

District I
1625 N. French Dr., Hobbs, NM 88240
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District II
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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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
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

¹ Operator Name and Address Santo Operating LLC P.O. Box 1020 Artesia, NM 88211		² OGRID Number 371502
³ Property Code 316806		⁴ Property Name Ocotillo Sunrise 15 ⁵ API Number 30-025-47419 ⁶ Well No. 1H

Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	15	25S	34E		330	South	355	East	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
A	15	25S	34E		226	North	355	East	Lea

9. Pool Information

Pool Name PITCHFORK RANCH; WOLF CAMP, SOUTH	Pool Code 96994
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Additional Well Information

¹¹ Work Type New Well	¹² Well Type Oil	¹³ Cable/Rotary R	¹⁴ Lease Type State PRIVATE	¹⁵ Ground Level Elevation 3338'
¹⁶ Multiple N	¹⁷ Proposed Depth 17,500	¹⁸ Formation Wolfcamp	¹⁹ Contractor	²⁰ Spud Date
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☐ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5"	13.375"	54.5	1250	900	0
Int1	12.25"	10.75"	45.5	5200	730	0
Prod	9.875	Tapered 5.5" / 5	20	0-12100	2765	4700'

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	10000	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:	OIL CONSERVATION DIVISION Approved By: Title: _____ Approved Date: 09/16/16 Expiration Date: 09/16/18 Conditions of Approval Attached
Printed name: Pamela J. Horner Title: Controller E-mail Address: kleishman@santopetroleum.com Date: 9/13/2016 Phone: 575-736-3262	

Permit Information:

Well Name: Octillo Sunrise 15 #1H

Location

SL: 330' FSL and 355' FEL Section 15-T25S-R34E

BHL: 226' FNL and 355' FEL Section 15-T25S-R34E

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DFmin Collapse	DFmin Burst	DFmin Tension
17.5"	0 – 1250	13 3/8"	54.5	J55	STC	1.125	1.25	1.6
12.25"	0 – 11250	10.75"	47	HCN-80	BTC	1.125	1.25	1.6
9.875"	0 – 12100	5.5"	20	P110	JFE	1.125	1.25	1.6
8.5"	12100 – 17500	5"	18	P110	VAM	1.125	1.25	1.6

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft3/ft	Slurry Description
1,250'	550	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25lb/sk Cello-Flake (TOC @ Surface)
	350	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
5,200'	525	12.7	2.22	Lead: Class C + 2.0% SMS + 10.0% Salt + 0.55% R-21 + 0.25 pps Celloflake + 0.005 pps Static Free (TOC @ Surface)
	205	14.8	1.35	Tail: Class C + 0.6% FL-62 + 0.7% CD-32 + 0.3% SMS + 2.0% Salt + 0.1% R-3 + 0.005 pps Static Free + 0.005 gps FP-6L
17,500'	970	11.0	3.67	60:40:0 Class C + 15.0 pps BA-90 + 4% MPA-5 + 3.0% SMS + 5.0% A-10 + 1.0% BA-10 _ 0.80% ASA-301 _ 2.55% R-21 + 8.0 pps LCM-1 (TOC @ 4700)
	1795	14.4	1.28	50:50:2 Class H + 0.65% FL-52 + 0.45% CD-32+0,10% SMS + 2.0% Salt

Mud Program:

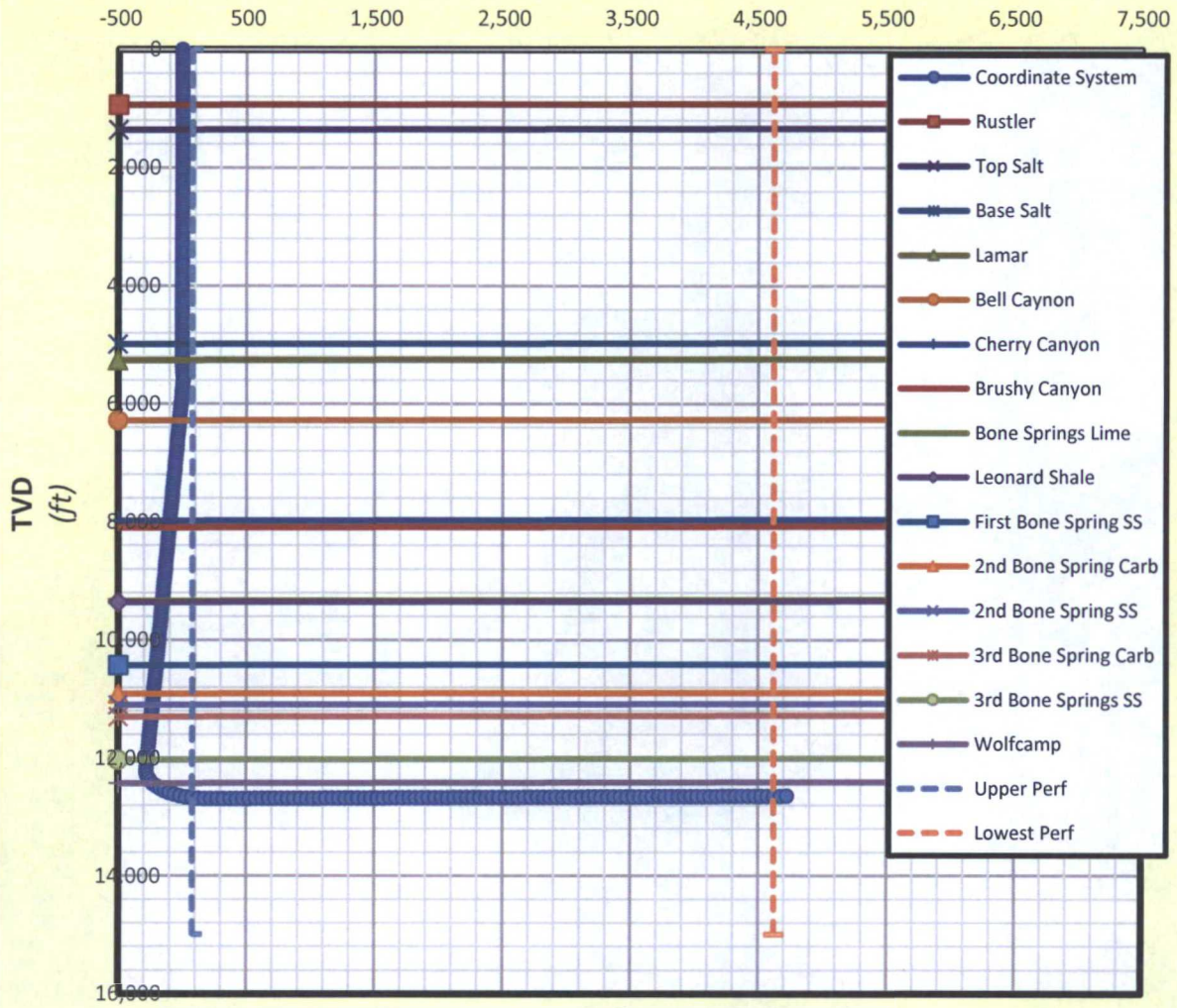
Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,250'	Fresh – Gel	8.6 – 8.8	28 – 34	N/C
1,250' – 5,200'	Oil Base	8.7 – 9.4	58 – 68	N/C – 6
5,200' – 12,100'	Oil Base	8.7 – 9.4	58 – 68	N/C – 6
12,100' – 17,500' (lateral)	Oil Base	9.0 – 9.5	58 - 68	N/C – 6

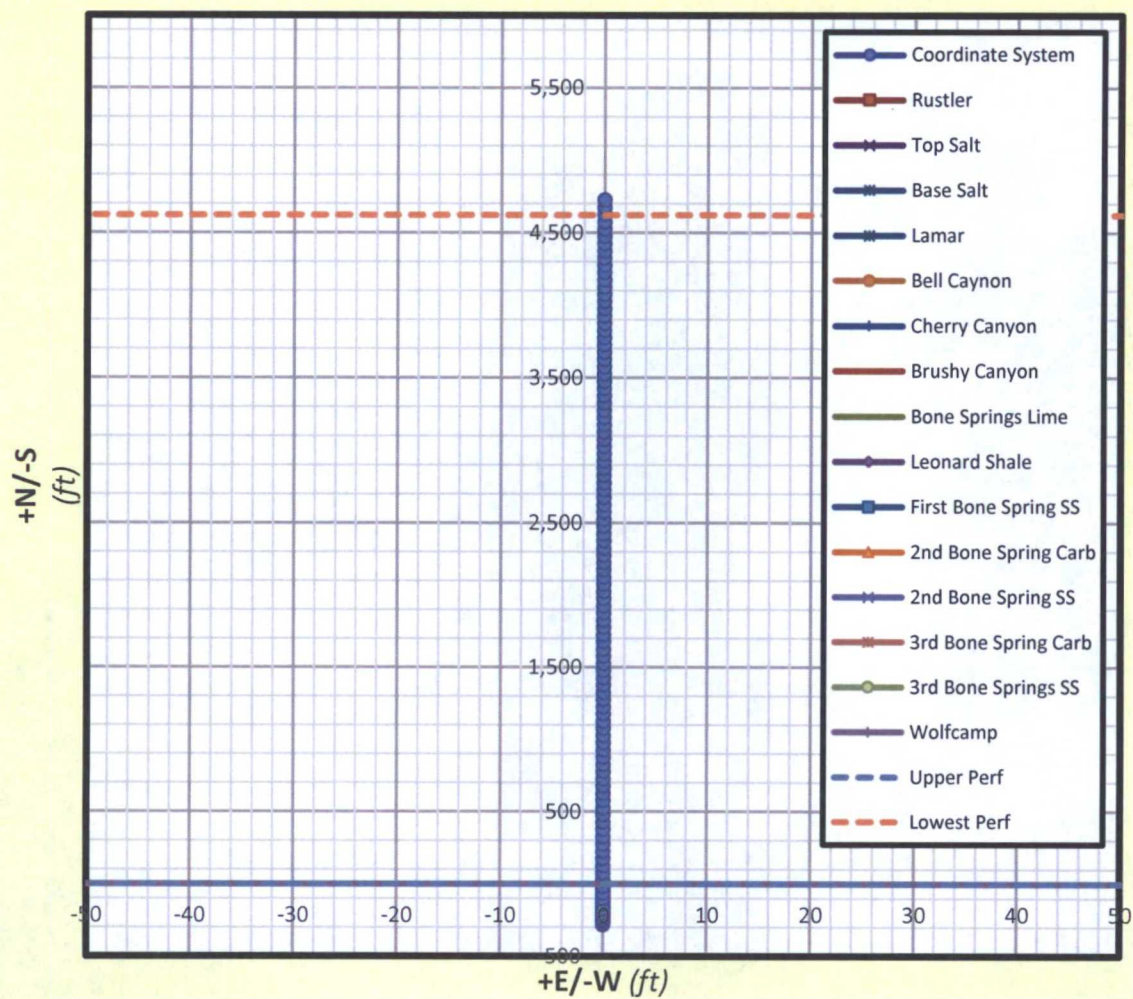
Well Name

Octillo Sunrise 15 #1H

Target	TVD	Horizontal Departure	MD
Rustler	940	0	940
Top Salt	1,360	0	1,360
Base Salt	4,987	0	4,987
Lamar	5,265	0	5,265
Bell Caynon	6,288	-24	6,289
Cherry Canyon	7,985	-98	7,987
Brushy Canyon	8,100	-103	8,103
Bone Springs Lime	9,345	-157	9,349
Leonard Shale	9,365	-158	9,369
First Bone Spring SS	10,430	-204	10,435
2nd Bone Spring Car	10,910	-225	10,915
2nd Bone Spring SS	11,099	-234	11,104
3rd Bone Spring Car	11,303	-242	11,309
3rd Bone Springs SS	12,030	-274	12,036
Wolfcamp	12,432	-229	12,447
Upper Perf	12,677	78	12,852
Lowest Perf	12,646	4,620	17,395
TD	12,645	4,720	17,500

Vertical Section (ft)





Standard Blow-Out Preventer Schematic

