

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.
1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
2. Name of Operator		7. If Unit of CA/Agreement, Name and/or No.
3a. Address	3b. Phone No. (include area code)	8. Well Name and No.
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		9. API Well No.
		10. Field and Pool or Exploratory Area
		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			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 performed 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 determined 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 OFFICE 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 of this form to U.S. Department of the Interior, Bureau of Land 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: SWSE / 245 FSL / 1743 FEL / TWSP: 20S / RANGE: 33E / SECTION: 33 / LAT: 32.52302 / LONG: -103.665319 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 100 FSL / 2310 FEL / TWSP: 20S / RANGE: 33E / SECTION: 33 / LAT: 32.522622 / LONG: -103.667159 (TVD: 11240 feet, MD: 11354 feet)

PPP: SWSE / 0 FSL / 2310 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.53686 / LONG: -103.667165 (TVD: 11398 feet, MD: 16574 feet)

PPP: NWSE / 1320 FSL / 2311 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.540488 / LONG: -103.667166 (TVD: 11399 feet, MD: 17895 feet)

PPP: SWNE / 2640 FNL / 2311 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.544117 / LONG: -103.667168 (TVD: 11400 feet, MD: 19215 feet)

PPP: NWNE / 1320 FNL / 2310 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.547744 / LONG: -103.66717 (TVD: 11400 feet, MD: 20535 feet)

BHL: NWNE / 50 FNL / 2310 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.551234 / LONG: -103.66717 (TVD: 11401 feet, MD: 21804 feet)

CONFIDENTIAL

Ascent Energy respectfully requests approval on the Gavilon Fed Com 604H (30025478610000. Pending well number change from 601H to 604H under sundry ID 2647908) for an option to:

- Addition of an External Casing Packer on the 13-3/8” and 9-5/8” Casing
- Addition of a DV Tool on the 13-3/8” and 9-5/8” Casing
- Increase the casing size of our vertical casing strings
- Circulating Medium change to a combination of Cut Brine and/or 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/ DV Tool:

Pending hole conditions, the addition of an External Casing Packer to the Intermediate #1 13-3/8” & 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.

New/Optional proposed design:

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	TVD	BTM MD						BURST (psi)	COLLAPSE (psi)	TENSION (1000 lbs)
CONDUCTOR	36	30	0	120	120	---	---	WELD	---	---	---	---	---
SURFACE	26	20	0	1,575	1,575	94	J-55	BTC	8.3	9.0	2,110	520	1480
INT. #1	17.5	13.375	0	3,281	3,296	54.5	J-55	BTC	8.3	10.0	3.0	2.7	10.0
											2,730	1,130	853
INT. #2	12.25	9.625	0	4,996	5,050	40	L-80	BTC	8.3	9.2	1.7	1.7	4.7
											5,750	3,090	630
PRODUCTION	8.75	5.5	0	11,401	21,804	20	P-110	BTC	8.7	9.6	1.5	4.2	3.1
											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	EXCESS	WEIGHT (ppg)	YIELD (FT ³ /SK)
							SACKS			
CONDUCTOR	36	30	0	120	120	Class G	518	100%	15.8	1.17
							443			
SURFACE - LEAD	26	20	0	1,075	1,075	Class C	3127	100%	13.5	1.72
							1818			
SURFACE - TAIL	26	20	1,075	1,575	500	Class C	1506	100%	14.8	1.33
							1132			
INT #1 - LEAD	17.5	13.375	0	2,796	2,796	Class C	3090	75%	12.7	2.32
							1332			
INT #1 - TAIL	17.5	13.375	2,796	3,296	500	Class C	608	75%	14.8	1.33
							457			
INT #1 - DV TAIL	17.5	13.375	0	1,625	1,625	Class C	1610	75%	14.8	1.33
							1211			
INT #2 - LEAD	12.25	9.625	0	4,550	4,550	50/50Poz Class C	1981	100%	11.5	2.2
							901			
INT #2 - TAIL	12.25	9.625	4,550	5,050	500	Class C	313	100%	14.8	1.33
							236			
INT #2 - DV LEAD	12.25	9.625	0	2,846	2,846	50/50Poz Class C	984	50%	11.5	2.2
							447			
INT #2 - DV TAIL	12.25	9.625	2,846	3,346	500	Class C	235	50%	14.8	1.33
							177			
PRODUCTION - LEAD	8.75	5.5	0	9,000	9,000	Nine Lite	2515	20%	11.0	2.48
							1014			
PRODUCTION - TAIL	8.75	5.5	9,000	21,804	12,804	35/65 Poz Class H	3882	20%	13.2	1.47
							2641			

Note 1: Int 1 is two stage cement job. DVT and External Casing packer to be placed @ approximately 1625' 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 3346' 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	1,575	OTHER: Fresh Water	8.4	9.6
1,575	3,296	OTHER: Brine Water	10	10
3,296	5,050	OTHER: Fresh Water	8.4	9.6
5,050	21,804	Cut Brine / OBM	8.5	9.5

Note: Operator requests optionality to use a Cut Brine Mud in the Production section for the vertical, curve and partial lateral of the well prior to swapping mud fluid systems to an Oil-Based Mud to complete the Production section.

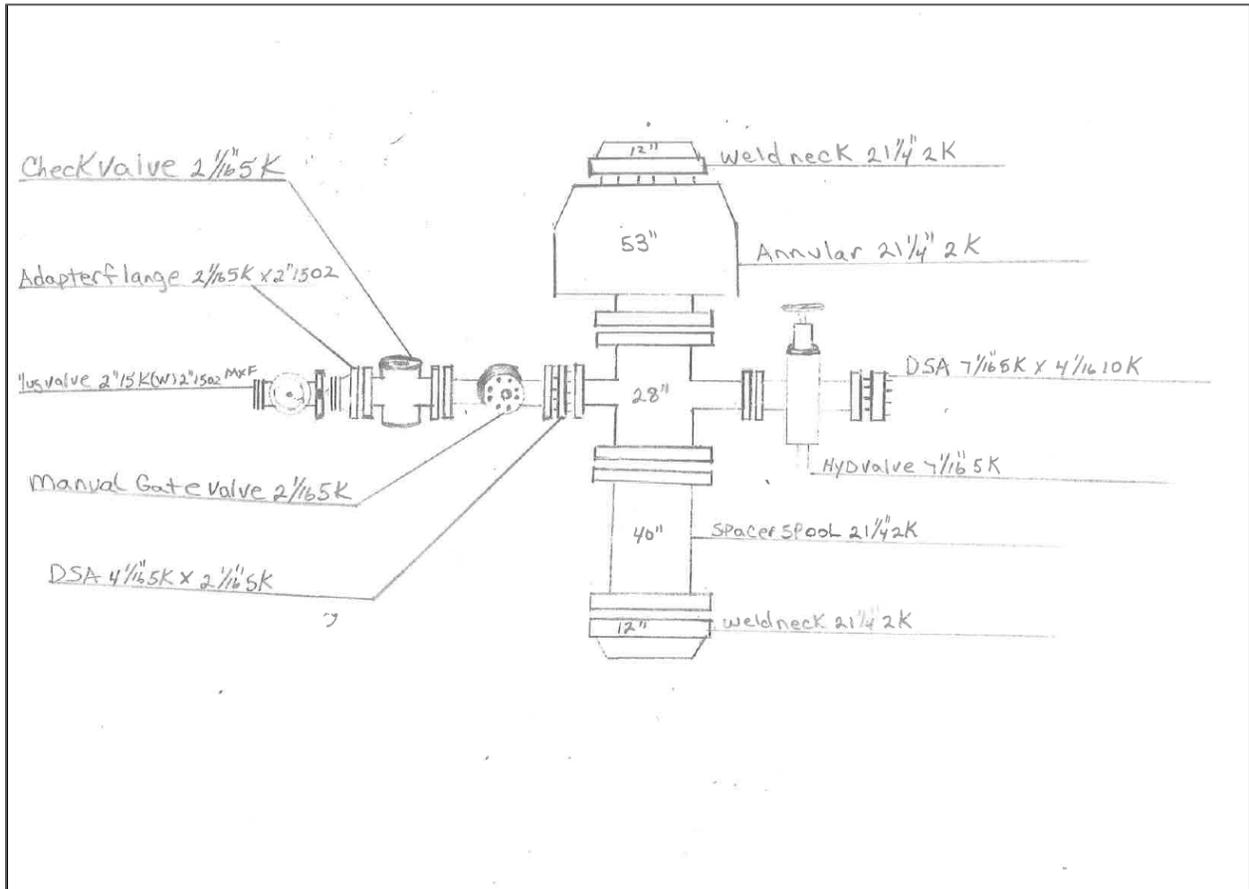
New Proposed BOP:

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



Well Name: GAVILON FED COM	Well Location: T20S / R33E / SEC 33 / SWSE / 32.52302 / -103.665319	County or Parish/State: LEA / NM
Well Number: 604H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM057683, NMNM57683	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002547861	Well Status: Approved Application for Permit to Drill	Operator: ASCENT ENERGY LLC

Notice of Intent

Sundry ID: 2647920

Type of Submission: Notice of Intent

Type of Action: Other

Date Sundry Submitted: 12/08/2021

Time Sundry Submitted: 02:00

Date proposed operation will begin: 12/15/2021

Procedure Description: Ascent Energy respectfully requests approval on the Gavilon Fed Com 604H (30025478610000. This well is currently pending well number change from 601H to 604H under sundry ID 2647908) for an option to: • Addition of an External Casing Packer on the 13-3/8"and 9-5/8" Casing • Addition of a DV Tool on the 13-3/8" and 9-5/8" Casing • Increase the casing size of our vertical casing strings • Circulating Medium change to a combination of Cut Brine and/or 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 documents for more detailed tables and description of this request.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Gavilon_604H_Sundry_2Dec_2021_Casing_Mud_20211208135908.pdf

Well Name: GAVILON FED COM

Well Location: T20S / R33E / SEC 33 / SWSE / 32.52302 / -103.665319

County or Parish/State: LEA / NM

Well Number: 604H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM057683, NMNM57683

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002547861

Well Status: Approved Application for Permit to Drill

Operator: ASCENT ENERGY LLC

Conditions of Approval

Additional Reviews

33_20_33_O_Sundry_ID_2647908_Gavilon_Fed_Com_604H_Lea_NM057683_Ascent_Energy_LLC_13_22d_12_13_2021_LV_20211213102422.pdf

Gavilon_Fed_Com_604H_Sundry_ID_2647920_20211213102422.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 08, 2021 01:59 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

Gavilon Fed Com 604H

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	9.47	0.66	1.24	1,575	3	2.15	1.18	148,050	
"B"				btc				0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 790								Totals:	1,575			148,050	
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		
26	1.5053	2950	4633	2371	95	9.60	983	2M			Hole-Cplg 2.50		
Site plot (pipe racks 3 or 4) as per D.D. 1310 3-1 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	4.77	0.66	1.1	3,296	2	1.96	1.15	179,632
"B"								0				0
w/8.4#/g mud, 30min Sfc Csg Test psig:								Totals:	3,296			179,632
The cement volume(s) are intended to achieve a top of						0	ft from surface or a		1575			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	
17 1/2	0.6946	1789	3698	2800	32	10.00	1392	2M			Hole-Cplg 1.56	
D V Tool(s):		1625				sum of sx		Σ CuFt			Σ%excess	
t by stage % :		219	96			4211	6919			147		

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	4.59	1.24	1.02	5,050	2	1.84	2.22	202,000
"B"								0				0
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500								Totals:	5,050			202,000
The cement volume(s) are intended to achieve a top of						0	ft from surface or a		3296			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	
12 1/4	0.3132	1137	2296	1745	32	9.60	3118	5M			Hole-Cplg 0.81	
Setting Depths for D V Tool(s):		3346				sum of sx		Σ CuFt			Σ%excess	
% excess cmt by stage:		330	1			1761	3515			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	2.81	1.97	2.25	21,804	2	4.05	3.55	436,080
"B"								0				0
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,508								Totals:	21,804			436,080
The cement volume(s) are intended to achieve a top of						3690	ft from surface or a		1360			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	
8 3/4	0.2526	3655	6397	4587	39	9.50					Hole-Cplg 1.35	
Class 'H' tail cmt yld > 1.20 Capitan Reef est top XXXX.												

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 604H
SURFACE HOLE FOOTAGE:	245'/S & 1743'/E
BOTTOM HOLE FOOTAGE:	50'/N & 2310'/E

COA

H2S	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Potash	<input type="checkbox"/> None	<input type="checkbox"/> Secretary	<input checked="" type="checkbox"/> R-111-P
Cave/Karst Potential	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Cave/Karst Potential	<input type="checkbox"/> Critical		
Variance	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Other
Wellhead	<input type="checkbox"/> Conventional	<input type="checkbox"/> Multibowl	<input checked="" type="checkbox"/> Both
Wellhead Variance	<input type="checkbox"/> Diverter		
Other	<input checked="" type="checkbox"/> 4 String Area	<input checked="" type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Open Annulus
Cementing	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> EchoMeter	
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
Special Requirements Variance	<input type="checkbox"/> Break Testing	<input type="checkbox"/> 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

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

1. The **20** inch surface casing shall be set at approximately **1575 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 **3296 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.
- ❖ 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.

- c. 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.
- d. 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.
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.

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 2000 (2M) psi.**
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **13-3/8** inch 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.**

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 2000 (2M) 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 integrity 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 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 73496

CONDITIONS

Operator: ASCENT ENERGY, LLC. 14982 Melco Ave. Parker, CO 80134	OGRID: 325830
	Action Number: 73496
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

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