

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.
NMNM85891

6. If Indian, Allottee or Tribe Name

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

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

Contact: CHRISTIAN COMBS

E-Mail: CCOMBS@TAPRK.COM

8. Well Name and No.

CYPRESS 34 FEDERAL 246H

9. API Well No.

30-015-46121-00-X1

3a. Address

602 PARK POINT DRIVE SUITE 200
GOLDEN, CO 80401

3b. Phone No. (include area code)

Ph: 720-360-4028

10. Field and Pool or Exploratory Area
PURPLE SAGE-WOLFCAMP (GAS)

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 3 T24S R29E 241FNL 1146FEL
32.253338 N Lat, 103.967598 W Lon

11. County 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	Change to Original APD
	☐ 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 determined that the site is ready for final inspection.

Operator request change to well plan as follows:

TVD from 11280 feet to 10509 feet

MD from 16652 feet to 15580 feet

SHL is unchanged

First Take Point from 100 feet FSL and 1590 feet FEL to 100 feet FSL and 2430 feet FEL and will

remain in the same section

Last Take Point from 100 feet FNL and 1590 FEL to 100 Feet FNL and 2430 FEL and will remain in the same section

BHL from 5 feet FNL and 1590 feet FEL to 5 feet FNL and 2340 feet FEL and will remain in the same section

Requested change will not require amendments to any additional aspects of the approved APD and will not result in additional surface disturbance. Original Conditions of Approval will be adhered to.

Carlsbad Field Office
OCD Artesia**NM OIL CONSERVATION**
ARTESIA DISTRICT

SEP 23 2019

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #478432 verified by the BLM Well Information System
For TAP ROCK OPERATING LLC, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 08/19/2019 (19PP3005SE)

Name (Printed/Typed) ADAM LANGE

Title DRILLING MANAGER

Signature (Electronic Submission)

Date 08/15/2019

RECEIVED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By LONG VO

Title PETROLEUM ENGINEER

Date 08/22/2019

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 Carlsbad

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)

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

RW 10-29-19

Additional data for EC transaction #478432 that would not fit on the form

32. Additional remarks, continued

Amended Plats, Drill Plans, and Directional Plans are attached.

PECOS DISTRICT

DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	TAP ROCK OPERATING LLC.
LEASE NO.:	NMNM085891
WELL NAME & NO.:	246H-CYPRESS 34 FEDERAL
SURFACE HOLE FOOTAGE:	241'N & 1146'E
BOTTOM HOLE FOOTAGE	5'N & 2430'E
LOCATION:	Section 03, T.24 S., R.29 E., NMPM
COUNTY:	EDDY County, New Mexico

COA

H2S	☐ Yes	☒ No	
Potash	☐ None	☐ Secretary	☒ R-111-P
Cave/Karst Potential	☐ Low	☒ Medium	☐ High
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☐ Conventional	☐ Multibowl	☒ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☐ Unit

All Previous COAs Still Apply

A. CASING

1. The 13-3/8 inch surface casing shall be set at approximately **350 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing shall be set at approximately **3100 feet** is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
 - ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
3. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
 - ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
4. The minimum required fill of cement behind the production casing is:
 - Cement should tie-back **500 feet** into the previous casing. Operator shall provide method of verification.

B. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
- 2.

Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8 inch intermediate casing shoe shall be **3000 (3M)** psi.
- c. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 7-5/8 inch intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not

hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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

NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 28 2019

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

RECEIVED ☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

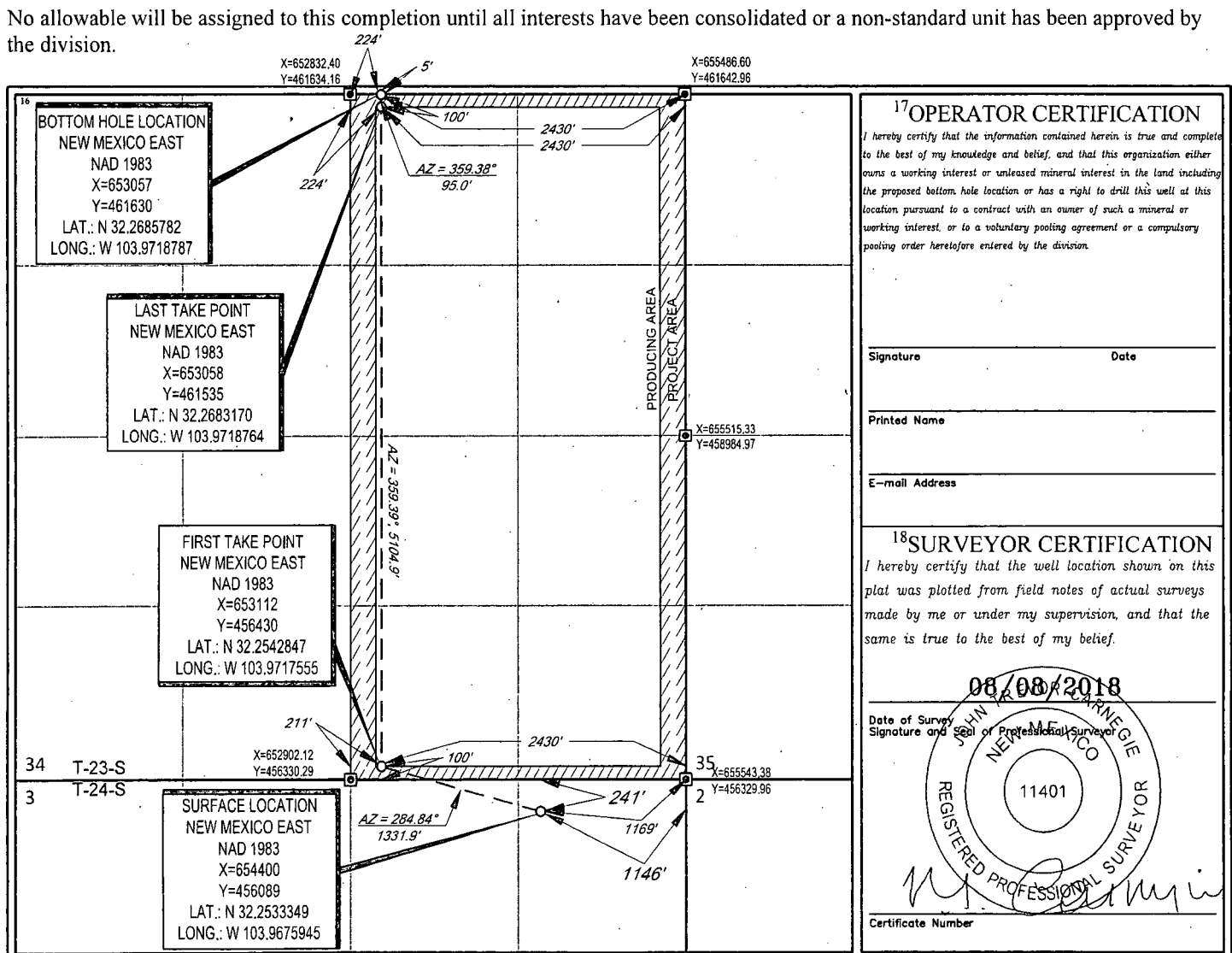
¹ API Number		² Pool Code		³ Pool Name	
⁴ Property Code		⁵ Property Name CYPRESS 34 FEDERAL			⁶ Well Number 246H
⁷ OGRID No.		⁸ Operator Name TAP ROCK OPERATING, LLC.			⁹ Elevation 3093'

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	3	24-S	29-E	-	241'	NORTH	1146'	EAST	EDDY

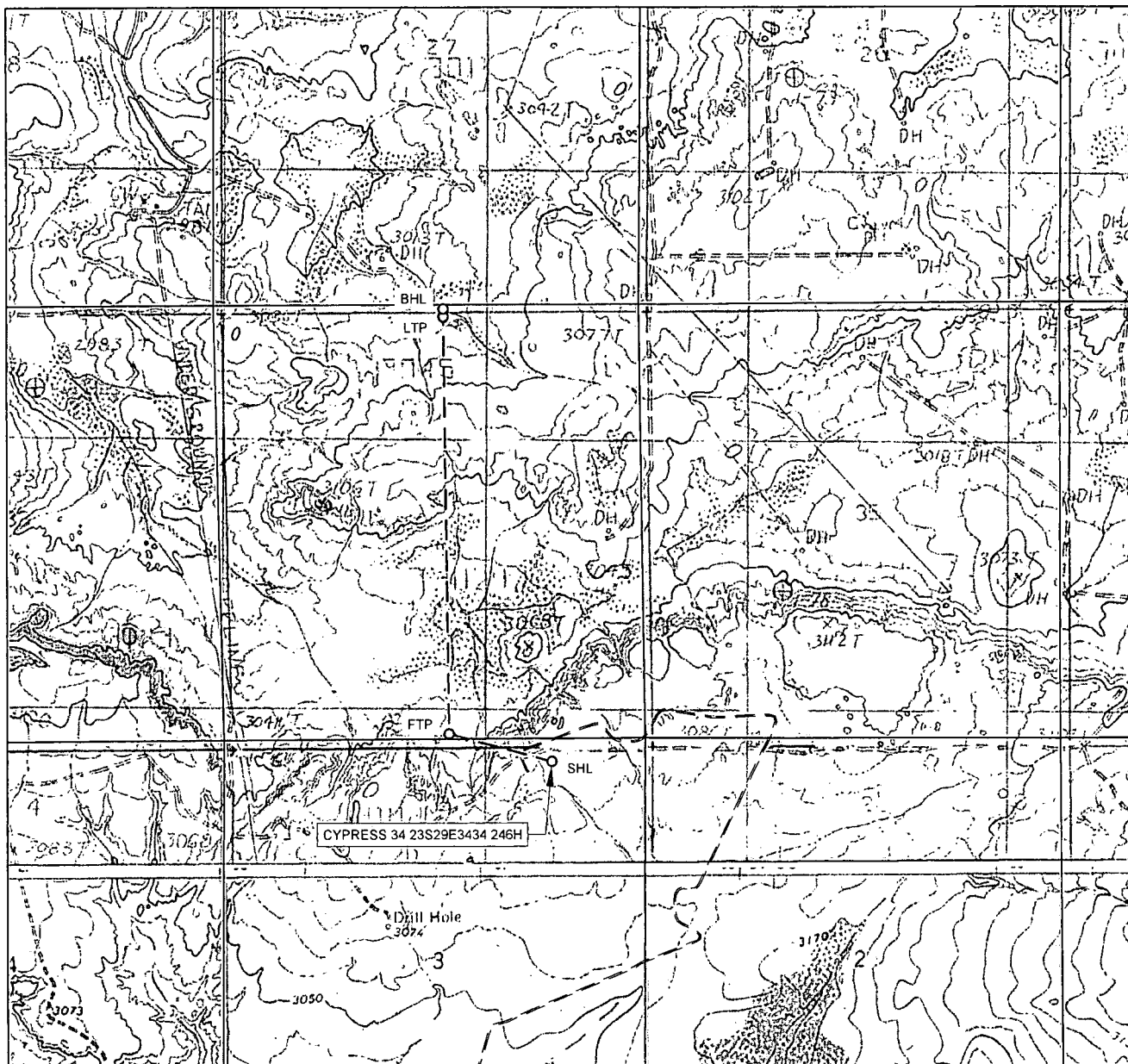
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	34	23-S	29-E	-	5'	NORTH	2430'	EAST	EDDY

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. 2431
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RUP 10-2979

LOCATION & ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO.: CYPRESS 34 FEDERAL 246H

SECTION 3 TWP 24-S RGE 29-E SURVEY N.M.P.M.
 COUNTY EDDY STATE NM ELEVATION 3093'
 DESCRIPTION 241' FNL & 1146' FEL

LATITUDE N 32.2533349 LONGITUDE W 103.9675945



SCALE: 1" = 2000'
 0' 1000' 2000'

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.

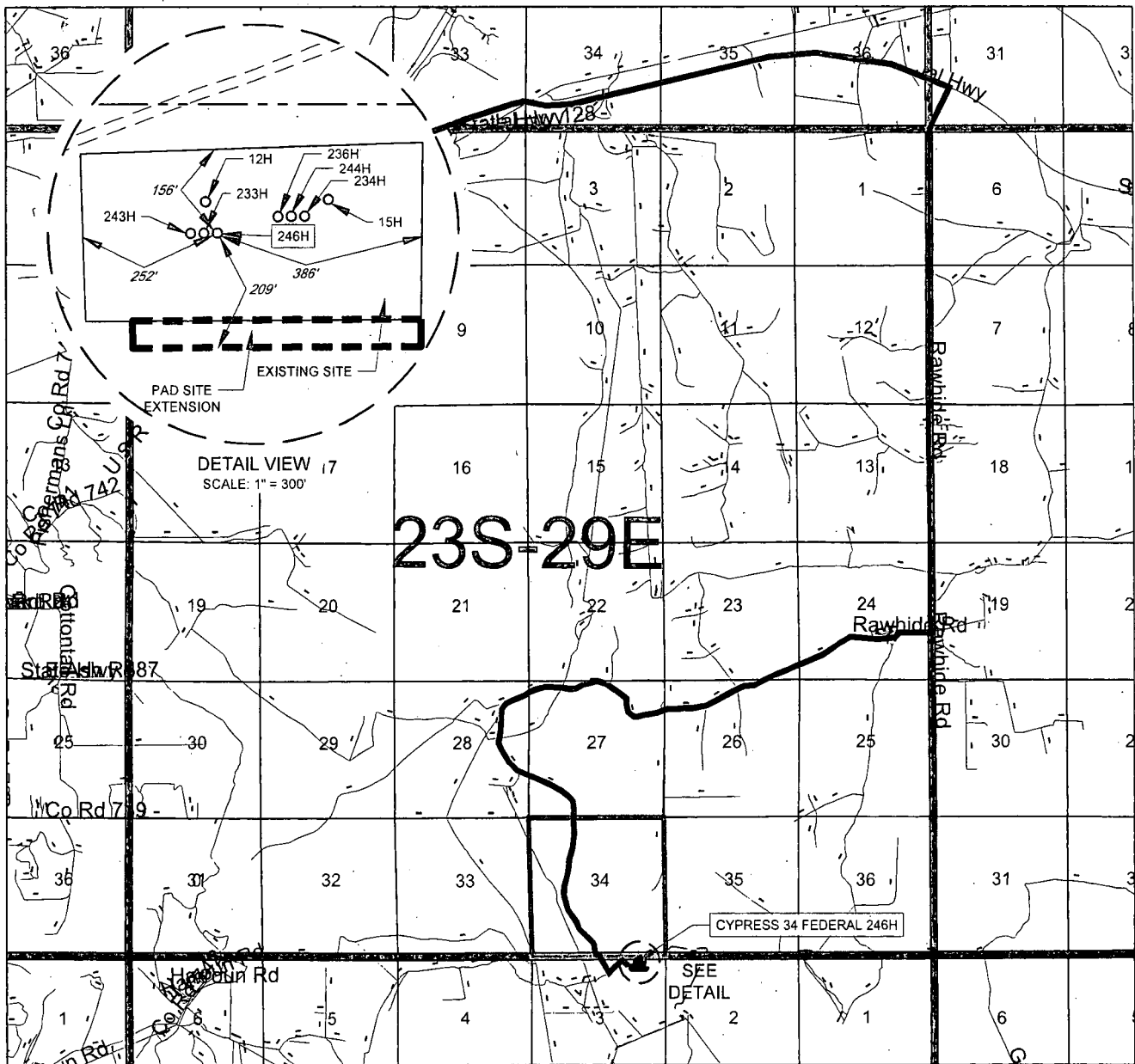
ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.



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.: CYPRESS 34 FEDERAL 246H

SECTION 3 TWP 24-S RGE 29-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 241' FNL & 1146' FEL

DISTANCE & DIRECTION
FROM INT. OF NM-31, & NM-128-E, HEAD EAST ON NM-128 E ± 4.5
MILES, THENCE SOUTH (RIGHT) ON RAWHIDE ROAD ± 4.1 MILES,
THENCE WEST, (RIGHT) ON MAIN ROAD ± 3.5 MILES, THENCE SOUTH
CONTINUING ON MAIN ROAD ± 2.6 MILES TO A POINT ± 470 FEET
SOUTHWEST OF THE LOCATION.

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

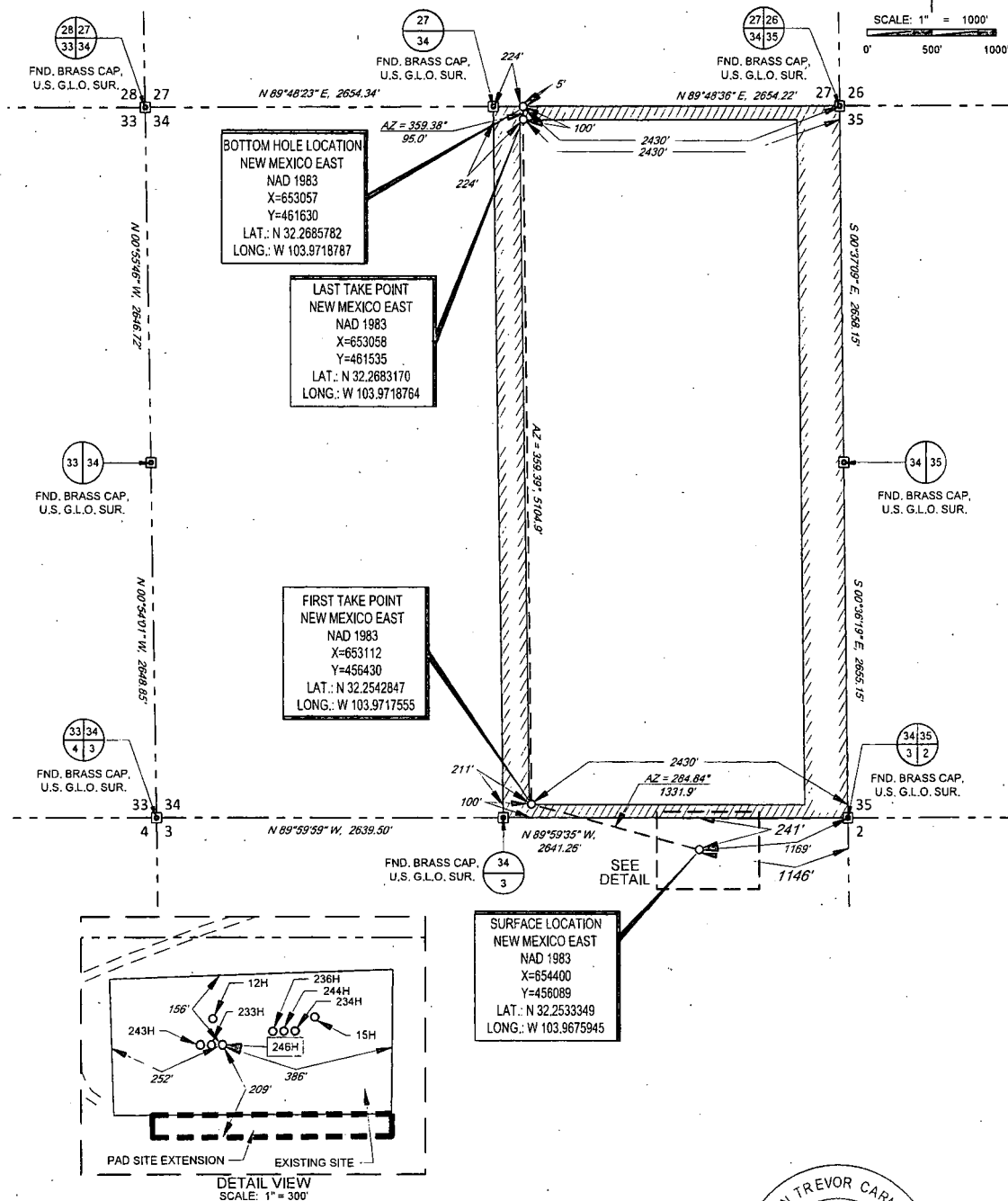


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WWW.TOPOGRAPHIC.COM

TAP ROCK EXHIBIT 2A

SECTION 3, TOWNSHIP 24-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



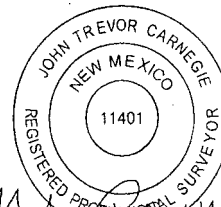
LEASE NAME & WELL NO.: CYPRESS 34 FEDERAL 246H

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CONTINUING ON MAIN ROAD ± 2.6 MILES TO A POINT ± 470 FEET
SOUTHWEST OF THE LOCATION.

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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
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NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.



John Trevor Carnegie, P.S. No. 11401
AUGUST 5, 2019

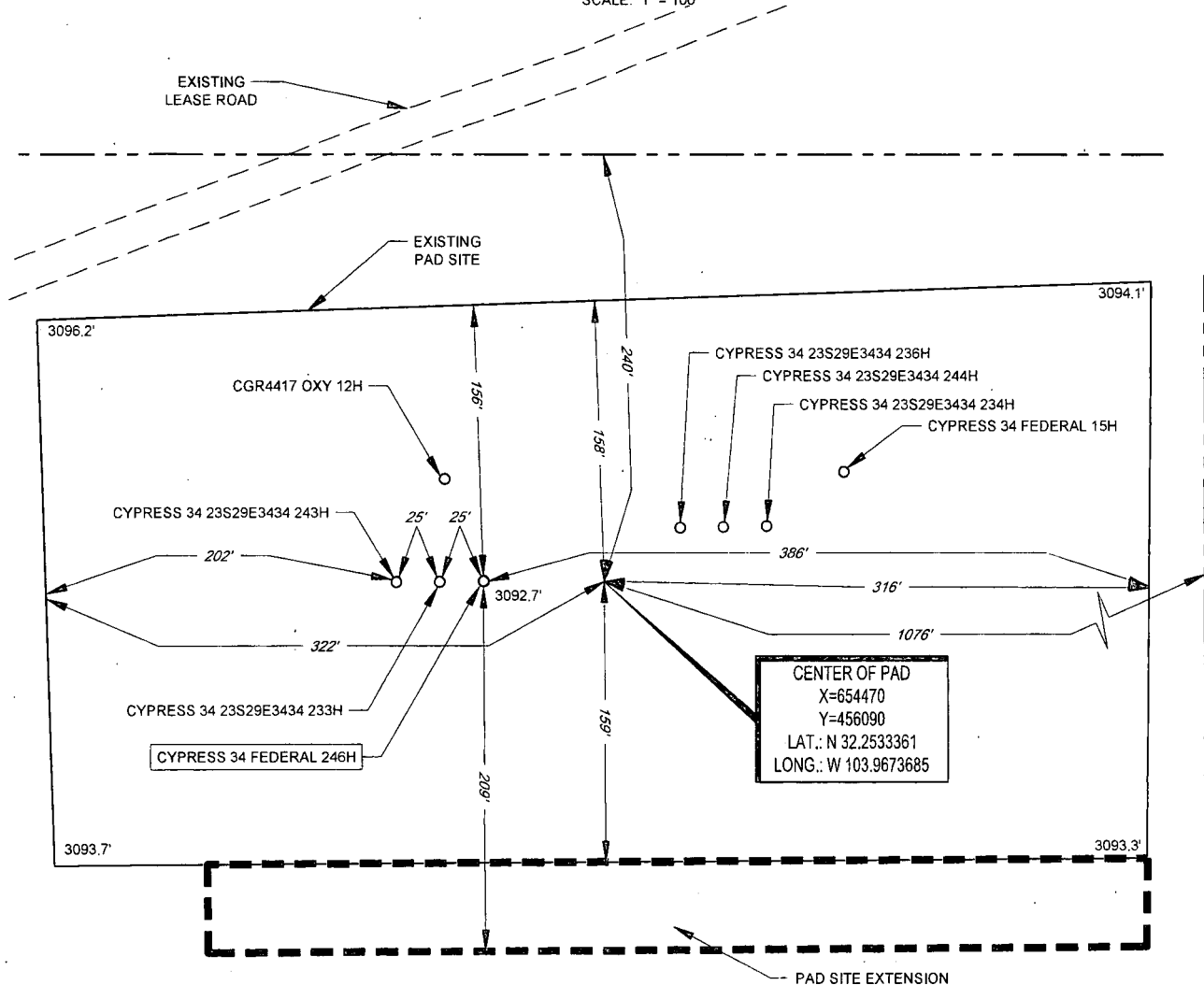
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WWW.TOPOGRAPHIC.COM

EXHIBIT 2B



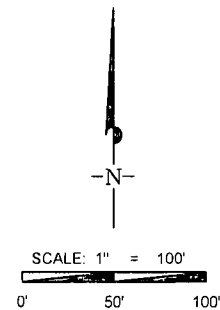
SECTION 3, TOWNSHIP 24-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



LEASE NAME & WELL NO.: CYPRESS 34 FEDERAL 246H
246H LATITUDE N 32.2533349 246H LONGITUDE W 103.9675945

CENTER OF PAD IS 240' FNL & 1076' FEL



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 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. 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.



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



Drilling Operations Plan
 Cypress 34 Federal #245H ~~245H~~ 246H
 Tap Rock Operating, LLC
 SHL 241' FNL & 1146' FEL, Sec. 3
 BHL 5' FNL & 2430' FEL, Sec. 34
 T. 24S., R. 29E Eddy County, NM

Elevation above Sea Level: 3093'

DRILLING PROGRAM

1. Estimated Tops

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0	Surface	None
Rustler Anhydrite	320	320		Salt
Salado	1620	1624	Salt	Salt
Base Salt	2954	1979		Salt
Lamar	3174	3203	Limestone	None
Bell Canyon	3199	3228	Sandstone	Hydrocarbons
Cherry Canyon	4085	4127	Sandstone	Hydrocarbons
Brushy Canyon	5310	5371	Sandstone	Hydrocarbons
Bone Spring	6945	7031	Limestone	Hydrocarbons
1st Bone Spring	7900	8001	Sandstone	Hydrocarbons
2nd Bone Spring	8195	8300	Sandstone	Hydrocarbons
3rd Bone Spring	9030	9140	Sandstone	Hydrocarbons
KOP	9939	10050	Sandstone	Hydrocarbons
Wolfcamp	10145	10260	Shale	Hydrocarbons
TD	10509	15580	Shale	Hydrocarbons

2. Notable Zones

Wolfcamp is the target formation.

3. Pressure Control

Pressure Control Equipment (See Schematics):



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At 15,000' a 10,000 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:

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. Before drilling out from 7.625" casing shoe, the BOP pressure tests will be made with a third party tester to 250 psi low, 10,000 psi high, and the annular preventer will be tested to 5,000 psi. 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 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. ~~Tap Rock requests a variance to run 7-5/8" BTC casing inside 9-5/8" BTC casing will be less than the 0.422" stand-off regulation. Through conversations with BLM representatives, Tap Rock has received approval for this design as long as the 7-5/8" flush casing was run throughout the entire 300' cement tie back section between 9-5/8" and 7-5/8" casing.~~ Tap Rock requests a variance to use a 5000 psi annular BOP on a 10M BOP stack. The annular will be tested to 250 psi low and 5000 psi high.

4. Casing & Cement

All Casing will be new.

- see COA

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	420 350	0	430	J-55	54.5	BUTT	1.13	1.15	1.6
1st Intermediate	12 1/4	9 5/8	API	No	0	3260 3100	0	3231	J-55	40	BUTT	1.13	1.15	1.6
2nd Intermediate	8 3/4	7 5/8	NON API	No	0	9950	0	9840	P-110	29.7	W-513	1.13	1.15	1.6
Production	6 3/4	5 1/2	NON API	No	0	9450	0	9640	P-110	20	TXP	1.13	1.15	1.6
Production	6 3/4	5	NON API	Yes	9450	15580	9640	10509	P-110	18	W-521	1.13	1.15	1.6



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Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Tail	0	442	1.35	597	14.8	100%	C	5% NCI + LCM
1st Intermediate	Lead	0	618	2.18	1348	12.7	65%	C	Bentonite + 1% CaCL ₂ + 8% NaCl + LCM
	Tail	2608	253	1.33	337	14.8	65%	C	5% NaCl + LCM
2nd Intermediate	Lead	0	423	2.87	1214	11.5	35%	TXI	Fluid Loss + Dispersant + Retarder + LCM
	Tail	8950	107	1.27	136	15	35%	H	Fluid Loss + Dispersant + Retarder + LCM
Production	Tail	9450	503	1.71	859	14.2	25%	H	Fluid Loss + Dispersant + Retarder + LCM

ok

5. Mud Program

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	430	FW Spud Mud	8.30	28	NC
Intermediate	430	3260	Brine Water	10.00	30-32	NC
Intermediate 2	3260	9950	FW/Cut Brine	9.00	30-32	NC
Production	9950	15580	Oil Base Mud	11.50	15-20	<10

ok

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.

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.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈6,280 psi. Expected bottom hole temperature is ≈160° 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.



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8. Other Information

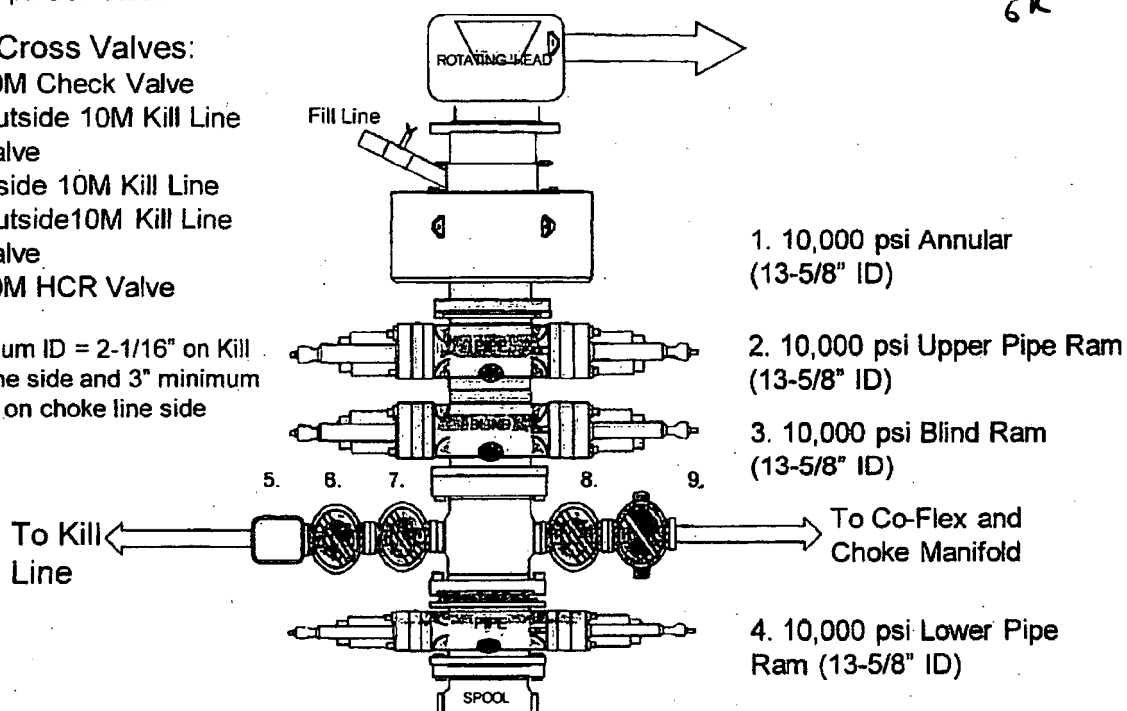
Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 30 days. If production casing is run an additional 60 days will be required to complete and construct surface facilities.

10,000 psi BOP Stack

Mud Cross Valves:

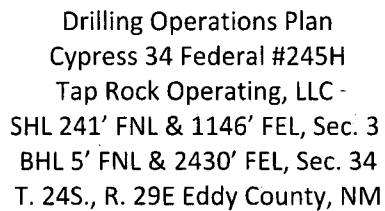
5. 10M Check Valve
6. Outside 10M Kill Line Valve
7. Inside 10M Kill Line Valve
8. Outside 10M Kill Line Valve
9. 10M HCR Valve

*Minimum ID = 2-1/16" on Kill Line side and 3" minimum ID on choke line side





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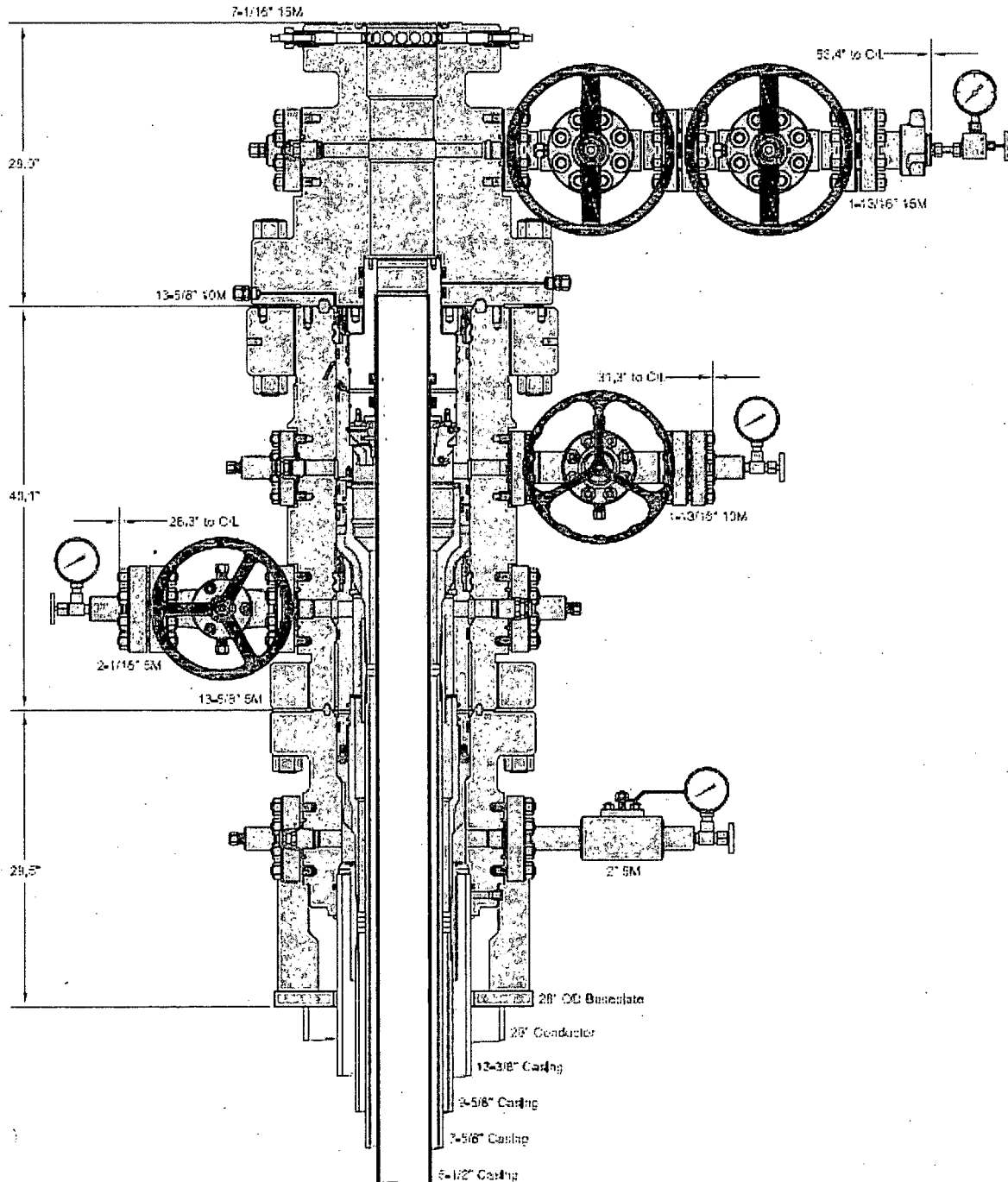
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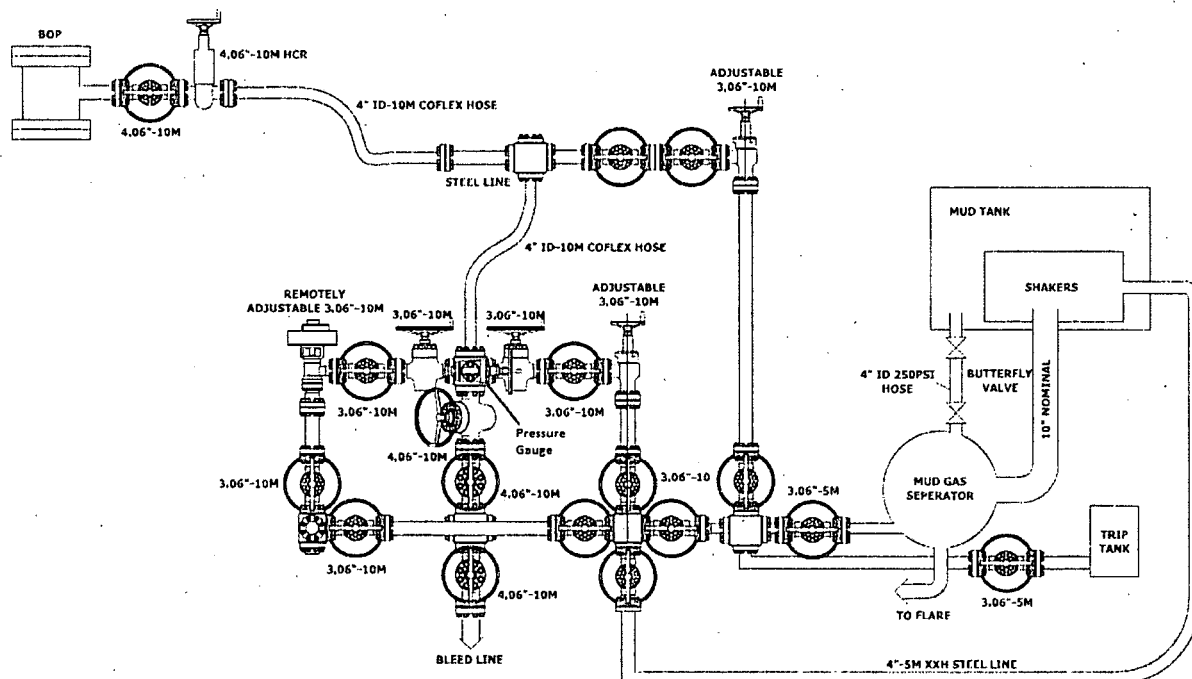
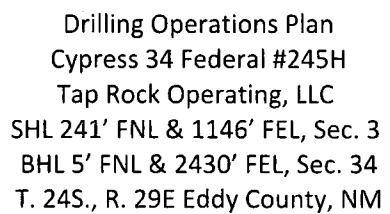
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OK

Multi-bowl Wellhead



10M Choke Layout





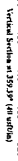
KB: KB @ 3119.0usf

+N/-S	+E/-W	Northings	Eastings	Latitude	Longitude
0.0	458089.00	654400.00	32 15' 12.005 N	103° 58' 3.336 W	

Name	T/D	M/S	NEW	Nothing	Easting
LTP (Cypress 34 Federal #245H)	10550.0	5444.0	-1342.0	481535.00	631095.00
PBHL (Cypress 34 Federal #245H)	10561.9	5541.0	-1343.0	481630.00	631097.00
TPB (Cypress 34 Federal #245H)	10561.9	541.0	-1288.0	485450.00	653112.00

FORMATIONS

	FORMATION
9	Formation
8	Rutherford
7	Tog Shale
6	Bass Sand
5	Dakota Mountain Op.
4	
3	
2	Bell Canyon
1	Ramsey Sand
0	Sherry Canyon
-1	Black Canyon
-2	Bone Spring Lime
-3	Upper Avelon
-4	Hudson Avelon
-5	
-6	
-7	1st Bone Spring Sand
-8	2nd Bone Spring Sand
-9	3rd Bone Spring Sand
-10	4th Bone Spring Sand
-11	3rd Bone Spring Sand
-12	1st BS W Sand
-13	Workcamp A X Sand
-14	Workcamp A Y Sand
-15	Workcamp A Lower
-16	Workcamp B





Tap Rock Resources, LLC

**Eddy County, NM (NAD 83 NME)
(Cypress) Sec-3_T-24-S_R-29-E
Cypress 34 Federal #246H**

OWB

Plan: Plan #6

Standard Planning Report

12 August, 2019

INTREPID



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3119.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3119.0usft
Site:	(Cypress) Sec-3_T-24-S_R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #6		

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:	Map	Northing:	456,089.00 usft
From:		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 #246H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	Ground Level:
			3,093.0 usft

Wellbore:	OWB		
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Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2015	2019/08/06	6.91	60.00	47,696.51114743

Design:	Plan #6			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/S	+E/W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	359.39

Plan Survey Tool Program	Date: 2019/08/12		
Depth From	Depth To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
1	0.0	15,799.8 Plan #6 (OWB)	MWD
			OWSG MWD - Standard



Intrepid
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Site:	(Cypress) Sec-3_T-24-S_R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #6		

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	
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,810.7	12.22	274.00	3,806.1	4.5	-64.7	2.00	2.00	0.00	274.00	
7,610.7	12.22	274.00	7,520.1	60.6	-866.7	0.00	0.00	0.00	0.00	
7,685.0	12.21	281.03	7,592.7	62.7	-882.3	2.00	-0.01	9.46	93.81	
9,323.7	12.21	281.03	9,194.3	128.9	-1,222.3	0.00	0.00	0.00	0.00	
9,934.0	0.00	0.00	9,800.0	141.3	-1,285.9	2.00	-2.00	0.00	180.00	
10,073.0	0.00	0.00	9,939.0	141.3	-1,285.9	0.00	0.00	0.00	0.00	
10,973.3	90.04	359.39	10,512.0	714.6	-1,292.0	10.00	10.00	-0.07	359.39	
15,800.0	90.04	359.39	10,509.0	5,541.0	-1,343.0	0.00	0.00	0.00	0.00	PBHL (Cypress 34)



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Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3119.0usft
Site:	(Cypress) Sec-3_T-24-S-R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #6		

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
670.0	0.00	0.00	670.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler Anhydrite									
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
1,620.0	0.00	0.00	1,620.0	0.0	0.0	0.0	0.00	0.00	0.00
Top Salt									
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
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,954.0	0.00	0.00	2,954.0	0.0	0.0	0.0	0.00	0.00	0.00
Base Salt									
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,174.0	0.00	0.00	3,174.0	0.0	0.0	0.0	0.00	0.00	0.00
Delaware Mountain Gp - Lamar									
3,199.0	0.00	0.00	3,199.0	0.0	0.0	0.0	0.00	0.00	0.00
Bell Canyon									
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
NUDGE - Build 2.00									
3,234.0	0.68	274.00	3,234.0	0.0	-0.2	0.0	2.00	2.00	0.00
Ramsey Sand									
3,300.0	2.00	274.00	3,300.0	0.1	-1.7	0.1	2.00	2.00	0.00
3,400.0	4.00	274.00	3,399.8	0.5	-7.0	0.6	2.00	2.00	0.00
3,500.0	6.00	274.00	3,499.5	1.1	-15.7	1.3	2.00	2.00	0.00
3,600.0	8.00	274.00	3,598.7	1.9	-27.8	2.2	2.00	2.00	0.00
3,700.0	10.00	274.00	3,697.5	3.0	-43.4	3.5	2.00	2.00	0.00
3,800.0	12.00	274.00	3,795.6	4.4	-62.5	5.0	2.00	2.00	0.00
3,810.7	12.22	274.00	3,806.1	4.5	-64.7	5.2	2.00	2.00	0.00



Intrepid
Planning Report



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Site	(Cypress) Sec-3_T-24-S_R-29-E	North Reference:	Grid
Well	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Wellbore	OWB		
Design	Plan #6		

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)
HOLD - 3800.0 at 3810.7 MD									
3,900.0	12.22	274.00	3,893.4	5.8	-83.5	6.7	0.00	0.00	0.00
4,000.0	12.22	274.00	3,991.1	7.3	-104.6	8.4	0.00	0.00	0.00
4,096.1	12.22	274.00	4,085.0	8.7	-124.9	10.1	0.00	0.00	0.00
Cherry Canyon									
4,100.0	12.22	274.00	4,088.8	8.8	-125.7	10.1	0.00	0.00	0.00
4,200.0	12.22	274.00	4,186.6	10.3	-146.9	11.8	0.00	0.00	0.00
4,300.0	12.22	274.00	4,284.3	11.7	-168.0	13.5	0.00	0.00	0.00
4,400.0	12.22	274.00	4,382.0	13.2	-189.1	15.2	0.00	0.00	0.00
4,500.0	12.22	274.00	4,479.8	14.7	-210.2	16.9	0.00	0.00	0.00
4,600.0	12.22	274.00	4,577.5	16.2	-231.3	18.6	0.00	0.00	0.00
4,700.0	12.22	274.00	4,675.3	17.6	-252.4	20.3	0.00	0.00	0.00
4,800.0	12.22	274.00	4,773.0	19.1	-273.5	22.0	0.00	0.00	0.00
4,900.0	12.22	274.00	4,870.7	20.6	-294.6	23.7	0.00	0.00	0.00
5,000.0	12.22	274.00	4,968.5	22.1	-315.7	25.4	0.00	0.00	0.00
5,100.0	12.22	274.00	5,066.2	23.6	-336.8	27.1	0.00	0.00	0.00
5,200.0	12.22	274.00	5,163.9	25.0	-357.9	28.8	0.00	0.00	0.00
5,300.0	12.22	274.00	5,261.7	26.5	-379.0	30.5	0.00	0.00	0.00
5,349.5	12.22	274.00	5,310.0	27.2	-389.5	31.4	0.00	0.00	0.00
Brushy Canyon.									
5,400.0	12.22	274.00	5,359.4	28.0	-400.1	32.2	0.00	0.00	0.00
5,500.0	12.22	274.00	5,457.1	29.5	-421.2	33.9	0.00	0.00	0.00
5,600.0	12.22	274.00	5,554.9	30.9	-442.3	35.6	0.00	0.00	0.00
5,700.0	12.22	274.00	5,652.6	32.4	-463.5	37.3	0.00	0.00	0.00
5,800.0	12.22	274.00	5,750.3	33.9	-484.6	39.0	0.00	0.00	0.00
5,900.0	12.22	274.00	5,848.1	35.4	-505.7	40.7	0.00	0.00	0.00
6,000.0	12.22	274.00	5,945.8	36.8	-526.8	42.4	0.00	0.00	0.00
6,100.0	12.22	274.00	6,043.6	38.3	-547.9	44.1	0.00	0.00	0.00
6,200.0	12.22	274.00	6,141.3	39.8	-569.0	45.8	0.00	0.00	0.00
6,300.0	12.22	274.00	6,239.0	41.3	-590.1	47.5	0.00	0.00	0.00
6,400.0	12.22	274.00	6,336.8	42.7	-611.2	49.2	0.00	0.00	0.00
6,500.0	12.22	274.00	6,434.5	44.2	-632.3	50.9	0.00	0.00	0.00
6,600.0	12.22	274.00	6,532.2	45.7	-653.4	52.6	0.00	0.00	0.00
6,700.0	12.22	274.00	6,630.0	47.2	-674.5	54.3	0.00	0.00	0.00
6,800.0	12.22	274.00	6,727.7	48.6	-695.6	56.0	0.00	0.00	0.00
6,900.0	12.22	274.00	6,825.4	50.1	-716.7	57.7	0.00	0.00	0.00
7,000.0	12.22	274.00	6,923.2	51.6	-737.8	59.4	0.00	0.00	0.00
7,022.3	12.22	274.00	6,945.0	51.9	-742.6	59.8	0.00	0.00	0.00
Bone Spring Lime									
7,078.6	12.22	274.00	7,000.0	52.8	-754.4	60.8	0.00	0.00	0.00
Upper Avalon									
7,100.0	12.22	274.00	7,020.9	53.1	-758.9	61.1	0.00	0.00	0.00
7,200.0	12.22	274.00	7,118.7	54.5	-780.1	62.8	0.00	0.00	0.00
7,300.0	12.22	274.00	7,216.4	56.0	-801.2	64.5	0.00	0.00	0.00
7,400.0	12.22	274.00	7,314.1	57.5	-822.3	66.2	0.00	0.00	0.00
7,446.9	12.22	274.00	7,360.0	58.2	-832.2	67.0	0.00	0.00	0.00
Middle Avalon									
7,500.0	12.22	274.00	7,411.9	59.0	-843.4	67.9	0.00	0.00	0.00
7,600.0	12.22	274.00	7,509.6	60.5	-864.5	69.7	0.00	0.00	0.00
7,610.7	12.22	274.00	7,520.1	60.6	-866.7	69.8	0.00	0.00	0.00
TRN - DLS 2.00 TFO 93.81									
7,685.0	12.21	281.03	7,592.7	62.7	-882.3	72.0	2.00	-0.01	9.46
HOLD - 1638.7 at 7685.0 MD									



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3119.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3119.0usft
Site:	(Cypress) Sec-3_T-24-S-R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #6		

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)	
7,700.0	12.21	281.03	7,607.3	63.3	-885.4	72.7	0.00	0.00	0.00	
7,800.0	12.21	281.03	7,705.1	67.3	-906.2	77.0	0.00	0.00	0.00	
7,900.0	12.21	281.03	7,802.8	71.4	-926.9	81.2	0.00	0.00	0.00	
7,907.3	12.21	281.03	7,810.0	71.6	-928.4	81.5	0.00	0.00	0.00	
Lower Avalon										
7,999.4	12.21	281.03	7,900.0	75.4	-947.5	85.5	0.00	0.00	0.00	
1st Bone Spring Sand										
8,000.0	12.21	281.03	7,900.6	75.4	-947.7	85.5	0.00	0.00	0.00	
8,100.0	12.21	281.03	7,998.3	79.4	-968.4	89.7	0.00	0.00	0.00	
8,200.0	12.21	281.03	8,096.0	83.5	-989.2	94.0	0.00	0.00	0.00	
8,300.0	12.21	281.03	8,193.8	87.5	-1,009.9	98.3	0.00	0.00	0.00	
8,301.3	12.21	281.03	8,195.0	87.6	-1,010.2	98.3	0.00	0.00	0.00	
2nd Bone Spring Carb										
8,400.0	12.21	281.03	8,291.5	91.6	-1,030.7	102.5	0.00	0.00	0.00	
8,500.0	12.21	281.03	8,389.3	95.6	-1,051.4	106.8	0.00	0.00	0.00	
8,600.0	12.21	281.03	8,487.0	99.7	-1,072.2	111.1	0.00	0.00	0.00	
8,700.0	12.21	281.03	8,584.7	103.7	-1,092.9	115.3	0.00	0.00	0.00	
8,800.0	12.21	281.03	8,682.5	107.7	-1,113.7	119.6	0.00	0.00	0.00	
8,807.7	12.21	281.03	8,690.0	108.1	-1,115.3	119.9	0.00	0.00	0.00	
2nd Bone Spring Sand										
8,900.0	12.21	281.03	8,780.2	111.8	-1,134.4	123.9	0.00	0.00	0.00	
9,000.0	12.21	281.03	8,878.0	115.8	-1,155.2	128.1	0.00	0.00	0.00	
9,100.0	12.21	281.03	8,975.7	119.9	-1,175.9	132.4	0.00	0.00	0.00	
9,155.6	12.21	281.03	9,030.0	122.1	-1,187.4	134.8	0.00	0.00	0.00	
3rd Bone Spring Carb										
9,200.0	12.21	281.03	9,073.4	123.9	-1,196.7	136.6	0.00	0.00	0.00	
9,300.0	12.21	281.03	9,171.2	128.0	-1,217.4	140.9	0.00	0.00	0.00	
9,323.7	12.21	281.03	9,194.3	128.9	-1,222.3	141.9	0.00	0.00	0.00	
DROP - -2.00										
9,400.0	10.68	281.03	9,269.1	131.8	-1,237.2	145.0	2.00	-2.00	0.00	
9,500.0	8.68	281.03	9,367.7	135.0	-1,253.7	148.4	2.00	-2.00	0.00	
9,600.0	6.68	281.03	9,466.8	137.6	-1,266.8	151.1	2.00	-2.00	0.00	
9,700.0	4.68	281.03	9,566.3	139.5	-1,276.5	153.1	2.00	-2.00	0.00	
9,800.0	2.68	281.03	9,666.1	140.7	-1,282.8	154.4	2.00	-2.00	0.00	
9,900.0	0.68	281.03	9,766.0	141.3	-1,285.7	154.9	2.00	-2.00	0.00	
9,934.0	0.00	0.00	9,800.0	141.3	-1,285.9	155.0	2.00	-2.00	0.00	
HOLD - 139.0 at 9934.0 MD										
9,954.0	0.00	0.00	9,820.0	141.3	-1,285.9	155.0	0.00	0.00	0.00	
3rd Bone Spring Sand										
10,000.0	0.00	0.00	9,866.0	141.3	-1,285.9	155.0	0.00	0.00	0.00	
10,073.0	0.00	0.00	9,939.0	141.3	-1,285.9	155.0	0.00	0.00	0.00	
KOP - DLS 10.00 TFO 359.39										
10,100.0	2.70	359.39	9,966.0	141.9	-1,285.9	155.6	10.00	10.00	0.00	
10,150.0	7.70	359.39	10,015.8	146.5	-1,286.0	160.2	10.00	10.00	0.00	
10,200.0	12.70	359.39	10,065.0	155.3	-1,286.0	169.0	10.00	10.00	0.00	
10,231.0	15.80	359.39	10,095.0	162.9	-1,286.1	176.6	10.00	10.00	0.00	
3rd BS W Sand										
10,250.0	17.70	359.39	10,113.2	168.4	-1,286.2	182.1	10.00	10.00	0.00	
10,283.7	21.07	359.39	10,145.0	179.6	-1,286.3	193.3	10.00	10.00	0.00	
Wolfcamp A X Sand										
10,300.0	22.70	359.39	10,160.1	185.7	-1,286.4	199.4	10.00	10.00	0.00	
10,350.0	27.70	359.39	10,205.4	207.0	-1,286.6	220.7	10.00	10.00	0.00	
10,400.0	32.70	359.39	10,248.6	232.1	-1,286.9	245.8	10.00	10.00	0.00	



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3119.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3119.0usft
Site:	(Cypress) Sec-3_T-24-S_R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #6		

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)
10,407.7	33.47	359.39	10,255.0	236.3	-1,286.9	250.0	10.00	10.00	0.00
Wolfcamp A Y Sand									
10,450.0	37.70	359.39	10,289.4	260.9	-1,287.2	274.6	10.00	10.00	0.00
10,500.0	42.70	359.39	10,327.6	293.2	-1,287.5	306.9	10.00	10.00	0.00
10,524.2	45.12	359.39	10,345.0	310.0	-1,287.7	323.7	10.00	10.00	0.00
Wolfcamp A Lower									
10,550.0	47.70	359.39	10,362.8	328.7	-1,287.9	342.4	10.00	10.00	0.00
10,600.0	52.70	359.39	10,394.8	367.1	-1,288.3	380.8	10.00	10.00	0.00
10,650.0	57.70	359.39	10,423.3	408.1	-1,288.7	421.8	10.00	10.00	0.00
10,700.0	62.70	359.39	10,448.2	451.5	-1,289.2	465.2	10.00	10.00	0.00
10,750.0	67.70	359.39	10,469.1	496.9	-1,289.7	510.6	10.00	10.00	0.00
10,800.0	72.70	359.39	10,486.0	543.9	-1,290.2	557.6	10.00	10.00	0.00
10,850.0	77.70	359.39	10,498.8	592.2	-1,290.7	605.9	10.00	10.00	0.00
10,900.0	82.70	359.39	10,507.3	641.5	-1,291.2	655.2	10.00	10.00	0.00
10,925.6	85.26	359.39	10,510.0	666.9	-1,291.5	680.6	10.00	10.00	0.00
Wolfcamp B									
10,950.0	87.70	359.39	10,511.5	691.3	-1,291.7	705.0	10.00	10.00	0.00
10,973.3	90.04	359.39	10,512.0	714.6	-1,292.0	728.3	10.00	10.00	0.00
EOC - 4826.7 hold at 10973.3 MD									
11,000.0	90.04	359.39	10,511.9	741.3	-1,292.2	755.0	0.00	0.00	0.00
11,100.0	90.04	359.39	10,511.9	841.3	-1,293.3	855.0	0.00	0.00	0.00
11,200.0	90.04	359.39	10,511.8	941.2	-1,294.4	955.0	0.00	0.00	0.00
11,300.0	90.04	359.39	10,511.8	1,041.2	-1,295.4	1,055.0	0.00	0.00	0.00
11,400.0	90.04	359.39	10,511.7	1,141.2	-1,296.5	1,155.0	0.00	0.00	0.00
11,500.0	90.04	359.39	10,511.6	1,241.2	-1,297.5	1,255.0	0.00	0.00	0.00
11,600.0	90.04	359.39	10,511.6	1,341.2	-1,298.6	1,355.0	0.00	0.00	0.00
11,700.0	90.04	359.39	10,511.5	1,441.2	-1,299.6	1,455.0	0.00	0.00	0.00
11,800.0	90.04	359.39	10,511.5	1,541.2	-1,300.7	1,555.0	0.00	0.00	0.00
11,900.0	90.04	359.39	10,511.4	1,641.2	-1,301.8	1,655.0	0.00	0.00	0.00
12,000.0	90.04	359.39	10,511.3	1,741.2	-1,302.8	1,755.0	0.00	0.00	0.00
12,100.0	90.04	359.39	10,511.3	1,841.2	-1,303.9	1,855.0	0.00	0.00	0.00
12,200.0	90.04	359.39	10,511.2	1,941.2	-1,304.9	1,955.0	0.00	0.00	0.00
12,300.0	90.04	359.39	10,511.1	2,041.2	-1,306.0	2,055.0	0.00	0.00	0.00
12,400.0	90.04	359.39	10,511.1	2,141.2	-1,307.0	2,155.0	0.00	0.00	0.00
12,500.0	90.04	359.39	10,511.0	2,241.2	-1,308.1	2,255.0	0.00	0.00	0.00
12,600.0	90.04	359.39	10,511.0	2,341.2	-1,309.2	2,355.0	0.00	0.00	0.00
12,700.0	90.04	359.39	10,510.9	2,441.2	-1,310.2	2,455.0	0.00	0.00	0.00
12,800.0	90.04	359.39	10,510.8	2,541.2	-1,311.3	2,555.0	0.00	0.00	0.00
12,900.0	90.04	359.39	10,510.8	2,641.2	-1,312.3	2,655.0	0.00	0.00	0.00
13,000.0	90.04	359.39	10,510.7	2,741.1	-1,313.4	2,755.0	0.00	0.00	0.00
13,100.0	90.04	359.39	10,510.7	2,841.1	-1,314.4	2,855.0	0.00	0.00	0.00
13,200.0	90.04	359.39	10,510.6	2,941.1	-1,315.5	2,955.0	0.00	0.00	0.00
13,300.0	90.04	359.39	10,510.5	3,041.1	-1,316.6	3,055.0	0.00	0.00	0.00
13,400.0	90.04	359.39	10,510.5	3,141.1	-1,317.6	3,155.0	0.00	0.00	0.00
13,500.0	90.04	359.39	10,510.4	3,241.1	-1,318.7	3,255.0	0.00	0.00	0.00
13,600.0	90.04	359.39	10,510.3	3,341.1	-1,319.7	3,355.0	0.00	0.00	0.00
13,700.0	90.04	359.39	10,510.3	3,441.1	-1,320.8	3,455.0	0.00	0.00	0.00
13,800.0	90.04	359.39	10,510.2	3,541.1	-1,321.9	3,555.0	0.00	0.00	0.00
13,900.0	90.04	359.39	10,510.2	3,641.1	-1,322.9	3,655.0	0.00	0.00	0.00
14,000.0	90.04	359.39	10,510.1	3,741.1	-1,324.0	3,755.0	0.00	0.00	0.00
14,100.0	90.04	359.39	10,510.0	3,841.1	-1,325.0	3,855.0	0.00	0.00	0.00
14,200.0	90.04	359.39	10,510.0	3,941.1	-1,326.1	3,955.0	0.00	0.00	0.00
14,300.0	90.04	359.39	10,509.9	4,041.1	-1,327.1	4,055.0	0.00	0.00	0.00



Intrepid Planning Report



Database	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Company	Tap Rock Resources, LLC	TVD Reference:	KB @ 3119.0usft
Project	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3119.0usft
Site:	(Cypress) Sec_3_T-24-S_R-29-E	North Reference:	Grid
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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)	
14,400.0	90.04	359.39	10,509.9	4,141.1	-1,328.2	4,155.0	0.00	0.00	0.00	
14,500.0	90.04	359.39	10,509.8	4,241.1	-1,329.3	4,255.0	0.00	0.00	0.00	
14,600.0	90.04	359.39	10,509.7	4,341.1	-1,330.3	4,355.0	0.00	0.00	0.00	
14,700.0	90.04	359.39	10,509.7	4,441.0	-1,331.4	4,455.0	0.00	0.00	0.00	
14,800.0	90.04	359.39	10,509.6	4,541.0	-1,332.4	4,555.0	0.00	0.00	0.00	
14,900.0	90.04	359.39	10,509.6	4,641.0	-1,333.5	4,655.0	0.00	0.00	0.00	
15,000.0	90.04	359.39	10,509.5	4,741.0	-1,334.5	4,755.0	0.00	0.00	0.00	
15,100.0	90.04	359.39	10,509.4	4,841.0	-1,335.6	4,855.0	0.00	0.00	0.00	
15,200.0	90.04	359.39	10,509.4	4,941.0	-1,336.7	4,955.0	0.00	0.00	0.00	
15,300.0	90.04	359.39	10,509.3	5,041.0	-1,337.7	5,055.0	0.00	0.00	0.00	
15,400.0	90.04	359.39	10,509.2	5,141.0	-1,338.8	5,155.0	0.00	0.00	0.00	
15,500.0	90.04	359.39	10,509.2	5,241.0	-1,339.8	5,255.0	0.00	0.00	0.00	
15,600.0	90.04	359.39	10,509.1	5,341.0	-1,340.9	5,355.0	0.00	0.00	0.00	
15,700.0	90.04	359.39	10,509.1	5,441.0	-1,341.9	5,455.0	0.00	0.00	0.00	
15,800.0	90.04	359.39	10,509.0	5,541.0	-1,343.0	5,555.0	0.00	0.00	0.00	
TD at 15800.0										

Design Targets										
Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL (Cypress 34 Fe	- plan hits target center	-0.03	359.39	10,509.0	5,541.0	-1,343.0	461,630.00	653,057.00	32° 16' 6.882 N	103° 58' 18.759 W
- Rectangle (sides W100.0 H5,200.0 D20.0)										
LTP (Cypress 34 Fed	- plan misses target center by 5.0usft at 15700.0usft MD (10509.1 TVD, 5441.0 N, -1341.9 E)	0.00	0.00	10,509.0	5,446.0	-1,342.0	461,535.00	653,058.00	32° 16' 5.942 N	103° 58' 18.751 W
- Point										
FTP (Cypress 34 Fed	- plan misses target center by 110.9usft at 10645.5usft MD (10420.9 TVD, 404.3 N, -1288.7 E)	0.00	0.00	10,512.0	341.0	-1,288.0	456,430.00	653,112.00	32° 15' 15.422 N	103° 58' 18.322 W
- Point										



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3119.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 3119.0usft
Site:	(Cypress) Sec-3_T-24-S_R-29-E	North Reference:	Grid
Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #6		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
670.0	670.0	Rustler Anhydrite				
1,620.0	1,620.0	Top Salt				
2,954.0	2,954.0	Base Salt				
3,174.0	3,174.0	Delaware Mountain Gp				
3,174.0	3,174.0	Lamar				
3,199.0	3,199.0	Bell Canyon				
3,234.0	3,234.0	Ramsey Sand				
4,096.1	4,085.0	Cherry Canyon				
5,349.5	5,310.0	Brushy Canyon				
7,022.3	6,945.0	Bone Spring Lime				
7,078.6	7,000.0	Upper Avalon				
7,446.9	7,360.0	Middle Avalon				
7,907.3	7,810.0	Lower Avalon				
7,999.4	7,900.0	1st Bone Spring Sand				
8,301.3	8,195.0	2nd Bone Spring Carb				
8,807.7	8,690.0	2nd Bone Spring Sand				
9,155.6	9,030.0	3rd Bone Spring Carb				
9,954.0	9,820.0	3rd Bone Spring Sand				
10,231.0	10,095.0	3rd BS W Sand				
10,283.7	10,145.0	Wolfcamp A X Sand				
10,407.7	10,255.0	Wolfcamp A Y Sand				
10,524.2	10,345.0	Wolfcamp A Lower				
10,925.6	10,510.0	Wolfcamp B				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
3,200.0	3,200.0	0.0	0.0	NUDGE - Build 2.00	
3,810.7	3,806.1	4.5	-64.7	HOLD - 3800.0 at 3810.7 MD	
7,610.7	7,520.1	60.6	-866.7	TRN - DLS 2.00 TFO 93.81	
7,685.0	7,592.7	62.7	-882.3	HOLD - 1638.7 at 7685.0 MD	
9,323.7	9,194.3	128.9	-1,222.3	DROP - -2.00	
9,934.0	9,800.0	141.3	-1,285.9	HOLD - 139.0 at 9934.0 MD	
10,073.0	9,939.0	141.3	-1,285.9	KOP - DLS 10.00 TFO 359.39	
10,973.3	10,512.0	714.6	-1,292.0	EOC - 4826.7 hold at 10973.3 MD	
15,800.0	10,509.0	5,541.0	-1,343.0	TD at 15800.0	



Tap Rock Resources, LLC

Eddy County, NM (NAD 83 NME)

(Cypress) Sec-3_T-24-S_R-29-E

Cypress 34 Federal #246H

OWB

Plan #6

Anticollision Report

12 August, 2019





Intrepid

Anticollision Report



Company:	Tap Rock Resources, LLC	Local/Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey/Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Reference:	Plan #6		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 2,434.4 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date 2019/08/12		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	15,799.8	Plan #6 (OWB)	MWD	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
(Cypress) Sec-3_T-24-S_R-29-E						
Cypress 34 Federal #15H (OFFSET) - OWB - AWB	408.4	408.5	217.0	214.5	86.177	CC, ES
Cypress 34 Federal #15H (OFFSET) - OWB - AWB	15,400.0	14,857.0	1,915.5	1,735.8	10.660	SF
Cypress 34 Federal #1H (OFFSET) - OWB - AWB	8,113.4	9,212.1	651.3	576.9	8.754	CC, ES, SF
Cypress 34 Federal #233H - OWB - Plan #2	1,116.5	1,117.0	26.0	18.4	3.442	CC
Cypress 34 Federal #233H - OWB - Plan #2	1,200.0	1,200.5	26.0	17.8	3.189	ES
Cypress 34 Federal #233H - OWB - Plan #2	7,700.0	7,683.6	80.3	19.4	1.319	Level 3, SF
Cypress 34 Federal #234H (OFFSET) - OWB - AWB	0.0	0.5	167.1			
Cypress 34 Federal #234H (OFFSET) - OWB - AWB	200.0	199.5	167.6	166.7	179.962	ES
Cypress 34 Federal #234H (OFFSET) - OWB - AWB	15,700.0	16,122.0	2,175.3	1,986.0	11.487	SF
Cypress 34 Federal #236H (OFFSET) - OWB - AWB	3,007.5	3,010.3	110.2	89.4	5.305	CC
Cypress 34 Federal #236H (OFFSET) - OWB - AWB	3,200.0	3,202.4	110.9	88.8	5.010	ES
Cypress 34 Federal #236H (OFFSET) - OWB - AWB	3,300.0	3,302.0	113.0	90.2	4.945	SF
Cypress 34 Federal #243H - OWB - Plan #1	916.5	917.0	51.0	44.9	8.333	CC
Cypress 34 Federal #243H - OWB - Plan #1	1,000.0	1,000.0	51.0	44.3	7.593	ES
Cypress 34 Federal #243H - OWB - Plan #1	10,100.0	10,071.9	150.7	68.6	1.835	SF
Cypress 34 Federal #244H (OFFSET) - OWB - AWB	162.8	163.3	142.4	141.7	225.932	CC
Cypress 34 Federal #244H (OFFSET) - OWB - AWB	300.0	299.0	142.9	141.3	88.937	ES
Cypress 34 Federal #244H (OFFSET) - OWB - AWB	15,300.0	15,731.0	1,798.2	1,630.2	10.701	SF
Cypress 34 Federal #9H (OFFSET) - OWB - AWB	3,275.2	3,285.0	444.2	421.8	19.881	CC
Cypress 34 Federal #9H (OFFSET) - OWB - AWB	3,300.0	3,306.7	444.3	421.8	19.744	ES
Cypress 34 Federal #9H (OFFSET) - OWB - AWB	15,600.0	13,333.0	2,313.2	2,170.6	16.228	SF
Knoll AOK Fed #2H (OFFSET) - OWB - AWB	8,052.9	9,623.5	515.9	433.6	6.268	CC, ES
Knoll AOK Fed #2H (OFFSET) - OWB - AWB	8,100.0	9,634.7	517.9	435.2	6.260	SF

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #15H (OFFSET) - OWB - AWB											
Survey Program	76-MWD	Offset		Semi-Major Axis		Offset Wellbore Centre		Rule Assigned		Offset Site Error	0.0 usft
Reference		Measured Depth	Vertical Depth	Reference	Offset	N-S	E-W	Distance		Offset Well Error	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Centres (usft)	Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	61.0	209.2	217.9			
100.0	100.0	100.3	100.3	0.1	0.2	60.8	209.2	217.8	217.5	0.31	698.245
200.0	200.0	200.4	200.4	0.5	0.5	60.4	209.2	217.7	216.7	1.03	211.453
300.0	300.0	300.8	300.8	0.8	0.9	59.8	209.0	217.4	215.7	1.75	124.400
400.0	400.0	400.4	400.4	1.2	1.3	59.3	208.7	217.0	214.5	2.46	88.201

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid

Anticollision Report



Company:	Tap Rock Resources, LLC	Local/Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey/Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #15H (OFFSET) - OWB - AWB														Offset Site Error:
Survey Program: 76-MWD														0.0 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore	Distance	Rule Assigned	Offset Well Error							
Measured Vertical	Measured Vertical	Reference	Offset	Centers	Between	Minimum	Warning							
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	Toolface (°)	N/S (usft)	E/W (usft)	Between	Ellipses	Separation	Factor				
408.4	408.4	408.5	408.4	1.2	1.3	74.13	59.3	208.7	217.0	214.5	2.52	86.177	CC, ES	
500.0	500.0	496.0	496.0	1.6	1.6	73.96	60.2	209.5	218.0	214.8	3.15	69.297		
600.0	600.0	594.5	594.5	1.9	1.9	73.66	62.0	211.4	220.4	216.6	3.84	57.449		
700.0	700.0	694.5	694.4	2.3	2.3	73.42	63.5	213.3	222.6	218.1	4.54	49.052		
800.0	800.0	785.6	785.4	2.6	2.6	73.26	65.2	216.9	226.9	221.7	5.21	43.538		
900.0	900.0	873.2	872.6	3.0	2.9	73.15	68.0	224.6	236.3	230.4	5.87	40.281		
1,000.0	1,000.0	976.1	975.0	3.4	3.3	73.17	71.1	235.2	247.0	240.4	6.59	37.466		
1,100.0	1,100.0	1,077.1	1,075.4	3.7	3.6	73.37	73.3	245.2	257.1	249.8	7.31	35.165		
1,200.0	1,200.0	1,182.9	1,180.8	4.1	4.0	73.52	75.1	253.9	265.4	257.4	8.05	32.965		
1,300.0	1,300.0	1,285.0	1,282.7	4.4	4.4	73.53	77.0	260.2	271.9	263.1	8.78	30.977		
1,400.0	1,400.0	1,383.5	1,381.0	4.8	4.8	73.57	78.6	266.5	278.5	269.0	9.49	29.356		
1,500.0	1,500.0	1,488.8	1,486.1	5.2	5.2	73.58	80.5	273.0	284.9	274.7	10.23	27.857		
1,600.0	1,600.0	1,594.0	1,591.2	5.5	5.5	73.29	82.9	276.3	288.6	277.6	10.96	26.326		
1,700.0	1,700.0	1,692.5	1,689.6	5.9	5.9	72.84	86.0	278.6	291.7	280.1	11.67	25.000		
1,800.0	1,800.0	1,787.3	1,784.3	6.2	6.2	72.50	88.9	282.0	296.1	283.7	12.36	23.950		
1,900.0	1,900.0	1,884.1	1,881.0	6.6	6.6	72.36	91.3	287.2	302.0	288.9	13.06	23.115		
2,000.0	2,000.0	1,983.1	1,979.7	6.9	7.0	72.37	93.2	293.3	308.4	294.7	13.78	22.389		
2,100.0	2,100.0	2,081.7	2,078.2	7.3	7.3	72.38	95.2	299.7	315.2	300.7	14.49	21.755		
2,200.0	2,200.0	2,183.3	2,179.5	7.7	7.7	72.44	96.9	306.3	321.9	306.7	15.21	21.157		
2,300.0	2,300.0	2,284.0	2,280.0	8.0	8.1	72.53	98.3	312.4	328.1	312.2	15.94	20.591		
2,400.0	2,400.0	2,384.6	2,380.4	8.4	8.4	72.62	99.6	318.3	334.1	317.4	16.66	20.056		
2,500.0	2,500.0	2,481.6	2,477.2	8.7	8.8	72.60	101.6	324.1	340.4	323.0	17.36	19.607		
2,600.0	2,600.0	2,579.9	2,575.3	9.1	9.2	72.59	103.7	330.6	347.3	329.2	18.07	19.221		
2,700.0	2,700.0	2,679.8	2,675.0	9.5	9.5	72.55	106.0	337.3	354.4	335.6	18.79	18.865		
2,800.0	2,800.0	2,780.8	2,775.6	9.8	9.9	72.54	108.2	343.9	361.4	341.9	19.51	18.520		
2,900.0	2,900.0	2,882.3	2,877.0	10.2	10.3	72.76	108.8	350.6	367.8	347.6	20.24	18.174		
3,000.0	3,000.0	2,981.2	2,975.7	10.5	10.7	73.08	108.6	357.1	374.1	353.1	20.95	17.854		
3,100.0	3,100.0	3,080.0	3,074.2	10.9	11.0	73.14	110.2	363.7	380.9	359.2	21.66	17.581		
3,200.0	3,200.0	3,180.5	3,174.5	11.2	11.4	73.06	112.6	369.8	387.4	365.0	22.39	17.305		
3,300.0	3,300.0	3,271.1	3,264.8	11.6	11.7	158.95	115.5	376.2	396.7	373.7	23.04	17.219		
3,400.0	3,399.8	3,363.0	3,356.3	11.9	12.1	158.92	119.3	384.5	411.4	387.8	23.69	17.367		
3,500.0	3,499.5	3,450.8	3,443.4	12.3	12.4	158.98	123.4	393.8	431.0	406.6	24.30	17.731		
3,600.0	3,598.7	3,534.4	3,526.2	12.6	12.8	158.92	129.5	404.8	456.9	432.0	24.88	18.366		
3,700.0	3,697.5	3,622.3	3,612.8	13.0	13.1	158.90	136.8	417.7	487.5	462.0	25.49	19.129		
3,800.0	3,795.6	3,700.6	3,689.6	13.4	13.5	158.89	144.0	431.0	523.7	497.7	26.00	20.142		
3,900.0	3,893.4	3,794.8	3,781.8	13.7	13.9	159.22	153.0	448.1	562.8	536.1	26.69	21.084		
4,000.0	3,991.1	3,886.2	3,871.3	14.1	14.3	159.53	161.7	464.5	601.8	574.4	27.35	21.999		
4,100.0	4,088.8	3,985.4	3,968.5	14.5	14.7	159.82	171.1	481.8	640.3	612.2	28.10	22.788		
4,200.0	4,186.6	4,085.2	4,066.5	14.9	15.1	160.08	180.2	498.2	677.8	649.0	28.84	23.499		
4,300.0	4,284.3	4,183.6	4,163.3	15.3	15.5	160.31	188.9	513.5	714.5	684.9	29.58	24.158		
4,400.0	4,382.0	4,279.9	4,258.2	15.7	16.0	160.51	197.3	527.9	750.5	720.2	30.29	24.777		
4,500.0	4,479.8	4,365.1	4,342.1	16.1	16.3	160.68	204.7	540.9	786.9	756.0	30.91	25.459		
4,600.0	4,577.5	4,453.0	4,428.4	16.5	16.7	160.85	212.5	555.2	824.3	792.7	31.55	26.124		
4,700.0	4,675.3	4,551.1	4,524.8	17.0	17.1	161.03	221.1	571.3	861.7	829.4	32.29	26.686		
4,800.0	4,773.0	4,652.5	4,624.6	17.4	17.6	161.21	229.5	586.9	898.0	865.0	33.05	27.170		
4,900.0	4,870.7	4,740.9	4,711.7	17.8	17.9	161.43	235.7	600.6	934.3	900.6	33.71	27.718		
5,000.0	4,968.5	4,833.0	4,802.5	18.2	18.3	161.76	240.5	615.8	971.1	936.7	34.39	28.234		
5,100.0	5,066.2	4,906.7	4,874.9	18.7	18.7	162.02	244.2	628.8	1,008.8	973.9	34.93	28.884		
5,200.0	5,163.9	4,983.4	4,950.1	19.1	19.0	162.22	249.3	643.1	1,047.9	1,012.4	35.48	29.535		
5,300.0	5,261.7	5,069.0	5,033.7	19.6	19.4	162.37	256.2	659.9	1,088.2	1,052.0	36.12	30.130		
5,400.0	5,359.4	5,165.4	5,128.0	20.0	19.9	162.52	264.0	678.6	1,128.3	1,091.4	36.85	30.614		
5,500.0	5,457.1	5,272.1	5,232.5	20.5	20.3	162.68	272.5	698.7	1,167.8	1,130.1	37.68	30.990		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid Anticollision Report



Company: Tap Rock Resources, LLC
Project: Eddy County, NM (NAD 83 NME)
Reference Site: (Cypress) Sec-3_T-24-S_R-29-E
Site Error: 0.0 usft
Reference Well: Cypress 34 Federal #246H
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #6

Local Co-ordinate Reference: Well Cypress 34 Federal #246H
TVD Reference: KB @ 3119.0usft
MD Reference: KB @ 3119.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #15H (OFFSET) - OWB - AWB														Offset Site Error: 0.0 usft
Survey Program: 76-MWD														Offset Well Error: 0.0 usft
Reference	Offset	Semi-Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned	Offset Well Error							
Measured Depth (usft)	Vertical Depth (usft)	Reference Depth (usft)	Offset Depth (usft)	Reference Depth (usft)	Offset Depth (usft)	Highside Toolface (°)	N/S (usft)	E/W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,600.0	5,554.9	5,390.2	5,348.5	20.9	20.9	162.87	280.7	718.8	1,205.5	1,166.9	38.60	31.234		
5,700.0	5,652.6	5,493.1	5,449.9	21.4	21.3	163.02	287.7	734.9	1,241.9	1,202.5	39.38	31.537		
5,800.0	5,750.3	5,611.3	5,566.5	21.8	21.8	163.11	297.0	752.0	1,277.5	1,237.3	40.27	31.724		
5,900.0	5,848.1	5,846.9	5,800.8	22.3	22.7	163.23	312.8	768.6	1,305.0	1,263.2	41.77	31.241		
6,000.0	5,945.8	5,988.8	5,942.7	22.7	23.2	163.39	318.2	769.9	1,326.9	1,284.3	42.64	31.117		
6,100.0	6,043.6	6,102.3	6,056.1	23.2	23.6	163.59	320.3	769.1	1,346.9	1,303.5	43.38	31.046		
6,200.0	6,141.3	6,206.4	6,160.2	23.6	23.9	163.83	320.8	767.6	1,366.0	1,321.9	44.09	30.982		
6,300.0	6,239.0	6,305.1	6,258.9	24.1	24.2	164.07	320.6	766.2	1,384.9	1,340.2	44.78	30.930		
6,400.0	6,336.8	6,403.2	6,357.0	24.6	24.4	164.32	320.0	764.9	1,403.9	1,358.5	45.46	30.881		
6,500.0	6,434.5	6,501.0	6,454.8	25.0	24.7	164.57	319.1	763.7	1,422.9	1,376.8	46.15	30.835		
6,600.0	6,532.2	6,596.0	6,549.8	25.5	25.0	164.83	318.0	762.6	1,442.1	1,395.2	46.83	30.796		
6,700.0	6,630.0	6,690.5	6,644.2	26.0	25.3	165.08	316.7	761.8	1,461.4	1,413.9	47.50	30.765		
6,800.0	6,727.7	6,786.2	6,739.9	26.4	25.6	165.33	315.4	761.2	1,481.1	1,432.9	48.19	30.734		
6,900.0	6,825.4	6,881.9	6,835.7	26.9	25.9	165.58	314.0	760.7	1,500.8	1,451.9	48.87	30.708		
7,000.0	6,923.2	6,978.9	6,930.6	27.4	26.2	165.82	312.6	760.4	1,520.8	1,471.2	49.56	30.685		
7,100.0	7,020.9	7,071.8	7,025.5	27.8	26.5	166.06	311.2	760.2	1,540.9	1,490.7	50.25	30.667		
7,200.0	7,118.7	7,161.1	7,114.8	28.3	26.8	166.29	309.7	760.4	1,561.5	1,510.6	50.92	30.667		
7,300.0	7,216.4	7,249.9	7,203.6	28.8	27.0	166.52	308.0	761.2	1,582.6	1,531.0	51.59	30.679		
7,400.0	7,314.1	7,358.7	7,312.4	29.3	27.4	166.79	306.1	762.1	1,603.7	1,551.4	52.33	30.648		
7,500.0	7,411.9	7,468.4	7,422.0	29.7	27.7	167.01	305.3	761.9	1,624.0	1,571.0	53.07	30.601		
7,600.0	7,509.6	7,562.0	7,515.7	30.2	28.0	167.18	304.8	761.5	1,644.2	1,590.5	53.76	30.586		
7,700.0	7,607.3	7,657.5	7,611.1	30.7	28.3	167.25	304.0	761.3	1,664.2	1,609.8	54.45	30.565		
7,800.0	7,705.1	7,763.2	7,716.8	31.2	28.7	167.54	303.3	760.9	1,683.8	1,628.6	55.18	30.513		
7,900.0	7,802.8	7,869.2	7,822.8	31.6	29.0	167.80	303.0	760.0	1,702.8	1,646.9	55.91	30.454		
8,000.0	7,900.6	7,975.3	7,929.0	32.1	29.3	168.06	302.4	758.5	1,721.5	1,664.8	56.64	30.391		
8,100.0	7,998.3	8,062.0	8,015.6	32.6	29.6	168.28	301.6	757.3	1,740.0	1,682.7	57.31	30.361		
8,200.0	8,096.0	8,134.7	8,088.3	33.1	29.8	168.47	300.9	757.2	1,759.8	1,701.9	57.92	30.381		
8,300.0	8,193.8	8,209.0	8,162.6	33.6	30.1	168.66	300.3	758.1	1,781.1	1,722.5	58.53	30.428		
8,400.0	8,291.5	8,296.9	8,250.5	34.0	30.4	168.87	299.7	760.0	1,803.2	1,744.0	59.21	30.455		
8,500.0	8,389.3	8,387.5	8,341.0	34.5	30.7	169.08	299.6	762.3	1,825.8	1,765.9	59.90	30.482		
8,600.0	8,487.0	8,575.9	8,529.5	35.0	31.3	162.46	299.9	762.9	1,846.5	1,785.5	60.98	30.278		
8,700.0	8,584.7	8,662.6	8,616.1	35.5	31.6	162.61	300.4	760.9	1,864.5	1,802.8	61.65	30.241		
8,800.0	8,682.5	8,740.9	8,694.4	36.0	31.9	162.72	301.7	759.9	1,883.6	1,821.3	62.29	30.238		
8,900.0	8,780.2	8,821.7	8,775.2	36.4	32.1	162.81	303.7	759.6	1,903.7	1,840.7	62.94	30.246		
9,000.0	8,878.0	8,904.8	8,858.2	36.9	32.4	162.94	304.7	760.0	1,924.6	1,861.0	63.59	30.263		
9,100.0	8,975.7	8,995.5	8,948.9	37.4	32.7	163.12	304.5	761.3	1,946.1	1,881.9	64.28	30.276		
9,200.0	9,073.4	9,114.3	9,067.7	37.9	33.1	163.37	303.6	762.3	1,967.2	1,902.2	65.09	30.223		
9,300.0	9,171.2	9,237.5	9,190.9	38.4	33.5	163.63	302.1	762.1	1,987.2	1,921.3	65.90	30.153		
9,400.0	9,269.1	9,363.4	9,316.8	38.8	33.9	164.02	298.3	760.3	2,005.0	1,938.2	66.72	30.052		
9,500.0	9,367.7	9,436.5	9,389.8	39.3	34.2	164.24	296.5	759.3	2,019.6	1,952.3	67.32	29.999		
9,600.0	9,466.8	9,551.6	9,504.9	39.7	34.5	164.46	295.2	757.9	2,031.2	1,963.1	68.08	29.834		
9,700.0	9,566.3	9,614.0	9,567.3	40.1	34.7	164.54	295.4	757.4	2,039.9	1,971.2	68.64	29.720		
9,800.0	9,666.1	9,713.2	9,666.5	40.4	35.1	164.57	297.1	757.4	2,046.3	1,976.9	69.33	29.514		
9,900.0	9,766.0	10,052.6	9,994.9	40.8	36.2	162.75	362.1	730.9	2,041.5	1,970.7	70.79	28.839		
10,000.0	9,866.0	10,300.0	10,183.6	41.1	36.9	79.41	509.4	682.1	2,027.1	1,955.2	71.93	28.184		
10,100.0	9,966.0	10,317.5	10,193.3	41.4	36.9	79.93	523.4	678.1	2,013.6	1,941.0	72.58	27.742		
10,200.0	10,065.0	10,331.0	10,200.4	41.7	36.9	80.76	534.5	675.2	2,002.1	1,929.0	73.13	27.376		
10,300.0	10,160.1	10,362.0	10,215.5	42.0	37.0	81.13	560.9	669.5	1,992.3	1,918.6	73.68	27.040		
10,400.0	10,248.6	10,362.0	10,215.5	42.3	37.0	81.95	560.9	669.5	1,984.1	1,910.1	73.98	26.820		
10,500.0	10,327.6	10,394.0	10,229.9	42.6	37.1	82.18	589.2	665.2	1,977.5	1,903.1	74.39	26.582		
10,600.0	10,394.8	10,410.6	10,236.9	42.8	37.2	82.52	604.1	663.7	1,972.7	1,898.0	74.67	26.418		
10,700.0	10,448.2	10,426.0	10,243.1	43.1	37.3	82.73	618.2	662.7	1,969.7	1,894.8	74.93	26.286		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Intrepid

Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #15H (OFFSET) - OWB - AWB														Offset Site Error:	0.0 usft
Survey Program 76-MWD														Offset Well Error:	0.0 usft
Measured Reference Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi-Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre N-S (usft)	E-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
10,800.0	10,486.0	10,489.0	10,263.2	43.4	37.5	82.80	677.8	660.4	1,967.8	1,892.2	75.57	26.039			
10,900.0	10,507.3	10,504.6	10,267.0	43.7	37.6	82.92	693.0	660.2	1,966.8	1,890.9	75.90	25.914			
10,900.2	10,507.3	10,504.7	10,267.0	43.7	37.6	82.92	693.0	660.2	1,966.8	1,890.9	75.90	25.913			
11,000.0	10,511.9	10,521.0	10,270.3	44.0	37.7	82.94	709.0	660.4	1,967.8	1,891.6	76.28	25.799			
11,100.0	10,511.9	10,571.3	10,278.6	44.4	38.0	83.19	758.6	662.7	1,971.6	1,894.6	76.96	25.620			
11,200.0	10,511.8	10,616.0	10,283.8	44.9	38.2	83.36	802.8	665.9	1,978.4	1,900.7	77.62	25.487			
11,300.0	10,511.8	10,748.6	10,294.1	45.4	39.0	83.69	934.7	676.0	1,986.3	1,907.2	79.12	25.105			
11,400.0	10,511.7	10,852.1	10,301.9	46.0	39.7	83.94	1,037.6	682.1	1,992.4	1,911.9	80.49	24.754			
11,500.0	10,511.6	10,907.6	10,305.2	46.7	40.1	84.05	1,093.0	685.8	1,999.5	1,918.1	81.45	24.548			
11,600.0	10,511.6	10,963.0	10,307.0	47.4	40.5	84.12	1,148.1	690.9	2,009.3	1,926.9	82.45	24.371			
11,700.0	10,511.5	11,022.9	10,307.7	48.1	40.9	84.16	1,207.6	697.6	2,021.2	1,937.6	83.53	24.196			
11,800.0	10,511.5	11,101.0	10,307.3	48.9	41.5	84.18	1,285.1	707.1	2,034.4	1,949.5	84.87	23.969			
11,900.0	10,511.4	11,228.4	10,303.9	49.8	42.6	84.14	1,411.5	722.6	2,047.9	1,961.0	86.90	23.566			
12,000.0	10,511.3	11,335.5	10,300.5	50.7	43.6	84.08	1,518.0	734.0	2,059.8	1,971.0	88.78	23.202			
12,100.0	10,511.3	11,461.4	10,295.5	51.6	44.8	83.98	1,643.2	746.5	2,071.2	1,980.2	91.01	22.757			
12,200.0	10,511.2	11,802.8	10,298.6	52.6	48.2	84.13	1,983.9	761.9	2,078.2	1,981.8	96.42	21.553			
12,300.0	10,511.1	11,900.8	10,299.9	53.6	49.3	84.16	2,081.9	759.8	2,077.0	1,978.4	98.56	21.073			
12,397.6	10,511.1	11,979.4	10,298.9	54.6	50.2	84.14	2,160.5	758.5	2,076.5	1,976.1	100.46	20.671			
12,400.0	10,511.1	11,981.3	10,298.9	54.6	50.2	84.13	2,162.4	758.5	2,076.5	1,976.0	100.50	20.661			
12,500.0	10,511.0	12,116.8	10,297.8	55.7	51.8	84.10	2,297.8	756.2	2,076.0	1,972.7	103.29	20.098			
12,600.0	10,511.0	12,229.1	10,299.0	56.8	53.1	84.13	2,410.1	752.6	2,073.8	1,968.0	105.82	19.597			
12,700.0	10,510.9	12,319.1	10,298.5	57.9	54.2	84.12	2,500.0	749.8	2,071.8	1,963.7	108.06	19.172			
12,800.0	10,510.8	12,425.5	10,295.6	59.1	55.5	84.03	2,606.3	746.5	2,070.0	1,959.5	110.59	18.719			
12,900.0	10,510.8	12,529.6	10,292.1	60.2	56.8	83.93	2,710.3	742.5	2,067.6	1,954.5	113.12	18.278			
13,000.0	10,510.7	12,637.2	10,289.5	61.4	58.1	83.85	2,817.8	738.7	2,065.4	1,949.6	115.75	17.843			
13,100.0	10,510.7	12,753.8	10,294.0	62.6	59.6	83.97	2,934.2	734.3	2,062.2	1,943.6	118.61	17.387			
13,200.0	10,510.6	12,842.4	10,297.3	63.9	60.8	84.05	3,022.7	730.8	2,059.0	1,937.9	121.06	17.009			
13,300.0	10,510.5	12,930.5	10,299.4	65.1	62.0	84.11	3,110.6	727.8	2,056.4	1,932.9	123.51	16.649			
13,400.0	10,510.5	13,019.4	10,301.2	66.4	63.1	84.15	3,199.6	725.2	2,054.3	1,928.3	126.01	16.303			
13,500.0	10,510.4	13,099.3	10,302.3	67.7	64.2	84.18	3,279.4	723.3	2,052.9	1,924.6	128.36	15.994			
13,573.9	10,510.4	13,154.7	10,303.2	68.7	65.0	84.21	3,334.8	722.6	2,052.7	1,922.6	130.05	15.784			
13,600.0	10,510.3	13,173.8	10,303.4	69.0	65.2	84.21	3,353.8	722.5	2,052.7	1,922.1	130.63	15.714			
13,700.0	10,510.3	13,249.9	10,303.8	70.3	66.3	84.23	3,430.0	722.6	2,053.8	1,920.9	132.93	15.450			
13,800.0	10,510.2	13,330.0	10,304.0	71.7	67.4	84.24	3,510.1	723.1	2,055.6	1,920.3	135.31	15.191			
13,900.0	10,510.2	13,404.9	10,303.7	73.0	68.4	84.24	3,584.9	724.4	2,058.5	1,920.9	137.60	14.960			
14,000.0	10,510.1	13,485.9	10,302.2	74.4	69.6	84.21	3,665.9	727.0	2,062.8	1,922.8	140.00	14.735			
14,100.0	10,510.0	13,580.7	10,298.8	75.7	70.9	84.13	3,760.6	730.3	2,067.7	1,925.0	142.68	14.492			
14,200.0	10,510.0	13,686.3	10,294.9	77.1	72.4	84.04	3,866.0	733.9	2,072.6	1,926.9	145.60	14.234			
14,300.0	10,509.9	13,779.6	10,293.8	78.5	73.7	84.02	3,959.3	737.2	2,077.3	1,929.0	148.30	14.007			
14,400.0	10,509.9	14,340.3	10,287.0	79.9	81.9	83.75	4,516.6	701.4	2,076.0	1,917.9	158.15	13.127			
14,500.0	10,509.8	14,764.9	10,313.5	81.3	88.0	84.20	4,925.2	593.1	2,049.9	1,887.2	162.71	12.598			
14,600.0	10,509.7	14,857.0	10,322.5	82.8	89.4	84.39	5,011.8	563.2	2,017.5	1,851.9	165.62	12.182			
14,700.0	10,509.7	14,857.0	10,322.5	84.2	89.4	84.39	5,011.8	563.2	1,987.5	1,819.1	168.42	11.801			
14,800.0	10,509.6	14,857.0	10,322.5	85.6	89.4	84.39	5,011.8	563.2	1,962.1	1,791.1	171.00	11.474			
14,900.0	10,509.6	14,857.0	10,322.5	87.1	89.4	84.39	5,011.8	563.2	1,941.6	1,768.3	173.32	11.203			
15,000.0	10,509.5	14,857.0	10,322.5	88.5	89.4	84.39	5,011.8	563.2	1,926.0	1,750.7	175.32	10.986			
15,100.0	10,509.4	14,857.0	10,322.5	90.0	89.4	84.39	5,011.8	563.2	1,915.6	1,738.6	176.98	10.824			
15,200.0	10,509.4	14,857.0	10,322.5	91.5	89.4	84.39	5,011.8	563.2	1,910.3	1,732.0	178.27	10.716			
15,250.8	10,509.3	14,857.0	10,322.5	92.2	89.4	84.39	5,011.8	563.2	1,909.6	1,730.9	178.78	10.681			
15,300.0	10,509.3	14,857.0	10,322.5	92.9	89.4	84.39	5,011.8	563.2	1,910.3	1,731.1	179.17	10.662			
15,400.0	10,509.2	14,857.0	10,322.5	94.4	89.4	84.39	5,011.8	563.2	1,915.5	1,735.8	179.68	10.660 SF			
15,500.0	10,509.2	14,857.0	10,322.5	95.9	89.4	84.39	5,011.8	563.2	1,925.8	1,746.0	179.79	10.712			

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company	Tap Rock Resources, LLC	Local Co-ordinate Reference	Well Cypress 34 Federal #246H
Project	Eddy County, NM (NAD 83 NME)	TVD Reference	KB @ 3119.0usft
Reference Site	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference	KB @ 3119.0usft
Site Error	0.0 usft	North Reference	Grid
Reference Well	Cypress 34 Federal #246H	Survey Calculation Method	Minimum Curvature
Well Error	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database	EDM 5000.15 Single User Db
Reference Design	Plan #6	Offset TVD Reference	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #15H (OFFSET) - OWB - AWB														Offset Site Error	0.0 usft
Survey Program: 76-MWD														Offset Well Error	0.0 usft
Reference	Offset	Semi Major Axis	Rule Assigned		Offset Wellbore Centre		Distance		Warning						
Measured Vertical	Measured Vertical	Reference	Offset	Highside											
Depth	Depth	Depth	Depth	Toolface											
(usft)	(usft)	(usft)	(usft)	(usft)											
15,600.0	10,509.1	14,857.0	10,322.5	97.4	89.4	84.39	5,011.8	563.2	1,941.3	1,761.8	179.51	10.814			
15,700.0	10,509.1	14,857.0	10,322.5	98.9	89.4	84.39	5,011.8	563.2	1,961.8	1,782.9	178.87	10.967			
15,800.0	10,509.0	14,857.0	10,322.5	100.4	89.4	84.39	5,011.8	563.2	1,987.0	1,809.2	177.90	11.170			



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #1H (OFFSET) - OWB - AWB													Offset Site Error:	0.0 usft	
Survey Program: 100-GYRO-NS-7420-MWD														Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Reference Depth (usft)	Measured Depth (usft)	Vertical Offset Depth (usft)	Reference Depth (usft)	Offset Depth (usft)	Highside Toolface (°)	Offset Wellbore Centre N-S (usft)	E-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.0	0.0	2.9	2.9	0.0	0.0	34.15	699.3	474.3	845.0						
100.0	100.0	100.0	100.0	0.1	0.1	34.14	699.6	474.5	845.3	845.0	0.26	3,196.439			
200.0	200.0	200.5	200.5	0.5	0.5	34.14	700.0	474.6	845.7	844.7	0.97	867.417			
300.0	300.0	306.4	306.4	0.8	0.9	34.08	700.4	473.9	845.7	844.0	1.70	496.106			
400.0	400.0	414.5	414.4	1.2	1.2	33.96	700.6	471.8	844.7	842.3	2.44	345.516			
500.0	500.0	516.1	516.0	1.6	1.6	33.80	700.6	469.1	843.2	840.1	3.16	266.590			
600.0	600.0	612.7	612.6	1.9	1.9	33.64	700.9	466.3	841.9	838.1	3.86	217.911			
700.0	700.0	712.4	712.2	2.3	2.3	33.45	701.5	463.5	840.8	836.2	4.57	183.810			
800.0	800.0	814.8	814.6	2.6	2.7	33.30	701.7	460.9	839.6	834.3	5.29	158.589			
900.0	900.0	916.0	915.8	3.0	3.0	33.20	701.2	458.9	838.1	832.1	6.01	139.491			
1,000.0	1,000.0	1,011.4	1,011.2	3.4	3.3	33.16	700.5	457.7	836.8	830.1	6.70	124.940			
1,100.0	1,100.0	1,107.9	1,107.7	3.7	3.7	33.14	700.0	457.0	836.0	828.6	7.39	113.101			
1,132.6	1,132.6	1,135.9	1,135.6	3.8	3.8	33.14	699.9	457.0	835.9	828.3	7.61	109.910			
1,200.0	1,200.0	1,200.0	1,199.8	4.1	4.0	33.14	700.3	457.2	836.3	828.2	8.07	103.646			
1,300.0	1,300.0	1,279.1	1,278.9	4.4	4.3	33.15	701.6	458.2	838.3	829.6	8.70	96.375			
1,400.0	1,400.0	1,375.2	1,374.9	4.8	4.6	33.16	704.1	460.1	841.6	832.2	9.39	89.636			
1,500.0	1,500.0	1,484.1	1,483.8	5.2	5.0	33.17	706.7	461.9	844.5	834.4	10.13	83.389			
1,600.0	1,600.0	1,591.9	1,591.5	5.5	5.4	33.17	708.3	463.0	846.3	835.4	10.86	77.912			
1,700.0	1,700.0	1,698.1	1,697.8	5.9	5.7	33.18	709.1	463.7	847.3	835.7	11.59	73.096			
1,800.0	1,800.0	1,800.6	1,800.3	6.2	6.1	33.21	709.3	464.3	847.7	835.4	12.31	68.882			
1,900.0	1,900.0	1,900.0	1,899.6	6.6	6.4	33.26	709.1	465.1	848.0	835.0	13.01	65.173			
2,000.0	2,000.0	1,997.3	1,996.9	6.9	6.8	33.31	709.1	466.0	848.5	834.8	13.71	61.892			
2,100.0	2,100.0	2,098.9	2,098.5	7.3	7.1	33.35	709.3	466.8	849.1	834.7	14.42	58.876			
2,200.0	2,200.0	2,199.2	2,198.8	7.7	7.5	33.38	709.5	467.4	849.6	834.5	15.13	56.153			
2,300.0	2,300.0	2,294.7	2,294.3	8.0	7.8	33.41	709.8	468.2	850.4	834.6	15.82	53.746			
2,400.0	2,400.0	2,394.5	2,394.1	8.4	8.2	33.44	710.5	469.2	851.4	834.9	16.53	51.511			
2,500.0	2,500.0	2,495.7	2,495.3	8.7	8.5	33.48	711.0	470.2	852.4	835.2	17.24	49.439			
2,600.0	2,600.0	2,598.6	2,598.2	9.1	8.9	33.54	711.1	471.4	853.2	835.2	17.96	47.503			
2,700.0	2,700.0	2,701.1	2,700.7	9.5	9.2	33.62	710.8	472.6	853.6	834.9	18.68	45.704			
2,800.0	2,800.0	2,806.5	2,806.1	9.8	9.6	33.73	709.8	474.0	853.5	834.1	19.40	43.990			
2,900.0	2,900.0	2,909.4	2,909.0	10.2	10.0	33.88	708.1	475.5	853.0	832.9	20.12	42.396			
3,000.0	3,000.0	3,014.9	3,014.4	10.5	10.3	34.06	705.7	477.1	852.0	831.1	20.85	40.871			
3,100.0	3,100.0	3,119.3	3,118.7	10.9	10.7	34.25	702.8	478.5	850.3	828.8	21.57	39.428			
3,200.0	3,200.0	3,219.4	3,218.8	11.2	11.0	34.40	699.9	479.3	848.5	826.2	22.27	38.091			
3,300.0	3,300.0	3,319.0	3,318.3	11.6	11.4	120.66	697.3	480.0	847.5	824.5	22.97	36.892			
3,301.6	3,301.6	3,320.6	3,320.0	11.6	11.4	120.66	697.2	480.0	847.5	824.5	22.98	36.874			
3,400.0	3,399.8	3,417.3	3,416.7	11.9	11.7	121.06	694.9	480.4	848.5	824.8	23.66	35.863			
3,500.0	3,499.5	3,517.5	3,516.9	12.3	12.1	121.62	692.6	480.7	851.4	827.0	24.35	34.959			
3,600.0	3,598.7	3,617.1	3,616.4	12.6	12.4	122.32	690.4	480.8	856.1	831.1	25.05	34.179			
3,700.0	3,697.5	3,714.5	3,713.8	13.0	12.8	123.14	688.4	480.8	863.0	837.3	25.74	33.528			
3,800.0	3,795.6	3,810.0	3,809.2	13.4	13.1	124.07	686.7	481.0	872.3	845.9	26.43	33.006			
3,900.0	3,893.4	3,907.7	3,906.9	13.7	13.4	125.24	685.0	481.1	883.3	856.2	27.13	32.557			
4,000.0	3,991.1	4,002.3	4,001.6	14.1	13.8	126.36	683.7	481.3	894.9	867.0	27.83	32.159			
4,100.0	4,088.8	4,097.1	4,096.4	14.5	14.1	127.44	682.6	481.5	907.1	878.6	28.52	31.800			
4,200.0	4,186.6	4,193.5	4,192.7	14.9	14.4	128.50	681.9	481.7	919.9	890.6	29.23	31.468			
4,300.0	4,284.3	4,290.1	4,289.3	15.3	14.8	129.52	681.3	481.9	933.1	903.1	29.94	31.164			
4,400.0	4,382.0	4,388.1	4,387.3	15.7	15.1	130.52	680.9	482.1	946.7	916.0	30.66	30.877			
4,500.0	4,479.8	4,486.1	4,485.3	16.1	15.5	131.50	680.4	482.2	960.5	929.1	31.38	30.610			
4,600.0	4,577.5	4,583.6	4,582.9	16.5	15.8	132.44	679.9	482.3	974.5	942.4	32.10	30.364			
4,700.0	4,675.3	4,681.2	4,680.4	17.0	16.1	133.35	679.5	482.4	988.9	956.1	32.81	30.136			
4,800.0	4,773.0	4,781.1	4,780.3	17.4	16.5	134.26	679.1	482.3	1,003.4	969.9	33.54	29.913			
4,900.0	4,870.7	4,880.5	4,879.7	17.8	16.8	135.13	678.5	482.1	1,017.9	983.7	34.27	29.702			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #1H (OFFSET) - OWB - AWB														Offset Site Error:	0.0 usft
Survey Program: 100-GYRO-NS 7420-MWD														Offset Well Error:	0.0 usft
Reference		Offset		Semi-Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		N-S (usft)	E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
5,000.0	4,968.5	4,978.4	4,977.6	18.2	17.2	135.96	678.0	481.8	1,032.6	997.6	34.99	29.508			
5,100.0	5,066.2	5,079.1	5,078.3	18.7	17.5	136.78	677.5	481.3	1,047.4	1,011.7	35.73	29.315			
5,200.0	5,163.9	5,179.1	5,178.3	19.1	17.9	137.58	676.8	480.6	1,062.1	1,025.6	36.46	29.130			
5,300.0	5,261.7	5,277.1	5,276.4	19.6	18.2	138.34	676.0	479.8	1,076.9	1,039.7	37.18	28.960			
5,400.0	5,359.4	5,380.6	5,379.8	20.0	18.6	139.11	675.3	478.7	1,091.6	1,053.7	37.93	28.781			
5,500.0	5,457.1	5,480.6	5,479.8	20.5	18.9	139.82	674.4	477.2	1,106.2	1,067.5	38.66	28.611			
5,600.0	5,554.9	5,579.3	5,578.5	20.9	19.3	140.51	673.6	475.6	1,120.7	1,081.4	39.39	28.453			
5,700.0	5,652.6	5,676.8	5,675.9	21.4	19.6	141.16	672.8	474.0	1,135.5	1,095.4	40.11	28.308			
5,800.0	5,750.3	5,776.4	5,775.5	21.8	20.0	141.81	672.0	472.4	1,150.4	1,109.5	40.84	28.166			
5,900.0	5,848.1	5,873.6	5,872.7	22.3	20.3	142.44	671.0	470.7	1,165.3	1,123.7	41.56	28.037			
6,000.0	5,945.8	5,970.9	5,970.0	22.7	20.6	143.06	670.0	469.3	1,180.5	1,138.2	42.28	27.918			
6,100.0	6,043.6	6,068.2	6,067.3	23.2	21.0	143.67	669.0	467.9	1,195.8	1,152.8	43.00	27.807			
6,200.0	6,141.3	6,164.7	6,163.8	23.6	21.3	144.25	668.0	466.6	1,211.4	1,167.7	43.72	27.708			
6,300.0	6,239.0	6,261.5	6,260.5	24.1	21.7	144.84	666.9	465.5	1,227.2	1,182.8	44.44	27.617			
6,400.0	6,336.8	6,360.2	6,359.3	24.6	22.0	145.42	665.7	464.5	1,243.2	1,198.0	45.16	27.528			
6,500.0	6,434.5	6,458.0	6,457.0	25.0	22.3	146.00	664.3	463.5	1,259.2	1,213.3	45.88	27.445			
6,600.0	6,532.2	6,555.4	6,554.4	25.5	22.7	146.56	662.9	462.6	1,275.5	1,228.9	46.60	27.371			
6,700.0	6,630.0	6,651.7	6,650.7	26.0	23.0	147.10	661.5	461.7	1,291.8	1,244.5	47.31	27.304			
6,800.0	6,727.7	6,747.3	6,746.3	26.4	23.4	147.62	660.3	461.0	1,308.5	1,260.5	48.02	27.248			
6,900.0	6,825.4	6,847.2	6,846.2	26.9	23.7	148.16	658.8	460.4	1,325.4	1,276.6	48.75	27.187			
7,000.0	6,923.2	6,944.6	6,943.6	27.4	24.0	148.69	657.4	459.7	1,342.5	1,292.7	49.46	27.131			
7,100.0	7,020.9	7,041.3	7,040.3	27.8	24.3	149.21	656.0	459.0	1,359.6	1,308.7	50.17	27.075			
7,200.0	7,118.7	7,138.1	7,137.1	28.3	24.6	149.72	654.6	458.3	1,376.7	1,324.7	50.88	27.019			
7,300.0	7,216.4	7,235.8	7,234.8	28.8	24.9	150.23	653.2	457.6	1,393.8	1,340.7	51.59	26.963			
7,400.0	7,314.1	7,333.5	7,332.5	29.3	25.2	150.74	651.8	456.9	1,410.9	1,356.7	52.30	26.907			
7,500.0	7,411.9	7,431.3	7,430.3	29.7	25.5	151.25	650.4	456.2	1,428.0	1,372.7	53.01	26.851			
7,600.0	7,509.6	7,529.0	7,528.0	30.2	25.8	151.76	649.0	455.5	1,445.1	1,388.7	53.72	26.795			
7,700.0	7,607.3	7,626.7	7,625.7	30.7	26.1	152.27	647.6	454.8	1,462.2	1,404.7	54.43	26.739			
7,800.0	7,705.1	7,724.5	7,723.5	31.2	26.4	152.78	646.2	454.1	1,479.3	1,420.7	55.14	26.683			
7,900.0	7,802.8	7,822.2	7,821.2	31.6	26.7	153.29	644.8	453.4	1,496.4	1,436.7	55.85	26.627			
8,000.0	7,900.6	7,919.9	7,918.9	32.1	27.0	153.80	643.4	452.7	1,513.5	1,452.7	56.56	26.571			
8,100.0	7,998.3	8,017.7	8,016.7	32.6	27.3	154.31	642.0	452.0	1,530.6	1,468.7	57.27	26.515			
8,113.4	8,011.4	8,030.8	8,029.8	32.7	27.4	154.41	641.6	451.9	1,534.1	1,471.2	57.40	26.508			
8,200.0	8,096.0	8,115.4	8,114.4	33.1	27.8	154.92	640.2	451.2	1,551.2	1,487.2	58.11	26.452			
8,300.0	8,193.8	8,213.2	8,212.2	33.6	28.1	155.43	638.8	450.5	1,568.3	1,503.2	58.82	26.396			
8,400.0	8,291.5	8,310.9	8,309.9	34.0	28.5	155.94	637.4	449.8	1,585.4	1,519.2	59.53	26.340			
8,500.0	8,389.3	8,408.7	8,407.7	34.5	28.8	156.45	636.0	449.1	1,602.5	1,535.2	60.24	26.284			
8,600.0	8,487.0	8,506.4	8,505.4	35.0	29.1	156.96	634.6	448.4	1,619.6	1,551.2	60.95	26.228			
8,700.0	8,584.7	8,604.1	8,603.1	35.5	29.4	157.47	633.2	447.7	1,636.7	1,567.2	61.66	26.172			
8,800.0	8,682.5	8,701.9	8,700.9	36.0	29.7	157.98	631.8	447.0	1,653.8	1,583.2	62.37	26.116			
8,900.0	8,780.2	8,799.6	8,798.6	36.4	30.0	158.49	630.4	446.3	1,670.9	1,599.2	63.08	26.060			
9,000.0	8,878.0	8,897.4	8,896.4	36.9	30.3	159.00	629.0	445.6	1,688.0	1,615.2	63.79	26.004			
9,100.0	8,975.7	8,995.1	8,994.1	37.4	30.6	159.51	627.6	444.9	1,705.1	1,631.2	64.50	25.948			
9,200.0	9,073.4	9,092.8	9,091.8	37.9	30.9	160.02	626.2	444.2	1,722.2	1,647.2	65.21	25.892			
9,300.0	9,171.2	9,190.6	9,189.6	38.4	31.2	160.53	624.8	443.5	1,739.3	1,663.2	65.92	25.836			
9,400.0	9,269.1	9,288.5	9,287.5	38.8	31.5	161.04	623.4	442.8	1,756.4	1,679.2	66.63	25.780			
9,500.0	9,367.7	9,387.1	9,386.1	39.3	31.8	161.55	622.0	442.1	1,773.5	1,695.2	67.34	25.724			
9,600.0	9,466.8	9,486.2	9,485.2	39.7	32.1	162.06	620.6	441.4	1,790.6	1,711.2	68.05	25.668			
9,700.0	9,566.3	9,585.7	9,584.7	40.1	32.4	162.57	619.2	440.7	1,807.7	1,727.2	68.76	25.612			
9,800.0	9,666.1	9,685.5	9,684.5	40.4	32.7	163.08	617.8	440.0	1,824.8	1,743.2	69.47	25.556			
9,900.0	9,766.0	9,785.4	9,784.4	40.8	33.0	163.59	616.4	439.3	1,841.9	1,759.2	70.18	25.500			
10,000.0	9,866.0	9,885.4	9,884.4	41.1	33.3	164.10	615.0	438.6	1,859.0	1,775.2	70.89	25.444			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company	Tap Rock Resources, LLC	Local Co-ordinate Reference	Well Cypress 34 Federal #246H
Project	Eddy County, NM (NAD 83 NME)	TVD Reference	KB @ 3119.0usft
Reference Site	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference	KB @ 3119.0usft
Site Error	0.0 usft	North Reference	Grid
Reference Well	Cypress 34 Federal #246H	Survey Calculation Method	Minimum Curvature
Well Error	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database	EDM 5000.15 Single User Db
Reference Design	Plan #6	Offset TVD Reference	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #1H (OFFSET) - OWB - AWB												Offset Site Error	0.0 usft
Survey Program	100-GYRO-NS-7420-MWD	Offset	Semi Major Axis	Offset Wellbore Centre	Distance	Rule Assigned	Offset Well Error	0.0 usft					
Reference	Measured Vertical	Measured Vertical	Reference	Offset	Highside	Toolface	N-S	E-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
10,100.0	9,966.0	9,442.2	7,988.5	41.4	46.3	9.90	741.6	-1,171.6	2,072.5	2,028.4	44.06	47.034	
10,200.0	10,065.0	9,438.0	7,988.7	41.7	46.2	6.92	741.4	-1,167.5	2,163.6	2,120.0	43.56	49.668	
10,300.0	10,160.1	9,435.4	7,988.8	42.0	46.2	5.39	741.2	-1,164.8	2,247.5	2,204.6	42.92	52.369	
10,400.0	10,248.6	9,434.5	7,988.8	42.3	46.2	4.45	741.2	-1,163.9	2,322.6	2,280.4	42.19	55.046	
10,500.0	10,327.6	9,435.3	7,988.8	42.6	46.2	3.81	741.2	-1,164.7	2,387.4	2,346.0	41.45	57.594	



Intrepid Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #233H - OWB - Plan #2														Offset Site Error:	0.0 usft
Survey Program: 0-MWD														Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference Offset (usft)	Semi-Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre N-S (usft)	E-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.0	0.0	0.5	0.5	0.0	0.0	-90.00	0.0	-26.0	26.0						
100.0	100.0	100.5	100.5	0.1	0.1	-90.00	0.0	-26.0	26.0	25.7	0.27	97.684			
200.0	200.0	200.5	200.5	0.5	0.5	-90.00	0.0	-26.0	26.0	25.0	0.98	26.447			
300.0	300.0	300.5	300.5	0.8	0.9	-90.00	0.0	-26.0	26.0	24.3	1.70	15.294			
400.0	400.0	400.5	400.5	1.2	1.2	-90.00	0.0	-26.0	26.0	23.6	2.42	10.757			
500.0	500.0	500.5	500.5	1.6	1.6	-90.00	0.0	-26.0	26.0	22.9	3.13	8.296			
600.0	600.0	600.5	600.5	1.9	1.9	-90.00	0.0	-26.0	26.0	22.1	3.85	6.752			
700.0	700.0	700.5	700.5	2.3	2.3	-90.00	0.0	-26.0	26.0	21.4	4.57	5.692			
800.0	800.0	800.5	800.5	2.6	2.6	-90.00	0.0	-26.0	26.0	20.7	5.28	4.920			
900.0	900.0	900.5	900.5	3.0	3.0	-90.00	0.0	-26.0	26.0	20.0	6.00	4.332			
1,000.0	1,000.0	1,000.5	1,000.5	3.4	3.4	-90.00	0.0	-26.0	26.0	19.3	6.72	3.870			
1,100.0	1,100.0	1,100.5	1,100.5	3.7	3.7	-90.00	0.0	-26.0	26.0	18.6	7.44	3.497			
1,116.5	1,116.5	1,117.0	1,117.0	3.8	3.8	-90.00	0.0	-26.0	26.0	18.4	7.55	3.442 CC			
1,200.0	1,200.0	1,200.5	1,200.5	4.1	4.1	-90.00	0.0	-26.0	26.0	17.8	8.15	3.189 ES			
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	-89.40	0.3	-27.7	27.7	18.9	8.86	3.130			
1,400.0	1,400.0	1,398.4	1,398.2	4.8	4.8	-88.01	1.1	-32.8	32.9	23.3	9.54	3.445			
1,500.0	1,500.0	1,497.4	1,496.9	5.2	5.1	-86.51	2.5	-40.8	41.1	30.8	10.23	4.012			
1,600.0	1,600.0	1,597.1	1,596.2	5.5	5.5	-85.45	3.9	-49.4	49.7	38.8	10.94	4.547			
1,700.0	1,700.0	1,696.7	1,695.4	5.9	5.8	-84.71	5.4	-58.0	58.4	46.8	11.64	5.017			
1,800.0	1,800.0	1,796.3	1,794.7	6.2	6.2	-84.16	6.8	-66.5	67.1	54.8	12.35	5.434			
1,900.0	1,900.0	1,895.9	1,893.9	6.6	6.6	-83.73	8.2	-75.1	75.8	62.8	13.06	5.805			
2,000.0	2,000.0	1,995.5	1,993.1	6.9	6.9	-83.39	9.7	-83.6	84.5	70.7	13.77	6.137			
2,100.0	2,100.0	2,095.2	2,092.4	7.3	7.3	-83.12	11.1	-92.2	93.2	78.7	14.48	6.437			
2,200.0	2,200.0	2,194.8	2,191.6	7.7	7.7	-82.89	12.6	-100.8	101.9	86.7	15.19	6.709			
2,300.0	2,300.0	2,294.4	2,290.9	8.0	8.0	-82.70	14.0	-109.3	110.6	94.7	15.91	6.955			
2,400.0	2,400.0	2,394.0	2,390.1	8.4	8.4	-82.54	15.4	-117.9	119.3	102.7	16.62	7.181			
2,500.0	2,500.0	2,493.6	2,489.3	8.7	8.8	-82.40	16.9	-126.5	128.1	110.7	17.33	7.388			
2,600.0	2,600.0	2,593.3	2,588.6	9.1	9.2	-82.27	18.3	-135.0	136.8	118.7	18.05	7.578			
2,700.0	2,700.0	2,692.9	2,687.8	9.5	9.5	-82.16	19.8	-143.6	145.5	126.7	18.76	7.754			
2,800.0	2,800.0	2,792.5	2,787.1	9.8	9.9	-82.07	21.2	-152.1	154.2	134.7	19.48	7.916			
2,900.0	2,900.0	2,892.1	2,886.3	10.2	10.3	-81.98	22.6	-160.7	162.9	142.7	20.19	8.067			
3,000.0	3,000.0	2,991.7	2,985.5	10.5	10.7	-81.90	24.1	-169.3	171.6	150.7	20.91	8.208			
3,100.0	3,100.0	3,091.4	3,084.8	10.9	11.0	-81.83	25.5	-177.8	180.3	158.7	21.63	8.339			
3,200.0	3,200.0	3,191.0	3,184.0	11.2	11.4	-81.77	27.0	-186.4	189.0	166.7	22.34	8.462			
3,300.0	3,300.0	3,284.9	3,277.5	11.6	11.8	4.31	28.5	-195.7	197.4	174.4	22.99	8.586			
3,400.0	3,399.8	3,378.0	3,369.8	11.9	12.1	4.48	30.6	-207.9	205.5	181.9	23.60	8.707			
3,500.0	3,499.5	3,470.9	3,461.4	12.3	12.5	4.71	33.1	-223.0	213.3	189.1	24.18	8.820			
3,600.0	3,598.7	3,564.6	3,553.3	12.6	12.9	5.01	36.2	-241.2	220.9	196.1	24.77	8.916			
3,700.0	3,697.5	3,664.5	3,650.9	13.0	13.3	5.40	39.6	-261.6	226.2	200.7	25.48	8.876			
3,800.0	3,795.6	3,764.4	3,748.7	13.4	13.8	5.86	43.0	-282.1	228.0	201.8	26.20	8.704			
3,900.0	3,893.4	3,864.4	3,846.5	13.7	14.2	6.37	46.5	-302.6	227.8	200.9	26.91	8.464			
4,000.0	3,991.1	3,964.4	3,944.3	14.1	14.7	6.89	49.9	-323.1	227.6	199.9	27.64	8.234			
4,100.0	4,088.8	4,064.4	4,042.1	14.5	15.1	7.40	53.4	-343.6	227.3	199.0	28.36	8.016			
4,200.0	4,186.6	4,164.4	4,139.9	14.9	15.6	7.92	56.8	-364.1	227.1	198.0	29.09	7.809			
4,300.0	4,284.3	4,264.3	4,237.7	15.3	16.0	8.44	60.3	-384.6	227.0	197.1	29.82	7.611			
4,400.0	4,382.0	4,364.3	4,335.5	15.7	16.5	8.96	63.7	-405.1	226.8	196.2	30.55	7.423			
4,500.0	4,479.8	4,464.3	4,433.3	16.1	16.9	9.48	67.2	-425.6	226.7	195.4	31.29	7.243			
4,600.0	4,577.5	4,564.3	4,531.1	16.5	17.4	10.00	70.6	-446.1	226.5	194.5	32.03	7.071			
4,700.0	4,675.3	4,664.2	4,628.9	17.0	17.9	10.52	74.1	-466.6	226.4	193.6	32.78	6.907			
4,800.0	4,773.0	4,764.2	4,726.7	17.4	18.3	11.04	77.5	-487.1	226.3	192.8	33.53	6.751			
4,900.0	4,870.7	4,864.2	4,824.5	17.8	18.8	11.56	81.0	-507.6	226.3	192.0	34.28	6.601			
5,000.0	4,968.5	4,964.2	4,922.2	18.2	19.3	12.09	84.4	-528.1	226.2	191.2	35.03	6.457			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S-R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S-R-29-E - Cypress 34 Federal #233H - OWB - Plan #2													Offset Site Error:	0.0 usft	
Survey Program: 0-MWD														Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference Offset (usft)	Semi-Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre N/S (usft)	Offset Wellbore Centre E/W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
5,100.0	5,066.2	5,064.2	5,020.0	18.7	19.7	12.61	87.9	-548.6	226.2	190.4	35.79	6.320			
5,200.0	5,163.9	5,164.1	5,117.8	19.1	20.2	13.13	91.3	-569.1	226.2	189.6	36.55	6.188			
5,215.1	5,178.7	5,179.3	5,132.6	19.2	20.3	13.21	91.8	-572.2	226.2	189.5	36.67	6.168			
5,300.0	5,261.7	5,264.1	5,215.6	19.6	20.7	13.65	94.7	-589.6	226.2	188.9	37.32	6.061			
5,400.0	5,359.4	5,364.1	5,313.4	20.0	21.1	14.17	98.2	-610.1	226.2	188.1	38.08	5.940			
5,500.0	5,457.1	5,464.1	5,411.2	20.5	21.6	14.70	101.6	-630.6	226.2	187.4	38.85	5.823			
5,600.0	5,554.9	5,564.1	5,509.0	20.9	22.1	15.22	105.1	-651.1	226.3	186.7	39.63	5.711			
5,700.0	5,652.6	5,664.0	5,606.8	21.4	22.6	15.74	108.5	-671.6	226.4	186.0	40.40	5.603			
5,800.0	5,750.3	5,764.0	5,704.6	21.8	23.0	16.26	112.0	-692.1	226.5	185.3	41.19	5.499			
5,900.0	5,848.1	5,864.0	5,802.4	22.3	23.5	16.78	115.4	-712.6	226.6	184.6	41.97	5.399			
6,000.0	5,945.8	5,964.0	5,900.2	22.7	24.0	17.30	118.9	-733.1	226.7	184.0	42.76	5.303			
6,100.0	6,043.6	6,063.9	5,998.0	23.2	24.5	17.82	122.3	-753.6	226.9	183.4	43.55	5.210			
6,200.0	6,141.3	6,163.9	6,095.8	23.6	24.9	18.34	125.8	-774.1	227.1	182.7	44.34	5.121			
6,300.0	6,239.0	6,263.9	6,193.6	24.1	25.4	18.86	129.2	-794.6	227.3	182.1	45.14	5.035			
6,400.0	6,336.8	6,368.3	6,295.8	24.6	25.9	19.43	132.7	-815.4	227.0	180.9	46.02	4.932			
6,500.0	6,434.5	6,476.4	6,402.4	25.0	26.4	20.27	135.8	-833.5	223.4	176.5	46.94	4.760			
6,600.0	6,532.2	6,584.1	6,509.1	25.5	26.8	21.41	138.1	-847.6	216.3	168.5	47.82	4.524			
6,700.0	6,630.0	6,690.9	6,615.4	26.0	27.2	22.96	139.8	-857.6	205.7	157.1	48.66	4.228			
6,800.0	6,727.7	6,796.7	6,721.0	26.4	27.6	25.05	140.8	-863.7	191.8	142.3	49.49	3.875			
6,900.0	6,825.4	6,901.1	6,825.4	26.9	28.0	27.93	141.2	-865.9	174.8	124.4	50.33	3.472			
7,000.0	6,923.2	6,999.4	6,923.7	27.4	28.3	31.56	141.2	-865.9	156.3	105.0	51.34	3.044			
7,100.0	7,020.9	7,097.2	7,021.4	27.8	28.6	36.11	141.2	-865.9	138.6	86.1	52.49	2.640			
7,200.0	7,118.7	7,194.9	7,119.2	28.3	28.9	41.92	141.2	-865.9	122.0	68.2	53.80	2.267			
7,300.0	7,216.4	7,292.6	7,216.9	28.8	29.2	49.41	141.2	-865.9	107.0	51.7	55.31	1.934			
7,400.0	7,314.1	7,390.4	7,314.6	29.3	29.5	59.05	141.2	-865.9	94.4	37.4	57.03	1.655			
7,500.0	7,411.9	7,488.1	7,412.4	29.7	29.8	71.08	141.2	-865.9	85.3	26.5	58.79	1.450 Level 3			
7,600.0	7,509.6	7,585.8	7,510.1	30.2	30.1	85.10	141.2	-865.9	80.8	20.5	60.21	1.341 Level 3			
7,662.5	7,570.7	7,647.0	7,571.2	30.5	30.3	90.00	141.2	-865.9	80.2	19.4	60.74	1.320 Level 3			
7,700.0	7,607.3	7,683.6	7,607.8	30.7	30.4	92.95	141.2	-865.9	80.3	19.4	60.91	1.319 Level 3, SF			
7,800.0	7,705.1	7,781.3	7,705.6	31.2	30.7	107.18	141.2	-865.9	84.1	23.3	60.86	1.383 Level 3			
7,900.0	7,802.8	7,879.1	7,803.3	31.6	31.0	119.54	141.2	-865.9	92.7	32.3	60.46	1.534			
8,000.0	7,900.6	7,976.8	7,901.1	32.1	31.3	129.50	141.2	-865.9	104.9	44.8	60.11	1.746			
8,100.0	7,998.3	8,074.5	7,998.8	32.6	31.6	137.25	141.2	-865.9	119.7	59.7	59.98	1.995			
8,200.0	8,096.0	8,172.3	8,096.5	33.1	31.9	143.26	141.2	-865.9	136.1	76.0	60.07	2.266			
8,300.0	8,193.8	8,270.0	8,194.3	33.6	32.2	147.95	141.2	-865.9	153.7	93.4	60.33	2.547			
8,400.0	8,291.5	8,367.8	8,292.0	34.0	32.5	151.67	141.2	-865.9	172.1	111.3	60.72	2.834			
8,500.0	8,389.3	8,465.5	8,389.8	34.5	32.8	154.66	141.2	-865.9	191.0	129.8	61.20	3.121			
8,600.0	8,487.0	8,563.2	8,487.5	35.0	33.2	157.12	141.2	-865.9	210.4	148.7	61.75	3.408			
8,700.0	8,584.7	8,661.0	8,585.2	35.5	33.5	159.16	141.2	-865.9	230.1	167.8	62.33	3.691			
8,800.0	8,682.5	8,758.7	8,683.0	36.0	33.8	160.88	141.2	-865.9	250.0	187.1	62.95	3.972			
8,900.0	8,780.2	8,856.5	8,780.7	36.4	34.1	162.35	141.2	-865.9	270.1	206.5	63.59	4.248			
9,000.0	8,878.0	8,954.2	8,878.5	36.9	34.4	163.61	141.2	-865.9	290.4	226.1	64.24	4.520			
9,100.0	8,975.7	9,051.9	8,976.2	37.4	34.7	164.71	141.2	-865.9	310.8	245.8	64.91	4.788			
9,200.0	9,073.4	9,149.7	9,073.9	37.9	35.0	165.67	141.2	-865.9	331.2	265.6	65.59	5.050			
9,300.0	9,171.2	9,247.4	9,171.7	38.4	35.4	166.52	141.2	-865.9	351.8	285.5	66.27	5.308			
9,400.0	9,269.1	9,345.4	9,269.6	38.8	35.7	167.31	141.2	-865.9	371.4	304.5	66.96	5.547			
9,500.0	9,367.7	9,443.9	9,368.2	39.3	36.0	167.93	141.2	-865.9	387.8	320.2	67.66	5.732			
9,600.0	9,466.8	9,543.0	9,467.3	39.7	36.3	168.38	141.2	-865.9	400.9	332.6	68.36	5.865			
9,700.0	9,566.3	9,642.5	9,566.8	40.1	36.7	168.70	141.2	-865.9	410.6	341.6	69.05	5.947			
9,800.0	9,666.1	9,742.3	9,666.6	40.4	37.0	168.89	141.2	-865.9	416.9	347.2	69.75	5.978			
9,900.0	9,766.0	9,842.3	9,766.5	40.8	37.3	168.98	141.2	-865.9	419.8	349.4	70.44	5.960			
10,000.0	9,866.0	9,942.3	9,866.5	41.1	37.6	90.01	141.2	-865.9	420.0	348.9	71.12	5.905			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #233H - OWB - Plan #2														Offset Site Error:	0.0 usft
Survey Program: O-MWD														Offset Well Error:	0.0 usft
Measured Reference	Vertical Depth	Measured Vertical Depth	Offset Vertical Depth	Semi Major Axis	Offset	Highside	Offset Wellbore Centre		Distance	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	N-S (usft)	E-W (usft)		(usft)	(usft)	(usft)			
10,000.0	9,866.0	9,942.3	9,866.5	41.1	37.6	90.01	141.2	-865.9	420.0	348.9	71.12	5.905			
10,100.0	9,966.0	10,042.3	9,966.5	41.4	38.0	90.71	141.2	-865.9	420.0	348.2	71.80	5.849			
10,200.0	10,065.0	10,141.2	10,065.5	41.7	38.3	92.47	141.2	-865.9	420.4	347.9	72.45	5.803			
10,300.0	10,160.1	10,236.4	10,160.6	42.0	38.6	96.14	141.2	-865.9	422.8	349.7	73.07	5.786			
10,400.0	10,248.6	10,324.8	10,249.1	42.3	38.9	100.82	141.2	-865.9	430.7	356.9	73.76	5.839			
10,500.0	10,327.6	10,403.8	10,328.1	42.6	39.2	105.31	141.2	-865.9	448.2	373.6	74.57	6.010			
10,600.0	10,394.8	10,476.6	10,400.9	42.8	39.4	108.91	141.4	-865.9	478.9	403.3	75.59	6.336			
10,700.0	10,448.2	10,527.0	10,520.1	43.1	39.8	115.53	156.9	-866.1	520.5	443.7	76.84	6.774			
10,800.0	10,486.0	10,572.5	10,681.9	43.4	40.4	124.00	222.9	-866.8	566.1	490.1	75.96	7.452			
10,900.0	10,507.3	11,035.5	10,868.6	43.7	41.1	132.77	404.6	-868.7	604.0	533.2	70.81	8.529			
11,000.0	10,511.9	11,396.1	10,959.8	44.0	42.4	136.81	747.5	-872.3	613.6	545.5	68.11	9.010			
11,100.0	10,511.9	11,496.1	10,959.4	44.4	42.8	136.79	847.4	-873.4	613.4	544.4	69.02	8.887			
11,200.0	10,511.8	11,596.1	10,959.0	44.9	43.4	136.77	947.4	-874.4	613.1	543.1	70.01	8.758			
11,300.0	10,511.8	11,696.1	10,958.7	45.4	44.0	136.75	1,047.4	-875.5	612.9	541.8	71.08	8.623			
11,400.0	10,511.7	11,796.1	10,958.3	46.0	44.6	136.73	1,147.4	-876.5	612.7	540.4	72.22	8.483			
11,500.0	10,511.6	11,896.1	10,957.9	46.7	45.3	136.70	1,247.4	-877.6	612.4	539.0	73.43	8.340			
11,600.0	10,511.6	11,996.1	10,957.5	47.4	46.0	136.68	1,347.4	-878.7	612.2	537.5	74.72	8.193			
11,700.0	10,511.5	12,096.1	10,957.1	48.1	46.8	136.66	1,447.4	-879.7	611.9	535.9	76.06	8.045			
11,800.0	10,511.5	12,196.1	10,956.7	48.9	47.7	136.64	1,547.4	-880.8	611.7	534.2	77.47	7.896			
11,900.0	10,511.4	12,296.1	10,956.3	49.8	48.6	136.62	1,647.4	-881.8	611.5	532.5	78.94	7.746			
12,000.0	10,511.3	12,396.1	10,955.9	50.7	49.5	136.60	1,747.4	-882.9	611.2	530.8	80.46	7.597			
12,100.0	10,511.3	12,496.1	10,955.5	51.6	50.5	136.58	1,847.4	-883.9	611.0	528.9	82.03	7.448			
12,200.0	10,511.2	12,596.1	10,955.1	52.6	51.5	136.55	1,947.4	-885.0	610.7	527.1	83.65	7.301			
12,300.0	10,511.1	12,696.1	10,954.7	53.6	52.5	136.53	2,047.4	-886.1	610.5	525.2	85.32	7.155			
12,400.0	10,511.1	12,796.1	10,954.3	54.6	53.5	136.51	2,147.4	-887.1	610.3	523.2	87.03	7.012			
12,500.0	10,511.0	12,896.1	10,953.9	55.7	54.6	136.49	2,247.3	-888.2	610.0	521.2	88.79	6.871			
12,600.0	10,511.0	12,996.1	10,953.5	56.8	55.8	136.47	2,347.3	-889.2	609.8	519.2	90.58	6.732			
12,700.0	10,510.9	13,096.1	10,953.2	57.9	56.9	136.45	2,447.3	-890.3	609.5	517.1	92.41	6.596			
12,800.0	10,510.8	13,196.1	10,952.8	59.1	58.1	136.43	2,547.3	-891.3	609.3	515.0	94.28	6.463			
12,900.0	10,510.8	13,296.1	10,952.4	60.2	59.3	136.40	2,647.3	-892.4	609.1	512.9	96.18	6.333			
13,000.0	10,510.7	13,396.1	10,952.0	61.4	60.5	136.38	2,747.3	-893.5	608.8	510.7	98.10	6.206			
13,100.0	10,510.7	13,496.1	10,951.6	62.6	61.7	136.36	2,847.3	-894.5	608.6	508.5	100.06	6.082			
13,200.0	10,510.6	13,596.1	10,951.2	63.9	63.0	136.34	2,947.3	-895.6	608.3	506.3	102.05	5.961			
13,300.0	10,510.5	13,696.1	10,950.8	65.1	64.3	136.32	3,047.3	-896.6	608.1	504.0	104.07	5.843			
13,400.0	10,510.5	13,796.1	10,950.4	66.4	65.5	136.30	3,147.3	-897.7	607.9	501.8	106.10	5.729			
13,500.0	10,510.4	13,896.1	10,950.0	67.7	66.9	136.28	3,247.3	-898.7	607.6	499.5	108.17	5.617			
13,600.0	10,510.3	13,996.1	10,949.6	69.0	68.2	136.25	3,347.3	-899.8	607.4	497.1	110.25	5.509			
13,700.0	10,510.3	14,096.1	10,949.2	70.3	69.5	136.23	3,447.3	-900.9	607.1	494.8	112.36	5.404			
13,800.0	10,510.2	14,196.0	10,948.8	71.7	70.9	136.21	3,547.3	-901.9	606.9	492.4	114.48	5.301			
13,900.0	10,510.2	14,296.0	10,948.4	73.0	72.2	136.19	3,647.3	-903.0	606.7	490.0	116.63	5.202			
14,000.0	10,510.1	14,396.0	10,948.0	74.4	73.6	136.17	3,747.2	-904.0	606.4	487.6	118.79	5.105			
14,100.0	10,510.0	14,496.0	10,947.7	75.7	75.0	136.15	3,847.2	-905.1	606.2	485.2	120.98	5.011			
14,200.0	10,510.0	14,596.0	10,947.3	77.1	76.4	136.12	3,947.2	-906.1	605.9	482.8	123.17	4.919			
14,300.0	10,509.9	14,696.0	10,946.9	78.5	77.8	136.10	4,047.2	-907.2	605.7	480.3	125.39	4.831			
14,400.0	10,509.9	14,796.0	10,946.5	79.9	79.2	136.08	4,147.2	-908.3	605.5	477.9	127.62	4.744			
14,500.0	10,509.8	14,896.0	10,946.1	81.3	80.6	136.06	4,247.2	-909.3	605.2	475.4	129.86	4.661			
14,600.0	10,509.7	14,996.0	10,945.7	82.8	82.1	136.04	4,347.2	-910.4	605.0	472.9	132.11	4.579			
14,700.0	10,509.7	15,096.0	10,945.3	84.2	83.5	136.01	4,447.2	-911.4	604.8	470.4	134.38	4.500			
14,800.0	10,509.6	15,196.0	10,944.9	85.6	85.0	135.99	4,547.2	-912.5	604.5	467.8	136.67	4.423			
14,900.0	10,509.6	15,296.0	10,944.5	87.1	86.4	135.97	4,647.2	-913.5	604.3	465.3	138.96	4.349			
15,000.0	10,509.5	15,396.0	10,944.1	88.5	87.9	135.95	4,747.2	-914.6	604.0	462.8	141.26	4.276			
15,100.0	10,509.4	15,496.0	10,943.7	90.0	89.4	135.93	4,847.2	-915.7	603.8	460.2	143.58	4.205			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #233H - OWB - Plan #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference	Measured	Offset	Measured	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance		Rule Assigned	Warning			
Depth	Depth	Depth	Depth	Depth	Reference	Offset	N/S	E/W	Between	Between	Minimum	Separation		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	Centres	Ellipses	Separation	Factor		
15,200.0	10,509.4	15,596.0	10,943.3	91.5	90.8	135.91	4,947.2	-916.7	603.6	457.7	145.91	4.137		
15,300.0	10,509.3	15,696.0	10,942.9	92.9	92.3	135.88	5,047.2	-917.8	603.3	455.1	148.24	4.070		
15,400.0	10,509.2	15,796.0	10,942.6	94.4	93.8	135.86	5,147.1	-918.8	603.1	452.5	150.59	4.005		
15,500.0	10,509.2	15,896.0	10,942.2	95.9	95.3	135.84	5,247.1	-919.9	602.8	449.9	152.94	3.942		
15,600.0	10,509.1	15,996.0	10,941.8	97.4	96.8	135.82	5,347.1	-920.9	602.6	447.3	155.31	3.880		
15,700.0	10,509.1	16,096.0	10,941.4	98.9	98.3	135.80	5,447.1	-922.0	602.4	444.7	157.68	3.820		
15,796.9	10,509.0	16,190.9	10,941.0	100.4	99.7	135.77	5,542.0	-923.0	602.1	442.3	159.88	3.766		
15,800.0	10,509.0	16,190.9	10,941.0	100.4	99.7	135.77	5,542.0	-923.0	602.2	442.4	159.80	3.768		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #234H (OFFSET) - OWB - AWB														Offset Site Error:	0.0 usft
Survey Program: 127-MWD														Offset Well Error:	0.0 usft
Reference	Measured Vertical	Offset	Reference	Measured Vertical	Semi-Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned	Between	Between	Minimum	Separation	Warning	
Depth	Depth	Depth	Depth	Depth	Reference	Toolface	N-S	E-W	Between	Centres	Ellipses	Separation	Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(usft)		
0.0	0.0	0.5	0.5	0.0	0.0	78.96	32.0	164.0	167.1						
100.0	100.0	100.1	100.1	0.1	0.1	78.93	32.1	164.1	167.2	166.9		0.27	608.566		
200.0	200.0	199.5	199.5	0.5	0.4	78.83	32.5	164.4	167.6	166.7	0.93	179.962	ES		
300.0	300.0	298.7	298.7	0.8	0.8	78.62	33.2	165.1	168.4	166.8	1.65	102.369			
400.0	400.0	397.2	397.2	1.2	1.1	78.27	34.5	166.4	170.0	167.7	2.36	72.121			
500.0	500.0	497.1	497.0	1.6	1.5	77.85	36.2	168.1	172.0	168.9	3.07	55.958			
600.0	600.0	597.1	597.0	1.9	1.9	77.44	37.8	169.8	174.0	170.3	3.79	45.912			
700.0	700.0	697.0	696.9	2.3	2.2	77.18	39.1	171.7	176.1	171.6	4.51	39.069			
800.0	800.0	797.1	797.0	2.6	2.6	77.21	39.4	173.7	178.1	172.9	5.22	34.114			
900.0	900.0	898.6	898.5	3.0	2.9	77.54	38.8	175.4	179.6	173.7	5.93	30.270			
1,000.0	1,000.0	999.0	998.8	3.4	3.3	78.14	37.1	176.6	180.5	173.9	6.64	27.185			
1,100.0	1,100.0	1,096.8	1,096.5	3.7	3.6	79.01	34.7	178.7	182.1	174.7	7.34	24.808			
1,200.0	1,200.0	1,195.2	1,194.9	4.1	4.0	80.10	31.7	181.9	184.8	176.7	8.04	22.977			
1,300.0	1,300.0	1,294.9	1,294.4	4.4	4.3	81.37	28.2	185.7	187.9	179.2	8.75	21.467			
1,400.0	1,400.0	1,393.9	1,393.3	4.8	4.7	82.69	24.3	189.6	191.3	181.9	9.46	20.219			
1,500.0	1,500.0	1,492.5	1,491.8	5.2	5.0	83.50	22.1	194.0	195.5	185.3	10.17	19.215			
1,600.0	1,600.0	1,592.0	1,591.1	5.5	5.4	83.65	22.1	198.7	200.1	189.2	10.89	18.380			
1,700.0	1,700.0	1,692.1	1,691.1	5.9	5.8	83.53	23.1	203.2	204.8	193.2	11.60	17.645			
1,800.0	1,800.0	1,791.1	1,790.0	6.2	6.1	83.42	24.0	207.8	209.5	197.1	12.32	17.007			
1,900.0	1,900.0	1,889.2	1,888.0	6.6	6.5	83.19	25.4	213.0	214.8	201.8	13.02	16.498			
2,000.0	2,000.0	1,987.1	1,985.7	6.9	6.8	82.80	27.6	218.9	221.1	207.4	13.73	16.108			
2,100.0	2,100.0	2,086.1	2,084.4	7.3	7.2	82.32	30.4	225.4	228.0	213.6	14.44	15.795			
2,200.0	2,200.0	2,185.4	2,183.4	7.7	7.6	81.87	33.2	232.2	235.2	220.0	15.15	15.525			
2,300.0	2,300.0	2,285.2	2,283.0	8.0	7.9	81.42	36.1	239.1	242.4	226.6	15.86	15.281			
2,400.0	2,400.0	2,385.1	2,382.6	8.4	8.3	80.93	39.2	245.9	249.6	233.0	16.58	15.055			
2,500.0	2,500.0	2,482.8	2,480.0	8.7	8.7	80.59	41.9	252.9	257.2	239.9	17.28	14.880			
2,600.0	2,600.0	2,580.5	2,577.3	9.1	9.0	80.54	43.5	260.9	265.5	247.6	17.99	14.764			
2,700.0	2,700.0	2,679.6	2,676.1	9.5	9.4	80.61	44.6	269.6	274.4	255.7	18.70	14.672			
2,800.0	2,800.0	2,779.0	2,775.1	9.8	9.8	80.68	45.7	278.5	283.3	263.9	19.42	14.593			
2,900.0	2,900.0	2,880.4	2,876.1	10.2	10.2	80.93	45.8	287.4	292.0	271.9	20.15	14.494			
3,000.0	3,000.0	2,981.3	2,976.6	10.5	10.5	81.44	44.5	295.8	300.1	279.3	20.87	14.379			
3,100.0	3,100.0	3,081.0	3,076.0	10.9	10.9	81.57	45.0	303.8	308.1	286.5	21.59	14.270			
3,200.0	3,200.0	3,181.9	3,176.6	11.2	11.3	81.20	48.2	311.4	316.0	293.7	22.32	14.159			
3,300.0	3,300.0	3,284.6	3,279.0	11.6	11.7	166.92	51.0	318.3	324.8	301.7	23.04	14.093			
3,400.0	3,399.8	3,379.1	3,373.2	11.9	12.0	166.88	53.1	324.7	336.9	313.2	23.71	14.208			
3,500.0	3,499.5	3,473.8	3,467.5	12.3	12.4	166.93	55.5	332.7	354.1	329.7	24.38	14.522			
3,600.0	3,598.7	3,570.4	3,563.7	12.6	12.7	167.07	58.0	341.5	375.2	350.1	25.06	14.968			
3,700.0	3,697.5	3,666.6	3,659.5	13.0	13.1	167.28	60.7	350.3	399.8	374.1	25.75	15.528			
3,800.0	3,795.6	3,761.8	3,754.3	13.4	13.5	167.53	63.3	359.3	427.9	401.5	26.43	16.192			
3,900.0	3,893.4	3,856.5	3,848.5	13.7	13.8	167.88	66.1	368.3	458.1	431.0	27.10	16.905			
4,000.0	3,991.1	3,951.6	3,943.1	14.1	14.2	168.19	69.1	377.5	488.5	460.7	27.78	17.584			
4,100.0	4,088.8	4,050.1	4,041.1	14.5	14.6	168.47	72.2	386.7	518.6	490.1	28.48	18.207			
4,200.0	4,186.6	4,148.2	4,138.8	14.9	15.0	168.70	75.3	395.2	548.1	518.9	29.19	18.780			
4,300.0	4,284.3	4,244.2	4,234.4	15.3	15.3	168.87	78.6	403.3	577.4	547.5	29.88	19.325			
4,400.0	4,382.0	4,338.9	4,328.6	15.7	15.7	169.03	81.9	411.3	606.7	576.1	30.56	19.853			
4,500.0	4,479.8	4,434.5	4,423.9	16.1	16.0	169.17	85.2	419.5	636.1	604.8	31.25	20.356			
4,600.0	4,577.5	4,530.2	4,519.2	16.5	16.4	169.28	88.7	427.6	665.5	633.5	31.94	20.834			
4,700.0	4,675.3	4,628.2	4,616.8	17.0	16.8	169.39	92.2	435.8	694.7	662.0	32.65	21.276			
4,800.0	4,773.0	4,728.1	4,716.3	17.4	17.2	169.49	95.8	443.6	723.5	690.1	33.37	21.677			
4,900.0	4,870.7	4,823.7	4,811.6	17.8	17.5	169.58	99.1	450.9	752.0	717.9	34.07	22.071			
5,000.0	4,968.5	4,919.5	4,907.0	18.2	17.9	169.67	102.5	458.2	780.5	745.7	34.77	22.448			
5,100.0	5,066.2	5,008.0	4,995.2	18.7	18.2	169.73	105.7	465.0	809.2	773.8	35.42	22.846			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #234H (OFFSET) - OWB - AWB														Offset Site Error	0.0 usft
Survey Program: 127-MWD														Offset Well Error	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre N/S (usft)	E/W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
5,200.0	5,163.9	5,090.6	5,077.4	19.1	18.5	169.78	108.9	472.4	839.1	803.1	36.03	23.291			
5,300.0	5,261.7	5,176.4	5,162.6	19.6	18.9	169.82	112.5	481.5	870.6	833.9	36.66	23.749			
5,400.0	5,359.4	5,272.8	5,258.4	20.0	19.3	169.88	116.4	492.2	902.5	865.1	37.37	24.151			
5,500.0	5,457.1	5,371.0	5,355.9	20.5	19.6	169.94	120.1	502.8	934.0	895.9	38.09	24.519			
5,600.0	5,554.9	5,470.5	5,454.8	20.9	20.0	170.01	123.7	513.1	965.2	926.4	38.83	24.858			
5,700.0	5,652.6	5,578.3	5,562.0	21.4	20.4	170.11	127.0	523.4	995.6	955.9	39.62	25.127			
5,800.0	5,750.3	5,690.5	5,673.8	21.8	20.9	170.22	130.1	532.5	1,024.5	984.0	40.44	25.336			
5,900.0	5,848.1	5,793.3	5,776.3	22.3	21.3	170.30	133.1	539.4	1,052.1	1,010.9	41.19	25.544			
6,000.0	5,945.8	5,881.5	5,864.3	22.7	21.6	170.35	136.0	545.6	1,080.0	1,038.2	41.85	25.810			
6,100.0	6,043.6	5,977.5	5,960.0	23.2	22.0	170.39	139.2	552.7	1,108.3	1,065.8	42.56	26.044			
6,200.0	6,141.3	6,078.2	6,060.4	23.6	22.3	170.46	142.2	559.8	1,136.3	1,093.0	43.30	26.245			
6,300.0	6,239.0	6,176.2	6,158.2	24.1	22.7	170.55	144.5	566.6	1,164.1	1,120.1	44.02	26.446			
6,400.0	6,336.8	6,269.4	6,251.2	24.6	23.1	170.65	146.3	572.9	1,191.7	1,147.0	44.71	26.653			
6,500.0	6,434.5	6,353.6	6,335.0	25.0	23.4	170.71	148.5	579.3	1,220.2	1,174.9	45.35	26.908			
6,600.0	6,532.2	6,449.3	6,430.4	25.5	23.7	170.77	151.2	586.8	1,248.9	1,202.9	46.06	27.115			
6,700.0	6,630.0	6,534.3	6,515.1	26.0	24.1	170.86	152.8	594.1	1,278.2	1,231.5	46.70	27.371			
6,800.0	6,727.7	6,631.4	6,611.8	26.4	24.4	170.99	154.1	602.8	1,307.9	1,260.4	47.42	27.581			
6,900.0	6,825.4	6,740.2	6,720.2	26.9	24.8	171.13	155.2	611.9	1,336.9	1,288.7	48.22	27.727			
7,000.0	6,923.2	6,848.7	6,828.3	27.4	25.3	171.29	155.8	619.9	1,365.1	1,316.0	49.01	27.853			
7,100.0	7,020.9	6,944.4	6,923.9	27.8	25.6	171.43	156.0	626.4	1,392.6	1,342.9	49.72	28.009			
7,200.0	7,118.7	7,030.7	7,009.9	28.3	25.9	171.52	157.2	632.7	1,420.7	1,370.3	50.37	28.204			
7,300.0	7,216.4	7,131.0	7,109.9	28.8	26.3	171.57	159.7	640.4	1,449.2	1,398.1	51.11	28.352			
7,400.0	7,314.1	7,253.2	7,231.8	29.3	26.8	171.62	162.6	648.1	1,476.4	1,424.4	51.99	28.399			
7,500.0	7,411.9	7,340.9	7,319.4	29.7	27.1	171.67	164.6	652.9	1,502.9	1,450.2	52.65	28.542			
7,600.0	7,509.6	7,408.3	7,386.6	30.2	27.4	171.73	165.5	657.5	1,530.6	1,477.4	53.19	28.775			
7,700.0	7,607.3	7,465.0	7,443.1	30.7	27.6	164.47	166.7	662.7	1,560.2	1,506.6	53.64	29.086			
7,800.0	7,705.1	7,545.4	7,522.9	31.2	27.9	164.59	168.7	671.3	1,591.2	1,537.0	54.25	29.331			
7,900.0	7,802.8	7,650.1	7,627.0	31.6	28.3	164.74	171.4	683.0	1,622.6	1,567.6	55.04	29.481			
8,000.0	7,900.6	7,801.6	7,777.9	32.1	28.9	164.93	175.3	695.7	1,651.0	1,594.9	56.14	29.411			
8,100.0	7,998.3	7,877.9	7,853.9	32.6	29.2	165.02	177.3	701.5	1,679.1	1,622.3	56.73	29.597			
8,200.0	8,096.0	7,937.0	7,912.7	33.1	29.4	165.09	179.2	707.1	1,708.8	1,651.6	57.20	29.875			
8,300.0	8,193.8	8,019.6	7,994.8	33.6	29.7	165.16	182.1	716.0	1,739.9	1,682.1	57.83	30.088			
8,400.0	8,291.5	8,130.1	8,104.6	34.0	30.2	165.24	186.3	728.1	1,771.2	1,712.6	58.66	30.194			
8,500.0	8,389.3	8,211.7	8,185.6	34.5	30.5	165.31	189.2	736.9	1,802.3	1,743.1	59.28	30.402			
8,600.0	8,487.0	8,338.0	8,311.2	35.0	31.0	165.46	192.0	750.1	1,833.1	1,772.9	60.22	30.439			
8,700.0	8,584.7	8,508.4	8,481.1	35.5	31.6	165.79	191.5	763.5	1,861.4	1,800.0	61.41	30.313			
8,800.0	8,682.5	8,612.6	8,585.1	36.0	32.0	165.99	190.8	769.1	1,887.1	1,824.9	62.17	30.355			
8,900.0	8,780.2	8,693.0	8,665.4	36.4	32.3	166.13	190.5	773.6	1,913.1	1,850.3	62.80	30.466			
9,000.0	8,878.0	8,818.8	8,791.0	36.9	32.7	166.37	189.4	780.2	1,938.7	1,875.0	63.68	30.445			
9,100.0	8,975.7	8,925.8	8,897.9	37.4	33.1	166.57	188.3	784.8	1,963.4	1,899.0	64.45	30.463			
9,200.0	9,073.4	9,041.0	9,013.1	37.9	33.5	166.78	187.2	788.9	1,987.6	1,922.3	65.27	30.452			
9,300.0	9,171.2	9,178.9	9,150.9	38.4	34.0	167.04	185.0	792.0	2,010.3	1,944.1	66.18	30.378			
9,400.0	9,269.1	9,326.4	9,298.2	38.8	34.5	167.44	179.8	791.5	2,029.5	1,962.4	67.07	30.258			
9,500.0	9,367.7	9,409.0	9,380.8	39.3	34.7	167.69	176.2	790.5	2,044.7	1,977.0	67.71	30.199			
9,600.0	9,466.8	9,516.2	9,487.9	39.7	35.1	167.95	172.1	790.3	2,057.5	1,989.1	68.43	30.067			
9,700.0	9,566.3	9,639.0	9,610.6	40.1	35.4	168.18	167.5	787.9	2,065.1	1,995.9	69.20	29.844			
9,800.0	9,666.1	9,733.0	9,704.5	40.4	35.7	168.31	164.6	786.2	2,069.5	1,999.6	69.85	29.626			
9,900.0	9,766.0	9,795.2	9,766.7	40.8	35.9	168.37	163.2	785.9	2,071.7	2,001.3	70.38	29.434			
10,000.0	9,866.0	9,912.8	9,884.3	41.1	36.3	89.48	160.0	785.9	2,071.9	2,000.8	71.13	29.131			
10,100.0	9,966.0	10,030.2	10,001.6	41.4	36.7	90.25	156.3	784.3	2,070.5	1,998.7	71.85	28.816			
10,200.0	10,065.0	10,127.0	10,098.3	41.7	37.0	90.85	153.2	782.7	2,069.0	1,996.5	72.51	28.535			
10,300.0	10,160.1	10,224.1	10,195.4	42.0	37.3	91.85	149.9	781.1	2,068.1	1,994.9	73.16	28.266			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company	Tap Rock Resources, LLC	Local Co-ordinate Reference	Well Cypress 34 Federal #246H
Project	Eddy County, NM (NAD 83 NME)	TVD Reference	KB @ 3119.0usft
Reference Site	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference	KB @ 3119.0usft
Site Error	0.0 usft	North Reference	Grid
Reference Well	Cypress 34 Federal #246H	Survey Calculation Method	Minimum Curvature
Well Error	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database	EDM 5000.15 Single User Db
Reference Design	Plan #6	Offset TVD Reference	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #234H (OFFSET) - OWB - AWB													Offset Site Error		0.0 usft
Survey Program: 127-MWD													Offset Well Error		0.0 usft
Reference	Measured	Vertical	Offset	Reference	Offset	Highside	Offset Wellbore Centre		Distance		Rule Assigned	Offset Well Error		0.0 usft	
Depth	Depth	Depth	Depth	Depth	Depth	Footcandle	N/S	E/W	Between	Between	Minimum	Separation	Warning		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(ft)	(usft)	(usft)	(usft)	(usft)	(usft)	(usft)			
10,330.9	10,188.3	10,252.1	10,223.3	42.1	37.4	92.20	148.9	780.6	2,068.0	1,994.6	73.36	28.189			
10,400.0	10,248.6	10,310.9	10,282.1	42.3	37.6	92.99	146.8	779.6	2,068.5	1,994.7	73.78	28.035			
10,500.0	10,327.6	10,383.0	10,354.2	42.6	37.8	93.97	144.3	778.4	2,071.4	1,997.1	74.34	27.863			
10,600.0	10,394.8	10,439.4	10,410.5	42.8	38.0	94.48	142.2	777.6	2,078.2	2,003.3	74.84	27.770			
10,700.0	10,448.2	10,486.3	10,457.4	43.1	38.1	94.44	140.6	777.2	2,089.6	2,014.3	75.28	27.756			
10,800.0	10,486.0	10,526.3	10,497.3	43.4	38.2	93.80	140.1	776.9	2,106.2	2,030.5	75.69	27.824			
10,900.0	10,507.3	10,552.0	10,523.0	43.7	38.3	92.26	140.3	776.8	2,127.9	2,051.9	76.03	27.989			
11,000.0	10,511.9	11,548.6	11,075.0	44.0	41.7	105.30	791.8	763.6	2,132.0	2,052.6	79.43	26.842			
11,100.0	10,511.9	11,647.2	11,075.1	44.4	42.2	105.32	890.4	761.2	2,130.8	2,050.3	80.46	26.483			
11,200.0	10,511.8	11,726.8	11,073.3	44.9	42.7	105.27	970.0	760.0	2,129.7	2,048.3	81.48	26.139			
11,218.5	10,511.8	11,738.7	11,073.0	45.0	42.8	105.26	981.8	759.9	2,129.7	2,048.1	81.66	26.080			
11,300.0	10,511.8	11,793.6	11,071.4	45.4	43.1	105.22	1,036.8	760.1	2,130.3	2,047.8	82.48	25.827			
11,400.0	10,511.7	11,878.4	11,068.7	46.0	43.7	105.14	1,121.5	761.4	2,131.9	2,048.2	83.71	25.468			
11,500.0	10,511.6	11,996.0	11,066.0	46.7	44.5	105.05	1,239.0	762.6	2,133.3	2,048.0	85.32	25.005			
11,600.0	10,511.6	12,087.9	11,068.1	47.4	45.2	105.10	1,330.9	762.3	2,134.6	2,047.8	86.76	24.604			
11,700.0	10,511.5	12,174.5	11,069.9	48.1	45.9	105.14	1,417.5	762.5	2,136.4	2,048.1	88.23	24.214			
11,800.0	10,511.5	12,252.0	11,070.4	48.9	46.6	105.14	1,495.0	763.7	2,139.1	2,049.5	89.67	23.855			
11,900.0	10,511.4	12,332.0	11,069.3	49.8	47.3	105.09	1,574.9	766.3	2,142.9	2,051.7	91.22	23.491			
12,000.0	10,511.3	12,411.8	11,066.3	50.7	48.0	104.98	1,654.5	770.1	2,147.5	2,054.7	92.84	23.131			
12,100.0	10,511.3	12,496.2	11,062.8	51.6	48.8	104.85	1,738.8	774.9	2,153.0	2,058.4	94.57	22.765			
12,200.0	10,511.2	12,576.7	11,058.8	52.6	49.6	104.71	1,818.9	780.2	2,159.1	2,062.8	96.32	22.418			
12,300.0	10,511.1	12,668.6	11,052.6	53.6	50.6	104.50	1,910.3	787.6	2,166.3	2,068.0	98.28	22.042			
12,400.0	10,511.1	12,792.7	11,044.8	54.6	51.9	104.23	2,034.0	796.5	2,172.8	2,072.0	100.77	21.562			
12,500.0	10,511.0	12,875.8	11,039.5	55.7	52.8	104.05	2,116.7	802.3	2,179.0	2,076.3	102.72	21.212			
12,600.0	10,511.0	13,039.7	11,034.9	56.8	54.6	103.86	2,280.1	812.4	2,186.1	2,080.2	105.91	20.642			
12,700.0	10,510.9	13,213.1	11,036.2	57.9	56.6	103.88	2,453.4	813.2	2,187.3	2,078.1	109.23	20.025			
12,800.0	10,510.8	13,303.3	11,035.4	59.1	57.7	103.86	2,543.6	813.3	2,188.3	2,076.8	111.44	19.636			
12,900.0	10,510.8	13,481.9	11,032.5	60.2	59.8	103.79	2,722.2	810.0	2,186.9	2,071.9	114.98	19.019			
13,000.0	10,510.7	13,569.0	11,031.4	61.4	60.9	103.78	2,809.2	807.0	2,184.3	2,067.1	117.25	18.629			
13,100.0	10,510.7	13,643.7	11,031.7	62.6	61.8	103.80	2,883.9	804.8	2,182.6	2,063.3	119.36	18.287			
13,200.0	10,510.6	13,752.8	11,033.8	63.9	63.2	103.86	2,992.9	802.1	2,181.8	2,059.8	121.98	17.886			
13,300.0	10,510.5	13,832.1	11,035.3	65.1	64.2	103.91	3,072.2	800.2	2,180.9	2,056.7	124.20	17.560			
13,334.7	10,510.5	13,859.7	11,035.4	65.6	64.6	103.91	3,099.8	799.8	2,180.8	2,055.9	124.98	17.450			
13,400.0	10,510.5	13,911.4	11,034.7	66.4	65.2	103.90	3,151.4	799.5	2,181.0	2,054.6	126.45	17.248			
13,500.0	10,510.4	13,991.5	11,033.1	67.7	66.3	103.85	3,231.6	800.0	2,182.1	2,053.3	128.74	16.949			
13,600.0	10,510.3	14,063.0	11,033.4	69.0	67.2	103.85	3,303.0	800.4	2,184.0	2,053.1	130.88	16.687			
13,700.0	10,510.3	14,136.1	11,035.5	70.3	68.2	103.89	3,376.1	801.5	2,187.1	2,054.1	133.03	16.441			
13,800.0	10,510.2	14,383.2	11,040.9	71.7	71.6	104.03	3,623.1	799.6	2,188.2	2,050.1	138.11	15.844			
13,900.0	10,510.2	14,562.2	11,041.3	73.0	74.0	104.10	3,801.7	788.7	2,183.2	2,041.2	141.98	15.377			
14,000.0	10,510.1	14,653.4	11,042.8	74.4	75.3	104.18	3,892.6	781.7	2,177.1	2,032.6	144.57	15.060			
14,100.0	10,510.0	14,744.1	11,043.8	75.7	76.6	104.24	3,983.1	775.0	2,171.3	2,024.1	147.17	14.753			
14,200.0	10,510.0	14,817.9	11,041.8	77.1	77.6	104.21	4,056.7	771.0	2,166.4	2,016.8	149.58	14.484			
14,300.0	10,509.9	14,916.6	11,041.8	78.5	79.0	104.24	4,155.3	765.6	2,162.2	2,009.8	152.35	14.192			
14,400.0	10,509.9	15,073.9	11,043.5	79.9	81.3	104.35	4,312.2	754.8	2,156.9	2,000.9	155.97	13.829			
14,500.0	10,509.8	15,160.4	11,039.9	81.3	82.5	104.29	4,398.3	748.6	2,150.0	1,991.4	158.65	13.552			
14,600.0	10,509.7	15,192.0	11,039.0	82.8	83.0	104.28	4,429.9	746.5	2,144.9	1,984.5	160.45	13.368			
14,700.0	10,509.7	15,256.6	11,037.2	84.2	83.9	104.25	4,494.4	743.9	2,141.8	1,979.1	162.73	13.162			
14,760.4	10,509.6	15,286.0	11,036.3	85.1	84.3	104.22	4,523.8	743.7	2,141.4	1,977.5	163.92	13.064			
14,800.0	10,509.6	15,305.2	11,035.9	85.6	84.6	104.21	4,543.0	743.7	2,141.7	1,977.0	164.69	13.004			
14,900.0	10,509.6	15,380.0	11,036.0	87.1	85.7	104.21	4,617.7	744.3	2,143.5	1,976.4	167.08	12.829			
15,000.0	10,509.5	15,460.8	11,035.8	88.5	86.9	104.19	4,698.5	745.9	2,146.3	1,976.7	169.59	12.656			
15,100.0	10,509.4	15,543.0	11,034.0	90.0	88.1	104.12	4,780.7	748.4	2,149.7	1,977.5	172.15	12.487			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #234H (OFFSET) - OWB - AWB													Offset Site Error
Survey Program: 127-MWD													0.0 usft
Reference		Offset		Semi-Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		N-S (usft)	E-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
15,200.0	10,509.4	15,617.3	11,034.3	91.5	89.2	104.11	4,854.9	750.9	2,154.1	1,979.6	174.52	12.343	
15,300.0	10,509.3	15,697.0	11,035.4	92.9	90.4	104.11	4,934.5	754.4	2,159.7	1,982.7	176.98	12.203	
15,400.0	10,509.2	15,813.5	11,030.9	94.4	92.1	103.94	5,050.8	761.3	2,165.6	1,985.3	180.34	12.009	
15,500.0	10,509.2	15,915.7	11,030.1	95.9	93.6	103.89	5,152.8	765.5	2,170.5	1,987.2	183.34	11.838	
15,600.0	10,509.1	16,116.0	11,031.5	97.4	96.6	103.90	5,353.0	768.3	2,172.8	1,984.5	188.32	11.538	
15,700.0	10,509.1	16,122.0	11,031.6	98.9	96.7	103.90	5,359.0	768.2	2,175.3	1,986.0	189.37	11.487 SF	
15,800.0	10,509.0	16,122.0	11,031.6	100.4	96.7	103.90	5,359.0	768.2	2,182.4	1,992.5	189.98	11.488	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MDI Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #236H (OFFSET) - OWB - AWB														Offset Site Error		0.0 usft
Survey Program: 154-MWD														Offset Well Error		0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned		Distance		Offset Well Error		Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	N/S	E/W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor				
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)					
0.0	0.0	0.5	0.5	0.0	0.0	74.79	31.0	114.0	118.1							
100.0	100.0	100.6	100.6	0.1	0.1	74.87	30.8	114.0	118.1	117.8	0.28	418.636				
200.0	200.0	200.7	200.7	0.5	0.4	75.12	30.3	114.0	117.9	117.1	0.89	132.895				
300.0	300.0	300.7	300.7	0.8	0.8	75.57	29.3	114.0	117.7	116.1	1.60	73.366				
345.9	345.9	346.4	346.4	1.0	0.9	75.77	28.9	114.1	117.7	115.7	1.93	60.870				
400.0	400.0	399.6	399.6	1.2	1.1	76.06	28.4	114.5	118.0	115.7	2.32	50.927				
500.0	500.0	499.6	499.5	1.6	1.5	76.66	27.4	115.5	118.7	115.7	3.03	39.170				
600.0	600.0	599.3	599.3	1.9	1.8	77.52	25.9	116.8	119.6	115.9	3.75	31.929				
700.0	700.0	699.3	699.2	2.3	2.2	78.58	23.9	118.3	120.7	116.2	4.47	27.031				
800.0	800.0	799.2	799.1	2.6	2.5	79.68	21.8	119.9	121.8	116.6	5.18	23.503				
900.0	900.0	899.2	899.1	3.0	2.9	80.91	19.4	121.4	123.0	117.1	5.90	20.833				
1,000.0	1,000.0	999.2	999.0	3.4	3.3	82.37	16.5	123.1	124.2	117.5	6.62	18.745				
1,100.0	1,100.0	1,099.2	1,099.0	3.7	3.6	83.88	13.4	124.6	125.4	118.0	7.34	17.069				
1,200.0	1,200.0	1,199.1	1,198.8	4.1	4.0	85.37	10.2	126.2	126.6	118.6	8.06	15.702				
1,300.0	1,300.0	1,298.7	1,298.3	4.4	4.4	86.90	6.9	128.0	128.2	119.4	8.78	14.591				
1,400.0	1,400.0	1,399.4	1,399.0	4.8	4.7	88.29	3.9	129.7	129.8	120.3	9.49	13.667				
1,500.0	1,500.0	1,500.9	1,500.4	5.2	5.1	88.68	3.0	130.4	130.4	120.2	10.20	12.784				
1,600.0	1,600.0	1,601.9	1,601.4	5.5	5.4	88.23	4.0	130.0	130.1	119.2	10.89	11.939				
1,700.0	1,700.0	1,702.8	1,702.3	5.9	5.7	87.39	5.9	128.9	129.0	117.4	11.58	11.141				
1,800.0	1,800.0	1,804.5	1,803.9	6.2	6.1	86.07	8.7	126.7	127.0	114.8	12.27	10.349				
1,900.0	1,900.0	1,906.2	1,905.4	6.6	6.4	84.05	12.8	122.9	123.6	110.7	12.97	9.535				
2,000.0	2,000.0	2,004.5	2,003.6	6.9	6.7	81.81	17.1	119.1	120.4	106.7	13.66	8.810				
2,100.0	2,100.0	2,103.2	2,102.2	7.3	7.1	79.74	21.1	116.6	118.5	104.1	14.36	8.252				
2,200.0	2,200.0	2,203.9	2,202.8	7.7	7.4	77.42	25.4	113.9	116.8	101.7	15.06	7.754				
2,300.0	2,300.0	2,304.2	2,302.9	8.0	7.7	74.60	30.4	110.5	114.6	98.8	15.76	7.270				
2,400.0	2,400.0	2,403.0	2,401.5	8.4	8.1	71.90	35.1	107.5	113.1	96.6	16.47	6.870				
2,500.0	2,500.0	2,502.3	2,500.7	8.7	8.4	69.58	39.3	105.6	112.7	95.5	17.17	6.563				
2,600.0	2,600.0	2,602.2	2,600.5	9.1	8.8	67.21	43.6	103.8	112.6	94.7	17.88	6.298				
2,700.0	2,700.0	2,702.6	2,700.8	9.5	9.1	64.65	48.2	101.7	112.5	94.0	18.59	6.055				
2,800.0	2,800.0	2,803.6	2,801.7	9.8	9.5	61.92	52.7	98.7	111.9	92.6	19.30	5.797				
2,900.0	2,900.0	2,903.6	2,901.5	10.2	9.8	59.06	56.9	95.0	110.7	90.7	20.01	5.532				
3,000.0	3,000.0	3,002.8	3,000.6	10.5	10.2	56.17	61.4	91.6	110.2	89.5	20.72	5.319				
3,007.5	3,007.5	3,010.3	3,008.0	10.6	10.2	55.95	61.7	91.3	110.2	89.4	20.78	5.305 CC				
3,100.0	3,100.0	3,102.5	3,100.1	10.9	10.5	53.36	65.9	88.6	110.5	89.0	21.43	5.153				
3,200.0	3,200.0	3,202.4	3,199.9	11.2	10.9	50.89	70.0	86.1	110.9	88.8	22.15	5.010 ES				
3,300.0	3,300.0	3,302.0	3,299.4	11.6	11.3	48.17	74.0	83.8	113.0	90.2	22.85	4.945 SF				
3,400.0	3,399.8	3,401.3	3,398.5	11.9	11.6	45.66	78.2	81.8	118.0	94.5	23.55	5.012				
3,500.0	3,499.5	3,500.6	3,497.7	12.3	12.0	43.43	82.6	80.3	125.9	101.6	24.24	5.192				
3,600.0	3,598.7	3,600.4	3,597.5	12.6	12.3	41.07	86.9	78.7	136.2	111.3	24.95	5.461				
3,700.0	3,697.5	3,699.8	3,696.7	13.0	12.7	39.21	91.2	76.6	149.0	123.3	25.65	5.808				
3,800.0	3,795.6	3,797.9	3,794.7	13.4	13.0	36.69	95.6	74.6	164.6	138.3	26.35	6.249				
3,900.0	3,893.4	3,895.8	3,892.5	13.7	13.4	34.28	100.0	72.8	182.5	155.5	27.05	6.748				
4,000.0	3,991.1	3,994.3	3,990.9	14.1	13.7	31.49	104.2	71.0	200.6	172.9	27.75	7.230				
4,100.0	4,088.8	4,093.5	4,090.0	14.5	14.1	28.41	108.2	69.1	218.7	190.2	28.45	7.686				
4,200.0	4,186.6	4,194.4	4,190.7	14.9	14.5	25.92	112.3	66.0	236.1	206.9	29.17	8.093				
4,300.0	4,284.3	4,294.8	4,291.0	15.3	14.8	23.08	116.5	61.7	252.5	222.6	29.88	8.449				
4,400.0	4,382.0	4,394.4	4,390.3	15.7	15.2	20.10	120.4	57.1	268.6	238.0	30.60	8.777				
4,500.0	4,479.8	4,490.2	4,486.0	16.1	15.5	17.96	124.2	52.6	284.7	253.4	31.30	9.096				
4,600.0	4,577.5	4,582.9	4,578.4	16.5	15.9	15.51	129.5	49.4	302.6	270.7	31.99	9.460				
4,700.0	4,675.3	4,678.6	4,673.9	17.0	16.2	13.82	136.4	47.1	322.2	289.5	32.70	9.853				
4,800.0	4,773.0	4,777.3	4,772.3	17.4	16.6	11.16	143.3	44.9	341.7	308.3	33.42	10.225				
4,900.0	4,870.7	4,875.7	4,870.5	17.8	16.9	8.52	149.8	42.6	361.1	327.0	34.15	10.576				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #236H (OFFSET) - OWB - AWB													Offset Site Error:	
													0.0 usft	
Survey Program:	Reference:	Measured Vertical Depth (usft)	Offset:	Measured Vertical Depth (usft)	Reference:	Offset:	Highside Toolface (°)	Offset Wellbore Centre:	N/S (usft)	E/W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Warning
154-MWD														
5,000.0	4,968.5	4,973.9	4,968.5	18.2	17.3	154.85	156.2	40.4	380.5	345.6	34.87	10.912		
5,100.0	5,066.2	5,075.8	5,070.1	18.7	17.7	155.22	162.3	37.8	399.5	363.9	35.61	11.218		
5,200.0	5,163.9	5,179.6	5,173.8	19.1	18.0	155.71	167.2	34.3	417.3	381.0	36.36	11.476		
5,300.0	5,261.7	5,275.1	5,269.2	19.6	18.4	156.34	169.9	31.3	434.7	397.6	37.06	11.730		
5,400.0	5,359.4	5,369.0	5,363.0	20.0	18.7	157.24	170.5	29.9	453.1	415.3	37.74	12.005		
5,500.0	5,457.1	5,467.8	5,461.9	20.5	19.0	158.31	169.7	29.4	472.0	433.6	38.44	12.280		
5,600.0	5,554.9	5,567.5	5,561.6	20.9	19.4	159.31	168.8	28.6	490.7	451.6	39.14	12.539		
5,700.0	5,652.6	5,663.1	5,657.1	21.4	19.7	160.21	167.8	27.8	509.6	469.8	39.81	12.800		
5,800.0	5,750.3	5,758.4	5,752.4	21.8	20.0	161.07	166.7	27.6	529.1	488.6	40.49	13.067		
5,900.0	5,848.1	5,856.7	5,850.8	22.3	20.4	161.92	165.4	27.6	548.9	507.7	41.18	13.328		
6,000.0	5,945.8	5,954.9	5,948.9	22.7	20.7	162.73	164.0	27.5	568.6	526.8	41.88	13.579		
6,100.0	6,043.6	6,050.8	6,044.8	23.2	21.0	163.50	162.2	27.6	588.6	546.1	42.55	13.833		
6,200.0	6,141.3	6,146.6	6,140.6	23.6	21.3	164.27	160.6	28.1	609.0	565.8	43.23	14.088		
6,300.0	6,239.0	6,242.5	6,236.5	24.1	21.7	165.04	157.4	28.9	629.8	585.9	43.91	14.344		
6,400.0	6,336.8	6,339.0	6,332.9	24.6	22.0	165.78	154.5	30.0	650.9	606.3	44.59	14.598		
6,500.0	6,434.5	6,439.2	6,433.0	25.0	22.3	166.49	151.7	31.0	672.0	626.7	45.30	14.834		
6,600.0	6,532.2	6,539.0	6,532.9	25.5	22.7	167.11	149.4	31.5	692.7	646.7	46.01	15.056		
6,700.0	6,630.0	6,637.3	6,631.1	26.0	23.0	167.64	147.5	31.7	713.3	666.6	46.71	15.271		
6,800.0	6,727.7	6,736.3	6,730.0	26.4	23.3	168.12	146.0	31.8	733.9	686.5	47.42	15.477		
6,900.0	6,825.4	6,836.4	6,830.1	26.9	23.7	168.58	144.3	31.6	754.2	706.1	48.13	15.670		
7,000.0	6,923.2	6,936.8	6,930.5	27.4	24.0	169.05	142.4	31.1	774.3	725.4	48.85	15.850		
7,100.0	7,020.9	7,037.7	7,031.4	27.8	24.4	169.47	140.5	30.2	794.0	744.5	49.57	16.017		
7,200.0	7,118.7	7,142.2	7,135.9	28.3	24.7	169.88	138.6	28.8	813.3	763.0	50.32	16.164		
7,300.0	7,216.4	7,249.6	7,243.3	28.8	25.1	170.31	136.3	26.2	831.6	780.6	51.08	16.282		
7,400.0	7,314.1	7,353.1	7,346.7	29.3	25.5	170.76	133.1	22.8	849.1	797.2	51.81	16.388		
7,500.0	7,411.9	7,455.6	7,448.9	29.7	25.8	171.33	127.7	19.1	866.0	813.5	52.54	16.484		
7,600.0	7,509.6	7,544.6	7,537.7	30.2	26.1	171.85	122.3	16.3	883.3	830.1	53.20	16.604		
7,700.0	7,607.3	7,632.8	7,625.7	30.7	26.4	172.38	117.3	14.3	901.5	847.7	53.85	16.740		
7,800.0	7,705.1	7,728.5	7,721.3	31.2	26.8	172.86	113.2	12.9	920.3	865.7	54.55	16.870		
7,900.0	7,802.8	7,826.2	7,819.1	31.6	27.1	173.31	111.8	11.3	939.2	883.9	55.27	16.994		
8,000.0	7,900.6	7,927.3	7,920.2	32.1	27.5	173.73	112.2	9.4	958.0	902.0	56.00	17.106		
8,100.0	7,998.3	8,025.0	8,017.8	32.6	27.8	174.12	112.8	7.3	976.4	919.7	56.72	17.216		
8,200.0	8,096.0	8,113.9	8,106.6	33.1	28.1	174.50	113.0	5.8	995.4	938.1	57.38	17.348		
8,300.0	8,193.8	8,198.9	8,191.7	33.6	28.4	174.87	112.4	5.5	1,015.7	957.7	58.02	17.507		
8,400.0	8,291.5	8,298.1	8,290.9	34.0	28.8	175.22	111.6	5.8	1,036.7	977.9	58.74	17.649		
8,500.0	8,389.3	8,400.7	8,393.5	34.5	29.1	175.55	112.2	5.7	1,057.2	997.7	59.48	17.773		
8,600.0	8,487.0	8,512.0	8,504.8	35.0	29.5	175.85	114.6	4.6	1,077.0	1,016.7	60.29	17.864		
8,700.0	8,584.7	8,620.6	8,613.2	35.5	29.9	176.12	118.6	2.1	1,095.5	1,034.4	61.07	17.939		
8,800.0	8,682.5	8,721.1	8,713.6	36.0	30.3	176.37	122.3	-0.6	1,113.6	1,051.8	61.81	18.017		
8,900.0	8,780.2	8,815.4	8,807.9	36.4	30.6	176.59	125.3	-3.2	1,131.6	1,069.1	62.51	18.103		
9,000.0	8,878.0	8,900.8	8,893.2	36.9	30.9	176.77	127.4	-4.8	1,150.5	1,087.4	63.16	18.216		
9,100.0	8,975.7	8,992.3	8,984.7	37.4	31.2	176.92	129.1	-5.5	1,170.5	1,106.6	63.84	18.334		
9,200.0	9,073.4	9,112.4	9,104.8	37.9	31.6	177.04	130.2	-7.5	1,189.6	1,124.9	64.69	18.388		
9,300.0	9,171.2	9,212.9	9,205.2	38.4	32.0	177.12	130.3	-10.5	1,207.4	1,141.9	65.43	18.453		
9,400.0	9,269.1	9,300.7	9,293.0	38.8	32.3	177.17	130.8	-12.6	1,224.8	1,158.7	66.09	18.532		
9,500.0	9,367.7	9,391.7	9,384.0	39.3	32.6	177.20	131.6	-14.0	1,239.8	1,173.1	66.77	18.569		
9,600.0	9,466.8	9,486.4	9,478.7	39.7	33.0	177.21	132.5	-15.0	1,251.9	1,184.4	67.46	18.558		
9,700.0	9,566.3	9,585.9	9,578.2	40.1	33.3	177.19	133.5	-15.8	1,260.8	1,192.6	68.17	18.495		
9,800.0	9,666.1	9,691.0	9,683.2	40.4	33.7	177.14	134.3	-17.0	1,266.0	1,197.1	68.91	18.372		
9,900.0	9,766.0	9,792.1	9,784.4	40.8	34.0	177.06	134.9	-18.4	1,267.5	1,197.8	69.62	18.206		
10,000.0	9,866.0	9,891.3	9,883.5	41.1	34.4	176.94	135.5	-19.7	1,266.3	1,196.0	70.30	18.012		
10,100.0	9,966.0	9,993.8	9,986.0	41.4	34.7	176.77	135.6	-21.2	1,264.9	1,193.9	71.01	17.814		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #236H (OFFSET) - OWB - AWB														Offset Site Error:	0.0 usft
Survey Program: 154-MWD														Offset Well Error:	0.0 usft
Reference	Measured Vertical Depth (usft)	Offset Vertical Depth (usft)	Measured Vertical Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre W/S (usft)	Offset Wellbore Centre E/W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,200.0	10,065.0	10,096.2	10,088.4	41.7	35.1	91.72	134.9	-22.9	1,263.5	1,191.8	71.71	17.621			
10,276.2	10,138.0	10,167.2	10,159.3	41.9	35.4	92.73	134.0	-24.2	1,263.0	1,190.8	72.20	17.493			
10,300.0	10,160.1	10,188.5	10,180.7	42.0	35.4	93.09	133.7	-24.5	1,263.1	1,190.7	72.35	17.458			
10,400.0	10,248.6	10,273.8	10,265.9	42.3	35.7	94.72	132.7	-25.8	1,265.1	1,192.1	72.95	17.340			
10,500.0	10,327.6	10,357.3	10,349.4	42.6	36.0	96.47	131.9	-27.1	1,270.8	1,197.3	73.56	17.277			
10,600.0	10,394.8	10,433.4	10,425.5	42.8	36.3	97.93	131.0	-28.8	1,281.8	1,207.6	74.13	17.291			
10,700.0	10,448.2	10,512.0	10,504.1	43.1	36.6	99.15	131.7	-31.1	1,299.3	1,224.6	74.71	17.392			
10,800.0	10,486.0	10,980.9	10,884.6	43.4	38.3	109.20	376.9	-42.9	1,319.8	1,244.3	75.58	17.462			
10,900.0	10,507.3	11,265.0	11,015.2	43.7	39.6	112.73	623.1	-80.3	1,313.0	1,236.8	76.26	17.219			
10,931.2	10,510.7	11,283.2	11,019.4	43.8	39.7	112.88	640.7	-81.8	1,312.5	1,236.1	76.44	17.172			
11,000.0	10,511.9	11,311.0	11,025.2	44.0	39.9	112.99	667.9	-83.0	1,315.5	1,238.8	76.70	17.150			
11,100.0	10,511.9	11,457.1	11,041.3	44.4	40.6	113.61	812.8	-82.6	1,321.5	1,243.6	77.88	16.968			
11,200.0	10,511.8	11,611.2	11,041.8	44.9	41.5	113.59	966.9	-82.4	1,322.8	1,243.3	79.52	16.634			
11,300.0	10,511.8	11,718.3	11,042.7	45.4	42.2	113.68	1,073.9	-86.0	1,321.1	1,240.2	80.83	16.343			
11,400.0	10,511.7	11,803.7	11,039.9	46.0	42.8	113.55	1,159.2	-86.1	1,320.6	1,238.5	82.06	16.092			
11,500.0	10,511.6	11,929.9	11,031.4	46.7	43.8	113.20	1,285.1	-86.5	1,318.4	1,234.4	83.98	15.699			
11,600.0	10,511.6	12,001.2	11,027.3	47.4	44.4	113.03	1,356.4	-86.8	1,316.8	1,231.6	85.20	15.457			
11,604.4	10,511.6	12,003.7	11,027.2	47.4	44.4	113.03	1,358.8	-86.8	1,316.8	1,231.6	85.24	15.449			
11,700.0	10,511.5	12,066.0	11,025.6	48.1	44.9	112.93	1,421.1	-85.5	1,318.5	1,232.1	86.31	15.275			
11,800.0	10,511.5	12,137.2	11,024.6	48.9	45.6	112.83	1,492.2	-82.5	1,322.6	1,235.0	87.56	15.105			
11,900.0	10,511.4	12,200.4	11,023.6	49.8	46.1	112.72	1,555.2	-78.9	1,328.4	1,239.7	88.69	14.978			
12,000.0	10,511.3	12,257.9	11,024.1	50.7	46.6	112.65	1,612.5	-74.0	1,337.5	1,247.8	89.72	14.908			
12,100.0	10,511.3	12,364.0	11,025.8	51.6	47.6	112.54	1,718.2	-64.1	1,347.7	1,256.1	91.67	14.702			
12,200.0	10,511.2	12,445.4	11,026.0	52.6	48.4	112.40	1,799.2	-55.5	1,358.5	1,265.3	93.22	14.573			
12,300.0	10,511.1	12,612.5	11,026.2	53.6	50.1	112.13	1,965.5	-40.1	1,368.6	1,272.0	96.57	14.171			
12,400.0	10,511.1	12,809.9	11,030.3	54.6	52.2	112.24	2,162.7	-38.7	1,370.5	1,270.0	100.48	13.639			
12,500.0	10,511.0	12,908.8	11,029.3	55.7	53.4	112.21	2,261.6	-40.1	1,369.9	1,267.2	102.62	13.349			
12,526.2	10,511.0	12,928.2	11,029.4	56.0	53.6	112.21	2,281.1	-40.3	1,369.8	1,266.7	103.06	13.291			
12,600.0	10,511.0	12,980.7	11,029.0	56.8	54.2	112.19	2,333.5	-40.3	1,370.4	1,266.1	104.26	13.144			
12,700.0	10,510.9	13,063.8	11,028.0	57.9	55.2	112.12	2,416.6	-38.7	1,372.7	1,266.5	106.16	12.931			
12,800.0	10,510.8	13,175.1	11,030.2	59.1	56.5	112.17	2,527.9	-37.6	1,375.4	1,266.7	108.64	12.659			
12,900.0	10,510.8	13,297.1	11,031.4	60.2	58.0	112.20	2,649.9	-37.8	1,376.6	1,265.2	111.42	12.355			
13,000.0	10,510.7	13,437.9	11,030.1	61.4	59.8	112.18	2,790.6	-40.9	1,375.1	1,260.5	114.65	11.994			
13,100.0	10,510.7	13,545.7	11,029.7	62.6	61.2	112.22	2,898.3	-45.4	1,372.1	1,254.9	117.20	11.707			
13,200.0	10,510.6	13,631.2	11,029.4	63.9	62.3	112.25	2,983.8	-48.8	1,369.3	1,250.0	119.33	11.475			
13,300.0	10,510.5	13,788.6	11,027.8	65.1	64.3	112.28	3,141.0	-56.4	1,365.7	1,242.7	122.98	11.105			
13,400.0	10,510.5	13,905.1	11,027.1	66.4	65.9	112.39	3,257.1	-65.9	1,358.9	1,233.1	125.76	10.805			
13,500.0	10,510.4	14,009.0	11,027.2	67.7	67.3	112.54	3,360.5	-76.0	1,350.9	1,222.6	128.31	10.529			
13,600.0	10,510.3	14,150.2	11,025.3	69.0	69.3	112.68	3,500.9	-90.4	1,342.2	1,210.6	131.58	10.201			
13,700.0	10,510.3	14,215.0	11,022.5	70.3	70.2	112.66	3,565.4	-96.3	1,332.9	1,199.4	133.54	9.981			
13,800.0	10,510.2	14,287.2	11,017.3	71.7	71.2	112.52	3,637.3	-100.7	1,325.6	1,189.9	135.69	9.769			
13,900.0	10,510.2	14,350.5	11,011.8	73.0	72.1	112.32	3,700.3	-102.6	1,320.6	1,182.9	137.64	9.594			
14,000.0	10,510.1	14,418.0	11,007.6	74.4	73.1	112.14	3,767.7	-102.6	1,318.9	1,179.3	139.63	9.446			
14,013.4	10,510.1	14,418.0	11,007.6	74.6	73.1	112.14	3,767.7	-102.6	1,318.9	1,179.2	139.64	9.444			
14,100.0	10,510.0	14,456.6	11,006.3	75.7	73.6	112.06	3,806.2	-101.5	1,320.6	1,179.9	140.70	9.386			
14,200.0	10,510.0	14,512.0	11,005.6	77.1	74.4	111.98	3,861.5	-98.5	1,326.1	1,184.0	142.09	9.333			
14,300.0	10,509.9	14,568.7	11,006.5	78.5	75.2	111.93	3,918.1	-94.0	1,334.9	1,191.5	143.40	9.309			
14,400.0	10,509.9	14,639.8	11,009.7	79.9	76.2	111.94	3,988.8	-87.1	1,346.4	1,201.3	145.09	9.280			
14,500.0	10,509.8	14,729.1	11,013.9	81.3	77.4	111.94	4,077.5	-77.4	1,359.2	1,211.8	147.40	9.221			
14,600.0	10,509.7	14,832.3	11,018.0	82.8	78.8	111.90	4,179.9	-65.9	1,372.1	1,221.9	150.23	9.133			
14,700.0	10,509.7	15,019.7	11,027.4	84.2	81.5	112.01	4,366.4	-51.2	1,382.7	1,227.0	155.77	8.877			
14,800.0	10,509.6	15,182.2	11,033.4	85.6	83.9	112.17	4,528.7	-48.1	1,386.9	1,226.7	160.21	8.657			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #236H (OFFSET) - OWB - AWB													Offset Site Error:	0.0 usft
Survey Program: F154 MWD													Offset Well Error:	0.0 usft
Reference	Measured Vertical	Offset	Measured Vertical	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned	Between Centres	Between Ellipses	Minimum Separation	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	N/S (usft)	E/W (usft)		(usft)	(usft)	(usft)	Factor	
14,900.0	10,509.6	15,313.7	11,031.8	87.1	85.8	112.09	4,660.2	-47.8	1,387.7	1,223.8	163.88	8.467		
15,000.0	10,509.5	15,435.5	11,028.8	88.5	87.6	111.98	4,782.0	-49.5	1,386.4	1,219.1	167.30	8.287		
15,100.0	10,509.4	15,548.2	11,023.7	90.0	89.3	111.80	4,894.5	-51.6	1,384.0	1,213.4	170.55	8.115		
15,200.0	10,509.4	15,652.7	11,017.7	91.5	90.9	111.59	4,998.8	-53.7	1,381.0	1,207.3	173.65	7.952		
15,300.0	10,509.3	15,757.6	11,011.1	92.9	92.5	111.35	5,103.5	-56.1	1,377.6	1,200.8	176.80	7.792		
15,400.0	10,509.2	15,859.5	11,006.4	94.4	94.0	111.21	5,205.3	-59.2	1,374.0	1,194.2	179.82	7.641		
15,500.0	10,509.2	15,965.1	11,004.1	95.9	95.6	111.17	5,310.7	-63.9	1,370.1	1,187.3	182.84	7.493		
15,594.8	10,509.1	16,004.0	11,003.3	97.3	96.2	111.17	5,349.6	-65.8	1,367.4	1,183.2	184.20	7.423		
15,600.0	10,509.1	16,004.0	11,003.3	97.4	96.2	111.17	5,349.6	-65.8	1,367.4	1,183.2	184.21	7.423		
15,700.0	10,509.1	16,004.0	11,003.3	98.9	96.2	111.17	5,349.6	-65.8	1,371.4	1,187.5	183.96	7.455		
15,800.0	10,509.0	16,004.0	11,003.3	100.4	96.2	111.17	5,349.6	-65.8	1,382.7	1,199.8	182.94	7.558		



Intrepid
Anticollision Report



Company: Tap Rock Resources, LLC
Project: Eddy County, NM (NAD 83 NME)
Reference Site: (Cypress) Sec-3_T-24-S_R-29-E
Site Error: 0.0 usft
Reference Well: Cypress 34 Federal #246H
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #6

Local Co-ordinate Reference: Well Cypress 34 Federal #246H
TVD Reference: KB @ 3119.0usft
MD Reference: KB @ 3119.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #243H - OWB - Plan #1														Offset Site Error:	0.0 usft
Survey Program: 0-MWD														Offset Well Error:	0.0 usft
Reference	Measured Vertical Depth	Offset Vertical Depth	Reference	Measured Vertical Depth	Offset Vertical Depth	Semi-Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned	Minimum Separation	Separation Factor	Warning		
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(ft)	N/S (usft)	E/W (usft)	Between Centres (usft)	Between Ellipses (usft)	(usft)			
0.0	0.0	0.5	0.5	0.0	0.0	-90.00		0.0	-51.0	51.0					
100.0	100.0	100.5	100.5	0.1	0.1	-90.00		0.0	-51.0	51.0	50.7	0.27	191.610		
200.0	200.0	200.5	200.5	0.5	0.5	-90.00		0.0	-51.0	51.0	50.0	0.98	51.876		
300.0	300.0	300.5	300.5	0.8	0.9	-90.00		0.0	-51.0	51.0	49.3	1.70	29.999		
400.0	400.0	400.5	400.5	1.2	1.2	-90.00		0.0	-51.0	51.0	48.6	2.42	21.101		
500.0	500.0	500.5	500.5	1.6	1.6	-90.00		0.0	-51.0	51.0	47.9	3.13	16.273		
600.0	600.0	600.5	600.5	1.9	1.9	-90.00		0.0	-51.0	51.0	47.1	3.85	13.244		
700.0	700.0	700.5	700.5	2.3	2.3	-90.00		0.0	-51.0	51.0	46.4	4.57	11.165		
800.0	800.0	800.5	800.5	2.6	2.6	-90.00		0.0	-51.0	51.0	45.7	5.28	9.650		
900.0	900.0	900.5	900.5	3.0	3.0	-90.00		0.0	-51.0	51.0	45.0	6.00	8.498		
916.5	916.5	917.0	917.0	3.1	3.1	-90.00		0.0	-51.0	51.0	44.9	6.12	8.333 CC		
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	-90.00		0.0	-51.0	51.0	44.3	6.72	7.593 ES		
1,100.0	1,100.0	1,098.7	1,098.7	3.7	3.7	-90.01		0.0	-52.7	52.7	45.3	7.42	7.109		
1,200.0	1,200.0	1,196.7	1,196.5	4.1	4.0	-90.05		0.0	-57.7	57.9	49.8	8.10	7.144		
1,300.0	1,300.0	1,294.2	1,293.7	4.4	4.4	-90.09		-0.1	-66.1	66.4	57.7	8.78	7.568		
1,400.0	1,400.0	1,391.0	1,389.8	4.8	4.7	-90.14		-0.2	-77.6	78.4	68.9	9.45	8.297		
1,500.0	1,500.0	1,487.0	1,484.7	5.2	5.1	-90.18		-0.3	-92.3	93.6	83.5	10.10	9.270		
1,600.0	1,600.0	1,585.1	1,581.2	5.5	5.5	-90.22		-0.4	-109.3	111.0	100.2	10.79	10.281		
1,700.0	1,700.0	1,683.5	1,678.2	5.9	5.9	-90.24		-0.5	-126.4	128.3	116.8	11.50	11.161		
1,800.0	1,800.0	1,782.0	1,775.2	6.2	6.3	-90.26		-0.7	-143.5	145.7	133.5	12.21	11.938		
1,900.0	1,900.0	1,880.5	1,872.2	6.6	6.7	-90.28		-0.8	-160.6	163.1	150.2	12.92	12.627		
2,000.0	2,000.0	1,979.0	1,969.2	6.9	7.1	-90.29		-0.9	-177.7	180.4	166.8	13.63	13.242		
2,100.0	2,100.0	2,077.5	2,066.1	7.3	7.5	-90.30		-1.0	-194.8	197.8	183.5	14.34	13.795		
2,200.0	2,200.0	2,175.9	2,163.1	7.7	7.9	-90.31		-1.1	-211.9	215.2	200.1	15.05	14.294		
2,300.0	2,300.0	2,274.4	2,260.1	8.0	8.3	-90.32		-1.3	-229.0	232.5	216.8	15.77	14.747		
2,400.0	2,400.0	2,372.9	2,357.1	8.4	8.8	-90.32		-1.4	-246.1	249.9	233.4	16.49	15.160		
2,500.0	2,500.0	2,471.4	2,454.1	8.7	9.2	-90.33		-1.5	-263.2	267.3	250.1	17.20	15.537		
2,600.0	2,600.0	2,569.9	2,551.1	9.1	9.6	-90.33		-1.6	-280.3	284.6	266.7	17.92	15.883		
2,700.0	2,700.0	2,668.3	2,648.1	9.5	10.1	-90.34		-1.7	-297.4	302.0	283.4	18.64	16.202		
2,800.0	2,800.0	2,766.8	2,745.0	9.8	10.5	-90.34		-1.9	-314.5	319.4	300.0	19.36	16.497		
2,900.0	2,900.0	2,865.3	2,842.0	10.2	10.9	-90.34		-2.0	-331.6	336.7	316.7	20.08	16.770		
3,000.0	3,000.0	2,963.8	2,939.0	10.5	11.4	-90.35		-2.1	-348.7	354.1	333.3	20.80	17.024		
3,100.0	3,100.0	3,062.3	3,036.0	10.9	11.8	-90.35		-2.2	-365.8	371.5	350.0	21.52	17.261		
3,200.0	3,200.0	3,160.7	3,133.0	11.2	12.2	-90.35		-2.4	-382.9	388.8	366.6	22.24	17.482		
3,300.0	3,300.0	3,259.5	3,230.2	11.6	12.7	-4.35		-2.5	-400.1	404.5	381.5	22.96	17.620		
3,400.0	3,399.8	3,358.8	3,328.0	11.9	13.1	-4.39		-2.6	-417.3	416.7	393.0	23.67	17.608		
3,500.0	3,499.5	3,458.4	3,426.1	12.3	13.6	-4.46		-2.7	-434.6	425.4	401.1	24.38	17.451		
3,600.0	3,598.7	3,558.2	3,524.4	12.6	14.0	-4.58		-2.8	-452.0	430.7	405.6	25.09	17.164		
3,700.0	3,697.5	3,658.2	3,622.9	13.0	14.5	-4.73		-3.0	-469.3	432.5	406.7	25.81	16.757		
3,800.0	3,795.6	3,758.2	3,721.3	13.4	14.9	-4.93		-3.1	-486.7	430.8	404.3	26.53	16.240		
3,900.0	3,893.4	3,858.1	3,819.7	13.7	15.3	-5.16		-3.2	-504.0	427.1	399.8	27.25	15.673		
4,000.0	3,991.1	3,958.0	3,918.1	14.1	15.8	-5.38		-3.3	-521.4	423.3	395.3	27.97	15.134		
4,100.0	4,088.8	4,057.9	4,016.5	14.5	16.2	-5.62		-3.5	-538.7	419.5	390.8	28.69	14.621		
4,200.0	4,186.6	4,157.8	4,114.9	14.9	16.7	-5.85		-3.6	-556.1	415.8	386.4	29.42	14.132		
4,300.0	4,284.3	4,257.7	4,213.3	15.3	17.1	-6.09		-3.7	-573.4	412.0	381.9	30.15	13.666		
4,400.0	4,382.0	4,357.6	4,311.7	15.7	17.6	-6.34		-3.8	-590.8	408.3	377.4	30.88	13.221		
4,500.0	4,479.8	4,457.6	4,410.1	16.1	18.0	-6.59		-3.9	-608.1	404.5	372.9	31.61	12.796		
4,600.0	4,577.5	4,557.5	4,508.5	16.5	18.5	-6.84		-4.1	-625.5	400.8	368.5	32.35	12.390		
4,700.0	4,675.3	4,657.4	4,606.9	17.0	18.9	-7.10		-4.2	-642.8	397.1	364.0	33.08	12.002		
4,800.0	4,773.0	4,757.3	4,705.3	17.4	19.4	-7.36		-4.3	-660.2	393.4	359.5	33.82	11.630		
4,900.0	4,870.7	4,857.2	4,803.7	17.8	19.8	-7.63		-4.4	-677.5	389.7	355.1	34.56	11.274		
5,000.0	4,968.5	4,957.1	4,902.1	18.2	20.3	-7.90		-4.6	-694.9	386.0	350.7	35.30	10.933		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #243H - OWB - Plan #1														Offset Site Error:	0.0 usft
Survey Program: 70 MWD														Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference Offset (usft)	Semi-Major Axis (usft)	Highside Toolface (°)	N/S (usft)	E/W (usft)	Distance Between Centroids (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
5,100.0	5,066.2	5,057.0	5,000.5	18.7	20.8	-8.18	-4.7	-712.2	382.3	346.2	36.05	10.605			
5,200.0	5,163.9	5,157.0	5,098.9	19.1	21.2	-8.46	-4.8	-729.6	378.6	341.8	36.79	10.290			
5,300.0	5,261.7	5,256.9	5,197.2	19.6	21.7	-8.75	-4.9	-746.9	374.9	337.4	37.54	9.988			
5,400.0	5,359.4	5,356.8	5,295.6	20.0	22.1	-9.05	-5.1	-764.3	371.3	333.0	38.29	9.697			
5,500.0	5,457.1	5,456.7	5,394.0	20.5	22.6	-9.35	-5.2	-781.7	367.6	328.6	39.03	9.418			
5,600.0	5,554.9	5,556.6	5,492.4	20.9	23.0	-9.66	-5.3	-799.0	364.0	324.2	39.79	9.148			
5,700.0	5,652.6	5,656.5	5,590.8	21.4	23.5	-9.97	-5.4	-816.4	360.3	319.8	40.54	8.889			
5,800.0	5,750.3	5,756.4	5,689.2	21.8	23.9	-10.29	-5.5	-833.7	356.7	315.4	41.29	8.639			
5,900.0	5,848.1	5,856.4	5,787.6	22.3	24.4	-10.62	-5.7	-851.1	353.1	311.1	42.05	8.398			
6,000.0	5,945.8	5,956.3	5,886.0	22.7	24.8	-10.95	-5.8	-868.4	349.5	306.7	42.80	8.166			
6,100.0	6,043.6	6,056.2	5,984.4	23.2	25.3	-11.29	-5.9	-885.8	345.9	302.4	43.56	7.941			
6,200.0	6,141.3	6,156.1	6,082.8	23.6	25.7	-11.64	-6.0	-903.1	342.4	298.0	44.32	7.724			
6,300.0	6,239.0	6,256.0	6,181.2	24.1	26.2	-11.99	-6.2	-920.5	338.8	293.7	45.09	7.515			
6,400.0	6,336.8	6,355.9	6,279.6	24.6	26.6	-12.35	-6.3	-937.8	335.3	289.4	45.85	7.312			
6,500.0	6,434.5	6,455.8	6,378.0	25.0	27.1	-12.72	-6.4	-955.2	331.7	285.1	46.62	7.116			
6,600.0	6,532.2	6,555.8	6,476.4	25.5	27.5	-13.10	-6.5	-972.5	328.2	280.8	47.38	6.927			
6,700.0	6,630.0	6,655.7	6,574.8	26.0	28.0	-13.49	-6.7	-989.9	324.7	276.6	48.15	6.743			
6,800.0	6,727.7	6,755.6	6,673.2	26.4	28.4	-13.88	-6.8	-1,007.2	321.2	272.3	48.93	6.566			
6,900.0	6,825.4	6,855.5	6,771.6	26.9	28.9	-14.28	-6.9	-1,024.6	317.8	268.1	49.70	6.393			
7,000.0	6,923.2	6,955.4	6,870.0	27.4	29.4	-14.70	-7.0	-1,041.9	314.3	263.8	50.48	6.226			
7,100.0	7,020.9	7,055.3	6,968.4	27.8	29.8	-15.12	-7.1	-1,059.3	310.9	259.6	51.26	6.065			
7,200.0	7,118.7	7,155.2	7,066.8	28.3	30.3	-15.55	-7.3	-1,076.6	307.4	255.4	52.04	5.908			
7,300.0	7,216.4	7,255.2	7,165.2	28.8	30.7	-15.99	-7.4	-1,094.0	304.0	251.2	52.82	5.756			
7,400.0	7,314.1	7,355.1	7,263.6	29.3	31.2	-16.44	-7.5	-1,111.3	300.6	247.0	53.61	5.608			
7,500.0	7,411.9	7,455.0	7,362.0	29.7	31.6	-16.90	-7.6	-1,128.7	297.3	242.9	54.40	5.464			
7,600.0	7,509.6	7,554.9	7,460.4	30.2	32.1	-17.37	-7.8	-1,146.0	293.9	238.7	55.20	5.325			
7,700.0	7,607.3	7,654.8	7,558.7	30.7	32.5	-25.00	-7.9	-1,163.4	291.1	235.1	56.01	5.197			
7,800.0	7,705.1	7,754.6	7,657.1	31.2	33.0	-25.97	-8.0	-1,180.7	288.8	232.0	56.85	5.080			
7,900.0	7,802.8	7,854.5	7,755.4	31.6	33.4	-26.95	-8.1	-1,198.1	286.6	228.9	57.71	4.967			
8,000.0	7,900.6	7,954.4	7,853.7	32.1	33.9	-27.95	-8.2	-1,215.4	284.5	225.9	58.57	4.857			
8,100.0	7,998.3	8,054.2	7,952.1	32.6	34.3	-28.96	-8.4	-1,232.7	282.4	223.0	59.44	4.752			
8,200.0	8,096.0	8,159.5	8,055.9	33.1	34.8	-30.09	-8.5	-1,250.4	280.0	219.6	60.37	4.638			
8,300.0	8,193.8	8,269.2	8,164.6	33.6	35.3	-31.55	-8.6	-1,265.2	274.4	213.0	61.32	4.474			
8,400.0	8,291.5	8,378.1	8,272.9	34.0	35.7	-33.39	-8.7	-1,275.7	265.4	203.2	62.25	4.264			
8,500.0	8,389.3	8,485.8	8,380.5	34.5	36.1	-35.73	-8.7	-1,282.0	253.3	190.1	63.18	4.008			
8,600.0	8,487.0	8,592.3	8,486.9	35.0	36.4	-38.71	-8.7	-1,284.3	238.2	174.0	64.15	3.713			
8,700.0	8,584.7	8,690.6	8,585.2	35.5	36.7	-42.11	-8.7	-1,284.3	221.9	156.6	65.36	3.396			
8,800.0	8,682.5	8,788.3	8,683.0	36.0	37.0	-46.00	-8.7	-1,284.3	206.6	139.9	66.69	3.098			
8,900.0	8,780.2	8,886.1	8,780.7	36.4	37.3	-50.48	-8.7	-1,284.3	192.3	124.1	68.16	2.821			
9,000.0	8,878.0	8,983.8	8,878.5	36.9	37.5	-55.61	-8.7	-1,284.3	179.4	109.6	69.77	2.571			
9,100.0	8,975.7	9,081.6	8,976.2	37.4	37.8	-61.46	-8.7	-1,284.3	168.2	96.7	71.50	2.352			
9,200.0	9,073.4	9,179.3	9,073.9	37.9	38.1	-68.04	-8.7	-1,284.3	159.0	85.7	73.31	2.168			
9,300.0	9,171.2	9,277.0	9,171.7	38.4	38.4	-75.29	-8.7	-1,284.3	152.2	77.1	75.10	2.026			
9,400.0	9,269.1	9,375.0	9,269.6	38.8	38.7	-82.63	-8.7	-1,284.3	148.2	71.5	76.69	1.933			
9,500.0	9,367.7	9,473.6	9,368.2	39.3	39.0	-89.03	-8.7	-1,284.3	147.0	69.1	77.93	1.886			
9,517.0	9,384.5	9,490.4	9,385.0	39.4	39.0	-90.00	-8.7	-1,284.3	147.0	68.9	78.10	1.882			
9,600.0	9,466.8	9,572.7	9,467.3	39.7	39.3	-94.19	-8.7	-1,284.3	147.4	68.5	78.87	1.868			
9,700.0	9,566.3	9,672.2	9,566.8	40.1	39.6	-98.01	-8.7	-1,284.3	148.4	68.8	79.63	1.864			
9,800.0	9,666.1	9,771.9	9,666.6	40.4	39.9	-100.46	-8.7	-1,284.3	149.4	69.2	80.29	1.861			
9,900.0	9,766.0	9,871.9	9,766.5	40.8	40.2	-101.57	-8.7	-1,284.3	150.0	69.1	80.91	1.854			
10,000.0	9,866.0	9,971.9	9,866.5	41.1	40.5	179.38	-8.7	-1,284.3	150.0	68.5	81.51	1.841			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #243H - OWB - Plan #1														Offset Site Error:	0.0 usft
Survey Program: 0-MWD														Offset Well Error:	0.0 usft
Reference	Measured Vertical	Offset	Reference	Measured Vertical	Semi-Major Axis	Offset	Highside	Offset Wellbore Control		Rule Assigned		Distance	Warning		
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	N/S (usft)	E/W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,100.0	9,966.0	10,071.9	9,966.5	41.4	40.8	179.99		-8.7	-1,284.3	150.7	68.6	82.12	1.835 SF		
10,200.0	10,065.0	10,170.9	10,065.5	41.7	41.1	179.99		-8.7	-1,284.3	164.1	81.4	82.72	1.983		
10,300.0	10,160.1	10,266.0	10,160.6	42.0	41.4	179.99		-8.7	-1,284.3	194.4	111.1	83.30	2.334		
10,400.0	10,248.6	10,354.4	10,249.1	42.3	41.6	179.99		-8.7	-1,284.3	240.9	157.0	83.83	2.873		
10,500.0	10,327.6	10,433.4	10,328.1	42.6	41.9	179.99		-8.7	-1,284.3	302.0	217.7	84.30	3.582		
10,600.0	10,394.8	10,500.7	10,395.3	42.8	42.1	179.99		-8.7	-1,284.3	375.8	291.1	84.68	4.438		
10,700.0	10,448.2	10,554.0	10,448.7	43.1	42.3	179.99		-8.7	-1,284.3	460.2	375.3	84.97	5.416		
10,800.0	10,486.0	10,591.9	10,486.5	43.4	42.4	179.99		-8.7	-1,284.3	552.7	467.5	85.17	6.489		
10,900.0	10,507.3	10,613.2	10,507.8	43.7	42.4	179.97		-8.7	-1,284.3	650.2	565.0	85.28	7.625		
11,000.0	10,511.9	11,772.0	11,159.2	44.0	45.4	180.00		743.9	-1,292.2	646.8	601.1	45.67	14.162		
11,100.0	10,511.9	11,872.0	11,158.8	44.4	45.8	180.00		843.8	-1,293.3	646.5	600.3	46.12	14.016		
11,200.0	10,511.8	11,972.0	11,158.4	44.9	46.3	180.00		943.8	-1,294.4	646.1	599.5	46.62	13.858		
11,300.0	10,511.8	12,072.0	11,158.0	45.4	46.8	180.00		1,043.8	-1,295.4	645.8	598.6	47.17	13.691		
11,400.0	10,511.7	12,172.0	11,157.6	46.0	47.4	180.00		1,143.8	-1,296.5	645.4	597.7	47.76	13.514		
11,500.0	10,511.6	12,272.0	11,157.2	46.7	48.1	180.00		1,243.8	-1,297.5	645.1	596.7	48.40	13.329		
11,600.0	10,511.6	12,372.0	11,156.8	47.4	48.8	180.00		1,343.8	-1,298.6	644.8	595.7	49.08	13.138		
11,700.0	10,511.5	12,472.0	11,156.4	48.1	49.5	180.00		1,443.8	-1,299.6	644.4	594.6	49.79	12.942		
11,800.0	10,511.5	12,572.0	11,156.0	48.9	50.3	180.00		1,543.8	-1,300.7	644.1	593.5	50.55	12.742		
11,900.0	10,511.4	12,672.0	11,155.6	49.8	51.2	180.00		1,643.8	-1,301.8	643.7	592.4	51.34	12.538		
12,000.0	10,511.3	12,772.0	11,155.2	50.7	52.0	180.00		1,743.8	-1,302.8	643.4	591.2	52.17	12.332		
12,100.0	10,511.3	12,872.0	11,154.8	51.6	53.0	180.00		1,843.8	-1,303.9	643.1	590.0	53.04	12.125		
12,200.0	10,511.2	12,972.0	11,154.4	52.6	53.9	180.00		1,943.8	-1,304.9	642.7	588.8	53.93	11.918		
12,300.0	10,511.1	13,072.0	11,154.0	53.6	54.9	180.00		2,043.8	-1,306.0	642.4	587.5	54.85	11.711		
12,400.0	10,511.1	13,172.0	11,153.6	54.6	56.0	180.00		2,143.8	-1,307.1	642.0	586.2	55.81	11.505		
12,500.0	10,511.0	13,272.0	11,153.2	55.7	57.0	180.00		2,243.7	-1,308.1	641.7	584.9	56.79	11.300		
12,600.0	10,511.0	13,372.0	11,152.8	56.8	58.1	180.00		2,343.7	-1,309.2	641.4	583.6	57.80	11.097		
12,700.0	10,510.9	13,472.0	11,152.4	57.9	59.2	180.00		2,443.7	-1,310.2	641.0	582.2	58.83	10.897		
12,800.0	10,510.8	13,572.0	11,152.0	59.1	60.4	180.00		2,543.7	-1,311.3	640.7	580.8	59.88	10.699		
12,900.0	10,510.8	13,672.0	11,151.6	60.2	61.5	180.00		2,643.7	-1,312.3	640.3	579.4	60.96	10.505		
13,000.0	10,510.7	13,772.0	11,151.2	61.4	62.7	180.00		2,743.7	-1,313.4	640.0	578.0	62.06	10.313		
13,100.0	10,510.7	13,872.0	11,150.8	62.6	63.9	180.00		2,843.7	-1,314.5	639.7	576.5	63.17	10.125		
13,200.0	10,510.6	13,972.0	11,150.4	63.9	65.1	180.00		2,943.7	-1,315.5	639.3	575.0	64.31	9.941		
13,300.0	10,510.5	14,072.0	11,150.0	65.1	66.4	180.00		3,043.7	-1,316.6	639.0	573.5	65.47	9.761		
13,400.0	10,510.5	14,172.0	11,149.6	66.4	67.7	180.00		3,143.7	-1,317.6	638.7	572.0	66.64	9.584		
13,500.0	10,510.4	14,272.0	11,149.2	67.7	68.9	180.00		3,243.7	-1,318.7	638.3	570.5	67.83	9.411		
13,600.0	10,510.3	14,372.0	11,148.8	69.0	70.2	180.00		3,343.7	-1,319.7	638.0	568.9	69.03	9.242		
13,700.0	10,510.3	14,472.0	11,148.4	70.3	71.5	180.00		3,443.7	-1,320.8	637.6	567.4	70.25	9.077		
13,800.0	10,510.2	14,572.0	11,148.0	71.7	72.9	180.00		3,543.7	-1,321.9	637.3	565.8	71.48	8.916		
13,900.0	10,510.2	14,672.0	11,147.6	73.0	74.2	180.00		3,643.6	-1,322.9	637.0	564.2	72.72	8.759		
14,000.0	10,510.1	14,772.0	11,147.2	74.4	75.6	180.00		3,743.6	-1,324.0	636.6	562.6	73.98	8.605		
14,100.0	10,510.0	14,872.0	11,146.8	75.7	76.9	180.00		3,843.6	-1,325.0	636.3	561.0	75.25	8.456		
14,200.0	10,510.0	14,972.0	11,146.4	77.1	78.3	180.00		3,943.6	-1,326.1	635.9	559.4	76.53	8.310		
14,300.0	10,509.9	15,072.0	11,146.0	78.5	79.7	180.00		4,043.6	-1,327.2	635.6	557.8	77.82	8.168		
14,400.0	10,509.9	15,172.0	11,145.6	79.9	81.1	180.00		4,143.6	-1,328.2	635.3	556.1	79.12	8.029		
14,500.0	10,509.8	15,272.0	11,145.2	81.3	82.5	180.00		4,243.6	-1,329.3	634.9	554.5	80.43	7.894		
14,600.0	10,509.7	15,372.0	11,144.8	82.8	83.9	180.00		4,343.6	-1,330.3	634.6	552.8	81.75	7.763		
14,700.0	10,509.7	15,472.0	11,144.4	84.2	85.3	180.00		4,443.6	-1,331.4	634.2	551.2	83.07	7.635		
14,800.0	10,509.6	15,572.0	11,144.0	85.6	86.7	180.00		4,543.6	-1,332.4	633.9	549.5	84.41	7.510		
14,900.0	10,509.6	15,672.0	11,143.6	87.1	88.2	180.00		4,643.6	-1,333.5	633.6	547.8	85.75	7.388		
15,000.0	10,509.5	15,772.0	11,143.2	88.5	89.6	180.00		4,743.6	-1,334.6	633.2	546.1	87.10	7.270		
15,100.0	10,509.4	15,872.0	11,142.8	90.0	91.1	180.00		4,843.6	-1,335.6	632.9	544.4	88.46	7.154		
15,200.0	10,509.4	15,972.0	11,142.4	91.5	92.5	180.00		4,943.6	-1,336.7	632.5	542.7	89.83	7.042		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company	Tap Rock Resources, LLC	Local Co-ordinate Reference	Well Cypress 34 Federal #246H
Project	Eddy County, NM (NAD 83 NME)	TVD Reference	KB @ 3119.0usft
Reference Site	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference	KB @ 3119.0usft
Site Error	0.0 usft	North Reference	Grid
Reference Well	Cypress 34 Federal #246H	Survey/Calculation Method	Minimum Curvature
Well Error	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database	EDM 5000.15 Single User Db
Reference Design	Plan #6	Offset TVD Reference	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #243H - OWB - Plan #1												Offset Site Error	0.0 usft
Survey Program: 0-MWD												Offset Well Error	0.0 usft
Reference	Offset	Semi-Major Axis	Highside	Offset Wellbore Centre		Rule Assigned		Distance		Minimum Separation		Warning	
Measured Vertical Depth (usft)	Measured Vertical Depth (usft)	Reference Offset (usft)	Offset (usft)	Toolface (°)		N/S (usft)	E/W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor		
15,300.0	10,509.3	16,072.0	11,142.0	92.9	94.0	180.00	5,043.6	-1,337.7	632.2	541.0	91.20	6.932	
15,400.0	10,509.2	16,172.0	11,141.6	94.4	95.5	180.00	5,143.5	-1,338.8	631.9	539.3	92.58	6.825	
15,500.0	10,509.2	16,272.0	11,141.2	95.9	97.0	180.00	5,243.5	-1,339.9	631.5	537.6	93.96	6.721	
15,600.0	10,509.1	16,372.0	11,140.8	97.4	98.4	180.00	5,343.5	-1,340.9	631.2	535.8	95.35	6.619	
15,700.0	10,509.1	16,472.0	11,140.4	98.9	99.9	180.00	5,443.5	-1,342.0	630.8	534.1	96.75	6.520	
15,799.9	10,509.0	16,569.5	11,140.0	100.4	101.4	180.00	5,541.0	-1,343.0	630.5	532.4	98.12	6.426	
15,800.0	10,509.0	16,569.5	11,140.0	100.4	101.4	180.00	5,541.0	-1,343.0	630.5	532.4	98.12	6.426	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid Anticollision Report



Company:	Tap Rock Resources, LLC	Local/Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #244H (OFFSET) - OWB - AWB														Offset Site Error	0.0 usft
Survey Program: 148-MWD														Offset Well Error	0.0 usft
Measured Vertical Depth (usft)	Reference Vertical Depth (usft)	Measured Vertical Depth (usft)	Reference Vertical Depth (usft)	Semi-Major Axis Reference (usft)	Semi-Major Axis Offset (usft)	Highside Footface (ft)	Offset Wellbore Centre N-S (usft)	Offset Wellbore Centre E-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.0	0.0	0.5	0.5	0.0	0.0	77.43	31.0	139.0	142.4						
100.0	100.0	100.6	100.6	0.1	0.1	77.38	31.1	138.9	142.4	142.1	0.28	507.447			
162.8	162.8	163.3	163.3	0.4	0.3	77.30	31.3	138.9	142.4	141.7	0.63	225.932	CC		
200.0	200.0	200.2	200.2	0.5	0.4	77.23	31.5	138.9	142.4	141.5	0.90	159.004			
300.0	300.0	299.0	299.0	0.8	0.8	76.84	32.5	139.2	142.9	141.3	1.61	88.937	ES		
400.0	400.0	397.9	397.9	1.2	1.1	76.10	34.7	140.2	144.4	142.1	2.32	62.285			
500.0	500.0	498.0	497.9	1.6	1.5	75.39	36.9	141.5	146.2	143.2	3.03	48.186			
600.0	600.0	598.0	597.9	1.9	1.8	74.89	38.6	142.9	148.0	144.2	3.75	39.464			
700.0	700.0	698.0	697.9	2.3	2.2	74.54	39.9	144.3	149.8	145.3	4.47	33.540			
800.0	800.0	798.4	798.3	2.6	2.5	74.33	40.9	145.7	151.4	146.2	5.18	29.222			
900.0	900.0	898.9	898.8	3.0	2.9	74.30	41.3	147.0	152.7	146.8	5.89	25.907			
1,000.0	1,000.0	999.7	999.6	3.4	3.2	74.48	41.1	147.9	153.5	146.9	6.60	23.263			
1,100.0	1,100.0	1,100.2	1,100.1	3.7	3.6	74.89	40.1	148.6	153.9	146.6	7.30	21.076			
1,200.0	1,200.0	1,200.5	1,200.3	4.1	3.9	75.54	38.5	149.3	154.1	146.1	8.00	19.257			
1,300.0	1,300.0	1,299.0	1,298.8	4.4	4.3	76.30	36.6	150.1	154.5	145.8	8.70	17.753			
1,400.0	1,400.0	1,396.5	1,396.3	4.8	4.6	76.82	35.6	152.2	156.4	147.0	9.40	16.634			
1,500.0	1,500.0	1,492.8	1,492.5	5.2	5.0	77.05	35.8	155.9	160.1	150.0	10.10	15.859			
1,600.0	1,600.0	1,588.2	1,587.7	5.5	5.3	77.00	37.3	161.7	166.5	155.7	10.78	15.437			
1,700.0	1,700.0	1,687.3	1,686.5	5.9	5.7	76.77	39.9	169.5	174.7	163.2	11.49	15.197			
1,800.0	1,800.0	1,788.3	1,787.2	6.2	6.0	76.63	42.0	176.9	182.3	170.1	12.22	14.923			
1,900.0	1,900.0	1,887.1	1,885.7	6.6	6.4	76.46	44.3	183.9	189.7	176.8	12.93	14.678			
2,000.0	2,000.0	1,985.3	1,983.5	6.9	6.8	76.04	47.6	191.3	197.9	184.3	13.63	14.520			
2,100.0	2,100.0	2,085.4	2,083.3	7.3	7.1	75.43	51.7	199.1	206.4	192.1	14.35	14.384			
2,200.0	2,200.0	2,185.9	2,183.4	7.7	7.5	74.76	56.2	206.3	214.5	199.5	15.07	14.235			
2,300.0	2,300.0	2,287.5	2,284.7	8.0	7.9	74.09	60.7	213.0	222.1	206.3	15.80	14.055			
2,400.0	2,400.0	2,388.8	2,385.8	8.4	8.3	73.46	65.0	218.8	228.8	212.2	16.53	13.841			
2,500.0	2,500.0	2,487.6	2,484.3	8.7	8.6	72.97	68.8	224.6	235.4	218.2	17.24	13.657			
2,600.0	2,600.0	2,586.3	2,582.7	9.1	9.0	72.63	72.2	230.8	242.5	224.6	17.95	13.513			
2,700.0	2,700.0	2,684.8	2,681.0	9.5	9.4	72.35	75.6	237.6	250.1	231.4	18.66	13.404			
2,800.0	2,800.0	2,783.8	2,779.6	9.8	9.7	72.11	79.0	244.8	258.1	238.7	19.37	13.325			
2,900.0	2,900.0	2,883.7	2,879.2	10.2	10.1	72.09	81.6	252.4	266.1	246.0	20.09	13.248			
3,000.0	3,000.0	2,982.5	2,977.7	10.5	10.5	72.25	83.3	260.2	274.2	253.4	20.80	13.182			
3,100.0	3,100.0	3,079.6	3,074.4	10.9	10.8	72.16	86.3	268.2	282.9	261.5	21.50	13.162			
3,200.0	3,200.0	3,180.0	3,174.3	11.2	11.2	71.79	91.0	276.6	292.3	270.1	22.22	13.157			
3,300.0	3,300.0	3,282.3	3,276.2	11.6	11.6	157.53	95.2	284.2	302.3	279.4	22.95	13.173			
3,400.0	3,399.8	3,382.3	3,376.0	11.9	12.0	157.51	99.2	291.2	315.0	291.3	23.66	13.314			
3,500.0	3,499.5	3,479.9	3,473.2	12.3	12.3	157.69	103.1	297.9	330.8	306.5	24.35	13.589			
3,600.0	3,598.7	3,578.0	3,571.0	12.6	12.7	158.03	107.1	305.0	350.2	325.1	25.04	13.983			
3,700.0	3,697.5	3,672.4	3,665.0	13.0	13.1	158.36	111.7	311.9	373.0	347.3	25.71	14.505			
3,800.0	3,795.6	3,769.0	3,761.2	13.4	13.4	158.57	118.2	318.9	399.5	373.1	26.40	15.129			
3,900.0	3,893.4	3,863.8	3,855.5	13.7	13.8	158.99	124.6	325.7	427.8	400.7	27.08	15.797			
4,000.0	3,991.1	3,960.8	3,952.0	14.1	14.2	159.38	131.3	332.7	456.3	428.5	27.78	16.427			
4,100.0	4,088.8	4,059.9	4,050.6	14.5	14.5	159.75	137.7	339.5	484.3	455.8	28.49	17.000			
4,200.0	4,186.6	4,157.8	4,148.2	14.9	14.9	160.10	143.8	345.7	511.8	482.6	29.19	17.532			
4,300.0	4,284.3	4,256.2	4,246.2	15.3	15.3	160.39	150.0	351.5	539.0	509.1	29.90	18.024			
4,400.0	4,382.0	4,350.8	4,340.4	15.7	15.6	160.63	156.1	357.1	566.1	535.5	30.59	18.505			
4,500.0	4,479.8	4,446.4	4,435.7	16.1	16.0	160.84	162.4	362.8	593.4	562.1	31.29	18.967			
4,600.0	4,577.5	4,543.9	4,532.8	16.5	16.4	161.05	168.7	368.7	620.7	588.7	32.00	19.399			
4,700.0	4,675.3	4,643.1	4,631.6	17.0	16.7	161.25	175.0	374.3	647.6	614.9	32.72	19.794			
4,800.0	4,773.0	4,740.8	4,729.0	17.4	17.1	161.45	180.8	379.5	674.2	640.8	33.43	20.168			
4,900.0	4,870.7	4,839.0	4,826.9	17.8	17.5	161.66	186.3	384.8	700.8	666.6	34.15	20.521			
5,000.0	4,968.5	4,943.0	4,930.7	18.2	17.9	161.98	190.7	389.8	726.4	691.5	34.90	20.813			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid Anticollision Report



Company	Tap Rock Resources, LLC	Local Co-ordinate Reference	Well Cypress 34 Federal #246H
Project	Eddy County, NM (NAD 83 NME)	TVD Reference	KB @ 3119.0usft
Reference Site	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference	KB @ 3119.0usft
Site Error	0.0 usft	North Reference	Grid
Reference Well	Cypress 34 Federal #246H	Survey Calculation Method	Minimum Curvature
Well Error	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database	EDM 5000.15 Single User Db
Reference Design	Plan #6	Offset TVD Reference	Offset Datum

Offset Design (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #244H (OFFSET) - OWB - AWB														Offset Site Error	0.0 usft
Survey Program: 148 MWD														Offset Well Error	0.0 usft
Measured Vertical Depth (usft)	Reference Vertical Depth (usft)	Measured Vertical Depth (usft)	Reference Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Footface (ft)	Offset Wellbore Centre N-S (usft)	Offset Wellbore Centre E-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
5,100.0	5,066.2	5,043.6	5,031.2	18.7	18.2	162.34	193.8	394.5	751.7	716.1	35.63	21.098			
5,200.0	5,163.9	5,150.5	5,138.0	19.1	18.6	162.78	195.8	398.2	775.6	739.2	36.39	21.316			
5,300.0	5,261.7	5,251.5	5,239.0	19.6	19.0	163.22	196.9	401.3	799.1	761.9	37.11	21.530			
5,400.0	5,359.4	5,351.0	5,338.4	20.0	19.3	163.65	197.5	403.9	822.0	784.2	37.83	21.727			
5,500.0	5,457.1	5,447.3	5,434.7	20.5	19.7	164.05	198.0	406.4	844.9	806.4	38.54	21.926			
5,600.0	5,554.9	5,544.0	5,531.3	20.9	20.0	164.45	198.3	409.1	868.0	828.8	39.24	22.121			
5,700.0	5,652.6	5,645.2	5,632.5	21.4	20.4	164.86	198.4	411.7	891.0	851.1	39.97	22.294			
5,800.0	5,750.3	5,743.9	5,731.1	21.8	20.7	165.25	198.1	414.0	913.6	873.0	40.68	22.458			
5,900.0	5,848.1	5,837.9	5,825.1	22.3	21.0	165.61	198.0	416.2	936.4	895.0	41.37	22.632			
6,000.0	5,945.8	5,938.7	5,925.9	22.7	21.5	166.04	197.6	418.2	958.5	916.3	42.18	22.723			
6,100.0	6,043.6	6,032.2	6,019.4	23.2	21.8	166.47	196.0	417.4	978.2	935.2	42.93	22.787			
6,200.0	6,141.3	6,130.6	6,117.8	23.6	22.1	166.85	194.1	416.1	997.2	953.6	43.61	22.866			
6,300.0	6,239.0	6,227.6	6,214.8	24.1	22.4	167.22	192.1	414.8	1,016.3	972.0	44.30	22.943			
6,400.0	6,336.8	6,324.6	6,311.7	24.6	22.7	167.59	189.8	414.0	1,035.7	990.8	44.97	23.031			
6,500.0	6,434.5	6,421.4	6,408.3	25.0	23.0	167.97	187.3	413.4	1,055.4	1,009.8	45.65	23.119			
6,600.0	6,532.2	6,518.5	6,505.5	25.5	23.4	168.32	185.0	412.9	1,075.4	1,029.1	46.34	23.209			
6,700.0	6,630.0	6,615.7	6,602.7	26.0	23.7	168.64	183.0	412.7	1,095.7	1,048.7	47.02	23.303			
6,800.0	6,727.7	6,712.4	6,699.4	26.4	24.0	168.96	181.0	412.6	1,116.1	1,068.4	47.72	23.386			
6,900.0	6,825.4	6,809.1	6,796.1	26.9	24.3	169.28	178.6	412.1	1,136.2	1,087.7	48.43	23.461			
7,000.0	6,923.2	6,905.9	6,893.0	27.4	24.6	169.59	176.3	411.8	1,156.4	1,107.3	49.12	23.543			
7,100.0	7,020.9	7,002.6	6,989.7	27.8	25.0	169.92	173.7	411.2	1,176.5	1,126.6	49.85	23.601			
7,200.0	7,118.7	7,099.4	7,086.5	28.3	25.3	170.14	172.9	409.5	1,195.7	1,145.1	50.58	23.641			
7,300.0	7,216.4	7,196.1	7,183.2	28.8	25.6	170.31	172.6	407.6	1,214.6	1,163.3	51.27	23.691			
7,400.0	7,314.1	7,292.8	7,280.0	29.3	26.0	170.46	172.9	405.8	1,233.7	1,181.7	51.98	23.736			
7,500.0	7,411.9	7,389.6	7,376.8	29.7	26.3	170.57	173.9	403.5	1,252.5	1,199.8	52.69	23.770			
7,600.0	7,509.6	7,486.3	7,473.5	30.2	26.6	170.68	174.4	401.6	1,271.4	1,218.0	53.37	23.823			
7,700.0	7,607.3	7,583.0	7,569.7	30.7	27.0	170.74	174.9	399.6	1,290.2	1,236.1	54.10	23.849			
7,800.0	7,705.1	7,679.8	7,666.5	31.2	27.3	170.81	175.0	397.7	1,307.9	1,253.0	54.84	23.848			
7,900.0	7,802.8	7,776.5	7,763.2	31.6	27.6	170.88	174.9	394.7	1,326.0	1,270.5	55.50	23.893			
8,000.0	7,900.6	7,873.3	7,860.0	32.1	27.9	170.94	174.3	393.4	1,344.9	1,288.7	56.17	23.944			
8,100.0	7,998.3	7,970.0	7,956.7	32.6	28.2	171.00	172.9	392.4	1,364.1	1,307.2	56.85	23.992			
8,200.0	8,096.0	8,066.7	8,053.4	33.1	28.5	171.05	171.4	391.9	1,383.8	1,326.3	57.51	24.061			
8,300.0	8,193.8	8,163.5	8,150.2	33.6	28.8	171.11	169.9	391.5	1,403.9	1,345.7	58.24	24.104			
8,400.0	8,291.5	8,260.2	8,246.9	34.0	29.2	171.16	169.0	390.5	1,423.4	1,364.4	58.99	24.128			
8,500.0	8,389.3	8,357.0	8,343.7	34.5	29.5	171.22	168.3	389.3	1,442.7	1,383.0	59.70	24.166			
8,600.0	8,487.0	8,453.7	8,440.4	35.0	29.9	171.27	167.6	387.2	1,461.4	1,400.9	60.49	24.158			
8,700.0	8,584.7	8,550.4	8,537.1	35.5	30.3	171.32	168.2	383.1	1,478.5	1,417.3	61.27	24.132			
8,800.0	8,682.5	8,647.2	8,633.9	36.0	30.6	171.37	169.1	379.0	1,495.2	1,433.2	62.00	24.115			
8,900.0	8,780.2	8,743.9	8,730.6	36.4	30.9	171.42	169.2	376.1	1,512.1	1,449.5	62.63	24.142			
9,000.0	8,878.0	8,840.7	8,827.4	36.9	31.1	171.47	169.5	374.9	1,531.0	1,467.8	63.22	24.216			
9,100.0	8,975.7	8,937.4	8,924.1	37.4	31.4	171.52	169.7	374.5	1,551.2	1,487.4	63.87	24.289			
9,200.0	9,073.4	9,034.1	9,020.8	37.9	31.7	171.57	169.0	374.8	1,572.1	1,507.6	64.56	24.352			
9,300.0	9,171.1	9,130.8	9,117.5	38.4	32.1	171.62	167.4	374.4	1,592.4	1,527.0	65.35	24.365			
9,400.0	9,269.1	9,227.8	9,214.5	38.8	32.5	171.67	166.1	374.0	1,611.5	1,545.5	66.04	24.402			
9,500.0	9,367.7	9,325.4	9,312.1	39.3	32.8	171.72	164.6	373.8	1,627.7	1,561.0	66.75	24.387			
9,600.0	9,466.8	9,423.5	9,410.2	39.7	33.1	171.77	163.5	373.2	1,640.3	1,572.8	67.48	24.308			
9,700.0	9,566.3	9,521.0	9,507.7	40.1	33.5	171.82	162.2	372.5	1,649.3	1,581.1	68.20	24.183			
9,800.0	9,666.1	9,619.8	9,606.5	40.4	33.8	171.87	160.7	371.6	1,654.6	1,585.7	68.91	24.012			
9,900.0	9,766.0	9,718.7	9,705.4	40.8	34.2	171.92	159.6	370.7	1,656.6	1,587.0	69.58	23.807			
10,000.0	9,866.0	9,817.7	9,804.4	41.1	34.5	171.97	158.6	370.0	1,656.0	1,585.8	70.25	23.572			
10,100.0	9,966.0	9,916.7	9,903.4	41.4	34.9	172.02	157.3	369.2	1,655.3	1,584.3	70.95	23.331			
10,200.0	10,065.0	10,014.7	10,001.4	41.7	35.2	172.07	155.6	368.3	1,654.5	1,582.8	71.63	23.098			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #244H (OFFSET) - OWB - AWB													Offset Site Error
													0.0 usft
Survey Program	Reference	48-MWD	Offset	Semi-Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned	Offset Well Error				
Measured Vertical	Measured Vertical	Measured Vertical	Measured Vertical	Reference	Offset	N/S	E/W	Between	Between	Minimum	Separation	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	(usft)	(usft)	Centros (usft)	Ellipses (usft)	Separation (usft)	Factor		
10,267.2	10,129.5	10,156.8	10,143.1	41.9	35.4	91.36	154.3	367.8	1,654.2	1,582.1	72.07	22.954	
10,300.0	10,160.1	10,186.2	10,172.4	42.0	35.5	91.74	153.8	367.6	1,654.3	1,582.0	72.27	22.889	
10,400.0	10,248.6	10,274.3	10,260.5	42.3	35.8	93.06	152.1	366.9	1,655.7	1,582.8	72.90	22.711	
10,500.0	10,327.6	10,356.2	10,342.4	42.6	36.1	94.41	150.4	366.2	1,659.9	1,586.4	73.51	22.582	
10,600.0	10,394.8	10,422.4	10,408.6	42.8	36.3	95.30	149.1	365.4	1,668.1	1,594.0	74.03	22.532	
10,700.0	10,448.2	10,470.4	10,456.6	43.1	36.5	95.33	148.2	365.0	1,681.8	1,607.3	74.46	22.585	
10,800.0	10,486.0	10,505.5	10,491.7	43.4	36.6	94.43	147.5	364.7	1,701.7	1,626.9	74.82	22.744	
10,900.0	10,507.3	10,525.7	10,511.9	43.7	36.7	92.39	147.2	364.6	1,728.0	1,652.9	75.08	23.015	
11,000.0	10,511.9	10,528.7	10,514.8	44.0	36.7	90.07	147.1	364.5	1,760.1	1,684.9	75.23	23.398	
11,100.0	10,511.9	10,526.7	10,512.9	44.4	36.7	90.00	147.1	364.5	1,797.3	1,722.0	75.34	23.856	
11,200.0	10,511.8	11,797.0	11,240.2	44.9	41.8	113.46	930.4	382.7	1,828.2	1,749.0	79.20	23.084	
11,300.0	10,511.8	11,883.3	11,241.1	45.4	42.4	113.47	1,016.7	383.2	1,830.2	1,750.0	80.27	22.800	
11,400.0	10,511.7	11,989.0	11,242.3	46.0	43.1	113.49	1,122.4	383.9	1,832.2	1,750.6	81.60	22.453	
11,500.0	10,511.6	12,346.5	11,240.9	46.7	45.9	113.60	1,479.0	368.6	1,834.0	1,748.5	85.50	21.450	
11,600.0	10,511.6	12,438.0	11,240.9	47.4	46.7	113.75	1,569.5	355.4	1,821.8	1,734.8	86.99	20.943	
11,700.0	10,511.5	12,482.5	11,240.0	48.1	47.1	113.79	1,613.6	350.2	1,811.5	1,723.4	88.07	20.570	
11,800.0	10,511.5	12,532.0	11,238.7	48.9	47.5	113.79	1,663.0	346.8	1,804.8	1,715.6	89.22	20.228	
11,900.0	10,511.4	12,566.3	11,237.6	49.8	47.9	113.77	1,697.3	345.8	1,801.1	1,710.9	90.22	19.963	
11,972.5	10,511.3	12,602.4	11,236.3	50.4	48.2	113.73	1,733.4	345.5	1,800.3	1,709.2	91.10	19.763	
12,000.0	10,511.3	12,626.0	11,235.4	50.7	48.4	113.69	1,756.9	345.8	1,800.5	1,708.9	91.56	19.664	
12,100.0	10,511.3	12,684.5	11,233.7	51.6	49.0	113.62	1,815.4	347.1	1,802.1	1,709.2	92.90	19.397	
12,200.0	10,511.2	12,878.0	11,233.1	52.6	51.0	113.61	2,008.9	345.2	1,802.2	1,706.0	96.15	18.744	
12,300.0	10,511.1	13,027.9	11,236.5	53.6	52.6	113.82	2,158.3	334.8	1,797.6	1,698.8	98.78	18.197	
12,400.0	10,511.1	13,096.0	11,237.3	54.6	53.4	113.90	2,226.2	330.1	1,792.8	1,692.4	100.39	17.858	
12,500.0	10,511.0	13,156.2	11,237.8	55.7	54.1	113.94	2,286.4	327.4	1,790.0	1,688.1	101.91	17.565	
12,600.0	10,511.0	13,261.7	11,238.5	56.8	55.3	113.99	2,391.9	324.1	1,788.5	1,684.4	104.14	17.174	
12,700.0	10,510.9	13,427.7	11,234.9	57.9	57.3	113.97	2,557.6	316.4	1,784.1	1,676.7	107.41	16.610	
12,800.0	10,510.8	13,573.7	11,233.8	59.1	59.1	114.07	2,703.1	304.5	1,777.3	1,667.0	110.34	16.108	
12,900.0	10,510.8	13,647.8	11,237.6	60.2	60.0	114.28	2,776.6	296.8	1,770.6	1,658.4	112.17	15.784	
13,000.0	10,510.7	13,703.9	11,238.6	61.4	60.7	114.36	2,832.6	292.1	1,765.0	1,651.2	113.79	15.511	
13,100.0	10,510.7	13,754.0	11,238.6	62.6	61.4	114.39	2,882.6	290.1	1,762.2	1,646.9	115.31	15.283	
13,173.8	10,510.6	13,803.7	11,238.0	63.5	62.0	114.37	2,932.3	289.5	1,761.7	1,645.1	116.66	15.102	
13,200.0	10,510.6	13,821.8	11,237.7	63.9	62.3	114.36	2,950.4	289.5	1,761.8	1,644.7	117.14	15.040	
13,300.0	10,510.5	13,882.9	11,236.5	65.1	63.0	114.30	3,011.5	290.3	1,763.3	1,644.4	118.86	14.835	
13,400.0	10,510.5	13,943.0	11,236.3	66.4	63.8	114.26	3,071.5	292.4	1,767.2	1,646.7	120.52	14.663	
13,500.0	10,510.4	13,999.1	11,236.3	67.7	64.5	114.21	3,127.5	295.7	1,773.5	1,651.4	122.09	14.526	
13,600.0	10,510.3	14,093.4	11,235.2	69.0	65.8	114.06	3,221.5	303.6	1,781.6	1,657.1	124.52	14.308	
13,700.0	10,510.3	14,229.8	11,234.4	70.3	67.6	113.91	3,357.6	312.3	1,788.2	1,660.3	127.89	13.982	
13,800.0	10,510.2	14,322.6	11,237.3	71.7	68.8	113.93	3,450.2	316.0	1,794.1	1,663.9	130.26	13.774	
13,900.0	10,510.2	14,464.9	11,244.4	73.0	70.8	114.09	3,592.3	318.7	1,798.8	1,665.1	133.62	13.462	
14,000.0	10,510.1	14,593.0	11,246.8	74.4	72.6	114.12	3,720.4	320.4	1,801.7	1,665.0	136.77	13.173	
14,100.0	10,510.0	14,709.6	11,245.3	75.7	74.2	114.04	3,837.0	322.0	1,803.5	1,663.7	139.78	12.903	
14,200.0	10,510.0	14,856.9	11,239.0	77.1	76.3	113.83	3,984.2	322.8	1,803.2	1,659.7	143.50	12.566	
14,300.0	10,509.9	14,937.9	11,233.7	78.5	77.4	113.66	4,065.0	323.2	1,802.0	1,656.1	145.92	12.349	
14,318.8	10,509.9	14,950.8	11,232.9	78.8	77.6	113.64	4,077.8	323.3	1,802.0	1,655.6	146.33	12.315	
14,400.0	10,509.9	15,010.9	11,230.6	79.9	78.5	113.55	4,137.9	324.2	1,802.5	1,654.4	148.14	12.167	
14,500.0	10,509.8	15,227.1	11,234.6	81.3	81.6	113.73	4,353.9	317.7	1,802.7	1,649.8	152.91	11.789	
14,600.0	10,509.7	15,355.0	11,236.4	82.8	83.5	113.91	4,481.2	306.5	1,796.1	1,640.1	155.96	11.516	
14,700.0	10,509.7	15,416.6	11,236.9	84.2	84.4	113.97	4,542.6	302.2	1,790.8	1,632.8	158.01	11.334	
14,800.0	10,509.6	15,543.0	11,233.3	85.6	86.3	113.96	4,668.7	294.2	1,784.7	1,623.5	161.23	11.069	
14,900.0	10,509.6	15,585.0	11,231.6	87.1	86.9	113.93	4,710.6	291.8	1,779.6	1,616.7	162.98	10.920	
14,959.3	10,509.5	15,602.3	11,231.2	87.9	87.1	113.92	4,727.9	291.5	1,778.6	1,614.8	163.80	10.859	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #244H (OFFSET) - OWB - AWB													Offset Site Error		0.0 usft
Survey Program: 148-MWD													Offset Well Error		0.0 usft
Reference		Offset		Semi-Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		N-S (usft)	E-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
15,000.0	10,509.5	15,637.0	11,231.0	88.5	87.7	113.91	4,762.6	291.9	1,779.2	1,614.4	164.81	10.795			
15,003.9	10,509.5	15,637.0	11,231.0	88.6	87.7	113.91	4,762.6	291.9	1,779.2	1,614.4	164.84	10.794			
15,100.0	10,509.4	15,637.0	11,231.0	90.0	87.7	113.91	4,762.6	291.9	1,781.8	1,616.5	165.30	10.779			
15,200.0	10,509.4	15,686.2	11,231.3	91.5	88.4	113.87	4,811.7	294.6	1,788.3	1,621.5	166.78	10.723			
15,300.0	10,509.3	15,731.0	11,231.8	92.9	89.0	113.83	4,856.3	298.8	1,798.2	1,630.2	168.04	10.701 SF			
15,400.0	10,509.2	15,764.5	11,232.3	94.4	89.5	113.79	4,889.5	303.1	1,811.4	1,642.5	168.82	10.729			
15,500.0	10,509.2	15,825.0	11,233.5	95.9	90.4	113.68	4,949.1	313.5	1,828.3	1,657.9	170.40	10.729			
15,600.0	10,509.1	15,879.7	11,234.0	97.4	91.2	113.55	5,002.7	324.4	1,847.3	1,675.5	171.75	10.756			
15,700.0	10,509.1	15,954.2	11,232.6	98.9	92.2	113.31	5,075.6	339.8	1,866.7	1,692.9	173.83	10.738			
15,800.0	10,509.0	16,013.0	11,231.6	100.4	93.0	113.10	5,132.7	353.7	1,888.6	1,713.3	175.30	10.774			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #9H (OFFSET) - OWB - AWB													Offset Site Error:	0.0 usft
Survey Program: 489 MWD													Offset Well Error:	0.0 usft
Reference	Measured Vertical Depth	Offset Vertical Depth	Semi-Major Axis	Reference	Offset	Highside	Offset Wellbore Centre	Distance	Rule Assigned	Between Centres	Between Ellipses	Minimum Separation	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(ft)	N/S (usft)	E/W (usft)		(usft)	(usft)	(usft)	Factor	
0.0	0.0	5.8	5.8	0.0	0.0	7.67	520.0	70.1	524.7					
100.0	100.0	107.3	107.3	0.1	0.2	7.68	519.8	70.1	524.5	524.2		0.32	1,661.867	
200.0	200.0	208.8	208.8	0.5	0.4	7.68	519.4	70.0	524.1	523.2		0.85	618.763	
300.0	300.0	310.3	310.3	0.8	0.5	7.68	518.6	70.0	523.3	521.9		1.38	379.693	
400.0	400.0	411.8	411.8	1.2	0.7	7.69	517.6	69.9	522.3	520.4		1.91	273.513	
500.0	500.0	513.6	513.6	1.6	0.9	7.70	516.2	69.8	521.0	518.5		2.49	209.419	
600.0	600.0	616.2	616.1	1.9	1.3	7.72	514.4	69.7	519.2	516.0		3.21	161.540	
700.0	700.0	716.9	716.8	2.3	1.7	7.74	512.2	69.7	517.0	513.1		3.93	131.439	
800.0	800.0	815.9	815.8	2.6	2.0	7.75	510.2	69.4	515.0	510.3		4.65	110.820	
900.0	900.0	914.8	914.7	3.0	2.4	7.72	508.4	68.9	513.1	507.8		5.36	95.733	
1,000.0	1,000.0	1,013.7	1,013.6	3.4	2.7	7.68	506.8	68.3	511.5	505.4		6.07	84.232	
1,100.0	1,100.0	1,115.9	1,115.8	3.7	3.1	7.61	505.2	67.5	509.8	503.0		6.80	75.007	
1,200.0	1,200.0	1,218.8	1,218.7	4.1	3.5	7.50	503.0	66.2	507.5	500.0		7.52	67.465	
1,300.0	1,300.0	1,321.8	1,321.6	4.4	3.8	7.45	500.2	65.4	504.7	496.4		8.25	61.182	
1,400.0	1,400.0	1,424.5	1,424.3	4.8	4.2	7.53	496.6	65.7	501.2	492.3		8.97	55.857	
1,500.0	1,500.0	1,526.5	1,526.1	5.2	4.6	7.67	492.5	66.4	497.3	487.6		9.70	51.292	
1,600.0	1,600.0	1,627.9	1,627.4	5.5	4.9	7.81	488.0	67.0	493.0	482.6		10.42	47.331	
1,700.0	1,700.0	1,728.2	1,727.6	5.9	5.3	7.98	483.4	67.8	488.6	477.4		11.13	43.882	
1,800.0	1,800.0	1,826.4	1,825.7	6.2	5.7	8.19	478.8	68.9	484.1	472.3		11.85	40.873	
1,900.0	1,900.0	1,921.9	1,921.1	6.6	6.0	8.39	475.1	70.0	480.5	467.9		12.55	38.293	
2,000.0	2,000.0	2,018.0	2,017.2	6.9	6.4	8.58	472.2	71.2	477.7	464.5		13.25	36.053	
2,100.0	2,100.0	2,114.9	2,114.1	7.3	6.7	8.77	470.0	72.5	475.6	461.7		13.95	34.085	
2,200.0	2,200.0	2,212.7	2,211.9	7.7	7.1	8.98	468.3	74.0	474.1	459.5		14.66	32.344	
2,300.0	2,300.0	2,311.4	2,310.6	8.0	7.4	9.20	466.9	75.6	473.0	457.6		15.37	30.779	
2,400.0	2,400.0	2,416.0	2,415.0	8.4	7.8	9.42	465.3	77.2	471.7	455.6		16.10	29.308	
2,500.0	2,500.0	2,524.8	2,523.8	8.7	8.2	9.53	462.0	77.6	468.8	452.0		16.84	27.845	
2,600.0	2,600.0	2,622.2	2,621.2	9.1	8.5	9.65	458.2	77.9	465.0	447.5		17.54	26.505	
2,700.0	2,700.0	2,717.3	2,716.2	9.5	8.9	10.05	455.0	80.7	462.2	444.0		18.24	25.335	
2,800.0	2,800.0	2,821.8	2,820.5	9.8	9.2	10.70	451.4	85.3	459.6	440.6		18.97	24.224	
2,900.0	2,900.0	2,927.3	2,925.8	10.2	9.6	11.37	446.4	89.8	455.8	436.0		19.71	23.128	
3,000.0	3,000.0	3,024.8	3,023.1	10.5	10.0	12.01	441.4	93.9	451.6	431.2		20.42	22.118	
3,100.0	3,100.0	3,122.2	3,120.3	10.9	10.3	12.64	437.0	98.0	448.1	426.9		21.13	21.203	
3,200.0	3,200.0	3,218.1	3,216.0	11.2	10.7	13.23	433.3	101.9	445.3	423.4		21.84	20.390	
3,275.2	3,275.2	3,285.0	3,282.8	11.5	10.9	99.76	431.5	104.7	444.2	421.8		22.34	19.881 CC	
3,300.0	3,300.0	3,306.7	3,304.5	11.6	11.0	99.98	431.2	105.7	444.3	421.8		22.50	19.744 ES	
3,400.0	3,399.8	3,393.8	3,391.5	11.9	11.3	100.94	431.8	109.4	447.0	423.8		23.13	19.324	
3,500.0	3,499.5	3,480.7	3,478.4	12.3	11.6	101.99	435.1	112.1	453.3	429.5		23.74	19.090	
3,600.0	3,598.7	3,568.0	3,565.4	12.6	11.9	103.16	441.0	114.4	463.1	438.8		24.34	19.029	
3,700.0	3,697.5	3,656.0	3,653.0	13.0	12.1	104.47	449.1	116.5	476.5	451.6		24.93	19.110	
3,800.0	3,795.6	3,752.1	3,748.6	13.4	12.4	106.10	459.3	118.6	492.5	466.9		25.61	19.233	
3,900.0	3,893.4	3,849.3	3,845.2	13.7	12.8	108.12	469.6	120.7	509.6	483.3		26.29	19.381	
4,000.0	3,991.1	3,946.0	3,941.3	14.1	13.1	110.04	479.8	122.7	527.3	500.3		26.99	19.540	
4,100.0	4,088.8	4,035.0	4,029.7	14.5	13.4	111.66	490.0	124.6	546.2	518.6		27.62	19.779	
4,200.0	4,186.6	4,132.0	4,125.9	14.9	13.7	113.29	501.8	126.9	566.5	538.2		28.32	20.001	
4,300.0	4,284.3	4,230.6	4,223.9	15.3	14.0	114.84	513.6	129.0	586.9	557.8		29.04	20.206	
4,400.0	4,382.0	4,326.1	4,318.6	15.7	14.3	116.24	525.0	131.1	607.6	577.9		29.74	20.427	
4,500.0	4,479.8	4,419.0	4,410.8	16.1	14.7	117.52	536.1	133.3	628.8	598.3		30.43	20.666	
4,600.0	4,577.5	4,515.0	4,506.1	16.5	15.0	118.82	547.5	136.2	650.6	619.4		31.14	20.891	
4,700.0	4,675.3	4,607.0	4,597.4	17.0	15.3	120.10	558.2	140.4	673.4	641.5		31.82	21.163	
4,800.0	4,773.0	4,706.5	4,696.1	17.4	15.7	121.49	569.1	146.0	696.6	664.0		32.57	21.389	
4,900.0	4,870.7	4,807.4	4,796.3	17.8	16.0	122.92	578.8	152.4	719.6	686.3		33.32	21.595	
5,000.0	4,968.5	4,919.6	4,907.9	18.2	16.4	124.56	587.2	159.9	741.6	707.5		34.17	21.706	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #9H (OFFSET) - OWB - AWB														Offset Site Error	0.0 usft
Survey Program: 489-MWD														Offset Well Error	0.0 usft
Reference	Measured Vertical	Offset	Semi-Major Axis	Reference	Offset	Highside	Offset Wellbore	Distance	Rule Assigned	Between	Between	Minimum	Separation	Warning	
Depth	Depth	Depth	Depth	Depth	Depth	Footage	N/S	E/W		Centres	Ellipses	Separation	Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(ft)	(usft)	(usft)		(usft)	(usft)	(usft)			
5,100.0	5,086.2	5,035.0	5,023.0	18.7	16.8	126.28	592.6	167.4		761.9	726.8	35.01	21.758		
5,200.0	5,163.9	5,155.8	5,143.6	19.1	17.3	127.98	595.5	173.0		779.7	743.8	35.88	21.734		
5,300.0	5,261.7	5,269.2	5,256.9	19.6	17.7	129.47	596.3	175.9		795.4	758.7	36.68	21.684		
5,400.0	5,359.4	5,379.6	5,367.3	20.0	18.1	130.83	595.9	176.9		809.6	772.2	37.46	21.611		
5,500.0	5,457.1	5,478.6	5,466.4	20.5	18.4	131.99	595.2	177.1		823.5	785.3	38.20	21.556		
5,600.0	5,554.9	5,577.4	5,565.1	20.9	18.7	133.11	594.4	177.2		837.4	798.5	38.93	21.509		
5,700.0	5,652.6	5,674.9	5,662.7	21.4	19.1	134.18	593.5	177.3		851.7	812.0	39.66	21.474		
5,800.0	5,750.3	5,773.9	5,761.6	21.8	19.4	135.21	592.8	177.2		866.2	825.8	40.39	21.445		
5,900.0	5,848.1	5,876.9	5,864.6	22.3	19.8	136.25	591.9	176.7		880.6	839.5	41.14	21.407		
6,000.0	5,945.8	5,974.4	5,962.1	22.7	20.1	137.20	590.7	175.9		894.8	852.9	41.86	21.378		
6,100.0	6,043.6	6,065.3	6,053.0	23.2	20.4	138.03	590.2	175.4		909.8	867.3	42.55	21.384		
6,200.0	6,141.3	6,159.9	6,147.7	23.6	20.8	138.86	590.4	175.1		925.7	882.4	43.25	21.403		
6,300.0	6,239.0	6,260.6	6,248.3	24.1	21.1	139.71	590.3	174.9		941.6	897.7	43.98	21.412		
6,400.0	6,336.8	6,360.3	6,348.1	24.6	21.5	140.55	590.0	174.5		957.5	912.8	44.70	21.420		
6,500.0	6,434.5	6,459.3	6,447.0	25.0	21.8	141.35	589.5	174.1		973.5	928.0	45.43	21.430		
6,600.0	6,532.2	6,557.2	6,544.9	25.5	22.1	142.13	588.8	173.7		989.5	943.4	46.15	21.443		
6,700.0	6,630.0	6,654.3	6,642.0	26.0	22.5	142.88	588.0	173.4		1,005.8	958.9	46.86	21.462		
6,800.0	6,727.7	6,751.0	6,738.7	26.4	22.8	143.62	587.2	173.3		1,022.3	974.7	47.58	21.487		
6,900.0	6,825.4	6,847.6	6,835.4	26.9	23.2	144.33	586.5	173.2		1,039.1	990.8	48.29	21.517		
7,000.0	6,923.2	6,946.8	6,934.5	27.4	23.5	145.02	586.0	173.0		1,056.0	1,007.0	49.02	21.545		
7,100.0	7,020.9	7,047.2	7,034.9	27.8	23.9	145.70	585.4	172.6		1,072.9	1,023.2	49.74	21.568		
7,200.0	7,118.7	7,147.0	7,134.8	28.3	24.2	146.35	584.7	172.0		1,089.7	1,039.2	50.47	21.591		
7,300.0	7,216.4	7,246.7	7,234.5	28.8	24.6	147.00	583.6	171.4		1,106.5	1,055.3	51.20	21.613		
7,400.0	7,314.1	7,351.9	7,339.6	29.3	24.9	147.64	582.6	170.2		1,123.0	1,071.1	51.94	21.621		
7,500.0	7,411.9	7,456.8	7,444.5	29.7	25.3	148.23	581.9	168.1		1,139.0	1,086.3	52.69	21.618		
7,600.0	7,509.6	7,554.3	7,541.9	30.2	25.6	148.78	580.8	166.1		1,154.8	1,101.4	53.40	21.625		
7,700.0	7,607.3	7,649.5	7,637.2	30.7	26.0	149.35	578.8	164.7		1,170.1	1,116.0	54.10	21.626		
7,800.0	7,705.1	7,737.5	7,725.1	31.2	26.3	149.95	577.4	163.8		1,185.4	1,130.7	54.78	21.640		
7,900.0	7,802.8	7,833.2	7,820.8	31.6	26.6	150.54	576.8	162.9		1,201.4	1,145.9	55.49	21.652		
8,000.0	7,900.6	7,923.9	7,911.5	32.1	26.9	151.05	577.3	162.0		1,217.9	1,161.7	56.16	21.684		
8,100.0	7,998.3	8,024.6	8,012.2	32.6	27.3	151.56	578.6	160.8		1,234.6	1,177.7	56.89	21.701		
8,200.0	8,096.0	8,122.7	8,110.2	33.1	27.6	152.04	579.9	159.5		1,251.4	1,193.8	57.61	21.723		
8,300.0	8,193.8	8,226.5	8,214.0	33.6	28.0	152.56	580.6	158.3		1,268.1	1,209.8	58.35	21.734		
8,400.0	8,291.5	8,292.0	8,279.5	34.0	28.2	153.05	581.8	157.7		1,285.7	1,226.8	58.89	21.830		
8,500.0	8,389.3	8,323.0	8,310.4	34.5	28.3	153.52	584.3	158.0		1,307.2	1,248.0	59.18	22.090		
8,600.0	8,487.0	8,369.7	8,356.6	35.0	28.4	153.93	591.0	159.9		1,333.3	1,273.8	59.50	22.410		
8,700.0	8,584.7	8,430.5	8,415.9	35.5	28.7	154.74	604.1	161.7		1,362.0	1,302.1	59.91	22.734		
8,800.0	8,682.5	8,480.0	8,463.2	36.0	28.8	154.43	618.7	163.6		1,393.9	1,333.7	60.18	23.161		
8,900.0	8,780.2	8,529.8	8,509.4	36.4	29.0	154.99	636.9	165.6		1,429.0	1,368.6	60.42	23.650		
9,000.0	8,878.0	8,596.9	8,570.4	36.9	29.3	155.26	664.8	168.0		1,466.3	1,405.5	60.85	24.097		
9,100.0	8,975.7	8,670.0	8,634.5	37.4	29.6	155.28	699.9	168.4		1,504.6	1,443.3	61.35	24.527		
9,200.0	9,073.4	8,710.8	8,668.8	37.9	29.7	155.64	722.0	168.1		1,545.6	1,484.2	61.41	25.167		
9,300.0	9,171.2	8,762.2	8,710.2	38.4	29.9	155.76	752.4	168.2		1,589.9	1,528.3	61.59	25.814		
9,400.0	9,269.1	8,817.3	8,753.0	38.8	30.2	155.77	787.1	167.1		1,635.1	1,573.3	61.80	26.460		
9,500.0	9,367.7	8,866.3	8,774.6	39.3	30.3	155.77	806.5	166.5		1,681.2	1,619.6	61.59	27.297		
9,600.0	9,466.8	8,873.7	8,794.3	39.7	30.4	155.77	825.5	166.3		1,728.3	1,667.0	61.31	28.190		
9,700.0	9,566.3	8,891.0	8,806.4	40.1	30.5	155.66	837.9	166.2		1,776.4	1,715.5	60.82	29.206		
9,800.0	9,666.1	8,922.0	8,827.2	40.4	30.6	155.65	860.8	166.4		1,825.4	1,764.9	60.50	30.170		
9,900.0	9,766.0	8,938.9	8,838.1	40.8	30.7	155.65	873.7	166.6		1,875.5	1,815.6	59.93	31.294		
10,000.0	9,866.0	8,954.0	8,847.5	41.1	30.8	155.65	885.5	166.9		1,927.1	1,867.8	59.31	32.493		
10,100.0	9,966.0	8,985.0	8,866.3	41.4	30.9	155.65	910.2	167.7		1,981.2	1,922.3	58.94	33.616		
10,200.0	10,065.0	9,016.0	8,884.5	41.7	31.1	155.47	935.3	168.6		2,032.6	1,974.0	58.54	34.724		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid Anticollision Report



Company	Tap Rock Resources, LLC	Local Co-ordinate Reference	Well Cypress 34 Federal #246H
Project	Eddy County, NM (NAD 83 NME)	TVD Reference	KB @ 3119.0usft
Reference Site	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference	KB @ 3119.0usft
Site Error	0.0 usft	North Reference	Grid
Reference Well	Cypress 34 Federal #246H	Survey Calculation Method	Minimum Curvature
Well Error	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database	EDM 5000.15 Single User Db
Reference Design	Plan #6	Offset TVD Reference	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #9H (OFFSET) - OWB - AWB														Offset Site Error: 0.0 usft	
Survey Program: 1489-MWD														Offset Well Error: 0.0 usft	
Reference		Offset		Semi-Major Axis		Highside Toothface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		N/S (usft)	E/W (usft)	Between Centres (usft)	Between Ellipses (usft)					
10,300.0	10,160.1	9,048.0	8,902.3	42.0	31.2	50.91	961.9	169.6	2,078.2	2,020.1	58.12	35.756			
10,400.0	10,248.6	9,063.5	8,910.4	42.3	31.3	47.59	975.0	170.2	2,116.8	2,059.4	57.44	36.851			
10,500.0	10,327.6	9,080.0	8,918.8	42.6	31.4	45.12	999.2	170.9	2,147.6	2,090.8	56.80	37.809			
10,600.0	10,394.8	9,111.0	8,933.4	42.8	31.6	43.42	1,016.5	172.9	2,170.1	2,113.6	56.44	38.453			
10,700.0	10,448.2	9,111.0	8,933.4	43.1	31.6	42.48	1,016.5	172.9	2,183.8	2,128.1	55.68	39.219			
10,800.0	10,486.0	9,143.0	8,946.7	43.4	31.8	42.25	1,045.5	175.8	2,188.1	2,132.6	55.53	39.402			
10,900.0	10,507.3	9,174.0	8,958.5	43.7	31.9	42.76	1,073.9	179.4	2,183.1	2,127.6	55.53	39.317			
11,000.0	10,511.9	9,206.0	8,969.6	44.0	32.1	43.70	1,103.7	183.2	2,169.1	2,113.3	55.72	38.930			
11,100.0	10,511.9	9,237.0	8,979.0	44.4	32.3	43.95	1,133.0	186.5	2,154.6	2,098.6	55.98	38.491			
11,200.0	10,511.8	9,269.0	8,987.0	44.9	32.5	44.15	1,163.9	189.2	2,143.1	2,086.8	56.29	38.072			
11,300.0	10,511.8	9,300.0	8,993.0	45.4	32.7	44.31	1,194.2	191.3	2,134.9	2,078.3	56.63	37.696			
11,400.0	10,511.7	9,332.0	8,997.5	46.0	32.9	44.45	1,225.8	193.4	2,130.1	2,073.0	57.03	37.350			
11,500.0	10,511.6	9,363.0	9,000.0	46.7	33.1	44.54	1,256.6	195.6	2,128.8	2,071.4	57.45	37.055			
11,500.6	10,511.6	9,363.0	9,000.0	46.7	33.1	44.54	1,256.6	195.6	2,128.8	2,071.4	57.45	37.054			
11,600.0	10,511.6	9,414.6	9,001.8	47.4	33.4	44.64	1,308.1	198.4	2,130.4	2,072.3	58.11	36.662			
11,700.0	10,511.5	9,496.0	9,003.2	48.1	34.0	44.75	1,389.4	201.9	2,133.0	2,073.9	59.11	36.088			
11,800.0	10,511.5	9,569.3	9,002.7	48.9	34.5	44.81	1,462.7	204.6	2,136.8	2,076.7	60.06	35.579			
11,900.0	10,511.4	9,645.0	9,000.5	49.8	35.1	44.83	1,538.3	207.2	2,141.9	2,080.8	61.07	35.073			
12,000.0	10,511.3	9,725.7	8,997.1	50.7	35.8	44.84	1,618.9	210.1	2,148.1	2,085.9	62.19	34.541			
12,100.0	10,511.3	9,825.4	8,993.4	51.6	36.7	44.87	1,718.4	214.5	2,154.5	2,090.9	63.59	33.881			
12,200.0	10,511.2	9,907.1	8,990.1	52.6	37.5	44.90	1,800.0	218.2	2,161.3	2,096.4	64.85	33.325			
12,300.0	10,511.1	10,021.5	8,984.3	53.6	38.6	44.90	1,914.1	222.7	2,168.4	2,101.8	66.54	32.585			
12,400.0	10,511.1	10,192.0	8,984.7	54.6	40.3	45.09	2,084.4	230.5	2,171.3	2,102.1	69.20	31.379			
12,500.0	10,511.0	10,283.9	8,985.2	55.7	41.3	45.20	2,176.3	234.8	2,174.9	2,104.0	70.85	30.695			
12,600.0	10,511.0	10,364.1	8,986.2	56.8	42.2	45.32	2,256.3	239.5	2,179.0	2,106.5	72.41	30.092			
12,700.0	10,510.9	10,504.3	8,987.7	57.9	43.9	45.53	2,396.2	247.9	2,183.4	2,108.4	74.94	29.136			
12,800.0	10,510.8	10,578.8	8,989.3	59.1	44.7	45.66	2,470.5	252.3	2,186.9	2,110.3	76.52	28.579			
12,900.0	10,510.8	10,692.3	8,991.2	60.2	46.1	45.84	2,583.8	259.0	2,190.6	2,111.8	78.76	27.814			
13,000.0	10,510.7	10,765.3	8,992.0	61.4	47.0	45.94	2,656.7	263.2	2,194.6	2,114.2	80.38	27.304			
13,100.0	10,510.7	10,906.3	8,994.0	62.6	48.8	46.15	2,797.5	270.6	2,198.1	2,115.0	83.16	26.432			
13,200.0	10,510.6	10,999.8	8,995.6	63.9	50.0	46.27	2,890.9	274.9	2,201.0	2,115.8	85.20	25.835			
13,300.0	10,510.5	11,091.7	8,996.7	65.1	51.2	46.39	2,982.6	279.0	2,204.2	2,116.9	87.22	25.271			
13,400.0	10,510.5	11,174.8	8,997.3	66.4	52.3	46.48	3,065.7	282.9	2,207.8	2,118.7	89.12	24.773			
13,500.0	10,510.4	11,252.0	8,996.3	67.7	53.3	46.54	3,142.8	286.5	2,212.8	2,121.8	90.91	24.340			
13,600.0	10,510.3	11,337.4	8,994.4	69.0	54.5	46.60	3,228.1	290.8	2,218.6	2,125.7	92.85	23.894			
13,700.0	10,510.3	11,443.3	8,992.9	70.3	55.9	46.70	3,333.8	296.7	2,224.3	2,129.1	95.20	23.363			
13,800.0	10,510.2	11,536.0	8,991.9	71.7	57.2	46.80	3,426.3	302.2	2,230.1	2,132.7	97.36	22.905			
13,900.0	10,510.2	11,671.7	8,992.6	73.0	59.1	46.99	3,561.7	310.8	2,235.1	2,134.7	100.39	22.263			
14,000.0	10,510.1	11,786.2	8,994.4	74.4	60.7	47.16	3,676.0	317.6	2,239.1	2,136.0	103.07	21.724			
14,100.0	10,510.0	11,895.4	8,996.7	75.7	62.3	47.33	3,785.0	323.6	2,242.5	2,136.8	105.69	21.218			
14,200.0	10,510.0	11,990.8	8,998.8	77.1	63.7	47.48	3,880.3	328.8	2,245.8	2,137.7	108.06	20.783			
14,300.0	10,509.9	12,067.0	9,000.2	78.5	64.8	47.60	3,956.3	333.3	2,249.7	2,139.6	110.08	20.437			
14,400.0	10,509.9	12,150.0	9,000.4	79.9	66.0	47.70	4,039.2	338.3	2,254.7	2,142.4	112.21	20.092			
14,500.0	10,509.8	12,268.0	9,000.3	81.3	67.7	47.84	4,157.0	345.1	2,259.8	2,144.7	115.04	19.643			
14,600.0	10,509.7	12,385.0	9,001.9	82.8	69.4	48.00	4,273.8	351.7	2,263.8	2,145.9	117.91	19.199			
14,700.0	10,509.7	12,503.7	9,004.9	84.2	71.2	48.19	4,392.3	358.2	2,266.8	2,146.0	120.86	18.756			
14,800.0	10,509.6	12,577.0	9,006.6	85.6	72.3	48.31	4,465.4	362.3	2,270.2	2,147.3	122.91	18.470			
14,900.0	10,509.6	12,633.9	9,006.9	87.1	73.1	48.38	4,522.3	365.7	2,275.2	2,150.6	124.61	18.259			
15,000.0	10,509.5	12,703.9	9,005.7	88.5	74.1	48.45	4,592.0	370.5	2,282.1	2,155.5	126.53	18.036			
15,100.0	10,509.4	12,814.9	9,003.5	90.0	75.8	48.55	4,702.8	377.9	2,289.2	2,159.9	129.30	17.704			
15,200.0	10,509.4	12,941.6	9,001.8	91.5	77.7	48.68	4,829.3	385.7	2,295.4	2,163.0	132.42	17.334			
15,300.0	10,509.3	13,076.3	9,001.5	92.9	79.8	48.81	4,963.8	392.6	2,300.1	2,164.4	135.72	16.948			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid

Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Cypress 34 Federal #9H (OFFSET) - OWB - AWB													Offset Site Error:	0.0 usft
Survey Program:	7489 MWD												Offset Well Error:	0.0 usft
Reference	Measured Vertical	Offset	Measured Vertical	Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned				
Depth	Depth	Depth	Depth	Depth	Depth	Reference	Toolface	N-S	E-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
15,400.0	10,509.2	13,172.5	9,000.7	94.4	81.2	48.87	5,059.9	396.3	2,304.3	2,166.1	138.20	16.674		
15,500.0	10,509.2	13,273.3	8,999.8	95.9	82.8	48.93	5,160.6	400.1	2,308.6	2,167.8	140.78	16.398		
15,600.0	10,509.1	13,333.0	8,999.2	97.4	83.7	48.97	5,220.3	402.4	2,313.2	2,170.6	142.54	16.228 SF		
15,700.0	10,509.1	13,333.0	8,999.2	98.9	83.7	48.97	5,220.3	402.4	2,321.3	2,178.3	142.96	16.238		
15,800.0	10,509.0	13,333.0	8,999.2	100.4	83.7	48.97	5,220.3	402.4	2,333.7	2,190.5	143.18	16.299		



Intrepid Anticollision Report



Company: Tap Rock Resources, LLC
Project: Eddy County, NM (NAD 83 NME)
Reference Site: (Cypress) Sec-3_T-24-S_R-29-E
Site Error: 0.0 usft
Reference Well: Cypress 34 Federal #246H
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #6

Local Co-ordinate Reference: Well Cypress 34 Federal #246H
TVD Reference: KB @ 3119.0usft
MD Reference: KB @ 3119.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD/Reference: Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Knoll AOK Fed #2H (OFFSET) - OWB - AWB											Offset Site Error	0.0 usft
Survey Program: 100-GYRO-NS-7452-MWD				Rule Assigned:				Offset Well Error				0.0 usft
Reference	Offset	Semi-Major Axis	Highside	Offset Wellbore Centre	Distance	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Reference Depth (usft)	Offset Depth (usft)	Reference Depth (usft)	Offset Depth (usft)	N/S (usft)	E/W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	97.53	-88.1	666.6	673.4			
100.0	100.0	66.8	66.8	0.1	0.1	97.53	-88.1	666.5	672.3	672.0	0.22	3,126.129
200.0	200.0	168.8	168.8	0.5	0.4	97.52	-87.9	665.9	671.6	670.8	0.86	785.100
300.0	300.0	266.9	266.9	0.8	0.7	97.47	-87.3	665.3	671.0	669.4	1.56	430.773
351.5	351.5	315.5	315.5	1.0	0.9	97.43	-86.8	665.2	670.9	669.0	1.91	350.576
400.0	400.0	359.0	359.0	1.2	1.0	97.36	-86.0	665.5	671.0	668.8	2.24	299.266
500.0	500.0	448.3	448.2	1.6	1.4	97.15	-83.7	667.2	672.6	669.7	2.92	230.233
600.0	600.0	540.4	540.3	1.9	1.7	96.88	-80.9	670.4	675.7	672.0	3.61	187.112
700.0	700.0	640.2	639.9	2.3	2.1	96.62	-78.3	674.4	679.3	675.0	4.32	157.122
800.0	800.0	743.4	743.1	2.6	2.4	96.40	-76.0	678.0	682.6	677.5	5.04	135.325
900.0	900.0	844.9	844.5	3.0	2.8	96.27	-74.8	681.2	685.5	679.8	5.76	119.113
1,000.0	1,000.0	943.9	943.4	3.4	3.1	96.20	-74.4	684.0	688.4	681.9	6.46	106.608
1,100.0	1,100.0	1,038.4	1,037.9	3.7	3.5	96.19	-74.5	687.2	691.7	684.5	7.14	96.834
1,200.0	1,200.0	1,132.7	1,132.1	4.1	3.8	96.21	-75.2	691.1	695.9	688.1	7.83	88.899
1,300.0	1,300.0	1,233.5	1,232.8	4.4	4.1	96.29	-76.6	695.7	700.6	692.0	8.54	82.047
1,400.0	1,400.0	1,338.0	1,337.2	4.8	4.5	96.39	-78.4	699.7	704.6	695.4	9.26	76.064
1,500.0	1,500.0	1,441.2	1,440.3	5.2	4.9	96.49	-80.0	703.4	708.3	698.3	9.98	70.943
1,600.0	1,600.0	1,547.1	1,546.2	5.5	5.2	96.53	-80.8	706.4	711.2	700.5	10.71	66.382
1,700.0	1,700.0	1,651.0	1,650.0	5.9	5.6	96.49	-80.7	708.7	713.4	701.9	11.44	62.382
1,800.0	1,800.0	1,751.1	1,750.2	6.2	5.9	96.47	-80.6	710.6	715.3	703.1	12.14	58.898
1,900.0	1,900.0	1,848.4	1,847.5	6.6	6.3	96.47	-80.8	712.6	717.3	704.5	12.84	55.857
2,000.0	2,000.0	1,944.9	1,943.9	6.9	6.6	96.49	-81.3	715.0	719.9	706.4	13.54	53.177
2,100.0	2,100.0	2,045.1	2,044.0	7.3	7.0	96.52	-82.1	717.9	722.8	708.6	14.25	50.735
2,200.0	2,200.0	2,150.0	2,148.8	7.7	7.3	96.59	-83.2	720.3	725.2	710.3	14.97	48.435
2,300.0	2,300.0	2,252.8	2,251.6	8.0	7.7	96.67	-84.5	722.0	727.1	711.4	15.69	46.333
2,400.0	2,400.0	2,350.4	2,349.3	8.4	8.0	96.75	-85.6	723.6	728.8	712.4	16.39	44.462
2,500.0	2,500.0	2,442.5	2,441.3	8.7	8.4	96.84	-87.0	725.7	731.3	714.2	17.07	42.837
2,600.0	2,600.0	2,532.7	2,531.4	9.1	8.7	97.01	-89.6	728.9	735.1	717.4	17.74	41.433
2,700.0	2,700.0	2,628.2	2,626.7	9.5	9.0	97.29	-93.8	733.1	740.0	721.6	18.43	40.141
2,800.0	2,800.0	2,729.4	2,727.8	9.8	9.4	97.61	-98.5	737.4	744.9	725.7	19.15	38.890
2,900.0	2,900.0	2,827.5	2,825.5	10.2	9.7	98.02	-104.5	741.6	749.9	730.0	19.86	37.761
3,000.0	3,000.0	2,928.3	2,925.9	10.5	10.1	98.58	-112.5	745.6	755.0	734.4	20.58	36.683
3,100.0	3,100.0	3,029.5	3,026.7	10.9	10.4	99.19	-121.2	749.3	760.0	738.7	21.31	35.670
3,200.0	3,200.0	3,130.9	3,127.8	11.2	10.8	99.74	-129.3	752.9	764.8	742.7	22.03	34.716
3,300.0	3,300.0	3,231.2	3,227.8	11.6	11.2	-173.79	-136.3	756.5	771.2	748.5	22.74	33.919
3,400.0	3,399.8	3,331.6	3,327.8	11.9	11.5	-173.38	-142.8	760.0	781.1	757.6	23.44	33.327
3,500.0	3,499.5	3,430.9	3,426.9	12.3	11.9	-173.01	-149.2	763.4	794.3	770.2	24.13	32.917
3,600.0	3,598.7	3,528.9	3,524.6	12.6	12.2	-172.68	-155.5	766.8	811.0	786.2	24.82	32.678
3,700.0	3,697.5	3,625.7	3,621.2	13.0	12.6	-172.39	-161.5	770.3	831.2	805.7	25.50	32.598
3,800.0	3,795.6	3,722.8	3,718.0	13.4	12.9	-172.13	-167.6	773.9	854.9	828.7	26.18	32.654
3,900.0	3,893.4	3,820.6	3,815.6	13.7	13.3	-171.96	-173.7	777.5	880.5	853.7	26.86	32.777
4,000.0	3,991.1	3,920.6	3,915.3	14.1	13.6	-171.81	-179.7	780.8	905.9	878.3	27.56	32.872
4,100.0	4,088.8	4,016.0	4,010.5	14.5	14.0	-171.68	-185.4	784.0	931.2	903.0	28.23	32.982
4,200.0	4,186.6	4,113.2	4,107.5	14.9	14.3	-171.56	-191.1	787.3	956.6	927.6	28.92	33.077
4,300.0	4,284.3	4,212.1	4,206.1	15.3	14.7	-171.46	-196.7	790.5	981.8	952.2	29.61	33.153
4,400.0	4,382.0	4,308.7	4,302.6	15.7	15.0	-171.38	-202.0	793.6	1,006.9	976.6	30.30	33.231
4,500.0	4,479.8	4,407.1	4,400.8	16.1	15.3	-171.29	-207.3	796.7	1,031.9	1,001.0	31.00	33.293
4,600.0	4,577.5	4,504.1	4,497.6	16.5	15.7	-171.23	-212.4	799.7	1,056.9	1,025.2	31.69	33.355
4,700.0	4,675.3	4,600.5	4,593.8	17.0	16.0	-171.16	-217.5	802.7	1,081.9	1,049.5	32.38	33.417
4,800.0	4,773.0	4,700.3	4,693.4	17.4	16.4	-171.09	-222.8	805.7	1,106.8	1,073.7	33.08	33.454
4,900.0	4,870.7	4,800.3	4,793.2	17.8	16.7	-171.03	-227.9	808.4	1,131.4	1,097.6	33.79	33.481
5,000.0	4,968.5	4,899.3	4,892.1	18.2	17.1	-170.99	-232.7	810.9	1,155.8	1,121.3	34.50	33.503

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company: Tap Rock Resources, LLC
Project: Eddy County, NM (NAD 83 NME)
Reference Site: (Cypress) Sec-3_T-24-S_R-29-E
Site Error: 0.0 usft
Reference Well: Cypress 34 Federal #246H
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #6

Local Co-ordinate Reference: Well Cypress 34 Federal #246H
TVD Reference: KB @ 3119.0usft
MD Reference: KB @ 3119.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Knoll AOK Fed #2H (OFFSET) - OWB - AWB													Offset Site Error: 0.0 usft
Survey Program: 100 GYRO NS 7452 MWD													Offset Well Error: 0.0 usft
Reference	Offset	Semi-Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned	Offset Well Error	Warning					
Measured Vertical Depth (usft)	Vertical Depth (usft)	Measured Vertical Depth (usft)	Vertical Depth (usft)	Reference	Offset	Toolface (f)	N/S (usft)	E/W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,066.2	4,997.7	4,990.4	18.7	17.4	-170.95	-237.5	813.3	1,180.1	1,144.9	35.20	33.522	
5,200.0	5,163.9	5,095.3	5,087.8	19.1	17.7	-170.91	-242.0	815.6	1,204.2	1,168.3	35.90	33.541	
5,300.0	5,261.7	5,191.9	5,184.3	19.6	18.1	-170.88	-246.5	817.9	1,228.4	1,191.8	36.60	33.562	
5,400.0	5,359.4	5,291.2	5,283.5	20.0	18.4	-170.86	-251.0	820.3	1,252.5	1,215.2	37.31	33.568	
5,500.0	5,457.1	5,386.0	5,378.1	20.5	18.8	-170.84	-255.2	822.5	1,276.6	1,238.6	38.00	33.592	
5,600.0	5,554.9	5,484.3	5,476.3	20.9	19.1	-170.82	-259.6	824.8	1,300.7	1,262.0	38.71	33.601	
5,700.0	5,652.6	5,582.5	5,574.4	21.4	19.4	-170.80	-263.9	827.1	1,324.8	1,285.4	39.42	33.607	
5,800.0	5,750.3	5,680.2	5,672.0	21.8	19.8	-170.79	-268.0	829.3	1,348.8	1,308.6	40.13	33.612	
5,900.0	5,848.1	5,776.7	5,768.4	22.3	20.1	-170.78	-272.1	831.5	1,372.7	1,331.9	40.83	33.621	
6,000.0	5,945.8	5,873.5	5,865.1	22.7	20.5	-170.78	-276.1	833.7	1,396.8	1,355.2	41.53	33.630	
6,100.0	6,043.6	5,972.3	5,963.8	23.2	20.8	-170.78	-280.1	836.0	1,420.7	1,378.5	42.25	33.628	
6,200.0	6,141.3	6,069.8	6,061.1	23.6	21.1	-170.78	-283.9	838.2	1,444.6	1,401.6	42.96	33.629	
6,300.0	6,239.0	6,170.2	6,161.5	24.1	21.5	-170.80	-287.5	840.4	1,468.4	1,424.7	43.68	33.617	
6,400.0	6,336.8	6,267.5	6,258.7	24.6	21.8	-170.81	-290.9	842.4	1,492.0	1,447.6	44.39	33.612	
6,500.0	6,434.5	6,365.1	6,356.2	25.0	22.2	-170.83	-294.4	844.5	1,515.7	1,470.6	45.10	33.607	
6,600.0	6,532.2	6,462.8	6,453.9	25.5	22.5	-170.84	-297.8	846.5	1,539.4	1,489.9	45.81	33.602	
6,700.0	6,630.0	6,560.6	6,551.7	26.0	22.8	-170.85	-301.1	848.5	1,563.1	1,518.0	46.52	33.597	
6,800.0	6,727.7	6,658.3	6,649.4	26.4	23.1	-170.86	-304.4	850.5	1,586.8	1,541.7	47.23	33.592	
6,900.0	6,825.4	6,756.0	6,747.1	26.9	23.4	-170.87	-307.7	852.5	1,610.5	1,565.4	47.94	33.587	
7,000.0	6,923.2	6,853.8	6,844.9	27.4	23.7	-170.88	-311.0	854.5	1,634.2	1,589.1	48.65	33.582	
7,100.0	7,020.9	6,951.5	6,942.6	27.8	24.0	-170.89	-314.3	856.5	1,657.9	1,612.8	49.36	33.577	
7,200.0	7,118.7	7,049.3	7,040.4	28.3	24.3	-170.90	-317.6	858.5	1,681.6	1,636.5	50.07	33.572	
7,300.0	7,216.4	7,147.0	7,138.1	28.8	24.6	-170.91	-320.9	860.5	1,705.3	1,660.2	50.78	33.567	
7,400.0	7,314.1	7,244.7	7,235.8	29.3	24.9	-170.92	-324.2	862.5	1,729.0	1,683.9	51.49	33.562	
7,500.0	7,411.9	7,342.5	7,333.6	29.7	25.2	-170.93	-327.5	864.5	1,752.7	1,707.6	52.20	33.557	
7,600.0	7,509.6	7,440.2	7,431.3	30.2	25.5	-170.94	-330.8	866.5	1,776.4	1,731.3	52.91	33.552	
7,700.0	7,607.3	7,537.9	7,529.0	30.7	25.8	-170.95	-334.1	868.5	1,800.1	1,755.0	53.62	33.547	
7,800.0	7,705.1	7,635.6	7,626.7	31.2	26.1	-170.96	-337.4	870.5	1,823.8	1,778.7	54.33	33.542	
7,900.0	7,802.8	7,733.3	7,724.4	31.6	26.4	-170.97	-340.7	872.5	1,847.5	1,802.4	55.04	33.537	
8,000.0	7,900.6	7,831.0	7,822.1	32.1	26.7	-170.98	-344.0	874.5	1,871.2	1,826.1	55.75	33.532	
8,052.9	7,952.2	7,882.6	7,873.7	32.4	27.0	-170.99	-347.3	876.5	1,894.9	1,849.8	56.46	33.527	6.268 CC, ES
8,100.0	7,998.3	7,928.7	7,919.8	32.6	27.2	-171.00	-350.6	878.5	1,918.6	1,873.5	57.17	33.522	6.260 SF
8,200.0	8,096.0	7,966.4	7,957.5	33.1	27.5	-171.01	-353.9	880.5	1,942.3	1,897.2	57.88	33.517	6.531
8,300.0	8,193.8	7,962.1	7,953.5	33.6	27.8	-171.02	-357.2	882.5	1,966.0	1,920.9	58.59	33.512	7.177
8,400.0	8,291.5	7,970.3	7,961.9	34.0	28.1	-171.03	-360.5	884.5	1,989.7	1,944.6	59.30	33.507	8.158
8,500.0	8,389.3	7,972.4	7,963.9	34.5	28.2	-171.04	-363.8	886.5	2,013.4	1,968.3	60.01	33.502	9.429
8,600.0	8,487.0	7,974.6	7,966.1	35.0	28.5	-171.05	-367.1	888.5	2,037.1	1,992.0	60.72	33.497	10.955
8,700.0	8,584.7	7,977.0	7,968.5	35.5	28.9	-171.06	-370.4	890.5	2,060.8	2,015.7	61.43	33.492	12.688
8,800.0	8,682.5	7,979.2	7,970.7	36.0	29.2	-171.07	-373.7	892.5	2,084.5	2,039.4	62.14	33.487	14.587
8,900.0	8,780.2	7,981.4	7,972.9	36.4	29.5	-171.08	-377.0	894.5	2,108.2	2,063.1	62.85	33.482	16.615
9,000.0	8,878.0	7,983.6	7,975.1	36.9	29.8	-171.09	-380.3	896.5	2,131.9	2,086.8	63.56	33.477	18.694
9,100.0	8,975.7	7,985.8	7,977.3	37.4	30.1	-171.10	-383.6	898.5	2,155.6	2,110.5	64.27	33.472	20.817
9,200.0	9,073.4	7,988.0	7,979.5	37.9	30.4	-171.11	-386.9	900.5	2,179.3	2,134.2	64.98	33.467	22.966
9,300.0	9,171.2	7,990.3	7,981.8	38.4	30.7	-171.12	-390.2	902.5	2,203.0	2,157.9	65.69	33.462	25.127
9,400.0	9,269.1	7,992.5	7,984.0	38.8	31.0	-171.13	-393.5	904.5	2,226.7	2,181.6	66.40	33.457	27.295
9,500.0	9,367.7	7,994.7	7,986.2	39.3	31.3	-171.14	-396.8	906.5	2,250.4	2,205.3	67.11	33.452	29.552
9,600.0	9,466.8	7,996.9	7,988.4	39.7	31.6	-171.15	-400.1	908.5	2,274.1	2,229.0	67.82	33.447	31.838
9,700.0	9,566.3	7,999.1	7,990.6	40.1	31.9	-171.16	-403.4	910.5	2,297.8	2,252.7	68.53	33.442	34.150
9,800.0	9,666.1	8,001.3	7,992.8	40.4	32.2	-171.17	-406.7	912.5	2,321.5	2,276.4	69.24	33.437	36.483
9,900.0	9,766.0	8,003.5	7,995.0	40.8	32.5	-171.18	-410.0	914.5	2,345.2	2,300.1	69.95	33.432	38.831
10,000.0	9,866.0	8,005.7	7,997.2	41.1	32.8	-171.19	-413.3	916.5	2,368.9	2,323.8	70.66	33.427	41.181
10,100.0	9,966.0	8,007.9	7,999.4	41.4	33.1	-171.20	-416.6	918.5	2,392.6	2,347.5	71.37	33.422	43.494

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Intrepid
Anticollision Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft
Reference Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Cypress 34 Federal #246H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #6	Offset TVD Reference:	Offset Datum

Offset Design: (Cypress) Sec-3_T-24-S_R-29-E - Knoll AOK Fed #2H (OFFSET) - OWB - AWB													Offset Site Error	0.0 usft
Survey Program: 100-GYRO-NS-7452-MWD													Offset Well Error	0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned				
Measured Vertical Depth (usft)	Reference Vertical Depth (usft)	Measured Vertical Depth (usft)	Offset Vertical Depth (usft)	Reference Offset (usft)	Offset (usft)	Highside Toolface (°)	N-S (usft)	E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,200.0	10,065.0	9,965.3	7,939.5	41.7	57.3	-169.66	-437.0	-1,301.3	2,171.9	2,124.3	47.65	45.584		
10,300.0	10,160.1	9,966.1	7,939.5	42.0	57.4	-4.76	-437.0	-1,302.2	2,271.7	2,223.8	47.98	47.351		
10,400.0	10,248.6	9,967.1	7,939.5	42.3	57.4	-2.01	-437.0	-1,303.1	2,369.6	2,321.0	48.60	48.755		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

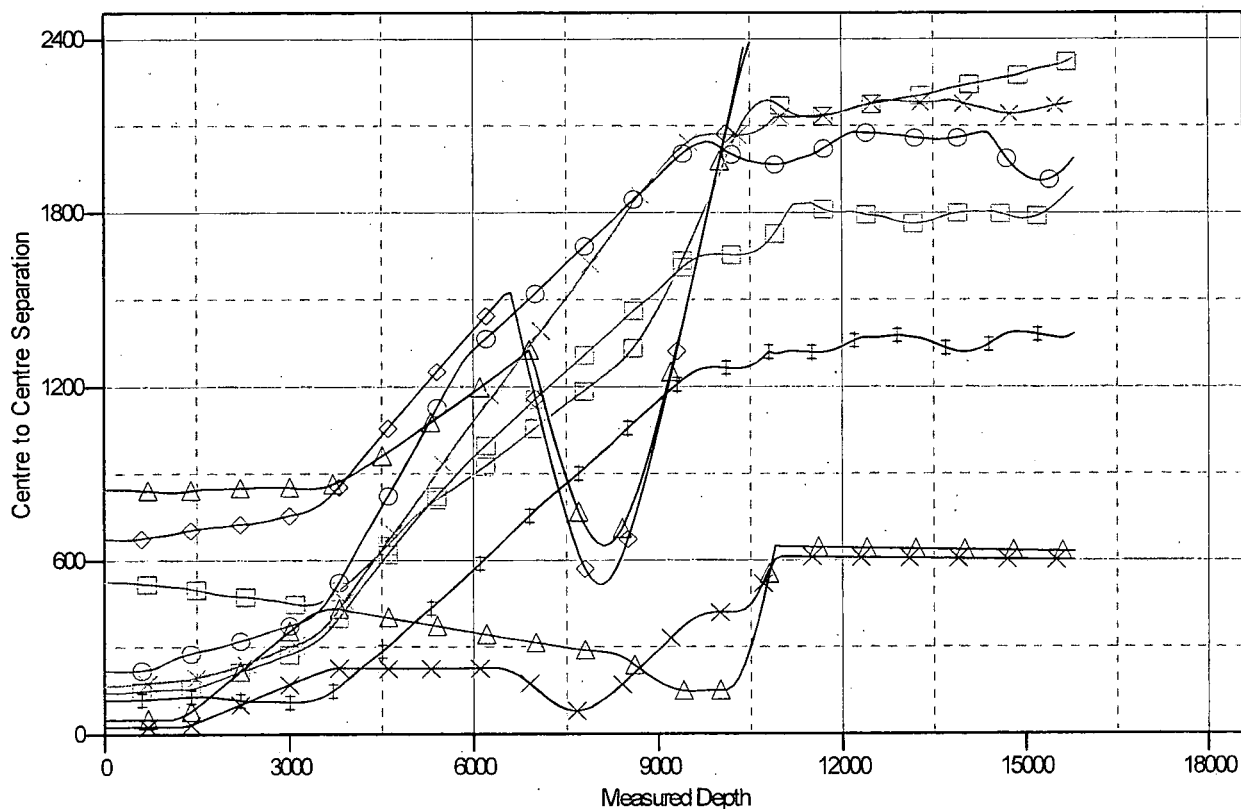
Company: Tap Rock Resources, LLC
Project: Eddy County, NM (NAD 83 NME)
Reference Site: (Cypress) Sec-3_T-24-S_R-29-E
Site Error: 0.0 usft
Reference Well: Cypress 34 Federal #246H
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #6

Local Co-ordinate Reference: Well Cypress 34 Federal #246H
TVD Reference: KB @ 3119.0usft
MD Reference: KB @ 3119.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB @ 3119.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Cypress 34 Federal #246H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.20°

Ladder Plot



LEGEND



Cypress 34 Federal #246H (OFFSE ET), OWB, AWW V0
Cypress 34 Federal #11H (OFFSE ET), OWB, AWW V0
Cypress 34 Federal #236H (OFFSE ET), OWB, AWW V0



Cypress 34 Federal #233H, OWB, Plan #2 V0
Cypress 34 Federal #15H (OFFSE ET), OWB, AWW V0
Knott AOK Fed #2H (OFFSE ET), OWB, AWW V0



Cypress 34 Federal #243H, OWB, Plan #1 V0
Cypress 34 Federal #244H (OFFSE ET), OWB, AWW V0
Cypress 34 Federal #234H (OFFSE ET), OWB, AWW V0



Intrepid Anticollision Report



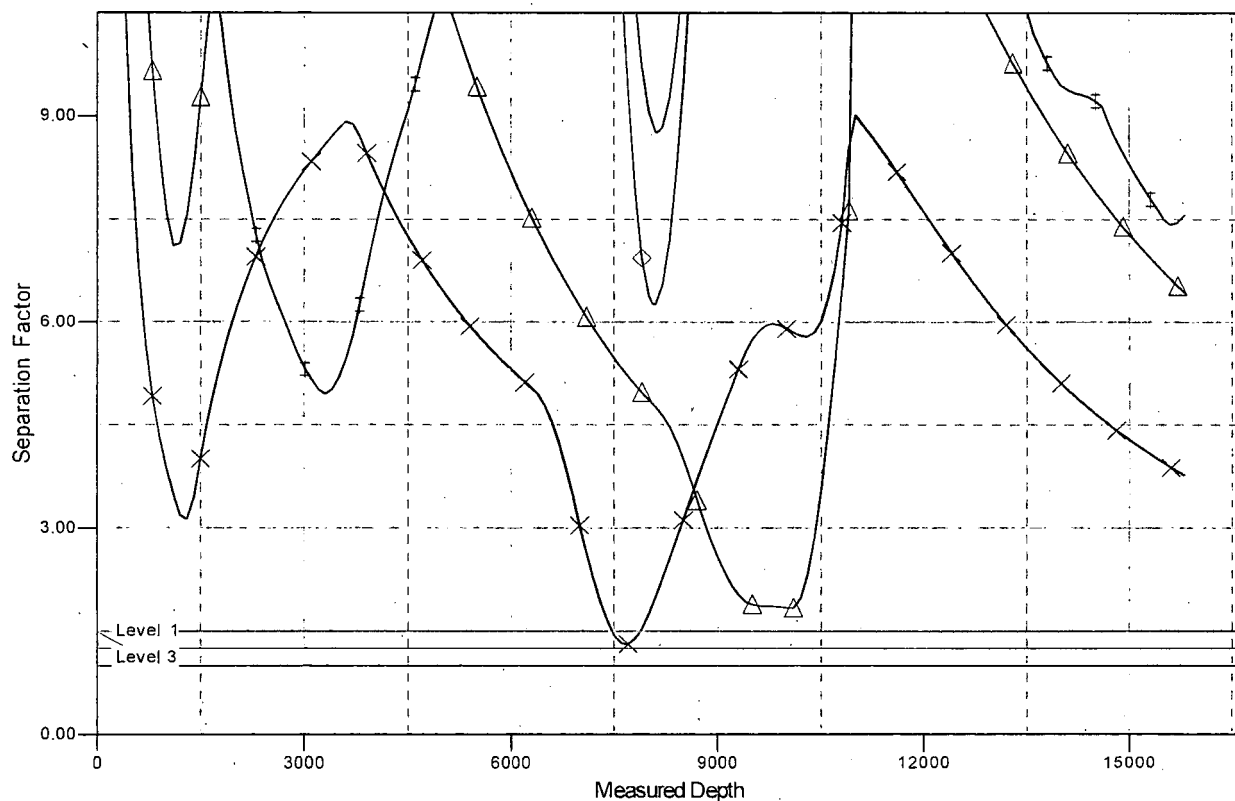
Company: Tap Rock Resources, LLC
Project: Eddy County, NM (NAD 83 NME)
Reference Site: (Cypress) Sec-3_T-24-S_R-29-E
Site Error: 0.0 usft
Reference Well: Cypress 34 Federal #246H
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #6

Local Co-ordinate Reference: Well Cypress 34 Federal #246H
TVD Reference: KB @ 3119.0usft
MD Reference: KB @ 3119.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB @ 3119.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Cypress 34 Federal #246H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.20°

Separation Factor Plot

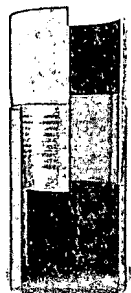


LEGEND

Cypress 34 Federal #246H (OFFSET), OWB, AWB V0
 Cypress 34 Federal #246H (OFFSET), OWB, AWB V0
 Cypress 34 Federal #246H (OFFSET), OWB, AWB V0
 Cypress 34 Federal #246H (OFFSET), OWB, AWB V0
 Cypress 34 Federal #246H (OFFSET), OWB, AWB V0
 Cypress 34 Federal #246H (OFFSET), OWB, AWB V0

Wedge 513®

Printed on: 01/30/2018



Outside Diameter	7.625 in.	Min. Wall Thickness	87.5%	(*) Grade P110	
Wall Thickness	0.375 in.	Connection OD Option	REGULAR	COUPLING	PIPE BODY
Grade	P110*	Drift	API Standard	Body: White	1st Band: White
		Type	Casing	1st Band: -	2nd Band: -
				2nd Band: -	3rd Band: -
				3rd Band: -	4th Band: -

GEOMETRY

Nominal OD	7.625 in.	Nominal Weight	29.70 lbs/ft	Drift	6.75 in.
Nominal ID	6.875 in.	Wall Thickness	0.375 in.	Plain End Weight	29.06 lbs/ft
OD Tolerance	API				

PERFORMANCE

Body Yield Strength	940 x1000 lbs	Internal Yield	9470 psi	SMYS	110000 psi
Collapse	5350 psi				

GEOMETRY

Connection OD	7.625 in.	Connection ID	6.800 in.	Make-up Loss	4.420 in.
Threads per in	3.29	Connection OD Option	REGULAR		

PERFORMANCE

Tension Efficiency	60.0 %	Joint Yield Strength	564.000 x1000 lbs	Internal Pressure Capacity	9470.000 psi
Compression Efficiency	75.2 %	Compression Strength	706.880 x1000 lbs	Max. Allowable Bending	39.6 °/100 ft
External Pressure Capacity	5350.000 psi				

MAKE-UP TORQUES

Minimum	9000 ft-lbs	Optimum	10800 ft-lbs	Maximum	15800 ft-lbs
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OPERATION LIMIT TORQUES

Operating Torque	47000 ft-lbs	Yield Torque	70000 ft-lbs
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Notes

This connection is fully interchangeable with:

Wedge 523® - 7.625 in. - 29.7 lbs/ft

Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

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