

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 286033

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address ASCENT ENERGY, LLC. 1125 17th St Denver, CO 80202		2. OGRID Number 325830
		3. API Number 30-025-47795
4. Property Code 329734	5. Property Name BROTOSAURUS STATE COM	6. Well No. 301H

7. Surface Location

UL - Lot M	Section 15	Township 21S	Range 35E	Lot Idn M	Feet From 235	N/S Line S	Feet From 640	E/W Line W	County Lea
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8. Proposed Bottom Hole Location

UL - Lot D	Section 15	Township 21S	Range 35E	Lot Idn D	Feet From 50	N/S Line N	Feet From 330	E/W Line W	County Lea
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9. Pool Information

WILSON;BONE SPRING, NORTH	97704
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3583
16. Multiple N	17. Proposed Depth 13345	18. Formation Bone Spring	19. Contractor	20. Spud Date 1/15/2021
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1815	1585	0
Int1	12.25	9.625	40	5500	2550	0
Prod	8.75	5.5	20	13345	1910	4200

Casing/Cement Program: Additional Comments

Intermediate casing cement job will be a 2 stage process with a DV tool set at an approximate depth of 4140' TVD.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☒ if applicable.	OIL CONSERVATION DIVISION	
Signature:		
Printed Name: Electronically filed by Dean Gimbel	Approved By: Paul F Kautz	
Title: VP Completions	Title: Geologist	
Email Address: dgimbel@ascentenergy.us	Approved Date: 10/13/2020	Expiration Date: 10/13/2022
Date: 10/12/2020	Phone: 720-710-8995	Conditions of Approval Attached

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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**

¹ API Number	² Pool Code 97704	³ Pool Name WILSON BONE SPRING NORTH
⁴ Property Code	⁵ Property Name BROTOSAURUS STATE COM	⁶ Well Number 301H
⁷ OGRID No. 325830	⁸ Operator Name ASCENT ENERGY	⁹ Elevation 3583'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	15	21 S	35 E		235	SOUTH	640	WEST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	15	21 S	35 E		50	NORTH	330	WEST	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.

¹⁶ GRID AZ. = 359°25'08" HORIZ. DIST. = 5,135.07' GRID AZ. = 245°59'58" HORIZ. DIST. = 338.03' SEC. 15 T21S R35E	GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y= 536,890.7 X= 799,732.5 LAT.= 32.472272°N LONG.= 103.361443°W GEODETIC COORDINATES NAD 83 NME SURFACE LOCATION Y= 536,951.3 X= 840,915.9 LAT.= 32.472394°N LONG.= 103.361920°W FIRST TAKE POINT NAD 27 NME Y= 536,753.2 X= 799,423.7 LAT.= 32.471902°N LONG.= 103.362448°W FIRST TAKE POINT NAD 83 NME Y= 536,813.8 X= 840,607.1 LAT.= 32.472024°N LONG.= 103.362926°W CORNER COORDINATES TABLE NAD 27 NME A - Y= 536,650.6 N, X= 799,094.7 E B - Y= 536,661.2 N, X= 800,414.5 E C - Y= 539,291.7 N, X= 799,068.5 E D - Y= 539,303.5 N, X= 800,387.8 E E - Y= 541,934.0 N, X= 799,041.3 E F - Y= 541,949.9 N, X= 800,360.7 E CORNER COORDINATES TABLE NAD 83 NME A - Y= 536,711.2 N, X= 840,278.1 E B - Y= 536,721.8 N, X= 841,597.9 E C - Y= 539,352.4 N, X= 840,251.8 E D - Y= 539,364.2 N, X= 841,571.2 E E - Y= 541,994.7 N, X= 840,224.6 E F - Y= 542,010.6 N, X= 841,544.0 E LAST TAKE POINT NAD 27 NME Y= 541,838.0 X= 799,372.3 LAT.= 32.485879°N LONG.= 103.362464°W LAST TAKE POINT NAD 83 NME Y= 541,898.7 X= 840,555.6 LAT.= 32.486000°N LONG.= 103.362943°W BOTTOM HOLE LOCATION NAD 27 NME Y= 541,888.0 X= 799,371.7 LAT.= 32.486016°N LONG.= 103.362465°W BOTTOM HOLE LOCATION NAD 83 NME Y= 541,949.7 X= 840,555.0 LAT.= 32.486138°N LONG.= 103.362943°W	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. <i>W Ben Metz</i> 10-12-2020 Signature Date Ben Metz Printed Name bmetz@ascentenergy.us E-mail Address ¹⁸ SURVEYOR 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. 10-08-2020 Date of Survey Signature and Seal of Professional Surveyor: <i>MARK DILLON HARP</i> MARK DILLON HARP 23786 Certificate Number RR 2017111862
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1220 S. St Francis Dr.
Santa Fe, NM 87505

GAS CAPTURE PLAN

Date: 10/13/2020

☒ Original

Operator & OGRID No.: [325830] ASCENT ENERGY, LLC.

☐ 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, recomple 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
BROTOSAURUS STATE COM #301H	30-025-47795	M-15-21S-35E	0235S 0640W	1000	None	New Well

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 is dedicated to 3BEAR FIELD SERVICES, LLC and will be connected to 3BEAR FIELD SERVICES, LLC High/Low Pressure gathering system located in Lea County, New Mexico. It will require 300' of pipeline to connect the facility to High/Low Pressure gathering system. ASCENT ENERGY, LLC. provides (periodically) to 3BEAR FIELD SERVICES, LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, ASCENT ENERGY, LLC. and 3BEAR FIELD SERVICES, LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at 3BEAR FIELD SERVICES, LLC Processing Plant located in Sec. 26, Twn. 20S, Rng. 34E, Lea County, New Mexico. 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 production facilities, unless there are operational issues on 3BEAR FIELD SERVICES, LLC 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

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
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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Form APD Comments

Permit 286033

PERMIT COMMENTS

Operator Name and Address: ASCENT ENERGY, LLC. [325830] 1125 17th St Denver, CO 80202	API Number: 30-025-47795
	Well: BROTOSAURUS STATE COM #301H

Created By	Comment	Comment Date
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Form APD Conditions

Permit 286033

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: ASCENT ENERGY, LLC. [325830] 1125 17th St Denver, CO 80202	API Number: 30-025-47795
	Well: BROTOSAURUS STATE COM #301H

OCD Reviewer	Condition
pkautz	Will require a directional survey with the C-104
pkautz	1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface -- 2) PRODUCTION CASING - Cement must tie back into intermediate casing --
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	1)- The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days 4)- Deviation / Directional Drill Survey are to be filed with or prior to C-104
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD. If an APD expires and if site construction has occurred, site remediation is required.
pkautz	Stage Tool 1) Must notify OCD Hobbs Office prior to running Stage Tool at 5753703186 2) If using Stage Tool on Surface casing, Stage Tool must be set greater than 350' from surface and a minimum of 200 feet above surface shoe. 3) When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.



ASCENT ENERGY

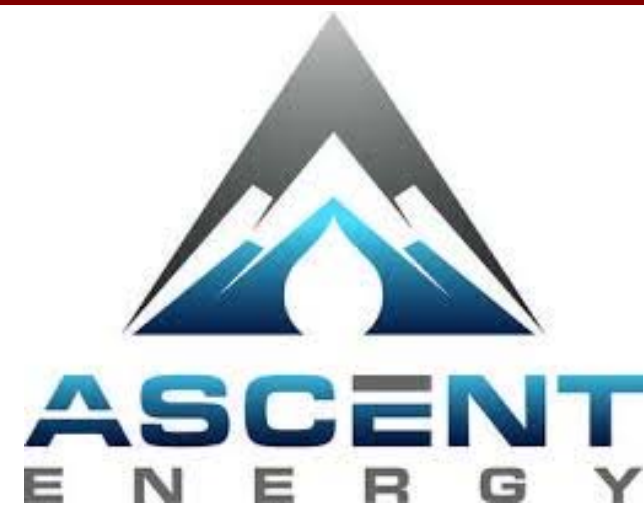
**LEA COUNTY, NEW MEXICO (NAD 83) (GRID)
SEC. 15 T21S R35E N.M.P.M. (GRID)
BROTOSAURUS STATE COM 301H**

ORIGINAL WELLBORE

09 October, 2020

Plan: PROPOSAL #1





Project: LEA COUNTY, NEW MEXICO (NAD 83) (GRID)
Site: SEC. 15 T21S R35E N.M.P.M. (GRID)
Well: BROSAURUS STATE COM 301H
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS

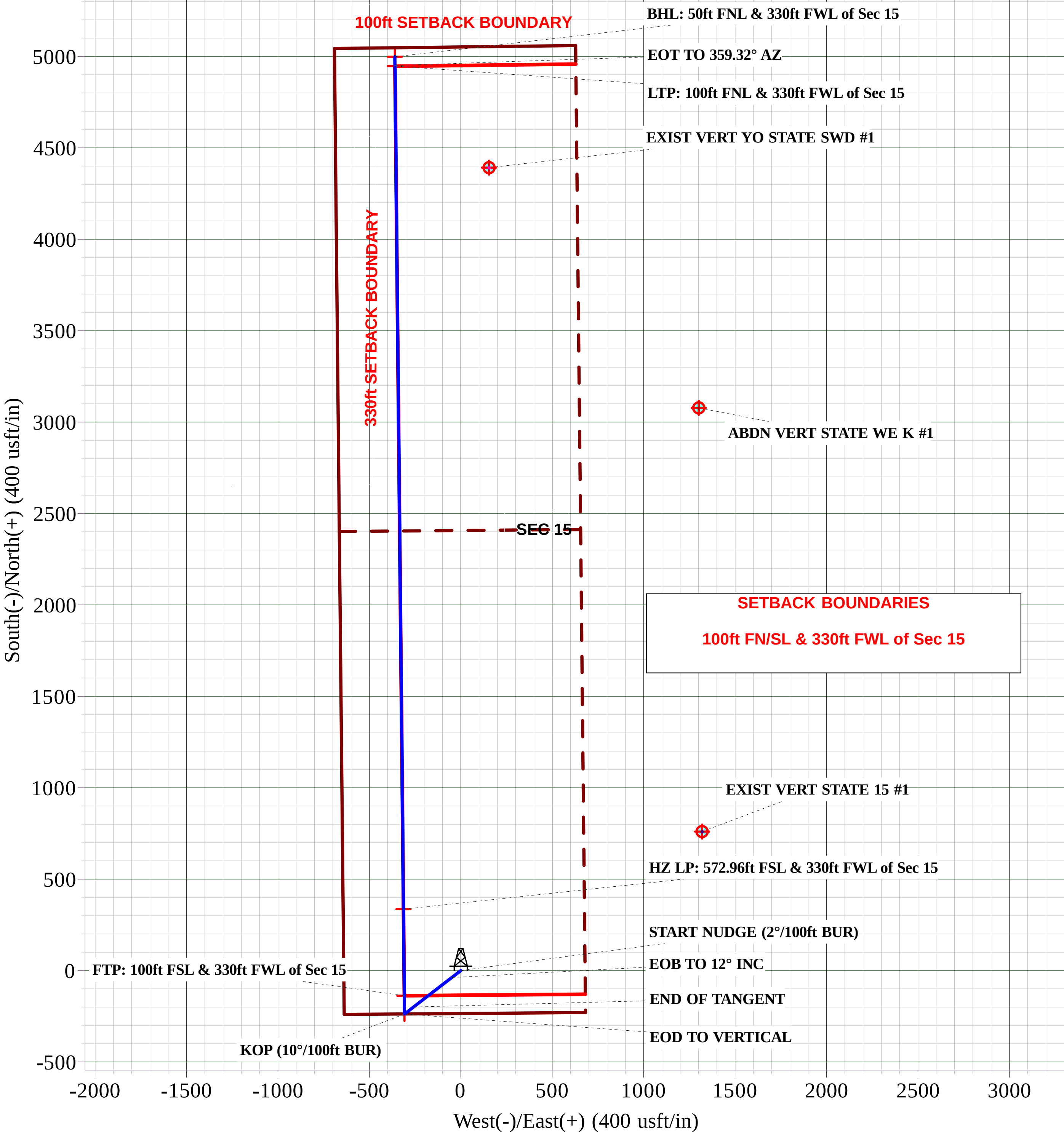
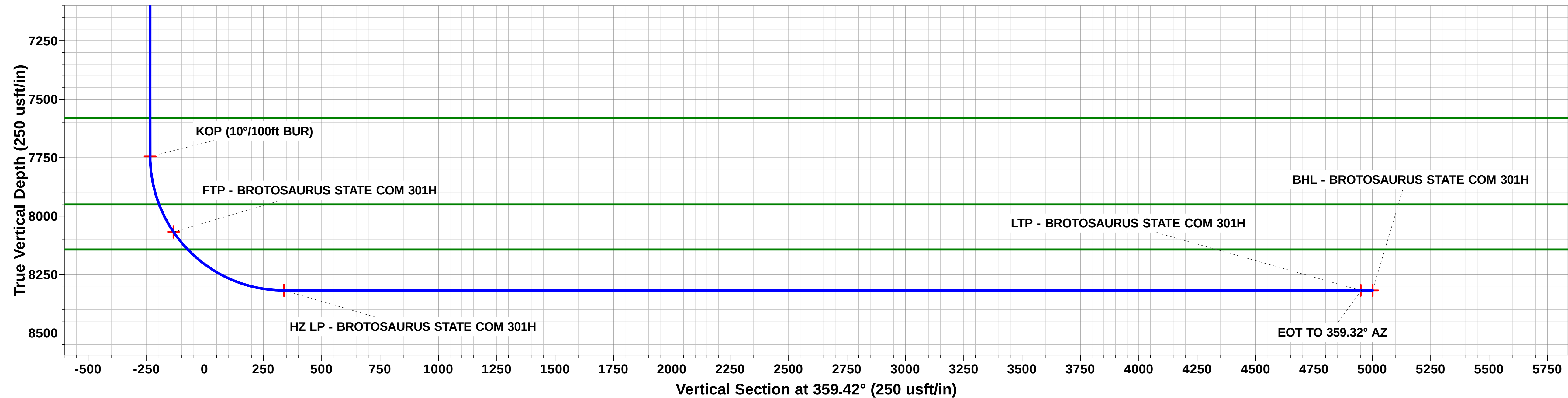
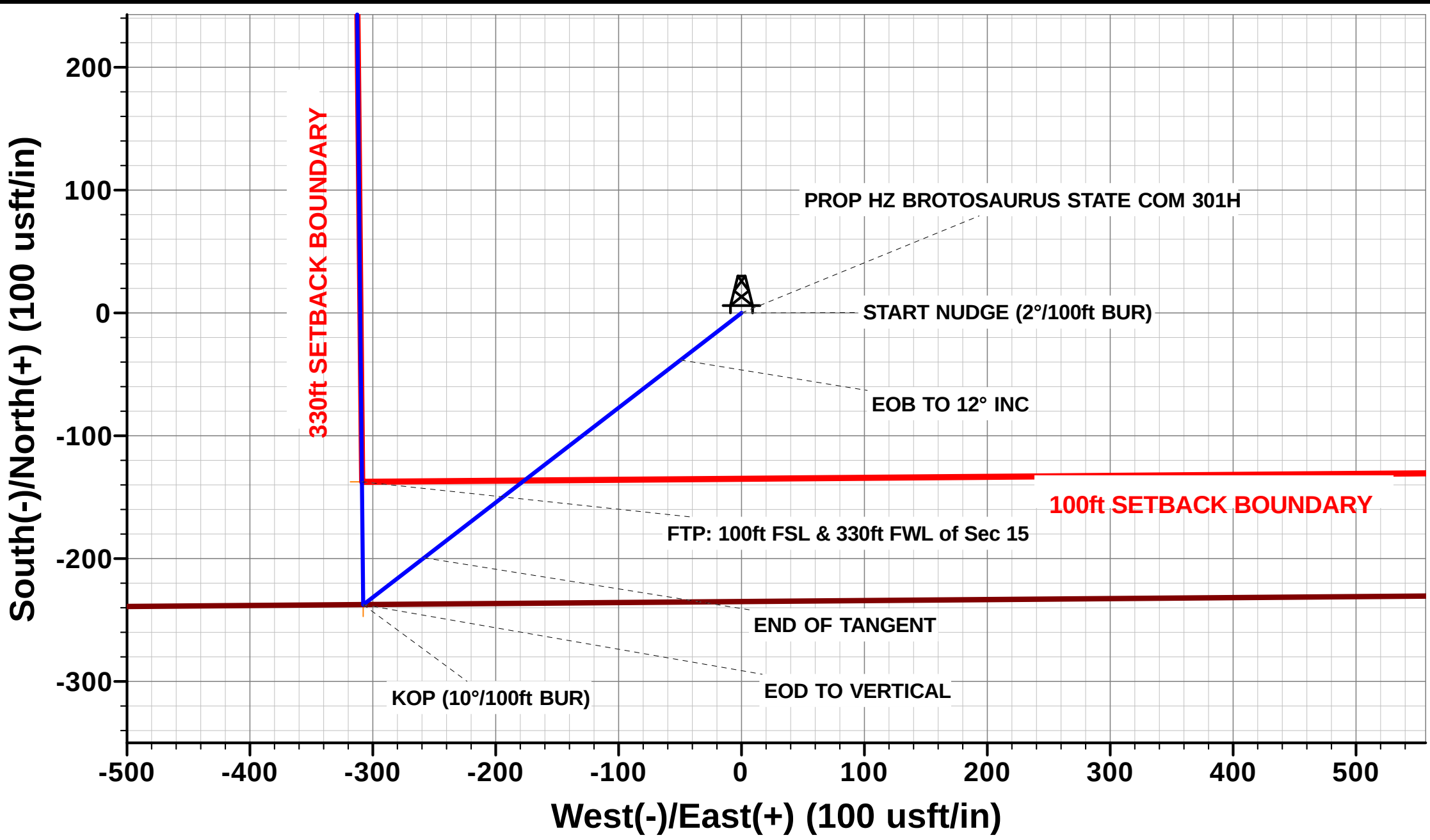
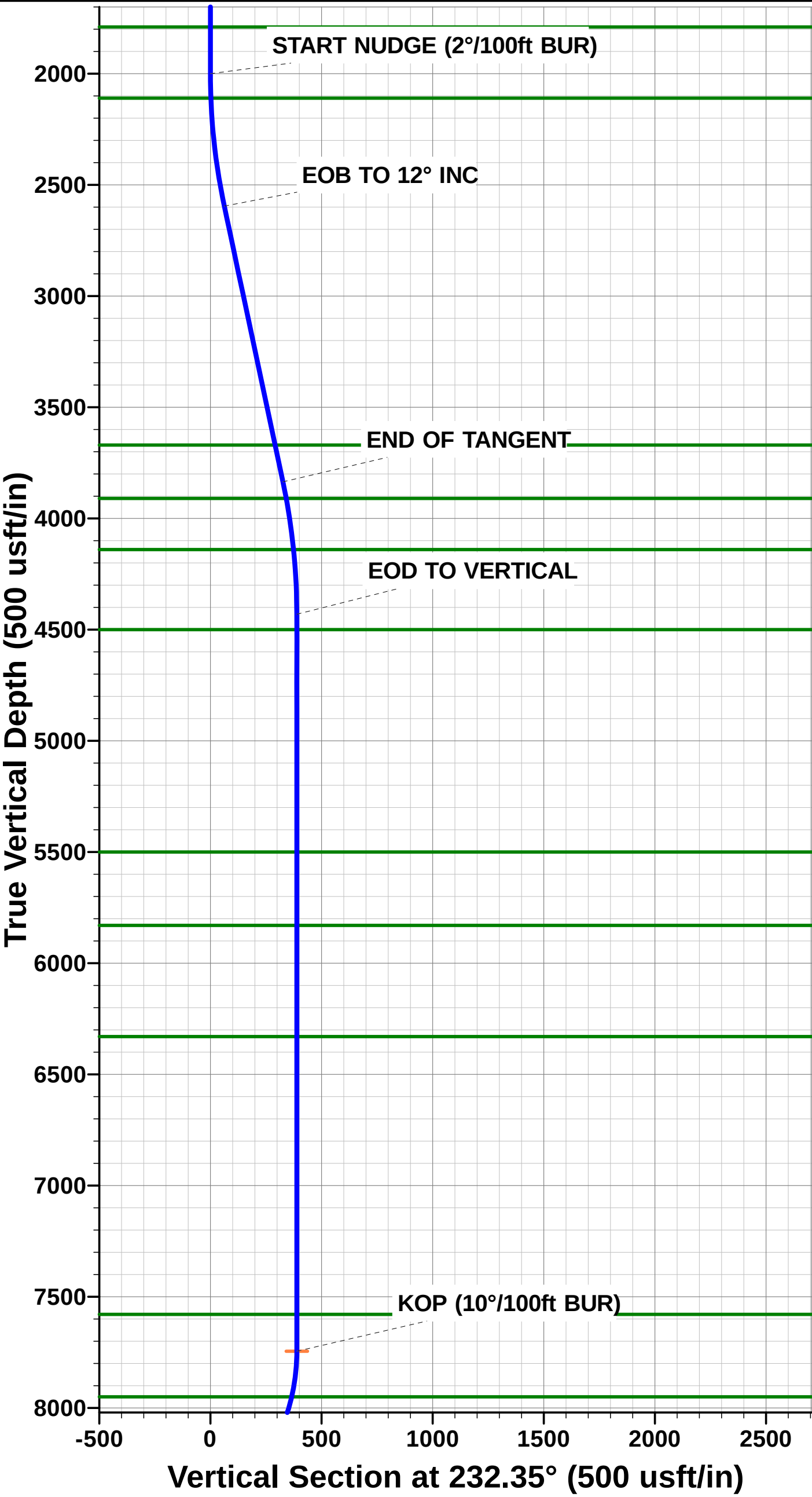
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Dep	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 235ft FSL & 640ft FWL of Sec 15
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	START NUDGE (2°/100ft BUR)
2600.00	12.00	232.35	2595.62	-38.24	-49.56	-37.74	62.60	EOB TO 12° INC
3867.75	12.00	232.35	3835.67	-199.26	-258.25	-196.63	326.18	END OF TANGENT
4467.75	0.00	0.00	4431.29	-237.50	-307.81	-234.37	388.78	EOD TO VERTICAL
7781.50	0.00	0.00	7745.04	-237.50	-307.81	-234.37	388.78	KOP (10°/100ft BUR)
8125.15	34.37	359.42	8068.46	-137.50	-308.82	-134.37	489.24	FTP: 100ft FSL & 330ft FWL of Sec 15
8681.50	90.00	359.42	8318.00	335.43	-313.61	338.59	961.74	HZ LP: 572.96ft FSL & 330ft FWL of Sec 15
13293.65	90.00	359.42	8318.00	4947.34	-360.30	4950.73	5573.89	LTP: 100ft FNL & 330ft FWL of Sec 15
13296.88	90.00	359.32	8318.00	4950.58	-360.33	4953.97	5577.13	EOT TO 359.32° AZ
13344.65	90.00	359.32	8318.00	4998.34	-360.90	5001.74	5624.89	BHL: 50ft FNL & 330ft FWL of Sec 15

PROPOSED LOCAL COORDINATES:

SHL: 235ft FSL & 640ft FWL Sec 15
FTP: 100ft FSL & 330ft FWL Sec 15
LTP : 100ft FNL & 330ft FWL Sec 15
BHL : 50ft FNL & 330ft FWL Sec 15

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - BROSAURUS STATE COM 301H	7745.04	-237.50	-307.81	32.471749	-103.362925
LTP - BROSAURUS STATE COM 301H	8318.00	4947.34	-360.30	32.486000	-103.362943
BHL - BROSAURUS STATE COM 301H	8318.00	4998.34	-360.90	32.486140	-103.362943
FTP - BROSAURUS STATE COM 301H	8068.45	-137.50	-308.80	32.472024	-103.362926
HZ LP - BROSAURUS STATE COM 301H	8318.00	335.43	-313.61	32.473324	-103.362927



Planning Report

Database:	Database 1	Local Co-ordinate Reference:	Well BROSAURUS STATE COM301H
Company:	ASCENT ENERGY	TVD Reference:	KB 25' @ 3608.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	MD Reference:	KB 25' @ 3608.00usft
Site:	SEC. 15 T21S R35E N.M.P.M. (GRID)	North Reference:	Grid
Well:	BROSAURUS STATE COM 301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Project	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site		SEC. 15 T21S R35E N.M.P.M. (GRID)			
Site Position:		Northing:	536,951.30 usft	Latitude:	32.472394
From:	Map	Easting:	840,915.90 usft	Longitude:	-103.361920
Position Uncertainty:	0.00 usft	Slot Radius:	1.10 ft	Grid Convergence:	0.52 °

Well	BROTOSAURUS STATE COM 301H					
Well Position	+N/-S	0.00 usft	Northing:	536,951.30 usft	Latitude:	32.472394
	+E/-W	0.00 usft	Easting:	840,915.90 usft	Longitude:	-103.361920
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,583.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2020-10-09	6.55	60.18	47,732.30403060

Design	PROPOSAL #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	359.42	

Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	-3,608.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	-1,608.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00	12.00	232.35	2,595.62	-1,012.38	-38.24	-49.56	2.00	2.00	0.00	232.35	
3,867.75	12.00	232.35	3,835.67	227.67	-199.26	-258.25	0.00	0.00	0.00	0.00	
4,467.75	0.00	0.00	4,431.29	823.29	-237.50	-307.81	2.00	-2.00	0.00	180.00	
7,781.50	0.00	0.00	7,745.04	4,137.04	-237.50	-307.81	0.00	0.00	0.00	0.00	KOP - BROSAU
8,681.50	90.00	359.42	8,318.00	4,710.00	335.43	-313.61	10.00	10.00	0.00	359.42	
13,293.65	90.00	359.42	8,318.00	4,710.00	4,947.34	-360.30	0.00	0.00	0.00	0.00	LTP - BROSAU
13,296.88	90.00	359.32	8,318.00	4,710.00	4,950.58	-360.33	3.00	0.00	-3.00	-90.00	
13,344.65	90.00	359.32	8,318.00	4,710.00	4,998.34	-360.90	0.00	0.00	0.00	0.00	BHL - BROSAU

Planning Report

Database:	Database 1	Local Co-ordinate Reference:	Well BROSAURUS STATE COM301H
Company:	ASCENT ENERGY	TVD Reference:	KB 25' @ 3608.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	MD Reference:	KB 25' @ 3608.00usft
Site:	SEC. 15 T21S R35E N.M.P.M. (GRID)	North Reference:	Grid
Well:	BROSAURUS STATE COM 301H	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: 235ft FSL & 640ft FWL of Sec 15										
0.00	0.00	0.00	0.00	3,608.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	3,508.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	3,408.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	3,308.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	3,208.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	3,108.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	3,008.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	2,908.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	2,808.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	2,708.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	2,608.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	2,508.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	2,408.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	2,308.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	2,208.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	2,108.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	2,008.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	1,908.00	0.00	0.00	0.00	0.00	0.00	0.00
RUSTLER										
1,790.00	0.00	0.00	1,790.00	1,818.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	1,808.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	1,708.00	0.00	0.00	0.00	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
2,000.00	0.00	0.00	2,000.00	1,608.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	2.00	232.35	2,099.98	1,508.02	-1.07	-1.38	-1.05	2.00	2.00	0.00
SALADO										
2,110.03	2.20	232.35	2,110.00	1,498.00	-1.29	-1.67	-1.27	2.00	2.00	0.00
2,200.00	4.00	232.35	2,199.84	1,408.16	-4.26	-5.53	-4.21	2.00	2.00	0.00
2,300.00	6.00	232.35	2,299.45	1,308.55	-9.59	-12.43	-9.46	2.00	2.00	0.00
2,400.00	8.00	232.35	2,398.70	1,209.30	-17.03	-22.07	-16.81	2.00	2.00	0.00
2,500.00	10.00	232.35	2,497.47	1,110.53	-26.59	-34.46	-26.24	2.00	2.00	0.00
EOB TO 12° INC										
2,600.00	12.00	232.35	2,595.62	1,012.38	-38.24	-49.56	-37.74	2.00	2.00	0.00
2,700.00	12.00	232.35	2,693.44	914.56	-50.94	-66.02	-50.27	0.00	0.00	0.00
2,800.00	12.00	232.35	2,791.25	816.75	-63.64	-82.49	-62.81	0.00	0.00	0.00
2,900.00	12.00	232.35	2,889.07	718.93	-76.35	-98.95	-75.34	0.00	0.00	0.00
3,000.00	12.00	232.35	2,986.88	621.12	-89.05	-115.41	-87.87	0.00	0.00	0.00
3,100.00	12.00	232.35	3,084.70	523.30	-101.75	-131.87	-100.41	0.00	0.00	0.00
3,200.00	12.00	232.35	3,182.51	425.49	-114.45	-148.33	-112.94	0.00	0.00	0.00
3,300.00	12.00	232.35	3,280.33	327.67	-127.15	-164.79	-125.47	0.00	0.00	0.00
3,400.00	12.00	232.35	3,378.14	229.86	-139.85	-181.25	-138.01	0.00	0.00	0.00
3,500.00	12.00	232.35	3,475.96	132.04	-152.55	-197.71	-150.54	0.00	0.00	0.00
3,600.00	12.00	232.35	3,573.77	34.23	-165.25	-214.17	-163.07	0.00	0.00	0.00
BASE SALADO SALTS										
3,698.38	12.00	232.35	3,670.00	-62.00	-177.75	-230.37	-175.41	0.00	0.00	0.00
3,700.00	12.00	232.35	3,671.59	-63.59	-177.95	-230.63	-175.61	0.00	0.00	0.00
3,800.00	12.00	232.35	3,769.40	-161.40	-190.65	-247.09	-188.14	0.00	0.00	0.00
END OF TANGENT										
3,867.75	12.00	232.35	3,835.67	-227.67	-199.26	-258.25	-196.63	0.00	0.00	0.00
3,900.00	11.35	232.35	3,867.25	-259.25	-203.25	-263.41	-200.57	2.00	-2.00	0.00
TANSIL										

Planning Report

Database:	Database 1	Local Co-ordinate Reference:	Well BROSAURUS STATE COM301H
Company:	ASCENT ENERGY	TVD Reference:	KB 25' @ 3608.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	MD Reference:	KB 25' @ 3608.00usft
Site:	SEC. 15 T21S R35E N.M.P.M. (GRID)	North Reference:	Grid
Well:	BROSAURUS STATE COM 301H	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)
3,943.54	10.48	232.35	3,910.00	-302.00	-208.28	-269.94	-205.54	2.00	-2.00	0.00
4,000.00	9.35	232.35	3,965.62	-357.62	-214.23	-277.64	-211.40	2.00	-2.00	0.00
4,100.00	7.35	232.35	4,064.55	-456.55	-223.10	-289.15	-220.16	2.00	-2.00	0.00
YATES										
4,175.95	5.84	232.35	4,140.00	-532.00	-228.43	-296.05	-225.42	2.00	-2.00	0.00
4,200.00	5.35	232.35	4,163.93	-555.93	-229.86	-297.91	-226.83	2.00	-2.00	0.00
4,300.00	3.35	232.35	4,263.64	-655.64	-234.50	-303.92	-231.41	2.00	-2.00	0.00
4,400.00	1.35	232.35	4,363.55	-755.55	-237.01	-307.18	-233.89	2.00	-2.00	0.00
EOD TO VERTICAL										
4,467.75	0.00	0.00	4,431.29	-823.29	-237.50	-307.81	-234.37	2.00	-2.00	0.00
4,500.00	0.00	0.00	4,463.54	-855.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
CAPITAN REEF TOP										
4,536.46	0.00	0.00	4,500.00	-892.00	-237.50	-307.81	-234.37	0.00	0.00	0.00
4,600.00	0.00	0.00	4,563.54	-955.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
4,700.00	0.00	0.00	4,663.54	-1,055.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
4,800.00	0.00	0.00	4,763.54	-1,155.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
4,900.00	0.00	0.00	4,863.54	-1,255.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
5,000.00	0.00	0.00	4,963.54	-1,355.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
5,100.00	0.00	0.00	5,063.54	-1,455.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
5,200.00	0.00	0.00	5,163.54	-1,555.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
5,300.00	0.00	0.00	5,263.54	-1,655.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
5,400.00	0.00	0.00	5,363.54	-1,755.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
5,500.00	0.00	0.00	5,463.54	-1,855.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
TOP DELAWARE SAND										
5,536.46	0.00	0.00	5,500.00	-1,892.00	-237.50	-307.81	-234.37	0.00	0.00	0.00
5,600.00	0.00	0.00	5,563.54	-1,955.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
5,700.00	0.00	0.00	5,663.54	-2,055.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
5,800.00	0.00	0.00	5,763.54	-2,155.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
CHERRY CANYON										
5,866.46	0.00	0.00	5,830.00	-2,222.00	-237.50	-307.81	-234.37	0.00	0.00	0.00
5,900.00	0.00	0.00	5,863.54	-2,255.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
6,000.00	0.00	0.00	5,963.54	-2,355.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
6,100.00	0.00	0.00	6,063.54	-2,455.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
6,200.00	0.00	0.00	6,163.54	-2,555.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
6,300.00	0.00	0.00	6,263.54	-2,655.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
BRUSHY CANYON										
6,366.46	0.00	0.00	6,330.00	-2,722.00	-237.50	-307.81	-234.37	0.00	0.00	0.00
6,400.00	0.00	0.00	6,363.54	-2,755.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
6,500.00	0.00	0.00	6,463.54	-2,855.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
6,600.00	0.00	0.00	6,563.54	-2,955.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
6,700.00	0.00	0.00	6,663.54	-3,055.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
6,800.00	0.00	0.00	6,763.54	-3,155.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
6,900.00	0.00	0.00	6,863.54	-3,255.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
7,000.00	0.00	0.00	6,963.54	-3,355.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
7,100.00	0.00	0.00	7,063.54	-3,455.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
7,200.00	0.00	0.00	7,163.54	-3,555.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
7,300.00	0.00	0.00	7,263.54	-3,655.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
7,400.00	0.00	0.00	7,363.54	-3,755.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
7,500.00	0.00	0.00	7,463.54	-3,855.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
7,600.00	0.00	0.00	7,563.54	-3,955.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
BSPG LIME										
7,615.46	0.00	0.00	7,579.00	-3,971.00	-237.50	-307.81	-234.37	0.00	0.00	0.00

Planning Report

Database:	Database 1	Local Co-ordinate Reference:	Well BROSAURUS STATE COM301H
Company:	ASCENT ENERGY	TVD Reference:	KB 25' @ 3608.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	MD Reference:	KB 25' @ 3608.00usft
Site:	SEC. 15 T21S R35E N.M.P.M. (GRID)	North Reference:	Grid
Well:	BROSAURUS STATE COM 301H	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)
7,700.00	0.00	0.00	7,663.54	-4,055.54	-237.50	-307.81	-234.37	0.00	0.00	0.00
KOP (10°/100ft BUR)										
7,781.50	0.00	0.00	7,745.04	-4,137.04	-237.50	-307.81	-234.37	0.00	0.00	0.00
7,800.00	1.85	359.42	7,763.54	-4,155.54	-237.20	-307.81	-234.07	10.00	10.00	0.00
7,900.00	11.85	359.42	7,862.70	-4,254.70	-225.29	-307.93	-222.16	10.00	10.00	0.00
AVLN										
7,991.10	20.96	359.42	7,950.00	-4,342.00	-199.59	-308.19	-196.46	10.00	10.00	0.00
8,000.00	21.85	359.42	7,958.28	-4,350.28	-196.34	-308.23	-193.21	10.00	10.00	0.00
8,100.00	31.85	359.42	8,047.39	-4,439.39	-151.23	-308.68	-148.10	10.00	10.00	0.00
FTP: 100ft FSL & 330ft FWL of Sec 15										
8,125.15	34.37	359.42	8,068.46	-4,460.46	-137.50	-308.82	-134.37	10.00	10.00	0.00
8,200.00	41.85	359.42	8,127.31	-4,519.31	-91.34	-309.29	-88.21	10.00	10.00	0.00
LEO B										
8,221.43	43.99	359.42	8,143.00	-4,535.00	-76.75	-309.44	-73.61	10.00	10.00	0.00
8,300.00	51.85	359.42	8,195.61	-4,587.61	-18.48	-310.03	-15.34	10.00	10.00	0.00
8,400.00	61.85	359.42	8,250.23	-4,642.23	65.13	-310.87	68.28	10.00	10.00	0.00
8,500.00	71.85	359.42	8,289.49	-4,681.49	156.96	-311.80	160.11	10.00	10.00	0.00
8,600.00	81.85	359.42	8,312.21	-4,704.21	254.21	-312.79	257.36	10.00	10.00	0.00
HZ LP: 572.96ft FSL & 330ft FWL of Sec 15										
8,681.50	90.00	359.42	8,318.00	-4,710.00	335.43	-313.61	338.59	10.00	10.00	0.00
8,700.00	90.00	359.42	8,318.00	-4,710.00	353.93	-313.80	357.09	0.00	0.00	0.00
8,800.00	90.00	359.42	8,318.00	-4,710.00	453.93	-314.81	457.09	0.00	0.00	0.00
8,900.00	90.00	359.42	8,318.00	-4,710.00	553.92	-315.82	557.09	0.00	0.00	0.00
9,000.00	90.00	359.42	8,318.00	-4,710.00	653.92	-316.83	657.09	0.00	0.00	0.00
9,100.00	90.00	359.42	8,318.00	-4,710.00	753.91	-317.85	757.09	0.00	0.00	0.00
9,200.00	90.00	359.42	8,318.00	-4,710.00	853.90	-318.86	857.09	0.00	0.00	0.00
9,300.00	90.00	359.42	8,318.00	-4,710.00	953.90	-319.87	957.09	0.00	0.00	0.00
9,400.00	90.00	359.42	8,318.00	-4,710.00	1,053.89	-320.88	1,057.09	0.00	0.00	0.00
9,500.00	90.00	359.42	8,318.00	-4,710.00	1,153.89	-321.90	1,157.09	0.00	0.00	0.00
9,600.00	90.00	359.42	8,318.00	-4,710.00	1,253.88	-322.91	1,257.09	0.00	0.00	0.00
9,700.00	90.00	359.42	8,318.00	-4,710.00	1,353.88	-323.92	1,357.09	0.00	0.00	0.00
9,800.00	90.00	359.42	8,318.00	-4,710.00	1,453.87	-324.93	1,457.09	0.00	0.00	0.00
9,900.00	90.00	359.42	8,318.00	-4,710.00	1,553.87	-325.94	1,557.09	0.00	0.00	0.00
10,000.00	90.00	359.42	8,318.00	-4,710.00	1,653.86	-326.96	1,657.09	0.00	0.00	0.00
10,100.00	90.00	359.42	8,318.00	-4,710.00	1,753.86	-327.97	1,757.09	0.00	0.00	0.00
10,200.00	90.00	359.42	8,318.00	-4,710.00	1,853.85	-328.98	1,857.09	0.00	0.00	0.00
10,300.00	90.00	359.42	8,318.00	-4,710.00	1,953.85	-329.99	1,957.09	0.00	0.00	0.00
10,400.00	90.00	359.42	8,318.00	-4,710.00	2,053.84	-331.01	2,057.09	0.00	0.00	0.00
10,500.00	90.00	359.42	8,318.00	-4,710.00	2,153.84	-332.02	2,157.09	0.00	0.00	0.00
10,600.00	90.00	359.42	8,318.00	-4,710.00	2,253.83	-333.03	2,257.09	0.00	0.00	0.00
10,700.00	90.00	359.42	8,318.00	-4,710.00	2,353.83	-334.04	2,357.09	0.00	0.00	0.00
10,800.00	90.00	359.42	8,318.00	-4,710.00	2,453.82	-335.05	2,457.09	0.00	0.00	0.00
10,900.00	90.00	359.42	8,318.00	-4,710.00	2,553.82	-336.07	2,557.09	0.00	0.00	0.00
11,000.00	90.00	359.42	8,318.00	-4,710.00	2,653.81	-337.08	2,657.09	0.00	0.00	0.00
11,100.00	90.00	359.42	8,318.00	-4,710.00	2,753.81	-338.09	2,757.09	0.00	0.00	0.00
11,200.00	90.00	359.42	8,318.00	-4,710.00	2,853.80	-339.10	2,857.09	0.00	0.00	0.00
11,300.00	90.00	359.42	8,318.00	-4,710.00	2,953.80	-340.12	2,957.09	0.00	0.00	0.00
11,400.00	90.00	359.42	8,318.00	-4,710.00	3,053.79	-341.13	3,057.09	0.00	0.00	0.00
11,500.00	90.00	359.42	8,318.00	-4,710.00	3,153.79	-342.14	3,157.09	0.00	0.00	0.00
11,600.00	90.00	359.42	8,318.00	-4,710.00	3,253.78	-343.15	3,257.09	0.00	0.00	0.00
11,700.00	90.00	359.42	8,318.00	-4,710.00	3,353.78	-344.17	3,357.09	0.00	0.00	0.00
11,800.00	90.00	359.42	8,318.00	-4,710.00	3,453.77	-345.18	3,457.09	0.00	0.00	0.00

Planning Report

Database:	Database 1	Local Co-ordinate Reference:	Well BROSAURUS STATE COM301H
Company:	ASCENT ENERGY	TVD Reference:	KB 25' @ 3608.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	MD Reference:	KB 25' @ 3608.00usft
Site:	SEC. 15 T21S R35E N.M.P.M. (GRID)	North Reference:	Grid
Well:	BROSOSAURUS STATE COM 301H	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)
11,900.00	90.00	359.42	8,318.00	-4,710.00	3,553.77	-346.19	3,557.09	0.00	0.00	0.00
12,000.00	90.00	359.42	8,318.00	-4,710.00	3,653.76	-347.20	3,657.09	0.00	0.00	0.00
12,100.00	90.00	359.42	8,318.00	-4,710.00	3,753.76	-348.21	3,757.09	0.00	0.00	0.00
12,200.00	90.00	359.42	8,318.00	-4,710.00	3,853.75	-349.23	3,857.09	0.00	0.00	0.00
12,300.00	90.00	359.42	8,318.00	-4,710.00	3,953.75	-350.24	3,957.09	0.00	0.00	0.00
12,400.00	90.00	359.42	8,318.00	-4,710.00	4,053.74	-351.25	4,057.09	0.00	0.00	0.00
12,500.00	90.00	359.42	8,318.00	-4,710.00	4,153.74	-352.26	4,157.09	0.00	0.00	0.00
12,600.00	90.00	359.42	8,318.00	-4,710.00	4,253.73	-353.28	4,257.09	0.00	0.00	0.00
12,700.00	90.00	359.42	8,318.00	-4,710.00	4,353.73	-354.29	4,357.09	0.00	0.00	0.00
12,800.00	90.00	359.42	8,318.00	-4,710.00	4,453.72	-355.30	4,457.09	0.00	0.00	0.00
12,900.00	90.00	359.42	8,318.00	-4,710.00	4,553.72	-356.31	4,557.09	0.00	0.00	0.00
13,000.00	90.00	359.42	8,318.00	-4,710.00	4,653.71	-357.32	4,657.09	0.00	0.00	0.00
13,100.00	90.00	359.42	8,318.00	-4,710.00	4,753.70	-358.34	4,757.09	0.00	0.00	0.00
13,200.00	90.00	359.42	8,318.00	-4,710.00	4,853.70	-359.35	4,857.09	0.00	0.00	0.00
LTP: 100ft FNL & 330ft FWL of Sec 15										
13,293.65	90.00	359.42	8,318.00	-4,710.00	4,947.34	-360.30	4,950.73	0.00	0.00	0.00
EOT TO 359.32° AZ										
13,296.88	90.00	359.32	8,318.00	-4,710.00	4,950.58	-360.33	4,953.97	3.00	0.00	-3.00
13,300.00	90.00	359.32	8,318.00	-4,710.00	4,953.69	-360.37	4,957.09	0.00	0.00	0.00
BHL: 50ft FNL & 330ft FWL of Sec 15										
13,344.65	90.00	359.32	8,318.00	-4,710.00	4,998.34	-360.90	5,001.74	0.00	0.00	0.00

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,790.00	1,790.00	RUSTLER		0.00	
2,110.03	2,110.00	SALADO		0.00	
3,698.38	3,670.00	BASE_SALADO_SALTS		0.00	
3,943.54	3,910.00	TANSIL		0.00	
4,175.95	4,140.00	YATES		0.00	
4,536.46	4,500.00	CAPITAN_REEF_TOP		0.00	
5,536.46	5,500.00	TOP_DELAWARE_SAND		0.00	
5,866.46	5,830.00	CHERRY_CANYON		0.00	
6,366.46	6,330.00	BRUSHY_CANYON		0.00	
7,615.46	7,579.00	BSPG_LIME		0.00	
7,991.10	7,950.00	AVLN		0.00	
8,221.43	8,143.00	LEO B		0.00	

Planning Report

Database:	Database 1	Local Co-ordinate Reference:	Well BROSAURUS STATE COM301H
Company:	ASCENT ENERGY	TVD Reference:	KB 25' @ 3608.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	MD Reference:	KB 25' @ 3608.00usft
Site:	SEC. 15 T21S R35E N.M.P.M. (GRID)	North Reference:	Grid
Well:	BROSAURUS STATE COM 301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.00	0.00	0.00	0.00	SHL: 235ft FSL & 640ft FWL of Sec 15
2,000.00	2,000.00	0.00	0.00	START NUDGE (2°/100ft BUR)
2,600.00	2,595.62	-38.24	-49.56	EOB TO 12° INC
3,867.75	3,835.67	-199.26	-258.25	END OF TANGENT
4,467.75	4,431.29	-237.50	-307.81	EOD TO VERTICAL
7,781.50	7,745.04	-237.50	-307.81	KOP (10°/100ft BUR)
8,125.15	8,068.46	-137.50	-308.82	FTP: 100ft FSL & 330ft FWL of Sec 15
8,681.50	8,318.00	335.43	-313.61	HZ LP: 572.96ft FSL & 330ft FWL of Sec 15
13,293.65	8,318.00	4,947.34	-360.30	LTP: 100ft FNL & 330ft FWL of Sec 15
13,296.88	8,318.00	4,950.58	-360.33	EOT TO 359.32° AZ
13,344.65	8,318.00	4,998.34	-360.90	BHL: 50ft FNL & 330ft FWL of Sec 15