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

Additional Remarks

Please see attached document for more detailed tables and diagrams.

Location of Well

0. SHL: SESW / 155 FSL / 2076 FWL / TWSP: 20S / RANGE: 33E / SECTION: 33 / LAT: 32.522775 / LONG: -103.67009 (TVD: 0 feet, MD: 0 feet)

PPP: SESW / 100 FSL / 2310 FWL / TWSP: 20S / RANGE: 33E / SECTION: 33 / LAT: 32.522623 / LONG: -103.669331 (TVD: 11331 feet, MD: 11412 feet)

PPP: SESW / 0 FSL / 2310 FWL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.536861 / LONG: -103.669338 (TVD: 11466 feet, MD: 16632 feet)

PPP: NESW / 1320 FSL / 2310 FWL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.54049 / LONG: -103.66934 (TVD: 11460 feet, MD: 17952 feet)

BHL: NENW / 50 FNL / 2310 FWL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.551237 / LONG: -103.669346 (TVD: 11442 feet, MD: 21862 feet)

Ascent Energy respectfully requests approval on the Gavilon Fed Com 706H for an option to:

- Addition of an External Casing Packer on the 13-3/8"and 9-5/8" Casing
- Addition of an Optional 7-5/8" Intermediate #3 casing string set 100' above KOP (10,844'). This hole section will be drilled with a 8-3/4" open hole.
    - Optional decrease of the open hole size of the production curve/lateral section to 6-3/4" if 7-5/8" Int #3 string is ran.
- Increase the casing size of our vertical casing strings.
- Circulating Medium change to Oil-Based Mud in the Production Hole Section.
- Revise proposed BOP beneath the base of the 20" surface shoe to setting the 1st Intermediate casing string only (13 3/8").

The reason for the request is based on improved drilling efficiencies and improved cementing in-place for each casing string. We believe the larger casing diameters in the vertical section will increase the likelihood of getting cement to surface for each string.

There will be no change in Geology formations, and casing depths as noted in the COA of the approved APD.

External Casing Packer:

The pending hole conditions the addition of an External Casing Packer to the Intermediate #1 13-3/8" and Intermediate #2 9-5/8" casing string is requested. A DV Tool is also requested the Intermediate #1 13-3/8" & Intermediate #2 9-5/8" casing string.

Proposed/Optional proposed design:

Proposed Casing:

DESCRIPTION	Hole Size (in)	CSG Size (in)	INTERVAL (ft)			WEIGHT (ppf)	GRADE	COUPLING	FORMATION PRESS @ CSG DEPTH (PPG)	MW @ CSG DEPTH (PPG)	SAFETY FACTORS		
			TOP MD	BTM TVD	BTM MD						BURST (psi)	COLLAPSE (psi)	TENSION (1000 lbs)
CONDUCTOR	36	30	0	120	120	---	---	WELD	---	---	---	---	---
											---	---	---
SURFACE	26	20	0	1,555	1,555	94	J-55	BTC	8.3	9.0	2,110	520	1480
											2.7	2.8	10.1
INT. #1	17.5	13.375	0	3,638	3,665	54.5	J-55	BTC	8.3	10.0	2,730	1,130	853
											1.7	1.5	4.3
INT. #2	12.25	9.625	0	5,002	5,032	40	L-80	BTC	8.3	9.2	5,750	3,090	630
											1.5	4.2	3.1
PRODUCTION	8.75	5.5	0	11,487	21,862	20	P-110	BTC	8.7	9.6	12,630	11,100	641
											3.3	2.5	1.5

Optional Casing Design:

DESCRIPTION	Hole Size (in)	CSG Size (in)	INTERVAL (ft) TOP MD	INTERVAL (ft) BTM TVD	INTERVAL (ft) BTM MD	WEIGHT (ppf)	GRADE	COUPLING	FORMATION PRESS @ CSG DEPTH (PPG)	MW @ CSG DEPTH (PPG)	SAFETY FACTORS BURST (psi)	SAFETY FACTORS COLLAPSE (psi)	SAFETY FACTORS TENSION (1000 lbs)
CONDUCTOR	36	30	0	120	120	---	---	WELD	---	---	---	---	---
											---	---	---
SURFACE	26	20	0	1,555	1,555	94	J-55	BTC	8.3	9.0	2,110	520	1480
											2.7	2.8	10.1
INT. #1	17.5	13.375	0	3,638	3,665	54.5	J-55	BTC	8.3	10.0	2,730	1,130	853
											1.7	1.5	4.3
INT. #2	12.25	9.625	0	5,002	5,032	40	L-80	BTC	8.3	9.2	5,750	3,090	630
											1.5	4.2	3.1
INT. #3	8.75	7.625	0	4,852	4,882	29.7	P-110	BTC	8.3	9.2	9470.0	5340	940
											1.125	1.125	1.8
	8.75	7.625	4,882	10,814	10,844	29.7	P-110	HTF-NR	8.6	9.2	9470.0	5340	940
											1.125	1.125	1.8
PRODUCTION	6.75	5.5	0	11,487	21,862	20	P-110	BTC	8.7	9.6	12,630	11,100	641
											3.3	2.5	1.5

Cement:

DESCRIPTION	HOLE (IN)	CSG (IN)	TOP	BTM	LENGTH (FT)	SLURRY DESCRIPTION	FT^3 / SACKS	EXCESS	WEIGHT (ppg)	YIELD (FT^3/SK)
CONDUCTOR	36	30	0	120	120	Class G	518 443	100%	15.8	1.17
SURFACE - LEAD	26	20	0	1,055	1,055	Class C	3067 1783	100%	13.5	1.72
SURFACE - TAIL	26	20	1,055	1,555	500	Class C	1506 1132	100%	14.8	1.33
INT #1 - LEAD	17.5	13.375	0	3,165	3,165	Class C	3543 1527	75%	12.7	2.32
INT #1 - TAIL	17.5	13.375	3,165	3,665	500	Class C	608 457	75%	14.8	1.33
INT #1 - DV TAIL	17.5	13.375	0	1,605	1,605	Class C	1610 1211	75%	14.8	1.33
INT #2 - LEAD	12.25	9.625	0	4,532	4,532	50/50Poz Class C	1873 851	100%	11.5	2.2
INT # 2 - TAIL	12.25	9.625	4,532	5,032	500	Class C	313 236	100%	14.8	1.33
INT #2 - DV LEAD	12.25	9.625	0	3,215	3,215	50/50Poz Class C	1118 508	50%	11.5	2.2
INT # 2 - DV TAIL	12.25	9.625	3,215	3,715	500	Class C	235 177	50%	14.8	1.33
PRODUCTION - LEAD	8.75	5.5	0	9,000	9,000	Nine Lite	2515 1014	20%	11.0	2.48
PRODUCTION - TAIL	8.75	5.5	9,000	21,862	12,862	35/65 Poz Class H	3900 2653	20%	13.2	1.47

Note 1: Int 1 is two stage cement job. DVT and External Casing packer to be placed @ approximately 1605' MD, 50ft from previous casing shoe and will be adjusted real time

Note 2: Int 2 is two stage cement job. DVT and External Casing packer to be placed @ approximately 3705' MD, 50ft from previous casing shoe and will be adjusted real time

Cement Design if Optional Casing design is ran:

DESCRIPTION	HOLE (IN)	CSG (IN)	TOP	BTM	LENGTH (FT)	SLURRY DESCRIPTION	FT^3 / SACKS	EXCESS	WEIGHT (ppg)	YIELD (FT^3/SK)
CONDUCTOR	36	30	0	120	120	Class G	518 443	100%	15.8	1.17
SURFACE - LEAD	26	20	0	1,055	1,055	Class C	3067 1783	100%	13.5	1.72
SURFACE - TAIL	26	20	1,055	1,555	500	Class C	1506 1132	100%	14.8	1.33
INT #1 - LEAD	17.5	13.375	0	3,165	3,165	Class C	3543 1527	75%	12.7	2.32
INT #1 - TAIL	17.5	13.375	3,165	3,665	500	Class C	608 457	75%	14.8	1.33
INT #1 - DV TAIL	17.5	13.375	0	1,605	1,605	Class C	1610 1211	75%	14.8	1.33
INT #2 - LEAD	12.25	9.625	0	4,532	4,532	50/50Poz Class C	1873 851	100%	11.5	2.2
INT # 2 - TAIL	12.25	9.625	4,532	5,032	500	Class C	313 236	100%	14.8	1.33
INT #2 - DV LEAD	12.25	9.625	0	3,215	3,215	50/50Poz Class C	1118 508	50%	11.5	2.2
INT # 2 - DV TAIL	12.25	9.625	3,215	3,715	500	Class C	235 177	50%	14.8	1.33
INT #3 - LEAD	8.75	7.625	0	8,344	8,344	50/50Poz Class C	1212 551	100%	11.5	2.2
INT # 3 - TAIL	8.75	7.625	8,344	10,844	2,500	Class C	503 378	100%	14.8	1.33
PRODUCTION - LEAD	6.75	5.5	0	9,900	9,900	Nine Lite	1103 445	20%	11.0	2.48
PRODUCTION - TAIL	6.75	5.5	9,900	21,862	11,962	35/65 Poz Class H	1192 811	20%	13.2	1.47

Note 1: Int 1 is two stage cement job. DVT and External Casing packer to be placed @ approximately 1605' MD, 50ft from previous casing shoe and will be adjusted real time

Note 2: Int 2 is two stage cement job. DVT and External Casing packer to be placed @ approximately 3705' MD, 50ft from previous casing shoe and will be adjusted real time

Circulating Medium / Mud Program:

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)
0	1,555	OTHER: Fresh Water	8.4	9.6
1,555	3,665	OTHER: Brine Water	10	10
3,665	5,032	OTHER: Fresh Water	8.4	9.6
5,032	10,900	Cut Brine	8.5	9.5
10,900	21,862	OBM	8.5	9.5

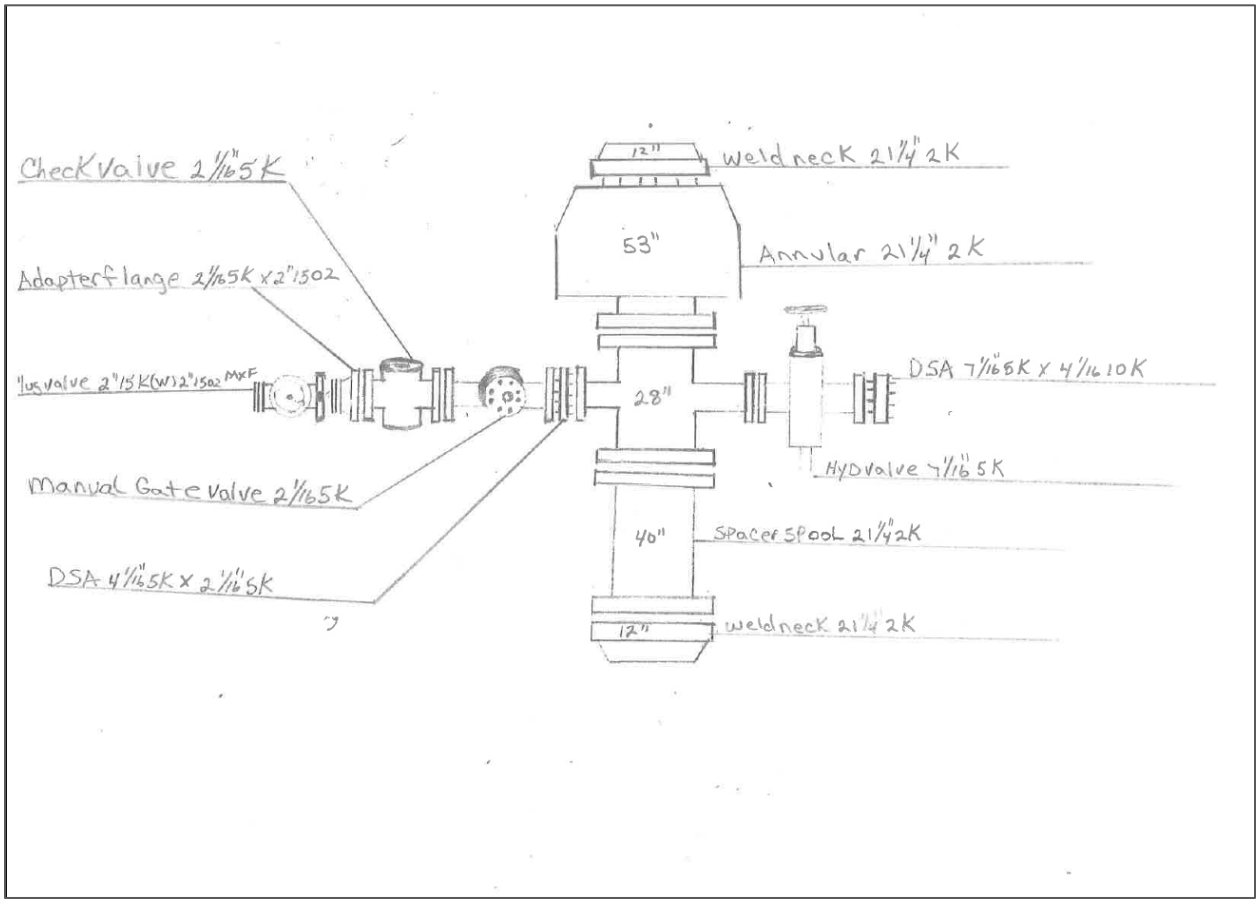
New Proposed BOP:

From the Base of the 20" Surface pipe, the well will be equipped with a 2M Annular system. Before drilling out the 20" surface pipe, the 2M system will be tested to 250psi low and 1000psi high by an 3rd party service company. The 2M BOPE and related equipment will meet or exceed the requirements of a 2M psi system as set forth in On Shore Order No. 2 while drilling below the 20" surface shoe and to TD of Intermediate #1 (13-3/8" Casing). Once the Intermediate #1 13-3/8" Casing is cemented the 20" 2M BOPE and 21-1/4" wellhead will be removed and a 13-5/8" Multi-bowl wellhead and previously permitted 13-5/8" 5M BOPE will be installed. From the base of the Intermediate #1 13-3/8" casing string through running of the 5-1/2" production string the 5M BOPE will be equipped.

The previously permitted 5M choke will be utilized in conjunction with the 2M Annular System.

ASCENT ENERGY

2M ANNULAR BOPE & DIAGRAM



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

Sundry Print Report

01/17/2022

Well Name: GAVILON FED COM	**Well Location:** T20S / R33E / SEC 33 / SESW / 32.522775 / -103.67009	**County or Parish/State:** LEA / NM
Well Number: 706H	**Type of Well:** OIL WELL	**Allottee or Tribe Name:**
Lease Number: NMNM57683	**Unit or CA Name:**	**Unit or CA Number:**
US Well Number: 3002548527	**Well Status:** Approved Application for Permit to Drill	**Operator:** ASCENT ENERGY LLC

Notice of Intent

Sundry ID: 2648153

Type of Submission: Notice of Intent

Type of Action: Other

Date Sundry Submitted: 12/09/2021

Time Sundry Submitted: 03:04

Date proposed operation will begin: 12/13/2021

Procedure Description: Ascent Energy respectfully requests approval on the Gavilon Fed Com 706H for an option to: • Addition of an External Casing Packer on the 13-3/8”and 9-5/8” Casing • Addition of an Optional 7-5/8” Intermediate #3 casing string set 100’ above KOP (10,844’). This hole section will be drilled with a 8-3/4” open hole. o Optional decrease of the open hole size of the production curve/lateral section to 6-3/4” if 7-5/8” Int #3 string is ran. • Increase the casing size of our vertical casing strings. • Circulating Medium change to Oil-Based Mud in the Production Hole Section. • Revise proposed BOP beneath the base of the 20” surface shoe to setting the 1st Intermediate casing string only (13 3/8”). The reason for the request is based on improved drilling efficiencies and improved cementing in-place for each casing string. We believe the larger casing diameters in the vertical section will increase the likelihood of getting cement to surface for each string. There will be no change in Geology formations, and casing depths as noted in the COA of the approved APD. Please see attached document for more detailed tables and diagrams.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

PROPOSAL__20211214123927

DWG___24X36_20211214123926.pdf

Gavilon_706H_Sundry_9Dec_2021_rev2_20211214123859.pdf

Well Name: GAVILON FED COM

Well Location: T20S / R33E / SEC 33 / SESW / 32.522775 / -103.67009

County or Parish/State: LEA / NM

Well Number: 706H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM57683

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002548527

Well Status: Approved Application for Permit to Drill

Operator: ASCENT ENERGY LLC

Conditions of Approval

Additional Reviews

33_20_33_N_Sundry_ID_2648153_Gavilon_Fed_Com_706H_Lea_NM057683_Ascent_Energy_LLC_13_22d_12_15_2021_LV_Alternate_20220107142107.pdf

33_20_33_N_Sundry_ID_2648153_Gavilon_Fed_Com_706H_Lea_NM057683_Ascent_Energy_LLC_13_22d_12_15_2021_LV_20220107142107.pdf

Gavilon_Fed_Com_706H_Sundry_ID_2648153_20220107142107.pdf

Casing_Specs_5.5in_20lb_Hunting_TLW_SC_20220107142107.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: BEN METZ

Signed on: DEC 14, 2021 12:39 PM

Name: ASCENT ENERGY LLC

Title: Vice President Exploration

Street Address: PO BOX 270983

City: LITTLETON **State:** CO

Phone: (303) 513-8590

Email address: BMETZ@ASCENTENERGY.US

Field Representative

Representative Name:

Street Address:

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

Phone:

Email address:

BLM Point of Contact

BLM POC Name: Cody Layton

BLM POC Title: Assistant Field Manager Lands & Minerals

BLM POC Phone: 5752345959

BLM POC Email Address: clayton@blm.gov

Disposition: Approved

Disposition Date: 01/13/2022

Signature: Cody R. Layton

33-20-33-N Sundry ID 2648153 Gavilon Fed Com 706H Lea NM057683 Ascent Energy LLC 13-22d 12-15-2021 LV Alternate

Gavilon Fed Com 706H

20	surface csg in a	26	inch hole.		Design Factors			Surface			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	94.00	j 55	btc	9.59	0.67	1.12	1,555	3	1.94	1.20	146,170
"B"			btc				0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig: 798		Tail Cmt	does not	circ to sfc.	Totals:	1,555				146,170

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
26	1.5053	2915	4572	2341	95	9.60	1090	2M	2.50

Site plat (pipe racks S or E) as per O.O.1.III.D.4.i. not found.

13 3/8	casing inside the	20			Design Factors			Int 1			
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	54.50	j 55	btc	4.30	0.6	1.09	3,665	1	1.96	1.04	199,743
"B"							0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:					Totals:	3,665				199,743
	The cement volume(s) are intended to achieve a top of			0	ft from	surface or a	1555				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
17 1/2	0.6946	1984	4150	3050	36	10.00	1394	2M	1.56
D V Tool(s):			1605				sum of sx	Σ CuFt	Σ%excess
t by stage % :		190	-1				3195	5761	89

Class 'C' tail cmt yld > 1.35

9 5/8	casing inside the	13 3/8			Design Factors			Int 2			
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.00	l 80	btc	4.58	1.24	1.08	5,032	2	1.94	2.22	201,280
"B"							0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500					Totals:	5,032				201,280
	The cement volume(s) are intended to achieve a top of			0	ft from	surface or a	3665				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	1087	2186	1757	24	9.60	2958	5M	0.81
	Setting Depths for D V Tool(s):		3705				sum of sx	Σ CuFt	Σ%excess
	% excess cmt by stage:	426	1				1772	3539	101

7 5/8	casing inside the	9 5/8			Design Factors			Int 3			
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	29.70	p 110	btc	2.93	2.22	1.67	4,882	2	3.01	4.01	144,995
"B"	29.70	p 110	HTF-NR	3.51	1.38	1.9	5,962	2	3.42	2.49	177,071
	w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500					Totals:	10,844				322,067
	The cement volume(s) are intended to achieve a top of			3695	ft from	surface or a	1337				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	0.1005	929	1715	729	135	9.50	3142	5M	0.52

Class 'H' tail cmt yld > 1.20 Capitan Reef est top XXXX.

Tail cmt

5 1/2	casing inside the	7 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	btc	3.08	2.29	2.53	21,862	3	4.57	4.14	437,240
"B"			HTF-NR				0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500					Totals:	21,862				437,240
	The cement volume(s) are intended to achieve a top of			3695	ft from	surface or a	7149				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Min Dist Hole-Cplg
6 3/4	0.0835	1256	2296	1932	19	9.50	0.44

Class 'H' tail cmt yld > 1.20

Gavilon Fed Com 706H

20 surface csg in a 26 inch hole. Design Factors — Surface

Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	94.00	j	55	btc	9.59	0.67	1.12	1,555	3	1.94	1.20	146,170
"B"				btc				0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:	798		Tail Cmt	does not	circ to sfc.	Totals:	1,555				146,170

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
26	1.5053	2915	4572	2341	95	9.60	1090	2M	2.50

Site plat (pipe racks S or E) as per O.O.1.III.D.4.i. not found.

13 3/8 casing inside the 20 Design Factors — Int 1

Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	54.50	j	55	btc	4.30	0.6	1.09	3,665	1	1.96	1.04	199,743
"B"								0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:						Totals:	3,665				199,743
	The cement volume(s) are intended to achieve a top of				0	ft from	surface or a	1555				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
17 1/2	0.6946	1984	4150	3050	36	10.00	1394	2M	1.56
D V Tool(s):			1605				sum of sx	Σ CuFt	Σ%excess
t by stage % :		190	-1				3195	5761	89

Class 'C' tail cmt yld > 1.35

9 5/8 casing inside the 13 3/8 Design Factors — Int 2

Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.00	l	80	btc	4.58	1.24	1.01	5,032	2	1.83	2.22	201,280
"B"								0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:	1,500					Totals:	5,032				201,280
	The cement volume(s) are intended to achieve a top of				0	ft from	surface or a	3665				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	1087	2186	1757	24	9.60	3142	5M	0.81
	Setting Depths for D V Tool(s):		3705				sum of sx	Σ CuFt	Σ%excess
	% excess cmt by stage:	426	1				1772	3539	101

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

Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	20.00	p	110	btc	2.79	1.95	2.23	21,862	2	4.02	3.53	437,240
"B"								0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:	2,527					Totals:	21,862				437,240
	The cement volume(s) are intended to achieve a top of				3695	ft from	surface or a	1337				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	0.2526	3667	6415	4600	39	9.50			1.35

Class 'H' tail cmt yld > 1.20 Capitan Reef est top XXXX.

TEC-LOCK WEDGE

5.500" 20 LB/FT (.361"Wall) with 5.875" SPECIAL CLEARANCE OD
BEN P110 CY

Pipe Body Data

Nominal OD:	5.500	in
Nominal Wall:	.361	in
Nominal Weight:	20.00	lb/ft
Plain End Weight:	19.83	lb/ft
Material Grade:	P110 CY	
Mill/Specification:	BEN	
Yield Strength:	125,000	psi
Tensile Strength:	135,000	psi
Nominal ID:	4.778	in
API Drift Diameter:	4.653	in
Special Drift Diameter:	None	in
RBW:	87.5 %	
Body Yield:	729,000	lbf
Burst:	14,360	psi
Collapse:	13,010	psi

Connection Data

Standard OD:	5.875	in
Pin Bored ID:	4.778	in
Critical Section Area:	5.656	in²
Tensile Efficiency:	97 %	
Compressive Efficiency:	100 %	
Longitudinal Yield Strength:	707,000	lbf
Compressive Limit:	729,000	lbf
Internal Pressure Rating:	14,360	psi
External Pressure Rating:	13,010	psi
Maximum Bend:	101.2	°/100ft

Operational Data

Minimum Makeup Torque:	15,000	ft*lbf
Optimum Makeup Torque:	18,700	ft*lbf
Maximum Makeup Torque:	41,200	ft*lbf
Minimum Yield:	45,800	ft*lbf
Makeup Loss:	5.97	in

Notes

Operational Torque is equivalent to the Maximum Make-Up Torque

Generated on Sep 03, 2019

HUNTING

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Ascent Energy LLC**
LEASE NO.:	**NMNM057683**
LOCATION:	Section 33, T.20 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	**Gavilon Fed Com 706H**
SURFACE HOLE FOOTAGE:	155'/S & 2076'/W
BOTTOM HOLE FOOTAGE	50'/N & 2310'/W

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
Wellhead Variance	○ Diverter		
Other	☑ 4 String Area	☑ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Cement Squeeze	☐ EchoMeter	
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit
Special Requirements Variance	☐ Break Testing	☐ Offline Cementing	

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Hat Mesa** Pool. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Primary Casing Design:

Surface casing must be kept fluid filled to meet BLM minimum collapse requirement.

1. The **20** inch surface casing shall be set at approximately **1555 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    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.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **13-3/8** inch intermediate casing shall be set at approximately **3665 feet** 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.**

Option 2:

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.
  Cement excess is less than 25%, more cement might be required.

❖ 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 **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, potash or capitan reef.

Option 2:

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 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, potash or capitan reef.
  Cement excess is less than 25%, more cement might be required.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back at least **50 feet** on top of Capitan Reef top **or 200 feet** into the previous casing, whichever is greater. 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, potash or capitan reef.

Alternate Casing Design:

Surface casing must be kept fluid filled to meet BLM minimum collapse requirement.

1. The **20** inch surface casing shall be set at approximately **1555 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    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.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **13-3/8** inch intermediate casing shall be set at approximately **3665 feet** 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.**

Option 2:

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.
  Cement excess is less than 25%, more cement might be required.

❖ 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 **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, potash or capitan reef.

Option 2:

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 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, potash or capitan reef.
  Cement excess is less than 25%, more cement might be required.

4. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

- Cement should tie-back at least **50 feet** on top of Capitan Reef top **or 200 feet** into the previous casing, whichever is greater. 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, potash or capitan reef.

5. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   - Cement should tie-back at least **50 feet** on top of Capitan Reef top **or 200 feet** into the previous casing, whichever is greater. 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, potash or capitan reef.
     Cement excess is less than 25%, more cement might be required.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi. **Annular which shall be tested to 1400 (70% Working Pressure) psi.**

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **13-3/8** intermediate casing shoe shall be **3000 (3M)** psi.

c. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi.

d. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi. **Annular which shall be tested to 1400 (70% Working Pressure) psi.**

b. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch intermediate casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **5000 (5M)** psi.

i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
ii. 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.
iii. Manufacturer representative shall install the test plug for the initial BOP test.
iv. 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.
v. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

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.
- 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
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

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 Onshore Oil and Gas Order No. 2 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 intergrity 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 Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

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 OOGO2.III.A.2.i 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 when specified), 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 plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 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 Onshore Order No. 2.

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.

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

CONDITIONS

Action 73503

CONDITIONS

Operator: ASCENT ENERGY, LLC. 14982 Melco Ave. Parker, CO 80134	OGRID: 325830
	Action Number: 73503
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	1/21/2022