

Form 3160-5
(June 2015)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No. NMNM86024

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator TAP ROCK OPERATING, LLC

3a. Address 523 PARK POINT DRIVE, STE 200
GOLDEN, CO 804013b. Phone No. (include area code)
(720) 238-2787

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.
Cypress 34 Federal #235H

9. API Well No. 30-015-47264

10. Field and Pool or Exploratory Area
PURPLE SAGE WOLFCAMP4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
323 FNL 306 FWL, Sec 34, T23S, R29E11. Country or Parish, State
EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off	
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other	
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon		
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

Tap Rock is requesting permission to alter the surface hole, bottom hole and depth of the Cypress 34 Federal 235H.
The Surface hole location being proposed is located at 323 ft FNL, 226 ft FWL of Section 34, Township 23S, Range 29E.
The Bottom hole location being proposed is located at 30 ft FSL, 1180 ft FWL of Section 34, Township 23S, Range 29E.
This change will alter the TVD/MD to 10841 ft and 15931 ft respectively.

No new disturbance will occur as a result of these changes. Updated Plat, Drill Plan, and Directional Plan are attached for review.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
Bill Ramsey

Regulatory Analyst
Title

Signature



Date

02/01/2021

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

CHRISTOPHER WALLS

Digitally signed by CHRISTOPHER WALLS

Date: 2021.02.10 10:08:17 -07'00'

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

X **AMENDED REPORT**
CHANGE SHL & BHL

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-47264	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP
⁴ Property Code	⁵ Property Name CYPRESS 34 FEDERAL	
⁷ OGRID No. 372043	⁸ Operator Name TAP ROCK OPERATING, LLC.	⁶ Well Number 235H
		⁹ Elevation 3049'

¹⁰Surface Location

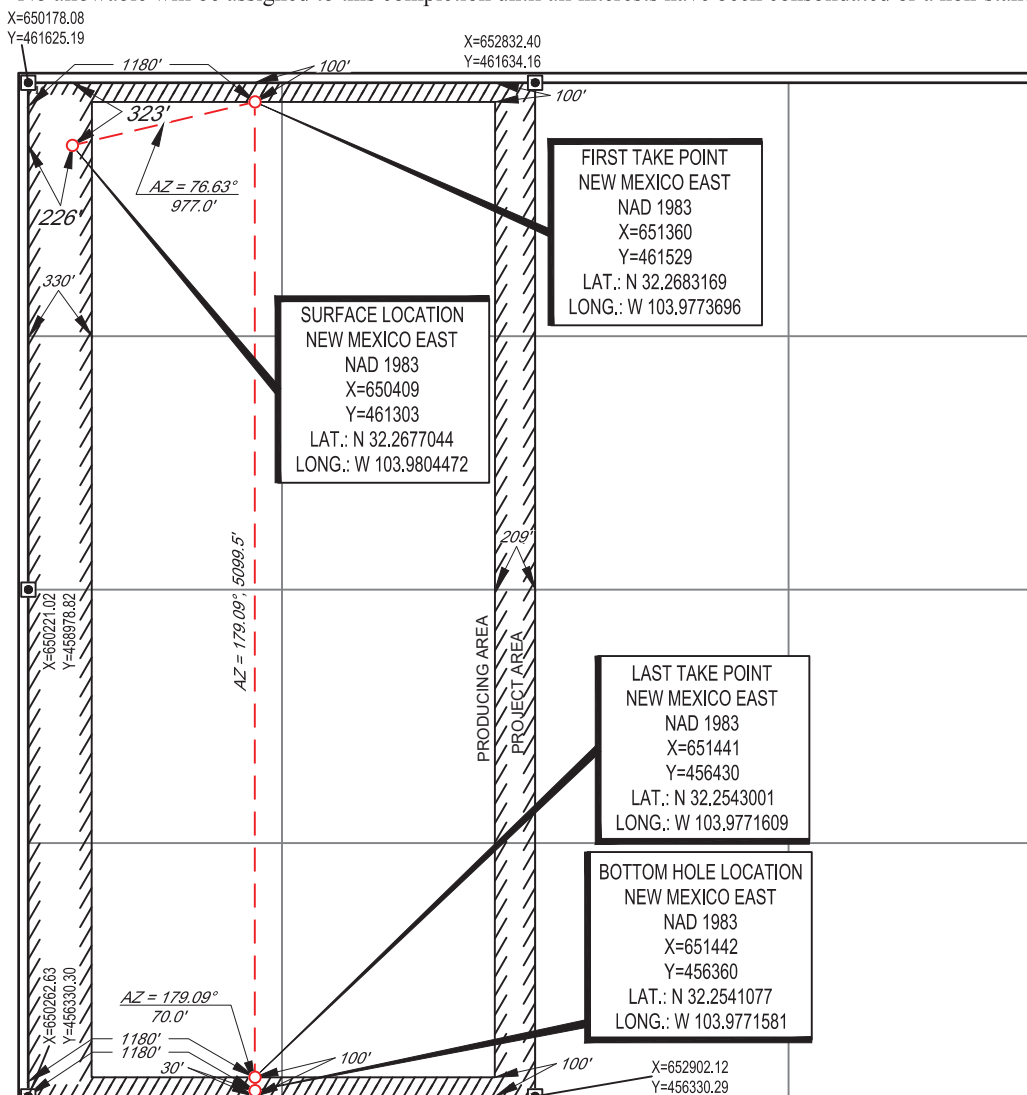
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	34	23-S	29-E	—	323'	NORTH	226'	WEST	EDDY

¹¹Bottom 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
M	34	23-S	29-E	-	30'	SOUTH	1180'	WEST	EDDY

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.



¹⁷OPERATOR 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.

Signature CCCE Date 9/10/20

CHRISTIAN CONMBS

Printed Name _____

ccombs@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.

08/19/2020

Date of Survey

Signature and Seal of Professional Surveyor

Certificate Number



Drilling Operations Plan
 Cypress 34 Federal 235H
 Tap Rock Operating, LLC
 SHL 323' FNL & 226' FWL, Sec. 34
 BHL 30' FSL & 1180' FWL, Sec. 34
 T. 23S., R. 29E, Eddy County, NM

Elevation above Sea Level: 3049'

DRILLING PROGRAM

1. Estimated Tops

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0	Surface	None
Rustler Anhydrite	195	195		Salt
Salado	640	640	Salt	Salt
Base Salt	2800	2803		Salt
Lamar	3030	3036	Limestone	None
Bell Canyon	3055	3062	Sandstone	Hydrocarbons
Cherry Canyon	3920	3941	Sandstone	Hydrocarbons
Brushy Canyon	5560	5608	Sandstone	Hydrocarbons
Bone Spring Lime	6800	6868	Limestone	Hydrocarbons
1st Bone Spring	7785	7869	Sandstone	Hydrocarbons
2nd Bone Spring	8095	8184	Sandstone	Hydrocarbons
3rd Bone Spring	8930	9028	Sandstone	Hydrocarbons
KOP	10264	10362	Sandstone	Hydrocarbons
Wolfcamp A	10050	10148	Shale	Hydrocarbons
TD	10841	15931	Shale	Hydrocarbons

2. Notable Zones

Wolfcamp is the target formation.

3. Pressure Control

Pressure Control Equipment (See Schematics):

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.

BOP Test procedure will be as follows:



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After surface casing is set and the BOP is nipped 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.

Variance Requests:

Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate 1, Intermediate 2, and Production Strings. Tap Rock requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Tap Rock requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is 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. Due to the Potash, Tap Rock will cement the 7-5/8" string to surface.

Tap Rock 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, Tap Rock 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. Tap Rock will have supervision on the spudder rig to ensure compliance with all BLM and NMOCD regulations.



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4. Casing & Cement

All Casing will be new.

Name	Hole Size	Casing Size	Standard	Tapered	Top MD	Bottom MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	17 1/2	13 3/8	API	No	0	265	0	265	J-55	54.5	BUTT	1.13	1.15	1.6
1st Intermediate	12 1/4	9 5/8	API	No	0	3086	0	3080	J-55	40	BUTT	1.13	1.15	1.6
2nd Intermediate	8 3/4	7 5/8	NON API	No	0	10262	0	10164	P-110	29.7	W-513	1.13	1.15	1.6
Production	6 3/4	5 1/2	NON API	No	0	9762	0	9664	P-110	20	TXP	1.13	1.15	1.6
Production	6 3/4	5	NON API	Yes	9762	15931	9664	10841	P-110	18	W-521	1.13	1.15	1.6

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Tail	0	273	1.35	368	14.8	100%	C	5% NCI + LCM
1st Intermediate	Lead	0	695	1.72	1196	13.5	65%	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	2315	300	1.33	399	14.8	65%	C	5% NaCl + LCM
2nd Intermediate	Lead	0	566	2.22	1256	11.5	35%	TXI	Fluid Loss + Dispersant + Retarder + LCM
	Tail	9262	99	1.37	136	13.2	35%	H	Fluid Loss + Dispersant + Retarder + LCM
Production	Tail	9662	738	1.19	879	15.8	25%	H	Fluid Loss + Dispersant + Retarder + LCM

5. Mud Program

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.

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	265	FW Spud Mud	8.30	28	NC
Intermediate	265	3086	Brine Water	10.00	30-32	NC
Intermediate 2	3086	10262	FW/Cut Brine	9.00	30-32	NC
Production	10262	15931	Oil Base Mud	13.00	55 - 70	<10

6. Cores, Tests, & Logs

- Electric Logging Program: No open-hole logs are planned at this time for the pilot hole.
- 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.
- No DSTs or cores are planned at this time.
- CBL w/ CCL from as far as gravity will let it fall to TOC.



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7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is $\approx 7,329$ psi. Expected bottom hole temperature is $\approx 170^{\circ}$ F.

Tap Rock does not anticipate that there will be enough H₂S from the surface to the Wolfcamp 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. Tap Rock 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.

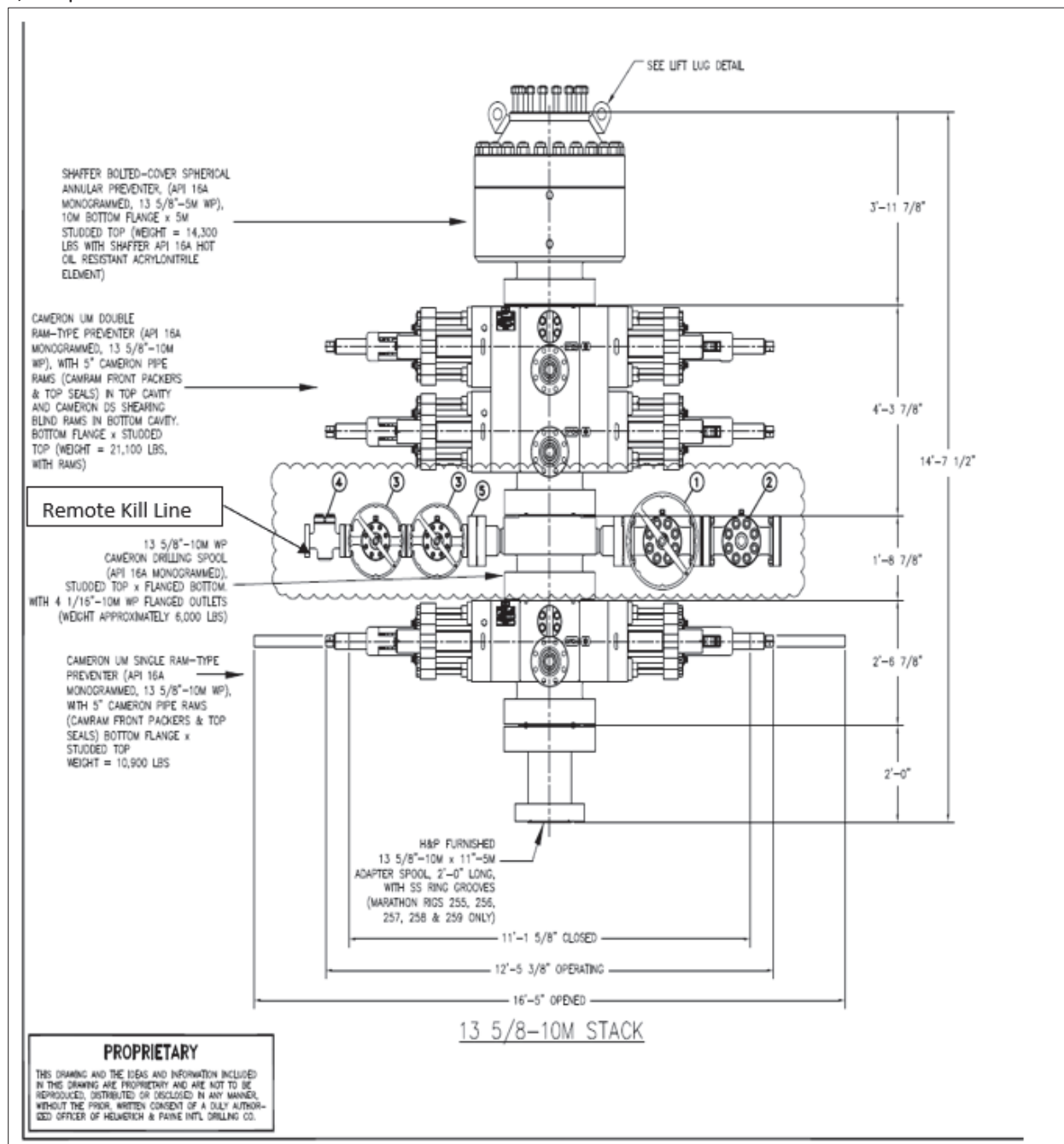
8. Other

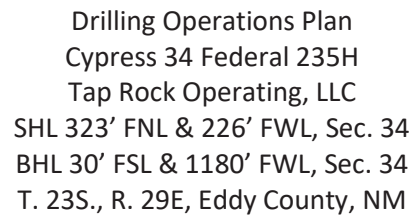
Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 30 days. If production casing is run an additional 60 days will be required to complete and construct surface facilities.



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5,000 psi BOP Stack

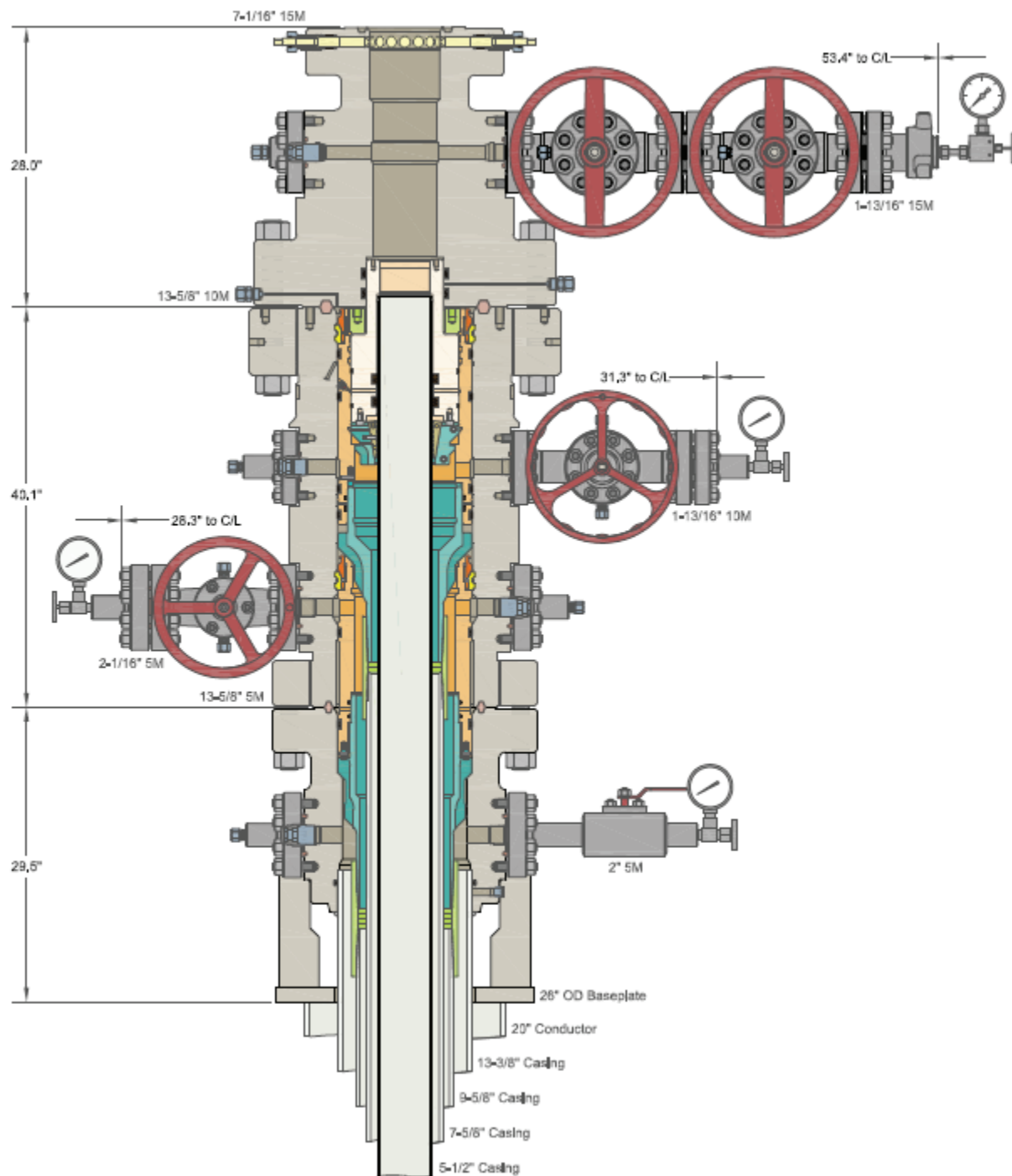






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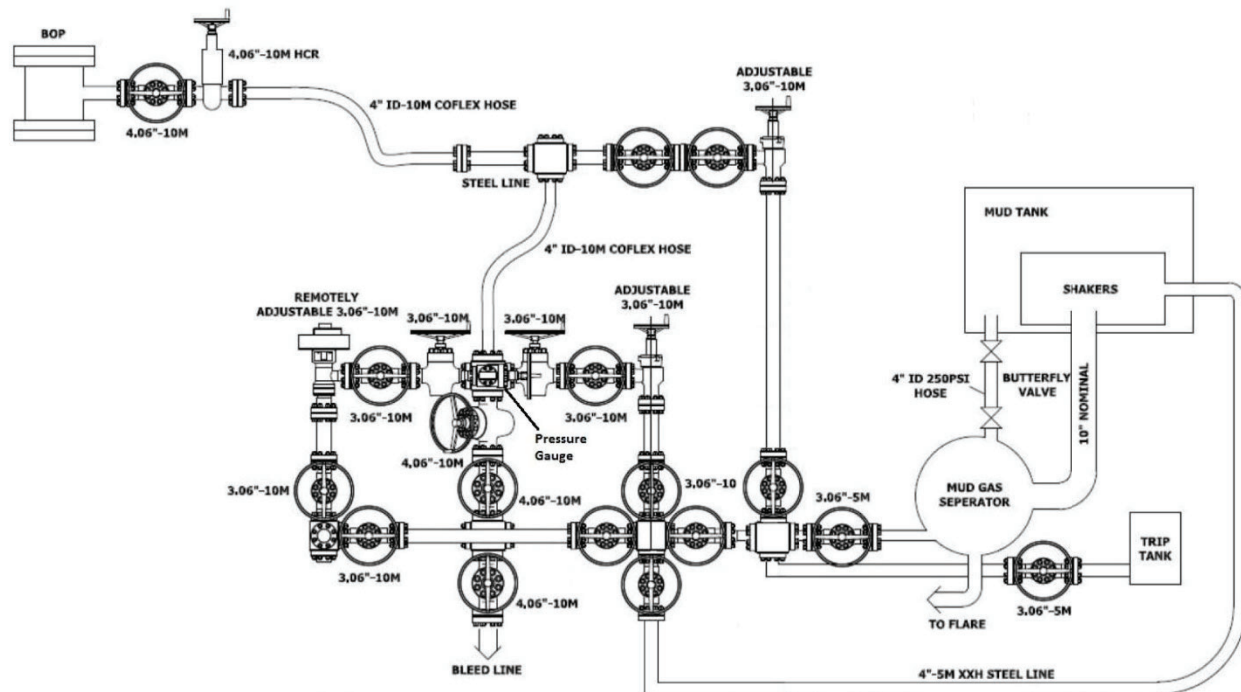
Multi-bowl Wellhead





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10M Choke Layout





Tap Rock Resources, LLC

**Eddy County, NM (NAD 83 NME)
(Cypress) Sec-3_T-24-S_R-29-E
Cypress 34 Federal #235H**

OWB

Plan: Plan #1

Standard Planning Report

03 September, 2020





Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Cypress 34 Federal #235H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3075.0usft (H&P 376)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3075.0usft (H&P 376)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #235H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Project	Eddy 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	(Cypress) Sec-3_T-24-S_R-29-E		
Site Position:		Northing:	456,089.00 usft
From:	Map	Easting:	654,400.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 15' 12.005 N
		Longitude:	103° 58' 3.336 W
		Grid Convergence:	0.20 °

Well	Cypress 34 Federal #235H		
Well Position	+N/-S	5,214.0 usft	Northing: 461,303.00 usft
	+E/-W	-3,991.0 usft	Easting: 650,409.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 32° 16' 3.734 N
			Longitude: 103° 58' 49.613 W
			Ground Level: 3,049.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	08/28/20	6.80	60.00	47,595.20289666

Design	Plan #1			
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	179.09

Plan Survey Tool Program	Date	09/03/20		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	15,931.1	Plan #1 (OWB)	MWD
			OWSG MWD - Standard	



Intrepid Planning Report



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Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3075.0usft (H&P 376)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #235H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

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	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,814.3	10.29	79.70	2,811.6	8.2	45.3	2.00	2.00	0.00	79.70	
6,814.3	10.29	79.70	6,747.3	136.0	748.1	0.00	0.00	0.00	0.00	
6,935.2	10.29	66.14	6,866.2	142.3	768.6	2.00	0.00	-11.22	-96.65	
8,583.8	10.29	66.14	8,488.4	261.4	1,037.9	0.00	0.00	0.00	0.00	
9,098.2	0.00	0.00	9,000.0	280.0	1,080.0	2.00	-2.00	0.00	180.00	
10,362.6	0.00	0.00	10,264.4	280.0	1,080.0	0.00	0.00	0.00	0.00	
10,912.6	55.00	197.50	10,733.7	47.0	1,006.5	10.00	10.00	0.00	197.50	
11,303.6	90.11	179.09	10,850.0	-315.3	959.6	10.00	8.98	-4.71	-30.05	
15,931.8	90.11	179.09	10,841.0	-4,943.0	1,033.0	0.00	0.00	0.00	0.00	PBHL (Cypress 34)



Intrepid Planning Report



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Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3075.0usft (H&P 376)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3075.0usft (H&P 376)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #235H	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
195.0	0.00	0.00	195.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler Anhydrite									
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
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
Top Salt									
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
1,300.0	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
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
NUDGE - Build 2.00									
2,400.0	2.00	79.70	2,400.0	0.3	1.7	-0.3	2.00	2.00	0.00
2,500.0	4.00	79.70	2,499.8	1.2	6.9	-1.1	2.00	2.00	0.00
2,600.0	6.00	79.70	2,599.5	2.8	15.4	-2.6	2.00	2.00	0.00
2,700.0	8.00	79.70	2,698.7	5.0	27.4	-4.5	2.00	2.00	0.00
2,800.0	10.00	79.70	2,797.5	7.8	42.8	-7.1	2.00	2.00	0.00
2,802.6	10.05	79.70	2,800.0	7.9	43.3	-7.2	2.00	2.00	0.00
Base Salt									
2,814.3	10.29	79.70	2,811.6	8.2	45.3	-7.5	2.00	2.00	0.00
HOLD - 4000.0 at 2814.4 MD									
2,900.0	10.29	79.70	2,895.9	11.0	60.4	-10.0	0.00	0.00	0.00
3,000.0	10.29	79.70	2,994.3	14.2	77.9	-12.9	0.00	0.00	0.00
3,026.2	10.29	79.70	3,020.0	15.0	82.5	-13.7	0.00	0.00	0.00
Delaware Mountain Gp									
3,036.3	10.29	79.70	3,030.0	15.3	84.3	-14.0	0.00	0.00	0.00
Lamar									
3,061.7	10.29	79.70	3,055.0	16.1	88.8	-14.7	0.00	0.00	0.00
Bell Canyon									
3,071.9	10.29	79.70	3,065.0	16.5	90.6	-15.0	0.00	0.00	0.00
Ramsey Sand									
3,100.0	10.29	79.70	3,092.6	17.4	95.5	-15.8	0.00	0.00	0.00
3,200.0	10.29	79.70	3,191.0	20.5	113.1	-18.7	0.00	0.00	0.00
3,300.0	10.29	79.70	3,289.4	23.7	130.6	-21.7	0.00	0.00	0.00
3,400.0	10.29	79.70	3,387.8	26.9	148.2	-24.6	0.00	0.00	0.00
3,500.0	10.29	79.70	3,486.2	30.1	165.8	-27.5	0.00	0.00	0.00



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Cypress 34 Federal #235H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3075.0usft (H&P 376)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3075.0usft (H&P 376)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #235H	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)
3,600.0	10.29	79.70	3,584.6	33.3	183.3	-30.4	0.00	0.00	0.00
3,700.0	10.29	79.70	3,683.0	36.5	200.9	-33.3	0.00	0.00	0.00
3,800.0	10.29	79.70	3,781.4	39.7	218.5	-36.2	0.00	0.00	0.00
3,900.0	10.29	79.70	3,879.8	42.9	236.1	-39.1	0.00	0.00	0.00
3,940.9	10.29	79.70	3,920.0	44.2	243.2	-40.3	0.00	0.00	0.00
Cherry Canyon									
4,000.0	10.29	79.70	3,978.2	46.1	253.6	-42.1	0.00	0.00	0.00
4,100.0	10.29	79.70	4,076.6	49.3	271.2	-45.0	0.00	0.00	0.00
4,200.0	10.29	79.70	4,175.0	52.5	288.8	-47.9	0.00	0.00	0.00
4,300.0	10.29	79.70	4,273.4	55.7	306.3	-50.8	0.00	0.00	0.00
4,400.0	10.29	79.70	4,371.8	58.9	323.9	-53.7	0.00	0.00	0.00
4,500.0	10.29	79.70	4,470.1	62.1	341.5	-56.6	0.00	0.00	0.00
4,600.0	10.29	79.70	4,568.5	65.3	359.0	-59.5	0.00	0.00	0.00
4,700.0	10.29	79.70	4,666.9	68.4	376.6	-62.5	0.00	0.00	0.00
4,800.0	10.29	79.70	4,765.3	71.6	394.2	-65.4	0.00	0.00	0.00
4,900.0	10.29	79.70	4,863.7	74.8	411.8	-68.3	0.00	0.00	0.00
5,000.0	10.29	79.70	4,962.1	78.0	429.3	-71.2	0.00	0.00	0.00
5,100.0	10.29	79.70	5,060.5	81.2	446.9	-74.1	0.00	0.00	0.00
5,200.0	10.29	79.70	5,158.9	84.4	464.5	-77.0	0.00	0.00	0.00
5,300.0	10.29	79.70	5,257.3	87.6	482.0	-79.9	0.00	0.00	0.00
5,400.0	10.29	79.70	5,355.7	90.8	499.6	-82.8	0.00	0.00	0.00
5,500.0	10.29	79.70	5,454.1	94.0	517.2	-85.8	0.00	0.00	0.00
5,600.0	10.29	79.70	5,552.5	97.2	534.7	-88.7	0.00	0.00	0.00
5,607.7	10.29	79.70	5,560.0	97.4	536.1	-88.9	0.00	0.00	0.00
Brushy Canyon									
5,700.0	10.29	79.70	5,650.9	100.4	552.3	-91.6	0.00	0.00	0.00
5,800.0	10.29	79.70	5,749.2	103.6	569.9	-94.5	0.00	0.00	0.00
5,900.0	10.29	79.70	5,847.6	106.8	587.5	-97.4	0.00	0.00	0.00
6,000.0	10.29	79.70	5,946.0	110.0	605.0	-100.3	0.00	0.00	0.00
6,100.0	10.29	79.70	6,044.4	113.1	622.6	-103.2	0.00	0.00	0.00
6,200.0	10.29	79.70	6,142.8	116.3	640.2	-106.2	0.00	0.00	0.00
6,300.0	10.29	79.70	6,241.2	119.5	657.7	-109.1	0.00	0.00	0.00
6,400.0	10.29	79.70	6,339.6	122.7	675.3	-112.0	0.00	0.00	0.00
6,500.0	10.29	79.70	6,438.0	125.9	692.9	-114.9	0.00	0.00	0.00
6,600.0	10.29	79.70	6,536.4	129.1	710.5	-117.8	0.00	0.00	0.00
6,700.0	10.29	79.70	6,634.8	132.3	728.0	-120.7	0.00	0.00	0.00
6,800.0	10.29	79.70	6,733.2	135.5	745.6	-123.6	0.00	0.00	0.00
6,814.3	10.29	79.70	6,747.3	136.0	748.1	-124.1	0.00	0.00	0.00
TRN - DLS 2.00 TFO -96.65									
6,867.9	10.22	73.69	6,800.0	138.1	757.4	-126.1	2.00	-0.13	-11.22
Bone Spring Lime									
6,900.0	10.23	70.08	6,831.6	139.9	762.8	-127.8	2.00	0.04	-11.27
6,935.2	10.29	66.14	6,866.2	142.3	768.6	-130.0	2.00	0.17	-11.19
HOLD - 1648.7 at 6935.2 MD									
6,939.0	10.29	66.14	6,870.0	142.5	769.2	-130.3	0.00	0.00	0.00
Upper Avalon									
7,000.0	10.29	66.14	6,930.0	146.9	779.2	-134.5	0.00	0.00	0.00
7,100.0	10.29	66.14	7,028.4	154.2	795.5	-141.5	0.00	0.00	0.00
7,200.0	10.29	66.14	7,126.8	161.4	811.9	-148.5	0.00	0.00	0.00
7,300.0	10.29	66.14	7,225.2	168.6	828.2	-155.4	0.00	0.00	0.00
7,315.1	10.29	66.14	7,240.0	169.7	830.6	-156.5	0.00	0.00	0.00
Middle Avalon									
7,400.0	10.29	66.14	7,323.5	175.8	844.5	-162.4	0.00	0.00	0.00



Intrepid Planning Report



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Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3075.0usft (H&P 376)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3075.0usft (H&P 376)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #235H	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)
7,500.0	10.29	66.14	7,421.9	183.1	860.9	-169.4	0.00	0.00	0.00
7,600.0	10.29	66.14	7,520.3	190.3	877.2	-176.3	0.00	0.00	0.00
7,700.0	10.29	66.14	7,618.7	197.5	893.5	-183.3	0.00	0.00	0.00
7,701.3	10.29	66.14	7,620.0	197.6	893.7	-183.4	0.00	0.00	0.00
Lower Avalon									
7,800.0	10.29	66.14	7,717.1	204.7	909.9	-190.3	0.00	0.00	0.00
7,869.0	10.29	66.14	7,785.0	209.7	921.1	-195.1	0.00	0.00	0.00
1st Bone Spring Sand									
7,900.0	10.29	66.14	7,815.5	212.0	926.2	-197.2	0.00	0.00	0.00
8,000.0	10.29	66.14	7,913.9	219.2	942.5	-204.2	0.00	0.00	0.00
8,100.0	10.29	66.14	8,012.3	226.4	958.9	-211.2	0.00	0.00	0.00
8,184.1	10.29	66.14	8,095.0	232.5	972.6	-217.0	0.00	0.00	0.00
2nd Bone Spring Carb									
8,200.0	10.29	66.14	8,110.7	233.6	975.2	-218.1	0.00	0.00	0.00
8,300.0	10.29	66.14	8,209.1	240.9	991.5	-225.1	0.00	0.00	0.00
8,400.0	10.29	66.14	8,307.5	248.1	1,007.9	-232.0	0.00	0.00	0.00
8,500.0	10.29	66.14	8,405.9	255.3	1,024.2	-239.0	0.00	0.00	0.00
8,583.8	10.29	66.14	8,488.4	261.4	1,037.9	-244.9	0.00	0.00	0.00
DROP - -2.00									
8,595.7	10.05	66.14	8,500.0	262.2	1,039.8	-245.7	2.00	-2.00	0.00
2nd Bone Spring Sand									
8,600.0	9.96	66.14	8,504.3	262.5	1,040.5	-246.0	2.00	-2.00	0.00
8,700.0	7.96	66.14	8,603.0	268.8	1,054.7	-252.0	2.00	-2.00	0.00
8,800.0	5.96	66.14	8,702.3	273.7	1,065.8	-256.8	2.00	-2.00	0.00
8,900.0	3.96	66.14	8,801.9	277.2	1,073.7	-260.1	2.00	-2.00	0.00
9,000.0	1.96	66.14	8,901.8	279.3	1,078.5	-262.2	2.00	-2.00	0.00
9,028.2	1.40	66.14	8,930.0	279.7	1,079.2	-262.5	2.00	-2.00	0.00
3rd Bone Spring Carb									
9,098.2	0.00	0.00	9,000.0	280.0	1,080.0	-262.8	2.00	-2.00	0.00
HOLD - 1264.4 at 9098.2 MD									
9,100.0	0.00	0.00	9,001.8	280.0	1,080.0	-262.8	0.00	0.00	0.00
9,200.0	0.00	0.00	9,101.8	280.0	1,080.0	-262.8	0.00	0.00	0.00
9,300.0	0.00	0.00	9,201.8	280.0	1,080.0	-262.8	0.00	0.00	0.00
9,400.0	0.00	0.00	9,301.8	280.0	1,080.0	-262.8	0.00	0.00	0.00
9,500.0	0.00	0.00	9,401.8	280.0	1,080.0	-262.8	0.00	0.00	0.00
9,600.0	0.00	0.00	9,501.8	280.0	1,080.0	-262.8	0.00	0.00	0.00
9,700.0	0.00	0.00	9,601.8	280.0	1,080.0	-262.8	0.00	0.00	0.00
9,800.0	0.00	0.00	9,701.8	280.0	1,080.0	-262.8	0.00	0.00	0.00
9,818.2	0.00	0.00	9,720.0	280.0	1,080.0	-262.8	0.00	0.00	0.00
3rd Bone Spring Sand									
9,900.0	0.00	0.00	9,801.8	280.0	1,080.0	-262.8	0.00	0.00	0.00
10,000.0	0.00	0.00	9,901.8	280.0	1,080.0	-262.8	0.00	0.00	0.00
10,093.2	0.00	0.00	9,995.0	280.0	1,080.0	-262.8	0.00	0.00	0.00
3rd BS W Sand									
10,100.0	0.00	0.00	10,001.8	280.0	1,080.0	-262.8	0.00	0.00	0.00
10,148.2	0.00	0.00	10,050.0	280.0	1,080.0	-262.8	0.00	0.00	0.00
Wolfcamp A X Sand									
10,200.0	0.00	0.00	10,101.8	280.0	1,080.0	-262.8	0.00	0.00	0.00
10,248.2	0.00	0.00	10,150.0	280.0	1,080.0	-262.8	0.00	0.00	0.00
Wolfcamp A Y Sand									
10,300.0	0.00	0.00	10,201.8	280.0	1,080.0	-262.8	0.00	0.00	0.00
10,338.2	0.00	0.00	10,240.0	280.0	1,080.0	-262.8	0.00	0.00	0.00
Wolfcamp A Lower									



Intrepid Planning Report



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Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3075.0usft (H&P 376)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #235H	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)
10,362.6	0.00	0.00	10,264.4	280.0	1,080.0	-262.8	0.00	0.00	0.00
KOP - Build 10.00									
10,400.0	3.74	197.50	10,301.7	278.8	1,079.6	-261.7	10.00	10.00	0.00
10,450.0	8.74	197.50	10,351.4	273.7	1,078.0	-256.5	10.00	10.00	0.00
10,489.3	12.66	197.50	10,390.0	266.7	1,075.8	-249.6	10.00	10.00	0.00
Wolfcamp B									
10,500.0	13.74	197.50	10,400.4	264.4	1,075.1	-247.3	10.00	10.00	0.00
10,550.0	18.74	197.50	10,448.4	251.0	1,070.9	-234.0	10.00	10.00	0.00
10,600.0	23.74	197.50	10,495.0	233.8	1,065.4	-216.8	10.00	10.00	0.00
10,650.0	28.74	197.50	10,539.9	212.7	1,058.8	-195.9	10.00	10.00	0.00
10,700.0	33.74	197.50	10,582.6	188.0	1,051.0	-171.3	10.00	10.00	0.00
10,750.0	38.74	197.50	10,622.9	159.8	1,042.1	-143.2	10.00	10.00	0.00
10,800.0	43.74	197.50	10,660.5	128.4	1,032.2	-112.0	10.00	10.00	0.00
10,850.0	48.74	197.50	10,695.1	94.0	1,021.3	-77.7	10.00	10.00	0.00
10,900.0	53.74	197.50	10,726.4	56.8	1,009.6	-40.7	10.00	10.00	0.00
10,912.6	55.00	197.50	10,733.7	47.0	1,006.5	-31.0	10.00	10.00	0.00
BLD/TRN - DLS 10.00 TFO -30.05									
10,932.7	56.74	196.30	10,745.0	31.1	1,001.7	-15.2	10.00	8.69	-5.99
Wolfcamp B1									
10,950.0	58.25	195.30	10,754.3	17.1	997.7	-1.2	10.00	8.74	-5.77
11,000.0	62.66	192.59	10,778.9	-25.1	987.3	40.8	10.00	8.82	-5.43
11,050.0	67.12	190.08	10,800.2	-69.5	978.4	85.0	10.00	8.91	-5.01
11,100.0	71.61	187.74	10,817.8	-115.7	971.2	131.1	10.00	8.99	-4.69
11,150.0	76.13	185.52	10,831.7	-163.4	965.6	178.7	10.00	9.04	-4.45
11,200.0	80.67	183.38	10,841.7	-212.2	961.8	227.5	10.00	9.08	-4.28
11,250.0	85.23	181.29	10,847.8	-261.8	959.8	277.0	10.00	9.11	-4.17
11,303.6	90.11	179.09	10,850.0	-315.3	959.6	330.5	10.00	9.12	-4.11
Start 4628.3 hold at 11303.6 MD									
11,400.0	90.11	179.09	10,849.8	-411.7	961.2	426.9	0.00	0.00	0.00
11,500.0	90.11	179.09	10,849.6	-511.7	962.8	526.9	0.00	0.00	0.00
11,600.0	90.11	179.09	10,849.4	-611.7	964.3	626.9	0.00	0.00	0.00
11,700.0	90.11	179.09	10,849.2	-711.7	965.9	726.9	0.00	0.00	0.00
11,800.0	90.11	179.09	10,849.1	-811.7	967.5	826.9	0.00	0.00	0.00
11,900.0	90.11	179.09	10,848.9	-911.7	969.1	926.9	0.00	0.00	0.00
12,000.0	90.11	179.09	10,848.7	-1,011.7	970.7	1,026.9	0.00	0.00	0.00
12,100.0	90.11	179.09	10,848.5	-1,111.6	972.3	1,126.9	0.00	0.00	0.00
12,200.0	90.11	179.09	10,848.3	-1,211.6	973.9	1,226.9	0.00	0.00	0.00
12,300.0	90.11	179.09	10,848.1	-1,311.6	975.4	1,326.9	0.00	0.00	0.00
12,400.0	90.11	179.09	10,847.9	-1,411.6	977.0	1,426.9	0.00	0.00	0.00
12,500.0	90.11	179.09	10,847.7	-1,511.6	978.6	1,526.9	0.00	0.00	0.00
12,600.0	90.11	179.09	10,847.5	-1,611.6	980.2	1,626.9	0.00	0.00	0.00
12,700.0	90.11	179.09	10,847.3	-1,711.6	981.8	1,726.9	0.00	0.00	0.00
12,800.0	90.11	179.09	10,847.1	-1,811.6	983.4	1,826.9	0.00	0.00	0.00
12,900.0	90.11	179.09	10,846.9	-1,911.5	984.9	1,926.9	0.00	0.00	0.00
13,000.0	90.11	179.09	10,846.7	-2,011.5	986.5	2,026.9	0.00	0.00	0.00
13,100.0	90.11	179.09	10,846.5	-2,111.5	988.1	2,126.9	0.00	0.00	0.00
13,200.0	90.11	179.09	10,846.3	-2,211.5	989.7	2,226.9	0.00	0.00	0.00
13,300.0	90.11	179.09	10,846.1	-2,311.5	991.3	2,326.9	0.00	0.00	0.00
13,400.0	90.11	179.09	10,845.9	-2,411.5	992.9	2,426.9	0.00	0.00	0.00
13,500.0	90.11	179.09	10,845.7	-2,511.5	994.5	2,526.9	0.00	0.00	0.00
13,600.0	90.11	179.09	10,845.5	-2,611.5	996.0	2,626.9	0.00	0.00	0.00
13,700.0	90.11	179.09	10,845.3	-2,711.4	997.6	2,726.9	0.00	0.00	0.00
13,800.0	90.11	179.09	10,845.2	-2,811.4	999.2	2,826.9	0.00	0.00	0.00
13,900.0	90.11	179.09	10,845.0	-2,911.4	1,000.8	2,926.9	0.00	0.00	0.00



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Cypress 34 Federal #235H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3075.0usft (H&P 376)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3075.0usft (H&P 376)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #235H	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)
14,000.0	90.11	179.09	10,844.8	-3,011.4	1,002.4	3,026.9	0.00	0.00	0.00
14,100.0	90.11	179.09	10,844.6	-3,111.4	1,004.0	3,126.9	0.00	0.00	0.00
14,200.0	90.11	179.09	10,844.4	-3,211.4	1,005.6	3,226.9	0.00	0.00	0.00
14,300.0	90.11	179.09	10,844.2	-3,311.4	1,007.1	3,326.9	0.00	0.00	0.00
14,400.0	90.11	179.09	10,844.0	-3,411.4	1,008.7	3,426.9	0.00	0.00	0.00
14,500.0	90.11	179.09	10,843.8	-3,511.3	1,010.3	3,526.9	0.00	0.00	0.00
14,600.0	90.11	179.09	10,843.6	-3,611.3	1,011.9	3,626.9	0.00	0.00	0.00
14,700.0	90.11	179.09	10,843.4	-3,711.3	1,013.5	3,726.9	0.00	0.00	0.00
14,800.0	90.11	179.09	10,843.2	-3,811.3	1,015.1	3,826.9	0.00	0.00	0.00
14,900.0	90.11	179.09	10,843.0	-3,911.3	1,016.6	3,926.9	0.00	0.00	0.00
15,000.0	90.11	179.09	10,842.8	-4,011.3	1,018.2	4,026.9	0.00	0.00	0.00
15,100.0	90.11	179.09	10,842.6	-4,111.3	1,019.8	4,126.9	0.00	0.00	0.00
15,200.0	90.11	179.09	10,842.4	-4,211.3	1,021.4	4,226.9	0.00	0.00	0.00
15,300.0	90.11	179.09	10,842.2	-4,311.2	1,023.0	4,326.9	0.00	0.00	0.00
15,400.0	90.11	179.09	10,842.0	-4,411.2	1,024.6	4,426.9	0.00	0.00	0.00
15,500.0	90.11	179.09	10,841.8	-4,511.2	1,026.2	4,526.9	0.00	0.00	0.00
15,600.0	90.11	179.09	10,841.6	-4,611.2	1,027.7	4,626.9	0.00	0.00	0.00
15,700.0	90.11	179.09	10,841.5	-4,711.2	1,029.3	4,726.9	0.00	0.00	0.00
15,800.0	90.11	179.09	10,841.3	-4,811.2	1,030.9	4,826.9	0.00	0.00	0.00
15,900.0	90.11	179.09	10,841.1	-4,911.2	1,032.5	4,926.9	0.00	0.00	0.00
15,931.8	90.11	179.09	10,841.0	-4,943.0	1,033.0	4,958.8	0.00	0.00	0.00
TD at 15931.8									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP (Cypress 34 Federal #235H) - hit/miss target - Shape - Point	0.00	0.00	10,841.0	-4,873.0	1,032.0	456,430.00	651,441.00	32° 15' 15.478 N	103° 58' 37.781 W
- plan misses target center by 0.2usft at 15861.8usft MD (10841.1 TVD, -4873.0 N, 1031.9 E)									
PBHL (Cypress 34 Federal #235H) - plan hits target center - Rectangle (sides W100.0 H5,170.0 D30.0)	-0.11	179.07	10,841.0	-4,943.0	1,033.0	456,360.00	651,442.00	32° 15' 14.785 N	103° 58' 37.773 W
FTP (Cypress 34 Federal #235H) - plan misses target center by 214.4usft at 10865.3usft MD (10705.0 TVD, 82.9 N, 1017.8 E) - Point	0.00	0.00	10,850.0	226.0	951.0	461,529.00	651,360.00	32° 16' 5.939 N	103° 58' 38.528 W



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Cypress 34 Federal #235H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3075.0usft (H&P 376)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3075.0usft (H&P 376)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #235H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
195.0	195.0	Rustler Anhydrite			
640.0	640.0	Top Salt			
2,802.6	2,800.0	Base Salt			
3,026.2	3,020.0	Delaware Mountain Gp			
3,036.3	3,030.0	Lamar			
3,061.7	3,055.0	Bell Canyon			
3,071.9	3,065.0	Ramsey Sand			
3,940.9	3,920.0	Cherry Canyon			
5,607.7	5,560.0	Brushy Canyon			
6,867.9	6,800.0	Bone Spring Lime			
6,939.0	6,870.0	Upper Avalon			
7,315.1	7,240.0	Middle Avalon			
7,701.3	7,620.0	Lower Avalon			
7,869.0	7,785.0	1st Bone Spring Sand			
8,184.1	8,095.0	2nd Bone Spring Carb			
8,595.7	8,500.0	2nd Bone Spring Sand			
9,028.2	8,930.0	3rd Bone Spring Carb			
9,818.2	9,720.0	3rd Bone Spring Sand			
10,093.2	9,995.0	3rd BS W Sand			
10,148.2	10,050.0	Wolfcamp A X Sand			
10,248.2	10,150.0	Wolfcamp A Y Sand			
10,338.2	10,240.0	Wolfcamp A Lower			
10,489.3	10,390.0	Wolfcamp B			
10,932.7	10,745.0	Wolfcamp B1			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,300.0	2,300.0	0.0	0.0	NUDGE - Build 2.00
2,814.3	2,811.6	8.2	45.3	HOLD - 4000.0 at 2814.4 MD
6,814.3	6,747.3	136.0	748.1	TRN - DLS 2.00 TFO -96.65
6,935.2	6,866.2	142.3	768.6	HOLD - 1648.7 at 6935.2 MD
8,583.8	8,488.4	261.4	1,037.9	DROP - -2.00
9,098.2	9,000.0	280.0	1,080.0	HOLD - 1264.4 at 9098.2 MD
10,362.6	10,264.4	280.0	1,080.0	KOP - Build 10.00
10,912.6	10,733.7	47.0	1,006.5	BLD/TRN - DLS 10.00 TFO -30.05
11,303.6	10,850.0	-315.3	959.6	Start 4628.3 hold at 11303.6 MD
15,931.8	10,841.0	-4,943.0	1,033.0	TD at 15931.8

District I

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

District II

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

District III

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

District IV

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

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

CONDITIONS

Action 17685

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
TAP ROCK OPERATING, LLC Suite 200 Golden, CO80401	372043	17685	C-103A
523 Park Point Drive			

OCD Reviewer	Condition
jagarcia	Will require a administrative order for non-standard location prior to placing the well on production