U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Sundry Print Report

01/25/2021

Well Name: BOROS FEDERAL

Well Location: T26S / R31E / SEC 15 / NWNE / 32.0489552 / -103.7648233

County or Parish/State: EDDY / NM

Well Number: 107H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM138865

Unit or CA Name:

Unit or CA Number:

US Well Number: 300154685200X1

Well Status: Approved Application for Permit to Drill

Operator: MATADOR PRODUCTION COMPANY

Notice of Intent

Type of Submission: Notice of Intent

Type of Action Casing

Date Sundry Submitted: 01/22/2021

Time Sundry Submitted: 03:20

Date proposed operation will begin: 01/24/2021

Procedure Description: BLM Bond No. NMB001079 Surety Bond No. RLB0015172 Matador respectfully requests the option to amend the casing, cementing and mud program. Please find supporting documentation attached and contact Blake Hermes at 972-371-5485 or BHermes@matadorresources.com for any questions. Original sundry submitted to old WIS EC-526533. Received verbal approval from RACHEL IJABIKEN 1/14/2021. I have attached her COA and Calculations.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

BOROS_FEDERAL_107H_Sundry_APD_Calculations_20210122151559.pdf

BOROS_FEDERAL_107H_Sundry_COA_20210122151559.pdf

Boros_Federal_107H_Drill_Plan_20210122151536.pdf

Boros_Federal_107H_Casing_Table_Spec_20210122151535.pdf

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Conditions of Approval

Specialist Review

BOROS_FEDERAL_107H_Sundry_APD_Calculations_20210125202708.pdf

BOROS_FEDERAL_107H_Sundry_COA_20210125202656.pdf

Operator Certification

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: FITZGERALD

Signed on: JAN 22, 2021 03:20 PM

Name: MATADOR PRODUCTION COMPANY

Title: Regulatory

Street Address: 5400 LBJ FREEWAY, SUITE 1500

City: DALLAS **State:** TX

Phone: (972) 890-8840

Email address: NOT ENTERED

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: RACHEL O IJABIKEN

BLM POC Title: Engineer

BLM POC Phone: 5752346256

BLM POC Email Address: RIJABIKEN@BLM.GOV

Disposition: Approved

Disposition Date: 01/25/2021

Signature: RACHEL IJABIKEN PETROLEUM ENGINEER BLM-CFO

152631B EC-526533 Boros Federal 107H Eddy NMNM138865 Matador 13-22 01132021 RI SUNDRY

Boros Federal 107H

13 3/8 surface csg in a 17 1/2 inch hole. **Design Factors** Surface

Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	54.50	J 55	BTC	11.34	1.79	0.69	1,381	5	1.25	3.45	75,265
w/8.4#/g mud, 30min Sfc Csg Test psig:	1,308		Tail Cmt	does not	circ to sfc.	Totals:	1,381				75,265

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	950	1549	959	61	8.80	2179	3M	1.56

Class 'C' tail cmt yield above 1.35.

Burst Frac Gradient(s) for Segment(s) A, B = , b All > 0.70, OK.

9 5/8 casing inside the 13 3/8 **Design Factors** Int 1

Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	29.70	P 110	BTC	2.61	0.65	0.92	8,120	1	1.68	1.18	241,164
w/8.4#/g mud, 30min Sfc Csg Test psig:						Totals:	8,120				241,164

The cement volume(s) are intended to achieve a top of 0 ft from surface or a 1381 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	0.3132	540	1270	2611	-51	9.40	2350	3M	0.81

Class 'H' tail cmt yld > 1.20

Burst Frac Gradient(s) for Segment(s): A, B, C, D = 0.49, b, c, d <0.70 a Problem!!

Casing must be brought to surface: more cement may be needed; Casing must be kept 2/3 fluid filled during drilling to prevent collapse.

5 1/2 casing inside the 9 5/8 **Design Factors** Prod 1

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	20.00	P 110	TLW	2.98	2.49	3.36	19,050	3	6.11	5.14	381,000
w/8.4#/g mud, 30min Sfc Csg Test psig:	1,927					Totals:	19,050				381,000

The cement volume(s) are intended to achieve a top of 7920 ft from surface or a 200 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
6 3/4	0.0835	740	999	965	4	9.40			0.32

Class 'C' tail cmt yld > 1.35

More cement may be needed.

#N/A

Boros Federal #107H
SHL: 430' FNL & 2293' FEL Section 15
BHL: 100' FSL & 1650' FEL Section 22
Township/Range: 26S 31E
Elevation Above Sea Level: 3225

Drilling Operation Plan

Proposed Drilling Depth: 19050' MD / 8758' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation Quaternary Deposits

KOP Lat/Long (NAD83): 32.0498656 N / -103.7627428 W
TD Lat/Long (NAD83): 32.0211003 N / -103.7627076 W

1. Estimated Tops

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	1,356	1,356	132	Anhydrite	Barren
Salado (Top of Salt)	1,488	1,488	2,609	Salt	Barren
Lamar (Base of Salt)	4,097	4,097	29	Salt	Barren
Bell Canyon	4,126	4,126	1,053	Sandstone	Oil/Natural Gas
Cherry Canyon	5,179	5,179	1,206	Sandstone	Oil/Natural Gas
Brushy Canyon	6,385	6,385	1,683	Sandstone	Oil/Natural Gas
Bone Springs Lime	8,068	8,068	77	Limestone	Oil/Natural Gas
KOP	8,145	8,145	573	Sandstone	Oil/Natural Gas
Avalon	9,045	8,718	40	Sandstone	Oil/Natural Gas
TD	**19,050**	**8,758**		**Sandstone**	**Oil/Natural Gas**

2. Notable Zones

Brushy Canyon is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 230'

3. Pressure Control

Equipment
A 12,000' 5,000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator complying with Onshore Order #2 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

Testing Procedure
BOP will be inspected and operated as required in Onshore Order #2. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs.

After setting surface casing, a minimum 5M BOPE system will be installed. Test pressures will be 250 psi low and 5,000 psi high with the annular preventer being tested to 250 psi low and 2500 psi high before drilling below surface shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 5M BOPE system is re-installed.

Variance Request
Matador requests a variance to have the option of running a multi-bowl wellhead assembly for setting the Intermediate 1, and Production Strings. The BOPs will not be tested again unless any flanges are separated.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Matador requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, the wellbore will be secured with a blind flange of like pressure. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test.

4. Casing & Cement

All casing will be API and new. See attached casing assumption worksheet.

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	17.5	0 - 1381	0 - 1381	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 8120	0 - 8120	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Production	6.75	0 - 19050	0 - 8758	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed
- All non-API joint connections will be of like or greater quality, and as run specification sheets will be on location for review
- Request the option to deepen the Intermediate 1 casing set depth to 70° in curve, no changes in pipe grade or weight is neccesary.

Variance Request
Matador request a variance to wave the centralizer requirement for the 7-5/8" casing and the 5-1/2" SF/Flush casing in the 6-3/4" hole.

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above the current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Matador request option to perform a bradenhead cement squeeze on Intermediate 1 string.

Matador request a variance to utilize a surface setting rig. If this is used, Matador request the option to drill either 17.5" or 20" surface hole.

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	700	1.72	1198	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	1081	C	5% NaCl + LCM
Intermediate 1	Lead	230	3.66	847	10.3	35%	4200	A/C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	210	1.38	290	13.2	35%	7120	A/C	5% NaCl + LCM
Production	Tail	740	1.35	1002	13.2	10%	8145	A/C	Fluid Loss + Dispersant + Retarder

5. Mud Program

An electronic Pason mud monitoring system complying with Onshore Order 2 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	17.5	Spud Mud	0 - 1381	8.4 - 8.8	28-30	NC
Intermediate 1	9.875	Diesel Brine Emulsion	1381 - 7968	8.4 - 9.4	28-30	NC
Production	6.75	Cut Brine/OBM	7968 - 19050	8.6 - 9.4	50-65	<20

6. Cores, Test, & Logs

No core or drill stem test is planned.

No electric logs are planned at this time. GR will be collected through the MWD tools from Intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to top of curve.

Drill Plan

7. Down Hole Conditions

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Matador Production Company**
LEASE NO.:	**NMNM138865**
WELL NAME & NO.:	**BOROS FEDERAL 107H SUNDRY (EC-526533)**
SURFACE HOLE FOOTAGE:	430'/N & 2293'/E
BOTTOM HOLE FOOTAGE	100'/S & 1650'/E
LOCATION:	Section 15, T.26 S., R.31 E., NMPM
COUNTY:	Eddy County, New Mexico

COA

H2S	○ Yes	◉ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	○ Low	◉ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	○ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☑ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☐ Unit

ALL PREVIOUS COAs STILL APPLY.

A. CASING

1. The **9-5/8** inch intermediate casing hsall be set at **8120 feet**. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

   Option 1 (Single Stage):

   - 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 or potash.**

     Excess cement calculates to less than 25%; More cement may be needed.

Option 2 (Multi- Stage):

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 or potash.

- **Intermediate casing must be kept 2/3 fluid filled to meet BLM minimum collapse requirement.**

- **Operator has proposed to pump down 13-3/8" X 9-5/8" annulus. Operator must run a CBL from TD of the 9-5/8" casing to surface. Submit results to BLM.**

- In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

RI01142021

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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

COMMENTS

Action 15631

COMMENTS

Operator:	OGRID:	Action Number:	Action Type:
MATADOR PRODUCTION COMPANY One Lincoln Centre 5400 LBJ Freeway, Ste 1500 Dallas, TX75240	228937	15631	C-103A

Created By	Comment	Comment Date
jagarcia	Accepted for Record	02/23/2021

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CONDITIONS

Action 15631

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MATADOR PRODUCTION COMPANY One Lincoln Centre 5400 LBJ Freeway, Ste 1500 Dallas, TX75240	228937	15631	C-103A

OCD Reviewer	Condition
jagarcia	None