Form 3160-3 (June 2015)		OMB No	APPROVED 0. 1004-0137 nuary 31, 2018
UNITED STATES DEPARTMENT OF THE INTERIC BUREAU OF LAND MANAGEME		5. Lease Serial No.	
APPLICATION FOR PERMIT TO DRILL O		6. If Indian, Allotee	or Tribe Name
1a. Type of work: DRILL REENTER 1b. Type of Well: Oil Well Gas Well Other 1c. Type of Completion: Hydraulic Fracturing Single Zone	Multiple Zone	8. Lease Name and V	eement, Name and No. Well No. 26516]
2. Name of Operator [325830]		9. API Well No. 3	0-025-48628
	ne No. (include area code)	10. Field and Pool, o	or Exploratory [30213]
 4. Location of Well (Report location clearly and in accordance with any St At surface At proposed prod. zone 	tate requirements.*)	11. Sec., T. R. M. of	Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish	13. State
15. Distance from proposed* 16. No of location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	of acres in lease 17. Spaci	ng Unit dedicated to th	nis well
	osed Depth 20. BLM	BIA Bond No. in file	
	roximate date work will start*	23. Estimated durati	on
	ttachments		
The following, completed in accordance with the requirements of Onshore (as applicable)	Oil and Gas Order No. 1, and the F	lydraulic Fracturing ri	ale per 43 CFR 3162.3-3
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System Lands, to SUPO must be filed with the appropriate Forest Service Office). 	 4. Bond to cover the operation Item 20 above). 5. Operator certification. 6. Such other site specific infor BLM. 	-	
25. Signature	mme (Printed/Typed)		Date
Title			
Approved by (Signature) Na	ame (Printed/Typed)		Date
Title Of	fice		
Application approval does not warrant or certify that the applicant holds leg applicant to conduct operations thereon. Conditions of approval, if any, are attached.	gal or equitable title to those rights	in the subject lease wh	hich would entitle the
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr of the United States any false, fictitious or fraudulent statements or represent			ny department or agency
GCP Rec 04/07/2021		r	
	CONDITIONS		Z 2/2021
SL ADDROVED V	VITH CONDITIONS		
(Continued on page 2)	40: 01/21/2021	*(Ins	structions on page 2)

Approval Date: 01/21/2021



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INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws 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, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: 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 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., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. 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 Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

0. SHL: SWSE / 445 FSL / 1718 FEL / TWSP: 20S / RANGE: 33E / SECTION: 33 / LAT: 32.52357 / LONG: -103.665238 (TVD: 0 feet, MD: 0 feet) PPP: NWNE / 1320 FNL / 2310 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.547744 / LONG: -103.667169 (TVD: 8899 feet, MD: 18016 feet) PPP: SWNE / 2640 FNL / 2311 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.544117 / LONG: -103.667168 (TVD: 8901 feet, MD: 16696 feet) PPP: NWSE / 1320 FSL / 2311 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.540488 / LONG: -103.667166 (TVD: 8904 feet, MD: 15376 feet) PPP: SWSE / 1320 FSL / 2310 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.540488 / LONG: -103.667166 (TVD: 8904 feet, MD: 15376 feet) PPP: SWSE / 0 FSL / 2310 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.53686 / LONG: -103.667165 (TVD: 8907 feet, MD: 14056 feet) PPP: SWSE / 100 FSL / 2310 FEL / TWSP: 20S / RANGE: 33E / SECTION: 23 / LAT: 32.522622 / LONG: -103.667159 (TVD: 8706 feet, MD: 8812 feet) BHL: NWNE / 50 FNL / 2310 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.551234 / LONG: -103.66717 (TVD: 8896 feet, MD: 19285 feet)

BLM Point of Contact

Name: Gavin Mickwee Title: Land Law Examiner Phone: (575) 234-5972 Email: gmickwee@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

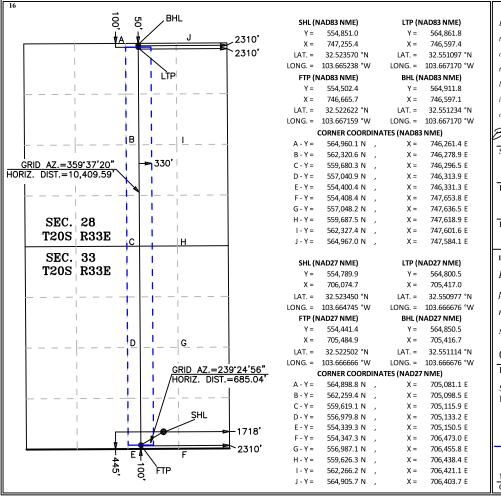
State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT ² Pool Code ³ Pool Name **API** Number 30-025-48628 30-025 HAT MESA; BONE SPRING 30213 ⁴ Property Code ⁵ Property Name ⁶ Well Number 326516 GAVILON FED COM 302H OGRID No. ⁸ Operator Name Elevation 325830 ASCENT ENERGY, LLC. 3,672 ¹⁰ Surface Location UL or lot no. Feet from the North/South line East/West line Section Township Range Lot Idn Feet from the County 0 33 20 S 33 E 445 SOUTH 1,718 EAST LEA ¹¹ Bottom Hole Location If Different From Surface UL or lot no. North/South line Section Township Range Lot Idn Feet from the Feet from the East/West line County NORTH В 28 20 S 33 E 50 2,310 EAST LEA 12 Dedicated Acres ¹³ Joint or Infill 14 Consolidation Code ¹⁵ Order No.

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division 4/14/2020 3en Meta Signature Date Ben Metz Printed Name bmetz@ascentenergy.us E-mail Address **18SURVEYOR CERTIFICATION** I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. 03-16-2020 DILLON Date of Survey EN MEXICO Signatue and Seal of Professional Surveyor: 23786 FSSIONAL SUP MARK DILLON HARP 23786 Certificate Number RR 2018010142

Page 5 of 64

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Original to Appropriate District Office

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

GAS CAPTURE PLAN

Date: 4-21-2020

⊠ Original

Operator & OGRID No.: Ascent Energy, LLC (325830)

□ Amended - Reason for Amendment:

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Gavilon Fed Com 301H	03-025	O, 33, 20S, 33E	445 FSL 1668 FEL	200	~30 days	Flare until well clean, then connect
Gavilon Fed Com 302H 30-0	03-025 25-48628	O, 33, 20S, 33E	445 FSL 1718 FEL	200	~30 days	Flare until well clean, then connect
Gavilon Fed Com 403H	03-025	O, 33, 20S, 33E	245 FSL 1668 FEL	200	~30 days	Flare until well clean, then connect
Gavilon Fed Com 501H	03-025	0, 33, 20 S , 33E	245 FSL 1693 FEL	200	~30 days	Flare until well clean, then connect
Gavilon Fed Com 502H	03-025	O, 33, 20S, 33E	245 FSL 1768 FEL	200	~30 days	Flare until well clean, then connect
Gavilon Fed Com 601H	03-025	O, 33, 20S, 33E	245 FSL 1743 FEL	200	~30 days	Flare until well clean, then connect
Gavilon Fed Com 701H	03-025	O, 33, 20S, 33E	245 FSL 1718 FEL	200	~30 days	Flare until well clean, then connect
Gavilon Fed Com 702H	03-025	O, 33, 20S, 33E	445 FSL 1693 FEL	200	~30 days	Flare until well clean, then connect

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility has not yet been dedicated. One possible outlet is DCP. DCP has 2 pipelines in SWSW Section 33. Ascent Energy, LLC's Gavilon Federal 1 is connected to DCP in L-33-20S-33E. <u>Ascent Energy, LLC</u> will provide (periodically) to <u>DCP</u> a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, <u>Ascent Energy, LLC</u> and <u>DCP</u> will have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at <u>DCP</u> Processing Plant at a yet to be determined location. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the

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Page 7 of 64 production facilities, unless there are operational issues on DCP system at that time. Based on current information, it is Ascent Energy, LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

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Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation On lease •
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
 - Compressed Natural Gas On lease
 - o Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal On lease •
 - o Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

Onshore Order 1 8 Point Drilling Plan

1. Geologic Formations/Estimated Tops

Formation	Lithology	MD	TVD	Mineral Resources
Upper Permian	Sandstone	0	0	Useable Water
Rustler	Anhydrite	1496	1496	None
Salado	Salt	1866	1866	None
Base Salado Salt	Salt	3138	3131	None
Tansil	Limestone	3292	3281	None
Yates	Carbonates	3491	3476	Natural Gas, Oil, CO2
Capitan Reef	Limestone	3798	3776	Useable Water
Delaware – Mt. Group	Sandstone	5045	4996	Natural Gas, Oil, CO2
Cherry Canyon	Sandstone	5740	5676	Natural Gas, Oil, CO2
Brushy Canyon	Sandstone	6871	6796	Natural Gas, Oil, CO2
Bone Spring	Limestone	8594	8516	Natural Gas, Oil, CO2
Bone Spring - Avalon	Shale	8658	8576	Natural Gas, Oil, CO2
Bone Spring – Leonard B	Limestone, Shale	9167	8896	Natural Gas, Oil, CO2
TD	Shale	19285	8896	Natural Gas, Oil, CO2

Notable Zones: Leonard B Shale is the target formation.

Closest water well (CP 01151) is 8391' NE. Depth to water was not reported in the 823' deep well.

2. Blowout Prevention Equipment

- a. Pressure Rating: 5,000'
- b. Rating Depth: 15,000'
- c. Equipment: A 15,000', 5,000 psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A top drive check valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. The wellhead will be a multi-bowl speed head.
- d. Testing Procedures: After surface casing is set and the BOP is nippled up, the BOP pressure tests will be made with a third-party tester to 250 psi low, 5000 psi high, and the annular preventer will be tested to 2,500 psi. The BOP will be



tested in this manner after nipple-up if any break of the stack occurs as wells as every 30 days.

- e. Requesting Variance:
 - i. Variance is requested to use a co-flex line between the BOP and choke manifold instead of using a 4" 0. D. steel line. Choke and kill line data book are attached. If this hose is unavailable, then a hose of equal or higher rating will be used.
 - ii. Variance is requested to use a speed head (aka, multi-bowl wellhead). Diagram is attached. After running the 13.375" surface casing, a 13.625" BOP/BOPE system with a >5000 psi WP will be installed on the wellhead system. It will be pressure tested to 250 psi low, followed by a test to 5000-psi high. Pressure test will be repeated at least every 30 days as required by Onshore Order 2.
 - iii. Ascent requests a variance to run a multi-bowl speed head for setting the Intermediate 1, Intermediate 2, and Production Strings.
 Speed head will be installed by the vendor's representative(s). Well head welding will be monitored by the vendor's representative.

3. <u>Casing</u>

	Hole	Ir	nterval	I	nterval				Conn		New/	DF	DF	DF
Interval	Size		MD		TVD	Csg OD	Weight	Grade	Туре	Conn	Used	Collapse	Burst	Tension
Cond	30"	0	80	0	80	20"	52.78	5L B	Weld	API	New			
Surface	17.5	0'	1,521'	0'	1,521'	13.375	54.5	J-55	STC	API	New	1.49	3.04	2.81
1st Int	12.25	0'	3,292'	0'	3,281'	9.625	40.0	J-55	LTC	API	New	1.51	1.82	1.96
2nd Int	8.75	0'	5,045'	0'	4,996'	7.625	29.7	HCP-110	EZGO FJ3	Non-API	New	3.94	2.57	2.45
Production	6.75	0'	19,285'	0'	8,916'	5.5	20.0	HCP-110	EZGO HT	Non-API	New	2.80	2.73	1.79

*Casing Assumption Worksheet to be attached

Variance:

- A variance is requested to waive centralizer requirements for the 7.625" casing. An expansion additive will be used in the cement slurry for the entire length of the 8.75" hole to maximize cement bond and zone isolation.
- Variance is also requested to waive centralizers requirements for the 5.5 " casing. An expansion additive will be used in the cement slurry for the entire length of the 6.75" hole to maximize cement bond and zone isolation.



4. <u>Cement</u>

Section	Depth	Туре	Cmt Top	Excess	Ft ³	Sacks	BBLS	Wt. ppg	Yld Ft ³ /sk	Slurry Description
Surface	13.375	Lead	0	100%	1,377	800	245	13.5	1.728	Class C
Surface	1521'	Tail	1021'	100%	695	550	124	14.8	1.332	Class C
1	9.625	Lead	0	100%	1,035	600	184	12.7	1.728	Class C
1st Int	3292'	Tail	2292'	100%	626	485	112	14.8	1.332	Class C
2nd Int	7.625	Lead	0	50%	426	210	76	12.7	2.039	Class C
	5045'	Tail	3745'	50%	196	155	35	14.8	1.368	Class C
Draduation	5.5	Lead	0	25%	612	215	109	11	2.887	TXI Nine Lite Cement
Production	19,285'	Tail	5 <mark>,</mark> 500'	25%	4,353	2965	775	13.2	1.472	35/65 Poz H

5. Circulating Medium (Mud Program)

- a. Mud System Type: Closed
- b. Air/Gas Drilling: No
- c. What will be on location to control well or mitigate other conditions: All necessary additives (e.g., barite, bentonite, LCM) to maintain mud properties and meet minimum lost circulation and weight increase needs will be on site at all times. Mud program may change due to hole conditions.
- d. Describe the mud monitoring system: Electronic Pason mud monitor system complying with Onshore Order 1 will be used. All necessary mud products (e.g., barite, cedar bark) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions. A closed loop system will be used.

Inter	Interval		Weight	Viscosity	Water Loss	
0'	1,521'	Fresh Water	8.4-9.6	34-38	N/C	
1,521'	3,292'	Brine Water	10	28-34	N/C	
3,292'	5,045'	Fresh Water	8.4-8.6	28-34	N/C	
5,045'	19,285'	Cut Brine/ Gel	8.5-9.3	28-34	N/C	

6. Test, Logging & Coring

- List of production tests including testing procedures, equipment and safety measures: GR will be collected while drilling through the MWD tools from 9.625" casing shoe to TD. A 2-person mud logging program will be used from 9.625" casing shoe to TD.
- b. Open/cased hole logs run in the well: No open hole logs
- c. Coring operations description for the well: No core, drill stem test, or open hole log is planned.



7. Anticipated Pressure

- a. Anticipated bottom hole pressure: Maximum expected bottom hole pressure is 3000 psi.
- b. Anticipated bottom hole temperature: Expected bottom hole temperature is 150° F.
- c. Abnormal pressures, temperatures, or potential geologic hazards: No abnormal pressure or temperature is expected.
- d. Hydrogen sulfide drilling operations plan required: Yes
 - i. H₂S monitoring and detection equipment will be used from surface casing point to TD.
 - ii. Ascent does not anticipate that there will be enough H2S from the surface to the Bone Spring formations to meet the BLM's Onshore Order 6 requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Ascent has an H2S safety package on all wells and an "H2S Drilling Operations Plan" is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be safely flared. All personnel will be familiar with all aspects of safe operation of equipment being used.

8. Other Information

- a. Anticipated spud date is upon approval. It is expected it will take 3 months to drill and complete the well.
- b. Ascent requests approval to possibly utilize a spudder rig to drill and set casing for the surface interval on this well. The spudder rig will be possibly utilized in order to reduce cost and save time. The wellhead will be installed and tested as soon as the surface casing is cut off per the existing COAs. A blind flange with the same pressure rating as the wellhead will be installed on the well. Once the spudder rig is removed, Ascent will secure the wellhead area by placing a guard rail around the cellar. Pressure will be monitored and a means for intervention will be maintained while the drilling rig is not over the well. Spudder rig operations are expected to take 2-3 days per well. Three wells on the pad will have surface casing set by the spudder rig as a part of this operation. The BLM will be notified 24 hours prior to commencing spudder rig operations. Within 90 days of the departure of the spudder rig, drilling operations will recommence on these wells. This rig will have a BOP stack equal or greater to the pressure rating required in the COAs. The BLM will be notified 24 hours before the larger rig moves on the pre-set wells. Ascent will have supervision on the spudder rig to ensure compliance with all BLM and NMOCD regulations.
- c. Ascent requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event the wells are batch drilled, after drilling surface, 1st intermediate, and 2nd intermediate hole sections and cementing 2nd intermediate casing, a 10M dry hole cap with bleed off valve will



> be installed. The rig will then walk to another well on the pad. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

9. Lessee's or Operator's Representative

<u>Permit Matters</u>	Drilling, Completions, Production & Operational Matters
UELS, LLC	Ascent Energy, LLC
85 S 200 E	1125 17 th St., Suite 410
Vernal, UT 84078	Denver, CO 80202
Amy Doebele- Permit Agent	Gema Volek- Drilling Manager
435-789-1017	785-312-2092
adoebele@uintahgroup.com	gvolek@ascentenergy.us



ASCENT ENERGY

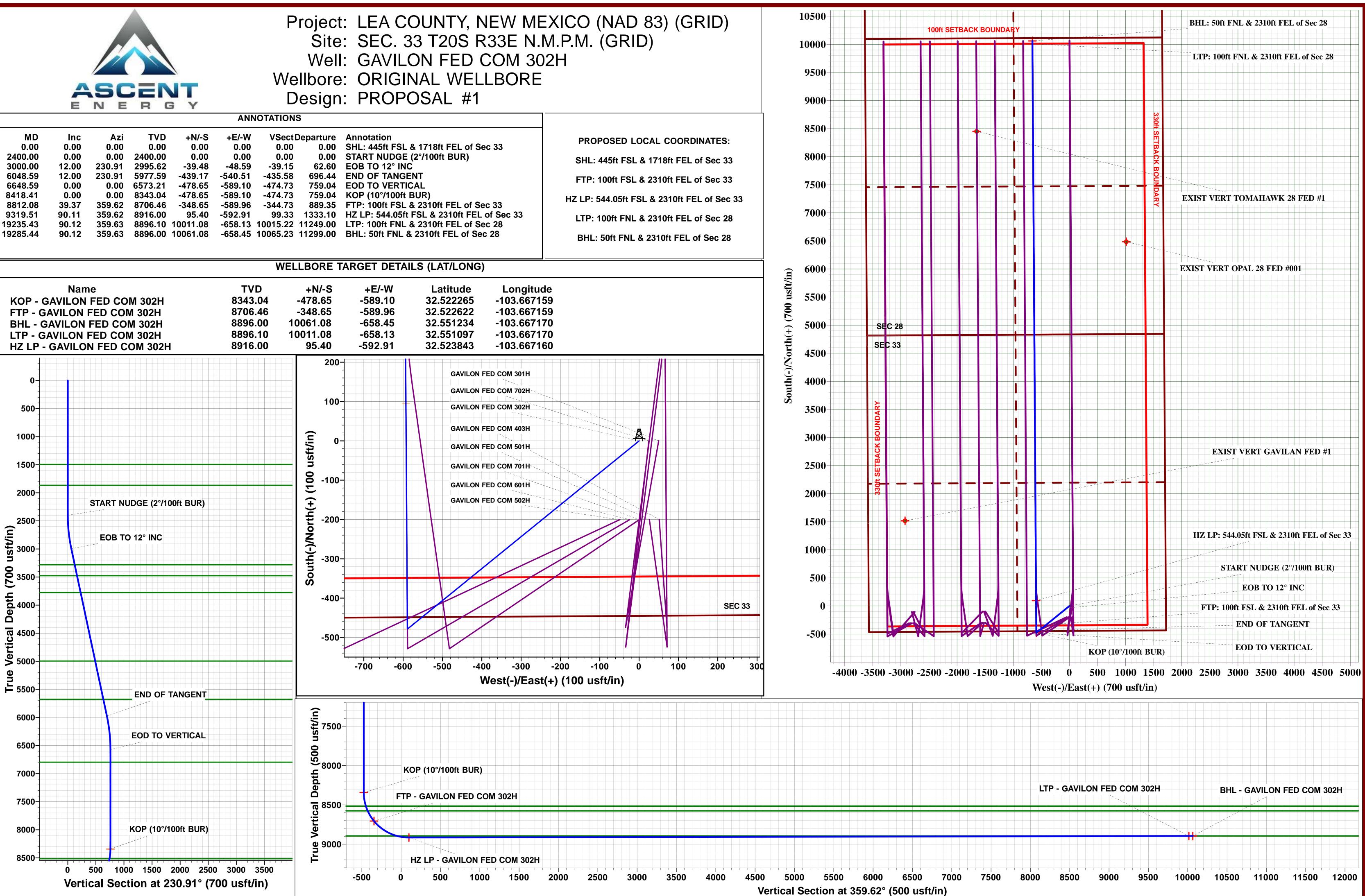
LEA COUNTY, NEW MEXICO (NAD 83) (GRID) SEC. 33 T20S R33E N.M.P.M. (GRID) GAVILON FED COM 302H

ORIGINAL WELLBORE 02 April, 2020

Plan: PROPOSAL #1

	Ρ
	We
ASCENT E N E R G Y	D

MD Inc Azi TVD +N/-S +E/-W VSectDeparture	Annotation
0.00 0.00 0.00 0.00 0.00 0.00 0.00 [.] 0.00	SHL: 445ft FSL & 1718ft FEL o
2400.00 0.00 0.00 2400.00 0.00 0.00 0.00	START NUDGE (2°/100ft BUR)
3000.00 12.00 230.91 2995.62 -39.48 -48.59 -39.15 62.60	EOB TO 12° INC
6048.59 12.00 230.91 5977.59 -439.17 -540.51 -435.58 696.44	END OF TANGENT
6648.59 0.00 0.00 6573.21 -478.65 -589.10 -474.73 759.04	EOD TO VERTICAL
8418.41 0.00 0.00 8343.04 -478.65 -589.10 -474.73 759.04	KOP (10°/100ft BUR)
8812.08 39.37 359.62 8706.46 -348.65 -589.96 -344.73 889.35	FTP: 100ft FSL & 2310ft FEL c
9319.51 90.11 359.62 8916.00 95.40 -592.91 99.33 1333.10	HZ LP: 544.05ft FSL & 2310ft
19235.43 90.12 359.63 8896.10 10011.08 -658.13 10015.22 11249.00	LTP: 100ft FNL & 2310ft FEL o
19285.44 90.12 359.63 8896.00 10061.08 -658.45 10065.23 11299.00	BHL: 50ft FNL & 2310ft FEL o



Database: Company: Project: Site: Well: Wellbore: Design: Project Map Systen Geo Datum: Map Zone:	: 1	(GRID) SEC. 33 T2 GAVILON F ORIGINAL PROPOSA	TY, NEW ME OS R33E N.M ED COM 302 WELLBORE L #1 TY, NEW MEX ne 1983 an Datum 198	I.P.M. (GRID) H ICO (NAD 83	(GRID)	/D Referen D Referenco orth Refere	e: nce: ılation Metl	hod: Me	Well GAVILON FED COM 302H KB EST 25' @ 3696.00usft KB EST 25' @ 3696.00usft Grid Minimum Curvature Mean Sea Level Using geodetic scale factor			
0:44		SEC 22 720										
Site Site Positio From: Position Un		Мар	0S R33E N.M. 0.00 usft	Northing: Easting: Slot Radius	:	554,744. 744,451. 1.	60 usft Lo	titude: ngitude: id Conver	gence:		32.523326 -103.674337 0.35 °	
Well		GAVILON FE	D COM 302H	1								
+E/-W 2,804.09 usft Ea			Northing Easting:	: 747,255.57 usft L			t Lon	atitude: 32.52357 ongitude: -103.66523 Ground Level: 3.671.00 us				
POSICION UN	icertaint	Ly	0.00 usft	weiniea	d Elevation:		us	i Gro	una Levei.		3,671.00 usft	
Wellbore		ORIGINAL	WELLBORE									
Magnetics		Model Na		Sample Date 2020-03-19		Declination (°) 6.76		Dip A (°) 60.2)		Strength (nT) 15550559	
			-							,		
Design	_	PROPOSAL	.#1									
Audit Notes Version:	5:			Phase:	PROTO	DTYPE	Tie O	n Depth:	(0.00		
Vertical Sec	ction:		Depth F	rom (TVD)	+	N/-S	+E/-W	-	Dire	ction		
			์ (ม	.00	•	usft) 0.00	(usft) 0.00			°) 9.62		
				.00	· · · · · · · · · · · · · · · · · · ·	0.00	0.00			5.02		
Plan Sectio MD (usft)	ns Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usf	Build Rate (°/100us	Turn Rate f (°/100usf	TFO (°)	Target	
0.00 2,400.00 3,000.00 6,048.59 6,648.59	0.00 0.00 12.00 12.00 0.00	0.00 0.00 230.91 230.91 0.00	0.00 2,400.00 2,995.62 5,977.59 6,573.21	-3,696.00 -1,296.00 -700.38 2,281.59 2,877.21	0.00 0.00 -39.48 -439.17 -478.65	0.00 0.00 -48.59 -540.51 -589.10	0.00 0.00 2.00 0.00 2.00	0.00 0.00 2.00 0.00 -2.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 230.91 0.00 180.00		
8,418.41 9,319.51 19,285.44	0.00 90.11 90.12	0.00 359.62 359.63	8,343.04 8,916.00 8,896.00	4,647.04 5,220.00 5,200.00	-478.65 95.40 10,061.08	-589.10 -592.91 -658.45	0.00 10.00 0.00	0.00 10.00 0.00	0.00 0.00 0.00	0.00 359.62 32.51	KOP - GAVILON FE BHL - GAVILON FE	

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Database: Company: Project:	Database 1 ASCENT ENERGY LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	Local Co-ordinate Reference: TVD Reference: MD Reference:	Well GAVILON FED COM 302H KB EST 25' @ 3696.00usft KB EST 25' @ 3696.00usft
Site:	SEC. 33 T20S R33E N.M.P.M. (GRID)	North Reference:	Grid
Well:	GAVILON FED COM 302H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
SHL: 4	445ft FSL &	1718ft FEL o	f Sec 33							
0.00	0.00	0.00	0.00	3,696.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	3,596.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	3,496.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	3,396.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	3,296.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	3,196.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	3,096.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	2,996.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	2,896.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	2,796.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	2,696.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	2,596.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	2,496.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	2,396.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	2,296.00	0.00	0.00	0.00	0.00	0.00	0.00
RSTLF										
1,496.00	0.00	0.00	1,496.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	2,196.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	2,096.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	1,996.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	1,896.00	0.00	0.00	0.00	0.00	0.00	0.00
SALDO	0									
1,866.00	0.00	0.00	1,866.00	1,830.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	1,796.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	1,696.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	1,596.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	1,496.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	1,396.00	0.00	0.00	0.00	0.00	0.00	0.00
'		2°/100ft BUR)	'	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	1,296.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	2.00	230.91	2,499.98	1,196.02	-1.10	-1.35	-1.09	2.00	2.00	0.00
2,600.00	4.00	230.91	2,599.84	1,096.16	-4.40	-5.42	-4.36	2.00	2.00	0.00
2,700.00	6.00	230.91	2,699.45	996.55	-9.90	-12.18	-9.82	2.00	2.00	0.00
2,800.00	8.00	230.91	2,798.70	897.30	-17.58	-21.64	-17.44	2.00	2.00	0.00
2,900.00	10.00	230.91	2,897.47	798.53	-27.45	-33.78	-27.22	2.00	2.00	0.00
	O 12° INC									
3,000.00	12.00	230.91	2,995.62	700.38	-39.48	-48.59	-39.15	2.00	2.00	0.00
3,100.00	12.00	230.91	3,093.44	602.56	-52.59	-64.72	-52.16	0.00	0.00	0.00
3,200.00	12.00	230.91	3,191.25	504.75	-65.70	-80.86	-65.16	0.00	0.00	0.00
TANSI		000.01	0.001.00	445.00			72	0.00	0.00	0.00
3,291.75	12.00	230.91	3,281.00	415.00	-77.73	-95.66	-77.09	0.00	0.00	0.00
3,300.00	12.00	230.91	3,289.07	406.93	-78.81	-97.00	-78.16	0.00	0.00	0.00
3,400.00	12.00	230.91	3,386.88	309.12	-91.92	-113.13	-91.17	0.00	0.00	0.00
YATES										
3,491.11	12.00	230.91	3,476.00	220.00	-103.87	-127.83	-103.02	0.00	0.00	0.00
3,500.00	12.00	230.91	3,484.70	211.30	-105.03	-129.27	-104.17	0.00	0.00	0.00
3,600.00	12.00	230.91	3,582.51	113.49	-118.14	-145.40	-117.18	0.00	0.00	0.00
3,700.00	12.00	230.91	3,680.33	15.67	-131.25	-161.54	-130.18	0.00	0.00	0.00
CAPIT	AN_REEF_									
3,797.81	12.00	230.91	3,776.00	-80.00	-144.08	-177.32	-142.90	0.00	0.00	0.00
3,800.00	12.00	230.91	3,778.14	-82.14	-144.36	-177.68	-143.18	0.00	0.00	0.00

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COMPASS 5000.15 Build 90

					unning rop	on				
Database: Company: Project:	ASC LEA	Patabase 1 SCENT ENERGY EA COUNTY, NEW MEXICO (NAD 83) GRID) EC. 33 T20S R33E N.M.P.M. (GRID) GAVILON FED COM 302H PRIGINAL WELLBORE ROPOSAL #1			Local Co-ordinate Reference:Well GAVILON FED COM 302HTVD Reference:KB EST 25' @ 3696.00usftMD Reference:KB EST 25' @ 3696.00usft					
Site: Well: Wellbore:	SEC GAV ORIO				North Reference: Grid Survey Calculation Method: Grid			re		
Design:		FUSAL#1								
Planned Surve	ey									
							Vertie	al Dogleg	Build	Turn
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Secti (usf	on Rate	Rate (°/100usft)	Rate (°/100usft)
3,900.00	12.00	230.91	3,875.96	-179.96	-157.47	-193.81	-156.	19 0.00	0.00	0.00
4,000.00	12.00	230.91	3,973.77	-277.77	-170.59	-209.95	-169.	19 0.00	0.00	0.00
4,100.00	12.00	230.91	4,071.59	-375.59	-183.70	-226.09	-182.	19 0.00	0.00	0.00
4,200.00	12.00	230.91	4,169.40	-473.40	-196.81	-242.22	-195.		0.00	0.00
4,300.00 4,400.00	12.00	230.91	4,267.22	-571.22 -669.03	-209.92 -223.03	-258.36 -274.49	-208. -221.		0.00 0.00	0.00 0.00
	12.00	230.91	4,365.03							
4,500.00	12.00	230.91	4,462.84	-766.84	-236.14	-290.63	-234.		0.00	0.00
4,600.00 4,700.00	12.00 12.00	230.91 230.91	4,560.66 4,658.47	-864.66 -962.47	-249.25 -262.36	-306.77 -322.90	-247. -260.		0.00 0.00	0.00 0.00
4,800.00	12.00	230.91	4,658.47 4,756.29	-962.47 -1,060.29	-262.36 -275.47	-322.90 -339.04	-260. -273.		0.00	0.00
4,900.00	12.00	230.91	4,854.10	-1,158.10	-288.58	-355.17	-286.		0.00	0.00
5,000.00	12.00	230.91	4,951.92	-1,255.92	-301.69	-371.31	-299.		0.00	0.00
,	DELAWARE		4,001.02	1,200.02	001.00	071.01	200.	22 0.00	0.00	0.00
5,045.07	12.00	230.91	4,996.00	-1,300.00	-307.60	-378.58	-305.	09 0.00	0.00	0.00
5,100.00	12.00	230.91	5,049.73	-1,353.73	-314.81	-387.45	-312.		0.00	0.00
5,200.00	12.00	230.91	5,147.55	-1,451.55	-327.92	-403.58	-325.		0.00	0.00
5,300.00	12.00	230.91	5,245.36	-1,549.36	-341.03	-419.72	-338.		0.00	0.00
5,400.00	12.00	230.91	5,343.18	-1,647.18	-354.14	-435.86	-351.		0.00	0.00
5,500.00	12.00	230.91	5,440.99	-1,744.99	-367.25	-451.99	-364.		0.00	0.00
5,600.00 5,700.00	12.00 12.00	230.91 230.91	5,538.81 5,636.62	-1,842.81 -1,940.62	-380.36 -393.47	-468.13 -484.26	-377. -390.		0.00 0.00	0.00 0.00
	RY_CANYC		3,030.02	1,040.02	000.47	404.20	-000.	20 0.00	0.00	0.00
5,740.26	12.00	230.91	5,676.00	-1,980.00	-398.75	-490.76	-395.	48 0.00	0.00	0.00
5,800.00	12.00	230.91	5,734.44	-2,038.44	-406.58	-500.40	-403.	25 0.00	0.00	0.00
5,900.00	12.00	230.91	5,832.25	-2,136.25	-419.69	-516.54	-416.		0.00	0.00
6,000.00	12.00	230.91	5,930.07	-2,234.07	-432.80	-532.67	-429.		0.00	0.00
	OF TANGEN									
6,048.59 6,100.00	12.00 10.97	230.91 230.91	5,977.59 6,027.97	-2,281.59 -2,331.97	-439.17 -445.63	-540.51 -548.46	-435. -441.		0.00 -2.00	0.00 0.00
6,200.00	8.97	230.91	6,126.46	-2,430.46	-456.55	-561.90	-452.	81 2.00	-2.00	0.00
6,300.00	6.97	230.91	6,225.49	-2,529.49	-465.29	-572.66	-461.		-2.00	0.00
6,400.00 6,500.00	4.97 2.97	230.91 230.91	6,324.94 6,424.69	-2,628.94 -2,728.69	-471.85 -476.22	-580.73 -586.11	-467. -472.		-2.00 -2.00	0.00 0.00
6,600.00	0.97	230.91	6,524.63	-2,828.63	-478.39	-588.78	-472.		-2.00	0.00
	TO VERTICA									
6,648.59	0.00	AL 0.00	6,573.21	-2,877.21	-478.65	-589.10	-474.	73 2.00	-2.00	0.00
6,700.00	0.00	0.00	6,624.63	-2,928.63	-478.65	-589.10	-474.		0.00	0.00
6,800.00	0.00	0.00	6,724.63	-3,028.63	-478.65	-589.10	-474.		0.00	0.00
	SHY_CANYC								-	_
6,871.37 6,900.00	0.00 0.00	0.00 0.00	6,796.00 6,824.63	-3,100.00 -3,128.63	-478.65 -478.65	-589.10 -589.10	-474. -474.		0.00 0.00	0.00 0.00
7,000.00	0.00	0.00	6,924.63	-3,228.63	-478.65	-589.10	-474.	73 0.00	0.00	0.00
7,100.00	0.00	0.00	7,024.63	-3,328.63	-478.65	-589.10	-474.	73 0.00	0.00	0.00
7,200.00	0.00	0.00	7,124.63	-3,428.63	-478.65	-589.10	-474.		0.00	0.00
7,300.00	0.00	0.00	7,224.63	-3,528.63	-478.65	-589.10	-474.		0.00	0.00
7,400.00	0.00	0.00	7,324.63	-3,628.63	-478.65	-589.10	-474.		0.00	0.00
7,500.00	0.00	0.00	7,424.63	-3,728.63	-478.65	-589.10	-474.		0.00	0.00
7,600.00 7,700.00	0.00 0.00	0.00 0.00	7,524.63 7,624.63	-3,828.63 -3,928.63	-478.65 -478.65	-589.10 -589.10	-474. -474.		0.00 0.00	0.00 0.00
7,800.00	0.00	0.00	7,624.63	-3,928.63 -4,028.63	-478.65	-589.10	-474. -474.		0.00	0.00
7,900.00	0.00	0.00	7,824.63	-4,128.63	-478.65	-589.10	-474.		0.00	0.00

Released to Imaging: 4/12/2021 4:11:14 PM

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7,900.00

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-4,128.63

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Database: Company: Project: Site:	ASC LEA (GRI SEC	D) . 33 T20S R3	EW MEXICO (N 3E N.M.P.M. (0	,	TVD Refere MD Referen	rence:	к к G	/ell GAVILON FE B EST 25' @ 369 B EST 25' @ 369	96.00usft 96.00usft	
Well: Wellbore: Design:	ORIO	ILON FED CO GINAL WELLE POSAL #1			Survey Cal	culation Meth	iod: IV	linimum Curvatur	e	
Planned Surve	ey 🛛						Mandia al	Dealer	D. ili	T
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)		Build Rate (°/100usft)	Turn Rate (°/100usft)
8,100.00	0.00	0.00	8,024.63	-4,328.63	-478.65	-589.10	-474.73		0.00	0.00
8,200.00	0.00	0.00	8,124.63	-4,428.63	-478.65	-589.10	-474.73		0.00	0.00
8,300.00 8,400.00	0.00 0.00	0.00 0.00	8,224.63 8,324.63	-4,528.63 -4,628.63	-478.65 -478.65	-589.10 -589.10	-474.73 -474.73		0.00 0.00	0.00 0.00
	10°/100ft B		-,	,			-			
8,418.41	0.00	0.00	8,343.04	-4,647.04	-478.65	-589.10	-474.73	0.00	0.00	0.00
8,500.00	8.16	359.62	8,424.35	-4,728.35	-472.85	-589.14	-468.93	10.00	10.00	0.00
8,594.11	_LIME 17.57	359.62	8,516.00	-4,820.00	-451.92	-589.28	-448.00	10.00	10.00	0.00
8,600.00	18.16	359.62	8,521.60	-4,825.60	-451.92 -450.12	-589.29	-446.20		10.00	0.00
AVLN										
8,658.32	23.99	359.62	8,576.00	-4,880.00	-429.15	-589.43	-425.23	10.00	10.00	0.00
8,700.00	28.16	359.62	8,613.43	-4,917.43	-410.84	-589.55	-406.92		10.00	0.00
8,800.00	38.16	359.62 2310ft FEL c	8,697.04	-5,001.04	-356.21	-589.91	-352.29	10.00	10.00	0.00
8,812.08	39.37	359.62	8,706.46	-5,010.46	-348.65	-589.96	-344.73	10.00	10.00	0.00
8,900.00	48.16	359.62	8,769.89	-5,073.89	-287.90	-590.37	-283.98	10.00	10.00	0.00
9,000.00	58.16	359.62	8,829.78	-5,133.78	-207.97	-590.90	-204.05	10.00	10.00	0.00
9,100.00	68.16	359.62	8,874.87	-5,178.87	-118.86	-591.49	-114.94	10.00	10.00	0.00
	ARD_B 74.82	250.62	0 000 00	E 200 00	EE 7E	504.00	E4 02	10.00	10.00	0.00
9,166.59 9,200.00	7 4.62 78.16	359.62 359.62	8,896.00 8,903.81	-5,200.00 -5,207.81	-55.75 -23.27	-591.90 -592.12	-51.83 -19.35	10.00 10.00	10.00 10.00	<i>0.00</i> 0.00
9,300.00	88.16	359.62	8,915.70	-5,219.70	75.89	-592.78	79.82	10.00	10.00	0.00
			FEL of Sec 33	5 000 00	05.40	500.04		40.00	40.00	0.00
9,319.51	90.11	359.62	8,916.00	-5,220.00	95.40	-592.91	99.33	10.00	10.00	0.00
9,400.00 9,500.00	90.11 90.11	359.62 359.62	8,915.84 8,915.65	-5,219.84 -5,219.65	175.88 275.88	-593.44 -594.10	179.81 279.81	0.00 0.00	0.00 0.00	0.00 0.00
9,600.00	90.11	359.62	8,915.46	-5,219.46	375.88	-594.77	379.81	0.00	0.00	0.00
9,700.00	90.11	359.62	8,915.26	-5,219.26	475.87	-595.43	479.81	0.00	0.00	0.00
9,800.00	90.11	359.62	8,915.07	-5,219.07	575.87	-596.09	579.81	0.00	0.00	0.00
9,900.00	90.11	359.62 359.62	8,914.88	-5,218.88	675.87	-596.76	679.81	0.00	0.00	0.00
10,000.00 10,100.00	90.11 90.11	359.62 359.62	8,914.69 8,914.49	-5,218.69 -5,218.49	775.87 875.86	-597.42 -598.08	779.81 879.81	0.00 0.00	0.00 0.00	0.00 0.00
10,200.00	90.11	359.62	8,914.30	-5,218.30	975.86	-598.74	979.81	0.00	0.00	0.00
10,300.00	90.11	359.62	8,914.11	-5,218.11	1,075.86	-599.40	1,079.81	0.00	0.00	0.00
10,400.00	90.11	359.62	8,913.91	-5,217.91	1,175.86	-600.07	1,179.81		0.00	0.00
10,500.00 10,600.00	90.11 90.11	359.62 359.62	8,913.72 8,913.52	-5,217.72 -5,217.52	1,275.85 1,375.85	-600.73 -601.39	1,279.81 1,379.81		0.00 0.00	0.00 0.00
10,700.00	90.11	359.62	8,913.33	-5,217.33	1,475.85	-602.05	1,479.81	0.00	0.00	0.00
10,800.00	90.11	359.62	8,913.14	-5,217.14	1,575.85	-602.71	1,579.81		0.00	0.00
10,900.00	90.11	359.62	8,912.94	-5,216.94	1,675.84	-603.38	1,679.81		0.00	0.00
11,000.00 11,100.00	90.11 90.11	359.62 359.62	8,912.75 8,912.55	-5,216.75 -5,216.55	1,775.84 1,875.84	-604.04 -604.70	1,779.81 1,879.81		0.00 0.00	0.00 0.00
11,200.00	90.11	359.62	8,912.36	-5,216.36	1,975.84	-605.36	1,979.81	0.00	0.00	0.00
11,300.00	90.11	359.62	8,912.16	-5,216.16	2,075.84	-606.02	2,079.81	0.00	0.00	0.00
11,400.00	90.11	359.62	8,911.96	-5,215.96	2,175.83	-606.68	2,179.81		0.00	0.00
11,500.00 11,600.00	90.11 90.11	359.62 359.62	8,911.77 8,911.57	-5,215.77 -5,215.57	2,275.83 2,375.83	-607.34 -608.00	2,279.81 2,379.81		0.00 0.00	0.00 0.00
11,700.00	90.11	359.62	8,911.38	-5,215.38	2,475.83	-608.66	2,479.81		0.00	0.00
11,800.00	90.11	359.62	8,911.18	-5,215.18	2,575.82	-609.32	2,579.81		0.00	0.00
11,900.00	90.11	359.62	8,910.98	-5,214.98	2,675.82	-609.98	2,679.81		0.00	0.00
12,000.00	90.11	359.62	8,910.79	-5,214.79	2,775.82	-610.65	2,779.81	0.00	0.00	0.00
11,700.00 11,800.00	90.11 90.11	359.62 359.62	8,911.38 8,911.18	-5,215.38 -5,215.18	2,475.83 2,575.82	-608.66 -609.32	2,479.81 2,579.81	0.00 0.00 0.00	0.00 0.00	0.00 0.00

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Database: Company:	Database 1 ASCENT ENERGY	Local Co-ordinate Reference: TVD Reference:	Well GAVILON FED COM 302H KB EST 25' @ 3696.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	MD Reference:	KB EST 25' @ 3696.00usft
Site:	SEC. 33 T20S R33E N.M.P.M. (GRID)	North Reference:	Grid
Well:	GAVILON FED COM 302H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,100.00 12,200.00 12,300.00	90.11 90.11 90.11	359.62 359.62 359.62	8,910.59 8,910.39 8,910.20	-5,214.59 -5,214.39 -5,214.20	2,875.82 2,975.81 3,075.81	-611.31 -611.97 -612.63	2,879.81 2,979.81 3,079.81	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
12,400.00 12,500.00 12,600.00 12,700.00 12,800.00	90.11 90.11 90.11 90.11 90.11	359.62 359.62 359.62 359.62 359.62 359.62	8,910.00 8,909.80 8,909.61 8,909.41 8,909.21	-5,214.00 -5,213.80 -5,213.61 -5,213.41 -5,213.21	3,175.81 3,275.81 3,375.80 3,475.80 3,575.80	-613.29 -613.95 -614.60 -615.26 -615.92	3,179.81 3,279.81 3,379.81 3,479.81 3,579.81	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
12,900.00 13,000.00 13,100.00 13,200.00 13,300.00	90.11 90.11 90.11 90.11 90.11	359.62 359.62 359.62 359.62 359.62 359.62	8,909.01 8,908.81 8,908.61 8,908.42 8,908.22	-5,213.01 -5,212.81 -5,212.61 -5,212.42 -5,212.22	3,675.80 3,775.80 3,875.79 3,975.79 4,075.79	-616.58 -617.24 -617.90 -618.56 -619.22	3,679.81 3,779.81 3,879.81 3,979.81 4,079.81	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
13,400.00 13,500.00 13,600.00 13,700.00 13,800.00	90.11 90.11 90.11 90.11 90.11	359.62 359.62 359.62 359.62 359.62 359.62	8,908.02 8,907.82 8,907.62 8,907.42 8,907.22	-5,212.02 -5,211.82 -5,211.62 -5,211.42 -5,211.22	4,175.79 4,275.78 4,375.78 4,475.78 4,575.78	-619.88 -620.54 -621.20 -621.85 -622.51	4,179.80 4,279.80 4,379.80 4,479.80 4,579.80	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
13,900.00 14,000.00 14,100.00 14,200.00 14,300.00	90.11 90.11 90.11 90.11 90.11	359.62 359.62 359.62 359.62 359.62	8,907.02 8,906.82 8,906.62 8,906.42 8,906.22	-5,211.02 -5,210.82 -5,210.62 -5,210.42 -5,210.22	4,675.77 4,775.77 4,875.77 4,975.77 5,075.76	-623.17 -623.83 -624.49 -625.14 -625.80	4,679.80 4,779.80 4,879.80 4,979.80 5,079.80	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
14,400.00 14,500.00 14,600.00 14,700.00 14,800.00	90.12 90.12 90.12 90.12 90.12	359.62 359.62 359.62 359.62 359.62	8,906.02 8,905.82 8,905.62 8,905.42 8,905.21	-5,210.02 -5,209.82 -5,209.62 -5,209.42 -5,209.21	5,175.76 5,275.76 5,375.76 5,475.75 5,575.75	-626.46 -627.12 -627.77 -628.43 -629.09	5,179.80 5,279.80 5,379.80 5,479.80 5,579.80	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
14,900.00 15,000.00 15,100.00 15,200.00 15,300.00	90.12 90.12 90.12 90.12 90.12	359.62 359.62 359.62 359.62 359.62	8,905.01 8,904.81 8,904.61 8,904.41 8,904.20	-5,209.01 -5,208.81 -5,208.61 -5,208.41 -5,208.20	5,675.75 5,775.75 5,875.75 5,975.74 6,075.74	-629.75 -630.40 -631.06 -631.72 -632.37	5,679.80 5,779.80 5,879.80 5,979.80 6,079.80	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
15,400.00 15,500.00 15,600.00 15,700.00 15,800.00	90.12 90.12 90.12 90.12 90.12	359.62 359.62 359.62 359.62 359.62	8,904.00 8,903.80 8,903.60 8,903.39 8,903.19	-5,208.00 -5,207.80 -5,207.60 -5,207.39 -5,207.19	6,175.74 6,275.74 6,375.73 6,475.73 6,575.73	-633.03 -633.69 -634.34 -635.00 -635.65	6,179.80 6,279.80 6,379.80 6,479.80 6,579.80	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
15,900.00 16,000.00 16,100.00 16,200.00 16,300.00	90.12 90.12 90.12 90.12 90.12	359.62 359.62 359.62 359.62 359.62 359.62	8,902.99 8,902.78 8,902.58 8,902.38 8,902.17	-5,206.99 -5,206.78 -5,206.58 -5,206.38 -5,206.17	6,675.73 6,775.72 6,875.72 6,975.72 7,075.72	-636.31 -636.97 -637.62 -638.28 -638.93	6,679.80 6,779.80 6,879.80 6,979.80 7,079.80	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
16,400.00 16,500.00 16,600.00 16,700.00 16,800.00	90.12 90.12 90.12 90.12 90.12	359.62 359.62 359.62 359.62 359.62	8,901.97 8,901.76 8,901.56 8,901.35 8,901.15	-5,205.97 -5,205.76 -5,205.56 -5,205.35 -5,205.35 -5,205.15	7,175.71 7,275.71 7,375.71 7,475.71 7,575.71	-639.59 -640.24 -640.90 -641.55 -642.21	7,179.80 7,279.80 7,379.80 7,479.80 7,579.80	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
16,900.00 17,000.00 17,100.00 17,200.00 17,300.00	90.12 90.12 90.12 90.12 90.12 90.12	359.62 359.62 359.62 359.62 359.63	8,900.94 8,900.74 8,900.53 8,900.33 8,900.12	-5,204.94 -5,204.74 -5,204.53 -5,204.33 -5,204.12	7,675.70 7,775.70 7,875.70 7,975.70 8,075.69	-642.86 -643.52 -644.17 -644.83 -645.48	7,679.80 7,779.80 7,879.80 7,979.80 8,079.80	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00

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COMPASS 5000.15 Build 90

Database: Company:	Database 1 ASCENT ENERGY	Local Co-ordinate Reference: TVD Reference:	Well GAVILON FED COM 302H KB EST 25' @ 3696.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	MD Reference:	KB EST 25' @ 3696.00usft
Site:	SEC. 33 T20S R33E N.M.P.M. (GRID)	North Reference:	Grid
Well:	GAVILON FED COM 302H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

(usit) (°)		(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	Section (usft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
17,400.00 90.12	359.63	8,899.92	-5,203.92	8,175.69	-646.14	8,179.80	0.00	0.00	0.00
17,500.00 90.12	359.63	8,899.71	-5,203.71	8,275.69	-646.79	8,279.80	0.00	0.00	0.00
17,600.00 90.12	359.63	8,899.50	-5,203.50	8,375.69	-647.45	8,379.80	0.00	0.00	0.00
17,700.00 90.12	359.63	8,899.30	-5,203.30	8,475.68	-648.10	8,479.80	0.00	0.00	0.00
17,800.00 90.12	359.63	8,899.09	-5,203.09	8,575.68	-648.75	8,579.80	0.00	0.00	0.00
17,900.00 90.12	359.63	8,898.88	-5,202.88	8,675.68	-649.41	8,679.80	0.00	0.00	0.00
18,000.00 90.12	359.63	8,898.68	-5,202.68	8,775.68	-650.06	8,779.80	0.00	0.00	0.00
18,100.00 90.12	359.63	8,898.47	-5,202.47	8,875.67	-650.71	8,879.80	0.00	0.00	0.00
18,200.00 90.12	359.63	8,898.26	-5,202.26	8,975.67	-651.37	8,979.79	0.00	0.00	0.00
18,300.00 90.12	359.63	8,898.05	-5,202.05	9,075.67	-652.02	9,079.79	0.00	0.00	0.00
18,400.00 90.12	359.63	8,897.85	-5,201.85	9,175.67	-652.67	9,179.79	0.00	0.00	0.00
18,500.00 90.12	359.63	8,897.64	-5,201.64	9,275.67	-653.33	9,279.79	0.00	0.00	0.00
18,600.00 90.12	359.63	8,897.43	-5,201.43	9,375.66	-653.98	9,379.79	0.00	0.00	0.00
18,700.00 90.12	359.63	8,897.22	-5,201.22	9,475.66	-654.63	9,479.79	0.00	0.00	0.00
18,800.00 90.12	359.63	8,897.01	-5,201.01	9,575.66	-655.29	9,579.79	0.00	0.00	0.00
18,900.00 90.12	359.63	8,896.81	-5,200.81	9,675.66	-655.94	9,679.79	0.00	0.00	0.00
19,000.00 90.12	359.63	8,896.60	-5,200.60	9,775.65	-656.59	9,779.79	0.00	0.00	0.00
19,100.00 90.12	359.63	8,896.39	-5,200.39	9,875.65	-657.24	9,879.79	0.00	0.00	0.00
19,200.00 90.12	359.63	8,896.18	-5,200.18	9,975.65	-657.90	9,979.79	0.00	0.00	0.00
LTP: 100ft FNL	& 2310ft FEL o	of Sec 28							
19,235.43 90.12	359.63	8,896.10	-5,200.10	10,011.08	-658.13	10,015.22	0.00	0.00	0.00
BHL: 50ft FNL 8	2310ft FEL o	f Sec 28							
19,285.44 90.12	359.63	8,896.00	-5,200.00	10,061.08	-658.45	10,065.23	0.00	0.00	0.00

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,496.00	1,496.00	RSTLR		0.00	
1,866.00	1,866.00	SALDO		0.00	
3,291.75	3,281.00	TANSIL		0.00	
3,491.11	3,476.00	YATES		0.00	
3,797.81	3,776.00	CAPITAN_REEF_TOP		0.00	
5,045.07	4,996.00	TOP_DELAWARE_SAND		0.00	
5,740.26	5,676.00	CHERRY_CANYON		0.00	
6,871.37	6,796.00	BRUSHY_CANYON		0.00	
8,594.11	8,516.00	BSPG_LIME		0.00	
8,658.32	8,576.00	AVLN		0.00	
9,166.59	8,896.00	LEONARD_B		0.00	

Database:	Database 1	Local Co-ordinate Reference:	Well GAVILON FED COM 302H
Company:	ASCENT ENERGY	TVD Reference:	KB EST 25' @ 3696.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	MD Reference:	KB EST 25' @ 3696.00usft
Site:	SEC. 33 T20S R33E N.M.P.M. (GRID)	North Reference:	Grid
Well:	GAVILON FED COM 302H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Plan Annotations

		Local Co	ordinates	
MD (usft)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Comment
0.00	0.00	0.00	0.00	SHL: 445ft FSL & 1718ft FEL of Sec 33
2,400.00	2,400.00	0.00	0.00	START NUDGE (2°/100ft BUR)
3,000.00	2,995.62	-39.48	-48.59	EOB TO 12° INC
6,048.59	5,977.59	-439.17	-540.51	END OF TANGENT
6,648.59	6,573.21	-478.65	-589.10	EOD TO VERTICAL
8,418.41	8,343.04	-478.65	-589.10	KOP (10°/100ft BUR)
8,812.08	8,706.46	-348.65	-589.96	FTP: 100ft FSL & 2310ft FEL of Sec 33
9,319.51	8,916.00	95.40	-592.91	HZ LP: 544.05ft FSL & 2310ft FEL of Sec 33
19,235.43	8,896.10	10,011.08	-658.13	LTP: 100ft FNL & 2310ft FEL of Sec 28
19,285.44	8,896.00	10,061.08	-658.45	BHL: 50ft FNL & 2310ft FEL of Sec 28

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PECOS DISTRICT	
SURFACE USE	
CONDITIONS OF APPROVAL	

CONDIT	
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 301H
SURFACE HOLE FOOTAGE:	445'/S & 1668'/E
BOTTOM HOLE FOOTAGE	50'/N & 1650'/E
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 302H
SURFACE HOLE FOOTAGE:	445'/S & 1718'/E
BOTTOM HOLE FOOTAGE	50'/N & 2310'/E
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 305H
SURFACE HOLE FOOTAGE:	355'/S & 2026'/W
BOTTOM HOLE FOOTAGE	50'/N & 1650'/E
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 306H
SURFACE HOLE FOOTAGE:	355'/S & 2076'/W
BOTTOM HOLE FOOTAGE	50'/N & 2310'/E
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 402H
SURFACE HOLE FOOTAGE:	355'/S & 2051'/W
BOTTOM HOLE FOOTAGE	50'/N & 2310'/W
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 403H
SURFACE HOLE FOOTAGE:	245'/S & 1668'/E
BOTTOM HOLE FOOTAGE	50'/N & 1650'/E
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
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OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 501H
SURFACE HOLE FOOTAGE:	245'/S & 1693'/E
BOTTOM HOLE FOOTAGE	50'/N & 1650'/E
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 502H
SURFACE HOLE FOOTAGE:	245'/S & 1768'/E
BOTTOM HOLE FOOTAGE	50'/N & 2475'/E
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 505H
SURFACE HOLE FOOTAGE:	155'/S & 2051'/W
BOTTOM HOLE FOOTAGE	50'/N & 1980'/W
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 601H
SURFACE HOLE FOOTAGE:	245'/S & 1743'/E
BOTTOM HOLE FOOTAGE	50'/N & 2310'/E
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 603H
SURFACE HOLE FOOTAGE:	155'/S & 2001'/W
BOTTOM HOLE FOOTAGE	50'/N & 1650'/W
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 701H
SURFACE HOLE FOOTAGE:	245'/S & 1718'/E
BOTTOM HOLE FOOTAGE	50'/N & 2310'/E
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 702H
SURFACE HOLE FOOTAGE:	1473 / 5 & 1073 / E

BOTTOM HOLE FOOTAGE	50'/N & 1650'/E
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 705H
SURFACE HOLE FOOTAGE:	155'/S & 2026'/W
BOTTOM HOLE FOOTAGE	50'/N & 1650'/W
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 706H
SURFACE HOLE FOOTAGE:	155'/S & 2076'/W
BOTTOM HOLE FOOTAGE	50'/N & 2310'/W
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA COUNTY, NEW MEXICO

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

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I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

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V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

<u>**Ground-level Abandoned Well Marker to avoid raptor perching**</u>: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Timing Limitation Exceptions:

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

Hydrology

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

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Tank battery locations will be lined and bermed. A 20-mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain $1\frac{1}{2}$ times the content of the largest tank or 24-hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

Potash Resources

Lessees must comply with the 2012Secretarial Potash Order. The Order is designed to manage the efficient development of oil, gas, and potash resources. Section 6 of the Order provides general provisions which must be followed to minimize conflict between the industries and ensure the safety of operations.

To minimize impacts to potash resources, the proposed well is confined within the boundaries of the established Gavilon Drill Island

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

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Exclosure Fencing

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

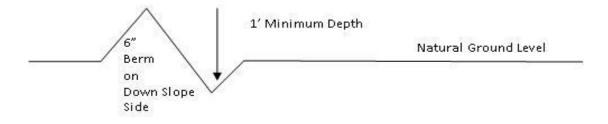
Drainage

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Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\underline{400'}_{4\%} + 100' = 200'$ lead-off ditch interval

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

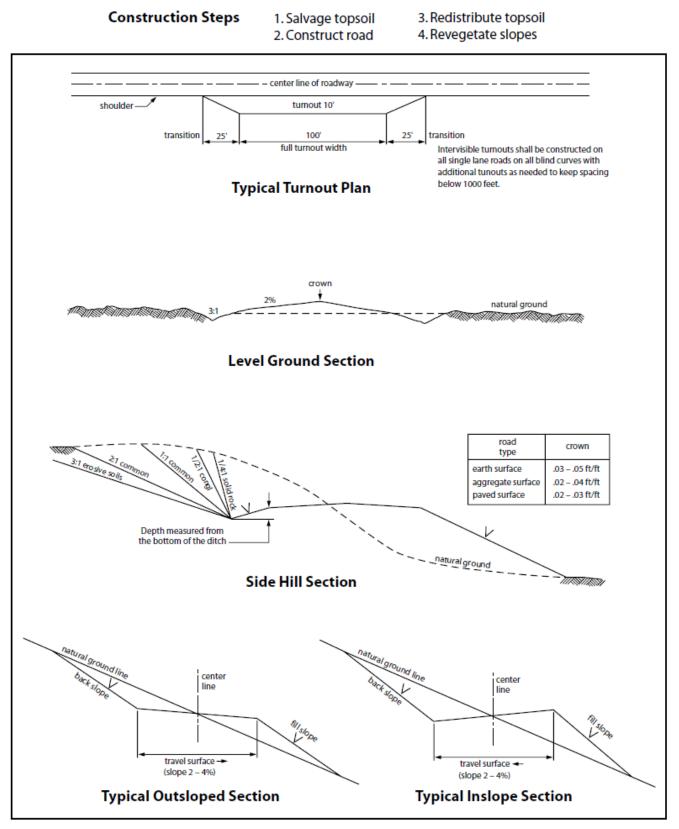
Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

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VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

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Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, <u>Shale Green</u> from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 <u>et seq.</u> (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, <u>et seq</u>. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, <u>et seq</u>.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be $\underline{30}$ feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed <u>20</u> feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed <u>30</u> feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

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10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

() seed mixture 1	() seed mixture 3
() seed mixture 2	() seed mixture 4
(X) seed mixture 2/LPC	() Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-ofway and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

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17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. <u>Escape Ramps</u> - The operator will construct and maintain pipeline/utility trenches that are not otherwise fenced, screened, or netted to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.
- 19. Special Stipulations:

Wildlife:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from permanent engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

Hydrology:

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

Tank battery locations will be lined and bermed. A 20-mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain $1\frac{1}{2}$ times the content of the largest tank or 24-hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

BURIED/SURFACE LINE(S):

When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

ELECTRIC LINE(S):

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

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Range:

Cattleguards

Where a permanent cattlegaurd is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

Fence Requirement

Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Livestock Watering Requirement

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

C. OIL AND GAS RELATED SITES

STANDARD STIPULATIONS FOR OIL AND GAS RELATED SITES

A copy of the application (Grant/Sundry Notice) and attachments, including stipulations and map, will be on location during construction. BLM personnel may request to view a copy of your permit during construction to ensure compliance with all stipulations.

The holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer, BLM.

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant and for all response costs, penalties, damages, claims, and other costs arising from the provisions of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Chap. 82, Section 6901 et. seq., from the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Chap. 109, Section 9601 et. seq., and from other applicable environmental statues.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et. seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et. seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the site or related pipeline(s), any oil or other pollutant should be discharged from site facilities, the pipeline(s) or from containers or vehicles impacting Federal lands, the control and total removal, disposal, and cleanup of such oil of other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

5. Sites shall be maintained in an orderly, sanitary condition at all times. Waste materials, both liquid and solid, shall be disposed of promptly at an appropriate, authorized waste disposal facility in accordance with all applicable State and Federal laws. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, petroleum products, brines, chemicals, oil drums, ashes, and equipment.

6. The operator will notify the Bureau of Land Management (BLM) authorized officer and nearest Fish and Wildlife Service (FWS) Law Enforcement office within 24 hours, if the operator discovers a dead or injured federally protected species (i.e., migratory bird species, bald or golden eagle, or species listed by the FWS as threatened or endangered) in or adjacent to a pit, trench, tank, exhaust stack, or fence. (If the operator is unable to

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contact the FWS Law Enforcement office, the operator must contact the nearest FWS Ecological Services office.)

7. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for this project is **Shale Green**, Munsell Soil Color Chart Number 5Y 4/2.

8. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

9. A sales contract for removal of mineral material (caliche, sand, gravel, fill dirt) from an authorized pit, site, or on location must be obtained from the BLM prior to commencing construction. There are several options available for purchasing mineral material: contact the BLM office (575-234-5972).

10. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

11. Once the site is no longer in service or use, the site must undergo final abandonment. At final abandonment, the site and access roads must undergo "final" reclamation so that the character and productivity of the land are restored. Earthwork for final reclamation must be completed within six (6) months of the abandonment of the site. All pads and facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact. After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

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12. The holder shall stockpile an adequate amount of topsoil where blading occurs. The topsoil to be stripped is approximately <u>6</u> inches in depth. The topsoil will be segregated from other spoil piles. The topsoil will be used for final reclamation.

13. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

() seed mixture 1	() seed mixture 3
() seed mixture 2	() seed mixture 4
(X) seed mixture 2/LPC	() Aplomado Falcon Mixture

14. In those areas where erosion control structures are required to stabilize soil conditions, the holder shall install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound management practices. Any earth work will require prior approval by the Authorized Officer.

15. Open-topped Tanks - The operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps

16. The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an

impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. <u>Use a maximum netting mesh size of 1 ½ inches.</u>

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17. Open-Vent Exhaust Stack Exclosures – The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

18. Containment Structures - Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

19. Special Stipulations:

Wildlife:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from permanent engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Hydrology:

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

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Tank battery locations will be lined and bermed. A 20-mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ¹/₂ times the content of the largest tank or 24-hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

BURIED/SURFACE LINE(S):

When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

ELECTRIC LINE(S):

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

Range:

Cattleguards

Where a permanent cattlegaurd is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

Fence Requirement

Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be

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restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Livestock Watering Requirement

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

Potash Resources

Lessees must comply with the 2012Secretarial Potash Order. The Order is designed to manage the efficient development of oil, gas, and potash resources. Section 6 of the Order provides general provisions which must be followed to minimize conflict between the industries and ensure the safety of operations.

To minimize impacts to potash resources, the proposed well is confined within the boundaries of the established Gavilon Drill Island

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

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At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture for LPC Sand/Shinnery Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be <u>no</u> primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed shall be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A

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Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

Pounds of seed \mathbf{x} percent purity \mathbf{x} percent germination = pounds pure live seed

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(Insert Seed Mixture Here)

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Ascent Energy, LLC GAVILON WEST 3 SWSE SEC 33, T20S, R33E N.M.P.M. Lea County, New Mexico

H₂S Drilling Operations Plan

- 1. All personnel will be trained in H₂S working conditions as required by Onshore Order 6 before drilling out of the surface casing.
- Two briefing areas will be established. Each briefing area will be ≥150' from the wellhead, perpendicular from one another, and easily entered and exited. See H₂S page 4 for more details.
- 3. H₂S Safety Equipment/Systems:
 - a. Well Control Equipment
 - i. Flare line will be \geq 150' from the wellhead and ignited by a flare gun
 - ii. Beware of SO₂ created by flaring
 - iii. Choke manifold will have a remotely operated choke
 - iv. Mud gas separator
 - b. Protective Equipment for Personnel
 - Every person on site will wear a personal H₂S and SO₂ monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.
 - One self-contained breathing apparatus (SCBA) 30-minute rescue pack
 will be at each briefing area. Two 30-minute SCBA packs will be stored in the safety trailer.
 - iii. Four work/escape packs will be on the rig floor. Each pack will have a sufficiently long hose to allow unimpaired work activity.
 - iv. Four emergency escape packs will be in the doghouse for emergency evacuation.
 - v. Hand signals will be used when wearing protective breathing apparatus.
 - vi. Stokes litter or stretcher
 - vii. Two full OSHA compliant body harnesses
 - viii. A 100' long x 5/8" OSHA compliant rope
 - ix. One 20-pound ABC fire extinguisher
 - c. H2S Detection & Monitoring Equipment
 - Every person on site will wear a personal H₂S and SO₂ monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.
 - ii. A stationary detector with three sensors will be in the doghouse

Ascent Energy, LLC GAVILON WEST 3 SWSE SEC 33, T20S, R33E N.M.P.M. Lea County, New Mexico

- iii. Sensors will be installed on the rig floor, bell nipple, and at the end of the flow line or where drilling fluids are discharged.
- iv. Visual alarm will be triggered at 10 ppm.
- v. Audible alarm will be triggered at 10 ppm.
- vi. Calibration will occur at least every 30 days. Gas sample tubes will be kept in the safety trailer.
- d. Visual Warning System
 - i. A color-coded H₂S condition sign will be set at each pad entrance.
 - ii. Color-coded condition flag will be installed to indicate current H₂S conditions.
 - iii. Two wind socks will be installed that will be visible from all sides.
- e. Mud Program
 - A water based mud with a pH of > 10 will be maintained to control corrosion, H₂S gas returns to the surface, and minimize sulfide stress cracking and embrittlement.
 - ii. Drilling mud containing H₂S gas will be degassed at an optimum location for the rig configuration.
 - iii. This gas will be piped into the flare system.
 - iv. Enough mud additives will be on location to scavenge and/or neutralize H₂S where formation pressures are unknown.
- f. Metallurgy
 - i. All equipment that has the potential to be exposed to H₂S will be suitable for H₂S service.
 - Equipment that will meet these metallurgical standards include the drill string, casing, wellhead, BOP assembly, casing head and spool, rotating head, · kill lines, choke, choke manifold and lines, valves, mud-gas separators, DST tools, test units, tubing, flanges, and other related equipment (elastomer packings and seals).
- g. Communication from well site
 - i. Cell phones and/or two-way radios will be used to communicate from the well site.
- 4. A remote-controlled choke, mud-gas separator, and a rotating head will be installed before drilling or testing any formation expected to contain H₂S.

Ascent Energy, LLC GAVILON WEST 3 SWSE SEC 33, T20S, R33E N.M.P.M. Lea County, New Mexico

Ascent Emergency Contact Numbers

Company Personnel to be Notified

Ascent Emergency Contact	(303) 281-9951
Gema Volek (Vice President of Drilling)	Cell: (785) 312-2092
Matt Ward (Chief Operations Officer)	Cell: (303) 506-6647
Dean Gimbel (Vice President Completions)	Cell: (303) 945-1323

Local and County Agencies

Monument Fire Department	911 or (575) 393-4339
Hobbs Fire Marshal	(575) 391-8185
Lea County Sheriff (Lovington)	911 or (575) 396-3611
Lea County Emergency Management (Lovington)	(575) 396-8602
Lea Regional Medical Center Hospital (Hobbs)	(575) 492-5000

State Agencies

NM State Police (Hobbs)	(575) 392-5588
NM Oil Conservation (Hobbs)	(575) 370-3186
NM oil Conservation (Santa Fe)	(505) 476-3440
NM Department of Transportation (Roswell)	(575) 637-7201

Federal Agencies

BLM Carlsbad Field Office	(575) 234-5972
BLM Hobbs Field Station	(575) 393-3612
National Response Center	(800) 424-8802
United States Environmental Protection Agency	(800) 887-6063
(USEPA Region 6 Dallas)	(214) 665-6444

Air Evacuation

Med Flight Air Ambulance (Albuquerque)	(800) 842-4431
Lifeguard (Albuquerque)	(888) 866-7256

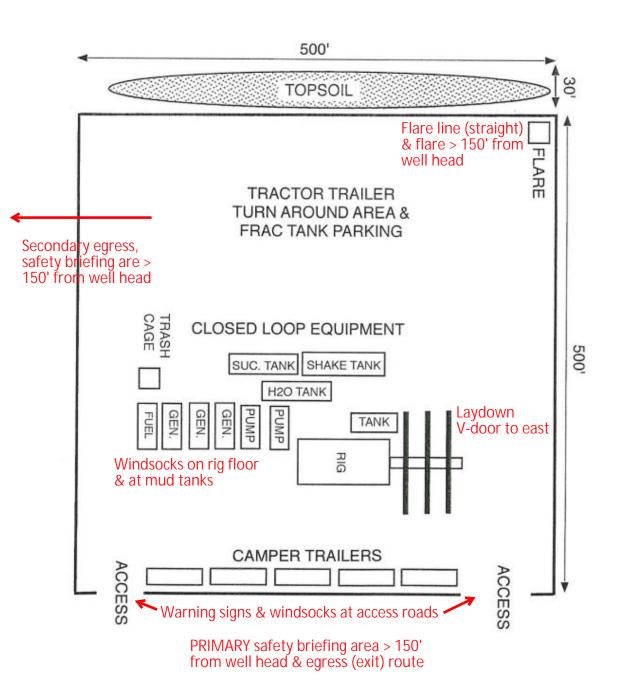
Veterinarians

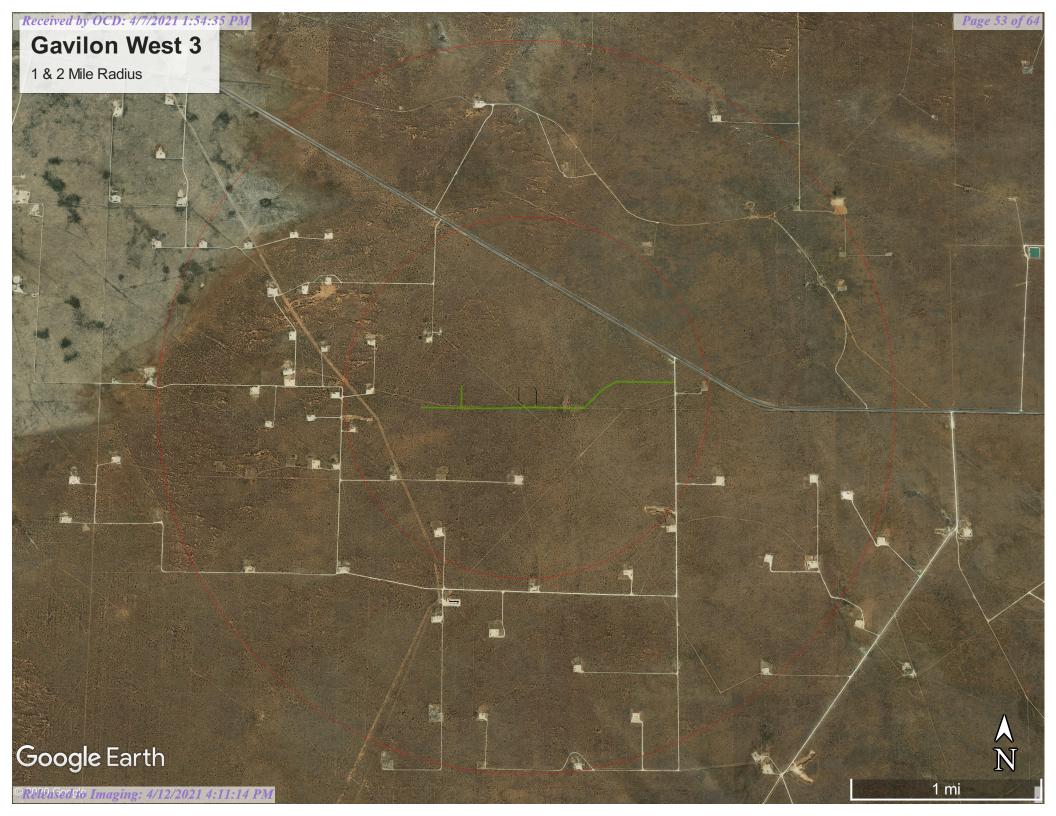
Dal Paso Animal Hospital (Hobbs)	(575) 397-2286
Hobbs Animal Clinic And Pet Care (Hobbs)	(575) 392-5563
Great Plains Veterinary Clinic and Hospital (Hobbs)	(505) 392-5513

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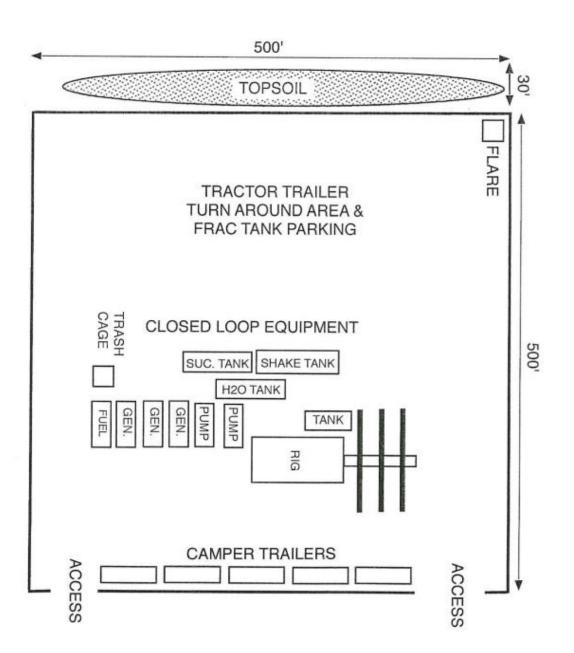
ASCENT ENERGY, LLC GAVILON PAD 3 RIG LAYOUT





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ASCENT ENERGY, LLC GAVILON PAD 3 RIG LAYOUT



Ascent Energy, LLC Gavilon West 3 Pad SWSE, SEC 33, T20S, R33E, N.M.P.M. Lea County, New Mexico

Onshore Order No.1 Surface Use Plan of Operations

Gavilon Fed Com 301H SHL: 445' FSL, 1668' FEL SEC. 33, T20S, R33E Gavilon Fed Com 702H SHL: 445' FSL, 1693' FEL SEC. 33, T20S, R33E Gavilon Fed Com 302H SHL: 445' FSL, 1718' FEL SEC. 33, T20S, R33E Gavilon Fed Com 502H SHL: 245' FSL, 1768' FEL SEC. 33, T20S, R33E Gavilon Fed Com 403H SHL: 245' FSL, 1668' FEL SEC. 33, T20S, R33E Gavilon Fed Com 501H SHL: 245' FSL, 1693' FEL SEC. 33, T20S, R33E Gavilon Fed Com 701H SHL: 245' FSL, 1718' FEL SEC. 33, T20S, R33E Gavilon Fed Com 601H SHL: 445' FSL, 1743' FEL SEC. 33, T20S, R33E

This surface use plan of operations provides site specific information for the above referenced wells located on the Gavilon West 3 Pad within the proposed Gavilon Drill Island.

 <u>Existing Roads</u> *See Gavilon West Pad 3 Topographical and Access Road Map – Vicinity Map(s)

Existing roads providing access to the well site are shown on the Topographical and Access Road Map and Vicinity Map. Non-state roads will be maintained as needed to Gold Book standards. This includes pulling ditches, preserving the crown, and cleaning culverts. This will be done at least once a year, and more often as needed.

From the intersection of Highway 176 and Salt Lake Ln. go south on Salt lake Ln. (Gravel) approximately 0.29 Miles. Turn Right (west) on proposed access road and go approximately 1.28 miles and the location is to the north. Total distance from Hobbs, New Mexico to the proposed well location is approximately 50 miles.

- 2. <u>New Roads</u> *See Gavilon West Pad 3 Well Site Plat & Gavilon Lease Easement There will be 799' of new resource roads that will be crowned and ditched. The proposed construction width will be 30' with a 14' wide driving surface, and be surfaced with caliche. Maximum disturbed width = 30', maximum grade = 3%, maximum cut/fill = 3'. No culvert, cattle guard, or vehicle turn out is needed. Upgrading will consist of filling potholes with caliche.
 - a. Road "A" Dimensions (Permanent road): 82'
 - b. Road "B" Dimensions (Permanent road): 82'
 - c. Road "C" Dimensions (Permanent road to CTB): 635'

New road access erosion control: Crowned and ditched

 Location of Existing Wells *See Gavilon West Pad 3 Topo C: Well Proximity Map. Existing oil, gas, water and P&A wells within a mile of the proposed wellbore. No SWD or injection well is within a mile radius.



Ascent Energy, LLC Gavilon West 3 Pad SWSE, SEC 33, T2OS, R33E, N.M.P.M. Lea County, New Mexico

4. Location of Existing and/or Proposed Production Facilities *See Gavilon West Pad 3 Plan, Cut/Fill Diagram, Cross Section & Gavilon CTB Pad Exhibit Flare(s) will be set on the northeast corner of the well pad. Separators and treaters will be placed in the west side of the well pad. A central tank battery (CTB) will be built on lease in the SESW of Section 33. Tanks will be on the east and south sides of the CTB. Flare and/or CBU will be set on the northwest corner of the CTB.

A 2652' long x 3' wide x 3' deep trench will run between the well pad and CTB. Trench will hold 4" 0.D. steel, HDPE, or composite flow line and fuel gas line. (There will be one trench per well. Trenches will be 3' apart. There will be 8 wells on the pad.)

No powerline is planned at this time.

- Location and Types of Water Supply *See Water Transportation Map Water will be trucked from the 3Bear Libby water station on private land, located NE1/4 Section 26, T20S, R34E.
- 6. <u>Construction Materials</u> *See Construction Materials Source Map NM One Call (811), offset operators will be notified before construction starts, if necessary. Top 6" of soil and brush will be stockpiled north of the well pad. V-door will face east. Closed loop mud system will be used. Caliche will be hauled from an existing caliche pit on private (Berry) land in E2N34 35-20S-34E.

7. Methods of Handling Waste

All trash will be placed in a portable trash cage. It will be hauled to the Lea County landfill. There will be no trash burning. Contents (drill cuttings, mud, salts, and other chemicals) of the mud tanks will be hauled to state approved disposal site at R360's state approved (NM-01-0006) disposal site at Halfway, NM. Human waste will be disposed of in chemical toilets and hauled to the Hobbs wastewater treatment plant. **Reserve pit:** No reserve pit planned.

8. Ancillary Facilities

There will be no airstrip or camp. Camper trailers will be on location for the company man, tool pusher, and mud logger.

9. <u>Well Site Layout</u> *See Gavilon West Pad 3 Rig Layout

See Rig Layout for depictions of the well pad, trash cage, access onto the location, parking, living facilities, and rig orientation.

10. Plans for Final Surface Reclamation



Ascent Energy, LLC Gavilon West 3 Pad SWSE, SEC 33, T20S, R33E, N.M.P.M. Lea County, New Mexico

Interim Reclamation: Once the last well has been drilled, then the pad will be interim reclaimed to a reduced working surface area. The reclaimed area will be recontoured and reseeded to match preconstruction grades.

Final Reclamation: Once the last well is plugged, then the pad, CTB, and new road will be reclaimed within 6 months of plugging. Disturbed areas will be recontoured to match pre- construction grades. Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with BLM requirements. Road will be blocked. Noxious weeds will be controlled.

APPROXIMATE SURFACE DISTURBANCE AREAS	DISTANCE	ACRES
WELL SITE DISTURBANCE	NA	5.57
CTB SITE DISTURBANCE	NA	2.97
30' WIDE FLOWLINE R-O-W DISTURBANCE	2652'	1.826
30' WIDE ROAD "A" PERMANENT ROAD R-O-W DISTURBANCE	82'	0.056
60' WIDE ROAD "B" PERMANENT ROAD R-O-W DISTURBANCE	82'	0.113
30' WIDE ROAD "C" PERMANENT ROAD TO CTB R-O-W DISTURBANCE	635'	0.437
TOTAL SURFACE USE AREA:		10.972

11. Surface Ownership

Well site: Surface owner: BLM Contact/Office location: Carlsbad Field Office 620 E. Greene Street

Carlsbad, NM 88220

Phone: (575) 234-5972

Roads (New/Existing): Surface owner: BLM Contact/Office location: Carlsbad Field Office 620 E. Greene Street Carlsbad, NM 88220 Phone: (575) 234-5972

12. Additional Information

An onsite inspection was conducted for Gavilon West Pad 2 on March 5, 2018. In attendance at the inspection were the following individuals:

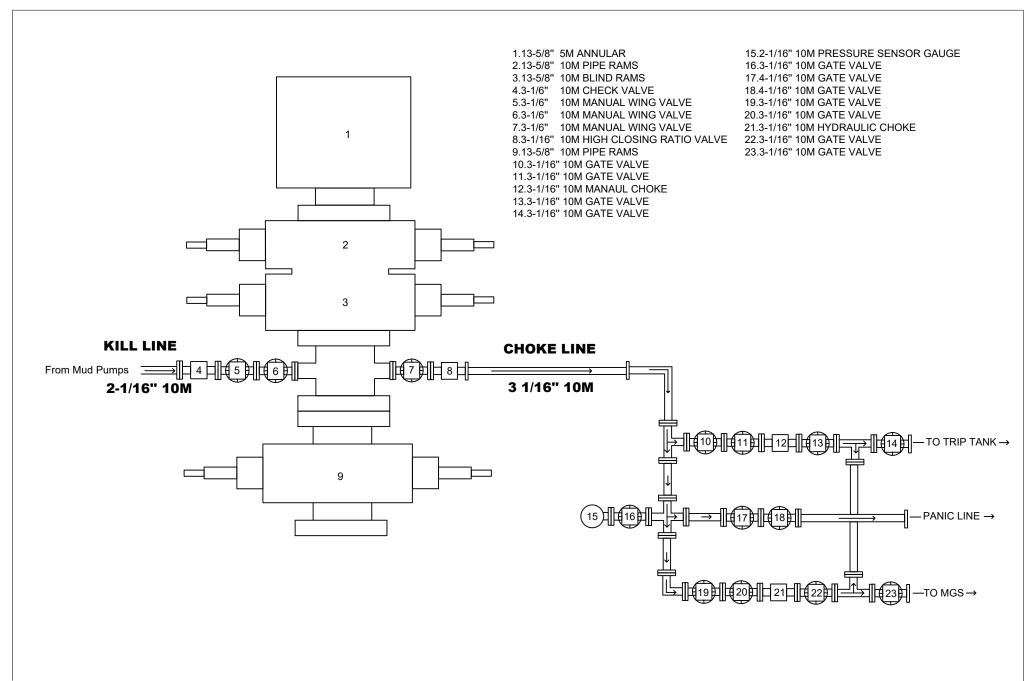
Name	Agency/Company
Jeffery Roberts	Bureau of Land Management
Jim Rutley	Bureau of Land Management
Ben Metz	Ascent Energy, LLC

Field representative will be: Gema Volek Drilling Manager Ascent Energy, LLC 1125 17th St., Suite 410 Denver, CO 80202 Office: (720) 710-8999, Cell: (785) 312-2092



Ascent Energy

5M BOPE & CHOKE MANIFOLD DIAGRAM





Blowout Prevention and Control Well Kick: Shut-In Procedures

Primary Kick Indicators

If any primary kick indicators are observed, report them IMMEDIATEALY TO THE DRILLER and initiate the proper shut-in procedures.

- 1. Increase flow rate.
- 2. Pit volume gain.
- 3. Well flows with pump off.
- 4. Hole not taking proper amount of mud on trips.

If a kick occurs while drilling:

- 1. Raise the Kelly until a tool joint is above the rotary table.
- 2. Stop the mud pumps.
- 3. Open the hydraulic gate valve.
- 4. Close the annular preventer.
- 5. Close the hydraulic choke.
- 6. Notify the Drill Site Manager and Drilling Manager.
- 7. Read and record:
 - a. Shut-in drill pipe pressure,
 - b. Shut-in annulus pressure, and
 - c. Pit gain.
- 8. Prepare the well-killing spreadsheet.

If a kick occurs during a trip:

- 1. Set the top tool joint on the slips.
- 2. Install and make up a full-opening, full opened safety valve in the fill pipe.
- 3. Close the safety valve.
- 4. Open the hydraulic gate valve.
- 5. Close the annular preventer.
- 6. Close the hydraulic choke.
- 7. Notify the Drill Site Manager and Drilling Manager.
- 8. Pick up the Kelly and make it up.
- 9. Open the safety valve.
- 10.Read and record:
 - a. Shut-in drill pipe pressure,
 - b. Shut-in casing pressure, and
 - c. Pit gain.
- 11.Prepare the well-killing spreadsheet.

Ascent Energy, LLC Blowout Prevention and Control Well Kick Shut-In Procedures

It is assumed the hydraulic choke is always open while drilling or tripping. Note: check all lines and valves for leaks after the well has been shut-in.

Crewmember Stations for well kicks after the well has been shut-in:

Crewmember	Station
Driller	On the brake.
Derrickman	Check pumps, line up mud and mixing equipment, check mud weight in pits.
Motorman	On hydraulic closing unit.
Floorhand #1	On hydraulic choke control panel to watch and record shut-in procedures.
Floorhand #2	Check BOPs, choke manifold, etc. for leaks then go to floor with driller.
Toolpusher	Make sure all crewmembers carry out their assignments.

letal One Corp. Metal One		FLUSHMAX-III		Page	44-C	
				Date	25-Jan-17	
		Connection Dat	a Sheet			
			Rev.		N - 1	
FLUSHMAX-III		Geometry	Imperial		<u>S.I.</u>	
		Pipe Body				
		Grade	P110		P110	國國際刻
		Pipe OD (D)	7 5/8	in	193.68	mm
		Weight	29.70	lb/ft	44.20	kg/m
		Actual weight	29.04		43.21	kg/m
		Wall Thickness (t)	0.375	in	9.53	mm
		Pipe ID (d)	6.875	in	174.63	mm
		Pipe body cross section	8.537	in ²	5,508	mm ²
		Drift Dia.	6.750	in	171.45	mm
		Connection				
		Box OD (W)	7.625	in	193.68	mm
4	7	PIN ID	6.875	in	174.63	mm
	2	Make up Loss	3.040	in	77.22	mm
	2	Box Critical Area	4.424	in ²	2854	mm ²
	2	Joint load efficiency	60	%	60	%
	2 Box	Thread Taper		/ 16 (3/4		/0
	> critical					
	area	Number of Threads		5 T		
		Performance	for Pipe Body	5 T		
		Performance Performance Properties		5 T	P	kN
	d d	Performance Performance Properties S.M.Y.S.	939	5 T kips	4,177	kN MPa
ake 2	← d Pin	Performance Performance Properties S.M.Y.S. M.I.Y.P.	<mark>939</mark> 9,470	5 T kips psi	4,177 65.31	MPa
	← d Pin critical	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength	939 9,470 5,350	5 T kips psi psi	4,177 65.31 36.90	MPa MPa
	← d Pin	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength	939 9,470 5,350 ied Minimum YII	5 T kips psi psi ELD Stren	4,177 65.31 36.90 gth of Pipe bo	MPa MPa ody
	← d Pin critical	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim Performance Properties	939 9,470 5,350 ied Minimum YII um Internal Yiel for Connectio	5 T kips psi ELD Stren d Pressure on	4,177 65.31 36.90 gth of Pipe body e of Pipe body	MPa MPa ody
	← d Pin critical	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim Performance Properties Tensile Yield load	939 9,470 5,350 ied Minimum YII um Internal Yiek for Connectio 563 kips	5 T kips psi psi ELD Stren d Pressure on (60% (4,177 65.31 36.90 gth of Pipe body of S.M.Y.S.	MPa MPa ody
	← d Pin critical	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim Performance Properties Tensile Yield load Min. Compression Yield	939 9,470 5,350 ied Minimum YII um Internal Yiel for Connectio 563 kips 563 kips	5 T kips psi DStren d Pressure on (60% 0	4,177 65.31 36.90 gth of Pipe body of Pipe body of S.M.Y.S.)	MPa MPa ody
	Pin critical area	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim Performance Properties Tensile Yield Ioad Min. Compression Yield Internal Pressure	939 9,470 5,350 ied Minimum YII um Internal Yiek for Connectio 563 kips	5 T kips psi 5LD Stren d Pressure 0n 60% 0 60% 0	4,177 65.31 36.90 gth of Pipe body of S.M.Y.S.) of M.I.Y.P.)	MPa MPa ody v
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	Pin critical area	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure External Pressure External Pressure Max. DLS (deg. /100ft) Recommended Torque Min. Opti.	939 9,470 5,350 ied Minimum YII um Internal Yiek for Connectio 563 kips 563 kips 7,580 psi 7,580 psi 15,500 17,200	5 T kips psi psi LD Stren d Pressure 0 0 60% 0 (60% 0 (60% 0 (100% of 25 ft-lb	4,177 65.31 36.90 gth of Pipe bod of S.M.Y.S.) of M.I.Y.P.) Collapse S	MPa MPa ody v
	Pin critical area	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure External Pressure External Pressure Max. DLS (deg. /100ft) Recommended Torque Min. Opti. Max.	939 9,470 5,350 ied Minimum YII um Internal Yiel for Connectio 563 kips 563 kips 7,580 psi 7,580 psi 15,500 17,200 18,900	5 T kips psi psi LD Stren d Pressure on (60% o (60% o 100% of 25 ft-lb ft-lb	4,177 65.31 36.90 gth of Pipe bod of S.M.Y.S.) of M.I.Y.P.) Collapse S 21,000 23,300 25,600	MPa MPa ody v
	Pin critical area	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specific M.I.Y.P. = Minim Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure External Pressure Max. DLS (deg. /100ft) Recommended Torque Min. Opti. Max. Operational Max.	939 9,470 5,350 ied Minimum YII um Internal Yiel for Connectio 563 kips 563 kips 7,580 psi 7,580 psi 15,500 17,200 18,900 23,600	5 T kips psi psi ELD Stren d Pressure on (60% o (60% o 100% of 25 ft-lb ft-lb ft-lb ft-lb	4,177 65.31 36.90 gth of Pipe bod of S.M.Y.S.) of M.I.Y.P.) Collapse S 23,300 23,300 32,000	MPa MPa ody v strength N-m N-m N-m N-m
	Pin critical area	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure External Pressure External Pressure Max. DLS (deg. /100ft) Recommended Torque Min. Opti. Max.	939 9,470 5,350 ied Minimum YII um Internal Yiel for Connectio 563 kips 563 kips 7,580 psi 7,580 psi 15,500 17,200 18,900 23,600	5 T kips psi psi ELD Stren d Pressure on (60% o (60% o 100% of 25 ft-lb ft-lb ft-lb ft-lb	4,177 65.31 36.90 gth of Pipe bod of S.M.Y.S.) of M.I.Y.P.) Collapse S 23,300 23,300 32,000	MPa MPa ody v strength N-m N-m N-m N-m

regard to safety-related factors, all of which are the sole responsibility of the operators and users of the subject connectors. Metal One assumes no responsibility for any errors with respect to this information.

Statements regarding the suitability of products for certain types of applications are based on Metal One's knowledge of typical requirements that are often placed on Metal One products in standard well configurations. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application

Released to the products described in this Connection Data Sheet are not recommended for use in deep water offshore applications. For more information, please refer

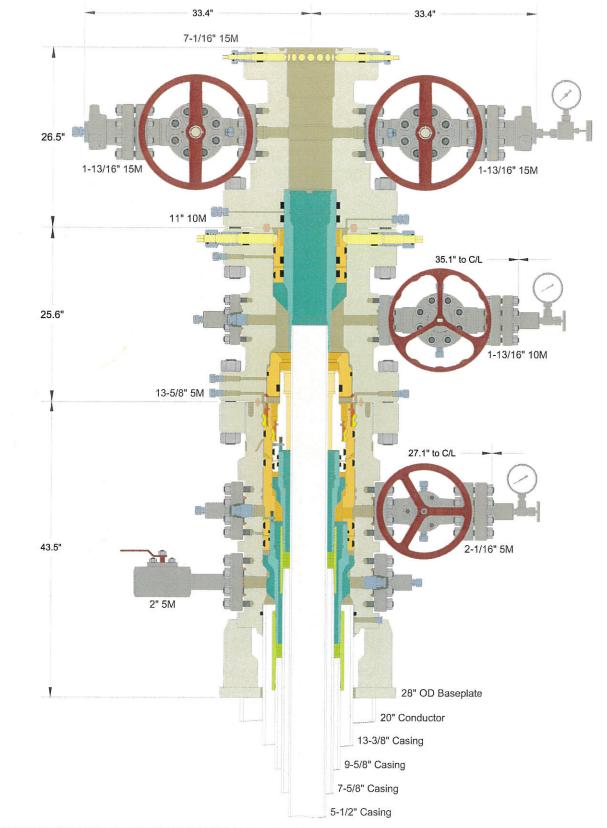
etal One Corp.	GEOCONN		Page Date	32 - R 5-Oct-16	
Metal <mark>O</mark> ne	Connection Data	Sheet	Rev.	N-0	
	Geometry	Imperial <u>S.I.</u>			
	Pipe Body				
	Grade	P110	o, trait	P110	
	Pipe OD (D)	5 1/2	in	139.70	mm
GEOCONN	Weight	20.00	lb/ft	29.76	kg/m
	Wall Thickness (t)	0.361	in	9.17	mm
	Pipe ID (d)	4.778	in	121.36	mm
	Drift Dia.	4.653	in	118.19	mm
⊸W	Connection				
D	Coupling OD (W)	6.050	in	153.67	mm
	Coupling Length (NL)	8.350	in	212.09	mm
A 3	Make up Loss	4.125	in	104.78	mm
}d	Pipe Critical Area	5.83	in ²	3,758	mm ²
}	Box Critical Area	6.10	in ²	3,935	mm ²
3	Thread Taper		and the second	4" per ft)	1 CLUER
CONTRACTOR OF THE OWNER		-			EAX STATEMOND DAT
	Number of Threads Performance		5 T	PI	
	Performance Performance Properties		/		LNI
	Performance Performance Properties S.M.Y.S.	641	kips	2,850	kN MPa
	Performance Performance Properties S.M.Y.S. M.I.Y.P.	<mark>641</mark> 12,640	kips psi	<mark>2,850</mark> 87.17	MPa
ML	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim Performance Properties	641 12,640 11,100 ied Minimum YII um Internal Yiel	<mark>kips</mark> psi psi ELD Strer d Pressur	<mark>2,850</mark> 87.17 76.55 ngth of Pipe bo	MPa MPa
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- NL	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim Performance Properties Min. Connection Joint Strength Min. Compression Yield Internal Pressure External Pressure External Pressure Max. DLS (deg. /100ft) Recommended Torque Min. Opti. Nax.	641 12,640 11,100 ied Minimum YII um Internal Yiel for Connection for Connection 14,600 16,200 17,800 19,500	kips psi psi psi ELD Strer d Pressur 0n 100% of 100% of 100% of 100% of ft-lb ft-lb ft-lb ft-lb ft-lb	2,850 87.17 76.55 ngth of Pipe body re of Pipe body f S.M.Y.S. f S.M.Y.S. f S.M.Y.S. f M.I.Y.P. f Collapse S 0 19,700 21,900 24,100 26,400	MPa MPa ody v trength N-m N-m N-m N-m

The use of this information is at the reader/user's risk and no warranty is implied or expressed by Metal One Corporation or its parents, subsidiaries or affiliates (herein collectively referred to as "Metal One") with respect to the use of information contained herein. The information provided on this Connection Data Sheet is for informational purposes only, and was prepared by reference to engineering information that is specific to the subject products, without regard to safety-related factors, all of which are the sole responsibility of the operators and users of the subject connectors. Metal One assumes no responsibility for any errors with respect to this information.

Statements regarding the suitability of products for certain types of applications are based on Metal One's knowledge of typical requirements that are often placed on Metal One products in standard well configurations. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application

The products described in this Connection Data Sheet are not recommended for use in deep water offshore applications. For more information, please refer to <u>http://www.mtlo.co.jp/mo-con/_images/top/WebsiteTerms_Active_20333287_1.pdf</u> the contents of which are incorporated by reference into this Connection Data Sheet.

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CACTUS WELLHEAD LLC

13-3/8" x 9-5/8" x 7-5/8" x 5-1/2" 5M MBU-3T Wellhead System With 13-5/8" 5M x 11" 10M CTH-P-HPS-F Tubing Spool And 11" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head Released to Imaging: 4/12/2021 4:11:14 PM

DRAWN	DLE	06APR18
APPRV		
DRAWING NO.	ODEO	002219

ASCENT ENERGY, LLC

CONDITIONS

Action 23320

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 <u>District IV</u> 1220 S. St Francis Dr., Santa Fe, NM 87505

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 OF APPROVAL

Operator:		OGRID:	Action Number:	Action Type:			
	ASCENT ENERGY, LLC. 1125 17th St	325830	23320	FORM 3160-3			
Suite 410	Denver, CO80202						
OCD	Condition						
Reviewer	awer land the second						
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104						
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and						
	shall immediately set in cement the water protection string						