

Well Name: CHICKEN NOODLE FED COM	Well Location: T26S / R25E / SEC 11 / SENW /	County or Parish/State:
Well Number: 301H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM113397	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001549404	Well Status: Approved Application for Permit to Drill	Operator: TAP ROCK OPERATING LLC

Notice of Intent

Sundry ID: 2705258

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 11/30/2022

Time Sundry Submitted: 02:06

Date proposed operation will begin: 12/02/2022

Procedure Description: For the referenced well, Tap Rock requests the following: 1. Change the BHL to C-2-26S-25E, 5' FNL 990' FWL, Eddy County, NM. Lat: 32.0790349, Long: -103.3717875 2. Change casing design, OH size, and pressure control according to the attached drill plans. 3. Change the TVD to 8993' and corresponding pool to [98220] PURPLE SAGE; WOLFCAMP (GAS) 4. Change the spacing unit size to 640 acres compromised of 11-26S-25E Units: C D E F K L M N and 02-26S-25E Units: C D E F K L M N. See attached updated C-102, drill plans, and directional plans.

NOI Attachments

Procedure Description

- Chicken_Noodle_Fed_Com_301H__Tap_Rock_Plan_v.2_11_22_22_20221130140542.pdf
- Chicken_Noodle_Fed_Com_301H__APD_Drilling_Plan_11_22_22_20221130140534.pdf
- Chicken_Noodle_Fed_Com_301H_C_102_20221123_SIGNED_20221130140518.pdf

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Conditions of Approval

Additional

Sec_11_26S_25E_NMP_2705258_Chicken_Noodle_301H_Eddy_Tap_Rock_13_22_44896_AM_20221201105004.pdf

Sec_11_26S_25E_NMP_2705258_Chicken_Noodle_301H_Eddy_Tap_Rock_COAs_20221201105004.pdf

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: JEFFREY TRLICA **Signed on:** NOV 30, 2022 02:06 PM

Name: TAP ROCK OPERATING LLC

Title: Regulatory Analyst

Street Address: 523 PARK POINT DRIVE SUITE 200

City: GOLDEN **State:** CO

Phone: (720) 772-5910

Email address: JTRLICA@TAPRK.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Approved	Disposition Date: 12/01/2022
Signature: Chris Walls	

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-49404	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)
⁴ Property Code 333365	⁵ Property Name CHICKEN NOODLE FED COM	⁶ Well Number 301H
⁷ OGRID No. 372043	⁸ Operator Name TAP ROCK OPERATING, LLC.	⁹ Elevation 3644'

¹⁰Surface Location

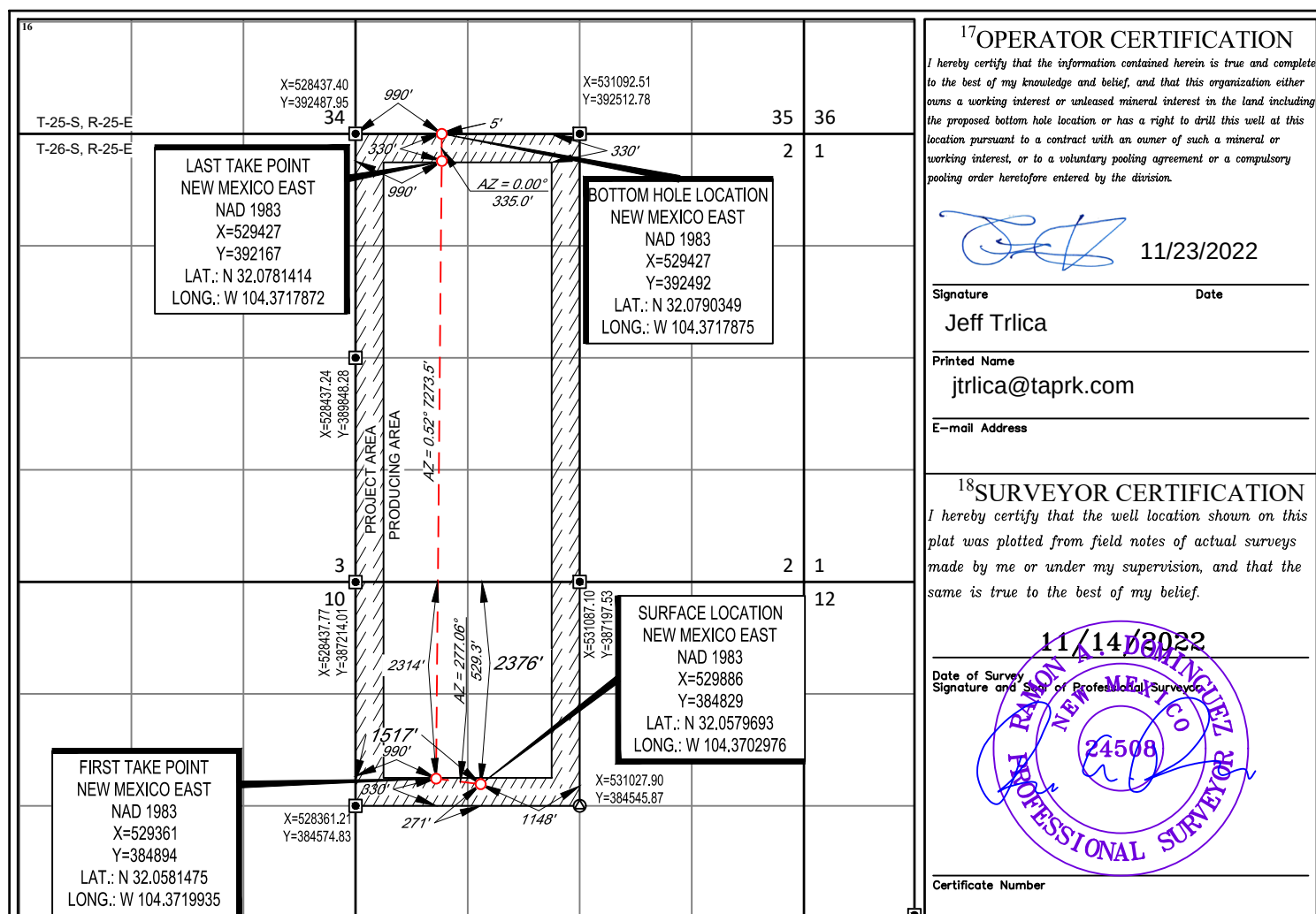
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	11	26-S	25-E	-	2376'	NORTH	1517'	WEST	EDDY

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
C	2	26-S	25-E	-	5'	NORTH	990'	WEST	EDDY

¹² Dedicated Acres 640 480	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.





Drilling Operations Plan
Chicken Noodle Fed Com #301H
Tap Rock Operating, LLC
SHL 2376' FNL & 1517' FWL, Sec. 11
BHL 5' FNL & 990' FWL, Sec. 2
T. 26S., R. 25E Eddy County, NM

Elevation above Sea Level: 3644'

DRILLING PROGRAM

1. Estimated Tops

Formation	TVD	MD	Lithologies	Bearing
RSTLR	39	39	Surface	None
Top Salt	363	363	Salt	Salt
Base Salt	1,463	1,463	Salt	Salt
DMG / Lamar	1,688	1,688	Sandstone	None
Cherry Canyon	2,335	2,336	Limestone	Hydrocarbons
Brushy Canyon	3,355	3,364	Sandstone	Hydrocarbons
Bone Spring Lime	4,970	4,992	Carbonate	Hydrocarbons
Upper Avalon	5,065	5,088	Carbonate	Hydrocarbons
Middle Avalon	5,390	5,416	Carbonate	Hydrocarbons
Lower Avalon	5,705	5,734	Carbonate	Hydrocarbons
1st BS Sand	5,845	5,875	Sandstone	Hydrocarbons
2nd BS Carb	6,155	6,187	Carbonate	Hydrocarbons
2nd BS Sand	6,445	6,479	Sandstone	Hydrocarbons
3rd BS Carb	6,565	6,600	Carbonate	Hydrocarbons
3rd BS Sand	7,720	7,755	Sandstone	Hydrocarbons
3rd BS W Sand	7,985	8,020	Sandstone	Hydrocarbons
Wolfcamp AX Sand	8,075	8,110	Sandstone	Hydrocarbons
Wolfcamp AY Sand	8,140	8,175	Sandstone	Hydrocarbons
Wolfcamp A Lower	8,200	8,235	Sandstone	Hydrocarbons
Wolfcamp B	8,315	8,350	Sandstone	Hydrocarbons
Wolfcamp C	8,760	8,812	Sandstone	Hydrocarbons
KOP	8,472	8,507	Carbonate	Hydrocarbons
TD	9,057	16,675	Carbonate	Hydrocarbons

2. Notable Zones

Wolfcamp C is the formation target.

3. Pressure Control

Pressure Control Equipment (See Schematics):

At 16,675', a 5M pressure control system is required. The 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



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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:

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. The BOP will be tested in this manner if passage of allotted time occurs.

Variance Requests:

Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate 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 cementing a casing string, a 5M 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, in accordance with Onshore Order No.2.

4. Casing & Cement

All Casing will be new.

Casing Design:

Section	Drilled Interval			Casing Size	Standard	Tapered	Casing Set Depths				Casing Details					
	Hole Size	Top	Btm				Top MD	Bottom MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	17 1/2	0	315	13 3/8	API	No	0	315	0	315	J-55	54.5	BUTT	1.13	1.15	1.6
Intermediate	9 7/8	315	8407	7 5/8	API	No	0	8407	0	8372	P-110	29.7	BUTT	1.13	1.15	1.6
Production	6 3/4	8407	16675	5 1/2	NON API	No	0	8207	0	8172	P-110	20	TXP	1.13	1.15	1.6
				5 1/2	NON API	No	8207	16675	8172	9057	P-110	20	W441	1.13	1.15	1.6

Cement Volumes:

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Tail	0	329	1.33	438	14.8	100%	C	5% NCI + LCM
Intermediate	Lead	0	618	4.34	2683	10.5	65%	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	7407	212	1.67	354	13.2	65%	C	5% NaCl + LCM
Production	Tail	8207	684	1.24	849	14.5	20%	H	Fluid Loss + Dispersant + Retarder + LCM

5. Mud Program

Mud Design:

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	315	FW Spud Mud	8.40	28	NC
Intermediate	315	8407	DBE	9.20	27-30	NC
Production	8407	16675	OBM	11.20	55-65	< 16

Electronic Pason mud monitor system complying with Onshore Order 1 will be used. All



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necessary mud products (i.e., barite, pac) 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.

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 KOP to TD.
- A 2-person mud logging program will be used from KOP 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.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is $\approx 5,274$ psi. Expected bottom hole temperature is $\approx 185^{\circ}$ F.

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

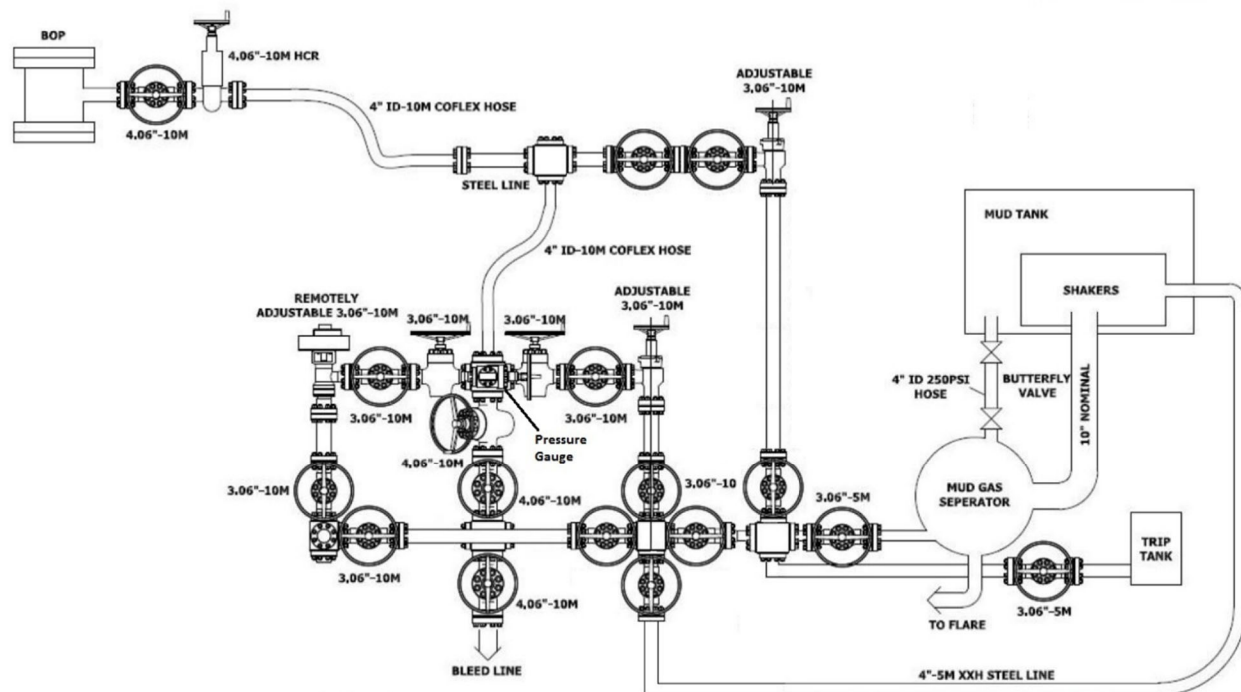
8. Other Information

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 15 days. If production casing is run an additional 60 days will be required to complete and construct surface facilities.



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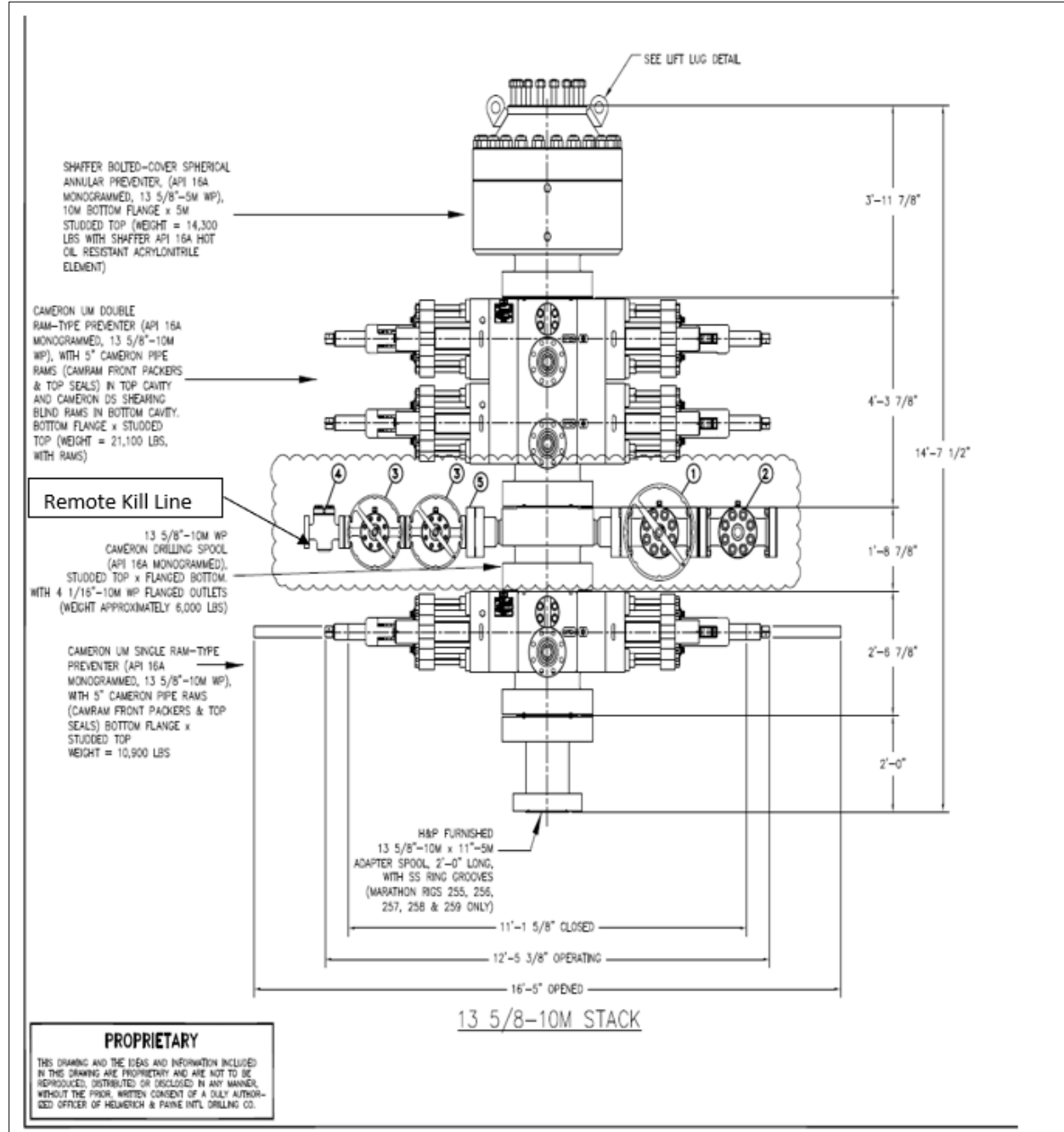
10M Choke Layout

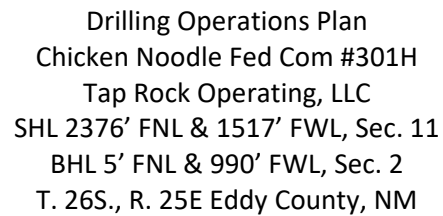




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10,000 psi BOP Stack

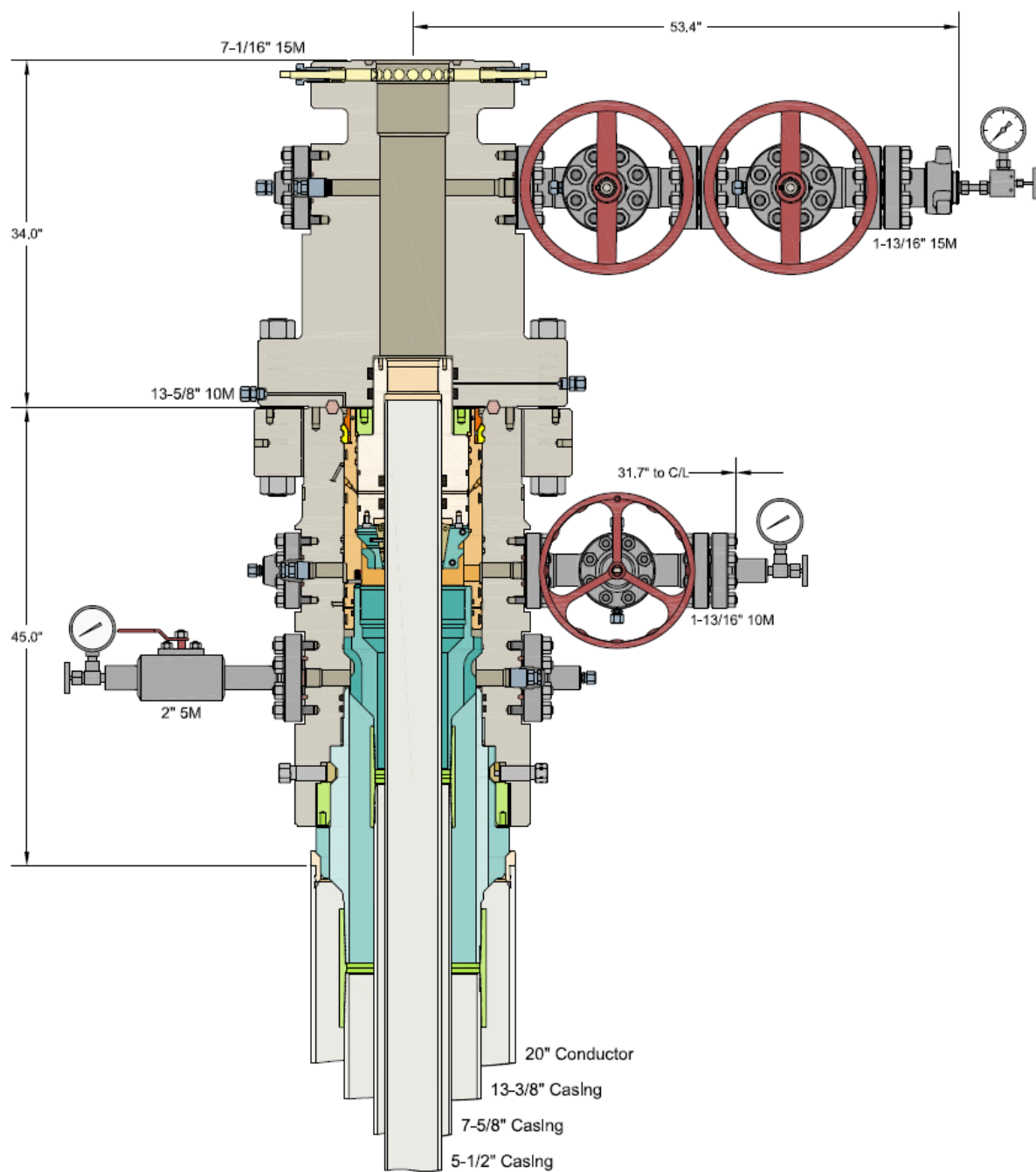






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Multi-bowl Wellhead Design



Tap Rock Resources, LLC (NM)

CAVERNS

Soup Shop

Chicken Noodle Fed Com #301H

Original Wellbore

Plan: Plan v.2

Standard Planning Report - Geographic

22 November, 2022

Planning Report - Geographic

Database:	EDM 5000.17 WinAuth Users Db	Local Co-ordinate Reference:	Well Chicken Noodle Fed Com #301H
Company:	Tap Rock Resources, LLC (NM)	TVD Reference:	KB @ 3670.00usft (H&P 312)
Project:	CAVERNS	MD Reference:	KB @ 3670.00usft (H&P 312)
Site:	Soup Shop	North Reference:	Grid
Well:	Chicken Noodle Fed Com #301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Plan v.2		

Project	CAVERNS		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Soup Shop					
Site Position:			Northing:	373,292.00 usft	Latitude:	32° 1' 34.368 N
From:	Map		Easting:	507,691.00 usft	Longitude:	104° 26' 30.860 W
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "		

Well	Chicken Noodle Fed Com #301H					
Well Position	+N/-S	0.00 usft	Northing:	384,829.12 usft	Latitude:	32° 3' 28.691 N
	+E/-W	0.00 usft	Easting:	529,886.18 usft	Longitude:	104° 22' 13.072 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,644.00 usft
Grid Convergence:	-0.02 °					

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	11/21/2022	6.73	59.58	47,162.34307349

Design	Plan v.2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.00

Plan Survey Tool Program	Date	11/22/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,675.95 Plan v.2 (Original Wellbore)	MWD+IFR1 OWSG MWD + IFR1	

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Project:	CAVERNS	MD Reference:	KB @ 3670.00usft (H&P 312)
Site:	Soup Shop	North Reference:	Grid
Well:	Chicken Noodle Fed Com #301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Plan v.2		

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,540.00	7.40	247.00	2,537.94	-18.65	-43.93	1.00	1.00	0.00	247.00	
6,273.15	7.40	247.00	6,240.00	-206.51	-486.52	0.00	0.00	0.00	0.00	
7,013.15	0.00	0.00	6,977.94	-225.16	-530.45	1.00	-1.00	0.00	180.00	
8,507.20	0.00	0.00	8,472.00	-225.16	-530.45	0.00	0.00	0.00	0.00	
9,320.84	89.50	1.60	8,992.85	290.96	-516.03	11.00	11.00	0.00	1.60	
11,405.45	89.50	1.60	9,011.04	2,374.69	-457.82	0.00	0.00	0.00	0.00	
11,486.95	89.50	359.97	9,011.75	2,456.17	-456.71	2.00	0.00	-2.00	-90.01	
16,675.95	89.50	359.97	9,057.04	7,644.97	-459.43	0.00	0.00	0.00	0.00	

Planning Report - Geographic

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Company:	Tap Rock Resources, LLC (NM)	TVD Reference:	KB @ 3670.00usft (H&P 312)
Project:	CAVERNS	MD Reference:	KB @ 3670.00usft (H&P 312)
Site:	Soup Shop	North Reference:	Grid
Well:	Chicken Noodle Fed Com #301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Plan v.2		

Planned Survey										
Measured			Vertical			Map	Map			
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		Latitude	Longitude
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
0.00	0.00	0.00	0.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
39.00	0.00	0.00	39.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
RSTLR										
100.00	0.00	0.00	100.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
200.00	0.00	0.00	200.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
300.00	0.00	0.00	300.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
363.00	0.00	0.00	363.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
Top Salt										
400.00	0.00	0.00	400.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
500.00	0.00	0.00	500.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
600.00	0.00	0.00	600.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
700.00	0.00	0.00	700.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
800.00	0.00	0.00	800.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
900.00	0.00	0.00	900.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
1,100.00	0.00	0.00	1,100.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
1,200.00	0.00	0.00	1,200.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
1,300.00	0.00	0.00	1,300.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
1,400.00	0.00	0.00	1,400.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
1,463.00	0.00	0.00	1,463.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
Bottom Salt										
1,500.00	0.00	0.00	1,500.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
1,600.00	0.00	0.00	1,600.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
1,688.00	0.00	0.00	1,688.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
Delaware										
1,700.00	0.00	0.00	1,700.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
1,800.00	0.00	0.00	1,800.00	0.00	0.00	384,829.12	529,886.18		32° 3' 28.691 N	104° 22' 13.072 W
1,900.00	1.00	247.00	1,899.99	-0.34	-0.80	384,828.78	529,885.38		32° 3' 28.688 N	104° 22' 13.081 W
2,000.00	2.00	247.00	1,999.96	-1.36	-3.21	384,827.75	529,882.97		32° 3' 28.677 N	104° 22' 13.109 W
2,100.00	3.00	247.00	2,099.86	-3.07	-7.23	384,826.05	529,878.95		32° 3' 28.661 N	104° 22' 13.156 W
2,200.00	4.00	247.00	2,199.67	-5.45	-12.85	384,823.67	529,873.33		32° 3' 28.637 N	104° 22' 13.221 W
2,300.00	5.00	247.00	2,299.36	-8.52	-20.07	384,820.60	529,866.11		32° 3' 28.607 N	104° 22' 13.305 W
2,335.78	5.36	247.00	2,335.00	-9.78	-23.04	384,819.34	529,863.14		32° 3' 28.594 N	104° 22' 13.340 W
Cherry										
2,400.00	6.00	247.00	2,398.90	-12.26	-28.89	384,816.85	529,857.29		32° 3' 28.570 N	104° 22' 13.408 W
2,500.00	7.00	247.00	2,498.25	-16.69	-39.31	384,812.43	529,846.87		32° 3' 28.526 N	104° 22' 13.529 W
2,540.00	7.40	247.00	2,537.94	-18.65	-43.93	384,810.47	529,842.25		32° 3' 28.506 N	104° 22' 13.582 W
2,599.99	7.40	247.00	2,597.44	-21.67	-51.04	384,807.45	529,835.14		32° 3' 28.476 N	104° 22' 13.665 W
2,699.99	7.40	247.00	2,696.61	-26.70	-62.90	384,802.42	529,823.29		32° 3' 28.427 N	104° 22' 13.803 W
2,799.99	7.40	247.00	2,795.77	-31.73	-74.75	384,797.39	529,811.43		32° 3' 28.377 N	104° 22' 13.941 W
2,899.99	7.40	247.00	2,894.94	-36.76	-86.61	384,792.36	529,799.57		32° 3' 28.327 N	104° 22' 14.078 W
2,999.99	7.40	247.00	2,994.11	-41.79	-98.46	384,787.32	529,787.72		32° 3' 28.277 N	104° 22' 14.216 W
3,099.99	7.40	247.00	3,093.27	-46.83	-110.32	384,782.29	529,775.86		32° 3' 28.227 N	104° 22' 14.354 W
3,199.99	7.40	247.00	3,192.44	-51.86	-122.17	384,777.26	529,764.01		32° 3' 28.177 N	104° 22' 14.492 W
3,299.99	7.40	247.00	3,291.61	-56.89	-134.03	384,772.23	529,752.15		32° 3' 28.127 N	104° 22' 14.629 W
3,363.92	7.40	247.00	3,355.00	-60.11	-141.61	384,769.01	529,744.57		32° 3' 28.096 N	104° 22' 14.717 W
Brushy										
3,399.99	7.40	247.00	3,390.77	-61.92	-145.89	384,767.19	529,740.30		32° 3' 28.078 N	104° 22' 14.767 W
3,499.99	7.40	247.00	3,489.94	-66.96	-157.74	384,762.16	529,728.44		32° 3' 28.028 N	104° 22' 14.905 W
3,599.99	7.40	247.00	3,589.11	-71.99	-169.60	384,757.13	529,716.59		32° 3' 27.978 N	104° 22' 15.043 W
3,699.99	7.40	247.00	3,688.28	-77.02	-181.45	384,752.10	529,704.73		32° 3' 27.928 N	104° 22' 15.180 W
3,799.99	7.40	247.00	3,787.44	-82.05	-193.31	384,747.06	529,692.87		32° 3' 27.878 N	104° 22' 15.318 W
3,899.99	7.40	247.00	3,886.61	-87.09	-205.16	384,742.03	529,681.02		32° 3' 27.828 N	104° 22' 15.456 W
3,999.99	7.40	247.00	3,985.78	-92.12	-217.02	384,737.00	529,669.16		32° 3' 27.779 N	104° 22' 15.594 W

Planning Report - Geographic

Database:	EDM 5000.17 WinAuth Users Db	Local Co-ordinate Reference:	Well Chicken Noodle Fed Com #301H
Company:	Tap Rock Resources, LLC (NM)	TVD Reference:	KB @ 3670.00usft (H&P 312)
Project:	CAVERNS	MD Reference:	KB @ 3670.00usft (H&P 312)
Site:	Soup Shop	North Reference:	Grid
Well:	Chicken Noodle Fed Com #301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Plan v.2		

Planned Survey										
Measured			Vertical			Map		Map		
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
4,099.99	7.40	247.00	4,084.94	-97.15	-228.88	384,731.97	529,657.31	32° 3' 27.729 N	104° 22' 15.731 W	
4,199.99	7.40	247.00	4,184.11	-102.18	-240.73	384,726.93	529,645.45	32° 3' 27.679 N	104° 22' 15.869 W	
4,299.99	7.40	247.00	4,283.28	-107.22	-252.59	384,721.90	529,633.60	32° 3' 27.629 N	104° 22' 16.007 W	
4,399.99	7.40	247.00	4,382.44	-112.25	-264.44	384,716.87	529,621.74	32° 3' 27.579 N	104° 22' 16.145 W	
4,499.99	7.40	247.00	4,481.61	-117.28	-276.30	384,711.84	529,609.88	32° 3' 27.529 N	104° 22' 16.282 W	
4,599.99	7.40	247.00	4,580.78	-122.31	-288.15	384,706.80	529,598.03	32° 3' 27.480 N	104° 22' 16.420 W	
4,699.99	7.40	247.00	4,679.94	-127.35	-300.01	384,701.77	529,586.17	32° 3' 27.430 N	104° 22' 16.558 W	
4,799.99	7.40	247.00	4,779.11	-132.38	-311.86	384,696.74	529,574.32	32° 3' 27.380 N	104° 22' 16.696 W	
4,899.99	7.40	247.00	4,878.28	-137.41	-323.72	384,691.71	529,562.46	32° 3' 27.330 N	104° 22' 16.833 W	
4,992.48	7.40	247.00	4,970.00	-142.07	-334.69	384,687.05	529,551.50	32° 3' 27.284 N	104° 22' 16.961 W	
Bone Spring										
4,999.99	7.40	247.00	4,977.45	-142.44	-335.58	384,686.67	529,550.61	32° 3' 27.280 N	104° 22' 16.971 W	
5,088.28	7.40	247.00	5,065.00	-146.89	-346.04	384,682.23	529,540.14	32° 3' 27.236 N	104° 22' 17.093 W	
Upper Avalon										
5,099.99	7.40	247.00	5,076.61	-147.48	-347.43	384,681.64	529,538.75	32° 3' 27.230 N	104° 22' 17.109 W	
5,199.99	7.40	247.00	5,175.78	-152.51	-359.29	384,676.61	529,526.89	32° 3' 27.180 N	104° 22' 17.247 W	
5,299.99	7.40	247.00	5,274.95	-157.54	-371.14	384,671.58	529,515.04	32° 3' 27.131 N	104° 22' 17.384 W	
5,399.99	7.40	247.00	5,374.11	-162.57	-383.00	384,666.55	529,503.18	32° 3' 27.081 N	104° 22' 17.522 W	
5,416.01	7.40	247.00	5,390.00	-163.38	-384.90	384,665.74	529,501.28	32° 3' 27.073 N	104° 22' 17.544 W	
Middle Avalon										
5,499.99	7.40	247.00	5,473.28	-167.61	-394.85	384,661.51	529,491.33	32° 3' 27.031 N	104° 22' 17.660 W	
5,599.99	7.40	247.00	5,572.45	-172.64	-406.71	384,656.48	529,479.47	32° 3' 26.981 N	104° 22' 17.798 W	
5,699.99	7.40	247.00	5,671.61	-177.67	-418.57	384,651.45	529,467.62	32° 3' 26.931 N	104° 22' 17.935 W	
5,733.66	7.40	247.00	5,705.00	-179.36	-422.56	384,649.75	529,463.62	32° 3' 26.914 N	104° 22' 17.982 W	
Lower Avalon										
5,799.99	7.40	247.00	5,770.78	-182.70	-430.42	384,646.42	529,455.76	32° 3' 26.881 N	104° 22' 18.073 W	
5,874.83	7.40	247.00	5,845.00	-186.47	-439.29	384,642.65	529,446.89	32° 3' 26.844 N	104° 22' 18.176 W	
1st BS Sand										
5,899.99	7.40	247.00	5,869.95	-187.74	-442.28	384,641.38	529,443.90	32° 3' 26.832 N	104° 22' 18.211 W	
5,999.99	7.40	247.00	5,969.11	-192.77	-454.13	384,636.35	529,432.05	32° 3' 26.782 N	104° 22' 18.349 W	
6,099.99	7.40	247.00	6,068.28	-197.80	-465.99	384,631.32	529,420.19	32° 3' 26.732 N	104° 22' 18.486 W	
6,187.43	7.40	247.00	6,155.00	-202.20	-476.36	384,626.92	529,409.83	32° 3' 26.688 N	104° 22' 18.607 W	
2nd BS Carb										
6,199.99	7.40	247.00	6,167.45	-202.83	-477.84	384,626.29	529,408.34	32° 3' 26.682 N	104° 22' 18.624 W	
6,273.15	7.40	247.00	6,240.00	-206.51	-486.52	384,622.60	529,399.66	32° 3' 26.646 N	104° 22' 18.725 W	
6,299.99	7.13	247.00	6,266.62	-207.84	-489.64	384,621.28	529,396.54	32° 3' 26.632 N	104° 22' 18.761 W	
6,399.99	6.13	247.00	6,365.95	-212.35	-500.27	384,616.77	529,385.91	32° 3' 26.588 N	104° 22' 18.885 W	
6,479.43	5.34	247.00	6,445.00	-215.45	-507.58	384,613.66	529,378.60	32° 3' 26.557 N	104° 22' 18.969 W	
2nd BS Sand										
6,499.99	5.13	247.00	6,465.47	-216.19	-509.31	384,612.93	529,376.88	32° 3' 26.550 N	104° 22' 18.990 W	
6,599.85	4.13	247.00	6,565.00	-219.34	-516.73	384,609.78	529,369.45	32° 3' 26.519 N	104° 22' 19.076 W	
3rd BS Carb										
6,599.99	4.13	247.00	6,565.14	-219.34	-516.74	384,609.78	529,369.44	32° 3' 26.518 N	104° 22' 19.076 W	
6,699.99	3.13	247.00	6,664.94	-221.82	-522.57	384,607.30	529,363.61	32° 3' 26.494 N	104° 22' 19.144 W	
6,799.99	2.13	247.00	6,764.83	-223.61	-526.80	384,605.51	529,359.39	32° 3' 26.476 N	104° 22' 19.193 W	
6,899.99	1.13	247.00	6,864.79	-224.72	-529.42	384,604.39	529,356.77	32° 3' 26.465 N	104° 22' 19.223 W	
6,999.99	0.13	247.00	6,964.78	-225.15	-530.43	384,603.96	529,355.75	32° 3' 26.461 N	104° 22' 19.235 W	
7,013.15	0.00	0.00	6,977.94	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
7,099.99	0.00	0.00	7,064.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
7,199.99	0.00	0.00	7,164.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
7,299.99	0.00	0.00	7,264.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
7,399.99	0.00	0.00	7,364.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
7,499.99	0.00	0.00	7,464.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
7,599.98	0.00	0.00	7,564.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	

Planning Report - Geographic

Database:	EDM 5000.17 WinAuth Users Db	Local Co-ordinate Reference:	Well Chicken Noodle Fed Com #301H
Company:	Tap Rock Resources, LLC (NM)	TVD Reference:	KB @ 3670.00usft (H&P 312)
Project:	CAVERNS	MD Reference:	KB @ 3670.00usft (H&P 312)
Site:	Soup Shop	North Reference:	Grid
Well:	Chicken Noodle Fed Com #301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Plan v.2		

Planned Survey										
Measured			Vertical			Map		Map		
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
7,699.98	0.00	0.00	7,664.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
7,755.20	0.00	0.00	7,720.00	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
3rd BS Sand										
7,799.98	0.00	0.00	7,764.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
7,899.98	0.00	0.00	7,864.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
7,999.98	0.00	0.00	7,964.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
8,020.20	0.00	0.00	7,985.00	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
3rd BS W										
8,099.98	0.00	0.00	8,064.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
8,110.20	0.00	0.00	8,075.00	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
WCMP A-X										
8,175.20	0.00	0.00	8,140.00	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
WCMP A-Y										
8,199.98	0.00	0.00	8,164.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
8,235.20	0.00	0.00	8,200.00	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
WCMP A-L										
8,299.98	0.00	0.00	8,264.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
8,350.20	0.00	0.00	8,315.00	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
WBMP B										
8,399.98	0.00	0.00	8,364.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
8,499.98	0.00	0.00	8,464.78	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
8,507.20	0.00	0.00	8,472.00	-225.16	-530.45	384,603.96	529,355.74	32° 3' 26.461 N	104° 22' 19.235 W	
8,599.98	10.21	1.60	8,564.29	-216.92	-530.21	384,612.20	529,355.97	32° 3' 26.542 N	104° 22' 19.233 W	
8,636.53	14.23	1.60	8,600.00	-209.19	-530.00	384,619.92	529,356.18	32° 3' 26.619 N	104° 22' 19.230 W	
WCMP B-1										
8,699.98	21.21	1.60	8,660.41	-189.91	-529.46	384,639.21	529,356.72	32° 3' 26.810 N	104° 22' 19.224 W	
8,799.98	32.21	1.60	8,749.60	-145.05	-528.21	384,684.07	529,357.97	32° 3' 27.254 N	104° 22' 19.209 W	
8,812.36	33.57	1.60	8,760.00	-138.33	-528.02	384,690.79	529,358.16	32° 3' 27.320 N	104° 22' 19.207 W	
WCMP C										
8,899.98	43.21	1.60	8,828.60	-84.01	-526.50	384,745.11	529,359.68	32° 3' 27.858 N	104° 22' 19.190 W	
8,999.98	54.21	1.60	8,894.49	-9.02	-524.41	384,820.10	529,361.77	32° 3' 28.600 N	104° 22' 19.166 W	
9,099.98	65.21	1.60	8,944.86	77.16	-522.00	384,906.28	529,364.18	32° 3' 29.453 N	104° 22' 19.138 W	
9,199.98	76.21	1.60	8,977.85	171.36	-519.37	385,000.48	529,366.81	32° 3' 30.385 N	104° 22' 19.108 W	
9,299.98	87.21	1.60	8,992.25	270.12	-516.61	385,099.24	529,369.57	32° 3' 31.362 N	104° 22' 19.076 W	
9,320.84	89.50	1.60	8,992.85	290.96	-516.03	385,120.08	529,370.15	32° 3' 31.569 N	104° 22' 19.070 W	
9,399.98	89.50	1.60	8,993.54	370.07	-513.82	385,199.19	529,372.36	32° 3' 32.352 N	104° 22' 19.044 W	
9,499.98	89.50	1.60	8,994.41	470.03	-511.03	385,299.15	529,375.16	32° 3' 33.341 N	104° 22' 19.012 W	
9,599.98	89.50	1.60	8,995.29	569.98	-508.23	385,399.10	529,377.95	32° 3' 34.330 N	104° 22' 18.980 W	
9,699.98	89.50	1.60	8,996.16	669.94	-505.44	385,499.06	529,380.74	32° 3' 35.319 N	104° 22' 18.948 W	
9,799.98	89.50	1.60	8,997.03	769.90	-502.65	385,599.02	529,383.53	32° 3' 36.308 N	104° 22' 18.916 W	
9,899.98	89.50	1.60	8,997.90	869.86	-499.86	385,698.97	529,386.32	32° 3' 37.298 N	104° 22' 18.884 W	
9,999.98	89.50	1.60	8,998.78	969.81	-497.07	385,798.93	529,389.12	32° 3' 38.287 N	104° 22' 18.852 W	
10,099.98	89.50	1.60	8,999.65	1,069.77	-494.27	385,898.89	529,391.91	32° 3' 39.276 N	104° 22' 18.820 W	
10,199.98	89.50	1.60	9,000.52	1,169.73	-491.48	385,998.85	529,394.70	32° 3' 40.265 N	104° 22' 18.788 W	
10,299.98	89.50	1.60	9,001.40	1,269.68	-488.69	386,098.80	529,397.49	32° 3' 41.254 N	104° 22' 18.756 W	
10,399.98	89.50	1.60	9,002.27	1,369.64	-485.90	386,198.76	529,400.28	32° 3' 42.244 N	104° 22' 18.724 W	
10,499.98	89.50	1.60	9,003.14	1,469.60	-483.11	386,298.72	529,403.08	32° 3' 43.233 N	104° 22' 18.692 W	
10,599.98	89.50	1.60	9,004.01	1,569.55	-480.31	386,398.67	529,405.87	32° 3' 44.222 N	104° 22' 18.660 W	
10,699.98	89.50	1.60	9,004.89	1,669.51	-477.52	386,498.63	529,408.66	32° 3' 45.211 N	104° 22' 18.628 W	
10,799.98	89.50	1.60	9,005.76	1,769.47	-474.73	386,598.59	529,411.45	32° 3' 46.201 N	104° 22' 18.596 W	
10,899.98	89.50	1.60	9,006.63	1,869.43	-471.94	386,698.54	529,414.24	32° 3' 47.190 N	104° 22' 18.564 W	
10,999.98	89.50	1.60	9,007.50	1,969.38	-469.15	386,798.50	529,417.04	32° 3' 48.179 N	104° 22' 18.532 W	
11,099.98	89.50	1.60	9,008.38	2,069.34	-466.35	386,898.46	529,419.83	32° 3' 49.168 N	104° 22' 18.500 W	
11,199.98	89.50	1.60	9,009.25	2,169.30	-463.56	386,998.42	529,422.62	32° 3' 50.157 N	104° 22' 18.468 W	

Planning Report - Geographic

Database:	EDM 5000.17 WinAuth Users Db	Local Co-ordinate Reference:	Well Chicken Noodle Fed Com #301H
Company:	Tap Rock Resources, LLC (NM)	TVD Reference:	KB @ 3670.00usft (H&P 312)
Project:	CAVERNS	MD Reference:	KB @ 3670.00usft (H&P 312)
Site:	Soup Shop	North Reference:	Grid
Well:	Chicken Noodle Fed Com #301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Plan v.2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
11,299.98	89.50	1.60	9,010.12	2,269.25	-460.77	387,098.37	529,425.41	32° 3' 51.147 N	104° 22' 18.436 W	
11,399.98	89.50	1.60	9,010.99	2,369.21	-457.98	387,198.33	529,428.20	32° 3' 52.136 N	104° 22' 18.404 W	
11,405.45	89.50	1.60	9,011.04	2,374.69	-457.82	387,203.80	529,428.36	32° 3' 52.190 N	104° 22' 18.402 W	
11,486.95	89.50	359.97	9,011.75	2,456.17	-456.71	387,285.29	529,429.47	32° 3' 52.996 N	104° 22' 18.389 W	
11,499.98	89.50	359.97	9,011.87	2,469.19	-456.72	387,298.31	529,429.47	32° 3' 53.125 N	104° 22' 18.390 W	
11,599.98	89.50	359.97	9,012.74	2,569.19	-456.77	387,398.31	529,429.41	32° 3' 54.115 N	104° 22' 18.391 W	
11,699.98	89.50	359.97	9,013.61	2,669.19	-456.82	387,498.30	529,429.36	32° 3' 55.105 N	104° 22' 18.392 W	
11,799.98	89.50	359.97	9,014.49	2,769.18	-456.87	387,598.30	529,429.31	32° 3' 56.094 N	104° 22' 18.393 W	
11,899.98	89.50	359.97	9,015.36	2,869.18	-456.92	387,698.30	529,429.26	32° 3' 57.084 N	104° 22' 18.394 W	
11,999.98	89.50	359.97	9,016.23	2,969.17	-456.98	387,798.29	529,429.20	32° 3' 58.073 N	104° 22' 18.395 W	
12,099.98	89.50	359.97	9,017.10	3,069.17	-457.03	387,898.29	529,429.15	32° 3' 59.063 N	104° 22' 18.396 W	
12,199.98	89.50	359.97	9,017.98	3,169.17	-457.08	387,998.28	529,429.10	32° 4' 0.052 N	104° 22' 18.397 W	
12,299.98	89.50	359.97	9,018.85	3,269.16	-457.13	388,098.28	529,429.05	32° 4' 1.042 N	104° 22' 18.398 W	
12,399.98	89.50	359.97	9,019.72	3,369.16	-457.19	388,198.28	529,429.00	32° 4' 2.032 N	104° 22' 18.399 W	
12,499.98	89.50	359.97	9,020.59	3,469.15	-457.24	388,298.27	529,428.94	32° 4' 3.021 N	104° 22' 18.400 W	
12,599.98	89.50	359.97	9,021.47	3,569.15	-457.29	388,398.27	529,428.89	32° 4' 4.011 N	104° 22' 18.401 W	
12,699.97	89.50	359.97	9,022.34	3,669.15	-457.34	388,498.26	529,428.84	32° 4' 5.000 N	104° 22' 18.402 W	
12,799.97	89.50	359.97	9,023.21	3,769.14	-457.40	388,598.26	529,428.79	32° 4' 5.990 N	104° 22' 18.403 W	
12,899.97	89.50	359.97	9,024.08	3,869.14	-457.45	388,698.26	529,428.73	32° 4' 6.980 N	104° 22' 18.404 W	
12,999.97	89.50	359.97	9,024.96	3,969.13	-457.50	388,798.25	529,428.68	32° 4' 7.969 N	104° 22' 18.405 W	
13,099.97	89.50	359.97	9,025.83	4,069.13	-457.55	388,898.25	529,428.63	32° 4' 8.959 N	104° 22' 18.406 W	
13,199.97	89.50	359.97	9,026.70	4,169.13	-457.61	388,998.24	529,428.58	32° 4' 9.948 N	104° 22' 18.407 W	
13,299.97	89.50	359.97	9,027.58	4,269.12	-457.66	389,098.24	529,428.52	32° 4' 10.938 N	104° 22' 18.408 W	
13,399.97	89.50	359.97	9,028.45	4,369.12	-457.71	389,198.24	529,428.47	32° 4' 11.928 N	104° 22' 18.409 W	
13,499.97	89.50	359.97	9,029.32	4,469.11	-457.76	389,298.23	529,428.42	32° 4' 12.917 N	104° 22' 18.410 W	
13,599.97	89.50	359.97	9,030.19	4,569.11	-457.81	389,398.23	529,428.37	32° 4' 13.907 N	104° 22' 18.411 W	
13,699.97	89.50	359.97	9,031.07	4,669.11	-457.87	389,498.22	529,428.31	32° 4' 14.896 N	104° 22' 18.412 W	
13,799.97	89.50	359.97	9,031.94	4,769.10	-457.92	389,598.22	529,428.26	32° 4' 15.886 N	104° 22' 18.413 W	
13,899.97	89.50	359.97	9,032.81	4,869.10	-457.97	389,698.22	529,428.21	32° 4' 16.876 N	104° 22' 18.414 W	
13,999.97	89.50	359.97	9,033.68	4,969.09	-458.02	389,798.21	529,428.16	32° 4' 17.865 N	104° 22' 18.415 W	
14,099.97	89.50	359.97	9,034.56	5,069.09	-458.08	389,898.21	529,428.11	32° 4' 18.855 N	104° 22' 18.416 W	
14,199.97	89.50	359.97	9,035.43	5,169.09	-458.13	389,998.20	529,428.05	32° 4' 19.844 N	104° 22' 18.417 W	
14,299.97	89.50	359.97	9,036.30	5,269.08	-458.18	390,098.20	529,428.00	32° 4' 20.834 N	104° 22' 18.418 W	
14,399.97	89.50	359.97	9,037.17	5,369.08	-458.23	390,198.20	529,427.95	32° 4' 21.823 N	104° 22' 18.419 W	
14,499.97	89.50	359.97	9,038.05	5,469.07	-458.29	390,298.19	529,427.90	32° 4' 22.813 N	104° 22' 18.420 W	
14,599.97	89.50	359.97	9,038.92	5,569.07	-458.34	390,398.19	529,427.84	32° 4' 23.803 N	104° 22' 18.421 W	
14,699.97	89.50	359.97	9,039.79	5,669.07	-458.39	390,498.18	529,427.79	32° 4' 24.792 N	104° 22' 18.422 W	
14,799.97	89.50	359.97	9,040.66	5,769.06	-458.44	390,598.18	529,427.74	32° 4' 25.782 N	104° 22' 18.423 W	
14,899.97	89.50	359.97	9,041.54	5,869.06	-458.50	390,698.18	529,427.69	32° 4' 26.771 N	104° 22' 18.424 W	
14,999.97	89.50	359.97	9,042.41	5,969.05	-458.55	390,798.17	529,427.63	32° 4' 27.761 N	104° 22' 18.425 W	
15,099.97	89.50	359.97	9,043.28	6,069.05	-458.60	390,898.17	529,427.58	32° 4' 28.751 N	104° 22' 18.426 W	
15,199.97	89.50	359.97	9,044.16	6,169.05	-458.65	390,998.16	529,427.53	32° 4' 29.740 N	104° 22' 18.427 W	
15,299.97	89.50	359.97	9,045.03	6,269.04	-458.70	391,098.16	529,427.48	32° 4' 30.730 N	104° 22' 18.428 W	
15,399.97	89.50	359.97	9,045.90	6,369.04	-458.76	391,198.16	529,427.42	32° 4' 31.719 N	104° 22' 18.429 W	
15,499.97	89.50	359.97	9,046.77	6,469.03	-458.81	391,298.15	529,427.37	32° 4' 32.709 N	104° 22' 18.430 W	
15,599.97	89.50	359.97	9,047.65	6,569.03	-458.86	391,398.15	529,427.32	32° 4' 33.699 N	104° 22' 18.431 W	
15,699.97	89.50	359.97	9,048.52	6,669.03	-458.91	391,498.14	529,427.27	32° 4' 34.688 N	104° 22' 18.432 W	
15,799.97	89.50	359.97	9,049.39	6,769.02	-458.97	391,598.14	529,427.22	32° 4' 35.678 N	104° 22' 18.433 W	
15,899.97	89.50	359.97	9,050.26	6,869.02	-459.02	391,698.14	529,427.16	32° 4' 36.667 N	104° 22' 18.435 W	
15,999.97	89.50	359.97	9,051.14	6,969.01	-459.07	391,798.13	529,427.11	32° 4' 37.657 N	104° 22' 18.436 W	
16,099.97	89.50	359.97	9,052.01	7,069.01	-459.12	391,898.13	529,427.06	32° 4' 38.646 N	104° 22' 18.437 W	
16,199.97	89.50	359.97	9,052.88	7,169.01	-459.18	391,998.12	529,427.01	32° 4' 39.636 N	104° 22' 18.438 W	
16,299.97	89.50	359.97	9,053.75	7,269.00	-459.23	392,098.12	529,426.95	32° 4' 40.626 N	104° 22' 18.439 W	
16,399.97	89.50	359.97	9,054.63	7,369.00	-459.28	392,198.12	529,426.90	32° 4' 41.615 N	104° 22' 18.440 W	
16,499.97	89.50	359.97	9,055.50	7,468.99	-459.33	392,298.11	529,426.85	32° 4' 42.605 N	104° 22' 18.441 W	

Planning Report - Geographic

Database:	EDM 5000.17 WinAuth Users Db	Local Co-ordinate Reference:	Well Chicken Noodle Fed Com #301H
Company:	Tap Rock Resources, LLC (NM)	TVD Reference:	KB @ 3670.00usft (H&P 312)
Project:	CAVERNS	MD Reference:	KB @ 3670.00usft (H&P 312)
Site:	Soup Shop	North Reference:	Grid
Well:	Chicken Noodle Fed Com #301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Plan v.2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,599.97	89.50	359.97	9,056.37	7,568.99	-459.39	392,398.11	529,426.80	32° 4' 43.594 N	104° 22' 18.442 W
16,675.95	89.50	359.97	9,057.04	7,644.97	-459.43	392,474.09	529,426.76	32° 4' 44.346 N	104° 22' 18.442 W

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
39.00	39.00	RSTLR		0.00		
363.00	363.00	Top Salt				
1,463.00	1,463.00	Bottom Salt				
1,688.00	1,688.00	Delaware				
2,335.78	2,335.00	Cherry				
3,363.92	3,355.00	Brushy				
4,992.48	4,970.00	Bone Spring				
5,088.28	5,065.00	Upper Avalon				
5,416.01	5,390.00	Middle Avalon				
5,733.66	5,705.00	Lower Avalon				
5,874.83	5,845.00	1st BS Sand				
6,187.43	6,155.00	2nd BS Carb				
6,479.43	6,445.00	2nd BS Sand				
6,599.85	6,565.00	3rd BS Carb				
7,755.20	7,720.00	3rd BS Sand				
8,020.20	7,985.00	3rd BS W				
8,110.20	8,075.00	WCMP A-X				
8,175.20	8,140.00	WCMP A-Y				
8,235.20	8,200.00	WCMP A-L				
8,350.20	8,315.00	WBMP B				
8,636.53	8,600.00	WCMP B-1				
8,812.36	8,760.00	WCMP C				

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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 163139

CONDITIONS

Operator: TAP ROCK OPERATING, LLC 523 Park Point Drive Golden, CO 80401	OGRID: 372043
	Action Number: 163139
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD Conditions of Approval	12/2/2022