
7" csg @ 10135'
w/ 1100sx-TOC-500'-Calc
DVT @ 8501'

2-7/8" tbg @ 9989' w/ TAC @ 9576'

Perfs @ 9674-9786'

PB-10039'

TD-10150'