

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 275880

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

1. Operator Name and Address TAP ROCK OPERATING, LLC 602 Park Point Drive Golden, CO 80401		2. OGRID Number 372043
		3. API Number 30-025-46624
4. Property Code 325171	5. Property Name ZEUS STATE	6. Well No. 158H

7. Surface Location

UL - Lot P	Section 9	Township 24S	Range 33E	Lot Idn P	Feet From 802	N/S Line S	Feet From 136	E/W Line E	County Lea
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8. Proposed Bottom Hole Location

UL - Lot A	Section 9	Township 24S	Range 33E	Lot Idn A	Feet From 5	N/S Line N	Feet From 331	E/W Line E	County Lea
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9. Pool Information

TRIPLE X;BONE SPRING, WEST	96674
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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 3615
16. Multiple N	17. Proposed Depth 16680	18. Formation 3rd Bone Spring Carbonate	19. Contractor	20. Spud Date 1/1/2020
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	1350	1000	0
Int1	12.25	9.625	40	5300	1640	0
Prod	8.75	5.5	20	16670	1800	4000

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	1500	
Double Ram	10000	5000	
Blind	10000	5000	

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 Christian Combs	Approved By:	Paul F Kautz
Title:	Regulatory Manager	Title:	Geologist
Email Address:	ccombs@taprk.com	Approved Date:	12/20/2019
Date:	12/18/2019	Phone:	720-360-4028
		Expiration Date: 12/20/2021	
		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 96674		³ Pool Name Triple X; Bone Spring, West					
⁴ Property Code		⁵ Property Name ZEUS STATE						⁶ Well Number 158H	
⁷ OGRID No. 372043		⁸ Operator Name TAP ROCK OPERATING, LLC.						⁹ Elevation 3615'	
¹⁰ Surface Location									
UL or lot no. P	Section 9	Township 24-S	Range 33-E	Lot Idn -	Feet from the 802'	North/South line SOUTH	Feet from the 136'	East/West line EAST	County LEA
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. A	Section 9	Township 24-S	Range 33-E	Lot Idn -	Feet from the 5'	North/South line NORTH	Feet from the 331'	East/West line EAST	County 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.

BOTTOM HOLE LOCATION
NEW MEXICO EAST
NAD 1983
X=777414
Y=451658
LAT.: N 32.2393773
LONG.: W 103.5697859

LAST TAKE POINT
NEW MEXICO EAST
NAD 1983
X=777415
Y=451563
LAT.: N 32.2391161
LONG.: W 103.5697859

SURFACE LOCATION
NEW MEXICO EAST
NAD 1983
X=777641
Y=447188
LAT.: N 32.2270848
LONG.: W 103.5691555

FIRST TAKE POINT
NEW MEXICO EAST
NAD 1983
X=777451
Y=446485
LAT.: N 32.2251566
LONG.: W 103.5697846

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.

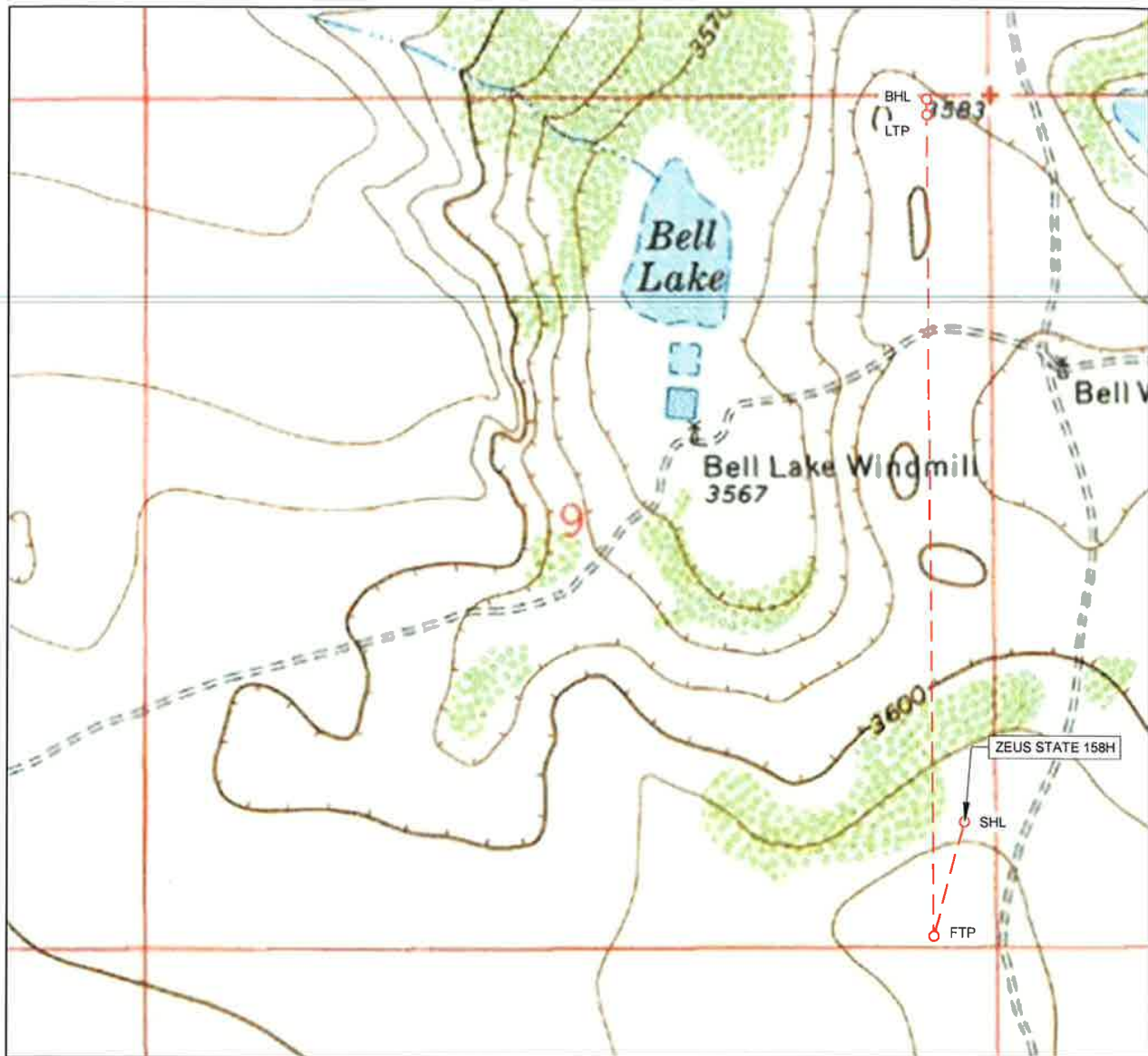
Erica Hixson 12-18-19
Signature Date
Erica Hixson
Printed Name
ehixson@taprk.com
E-mail Address

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 to the best of my belief.

12/05/2019
Date of Survey
Signature and Seal of Professional Surveyor
MICHAEL BROWN
NEW MEXICO
PROFESSIONAL SURVEYOR
18329
Certificate Number

LOCATION & ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO.: ZEUS STATE 158H

SECTION 9 TWP 24-S RGE 33-E SURVEY N.M.P.M.
 COUNTY LEA STATE NM ELEVATION 3615'
 DESCRIPTION 802' FSL & 136' FEL

LATITUDE N 32.2270848 LONGITUDE W 103.5691555



SCALE: 1" = 1000'
 0' 500' 1000'

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

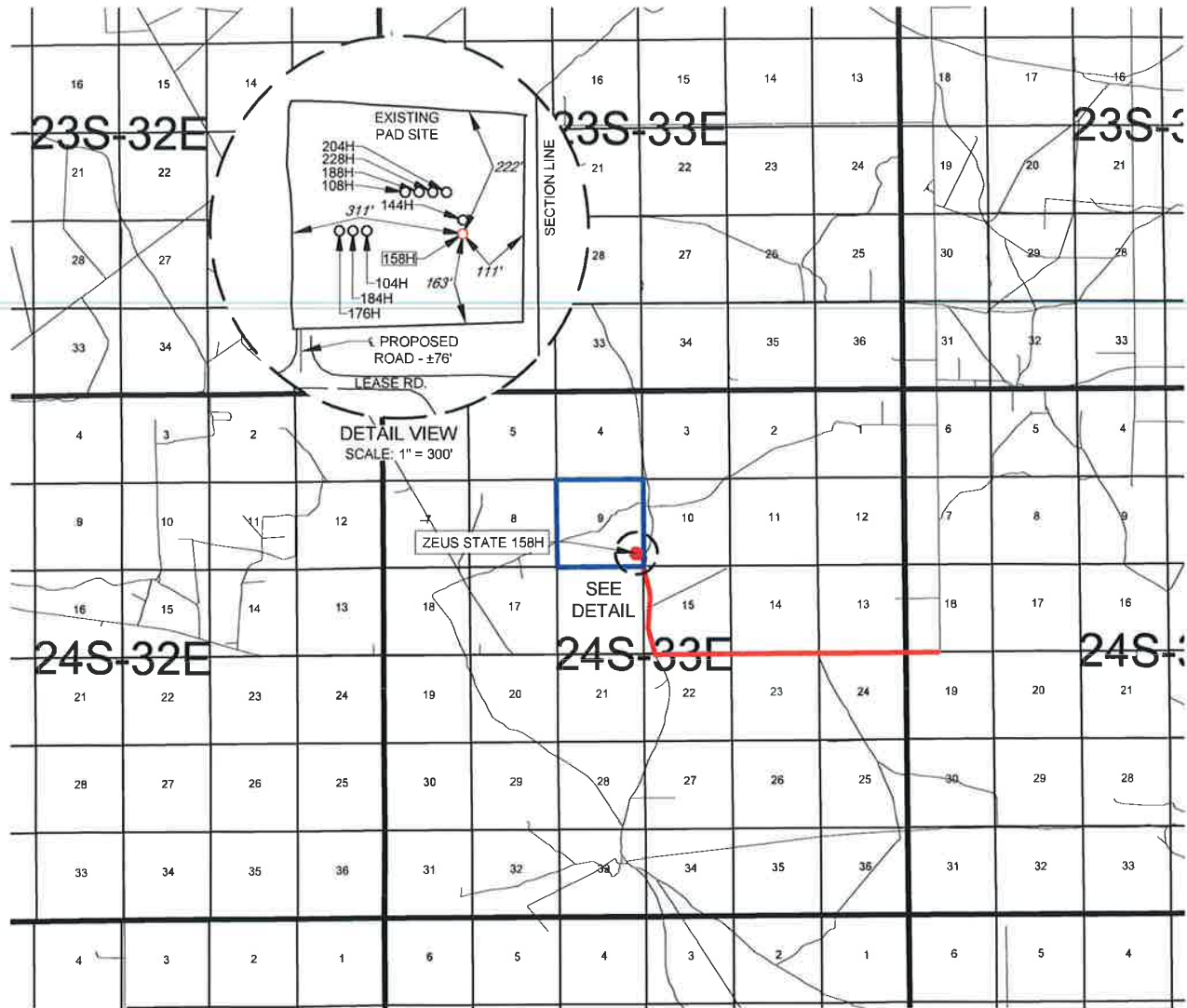
ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.



TOPOGRAPHIC
 LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
 WWW.TOPOGRAPHIC.COM

EXHIBIT 2 VICINITY MAP



LEASE NAME & WELL NO.: ZEUS STATE 158H

SECTION 9 TWP 24-S RGE 33-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 802' FSL & 136' FEL

DISTANCE & DIRECTION

FROM INT. OF NM-128 W & DELAWARE BASIN RD., GO WEST ON
NM-128 W ±3.3 MILES, THENCE NORTH (RIGHT) ON BRININSTOOL RD.
±1.1 MILES, THENCE WEST (LEFT) ON LEASE RD. ±0.1 MILES, THENCE
NORTH (RIGHT) ON A PROPOSED RD. ±76 FEET TO A POINT ±343 FEET
SOUTHWEST OF THE LOCATION.



SCALE: 1" = 10000'
0' 5000' 10000'



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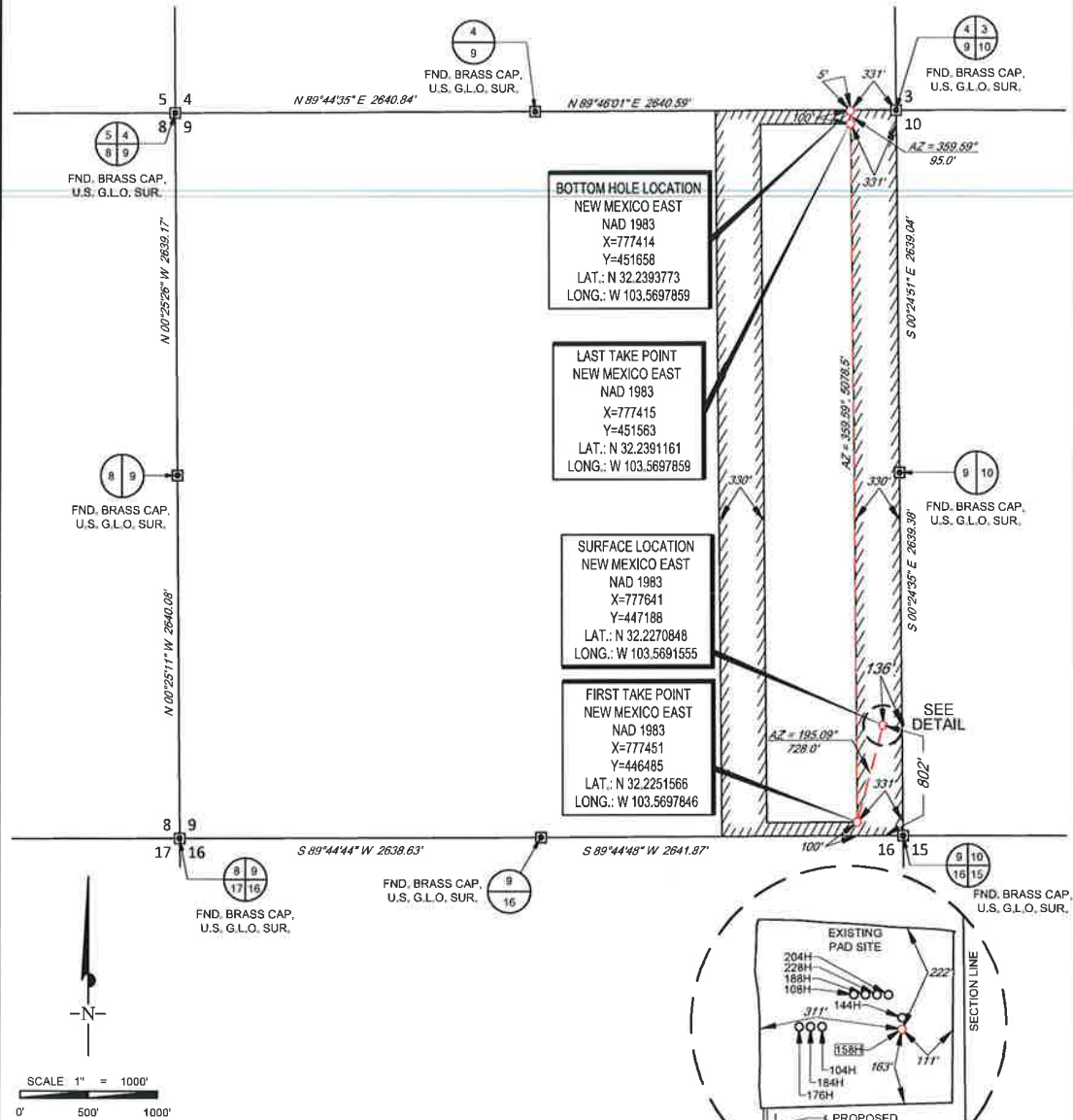
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ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

TAP ROCK

EXHIBIT 2A

SECTION 9, TOWNSHIP 24-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: ZEUS STATE 158H

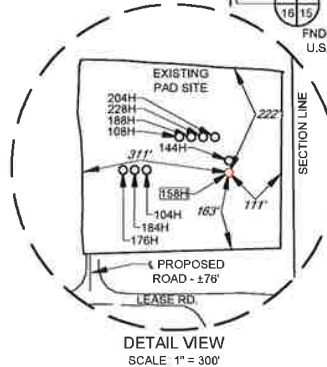
SECTION 9 TWP 24-S RGE 33-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 802' FSL & 136' FEL

DISTANCE & DIRECTION

FROM INT. OF NM-128 W & DELAWARE BASIN RD., GO WEST ON NM-128
W ±3.3 MILES, THENCE NORTH (RIGHT) ON BRININSTOOL RD. ±1.1
MILES, THENCE WEST (LEFT) ON LEASE RD. ±0.1 MILES, THENCE
NORTH (RIGHT) ON A PROPOSED RD. ±76 FEET TO A POINT ±343 FEET
SOUTHWEST OF THE LOCATION.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID
BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY
FEET.

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND
UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF
SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC THIS CERTIFICATION IS MADE AND
LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS
NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.



DETAIL VIEW
SCALE 1" = 300'



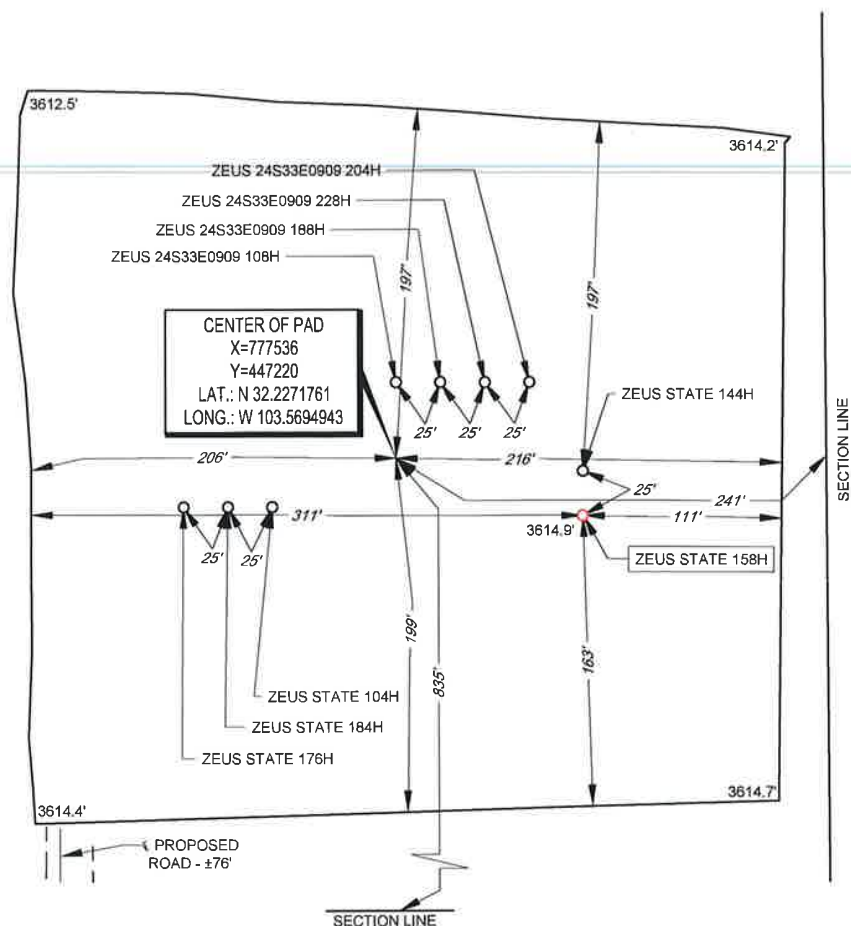
Michael Blake Brown, P.S. No. 18329

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 145 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX: (817) 744-7554
2803 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX: (432) 682-1743
WWW.TOPOGRAPHIC.COM

EXHIBIT 2B



SECTION 9, TOWNSHIP 24-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

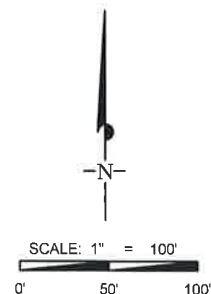


LEASE NAME & WELL NO.: ZEUS STATE 158H
158H LATITUDE N 32.2270848 158H LONGITUDE W 103.5691555

CENTER OF PAD IS 835' FSL & 241' FEL



Michael Blake Brown, P.S. No. 18329



ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET, ELEVATIONS USED ARE NAVD88, OBTAINED THROUGH AN OPUS SOLUTION.

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC. ONLY THE DATA SHOWN ABOVE IS BEING CERTIFIED TO. ALL OTHER INFORMATION WAS INTENTIONALLY OMITTED. THIS PLAT IS ONLY INTENDED TO BE USED FOR A PERMIT AND IS NOT A BOUNDARY SURVEY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"



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

GAS CAPTURE PLAN

Date: 12/20/2019

☒ Original

Operator & OGRID No.: [372043] TAP ROCK OPERATING, 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
ZEUS STATE #158H	30-025-46624	P-9-24S-33E	0802S 0136E	3	Flared	Gas will be sent to Lucid's Red Hills processing plant

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 LUCID ENERGY DELAWARE, LLC and will be connected to LUCID ENERGY DELAWARE, LLC High Pressure gathering system located in Lea County, New Mexico. It will require 500' of pipeline to connect the facility to High Pressure gathering system. TAP ROCK OPERATING, LLC provides (periodically) to LUCID ENERGY DELAWARE, LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, TAP ROCK OPERATING, LLC and LUCID ENERGY DELAWARE, LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at LUCID ENERGY DELAWARE, LLC Processing Plant located in Sec. 13, Twn. 24S, Rng. 33E, 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 LUCID ENERGY DELAWARE, LLC system at that time. Based on current information, it is TAP ROCK OPERATING, 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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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Comments

Permit 275880

PERMIT COMMENTS

Operator Name and Address: TAP ROCK OPERATING, LLC [372043] 602 Park Point Drive Golden, CO 80401		API Number: 30-025-46624
		Well: ZEUS STATE #158H

Created By	Comment	Comment Date
pkautz	REJECTED - Conflicting info submitted as part of APD. Application indicates formation at TD is in Lower Bone Springs. Directional drill plan indicates Lower Bone Spring. Target pool indicates Wolfcamp. C-102 attached indicates Wolfcamp. Correct discrepancies between Bone Spring and Wolfcamp and resubmit.	12/18/2019
pkautz	REJECTED - Conflicting info submitted as part of APD. Application indicates formation at TD is in Lower Bone Springs. Directional drill plan indicates Lower Bone Spring. Target pool indicates Wolfcamp. C-102 attached indicates Wolfcamp. Correct discrepancies between Bone Spring and Wolfcamp and resubmit.	12/18/2019

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Santa Fe, NM 87505

Form APD Conditions

Permit 275880

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: TAP ROCK OPERATING, LLC [372043] 602 Park Point Drive Golden, CO 80401	API Number: 30-025-46624
	Well: ZEUS STATE #158H

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 NMOC 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.



Tap Rock Resources, LLC

**Lea County, NM (NAD 83 NME)
(Zeus State) Sec-9_T24-S_R-33-E
Zeus State #158H**

OWB

Plan: Plan #1

Standard Planning Report

13 December, 2019





Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Zeus State #158H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3641.0usft (H&P 245)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3641.0usft (H&P 245)
Site:	(Zeus State) Sec-9_T24-S_R-33-E	North Reference:	Grid
Well:	Zeus State #158H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	(Zeus State) Sec-9_T24-S_R-33-E		
Site Position:		Northing:	447,193.00 usft
From:	Map	Easting:	777,416.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 13' 37.575 N
		Longitude:	103° 34' 11.577 W
		Grid Convergence:	0.41 °

Well	Zeus State #158H		
Well Position	+N/-S	-5.0 usft	Northing: 447,188.00 usft
	+E/-W	225.0 usft	Easting: 777,641.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 32° 13' 37.509 N
			Longitude: 103° 34' 8.958 W
			Ground Level: 3,615.0 usft

Wellbore	OWB		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/13/19	6.68	60.03	47,682.71974883

Design	Plan #1		
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Audit Notes:				
Version:		Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.59

Plan Survey Tool Program	Date	12/13/19		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	16,678.7 Plan #1 (OWB)	MWD	
			OWSG MWD - Standard	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,850.2	9.00	197.67	1,848.4	-33.6	-10.7	2.00	2.00	0.00	197.67	
6,450.2	9.00	197.67	6,391.6	-719.6	-229.3	0.00	0.00	0.00	0.00	
6,900.4	0.00	0.00	6,840.0	-753.2	-240.0	2.00	-2.00	0.00	180.00	
11,127.5	0.00	0.00	11,067.1	-753.2	-240.0	0.00	0.00	0.00	0.00	
12,024.3	89.68	3.85	11,640.0	-184.8	-201.7	10.00	10.00	0.00	3.85	
12,237.2	89.68	359.59	11,641.2	28.0	-195.4	2.00	0.00	-2.00	-90.00	
16,679.4	89.68	359.59	11,666.0	4,470.0	-227.0	0.00	0.00	0.00	0.00	PBHL (Zeus State #



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Zeus State #158H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3641.0usft (H&P 245)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3641.0usft (H&P 245)
Site:	(Zeus State) Sec-9_T24-S_R-33-E	North Reference:	Grid
Well:	Zeus State #158H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,275.0	0.00	0.00	1,275.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler Anhydrite									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
NUDGE - Build 2.00									
1,500.0	2.00	197.67	1,500.0	-1.7	-0.5	-1.7	2.00	2.00	0.00
1,600.0	4.00	197.67	1,599.8	-6.6	-2.1	-6.6	2.00	2.00	0.00
1,700.0	6.00	197.67	1,699.5	-15.0	-4.8	-14.9	2.00	2.00	0.00
1,786.2	7.72	197.67	1,785.0	-24.8	-7.9	-24.7	2.00	2.00	0.00
Top Salt									
1,800.0	8.00	197.67	1,798.7	-26.6	-8.5	-26.5	2.00	2.00	0.00
1,850.2	9.00	197.67	1,848.4	-33.6	-10.7	-33.6	2.00	2.00	0.00
HOLD - 4599.9 at 1850.2 MD									
1,900.0	9.00	197.67	1,897.5	-41.1	-13.1	-41.0	0.00	0.00	0.00
2,000.0	9.00	197.67	1,996.3	-56.0	-17.8	-55.8	0.00	0.00	0.00
2,100.0	9.00	197.67	2,095.1	-70.9	-22.6	-70.7	0.00	0.00	0.00
2,200.0	9.00	197.67	2,193.8	-85.8	-27.3	-85.6	0.00	0.00	0.00
2,300.0	9.00	197.67	2,292.6	-100.7	-32.1	-100.5	0.00	0.00	0.00
2,400.0	9.00	197.67	2,391.4	-115.6	-36.8	-115.4	0.00	0.00	0.00
2,500.0	9.00	197.67	2,490.1	-130.5	-41.6	-130.2	0.00	0.00	0.00
2,600.0	9.00	197.67	2,588.9	-145.5	-46.3	-145.1	0.00	0.00	0.00
2,700.0	9.00	197.67	2,687.7	-160.4	-51.1	-160.0	0.00	0.00	0.00
2,800.0	9.00	197.67	2,786.4	-175.3	-55.8	-174.9	0.00	0.00	0.00
2,900.0	9.00	197.67	2,885.2	-190.2	-60.6	-189.7	0.00	0.00	0.00
3,000.0	9.00	197.67	2,984.0	-205.1	-65.3	-204.6	0.00	0.00	0.00
3,100.0	9.00	197.67	3,082.7	-220.0	-70.1	-219.5	0.00	0.00	0.00
3,200.0	9.00	197.67	3,181.5	-234.9	-74.9	-234.4	0.00	0.00	0.00
3,300.0	9.00	197.67	3,280.3	-249.8	-79.6	-249.3	0.00	0.00	0.00
3,400.0	9.00	197.67	3,379.0	-264.8	-84.4	-264.1	0.00	0.00	0.00
3,500.0	9.00	197.67	3,477.8	-279.7	-89.1	-279.0	0.00	0.00	0.00
3,600.0	9.00	197.67	3,576.6	-294.6	-93.9	-293.9	0.00	0.00	0.00
3,700.0	9.00	197.67	3,675.4	-309.5	-98.6	-308.8	0.00	0.00	0.00
3,800.0	9.00	197.67	3,774.1	-324.4	-103.4	-323.7	0.00	0.00	0.00
3,900.0	9.00	197.67	3,872.9	-339.3	-108.1	-338.5	0.00	0.00	0.00
4,000.0	9.00	197.67	3,971.7	-354.2	-112.9	-353.4	0.00	0.00	0.00
4,100.0	9.00	197.67	4,070.4	-369.1	-117.6	-368.3	0.00	0.00	0.00
4,200.0	9.00	197.67	4,169.2	-384.1	-122.4	-383.2	0.00	0.00	0.00
4,300.0	9.00	197.67	4,268.0	-399.0	-127.1	-398.0	0.00	0.00	0.00
4,400.0	9.00	197.67	4,366.7	-413.9	-131.9	-412.9	0.00	0.00	0.00
4,500.0	9.00	197.67	4,465.5	-428.8	-136.6	-427.8	0.00	0.00	0.00
4,600.0	9.00	197.67	4,564.3	-443.7	-141.4	-442.7	0.00	0.00	0.00



Intrepid Planning Report



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Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3641.0usft (H&P 245)
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Well:	Zeus State #158H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,700.0	9.00	197.67	4,663.0	-458.6	-146.1	-457.6	0.00	0.00	0.00
4,800.0	9.00	197.67	4,761.8	-473.5	-150.9	-472.4	0.00	0.00	0.00
4,900.0	9.00	197.67	4,860.6	-488.4	-155.6	-487.3	0.00	0.00	0.00
5,000.0	9.00	197.67	4,959.3	-503.4	-160.4	-502.2	0.00	0.00	0.00
5,020.9	9.00	197.67	4,980.0	-506.5	-161.4	-505.3	0.00	0.00	0.00
Base Salt									
5,100.0	9.00	197.67	5,058.1	-518.3	-165.1	-517.1	0.00	0.00	0.00
5,200.0	9.00	197.67	5,156.9	-533.2	-169.9	-531.9	0.00	0.00	0.00
5,274.0	9.00	197.67	5,230.0	-544.2	-173.4	-543.0	0.00	0.00	0.00
Delaware Mountain Gp									
5,279.1	9.00	197.67	5,235.0	-545.0	-173.6	-543.7	0.00	0.00	0.00
Lamar									
5,300.0	9.00	197.67	5,255.6	-548.1	-174.6	-546.8	0.00	0.00	0.00
5,304.4	9.00	197.67	5,260.0	-548.7	-174.8	-547.5	0.00	0.00	0.00
Bell Canyon									
5,324.7	9.00	197.67	5,280.0	-551.8	-175.8	-550.5	0.00	0.00	0.00
Ramsey Sand									
5,400.0	9.00	197.67	5,354.4	-563.0	-179.4	-561.7	0.00	0.00	0.00
5,500.0	9.00	197.67	5,453.2	-577.9	-184.1	-576.6	0.00	0.00	0.00
5,600.0	9.00	197.67	5,551.9	-592.8	-188.9	-591.5	0.00	0.00	0.00
5,700.0	9.00	197.67	5,650.7	-607.7	-193.6	-606.3	0.00	0.00	0.00
5,800.0	9.00	197.67	5,749.5	-622.7	-198.4	-621.2	0.00	0.00	0.00
5,900.0	9.00	197.67	5,848.2	-637.6	-203.1	-636.1	0.00	0.00	0.00
6,000.0	9.00	197.67	5,947.0	-652.5	-207.9	-651.0	0.00	0.00	0.00
6,100.0	9.00	197.67	6,045.8	-667.4	-212.6	-665.9	0.00	0.00	0.00
6,200.0	9.00	197.67	6,144.5	-682.3	-217.4	-680.7	0.00	0.00	0.00
6,256.1	9.00	197.67	6,200.0	-690.7	-220.1	-689.1	0.00	0.00	0.00
Cherry Canyon									
6,300.0	9.00	197.67	6,243.3	-697.2	-222.1	-695.6	0.00	0.00	0.00
6,400.0	9.00	197.67	6,342.1	-712.1	-226.9	-710.5	0.00	0.00	0.00
6,450.2	9.00	197.67	6,391.6	-719.6	-229.3	-717.9	0.00	0.00	0.00
DROP - -2.00									
6,500.0	8.01	197.67	6,440.9	-726.6	-231.5	-725.0	2.00	-2.00	0.00
6,600.0	6.01	197.67	6,540.2	-738.3	-235.2	-736.6	2.00	-2.00	0.00
6,700.0	4.01	197.67	6,639.8	-746.6	-237.9	-744.9	2.00	-2.00	0.00
6,800.0	2.01	197.67	6,739.6	-751.6	-239.5	-749.8	2.00	-2.00	0.00
6,900.4	0.00	0.00	6,840.0	-753.2	-240.0	-751.5	2.00	-2.00	0.00
HOLD - 4227.1 at 6900.4 MD									
7,000.0	0.00	0.00	6,939.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
7,100.0	0.00	0.00	7,039.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
7,200.0	0.00	0.00	7,139.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
7,300.0	0.00	0.00	7,239.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
7,400.0	0.00	0.00	7,339.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
7,500.0	0.00	0.00	7,439.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
7,600.0	0.00	0.00	7,539.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
7,700.0	0.00	0.00	7,639.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
7,770.4	0.00	0.00	7,710.0	-753.2	-240.0	-751.5	0.00	0.00	0.00
Brushy Canyon									
7,800.0	0.00	0.00	7,739.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
7,900.0	0.00	0.00	7,839.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
8,000.0	0.00	0.00	7,939.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
8,100.0	0.00	0.00	8,039.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
8,200.0	0.00	0.00	8,139.6	-753.2	-240.0	-751.5	0.00	0.00	0.00



Intrepid Planning Report



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Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3641.0usft (H&P 245)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3641.0usft (H&P 245)
Site:	(Zeus State) Sec-9_T24-S_R-33-E	North Reference:	Grid
Well:	Zeus State #158H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,300.0	0.00	0.00	8,239.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
8,400.0	0.00	0.00	8,339.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
8,500.0	0.00	0.00	8,439.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
8,600.0	0.00	0.00	8,539.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
8,700.0	0.00	0.00	8,639.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
8,800.0	0.00	0.00	8,739.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
8,900.0	0.00	0.00	8,839.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
9,000.0	0.00	0.00	8,939.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
9,100.0	0.00	0.00	9,039.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
9,180.4	0.00	0.00	9,120.0	-753.2	-240.0	-751.5	0.00	0.00	0.00
Bone Spring Lime									
9,200.0	0.00	0.00	9,139.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
9,300.0	0.00	0.00	9,239.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
9,300.4	0.00	0.00	9,240.0	-753.2	-240.0	-751.5	0.00	0.00	0.00
Upper Avalon									
9,400.0	0.00	0.00	9,339.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
9,500.0	0.00	0.00	9,439.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
9,570.4	0.00	0.00	9,510.0	-753.2	-240.0	-751.5	0.00	0.00	0.00
Middle Avalon									
9,600.0	0.00	0.00	9,539.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
9,700.0	0.00	0.00	9,639.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
9,800.0	0.00	0.00	9,739.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
9,900.0	0.00	0.00	9,839.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
9,975.4	0.00	0.00	9,915.0	-753.2	-240.0	-751.5	0.00	0.00	0.00
Lower Avalon									
10,000.0	0.00	0.00	9,939.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
10,100.0	0.00	0.00	10,039.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
10,200.0	0.00	0.00	10,139.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
10,220.4	0.00	0.00	10,160.0	-753.2	-240.0	-751.5	0.00	0.00	0.00
1st Bone Spring Sand									
10,300.0	0.00	0.00	10,239.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
10,400.0	0.00	0.00	10,339.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
10,500.0	0.00	0.00	10,439.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
10,535.4	0.00	0.00	10,475.0	-753.2	-240.0	-751.5	0.00	0.00	0.00
2nd Bone Spring Carb									
10,600.0	0.00	0.00	10,539.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
10,700.0	0.00	0.00	10,639.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
10,800.0	0.00	0.00	10,739.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
10,900.0	0.00	0.00	10,839.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
11,000.0	0.00	0.00	10,939.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
11,000.4	0.00	0.00	10,940.0	-753.2	-240.0	-751.5	0.00	0.00	0.00
2nd Bone Spring Sand									
11,100.0	0.00	0.00	11,039.6	-753.2	-240.0	-751.5	0.00	0.00	0.00
11,127.5	0.00	0.00	11,067.1	-753.2	-240.0	-751.5	0.00	0.00	0.00
KOP - Build 10.00									
11,150.0	2.25	3.85	11,089.6	-752.8	-240.0	-751.1	10.00	10.00	0.00
11,200.0	7.25	3.85	11,139.4	-748.7	-239.7	-746.9	10.00	10.00	0.00
11,250.0	12.25	3.85	11,188.7	-740.2	-239.1	-738.5	10.00	10.00	0.00
11,300.0	17.25	3.85	11,237.0	-727.5	-238.3	-725.8	10.00	10.00	0.00
11,350.0	22.25	3.85	11,284.1	-710.7	-237.1	-709.0	10.00	10.00	0.00
11,400.0	27.25	3.85	11,329.4	-689.8	-235.7	-688.1	10.00	10.00	0.00
11,450.0	32.25	3.85	11,372.8	-665.1	-234.1	-663.4	10.00	10.00	0.00
11,452.6	32.51	3.85	11,375.0	-663.7	-234.0	-662.0	10.00	10.00	0.00



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3rd Bone Spring Carb									
11,500.0	37.25	3.85	11,413.9	-636.6	-232.2	-634.9	10.00	10.00	0.00
11,550.0	42.25	3.85	11,452.3	-604.7	-230.0	-603.1	10.00	10.00	0.00
11,600.0	47.25	3.85	11,487.8	-569.6	-227.6	-568.0	10.00	10.00	0.00
11,650.0	52.25	3.85	11,520.1	-531.6	-225.1	-529.9	10.00	10.00	0.00
11,700.0	57.25	3.85	11,549.0	-490.8	-222.3	-489.2	10.00	10.00	0.00
11,750.0	62.25	3.85	11,574.2	-447.8	-219.4	-446.2	10.00	10.00	0.00
11,800.0	67.25	3.85	11,595.5	-402.6	-216.4	-401.1	10.00	10.00	0.00
11,850.0	72.25	3.85	11,612.8	-355.9	-213.3	-354.3	10.00	10.00	0.00
11,900.0	77.25	3.85	11,625.9	-307.7	-210.0	-306.2	10.00	10.00	0.00
11,950.0	82.25	3.85	11,634.8	-258.7	-206.7	-257.2	10.00	10.00	0.00
12,000.0	87.25	3.85	11,639.4	-209.0	-203.4	-207.5	10.00	10.00	0.00
12,024.3	89.68	3.85	11,640.0	-184.8	-201.7	-183.3	10.00	10.00	0.00
EOC/TRN - DLS 2.00 TFO -90.00									
12,100.0	89.68	2.34	11,640.5	-109.2	-197.7	-107.8	2.00	0.00	-2.00
12,200.0	89.68	0.34	11,641.0	-9.2	-195.3	-7.8	2.00	0.00	-2.00
12,237.2	89.68	359.59	11,641.2	28.0	-195.4	29.4	2.00	0.00	-2.00
Start 4442.2 hold at 12237.2 MD									
12,300.0	89.68	359.59	11,641.6	90.8	-195.8	92.2	0.00	0.00	0.00
12,400.0	89.68	359.59	11,642.1	190.8	-196.5	192.2	0.00	0.00	0.00
12,500.0	89.68	359.59	11,642.7	290.8	-197.2	292.2	0.00	0.00	0.00
12,600.0	89.68	359.59	11,643.3	390.8	-197.9	392.2	0.00	0.00	0.00
12,700.0	89.68	359.59	11,643.8	490.8	-198.6	492.2	0.00	0.00	0.00
12,800.0	89.68	359.59	11,644.4	590.8	-199.4	592.2	0.00	0.00	0.00
12,900.0	89.68	359.59	11,644.9	690.8	-200.1	692.2	0.00	0.00	0.00
13,000.0	89.68	359.59	11,645.5	790.8	-200.8	792.2	0.00	0.00	0.00
13,100.0	89.68	359.59	11,646.0	890.7	-201.5	892.2	0.00	0.00	0.00
13,200.0	89.68	359.59	11,646.6	990.7	-202.2	992.2	0.00	0.00	0.00
13,300.0	89.68	359.59	11,647.2	1,090.7	-202.9	1,092.2	0.00	0.00	0.00
13,400.0	89.68	359.59	11,647.7	1,190.7	-203.6	1,192.2	0.00	0.00	0.00
13,500.0	89.68	359.59	11,648.3	1,290.7	-204.3	1,292.2	0.00	0.00	0.00
13,600.0	89.68	359.59	11,648.8	1,390.7	-205.1	1,392.2	0.00	0.00	0.00
13,700.0	89.68	359.59	11,649.4	1,490.7	-205.8	1,492.2	0.00	0.00	0.00
13,800.0	89.68	359.59	11,649.9	1,590.7	-206.5	1,592.2	0.00	0.00	0.00
13,900.0	89.68	359.59	11,650.5	1,690.7	-207.2	1,692.2	0.00	0.00	0.00
14,000.0	89.68	359.59	11,651.1	1,790.7	-207.9	1,792.2	0.00	0.00	0.00
14,100.0	89.68	359.59	11,651.6	1,890.7	-208.6	1,892.2	0.00	0.00	0.00
14,200.0	89.68	359.59	11,652.2	1,990.7	-209.3	1,992.2	0.00	0.00	0.00
14,300.0	89.68	359.59	11,652.7	2,090.7	-210.0	2,092.1	0.00	0.00	0.00
14,400.0	89.68	359.59	11,653.3	2,190.7	-210.8	2,192.1	0.00	0.00	0.00
14,500.0	89.68	359.59	11,653.9	2,290.7	-211.5	2,292.1	0.00	0.00	0.00
14,600.0	89.68	359.59	11,654.4	2,390.7	-212.2	2,392.1	0.00	0.00	0.00
14,700.0	89.68	359.59	11,655.0	2,490.7	-212.9	2,492.1	0.00	0.00	0.00
14,800.0	89.68	359.59	11,655.5	2,590.7	-213.6	2,592.1	0.00	0.00	0.00
14,900.0	89.68	359.59	11,656.1	2,690.7	-214.3	2,692.1	0.00	0.00	0.00
15,000.0	89.68	359.59	11,656.6	2,790.7	-215.0	2,792.1	0.00	0.00	0.00
15,100.0	89.68	359.59	11,657.2	2,890.7	-215.7	2,892.1	0.00	0.00	0.00
15,200.0	89.68	359.59	11,657.8	2,990.7	-216.5	2,992.1	0.00	0.00	0.00
15,300.0	89.68	359.59	11,658.3	3,090.7	-217.2	3,092.1	0.00	0.00	0.00
15,400.0	89.68	359.59	11,658.9	3,190.7	-217.9	3,192.1	0.00	0.00	0.00
15,500.0	89.68	359.59	11,659.4	3,290.6	-218.6	3,292.1	0.00	0.00	0.00
15,600.0	89.68	359.59	11,660.0	3,390.6	-219.3	3,392.1	0.00	0.00	0.00
15,700.0	89.68	359.59	11,660.5	3,490.6	-220.0	3,492.1	0.00	0.00	0.00



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Zeus State #158H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3641.0usft (H&P 245)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3641.0usft (H&P 245)
Site:	(Zeus State) Sec-9_T24-S_R-33-E	North Reference:	Grid
Well:	Zeus State #158H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,800.0	89.68	359.59	11,661.1	3,590.6	-220.7	3,592.1	0.00	0.00	0.00
15,900.0	89.68	359.59	11,661.7	3,690.6	-221.4	3,692.1	0.00	0.00	0.00
16,000.0	89.68	359.59	11,662.2	3,790.6	-222.2	3,792.1	0.00	0.00	0.00
16,100.0	89.68	359.59	11,662.8	3,890.6	-222.9	3,892.1	0.00	0.00	0.00
16,200.0	89.68	359.59	11,663.3	3,990.6	-223.6	3,992.1	0.00	0.00	0.00
16,300.0	89.68	359.59	11,663.9	4,090.6	-224.3	4,092.1	0.00	0.00	0.00
16,400.0	89.68	359.59	11,664.4	4,190.6	-225.0	4,192.1	0.00	0.00	0.00
16,500.0	89.68	359.59	11,665.0	4,290.6	-225.7	4,292.1	0.00	0.00	0.00
16,600.0	89.68	359.59	11,665.6	4,390.6	-226.4	4,392.1	0.00	0.00	0.00
16,679.4	89.68	359.59	11,666.0	4,470.0	-227.0	4,471.5	0.00	0.00	0.00
TD at 16679.4									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Zeus State #158)	0.00	0.00	11,640.0	-703.0	-190.0	446,485.00	777,451.00	32° 13' 30.566 N	103° 34' 11.228 W
- hit/miss target									
- plan misses target center by 205.8usft at 11600.0usft MD (11487.8 TVD, -569.6 N, -227.6 E)									
- Point									
LTP (Zeus State #158)	0.00	0.00	11,666.0	4,375.0	-226.0	451,563.00	777,415.00	32° 14' 20.816 N	103° 34' 11.227 W
- plan misses target center by 0.6usft at 16584.4usft MD (11665.5 TVD, 4375.0 N, -226.3 E)									
- Point									
PBHL (Zeus State #158)	0.32	359.59	11,666.0	4,470.0	-227.0	451,658.00	777,414.00	32° 14' 21.757 N	103° 34' 11.231 W
- plan hits target center									
- Rectangle (sides W100.0 H5,173.0 D40.0)									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,275.0	1,275.0	Rustler Anhydrite			
1,786.2	1,785.0	Top Salt			
5,020.9	4,980.0	Base Salt			
5,274.0	5,230.0	Delaware Mountain Gp			
5,279.1	5,235.0	Lamar			
5,304.4	5,260.0	Bell Canyon			
5,324.7	5,280.0	Ramsey Sand			
6,256.1	6,200.0	Cherry Canyon			
7,770.4	7,710.0	Brushy Canyon			
9,180.4	9,120.0	Bone Spring Lime			
9,300.4	9,240.0	Upper Avalon			
9,570.4	9,510.0	Middle Avalon			
9,975.4	9,915.0	Lower Avalon			
10,220.4	10,160.0	1st Bone Spring Sand			
10,535.4	10,475.0	2nd Bone Spring Carb			
11,000.4	10,940.0	2nd Bone Spring Sand			
11,452.6	11,375.0	3rd Bone Spring Carb			



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Zeus State #158H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3641.0usft (H&P 245)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3641.0usft (H&P 245)
Site:	(Zeus State) Sec-9_T24-S_R-33-E	North Reference:	Grid
Well:	Zeus State #158H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,400.0	1,400.0	0.0	0.0	NUDGE - Build 2.00
1,850.2	1,848.4	-33.6	-10.7	HOLD - 4599.9 at 1850.2 MD
6,450.2	6,391.6	-719.6	-229.3	DROP - -2.00
6,900.4	6,840.0	-753.2	-240.0	HOLD - 4227.1 at 6900.4 MD
11,127.5	11,067.1	-753.2	-240.0	KOP - Build 10.00
12,024.3	11,640.0	-184.8	-201.7	EOC/TRN - DLS 2.00 TFO -90.00
12,237.2	11,641.2	28.0	-195.4	Start 4442.2 hold at 12237.2 MD
16,679.4	11,666.0	4,470.0	-227.0	TD at 16679.4