Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

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

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*

11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect ofthis form to U.S. Department ofthe Interior, Bureau ofLand Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: SWNW / 2110 FNL / 385 FWL / TWSP: 23S / RANGE: 30E / SECTION: 23 / LAT: 32.2919498 / LONG: -103.859077 (TVD: 0 feet, MD: 0 feet)

PPP: SWNW / 2110 FNL / 385 FWL / TWSP: 23S / RANGE: 30E / SECTION: 23 / LAT: 32.2919498 / LONG: -103.859077 (TVD: 5890 feet, MD: 5890 feet)

PPP: SWSW / 0 FSL / 353 FWL / TWSP: 23S / RANGE: 30E / SECTION: 11 / LAT: 32.312294 / LONG: -103.8591509 (TVD: 7416 feet, MD: 14717 feet)

PPP: SWSW / 0 FSL / 376 FWL / TWSP: 23S / RANGE: 30E / SECTION: 14 / LAT: 32.2977485 / LONG: -103.8591402 (TVD: 7491 feet, MD: 9326 feet)

BHL: NWNW / 100 FNL / 330 FWL / TWSP: 23S / RANGE: 30E / SECTION: 11 / LAT: 32.3265669 / LONG: -103.8592237 (TVD: 7454 feet, MD: 19906 feet)

Strata Production Company

Oscar 23 11 Fed Com #1H

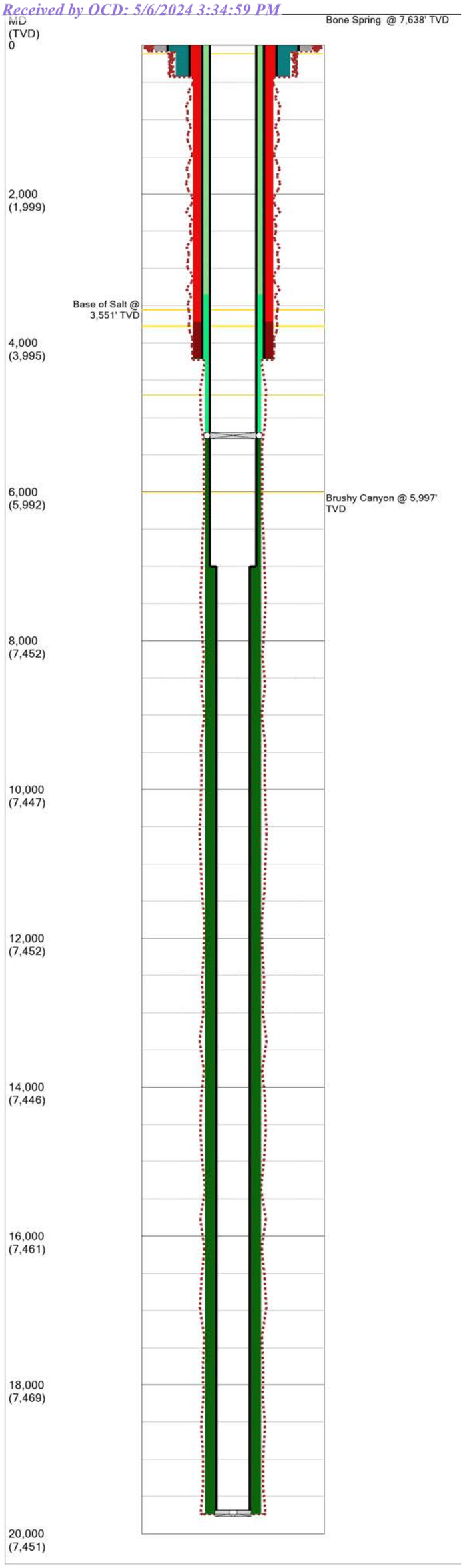
Section 23 Twp 23S, Range 30E

SHL: 2,110' FNL & 385' FWL of Sec 23

BHL: 100' FNL & 330' FWL of Sec 11

Hole Size	Casing Interval From	Casing Interval To	Csg Size	Weight	Grade	Connection	SF Collapse	SF Burst	SF Joint Tension	SF Body Tension
17.5	0	450	13.375	48	API	STC	3.95	7.39	14.9	25.0
12.25	0	4,000	9.375	39	API	Wedge 513	2.29	4.49	5.32	9.04
8.5	0	7,000	7.0	29	API	Buttress	2.81	3.08	2.17	2.11
8.5	7,000	20,155	5.0	18	API	Buttress	4.17	2.04	2.56	2.45
BLM Minimum SF							**1.125**	**1.00**	**1.60**	**1.60**

	Y or N
Is casing new? If used, attach certificate as required in Onshore Order #1.	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes, attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not, provide justifications (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum of 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	NA
Is well within the designated 4 string boundary?	NA
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	NA
Is well located in R-111-P and SOPA?	Y
If yes, are the first 3 strings cemented to the surface?	Y
Is 2nd string set 100' to 600' below the base of salt?	Y
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to the surface?	Y
If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	NA



Last Updated: 3/6/2024 01:42 PM

Field Name	Lease Name	Well No.
Forty Niner Ridge	Oscar 23 11 EDL Fed Com	1H

County	State	API No.
Eddy	New Mexico	30-015-54367-0001

Version	Version Tag
3	Drilling

GL (ft)	KB (ft)	Section	Township/Block	Range/Survey
3,219.0	3,244.0	23	23S	30E

Operator	Well Type	Well Status
Strata Production Co	Oil	Drilling

Latitude	Longitude
32.291950	-103.859077

Dist. N/S (ft)	Dir. N/S	Dist. E/W (ft)	Dir. E/W	Footage From
2110	FNL	385	FWL	Section 23

Prop Num	Spud Date	Comp. Date	Plug Date

Additional Information

Other 1	Other 2	Other 3	Other 4

Prepared By	Updated By	Last Updated
jelgin	jelgin	3/6/2024 1:42 PM

Hole Summary

Date	Diam. (in)	Top (MD ft)	Bottom (MD ft)	Memo
	24.000	0	80	
	17.500	80	425	
	12.250	425	4,221	
	8.500	4,221	20,155	

Tubular Summary

Date	Description	OD (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)	RL
	Conductor Casing	20.000			0	80	C
	Surface Casing	13.325	48.00	J-55	0	415	C
	Intermediate Casing	9.375	39.00	Q-125	0	4,213	C
	Production Casing	7.000	29.00	HCP-110	0	7,000	C
	Production Casing	5.000	18.00	HCP-110	7,000	20,155	C

Casing Cement Summary

C	Date	No. Sx	Csg. OD (in)	Top (MD ft)	Bottom (MD ft)	Memo	RL
			20.000	0	80		C
		475	13.325	0	415		C
		200	9.375	3,713	4,213		C
		1,050	9.375	0	3,713		C
		203	7.000	5,200	7,000		C
		185	7.000	3,350	5,200		C
		182	7.000	0	3,803		C
		2,788	5.000	7,000	20,155		C

Tools/Problems Summary

Date	Tool Type	OD (in)	ID (in)	Top (MD ft)	Bottom (MD ft)	RL
	X-Over	7.000	5.000	7,000	0	C
	DVT	7.000	0.000	5,200	0	C
	FC	5.500	0.000	20,100	0	C
	GS	5.500	0.000	20,155	0	C

Formation Tops Summary

Formation	Top (TVD ft)	Comments
Rustler	111	
Base of Salt	3,551	Base of Salt @ 3,551' TVD
Lamar	3,761	
Bell Canyon	3,781	
Cherry Canyon	4,693	
Brushy Canyon	5,997	Brushy Canyon @ 5,997' TVD
Bone Spring	7,638	Bone Spring @ 7,638' TVD

Last Updated: 3/6/2024 01:42 PM

Field Name	Lease Name	Well No.	County	State	API No.
Forty Niner Ridge	Oscar 23 11 EDL Fed Com	1H	Eddy	New Mexico	30-015-54367-0001

Version	Version Tag	Spud Date	Comp. Date	GL (ft)	KB (ft)
3	Drilling			3,219.0	3,244.0

Section	Township/Block	Range/Survey	Dist. N/S (ft)	Dir. N/S	Dist. E/W (ft)	Dir. E/W	Footage From
23	23S	30E	2,110	FNL	385	FWL	Section 23

Operator	Well Status	Latitude	Longitude	Prop Num
Strata Production Co	Drilling	32.291950	-103.859077	

Other 1	Other 2	Other 3	Other 4

Last Updated	Prepared By	Updated By
03/06/2024 1:42 PM	jelgin	jelgin

Additional Information

Hole Summary

Date	Diam. (in)	Top (MD ft)	Bottom (MD ft)	Memo
	24.000	0	80	
	17.500	80	425	
	12.250	425	4,221	
	8.500	4,221	20,155	

Tubular Summary

Date	Description	No. Jts	OD (in)	Wt (lb/ft)	Grade	Coupling	Top (MD ft)	Bottom (MD ft)	Memo	RL
	Conductor Casing		20.000				0	80		C
	Surface Casing		13.325	48.00	J-55	STC	0	415		C
	Intermediate Casing		9.375	39.00	Q-125	Wedge 513	0	4,213		C
	Production Casing		7.000	29.00	HCP-110	Buttress	0	7,000		C
	Production Casing		5.000	18.00	HCP-110	Buttress	7,000	20,155		C

Casing Cement Summary

C	Date	No. Sx	Yield (ft3/sk)	Vol. (ft3)	Shoe Jt Len. (ft)	Csg. OD (in)	Top (MD ft)	Bottom (MD ft)	Description	Memo	RL
			1.00		0	20.000	0	80			C
		475	1.34	637	0	13.325	0	415			C
		200	1.33	266	0	9.375	3,713	4,213			C
		1,050	1.90	1,995	0	9.375	0	3,713			C
		203	1.52	309	0	7.000	5,200	7,000			C
		185	1.33	246	0	7.000	3,350	5,200			C
		182	3.08	561	0	7.000	0	3,803			C
		2,788	1.52	4,238	42	5.000	7,000	20,155			C

Tools/Problems Summary

Date	Tool Type	OD (in)	ID (in)	Top (MD ft)	Bottom (MD ft)	Description	Memo	RL
	Crossover	7.000	5.000	7,000	0			C
	DV tool	7.000	0.000	5,200	0			C
	Float Collar	5.500	0.000	20,100	0			C
	Guide Shoe	5.500	0.000	20,155	0			C

Formation Top Summary

Formation Name	Top(TVD ft)	Memo
Rustler	111	
Base of Salt	3,551	
Lamar	3,761	
Bell Canyon	3,781	
Cherry Canyon	4,693	
Brushy Canyon	5,997	
Bone Spring	7,638	

Last Updated: 3/6/2024 01:42 PM

Field Name	Lease Name	Well No.	County	State	API No.	Version	Version Tag	Spud Date	Comp. Date	Plug Date
Forty Niner Ridge	Oscar 23 11 EDL Fed Com	1H	Eddy	New Mexico	30-015-54367-0001	3	Drilling			

Section	Township/Block	Range/Survey	Dist. N/S (ft)	Dir. N/S	Dist. E/W (ft)	Dir. E/W	Footage From	Latitude	Longitude	Operator
23	23S	30E	2110	FNL	385	FWL	Section 23	32.291950	-103.859077	Strata Production Co

GL (ft)	KB (ft)	Well Type	Well Status	Prop Num	Prepared By	Updated By
3,219.0	3,244.0	Oil	Drilling		jelgin	jelgin

Additional Information

Last Updated: 3/6/2024 1:42:30 PM

Field Name	Lease Name	Well No.	API No.	Version	Version Tag
Forty Niner Ridge	Oscar 23 11 EDL Fed Com	1H	30-015-54367-0001	3	Drilling

Section	Township/Block	Range/Survey	County	State	GL (ft)	KB (ft)
23	23S	30E	Eddy	New Mexico	3,219.0	3,244.0

Target Azim. (deg)	Latitude	Longitude	Operator	Well Type	Well Status
	32.291950	-103.859077	Strata Production Co	Oil	Drilling

Additional Information

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	Coordinate N (-S) (ft)	Coordinate E (-W) (ft)	DLS (deg/100 ft)
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
200.0	1.2	20.6	200.0	2.0	2.0	0.7	0.61
360.0	1.2	10.0	360.0	5.3	5.2	1.6	0.14
490.0	1.1	31.0	489.9	7.7	7.6	2.5	0.33
581.0	1.3	31.8	580.9	9.4	9.2	3.5	0.15
672.0	0.7	78.0	671.9	10.4	10.2	4.6	1.02
762.0	1.7	125.0	761.9	9.8	9.6	6.3	1.49
852.0	1.8	124.3	851.8	8.3	8.0	8.5	0.09
943.0	1.6	124.6	942.8	6.9	6.5	10.7	0.27
1,038.0	2.2	151.9	1,037.7	4.6	4.2	12.6	1.14
1,134.0	2.7	160.4	1,133.7	1.0	0.4	14.3	0.62
1,325.0	2.8	182.7	1,324.4	-7.7	-8.3	15.5	0.55
1,420.0	3.4	197.9	1,419.3	-12.7	-13.3	14.6	1.09
1,514.0	3.2	198.6	1,513.2	-18.0	-18.5	12.9	0.19
1,608.0	2.8	195.0	1,607.0	-22.8	-23.3	11.4	0.48
1,701.0	2.1	178.5	1,699.9	-26.7	-27.1	10.9	1.12
1,796.0	1.5	155.4	1,794.9	-29.5	-29.9	11.4	0.95
1,893.0	0.9	117.3	1,891.9	-30.9	-31.4	12.6	0.98
1,987.0	1.2	123.3	1,985.9	-31.7	-32.3	14.1	0.41
2,081.0	1.8	137.4	2,079.8	-33.3	-33.9	15.9	0.69
2,177.0	2.0	153.1	2,175.8	-35.8	-36.5	17.7	0.58
2,271.0	2.3	170.9	2,269.7	-39.0	-39.8	18.7	0.75
2,365.0	3.0	179.5	2,363.6	-43.3	-44.1	19.0	0.92
2,459.0	3.6	186.9	2,457.5	-48.8	-49.5	18.7	0.76
2,553.0	3.6	183.7	2,551.3	-54.6	-55.4	18.1	0.22
2,648.0	3.2	186.9	2,646.1	-60.2	-60.9	17.6	0.44
2,743.0	3.1	190.3	2,741.0	-65.4	-66.1	16.8	0.21
2,838.0	3.2	190.5	2,835.8	-70.5	-71.2	15.9	0.06
2,934.0	3.1	188.1	2,931.7	-75.7	-76.4	15.1	0.15
3,029.0	3.4	180.4	3,026.5	-81.1	-81.7	14.7	0.55
3,125.0	3.7	177.3	3,122.3	-87.1	-87.7	14.8	0.39
3,219.0	3.7	194.5	3,216.1	-93.1	-93.7	14.2	1.18
3,314.0	4.1	193.9	3,310.9	-99.4	-100.0	12.6	0.40
3,410.0	4.9	184.0	3,406.6	-106.9	-107.4	11.5	1.15
3,504.0	5.3	181.3	3,500.3	-115.2	-115.7	11.1	0.45
3,598.0	4.3	182.2	3,593.9	-123.0	-123.5	10.9	1.03
3,692.0	4.0	179.4	3,687.7	-129.8	-130.3	10.8	0.38
3,786.0	3.4	182.7	3,781.5	-135.8	-136.4	10.7	0.66
3,881.0	3.5	177.4	3,876.3	-141.5	-142.0	10.7	0.34
3,977.0	3.3	168.7	3,972.2	-147.1	-147.6	11.4	0.57
4,070.0	3.1	172.0	4,065.0	-152.2	-152.7	12.2	0.24
4,156.0	3.1	167.9	4,150.9	-156.8	-157.4	13.0	0.26
4,313.0	2.8	157.3	4,307.7	-164.4	-165.1	15.4	0.41
4,408.0	3.5	179.7	4,402.5	-169.4	-170.2	16.4	1.46
4,504.0	4.2	186.4	4,498.3	-175.9	-176.6	16.0	0.92
4,596.0	4.0	180.2	4,590.1	-182.4	-183.2	15.6	0.56
4,687.0	3.7	180.6	4,680.9	-188.5	-189.3	15.5	0.34
4,784.0	3.3	180.9	4,777.7	-194.4	-195.1	15.5	0.41
4,878.0	3.6	178.3	4,871.5	-200.0	-200.7	15.5	0.38
4,973.0	3.4	174.8	4,966.3	-205.7	-206.5	15.9	0.31
5,067.0	3.4	172.6	5,060.2	-211.2	-212.0	16.5	0.15
5,162.0	3.3	174.9	5,155.0	-216.8	-217.6	17.1	0.16
5,258.0	3.2	170.7	5,250.9	-222.2	-223.1	17.8	0.28
5,353.0	3.0	172.1	5,345.7	-227.2	-228.1	18.5	0.28
5,449.0	2.5	165.7	5,441.6	-231.7	-232.6	19.4	0.60
5,544.0	3.6	189.8	5,536.5	-236.6	-237.6	19.4	1.77
5,640.0	3.7	185.1	5,632.3	-242.7	-243.6	18.6	0.32
5,735.0	3.7	183.0	5,727.1	-248.9	-249.8	18.2	0.14
5,831.0	2.3	216.4	5,823.0	-253.6	-254.4	16.9	2.29
5,927.0	2.3	216.8	5,918.9	-256.8	-257.5	14.6	0.04
6,022.0	0.9	215.5	6,013.8	-259.0	-259.7	13.0	1.45
6,212.0	1.3	225.7	6,203.8	-261.8	-262.4	10.6	0.20
6,308.0	0.9	219.5	6,299.8	-263.2	-263.7	9.3	0.38
6,402.0	1.0	230.0	6,393.8	-264.3	-264.8	8.3	0.19
6,497.0	0.9	214.8	6,488.8	-265.5	-266.0	7.2	0.26
6,592.0	1.3	224.2	6,583.7	-267.0	-267.4	6.0	0.44
6,685.0	1.4	217.5	6,676.7	-268.7	-269.0	4.6	0.18
6,781.0	1.2	206.5	6,772.7	-270.5	-270.9	3.4	0.30
6,877.0	1.2	208.4	6,868.7	-272.4	-272.7	2.5	0.07
6,972.0	6.1	349.3	6,963.5	-268.3	-268.5	1.1	7.44
7,046.0	0.0	0.0	7,037.4	-264.4	-264.6	0.4	8.27
7,068.0	16.4	347.9	7,059.1	-261.4	-261.6	-0.3	74.45
7,069.2	3.6	0.0	7,060.3	-261.2	-261.4	-0.3	1,032.20

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	Coordinate N (-S) (ft)	Coordinate E (-W) (ft)	DLS (deg/100 ft)
7,092.5	7.2	0.0	7,083.4	-259.0	-259.2	-0.3	15.49
7,115.7	10.8	0.0	7,106.4	-255.4	-255.6	-0.3	15.49
7,139.0	14.4	0.0	7,129.1	-250.3	-250.5	-0.3	15.49
7,160.0	26.8	346.9	7,148.7	-243.1	-243.2	-1.4	62.73
7,162.2	18.0	0.0	7,150.8	-242.3	-242.4	-1.5	451.03
7,185.5	21.6	0.0	7,172.7	-234.4	-234.5	-1.5	15.49
7,208.7	25.2	0.0	7,194.0	-225.2	-225.3	-1.5	15.49
7,232.0	28.8	0.0	7,214.7	-214.6	-214.7	-1.5	15.49
7,252.0	36.9	353.0	7,231.5	-203.9	-203.9	-2.3	44.48
7,255.2	32.4	0.0	7,234.2	-202.0	-202.1	-2.4	185.08
7,278.5	36.0	0.0	7,253.4	-189.0	-189.0	-2.4	15.49
7,301.7	39.6	0.0	7,271.8	-174.7	-174.8	-2.4	15.49
7,325.0	43.2	0.0	7,289.2	-159.4	-159.4	-2.4	15.49
7,343.0	43.1	358.6	7,302.4	-147.1	-147.1	-2.5	5.24
7,348.2	46.8	0.0	7,306.0	-143.4	-143.4	-2.6	73.66
7,371.5	50.4	0.0	7,321.4	-126.0	-126.0	-2.6	15.49
7,394.7	54.0	0.0	7,335.7	-107.6	-107.6	-2.6	15.49
7,418.0	57.6	0.0	7,348.7	-88.4	-88.4	-2.6	15.49
7,435.0	49.0	3.2	7,358.9	-74.8	-74.7	-2.2	52.72
7,441.2	61.2	0.0	7,362.5	-69.7	-69.7	-2.1	201.17
7,464.5	64.8	0.0	7,373.0	-49.0	-49.0	-2.1	15.49
7,487.7	68.4	0.0	7,382.2	-27.7	-27.6	-2.1	15.49
7,511.0	72.0	0.0	7,390.1	-5.8	-5.8	-2.1	15.49
7,526.0	55.7	7.0	7,396.7	7.6	7.7	-1.3	115.78
7,534.2	75.6	0.0	7,400.1	15.1	15.1	-0.9	254.28
7,557.4	79.2	0.0	7,405.2	37.7	37.8	-0.9	15.49
7,580.7	82.8	0.0	7,408.8	60.7	60.7	-0.9	15.49
7,603.9	86.4	0.0	7,411.0	83.8	83.9	-0.9	15.49
7,616.0	64.5	6.9	7,414.0	95.4	95.5	-0.3	189.79
7,627.2	90.0	0.0	7,416.5	106.2	106.3	0.4	235.62
7,708.0	72.6	2.2	7,428.6	185.7	185.8	1.8	21.71
7,798.0	82.0	0.3	7,448.4	273.4	273.5	3.7	10.67
7,888.0	90.9	3.8	7,453.9	363.1	363.1	6.9	10.66
7,979.0	90.7	0.6	7,452.6	454.1	454.1	10.4	3.54
8,047.0	91.4	359.2	7,451.4	522.0	522.0	10.3	2.33
8,140.0	93.6	358.4	7,447.3	614.8	614.9	8.3	2.56
8,235.0	92.7	358.7	7,442.1	709.4	709.8	5.9	1.04
8,331.0	92.1	359.3	7,438.1	805.2	805.7	4.2	0.87
8,425.0	89.7	0.4	7,436.6	899.1	899.6	3.9	2.80
8,519.0	89.9	359.0	7,436.9	993.0	993.6	3.4	1.49
8,615.0	89.2	357.8	7,437.7	1,088.8	1,089.6	0.8	1.50
8,710.0	90.1	356.4	7,438.3	1,183.4	1,184.5	-4.0	1.78
8,804.0	89.7	356.9	7,438.4	1,277.0	1,278.3	-9.5	0.74
8,899.0	89.6	358.1	7,439.0	1,371.6	1,373.2	-13.6	1.27
8,994.0	88.7	359.0	7,440.4	1,466.4	1,468.2	-16.0	1.30
9,090.0	88.7	357.8	7,442.6	1,562.2	1,564.1	-18.7	1.27
9,183.0	87.8	355.5	7,445.4	1,654.7	1,656.9	-24.2	2.65
9,278.0	89.1	358.6	7,448.0	1,749.3	1,751.7	-29.1	3.50
9,373.0	89.5	358.8	7,449.3	1,844.1	1,846.7	-31.3	0.49
9,466.0	89.0	359.1	7,450.5	1,936.9	1,939.7	-33.0	0.57
9,560.0	89.0	0.2	7,452.1	2,030.8	2,033.6	-33.5	1.20
9,652.0	91.6	1.7	7,451.6	2,122.8	2,125.6	-32.0	3.27
9,749.0	90.0	0.3	7,450.2	2,219.7	2,222.6	-30.2	2.18
9,844.0	91.4	0.9	7,448.9	2,314.7	2,317.6	-29.2	1.58
9,940.0	90.7	0.8	7,447.1	2,410.6	2,413.5	-27.9	0.79
10,033.0	89.2	359.4	7,447.2	2,503.6	2,506.5	-27.7	2.12
10,128.0	88.6	358.6	7,449.0	2,598.4	2,601.5	-29.4	1.17
10,224.0	89.0	0.0	7,451.1	2,694.2	2,697.5	-30.5	1.60
10,319.0	91.4	1.2	7,450.8	2,789.2	2,792.4	-29.6	2.83
10,413.0	91.8	0.6	7,448.1	2,883.1	2,886.4	-28.1	0.77
10,508.0	90.4	359.8	7,446.3	2,978.0	2,981.4	-27.8	1.76
10,602.0	90.6	358.5	7,445.5	3,071.9	3,075.4	-29.1	1.44
10,698.0	88.8	359.5	7,446.1	3,167.7	3,171.3	-30.8	2.11
10,792.0	90.1	1.2	7,447.0	3,261.7	3,265.3	-30.2	2.21
10,888.0	89.0	1.3	7,447.8	3,357.7	3,361.3	-28.2	1.17
10,982.0	89.3	1.2	7,449.2	3,451.6	3,455.3	-26.2	0.44
11,077.0	89.7	359.8	7,450.0	3,546.6	3,550.3	-25.4	1.50
11,169.0	89.2	357.9	7,450.9	3,638.4	3,642.2	-27.3	2.16
11,263.0	89.8	356.2	7,451.7	3,732.0	3,736.1	-32.2	1.93
11,357.0	88.1	356.9	7,453.5	3,825.5	3,829.9	-37.9	1.90
11,452.0	90.1	0.6	7,454.9	3,920.3	3,924.9	-39.9	4.43
11,547.0	89.5	358.9	7,455.3	4,015.2	4,019.8	-40.4	1.99
11,641.0	90.0	359.0	7,455.8	4,109.1	4,113.8	-42.2	0.59
11,736.0	90.4	3.0	7,455.5	4,204.0	4,208.8	-40.5	4.24
11,831.0	90.4	2.4	7,454.9	4,299.0	4,303.7	-36.1	0.64
11,926.0	91.4	0.3	7,453.5	4,394.0	4,398.6	-33.9	2.46
12,021.0	90.2	358.1	7,452.2	4,488.8	4,493.6	-35.2	2.61
12,116.0	90.2	358.2	7,451.9	4,583.6	4,588.6	-38.3	0.15
12,211.0	90.6	357.7	7,451.3	4,678.3	4,683.5	-41.6	0.68
12,307.0	88.2	358.3	7,452.4	4,774.1	4,779.4	-45.0	2.55
12,402.0	89.6	0.7	7,454.3	4,868.9	4,874.4	-45.8	2.91
12,497.0	91.9	1.2	7,453.0	4,963.9	4,969.4	-44.2	2.52
12,592.0	92.3	0.2	7,449.5	5,058.8	5,064.3	-43.1	1.21
12,688.0	93.1	359.6	7,445.0	5,154.6	5,160.2	-43.2	1.03
12,783.0	90.3	358.8	7,442.2	5,249.4	5,255.1	-44.6	3.09
12,878.0	91.5	359.3	7,440.7	5,344.3	5,350.1	-46.2	1.36
12,971.0	89.7	359.6	7,439.7	5,437.1	5,443.1	-47.1	1.88

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	Coordinate N (-S) (ft)	Coordinate E (-W) (ft)	DLS (deg/100 ft)
13,068.0	89.7	358.7	7,440.2	5,534.0	5,540.1	-48.5	0.84
13,159.0	88.1	358.9	7,441.9	5,624.8	5,631.0	-50.4	1.83
13,254.0	86.6	0.5	7,446.3	5,719.6	5,725.9	-50.8	2.28
13,350.0	86.9	3.5	7,451.7	5,815.5	5,821.7	-47.5	3.09
13,446.0	86.5	5.4	7,457.2	5,911.2	5,917.3	-40.0	2.06
13,541.0	89.1	5.8	7,460.9	6,006.0	6,011.7	-30.8	2.74
13,637.0	91.1	5.3	7,460.7	6,101.8	6,107.3	-21.5	2.12
13,729.0	92.8	4.9	7,457.6	6,193.6	6,198.9	-13.3	1.91
13,824.0	92.5	3.0	7,453.3	6,288.5	6,293.5	-6.8	1.98
13,918.0	92.6	1.9	7,449.1	6,382.4	6,387.3	-2.7	1.22
14,012.0	92.0	359.6	7,445.3	6,476.3	6,481.3	-1.5	2.51
14,106.0	92.6	357.8	7,441.6	6,570.0	6,575.2	-3.5	2.01
14,199.0	91.3	357.8	7,438.4	6,662.7	6,668.0	-7.0	1.44
14,295.0	88.7	358.0	7,438.5	6,758.4	6,764.0	-10.5	2.67
14,390.0	90.5	357.7	7,439.2	6,853.1	6,858.9	-14.1	1.92
14,486.0	87.8	356.7	7,440.6	6,948.8	6,954.7	-18.8	3.03
14,581.0	86.5	357.7	7,445.4	7,043.3	7,049.5	-23.4	1.76
14,677.0	87.3	358.0	7,450.6	7,138.8	7,145.3	-27.0	0.92
14,771.0	87.5	357.0	7,454.8	7,232.4	7,239.1	-31.1	1.07
14,864.0	87.8	358.7	7,458.6	7,325.1	7,332.0	-34.6	1.86
14,960.0	88.3	359.7	7,461.9	7,420.9	7,427.9	-35.9	1.12
15,087.0	90.0	359.3	7,463.8	7,547.7	7,554.9	-37.0	1.39
15,182.0	90.4	359.3	7,463.4	7,642.6	7,649.9	-38.1	0.44
15,278.0	91.0	358.7	7,462.2	7,738.4	7,745.9	-39.8	0.91
15,373.0	92.1	359.2	7,459.6	7,833.2	7,840.8	-41.6	1.27
15,467.0	91.0	0.7	7,457.1	7,927.1	7,934.8	-41.6	1.99
15,562.0	90.2	0.4	7,456.1	8,022.1	8,029.7	-40.7	0.83
15,655.0	91.0	0.0	7,455.1	8,115.0	8,122.7	-40.3	0.94
15,751.0	87.9	359.8	7,456.0	8,210.9	8,218.7	-40.4	3.30
15,844.0	88.6	1.5	7,458.9	8,303.8	8,311.7	-39.3	1.96
15,940.0	89.3	3.2	7,460.7	8,399.8	8,407.6	-35.4	1.92
16,033.0	89.9	3.5	7,461.4	8,492.8	8,500.4	-30.0	0.62
16,130.0	90.2	3.8	7,461.3	8,589.8	8,597.2	-23.8	0.52
16,225.0	89.5	2.0	7,461.5	8,684.8	8,692.1	-19.1	2.07
16,320.0	90.4	2.5	7,461.5	8,779.8	8,787.0	-15.4	1.11
16,415.0	90.2	1.2	7,461.0	8,874.8	8,882.0	-12.4	1.32
16,509.0	90.3	0.1	7,460.5	8,968.7	8,976.0	-11.3	1.25
16,603.0	88.8	1.2	7,461.2	9,062.7	9,069.9	-10.3	2.03
16,699.0	89.0	1.3	7,463.0	9,158.6	9,165.9	-8.2	0.23
16,791.0	89.8	0.8	7,464.0	9,250.6	9,257.9	-6.6	0.98
16,885.0	91.3	2.2	7,463.1	9,344.6	9,351.8	-4.2	2.26
16,979.0	89.9	0.6	7,462.0	9,438.6	9,445.8	-1.8	2.28
17,072.0	88.7	356.3	7,463.2	9,531.3	9,538.7	-4.3	4.80
17,167.0	90.5	357.0	7,463.8	9,625.9	9,633.6	-9.9	1.97
17,260.0	91.3	357.0	7,462.4	9,718.5	9,726.4	-14.8	0.90
17,356.0	89.9	355.9	7,461.4	9,814.0	9,822.2	-20.8	1.84
17,450.0	91.1	355.9	7,460.5	9,907.4	9,916.0	-27.5	1.26
17,544.0	87.8	355.6	7,461.5	10,000.8	10,009.7	-34.5	3.57
17,638.0	88.1	357.6	7,464.9	10,094.3	10,103.5	-40.1	2.21
17,733.0	88.1	357.6	7,468.1	10,188.9	10,198.3	-44.1	0.05
17,829.0	88.3	1.3	7,471.1	10,284.7	10,294.3	-45.0	3.91
17,922.0	92.2	6.0	7,470.7	10,377.6	10,387.0	-39.1	6.56
18,018.0	90.8	3.2	7,468.2	10,473.5	10,482.7	-31.3	3.28
18,112.0	90.7	0.6	7,466.9	10,567.5	10,576.6	-28.2	2.78
18,208.0	91.5	1.1	7,465.1	10,663.5	10,672.6	-26.8	0.92
18,299.0	92.2	0.7	7,462.1	10,754.4	10,763.5	-25.4	0.94
18,395.0	91.9	358.6	7,458.7	10,850.2	10,859.4	-26.0	2.24
18,491.0	92.5	358.5	7,455.1	10,945.9	10,955.3	-28.5	0.65
18,587.0	89.4	358.1	7,453.5	11,041.7	11,051.3	-31.3	3.23
18,682.0	89.4	357.2	7,454.5	11,136.4	11,146.2	-35.2	0.99
18,776.0	89.0	356.9	7,455.9	11,230.0	11,240.1	-40.1	0.51
18,872.0	89.2	355.9	7,457.4	11,325.5	11,335.9	-46.2	1.04
18,968.0	89.7	358.0	7,458.4	11,421.0	11,431.7	-51.3	2.25
19,063.0	90.4	358.6	7,458.3	11,515.8	11,526.7	-54.1	1.01
19,157.0	90.0	357.6	7,458.0	11,609.6	11,620.6	-57.2	1.15
19,252.0	89.1	359.1	7,458.8	11,704.4	11,715.6	-59.9	1.80
19,347.0	89.5	358.9	7,460.0	11,799.2	11,810.5	-61.6	0.49
19,443.0	90.1	358.1	7,460.3	11,895.0	11,906.5	-64.1	1.11
19,537.0	90.7	358.6	7,459.6	11,988.8	12,000.5	-66.8	0.89
19,632.0	91.1	1.6	7,458.0	12,083.7	12,095.4	-66.5	3.16
19,727.0	90.2	2.3	7,457.0	12,178.7	12,190.4	-63.3	1.24
19,821.0	91.5	2.7	7,455.7	12,272.7	12,284.3	-59.2	1.47
19,906.0	90.0	0.0	7,454.6	12,357.6	12,369.2	-57.2	3.63
19,918.0	92.1	2.7	7,454.3	12,369.6	12,381.2	-56.9	28.38
20,013.0	92.2	2.2	7,450.7	12,464.6	12,476.1	-52.8	0.44
20,097.0	92.9	2.2	7,447.0	12,548.5	12,559.9	-49.6	0.74

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Strata Production Company
WELL NAME & NO.:	Oscar 23 11 EDL Fed Com 1H
LOCATION:	Sec 23-23S-30E-NMP
COUNTY:	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2778235** on 04/08/2024. Any previous COAs not addressed within the updated COAs still apply.*

COA

H_2S	◉ No	○ Yes		
Potash / WIPP	○ None	○ Secretary	◉ R-111-P	☐ WIPP
Cave / Karst	◉ Low	○ Medium	○ High	○ Critical
Wellhead	◉ Conventional	○ Multibowl	○ Both	○ Diverter
Cementing	☐ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	☐ DV Tool
Special Req	☐ Break Testing	☐ Water Disposal	☑ COM	☐ Unit
Variance	☐ Flex Hose	☐ Casing Clearance	☐ Pilot Hole	☐ Capitan Reef
Variance	☐ Four-String	☐ Offline Cementing	☐ Fluid-Filled	☐ Open Annulus
☐ **Batch APD / Sundry**				

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately 441 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. ***Set depth altered per BLM geologist.***

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of

24 hours in the Potash Area or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9 3/8** inch intermediate casing is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

❖ In R111 Potash Areas if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing salt string must come to surface.

3. The minimum required fill of cement behind the **7** inch production casing (with **5** inch taper) is:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

C. PRESSURE EQUIPMENT

1. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Email **or** call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, **BLM_NM_CFO_DrillingNotifications@BLM.GOV**
(575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig

- Notify the BLM when moving in and removing the Spudder Rig.
- Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
- BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE.

If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Sec 23-23S-30E-NMP Sundry 2778235 Oscar 23 11 EDL Fed Com 1H Eng Worksheet

Oscar 23 11 EDL Fed Com 1H

13 3/8	surface csg in a	17 1/2	inch hole.		Design Factors			Surface			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	48.00	H 40	STC	15.21	3.78	0.79	441	9	1.33	7.20	21,168
"B"			STC				0				0
w/8.4#/g mud, 30min Sfc Csg Test psig:	1,019		Tail Cmt	does not	circ to sfc.		Totals:	441			21,168

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	469	624	306	104	8.90	1302	2M	1.56

Burst Frac Gradient(s) for Segment(s) A, B = , b All > 0.70, OK. Site plat (pipe racks S or E) as per C-O-A III.D.4.i. not found.

9 3/8	casing inside the	13 3/8			Design Factors			Int 1			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	39.00	HCQ 125	TYPE 513	5.75	2.22	2.66	4,000	5	4.55	3.73	156,000
"B"							0				0
w/8.4#/g mud, 30min Sfc Csg Test psig:							Totals:	4,000			156,000
The cement volume(s) are intended to achieve a top of				0	ft from surface or a			441			overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3391	1056	1904	1384	38	10.50	2169	3M	1.44

Class 'H' tail cmt yld > 1.20

Tail cmt

7	casing inside the	9 3/8			Design Factors			Prod 1			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	29.00	HCP 110	LTC	3.93	2.48	3.03	7,000	3	5.17	4.24	203,000
"B"	18.00	HCP 110	BTC	∞	3.63	3.67	12,906	4	6.28	6.21	232,308
w/8.4#/g mud, 30min Sfc Csg Test psig:	1,540						Totals:	19,906			435,308
The cement volume(s) are intended to achieve a top of				0	ft from surface or a			4000			overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.1503	3290	4921	2926	68	10.20			0.55

Class 'C' tail cmt yld > 1.35

#N/A

0		7			Design Factors			<Choose Casing>			
Segment	#/ft	Grade	Coupling	#N/A	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"			0.00				0				0
"B"			0.00				0				0
w/8.4#/g mud, 30min Sfc Csg Test psig:							Totals:	0			0
Cmt vol calc below includes this csg, TOC intended				#N/A	ft from surface or a			#N/A			overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
0		#N/A	#N/A	0	#N/A				

#N/A Capitan Reef est top XXXX.

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 341405

CONDITIONS

Operator: STRATA PRODUCTION CO P.O. Box 1030 Roswell, NM 882021030	OGRID: 21712
	Action Number: 341405
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	7/11/2025