AFMSS

U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed:

APD ID:	Well Status:
APD Received Date:	Well Name:
Operator:	Well Number:

APD Package Report Contents

- Form 3160-3

- Operator Certification Report

- Application Report
- Application Attachments
  -- Well Plat: 1 file(s)

- Drilling Plan Report
- Drilling Plan Attachments
  -- Blowout Prevention Choke Diagram Attachment: 1 file(s)
  -- Blowout Prevention BOP Diagram Attachment: 1 file(s)
  -- Casing Spec Documents: 2 file(s)
  -- Casing Design Assumptions and Worksheet(s): 4 file(s)
  -- Hydrogen sulfide drilling operations plan: 1 file(s)
  -- Proposed horizontal/directional/multi-lateral plan submission: 1 file(s)
  -- Other Facets: 5 file(s)

- SUPO Report
- SUPO Attachments
  -- Existing Road Map: 1 file(s)
  -- New Road Map: 1 file(s)
  -- Attach Well map: 1 file(s)
  -- Production Facilities map: 1 file(s)
  -- Water source and transportation map: 1 file(s)
  -- Construction Materials source location attachment: 1 file(s)
  -- Well Site Layout Diagram: 1 file(s)
  -- Recontouring attachment: 2 file(s)
  -- Other SUPO Attachment: 2 file(s)

- PWD Report
- PWD Attachments
  -- None

- Bond Report
- Bond Attachments
  -- None

Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.

2. Name of Operator

9. API Well No. 30-015-54519

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date

Title

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
Title	Office	

Application approval 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.
Conditions of approval, if any, are attached.

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.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 11/21/2023

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

 Approval Date: 11/21/2023

Additional Operator Remarks

Location of Well

0. SHL: SENE / 1826 FNL / 170 FEL / TWSP: 25S / RANGE: 25E / SECTION: 10 / LAT: 32.1465872 / LONG: -104.3757847 (TVD: 0 feet, MD: 0 feet)

PPP: SWNW / 1650 FNL / 100 FWL / TWSP: 25S / RANGE: 25E / SECTION: 11 / LAT: 32.1471762 / LONG: -104.362329 (TVD: 6113 feet, MD: 6402 feet)

PPP: SENE / 1593 FNL / 1331 FEL / TWSP: 25S / RANGE: 25E / SECTION: 11 / LAT: 32.1471762 / LONG: -104.362329 (TVD: 6206 feet, MD: 10005 feet)

BHL: SENE / 1651 FNL / 5 FEL / TWSP: 25S / RANGE: 25E / SECTION: 12 / LAT: 32.1473624 / LONG: -104.3408098 (TVD: 6381 feet, MD: 16655 feet)

BLM Point of Contact

Name: TENILLE C MOLINA
Title: Land Law Examiner
Phone: (575) 234-2224
Email: TCMOLINA@BLM.GOV

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Tap Rock Operating LLC
LEASE NO.:	NMNM091507, NMNM062171
COUNTY:	Eddy

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

 Approval Date: 11/21/2023

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See information below discussing NAGPRA.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

WATERSHED:
The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with

impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The topsoil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

TANK BATTERY:
Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

BURIED/SURFACE LINE(S):
When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the corridor to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

ELECTRIC LINE(S):
Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion.

TEMPORARY USE FRESH WATER FRAC LINE(S):

Once the temporary use exceeds the timeline of 180 days and/or with a 90 day extension status; further analysis will be required if the applicant pursues to turn the temporary line into a permanent line.

CAVE/KARST:

Construction Mitigation

In order to mitigate the impacts from construction activities on cave and karst resources, the following Conditions of Approval will apply to this APD or project:

General Construction:
- No blasting

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

Pad Construction:

- The pad will be constructed and leveled by adding the necessary fill and caliche – no blasting.
- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised (i.e. an access road crossing the berm cannot be lower than the berm height).
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

Road Construction:

- Turnout ditches and drainage leadoffs will not be constructed in such a manner as to alter the natural flow of water into or out of cave or karst features.
- Special restoration stipulations or realignment may be required if subsurface features are discovered during construction.

Buried Pipeline/Cable Construction:

- Rerouting of the buried line(s) may be required if a subsurface void is encountered during construction to minimize the potential subsidence/collapse of the feature(s) as well as the possibility of leaks/spills entering the karst drainage system.

Powerline Construction:

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems.
- Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- Special restoration stipulations or realignment may be required if subsurface voids are encountered.

Surface Flowlines Installation:

- Flowlines will be routed around sinkholes and other karst features to minimize the possibility of leaks/spills from entering the karst drainage system.

Drilling Mitigation

Federal regulations and standard Conditions of Approval applied to all APDs require that adequate measures are taken to prevent contamination to the environment. Due to the extreme sensitivity of

the cave and karst resources in this project area, the following additional Conditions of Approval will be added to this APD.

To prevent cave and karst resource contamination the following will be required:

- Rotary drilling with fresh water where cave or karst features are expected to prevent contamination of freshwater aquifers.

RANGE:

Cattleguards
Where a permanent cattlegaurd is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

Fence Requirement
Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Livestock Watering Requirement
Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

TEXAS HORNSHELL MUSSEL:

Oil and Gas and Associated Infrastructure Mitigation Measures for Zone D – CCA Boundary Requirements:

- Provide CEHMM with the permit, lease grant, or other authorization form BLM, if applicable.
- Provide CEHMM with plats or other electronic media describing the new surface disturbance for the project.

Oil and Gas Zone D - CCA Boundary requirements.
- Implement erosion control measures in accordance with the Reasonable and Prudent Practices for Stabilization (“RAPPS”)
- Comply with SPCC requirements in accordance with 40 CFR Part 112;
- Comply with the United States Army Corp of Engineers (USACE) Nationwide 12 General Permit, where applicable;
- Utilize technologies (like underground borings for pipelines), where feasible;
- Educate personnel, agents, contractors, and subcontractors about the requirements of conservation measures, COAs, Stips and provide direction in accordance with the Permit.

VRM IV:

Above-ground structures including meter housing that are not subject to safety requirements are painted a flat non-reflective paint color, Covert Green from the BLM Standard Environmental Color Chart (CC-001: June 2008).

All above ground structures including but not limited to pumpjacks, storage tanks, production equipment, etc. must be shorter than 8 feet.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (A horizon, 0-3 inches) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The A horizon depth within the project area is 3 inches. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below 3 inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

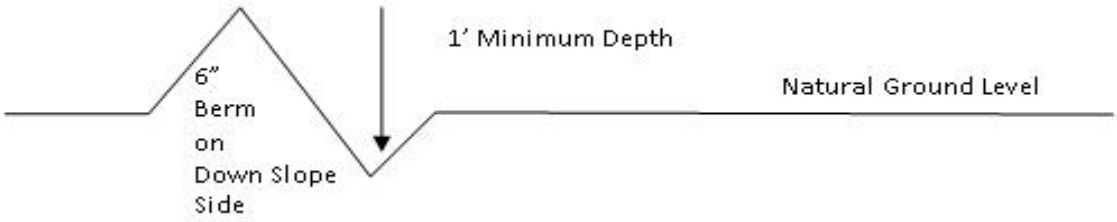
Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope ;

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%}$ + 100' = 200' lead-off ditch interval

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

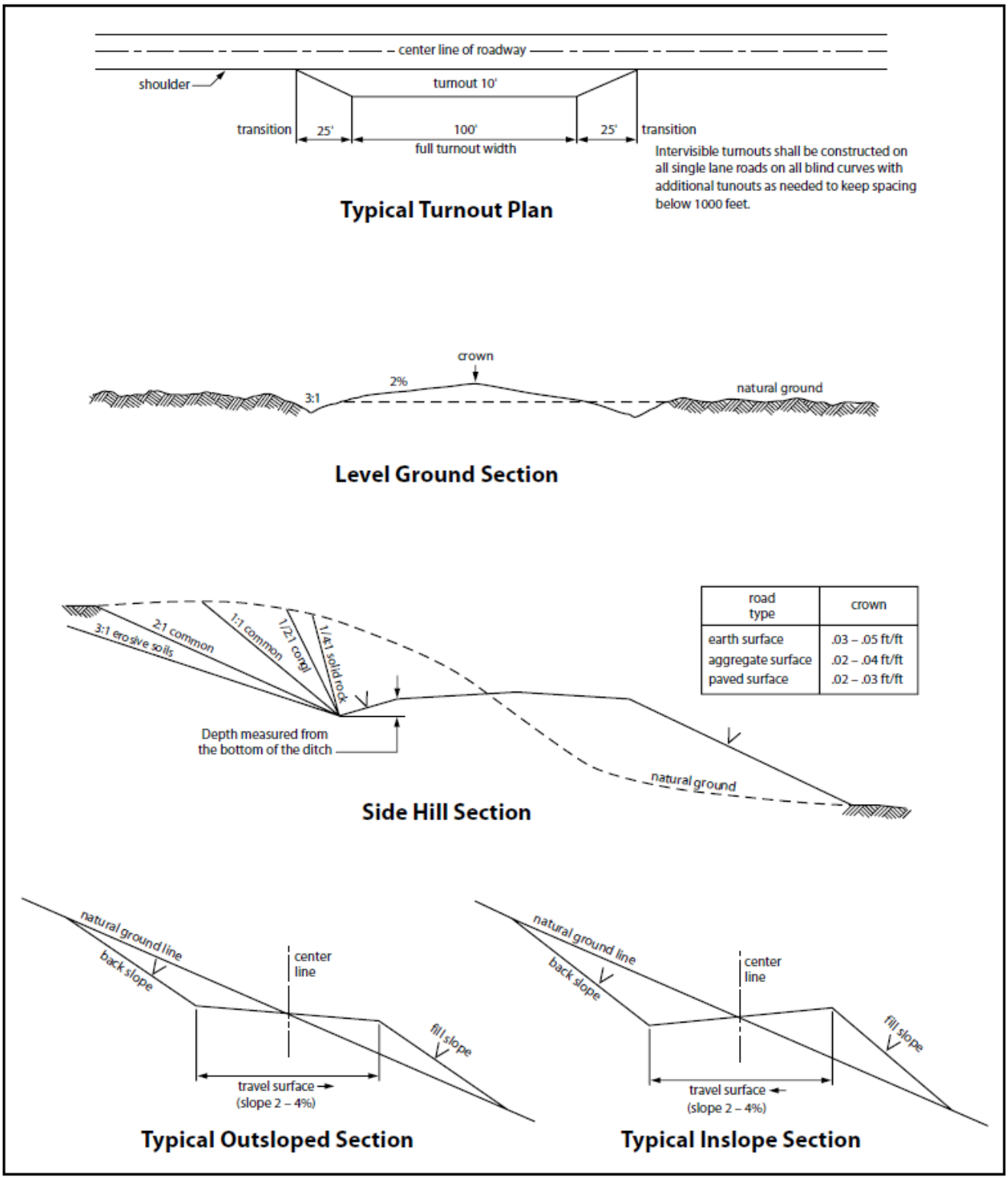


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

 Approval Date: 11/21/2023

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone*.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

B. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.

BURIED PIPELINES

1. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of the operator, regardless of fault. Upon failure of the operator to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as they deem necessary to control and clean up the discharge and restore the area, including

where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the operator. Such action by the Authorized Officer shall not relieve the operator of any responsibility as provided herein.

2. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

3. Blading of vegetation within the corridor will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation*.)

4. Clearing of brush species within the corridor will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

5.The remaining area of the corridor (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

6. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

7. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this pipeline corridor and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire pipeline coridor shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

8. The pipeline will be identified by signs at the point of origin and completion of the coridor and at all road crossings. At a minimum, signs will state the operator's name, well number or BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

9. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the operator before maintenance begins. The operator will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

10. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.

b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche and any other surface material is required. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

The operator is required to conduct soil “grab” testing near the plugged well head and at a randomly selected location on the pad to be reclaimed prior to conducting final reclamation. If it is determined that the surface soils do not be NMOCD’s standards for contaminants, then the operator will submit

a sundry notice to the BLM detailing the remediation plan to be conducted on the location prior to reclamation activities.

Hummocks or mogul-like features must be created across the location to prevent erosion, allow for ponding of water, and to protect seeds from wind.

Seed Mixture 1 for Loamy Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed shall be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre shall be doubled. The seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

Seed Mixture 3, for Shallow Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass (*Setaria macrostachya*)	1.0
Green Sprangletop (*Leptochloa dubia*)	2.0
Sideoats Grama (*Bouteloua curtipendula)*	5.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Tap Rock Operating LLC
WELL NAME & NO.:	High Life Fed Com 142H
LOCATION:	Sec 11-25S-25E-NMP
COUNTY:	Eddy County, New Mexico

COA

H_2S	○ No	○ Yes		
Potash / WIPP	◉ None	○ Secretary	○ R-111-P	☐ WIPP
Cave / Karst	○ Low	○ Medium	○ High	◉ Critical
Wellhead	○ Conventional	◉ Multibowl	○ Both	○ Diverter
Cementing	☐ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	☐ DV Tool
Special Req	☐ Break Testing	☐ Water Disposal	☑ COM	☐ Unit
Variance	☑ Flex Hose	☐ Casing Clearance	☐ Pilot Hole	☐ Capitan Reef
Variance	☐ Four-String	☐ Offline Cementing	☐ Fluid-Filled	☐ Open Annulus
☐ **Batch APD / Sundry**				

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately 350 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. ***Set depth adjusted per BLM geologist.***

    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 **8 hours** 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

 Approval Date: 11/21/2023

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 **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, Capitan Reef, or potash.**

❖ In Critical Cave/Karst Areas cement must come to surface on the first three casing strings.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

C. 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. Operator has proposed a multi-bowl wellhead assembly. 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 43 CFR 3172 must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

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
Email **or** call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, **BLM_NM_CFO_DrillingNotifications@BLM.GOV**
(575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 689-5981

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 **43 CFR part 3170 Subpart 3172** 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 intergrity 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 **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. 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 **43 CFR part 3170 Subpart 3172** 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 cement), 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** 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 **43 CFR part 3170 Subpart 3172**.

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.

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Operator Certification Data Report

11/27/2023

Operator

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: BRIAN WOOD **Signed on:** 07/07/2023

Title: President

Street Address: 37 VERANO LOOP

City: SANTA FE **State:** NM **Zip:** 87508

Phone: (505)466-8120

Email address: AFMSS@PERMITSWEST.COM

Field

Representative Name:

Street Address:

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

Phone:

Email address:

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data
11/27/2023

APD ID: 10400093287
Submission Date: 07/08/2023
Operator Name: TAP ROCK OPERATING LLC
Well Name: HIGH LIFE FED COM
Well Number: 142H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - General

APD ID: 10400093287
Tie to previous NOS? N
Submission Date: 07/08/2023
BLM Office: Carlsbad
User: BRIAN WOOD
Title: President
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMNM91507
Lease Acres:
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? N
Permitting Agent? YES
APD Operator: TAP ROCK OPERATING LLC
Operator letter of

Operator Info

Operator Organization Name: TAP ROCK OPERATING LLC
Operator Address: 602 PARK POINT DRIVE SUITE 200
Zip: 80401
Operator PO Box:
Operator City: GOLDEN
State: CO
Operator Phone: (720)460-3316
Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO
Master Development Plan name:
Well in Master SUPO? NO
Master SUPO name:
Well in Master Drilling Plan? NO
Master Drilling Plan name:
Well Name: HIGH LIFE FED COM
Well Number: 142H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: COTTONWOOD DRAW
Pool Name: BONE SPRING

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Is the proposed well in an area containing other mineral resources? OTHER,NATURAL GAS,OIL

Describe other minerals: Salt

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** HIGH LIFE FED COM **Number:** SLOT 1

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 3 Miles **Distance to nearest well:** 25 FT **Distance to lease line:** 170 FT

Reservoir well spacing assigned acres Measurement: 640 Acres

Well plat: HL_142H_C102_v2_20230707152040.pdf

Well work start Date: 02/01/2024 **Duration:** 60 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 24508 **Reference Datum:** KELLY BUSHING

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SHL Leg #1	1826	FNL	170	FEL	25S	25E	10	Aliquot SENE	32.1465872	-104.3757847	EDDY	NEW MEXICO	FIRST PRIN	F	NMNM 62171	3511	0	0	N
KOP Leg #1	1651	FNL	50	FWL	25S	25E	11	Aliquot SWNW	32.1470641	-104.3750791	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 91507	-2081	5597	5592	Y
PPP Leg #1-1	1650	FNL	100	FWL	25S	25E	11	Aliquot SWNW	32.1471762	-104.3623 29	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 91507	-2602	6402	6113	Y

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
PPP Leg #1-2	1593	FNL	1331	FEL	25S	25E	11	Aliquot SENE	32.1471762	-104.362329	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 85853	-2695	10005	6206	Y
EXIT Leg #1	1651	FNL	5	FEL	25S	25E	12	Aliquot SENE	32.1473624	-104.3408098	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 104661	-2870	16655	6381	Y
BHL Leg #1	1651	FNL	5	FEL	25S	25E	12	Aliquot SENE	32.1473624	-104.3408098	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 104661	-2870	16655	6381	Y

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ **AMENDED REPORT**

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1]API Number	[2]Pool Code	[3]Pool Name
30-015-	97494	Cottonwood Draw; Bone Spring

[4]Property Code	[5]Property Name	[6]Well Number
	HIGH LIFE FED COM	142H

[7]OGRID No.	[8]Operator Name	[9]Elevation
372043	TAP ROCK OPERATING, LLC.	3511'

[10]Surface Location

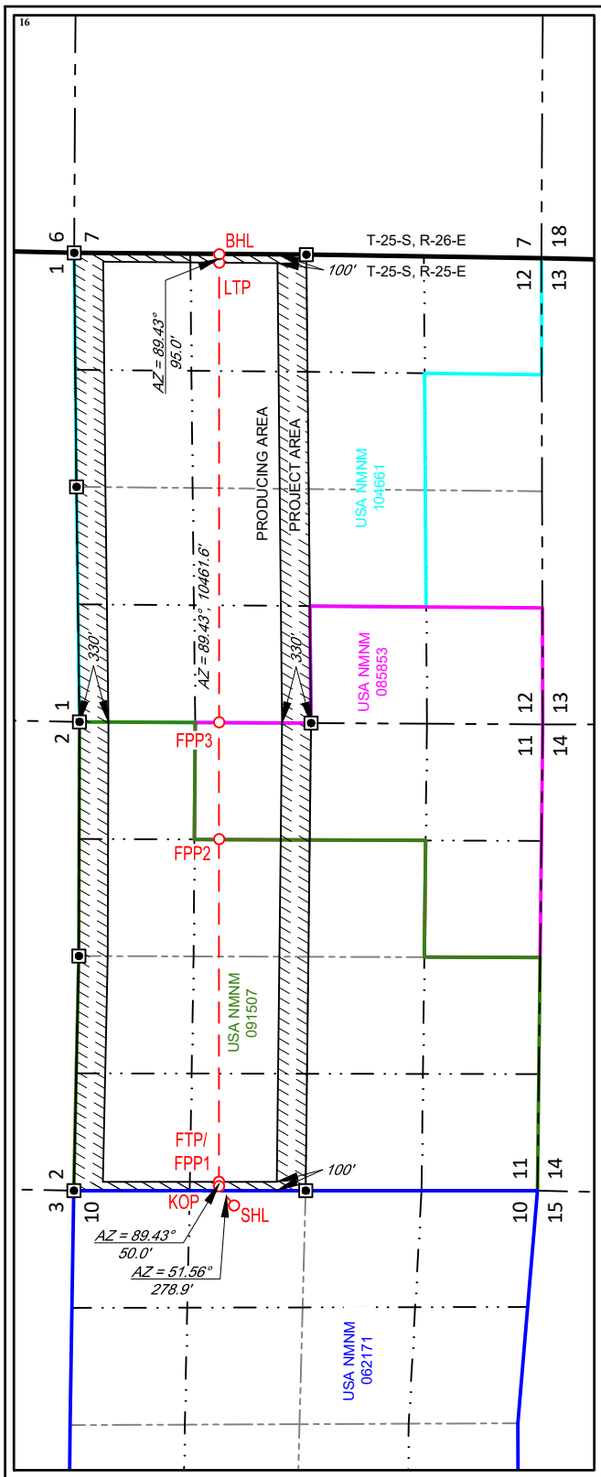
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	10	25-S	25-E	–	1826'	NORTH	170'	EAST	EDDY

[11]Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	12	25-S	25-E	–	1651'	NORTH	5'	EAST	EDDY

[12]Dedicated Acres	[13]Joint or Infill	[14]Consolidation Code	[15]Order No.
640			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



NEW MEXICO EAST
NAD 1983

SURFACE LOCATION (SHL)
1826' FNL - SEC. 10
170' FEL - SEC. 10
X=528199 Y=417066
LAT.: N 32.1465872
LONG.: W 104.3757847

KICK OFF POINT (KOP)
1651' FNL - SEC. 11
50' FWL - SEC. 11
X=528418 Y=417240
LAT.: N 32.1470641
LONG.: W 104.3750791

FIRST TAKE POINT (FTP)(FPP1)
1650' FNL - SEC. 11
100' FWL - SEC. 11
X=528468 Y=417240
LAT.: N 32.1470655
LONG.: W 104.3749175

FED PERF. POINT (FPP2)
1593' FNL - SEC. 11
1331' FEL - SEC. 11
X=532364 Y=417279
LAT.: N 32.1471762
LONG.: W 104.3623290

FED PERF. POINT (FPP3)
1590' FNL - SEC. 11
0' FEL - SEC. 11
X=533694 Y=417293
LAT.: N 32.1472137
LONG.: W 104.3580289

LAST TAKE POINT (LTP)
1650' FNL - SEC. 12
100' FEL - SEC. 12
X=538929 Y=417345
LAT.: N 32.1473598
LONG.: W 104.3411167

BOTTOM HOLE LOCATION (BHL)
1651' FNL - SEC. 12
5' FEL - SEC. 12
X=539024 Y=417346
LAT.: N 32.1473624
LONG.: W 104.3408098

[17]OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Cory Walk — 06-26-23
Signature — Date

Cory Walk
Printed Name

cory@permitswest.com
E-mail Address

[18]SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

03/18/2023
Date of Survey
Signature and Seal of Professional Surveyor

RAMON DOMINGUEZ
NEW MEXICO
24508
PROFESSIONAL SURVEYOR

7/6/2023 9:34:16 AM
Certificate Number

N

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\LO_HIGH_LIFE_FED_COM_142H_REV1.DWG 7/6/2023 9:34:16 AM craig.rentz

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report
11/27/2023

APD ID: 10400093287
Submission Date: 07/08/2023

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM
Well Number: 142H

Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
12502589	QUATERNARY	3511	0	0	OTHER : Caliche	NONE	N
12502590	RUSTLER ANHYDRITE	3474	37	37	ANHYDRITE	NONE	N
12502591	TOP SALT	3174	337	337	SALT	OTHER : Salt	N
12502592	BASE OF SALT	2275	1236	1236	SALT	OTHER : Salt	N
12502593	DELAWARE	2049	1462	1462	OTHER, SANDSTONE : Mountain Group	NONE	N
12502594	LAMAR	2048	1463	1463	SANDSTONE	NATURAL GAS, OIL	N
12502595	BELL CANYON	2019	1492	1492	SANDSTONE	NATURAL GAS, OIL	N
12502596	RAMSEY SAND	1941	1570	1570	SANDSTONE	NATURAL GAS, OIL	N
12502597	CHERRY CANYON	1116	2395	2397	LIMESTONE	NATURAL GAS, OIL	N
12502598	BRUSHY CANYON	191	3320	3324	SANDSTONE	NATURAL GAS, OIL	N
12502599	BONE SPRING LIME	-1499	5010	5015	OTHER : Carbonate	NATURAL GAS, OIL	N
12502600	AVALON SAND	-1554	5065	5070	OTHER : Upper - Carbonate	NATURAL GAS, OIL	N
12502601	AVALON SAND	-1859	5370	5375	OTHER : Middle - Carbonate	NATURAL GAS, OIL	N
12502602	BONE SPRING 1ST	-2354	5865	5884	SANDSTONE	NATURAL GAS, OIL	N
12502603	BONE SPRING 2ND	-2559	6070	6202	OTHER : Carbonate	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Pressure Rating (PSI): 5M **Rating Depth:** 15000

Equipment: At 16,655', a 5M pressure control system is required. The BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as 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.

Requesting Variance? YES

Variance request: Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate and Production Strings. Tap Rock requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Tap Rock requests a variance to have the option of batch drilling this well with other wells on the same pad. If this well is batch drilled, after cementing a casing string, a 5M dry hole cap with bleed off valve will be installed. The rig will then walk to another well on the pad. Tap Rock Operating requests to only test BOP connection breaks after rig walks per the procedures and stipulations set forth in the “BOP Shell Test Procedure” document emailed to the BLM on 8/11/22.

Testing Procedure: After surface casing is set and the BOP is nippled 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 250 psi low, 2500 psi high.

Choke Diagram Attachment:

Choke_Diagram_032918_20230701161826.pdf

BOP Diagram Attachment:

10M_BOP_Stack_5M_Annular_Preventer_20230701161834.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	250	0	250	3511	3261	250	J-55	54.5	BUTT	1.13	1.15	DRY	1.6	DRY	1.6
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	1513	0	1513	3511	1998	1513	J-55	40	BUTT	1.13	1.15	DRY	1.6	DRY	1.6
3	PRODUCTION	8.75	5.5	NEW	NON API	N	0	5597	0	5592	3511	-2081	5597	P-110	20	OTHER - TXP	1.13	1.15	DRY	1.6	DRY	1.6
4	PRODUCTION	7.875	5.5	NEW	NON API	N	5597	16655	5592	6381	-2081	-2870	11058	P-110	20	OTHER - TXP	1.13	1.15	DRY	1.6	DRY	1.6

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20230701162100.pdf

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20230701162119.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

5.5in_TXP_Casing_Spec_20230701162147.PDF

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20230701162157.pdf

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Casing Attachments

Casing ID: 4 **String** PRODUCTION

Inspection Document:

Spec Document:

5.5in_TXP_Casing_Spec_20230701162229.PDF

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20230701162239.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	0	0	0	0	0	0	None	None
SURFACE	Tail		0	250	261	1.33	14.8	347	100	Class C	5% NCI + LCM
INTERMEDIATE	Lead		0	1013	189	2.7	11	509	75	Class C	Bentonite + 1% CaCL2 + 8% NaCL + LCM
INTERMEDIATE	Tail		1013	1513	153	1.33	14.8	204	30	Class C	5% NaCl + LCM
PRODUCTION	Lead		1313	5597	385	3.35	10.5	1290	20	Class C	Fluid Loss + Dispersant + Retarder + LCM
PRODUCTION	Tail		5597	16655	1934	1.63	13.2	3153	20	Class H	Fluid Loss + Dispersant + Retarder + LCM

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: All necessary mud products (i.e., barite, pac) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions. A closed loop system will be used.
Describe the mud monitoring system utilized: Electronic Pason mud monitor system complying with Onshore Order 1 will be used.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1513	16655	OTHER : Fresh Water/Cut Brine	9	9							
0	250	OTHER : Fresh Water Spud Mud	8.4	8.4							
250	1513	OTHER : Brine Water	10	10							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Electric Logging Program: No open-hole logs are planned at this time. GR will be collected while drilling through the MWD tools from KOP to TD. A 2-person mud logging program will be used from KOP to TD. CBL w/ CCL from as far as gravity will let it fall to TOC.
List of open and cased hole logs run in the well:

GAMMA RAY LOG,CEMENT BOND LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

No DSTs or cores are planned at this time.

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 2986 **Anticipated Surface Pressure:** 1582

Anticipated Bottom Hole Temperature(F): 135

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

HL_Slot1_H2S_Plan_20230701162417.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

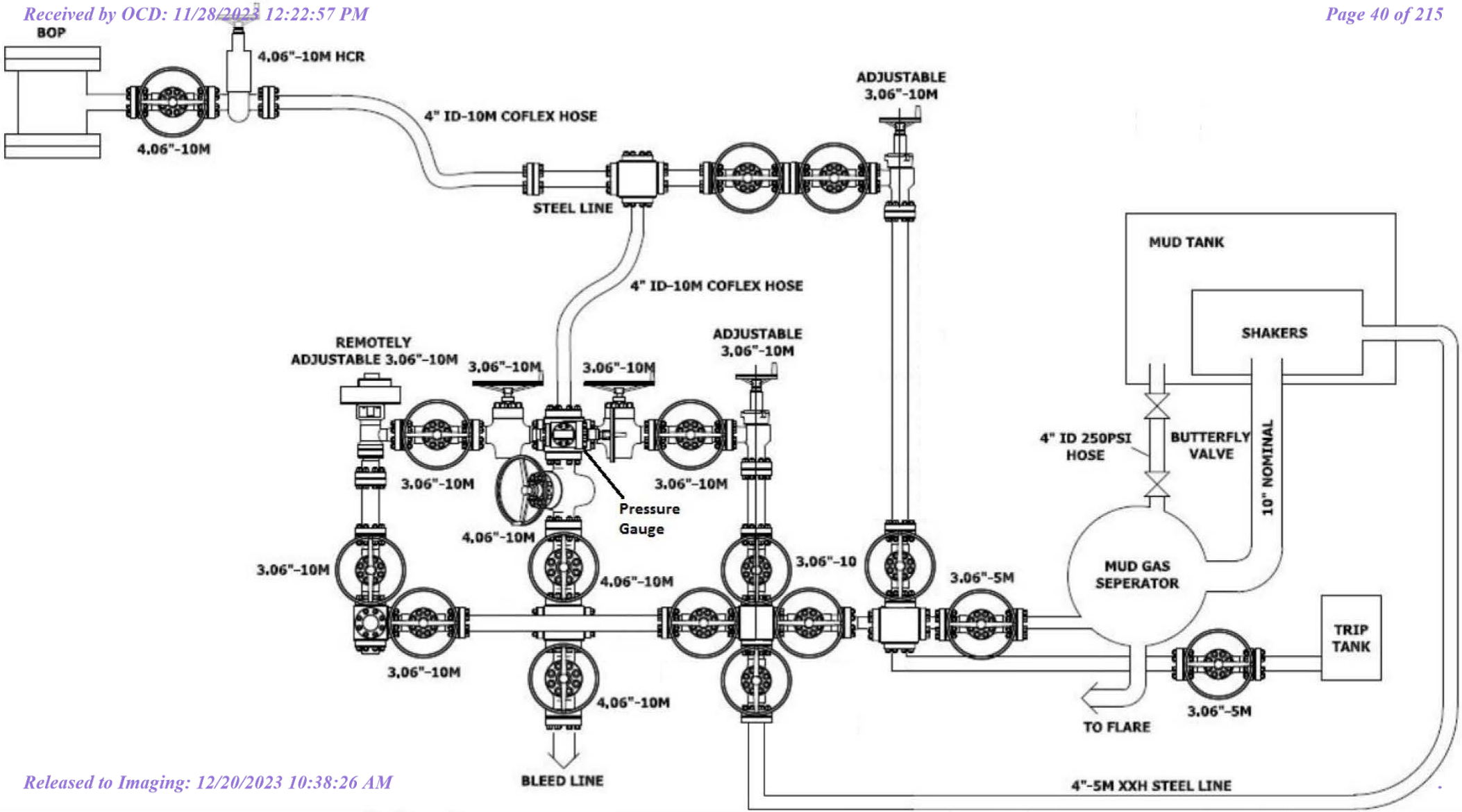
HL_142H_Directional_Plan_20230701162433.pdf

Other proposed operations facets description:

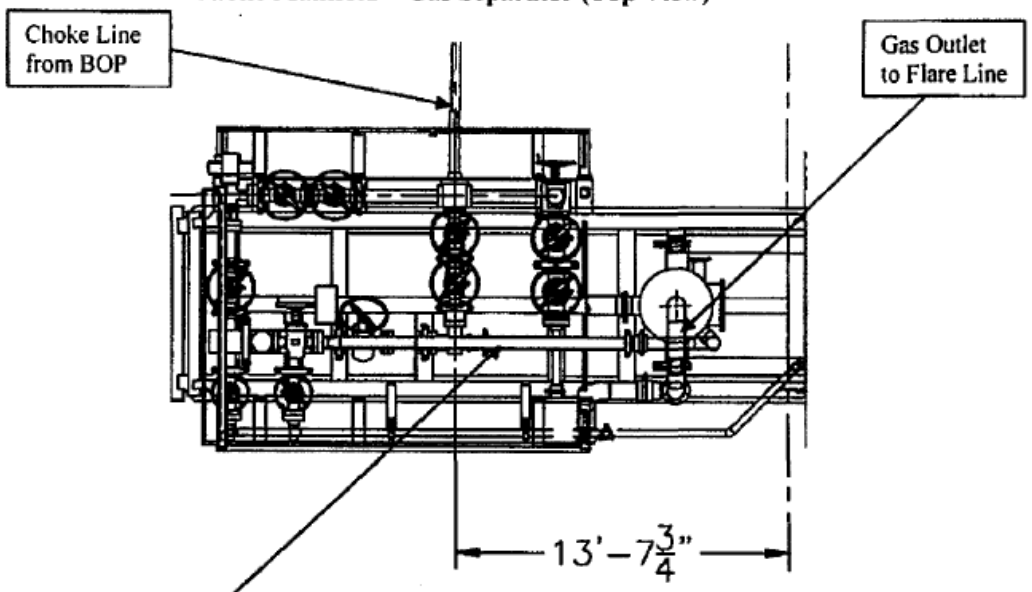
Other proposed operations facets attachment:

HL_142H_Drill_Plan_20230701162457.pdf
HL_142H_Anticollision_Report_20230701162747.pdf
Wellhead_3T_063023_20230701162759.pdf
Well_Control_Plan_10M_BOP_5M_Annular_20230701162800.pdf
CoFlex_Certs_20230701162856.pdf

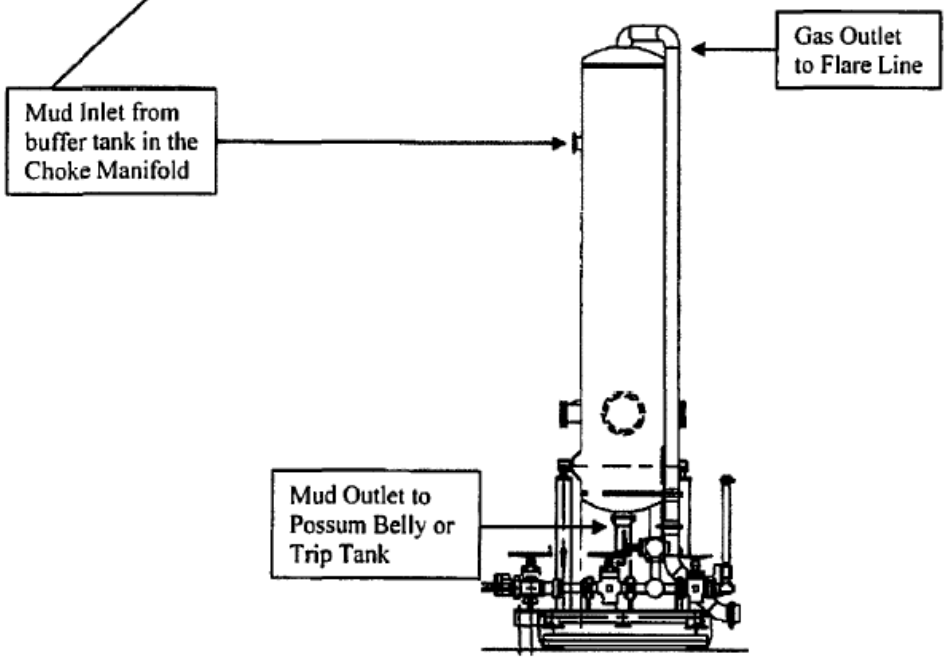
Other Variance attachment:


BOP
4.06"-10M HCR
4.06"-10M
4" ID-10M COFLEX HOSE
STEEL LINE
ADJUSTABLE
3.06"-10M
4" ID-10M COFLEX HOSE
REMOTELY
ADJUSTABLE 3.06"-10M
3.06"-10M
3.06"-10M
ADJUSTABLE
3.06"-10M
3.06"-10M
3.06"-10M
Pressure
Gauge
4.06"-10M
3.06"-10M
4.06"-10M
3.06"-10
3.06"-5M
3.06"-10M
4.06"-10M
BLEED LINE
MUD TANK
SHAKERS
4" ID 250PSI
HOSE
BUTTERFLY
VALVE
10" NOMINAL
MUD GAS
SEPERATOR
TRIP
TANK
3.06"-5M
TO FLARE
4"-5M XXH STEEL LINE

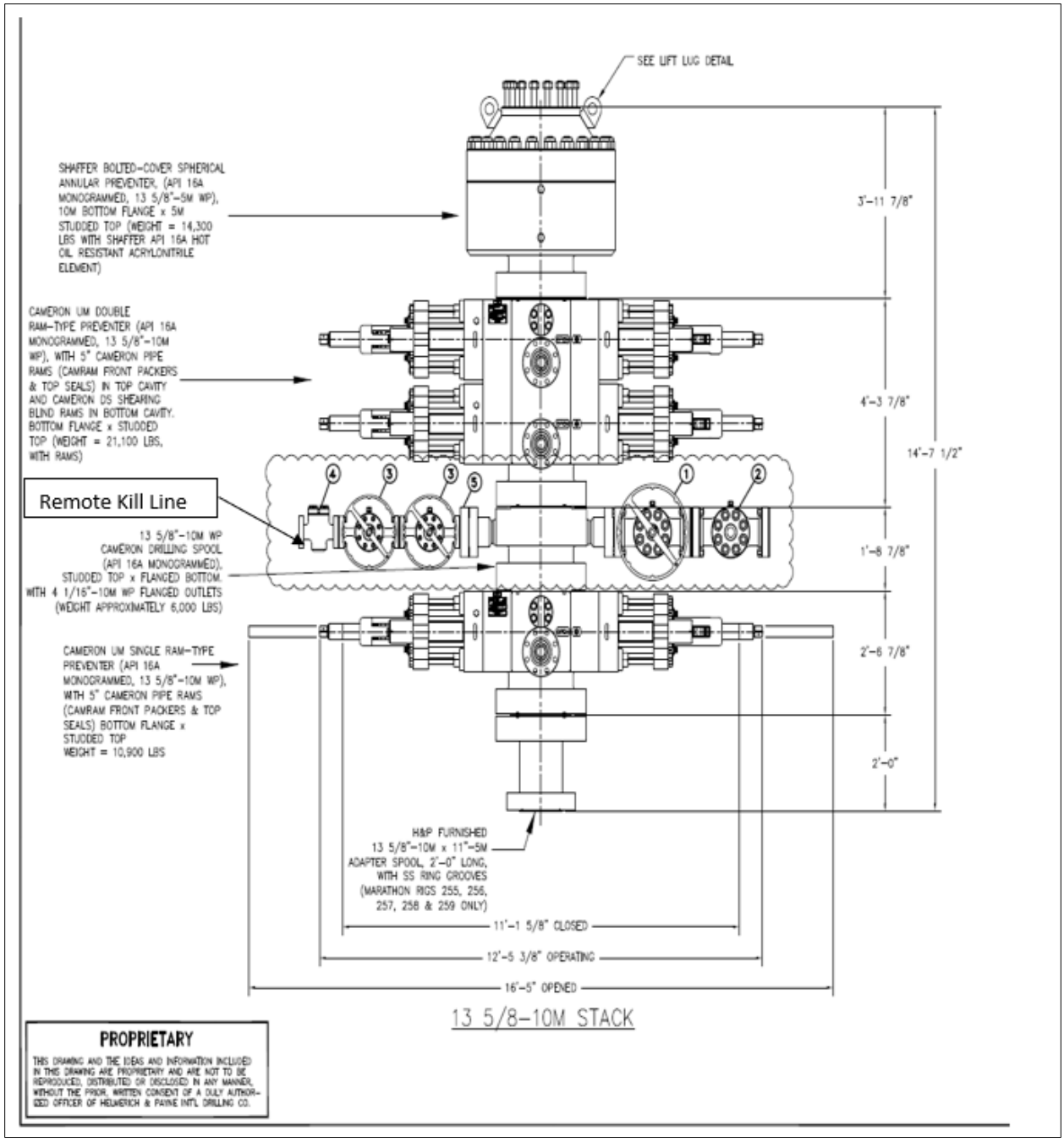
Choke Manifold – Gas Separator (Top View)



Choke Manifold – Gas Separator (Side View)



10M BOP Stack with 5M Annular Preventer



5.5”, 20#, P-110, TXP connection (modified buttress connection that provides a torque rating of nearly 24000ft-lbs)

TXP® BTC

SHARE | EXPORT DATA | PRINT

Outside Diameter	5.500 in.	Min. Wall Thickness	87.5%
Wall Thickness	0.361 in.	Drift	API Standard
Grade	P110	Type	Casing
		Connection OD Option	REGULAR

Clear Filters
Compare
Request Info

CONNECTION INFORMATION
- Blanking Dimensions
- Connection's Page
- Brochure
- Datasheet Manual

PIPE BODY DATA					
GEOMETRY					
Nominal OD	5.500 in.	Nominal Weight	20 lbs/ft	Drift	4.653 in.
Nominal ID	4.778 in.	Wall Thickness	0.361 in.	Plain End Weight	19.83 lbs/ft
OD Tolerance	API				
PERFORMANCE					
Body Yield Strength	641 x1000 lbs	Internal Yield	12640 psi	SMYS	110000 psi
Collapse	11100 psi				

CONNECTION DATA					
GEOMETRY					
Connection OD	6.100 in.	Coupling Length	9.450 in.	Connection ID	4.766 in.
Make-up Loss	4.204 in.	Threads per in	5	Connection OD Option	REGULAR
PERFORMANCE					
Tension Efficiency	100.0 %	Joint Yield Strength	641.000 x1000 lbs	Internal Pressure Capacity [1]	12640.000 psi
Compression Efficiency	100 %	Compression Strength	641.000 x1000 lbs	Max. Allowable Bending	92 °/100 ft
External Pressure Capacity	11100.000 psi				
MAKE-UP TORQUES					
Minimum	11270 ft-lbs	Optimum	12520 ft-lbs	Maximum	13770 ft-lbs
OPERATION LIMIT TORQUES					
Operating Torque	21500 ft-lbs	Yield Torque	23900 ft-lbs		

5.5”, 20#, P-110, TXP connection (modified buttress connection that provides a torque rating of nearly 24000ft-lbs)

TXP® BTC

SHARE | EXPORT DATA | PRINT

Outside Diameter	5.500 in.	Min. Wall Thickness	87.5%
Wall Thickness	0.361 in.	Drift	API Standard
Grade	P110	Type	Casing
		Connection OD Option	REGULAR

Clear Filters
Compare
Request Info

CONNECTION INFORMATION
- Blanking Dimensions
- Connection's Page
- Brochure
- Datasheet Manual

PIPE BODY DATA					
GEOMETRY					
Nominal OD	5.500 in.	Nominal Weight	20 lbs/ft	Drift	4.653 in.
Nominal ID	4.778 in.	Wall Thickness	0.361 in.	Plain End Weight	19.83 lbs/ft
OD Tolerance	API				
PERFORMANCE					
Body Yield Strength	641 x1000 lbs	Internal Yield	12640 psi	SMYS	110000 psi
Collapse	11100 psi				

CONNECTION DATA					
GEOMETRY					
Connection OD	6.100 in.	Coupling Length	9.450 in.	Connection ID	4.766 in.
Make-up Loss	4.204 in.	Threads per in	5	Connection OD Option	REGULAR
PERFORMANCE					
Tension Efficiency	100.0 %	Joint Yield Strength	641.000 x1000 lbs	Internal Pressure Capacity [1]	12640.000 psi
Compression Efficiency	100 %	Compression Strength	641.000 x1000 lbs	Max. Allowable Bending	92 °/100 ft
External Pressure Capacity	11100.000 psi				
MAKE-UP TORQUES					
Minimum	11270 ft-lbs	Optimum	12520 ft-lbs	Maximum	13770 ft-lbs
OPERATION LIMIT TORQUES					
Operating Torque	21500 ft-lbs	Yield Torque	23900 ft-lbs		

Casing Design Assumptions

- Gas gravity 0.7
- Pore pressure gradient .468 psi/ft above the Wolfcamp, .676 psi/ft Wolfcamp and below
- .676 psi/ft fracture gradient above the Wolfcamp, .832 psi/ft Wolfcamp and below.
- 60°F average surface temperature and 1.5°/100ft temperature gradient
- Cementing loads based on slurries listed in Cement table, and post cement static loading
- Strings landed at neutral weight
- Gas kicks assumed at each casing shoe
- External pressure calculated with fluid gradients and pore pressure
- Production string load tested with completion fluid density and rate
- Tubing leak tested in production scenario

Casing Design Assumptions

- Gas gravity 0.7
- Pore pressure gradient .468 psi/ft above the Wolfcamp, .676 psi/ft Wolfcamp and below
- .676 psi/ft fracture gradient above the Wolfcamp, .832 psi/ft Wolfcamp and below.
- 60°F average surface temperature and 1.5°/100ft temperature gradient
- Cementing loads based on slurries listed in Cement table, and post cement static loading
- Strings landed at neutral weight
- Gas kicks assumed at each casing shoe
- External pressure calculated with fluid gradients and pore pressure
- Production string load tested with completion fluid density and rate
- Tubing leak tested in production scenario

Casing Design Assumptions

- Gas gravity 0.7
- Pore pressure gradient .468 psi/ft above the Wolfcamp, .676 psi/ft Wolfcamp and below
- .676 psi/ft fracture gradient above the Wolfcamp, .832 psi/ft Wolfcamp and below.
- 60°F average surface temperature and 1.5°/100ft temperature gradient
- Cementing loads based on slurries listed in Cement table, and post cement static loading
- Strings landed at neutral weight
- Gas kicks assumed at each casing shoe
- External pressure calculated with fluid gradients and pore pressure
- Production string load tested with completion fluid density and rate
- Tubing leak tested in production scenario

Casing Design Assumptions

- Gas gravity 0.7
- Pore pressure gradient .468 psi/ft above the Wolfcamp, .676 psi/ft Wolfcamp and below
- .676 psi/ft fracture gradient above the Wolfcamp, .832 psi/ft Wolfcamp and below.
- 60°F average surface temperature and 1.5°/100ft temperature gradient
- Cementing loads based on slurries listed in Cement table, and post cement static loading
- Strings landed at neutral weight
- Gas kicks assumed at each casing shoe
- External pressure calculated with fluid gradients and pore pressure
- Production string load tested with completion fluid density and rate
- Tubing leak tested in production scenario

Hydrogen Sulfide Drilling

Operations Plan

Tap Rock Resources

1 H2S safety instructions to the following:

- Characteristics of H2S
- Physical effects and hazards
- Principal and operation of H2S detectors, warning system and briefing areas
- Evacuation procedures, routes and first aid
- Proper use of safety equipment & life support systems
- Essential personnel meeting medical evaluation criteria will receive additional training on the proper use of 30min pressure demand air packs

2 H2S Detection and Alarm Systems:

- H2S sensor/detectors to be located on the drilling rig floor, in the base of the sub structure / cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary
- An audio alarm system will be installed on the derrick floor and in the doghouse

3 Windsocks and / Wind Streamers:

- Windsocks at mud pit area should be high enough to be visible
- Windsock on the rig floor and / top of doghouse should be high enough to be visible

4 Condition Flags and Signs:

- Warning sign on access road to location
- Flags to be displayed on sign at entrance to location
    - Green Flag – Normal Safe Operation Condition
    - Yellow Flag – Potential Pressure and Danger
    - Red Flag – Danger (H2S present in dangerous concentrations) Only H2S trained personnel admitted on location

5 Well Control Equipment:

- See Drilling Operations Plan Schematics

6 Communication:

- While working under masks chalkboards will be used for communications
- Hand signals will be used where chalk board is inappropriate
- Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7 Drilling Stem Testing:

- No DST cores are planned at this time

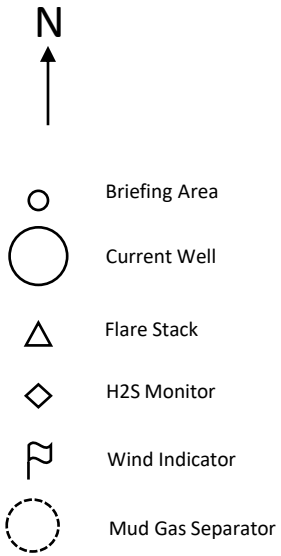
8 Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubulars good and other mechanical equipment

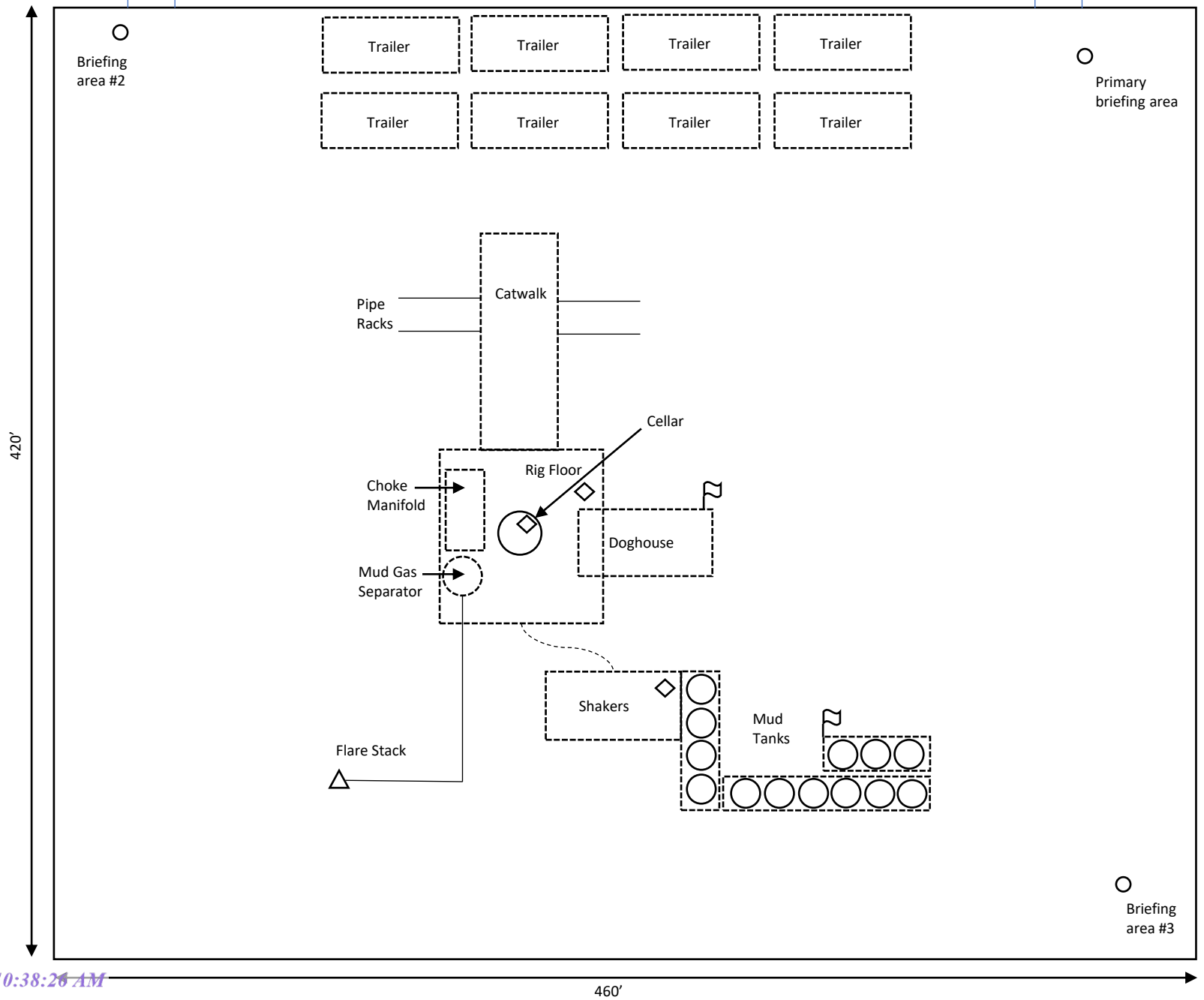
9 If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H2S scavengers if necessary

11 Emergency Contacts

Emergency Contacts		
Carlsbad Police Department	575.887.7551	911
Carlsbad Medical Center	575.887.4100	911
Eddy County Fire Service	575.628.5450	911
Eddy County Sherriff	575.887.7551	911
Lea County Fire Service	575.391.2983	911
Lea County Sherriff	575.396.3611	911
Jal Police Department	575.395.2121	911
Jal Fire Department	575.395.2221	911
Tap Rock Resources	720.772.5090	

Rig Diagram
High Life Fed Com
Slot 1 Pad
Tap Rock Operating, LLC
10-25S-25E
Eddy County, NM





Tap Rock Operating LLC

High Life Fed Com Slot 1 Pad
H2S Contingency Plan:
2 Mile Radius Map

Sec. 10, Township 25S, Range 25E
Eddy County, New Mexico

Well Pad Location

1:27,000

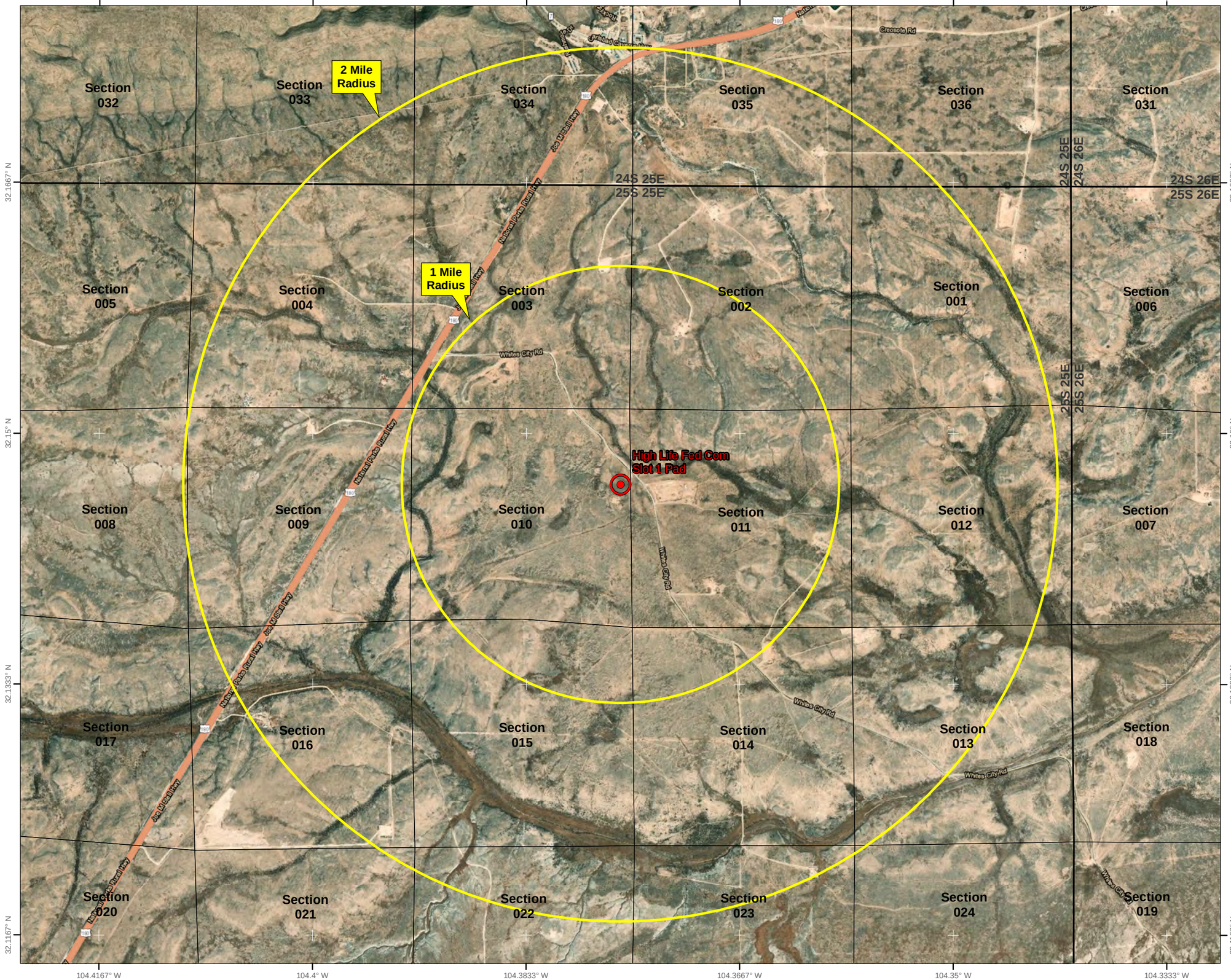
0 0.25 0.5 1
Miles

N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., June 29, 2023
for Tap Rock Operating, LLC



Tap Rock Resources, LLC

Project: Eddy County, NM (NAD 83 NME)
Site: Sec-10-25S-25E(High Life N)
Well: High Life Fed Com #142H
Wellbore: Wellbore #1
Design: Plan 1
Rig:

Azimuths to Grid North
True North: 0.02°
Magnetic North: 7.02°

Magnetic Field
Strength: 47347.8nT
Dip Angle: 59.60°
Date: 5/8/2023
Model: HDGM2023

PROJECT DETAILS: Eddy County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
Reference Datum: GE 3511' + KB 26' @ 3537.00usft

SHL

RKB Elevation: GE 3511' + KB 26' @ 3537.00usft

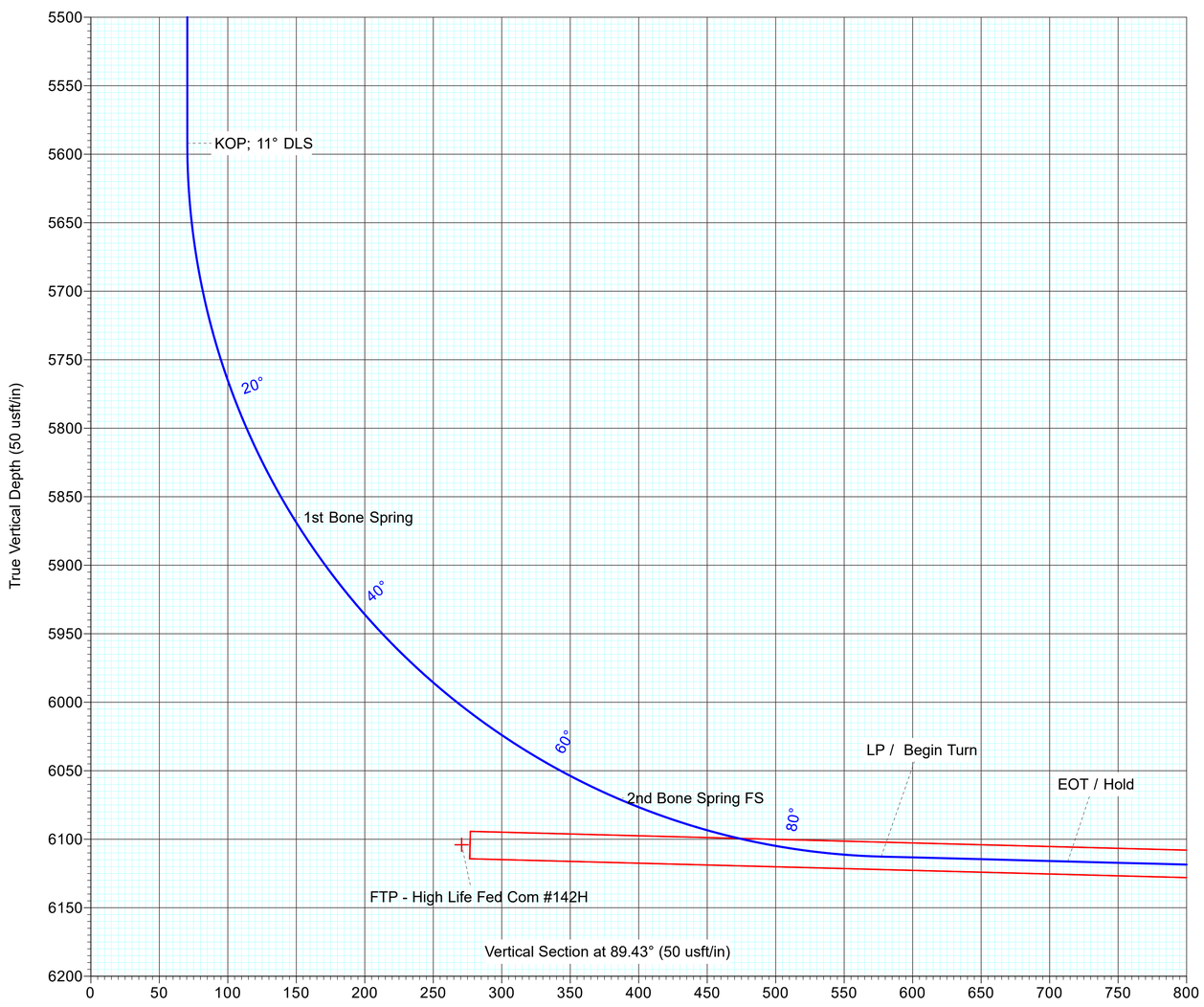
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	417066.00	528199.00	32.1465859	-104.3757849	

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Annotation
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	Begin Nudge
1482.40	3.82	25.45	1482.11	11.52	5.48	5.60	EOB / Hold
3507.68	3.82	25.45	3502.89	133.48	63.52	64.84	Begin Drop
3890.08	0.00	360.00	3885.00	145.00	69.00	70.44	EOD / Hold
5597.08	0.00	0.00	5592.00	145.00	69.00	70.44	KOP; 11° DLS
6401.62	88.50	86.70	6112.69	174.20	575.39	577.10	LP / Begin Turn
6537.91	88.50	89.43	6116.26	178.80	711.55	713.29	EOT / Hold
16655.32	88.50	89.43	6380.55	280.00	10825.00	10827.25	PBHL

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP - High Life Fed Com #142H	6104.09	174.00	269.00	417240.00	528468.00	32.1470645	-104.3749160
LTP - High Life Fed Com #142H	6378.03	279.00	10730.00	417345.00	538929.00	32.1473597	-104.3411155
PBHL - High Life Fed Com #142H	6380.55	280.00	10825.00	417346.00	539024.00	32.1473625	-104.3408085

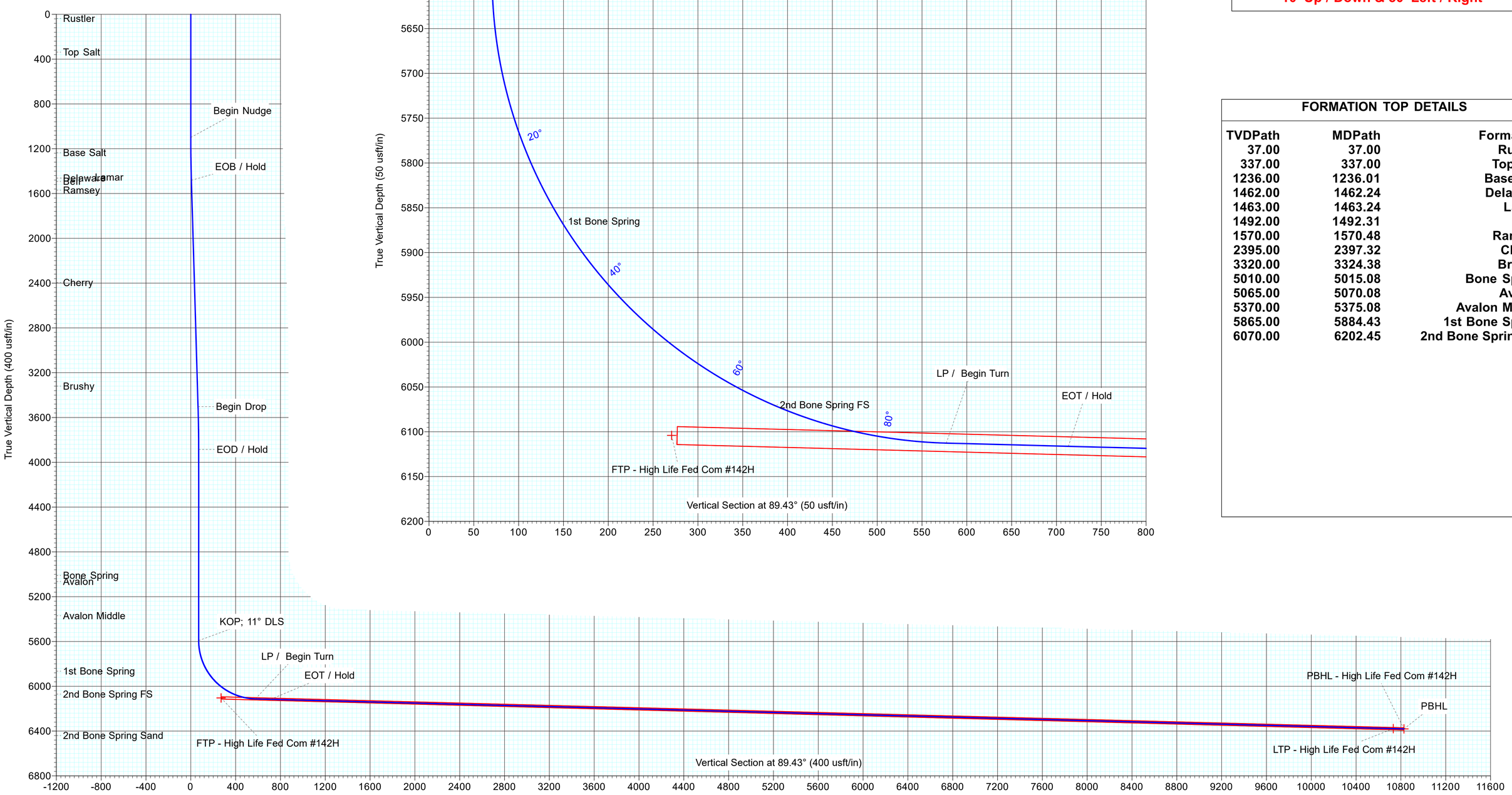


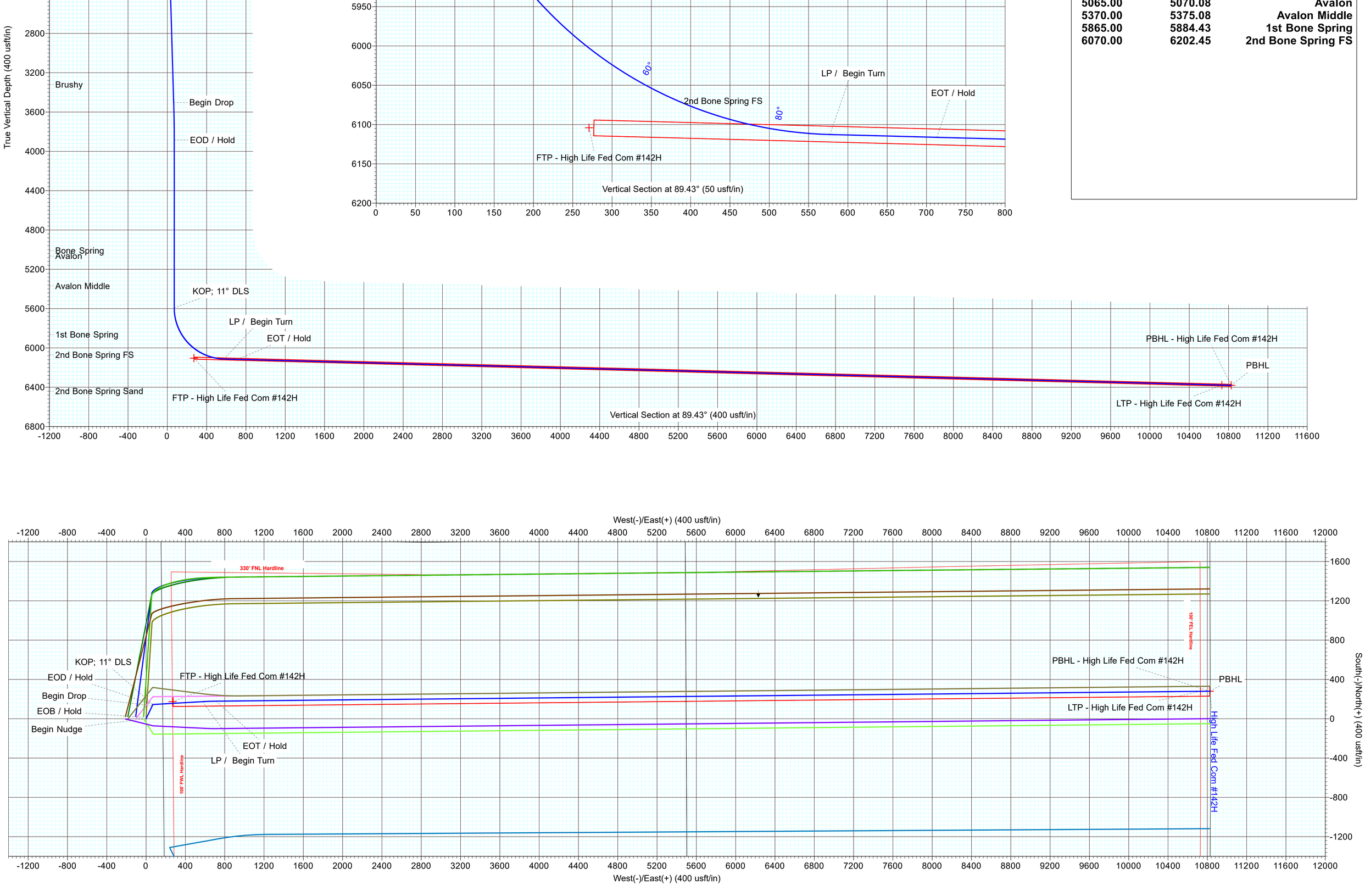
Target Line
6097' TVD @ 0' VS @ 88.5° INC

Drilling WIndow
10' Up / Down & 50' Left / Right

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
37.00	37.00	Rustler
337.00	337.00	Top Salt
1236.00	1236.01	Base Salt
1462.00	1462.24	Delaware
1463.00	1463.24	Lamar
1492.00	1492.31	Bell
1570.00	1570.48	Ramsey
2395.00	2397.32	Cherry
3320.00	3324.38	Brushy
5010.00	5015.08	Bone Spring
5065.00	5070.08	Avalon
5370.00	5375.08	Avalon Middle
5865.00	5884.43	1st Bone Spring
6070.00	6202.45	2nd Bone Spring FS





Tap Rock Resources, LLC

Eddy County, NM (NAD 83 NME)
Sec-10-25S-25E(High Life N)
High Life Fed Com #142H

Wellbore #1

Plan: Plan 1

Total Directional
"Driven by TOTAL performance"
total

Standard Survey Report

10 May, 2023

Total Report Version 1.10

COMPASS 5000.16 Build 97

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

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 Sec-10-25S-25E(High Life N)

Site Position:		**Northing:**	417,091.00 usft	**Latitude:**	32.1466546
From:	Map	**Easting:**	528,199.00 usft	**Longitude:**	-104.3757849
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well High Life Fed Com #142H

Well Position	**+N/-S**	0.00 usft	**Northing:**	417,066.00 usft	**Latitude:**	32.1465859
	+E/-W	0.00 usft	**Easting:**	528,199.00 usft	**Longitude:**	-104.3757849
Position Uncertainty		0.50 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,511.00 usft
Grid Convergence:		-0.02 °				

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2023	5/8/2023	7.00	59.60	47,347.80000000

Design Plan 1

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	89.43

Survey Tool Program **Date** 5/10/2023

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	16,655.32	Plan 1 (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
37.00	0.00	0.00	37.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
Rustler													
100.00	0.00	0.00	100.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
337.00	0.00	0.00	337.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
Top Salt													
400.00	0.00	0.00	400.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
Begin Nudge													
1,200.00	1.00	25.45	1,199.99	0.79	0.37	417,066.79	528,199.37	32.1465881	-104.3757837	0.38	1.00	1.00	0.00
1,236.01	1.36	25.45	1,236.00	1.46	0.69	417,067.46	528,199.69	32.1465899	-104.3757826	0.71	1.00	1.00	0.00
Base Salt													
1,300.00	2.00	25.45	1,299.96	3.15	1.50	417,069.15	528,200.50	32.1465946	-104.3757800	1.53	1.00	1.00	0.00
1,400.00	3.00	25.45	1,399.86	7.09	3.37	417,073.09	528,202.37	32.1466054	-104.3757740	3.44	1.00	1.00	0.00
1,462.24	3.62	25.45	1,462.00	10.34	4.92	417,076.34	528,203.92	32.1466143	-104.3757690	5.02	1.00	1.00	0.00
Delaware													
1,463.24	3.63	25.45	1,463.00	10.39	4.95	417,076.39	528,203.95	32.1466145	-104.3757689	5.05	1.00	1.00	0.00
Lamar													
1,482.40	3.82	25.45	1,482.11	11.52	5.48	417,077.52	528,204.48	32.1466176	-104.3757672	5.60	1.00	1.00	0.00
EOB / Hold													
1,492.31	3.82	25.45	1,492.00	12.12	5.77	417,078.12	528,204.77	32.1466192	-104.3757663	5.89	0.00	0.00	0.00
Bell													
1,500.00	3.82	25.45	1,499.68	12.58	5.99	417,078.58	528,204.99	32.1466205	-104.3757656	6.11	0.00	0.00	0.00
1,570.48	3.82	25.45	1,570.00	16.82	8.01	417,082.82	528,207.01	32.1466322	-104.3757590	8.17	0.00	0.00	0.00
Ramsey													
1,600.00	3.82	25.45	1,599.45	18.60	8.85	417,084.60	528,207.85	32.1466370	-104.3757563	9.04	0.00	0.00	0.00
1,700.00	3.82	25.45	1,699.23	24.62	11.72	417,090.62	528,210.72	32.1466536	-104.3757471	11.96	0.00	0.00	0.00
1,800.00	3.82	25.45	1,799.01	30.64	14.58	417,096.64	528,213.58	32.1466702	-104.3757378	14.89	0.00	0.00	0.00
1,900.00	3.82	25.45	1,898.79	36.67	17.45	417,102.67	528,216.45	32.1466867	-104.3757285	17.81	0.00	0.00	0.00
2,000.00	3.82	25.45	1,998.56	42.69	20.31	417,108.69	528,219.31	32.1467033	-104.3757193	20.74	0.00	0.00	0.00
2,100.00	3.82	25.45	2,098.34	48.71	23.18	417,114.71	528,222.18	32.1467198	-104.3757100	23.66	0.00	0.00	0.00
2,200.00	3.82	25.45	2,198.12	54.73	26.05	417,120.73	528,225.05	32.1467364	-104.3757008	26.59	0.00	0.00	0.00
2,300.00	3.82	25.45	2,297.90	60.75	28.91	417,126.75	528,227.91	32.1467529	-104.3756915	29.51	0.00	0.00	0.00
2,397.32	3.82	25.45	2,395.00	66.62	31.70	417,132.62	528,230.70	32.1467691	-104.3756825	32.36	0.00	0.00	0.00
Cherry													
2,400.00	3.82	25.45	2,397.67	66.78	31.78	417,132.78	528,230.78	32.1467695	-104.3756823	32.44	0.00	0.00	0.00
2,500.00	3.82	25.45	2,497.45	72.80	34.64	417,138.80	528,233.64	32.1467861	-104.3756730	35.36	0.00	0.00	0.00

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,600.00	3.82	25.45	2,597.23	78.82	37.51	417,144.82	528,236.51	32.1468026	-104.3756638	38.29	0.00	0.00	0.00
2,700.00	3.82	25.45	2,697.01	84.84	40.37	417,150.84	528,239.37	32.1468192	-104.3756545	41.22	0.00	0.00	0.00
2,800.00	3.82	25.45	2,796.78	90.86	43.24	417,156.86	528,242.24	32.1468357	-104.3756453	44.14	0.00	0.00	0.00
2,900.00	3.82	25.45	2,896.56	96.89	46.10	417,162.89	528,245.10	32.1468523	-104.3756360	47.07	0.00	0.00	0.00
3,000.00	3.82	25.45	2,996.34	102.91	48.97	417,168.91	528,247.97	32.1468688	-104.3756268	49.99	0.00	0.00	0.00
3,100.00	3.82	25.45	3,096.11	108.93	51.84	417,174.93	528,250.84	32.1468854	-104.3756175	52.92	0.00	0.00	0.00
3,200.00	3.82	25.45	3,195.89	114.95	54.70	417,180.95	528,253.70	32.1469020	-104.3756083	55.84	0.00	0.00	0.00
3,300.00	3.82	25.45	3,295.67	120.98	57.57	417,186.98	528,256.57	32.1469185	-104.3755990	58.77	0.00	0.00	0.00
3,324.38	3.82	25.45	3,320.00	122.44	58.27	417,188.44	528,257.27	32.1469226	-104.3755968	59.48	0.00	0.00	0.00
Brushy													
3,400.00	3.82	25.45	3,395.45	127.00	60.43	417,193.00	528,259.43	32.1469351	-104.3755898	61.69	0.00	0.00	0.00
3,507.68	3.82	25.45	3,502.89	133.48	63.52	417,199.48	528,262.52	32.1469529	-104.3755798	64.84	0.00	0.00	0.00
Begin Drop													
3,600.00	2.90	25.45	3,595.05	138.37	65.85	417,204.37	528,264.85	32.1469663	-104.3755723	67.22	1.00	-1.00	0.00
3,700.00	1.90	25.45	3,694.96	142.15	67.65	417,208.15	528,266.65	32.1469767	-104.3755665	69.06	1.00	-1.00	0.00
3,800.00	0.90	25.45	3,794.93	144.36	68.70	417,210.36	528,267.70	32.1469828	-104.3755631	70.13	1.00	-1.00	0.00
3,890.08	0.00	360.00	3,885.00	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	1.00	-1.00	0.00
EOD / Hold													
3,900.00	0.00	0.00	3,894.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,000.00	0.00	0.00	3,994.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,100.00	0.00	0.00	4,094.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,200.00	0.00	0.00	4,194.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,300.00	0.00	0.00	4,294.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,400.00	0.00	0.00	4,394.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,500.00	0.00	0.00	4,494.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,600.00	0.00	0.00	4,594.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,700.00	0.00	0.00	4,694.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,800.00	0.00	0.00	4,794.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,900.00	0.00	0.00	4,894.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,000.00	0.00	0.00	4,994.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,015.08	0.00	0.00	5,010.00	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
Bone Spring													
5,070.08	0.00	0.00	5,065.00	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
Avalon													
5,100.00	0.00	0.00	5,094.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,200.00	0.00	0.00	5,194.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,300.00	0.00	0.00	5,294.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,375.08	0.00	0.00	5,370.00	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
Avalon Middle													

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	0.00	0.00	5,394.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,500.00	0.00	0.00	5,494.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,597.08	0.00	0.00	5,592.00	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
KOP; 11° DLS													
5,600.00	0.32	86.70	5,594.92	145.00	69.01	417,211.00	528,268.01	32.1469846	-104.3755621	70.45	11.00	11.00	0.00
5,650.00	5.82	86.70	5,644.83	145.15	71.68	417,211.15	528,270.68	32.1469850	-104.3755535	73.12	11.00	11.00	0.00
5,700.00	11.32	86.70	5,694.26	145.58	79.12	417,211.58	528,278.12	32.1469862	-104.3755294	80.56	11.00	11.00	0.00
5,750.00	16.82	86.70	5,742.74	146.28	91.25	417,212.28	528,290.25	32.1469881	-104.3754902	92.70	11.00	11.00	0.00
5,800.00	22.32	86.70	5,789.83	147.25	107.97	417,213.25	528,306.97	32.1469908	-104.3754362	109.43	11.00	11.00	0.00
5,850.00	27.82	86.70	5,835.10	148.47	129.11	417,214.47	528,328.11	32.1469942	-104.3753679	130.58	11.00	11.00	0.00
5,884.43	31.61	86.70	5,865.00	149.45	146.15	417,215.45	528,345.15	32.1469969	-104.3753129	147.63	11.00	11.00	0.00
1st Bone Spring													
5,900.00	33.32	86.70	5,878.13	149.93	154.49	417,215.93	528,353.49	32.1469982	-104.3752859	155.97	11.00	11.00	0.00
5,950.00	38.82	86.70	5,918.53	151.62	183.87	417,217.62	528,382.87	32.1470029	-104.3751910	185.37	11.00	11.00	0.00
6,000.00	44.32	86.70	5,955.92	153.53	216.98	417,219.53	528,415.98	32.1470082	-104.3750840	218.50	11.00	11.00	0.00
6,050.00	49.82	86.70	5,989.97	155.64	253.51	417,221.64	528,452.51	32.1470140	-104.3749659	255.05	11.00	11.00	0.00
6,100.00	55.32	86.70	6,020.34	157.92	293.14	417,223.92	528,492.14	32.1470203	-104.3748379	294.70	11.00	11.00	0.00
6,124.63	58.03	86.70	6,033.87	159.11	313.69	417,225.11	528,512.69	32.1470236	-104.3747715	315.25	11.00	11.00	0.00
FTP - High Life Fed Com #142H													
6,150.00	60.82	86.70	6,046.78	160.37	335.49	417,226.37	528,534.49	32.1470271	-104.3747011	337.07	11.00	11.00	0.00
6,200.00	66.32	86.70	6,069.02	162.94	380.17	417,228.94	528,579.17	32.1470342	-104.3745567	381.77	11.00	11.00	0.00
6,202.45	66.59	86.70	6,070.00	163.07	382.41	417,229.07	528,581.41	32.1470346	-104.3745495	384.02	11.00	11.00	0.00
2nd Bone Spring FS													
6,250.00	71.82	86.70	6,086.87	165.63	426.78	417,231.63	528,625.78	32.1470417	-104.3744061	428.40	11.00	11.00	0.00
6,300.00	77.32	86.70	6,100.17	168.40	474.88	417,234.40	528,673.88	32.1470493	-104.3742507	476.53	11.00	11.00	0.00
6,350.00	82.82	86.70	6,108.79	171.24	524.03	417,237.24	528,723.03	32.1470572	-104.3740919	525.70	11.00	11.00	0.00
6,401.62	88.50	86.70	6,112.69	174.20	575.39	417,240.20	528,774.39	32.1470654	-104.3739259	577.10	11.00	11.00	0.00
LP / Begin Turn													
6,500.00	88.50	88.67	6,115.27	178.17	673.65	417,244.17	528,872.65	32.1470764	-104.3736085	675.39	2.00	0.00	2.00
6,537.91	88.50	89.43	6,116.26	178.80	711.55	417,244.80	528,910.55	32.1470782	-104.3734860	713.29	2.00	0.00	2.00
EOT / Hold													
6,600.00	88.50	89.43	6,117.88	179.42	773.61	417,245.42	528,972.61	32.1470799	-104.3732855	775.36	0.00	0.00	0.00
6,700.00	88.50	89.43	6,120.49	180.42	873.57	417,246.42	529,072.57	32.1470828	-104.3729625	875.32	0.00	0.00	0.00
6,800.00	88.50	89.43	6,123.10	181.42	973.53	417,247.42	529,172.53	32.1470856	-104.3726395	975.29	0.00	0.00	0.00
6,900.00	88.50	89.43	6,125.72	182.42	1,073.49	417,248.42	529,272.49	32.1470885	-104.3723165	1,075.26	0.00	0.00	0.00
7,000.00	88.50	89.43	6,128.33	183.42	1,173.45	417,249.42	529,372.45	32.1470913	-104.3719936	1,175.22	0.00	0.00	0.00
7,100.00	88.50	89.43	6,130.94	184.42	1,273.42	417,250.42	529,472.42	32.1470942	-104.3716706	1,275.19	0.00	0.00	0.00
7,200.00	88.50	89.43	6,133.55	185.42	1,373.38	417,251.42	529,572.38	32.1470970	-104.3713476	1,375.15	0.00	0.00	0.00

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,300.00	88.50	89.43	6,136.16	186.42	1,473.34	417,252.42	529,672.34	32.1470999	-104.3710246	1,475.12	0.00	0.00	0.00
7,400.00	88.50	89.43	6,138.78	187.43	1,573.30	417,253.43	529,772.30	32.1471027	-104.3707016	1,575.08	0.00	0.00	0.00
7,500.00	88.50	89.43	6,141.39	188.43	1,673.26	417,254.43	529,872.26	32.1471056	-104.3703787	1,675.05	0.00	0.00	0.00
7,600.00	88.50	89.43	6,144.00	189.43	1,773.22	417,255.43	529,972.22	32.1471084	-104.3700557	1,775.02	0.00	0.00	0.00
7,700.00	88.50	89.43	6,146.61	190.43	1,873.18	417,256.43	530,072.18	32.1471113	-104.3697327	1,874.98	0.00	0.00	0.00
7,800.00	88.50	89.43	6,149.23	191.43	1,973.14	417,257.43	530,172.14	32.1471141	-104.3694097	1,974.95	0.00	0.00	0.00
7,900.00	88.50	89.43	6,151.84	192.43	2,073.10	417,258.43	530,272.10	32.1471169	-104.3690867	2,074.91	0.00	0.00	0.00
8,000.00	88.50	89.43	6,154.45	193.43	2,173.06	417,259.43	530,372.06	32.1471198	-104.3687637	2,174.88	0.00	0.00	0.00
8,100.00	88.50	89.43	6,157.06	194.43	2,273.02	417,260.43	530,472.02	32.1471226	-104.3684408	2,274.85	0.00	0.00	0.00
8,200.00	88.50	89.43	6,159.68	195.43	2,372.99	417,261.43	530,571.99	32.1471255	-104.3681178	2,374.81	0.00	0.00	0.00
8,300.00	88.50	89.43	6,162.29	196.43	2,472.95	417,262.43	530,671.95	32.1471283	-104.3677948	2,474.78	0.00	0.00	0.00
8,400.00	88.50	89.43	6,164.90	197.43	2,572.91	417,263.43	530,771.91	32.1471311	-104.3674718	2,574.74	0.00	0.00	0.00
8,500.00	88.50	89.43	6,167.51	198.43	2,672.87	417,264.43	530,871.87	32.1471340	-104.3671488	2,674.71	0.00	0.00	0.00
8,600.00	88.50	89.43	6,170.12	199.43	2,772.83	417,265.43	530,971.83	32.1471368	-104.3668258	2,774.68	0.00	0.00	0.00
8,700.00	88.50	89.43	6,172.74	200.43	2,872.79	417,266.43	531,071.79	32.1471396	-104.3665029	2,874.64	0.00	0.00	0.00
8,800.00	88.50	89.43	6,175.35	201.43	2,972.75	417,267.43	531,171.75	32.1471425	-104.3661799	2,974.61	0.00	0.00	0.00
8,900.00	88.50	89.43	6,177.96	202.43	3,072.71	417,268.43	531,271.71	32.1471453	-104.3658569	3,074.57	0.00	0.00	0.00
9,000.00	88.50	89.43	6,180.57	203.43	3,172.67	417,269.43	531,371.67	32.1471481	-104.3655339	3,174.54	0.00	0.00	0.00
9,100.00	88.50	89.43	6,183.19	204.43	3,272.63	417,270.43	531,471.63	32.1471510	-104.3652109	3,274.50	0.00	0.00	0.00
9,200.00	88.50	89.43	6,185.80	205.43	3,372.59	417,271.43	531,571.59	32.1471538	-104.3648879	3,374.47	0.00	0.00	0.00
9,300.00	88.50	89.43	6,188.41	206.43	3,472.55	417,272.43	531,671.55	32.1471566	-104.3645650	3,474.44	0.00	0.00	0.00
9,400.00	88.50	89.43	6,191.02	207.43	3,572.52	417,273.43	531,771.52	32.1471595	-104.3642420	3,574.40	0.00	0.00	0.00
9,500.00	88.50	89.43	6,193.63	208.43	3,672.48	417,274.43	531,871.48	32.1471623	-104.3639190	3,674.37	0.00	0.00	0.00
9,600.00	88.50	89.43	6,196.25	209.43	3,772.44	417,275.43	531,971.44	32.1471651	-104.3635960	3,774.33	0.00	0.00	0.00
9,700.00	88.50	89.43	6,198.86	210.43	3,872.40	417,276.43	532,071.40	32.1471679	-104.3632730	3,874.30	0.00	0.00	0.00
9,800.00	88.50	89.43	6,201.47	211.43	3,972.36	417,277.43	532,171.36	32.1471708	-104.3629501	3,974.27	0.00	0.00	0.00
9,900.00	88.50	89.43	6,204.08	212.43	4,072.32	417,278.43	532,271.32	32.1471736	-104.3626271	4,074.23	0.00	0.00	0.00
10,000.00	88.50	89.43	6,206.70	213.43	4,172.28	417,279.43	532,371.28	32.1471764	-104.3623041	4,174.20	0.00	0.00	0.00
10,100.00	88.50	89.43	6,209.31	214.43	4,272.24	417,280.43	532,471.24	32.1471792	-104.3619811	4,274.16	0.00	0.00	0.00
10,200.00	88.50	89.43	6,211.92	215.43	4,372.20	417,281.43	532,571.20	32.1471821	-104.3616581	4,374.13	0.00	0.00	0.00
10,300.00	88.50	89.43	6,214.53	216.43	4,472.16	417,282.43	532,671.16	32.1471849	-104.3613351	4,474.10	0.00	0.00	0.00
10,400.00	88.50	89.43	6,217.14	217.43	4,572.12	417,283.43	532,771.12	32.1471877	-104.3610122	4,574.06	0.00	0.00	0.00
10,500.00	88.50	89.43	6,219.76	218.43	4,672.09	417,284.43	532,871.09	32.1471905	-104.3606892	4,674.03	0.00	0.00	0.00
10,600.00	88.50	89.43	6,222.37	219.43	4,772.05	417,285.43	532,971.05	32.1471933	-104.3603662	4,773.99	0.00	0.00	0.00
10,700.00	88.50	89.43	6,224.98	220.43	4,872.01	417,286.43	533,071.01	32.1471962	-104.3600432	4,873.96	0.00	0.00	0.00
10,800.00	88.50	89.43	6,227.59	221.43	4,971.97	417,287.43	533,170.97	32.1471990	-104.3597202	4,973.92	0.00	0.00	0.00
10,900.00	88.50	89.43	6,230.21	222.43	5,071.93	417,288.43	533,270.93	32.1472018	-104.3593972	5,073.89	0.00	0.00	0.00
11,000.00	88.50	89.43	6,232.82	223.43	5,171.89	417,289.43	533,370.89	32.1472046	-104.3590743	5,173.86	0.00	0.00	0.00

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,100.00	88.50	89.43	6,235.43	224.43	5,271.85	417,290.43	533,470.85	32.1472074	-104.3587513	5,273.82	0.00	0.00	0.00
11,200.00	88.50	89.43	6,238.04	225.43	5,371.81	417,291.43	533,570.81	32.1472102	-104.3584283	5,373.79	0.00	0.00	0.00
11,300.00	88.50	89.43	6,240.66	226.43	5,471.77	417,292.43	533,670.77	32.1472131	-104.3581053	5,473.75	0.00	0.00	0.00
11,400.00	88.50	89.43	6,243.27	227.43	5,571.73	417,293.43	533,770.73	32.1472159	-104.3577823	5,573.72	0.00	0.00	0.00
11,500.00	88.50	89.43	6,245.88	228.43	5,671.69	417,294.43	533,870.69	32.1472187	-104.3574593	5,673.69	0.00	0.00	0.00
11,600.00	88.50	89.43	6,248.49	229.44	5,771.65	417,295.44	533,970.65	32.1472215	-104.3571364	5,773.65	0.00	0.00	0.00
11,700.00	88.50	89.43	6,251.10	230.44	5,871.62	417,296.44	534,070.62	32.1472243	-104.3568134	5,873.62	0.00	0.00	0.00
11,800.00	88.50	89.43	6,253.72	231.44	5,971.58	417,297.44	534,170.58	32.1472271	-104.3564904	5,973.58	0.00	0.00	0.00
11,900.00	88.50	89.43	6,256.33	232.44	6,071.54	417,298.44	534,270.54	32.1472299	-104.3561674	6,073.55	0.00	0.00	0.00
12,000.00	88.50	89.43	6,258.94	233.44	6,171.50	417,299.44	534,370.50	32.1472327	-104.3558444	6,173.52	0.00	0.00	0.00
12,100.00	88.50	89.43	6,261.55	234.44	6,271.46	417,300.44	534,470.46	32.1472355	-104.3555214	6,273.48	0.00	0.00	0.00
12,200.00	88.50	89.43	6,264.17	235.44	6,371.42	417,301.44	534,570.42	32.1472383	-104.3551985	6,373.45	0.00	0.00	0.00
12,300.00	88.50	89.43	6,266.78	236.44	6,471.38	417,302.44	534,670.38	32.1472411	-104.3548755	6,473.41	0.00	0.00	0.00
12,400.00	88.50	89.43	6,269.39	237.44	6,571.34	417,303.44	534,770.34	32.1472439	-104.3545525	6,573.38	0.00	0.00	0.00
12,500.00	88.50	89.43	6,272.00	238.44	6,671.30	417,304.44	534,870.30	32.1472467	-104.3542295	6,673.34	0.00	0.00	0.00
12,600.00	88.50	89.43	6,274.61	239.44	6,771.26	417,305.44	534,970.26	32.1472495	-104.3539065	6,773.31	0.00	0.00	0.00
12,700.00	88.50	89.43	6,277.23	240.44	6,871.22	417,306.44	535,070.22	32.1472523	-104.3535835	6,873.28	0.00	0.00	0.00
12,800.00	88.50	89.43	6,279.84	241.44	6,971.19	417,307.44	535,170.19	32.1472552	-104.3532606	6,973.24	0.00	0.00	0.00
12,900.00	88.50	89.43	6,282.45	242.44	7,071.15	417,308.44	535,270.15	32.1472580	-104.3529376	7,073.21	0.00	0.00	0.00
13,000.00	88.50	89.43	6,285.06	243.44	7,171.11	417,309.44	535,370.11	32.1472607	-104.3526146	7,173.17	0.00	0.00	0.00
13,100.00	88.50	89.43	6,287.68	244.44	7,271.07	417,310.44	535,470.07	32.1472635	-104.3522916	7,273.14	0.00	0.00	0.00
13,200.00	88.50	89.43	6,290.29	245.44	7,371.03	417,311.44	535,570.03	32.1472663	-104.3519686	7,373.11	0.00	0.00	0.00
13,300.00	88.50	89.43	6,292.90	246.44	7,470.99	417,312.44	535,669.99	32.1472691	-104.3516456	7,473.07	0.00	0.00	0.00
13,400.00	88.50	89.43	6,295.51	247.44	7,570.95	417,313.44	535,769.95	32.1472719	-104.3513227	7,573.04	0.00	0.00	0.00
13,500.00	88.50	89.43	6,298.12	248.44	7,670.91	417,314.44	535,869.91	32.1472747	-104.3509997	7,673.00	0.00	0.00	0.00
13,600.00	88.50	89.43	6,300.74	249.44	7,770.87	417,315.44	535,969.87	32.1472775	-104.3506767	7,772.97	0.00	0.00	0.00
13,700.00	88.50	89.43	6,303.35	250.44	7,870.83	417,316.44	536,069.83	32.1472803	-104.3503537	7,872.94	0.00	0.00	0.00
13,800.00	88.50	89.43	6,305.96	251.44	7,970.79	417,317.44	536,169.79	32.1472831	-104.3500307	7,972.90	0.00	0.00	0.00
13,900.00	88.50	89.43	6,308.57	252.44	8,070.75	417,318.44	536,269.75	32.1472859	-104.3497077	8,072.87	0.00	0.00	0.00
14,000.00	88.50	89.43	6,311.19	253.44	8,170.72	417,319.44	536,369.72	32.1472887	-104.3493848	8,172.83	0.00	0.00	0.00
14,100.00	88.50	89.43	6,313.80	254.44	8,270.68	417,320.44	536,469.68	32.1472915	-104.3490618	8,272.80	0.00	0.00	0.00
14,200.00	88.50	89.43	6,316.41	255.44	8,370.64	417,321.44	536,569.64	32.1472943	-104.3487388	8,372.76	0.00	0.00	0.00
14,300.00	88.50	89.43	6,319.02	256.44	8,470.60	417,322.44	536,669.60	32.1472971	-104.3484158	8,472.73	0.00	0.00	0.00
14,400.00	88.50	89.43	6,321.64	257.44	8,570.56	417,323.44	536,769.56	32.1472999	-104.3480928	8,572.70	0.00	0.00	0.00
14,500.00	88.50	89.43	6,324.25	258.44	8,670.52	417,324.44	536,869.52	32.1473026	-104.3477698	8,672.66	0.00	0.00	0.00
14,600.00	88.50	89.43	6,326.86	259.44	8,770.48	417,325.44	536,969.48	32.1473054	-104.3474469	8,772.63	0.00	0.00	0.00
14,700.00	88.50	89.43	6,329.47	260.44	8,870.44	417,326.44	537,069.44	32.1473082	-104.3471239	8,872.59	0.00	0.00	0.00

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,800.00	88.50	89.43	6,332.08	261.44	8,970.40	417,327.44	537,169.40	32.1473110	-104.3468009	8,972.56	0.00	0.00	0.00
14,900.00	88.50	89.43	6,334.70	262.44	9,070.36	417,328.44	537,269.36	32.1473138	-104.3464779	9,072.53	0.00	0.00	0.00
15,000.00	88.50	89.43	6,337.31	263.44	9,170.32	417,329.44	537,369.32	32.1473166	-104.3461549	9,172.49	0.00	0.00	0.00
15,100.00	88.50	89.43	6,339.92	264.44	9,270.29	417,330.44	537,469.29	32.1473193	-104.3458319	9,272.46	0.00	0.00	0.00
15,200.00	88.50	89.43	6,342.53	265.44	9,370.25	417,331.44	537,569.25	32.1473221	-104.3455089	9,372.42	0.00	0.00	0.00
15,300.00	88.50	89.43	6,345.15	266.44	9,470.21	417,332.44	537,669.21	32.1473249	-104.3451860	9,472.39	0.00	0.00	0.00
15,400.00	88.50	89.43	6,347.76	267.44	9,570.17	417,333.44	537,769.17	32.1473277	-104.3448630	9,572.36	0.00	0.00	0.00
15,500.00	88.50	89.43	6,350.37	268.44	9,670.13	417,334.44	537,869.13	32.1473305	-104.3445400	9,672.32	0.00	0.00	0.00
15,600.00	88.50	89.43	6,352.98	269.44	9,770.09	417,335.44	537,969.09	32.1473332	-104.3442170	9,772.29	0.00	0.00	0.00
15,700.00	88.50	89.43	6,355.59	270.44	9,870.05	417,336.44	538,069.05	32.1473360	-104.3438940	9,872.25	0.00	0.00	0.00
15,800.00	88.50	89.43	6,358.21	271.44	9,970.01	417,337.44	538,169.01	32.1473388	-104.3435710	9,972.22	0.00	0.00	0.00
15,900.00	88.50	89.43	6,360.82	272.45	10,069.97	417,338.45	538,268.97	32.1473416	-104.3432481	10,072.18	0.00	0.00	0.00
16,000.00	88.50	89.43	6,363.43	273.45	10,169.93	417,339.45	538,368.93	32.1473443	-104.3429251	10,172.15	0.00	0.00	0.00
16,100.00	88.50	89.43	6,366.04	274.45	10,269.89	417,340.45	538,468.89	32.1473471	-104.3426021	10,272.12	0.00	0.00	0.00
16,200.00	88.50	89.43	6,368.66	275.45	10,369.85	417,341.45	538,568.85	32.1473499	-104.3422791	10,372.08	0.00	0.00	0.00
16,300.00	88.50	89.43	6,371.27	276.45	10,469.82	417,342.45	538,668.82	32.1473527	-104.3419561	10,472.05	0.00	0.00	0.00
16,400.00	88.50	89.43	6,373.88	277.45	10,569.78	417,343.45	538,768.78	32.1473554	-104.3416331	10,572.01	0.00	0.00	0.00
16,500.00	88.50	89.43	6,376.49	278.45	10,669.74	417,344.45	538,868.74	32.1473582	-104.3413102	10,671.98	0.00	0.00	0.00
16,560.29	88.50	89.43	6,378.07	279.05	10,730.00	417,345.05	538,929.00	32.1473599	-104.3411154	10,732.24	0.00	0.00	0.00
LTP - High Life Fed Com #142H													
16,600.00	88.50	89.43	6,379.10	279.45	10,769.70	417,345.45	538,968.70	32.1473610	-104.3409872	10,771.95	0.00	0.00	0.00
16,655.32	88.50	89.43	6,380.55	280.00	10,825.00	417,346.00	539,024.00	32.1473625	-104.3408085	10,827.25	0.00	0.00	0.00
PBHL - PBHL - High Life Fed Com #142H													

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP - High Life Fed Con	0.00	360.00	6,104.09	174.00	269.00	417,240.00	528,468.00	32.1470645	-104.3749159
- plan misses target center by 84.55usft at 6124.63usft MD (6033.87 TVD, 159.11 N, 313.69 E)									
- Point									
LTP - High Life Fed Con	0.00	0.01	6,378.03	279.00	10,730.00	417,345.00	538,929.00	32.1473597	-104.3411154
- plan misses target center by 0.06usft at 16560.28usft MD (6378.07 TVD, 279.05 N, 10730.00 E)									
- Point									
PBHL - High Life Fed Cc	91.50	89.43	6,380.55	280.00	10,825.00	417,346.00	539,024.00	32.1473625	-104.3408085
- plan hits target center									
- Rectangle (sides W100.00 H20.00 D10,554.00)									

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
37.00	37.00	Rustler			
337.00	337.00	Top Salt			
1,236.01	1,236.00	Base Salt			
1,462.24	1,462.00	Delaware			
1,463.24	1,463.00	Lamar			
1,492.31	1,492.00	Bell			
1,570.48	1,570.00	Ramsey			
2,397.32	2,395.00	Cherry			
3,324.38	3,320.00	Brushy			
5,015.08	5,010.00	Bone Spring			
5,070.08	5,065.00	Avalon			
5,375.08	5,370.00	Avalon Middle			
5,884.43	5,865.00	1st Bone Spring			
6,202.45	6,070.00	2nd Bone Spring FS			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1100	1100	0	0	Begin Nudge
1482	1482	12	5	EOB / Hold
3508	3503	133	64	Begin Drop
3890	3885	145	69	EOD / Hold
5597	5592	145	69	KOP; 11° DLS
6402	6113	174	575	LP / Begin Turn
6538	6116	179	712	EOT / Hold
16,655	6381	280	10,825	PBHL

Checked By: _____ Approved By: _____ Date: _____

Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826' FNL & 170' FEL, Sec. 10
BHL 1,651' FNL & 5' FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

Elevation above Sea Level: 3511'

DRILLING PROGRAM

1. Estimated Tops

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0	Surface	None
Rustler	37	37	Anhydrite	None
Top Salt	337	337	Salt	Salt
Base Salt	1,236	1,236	Salt	Salt
DMG	1,462	1,462	Sandstone	None
Lamar	1,463	1,463	Sandstone	Hydrocarbons
Bell Canyon	1,492	1,492	Sandstone	Hydrocarbons
Ramsey Sand	1,570	1,570	Sandstone	Hydrocarbons
Cherry Canyon	2,395	2,397	Limestone	Hydrocarbons
Brushy Canyon	3,320	3,324	Sandstone	Hydrocarbons
Bone Spring Lime	5,010	5,015	Carbonate	Hydrocarbons
Upper Avalon	5,065	5,070	Carbonate	Hydrocarbons
Middle Avalon	5,370	5,375	Carbonate	Hydrocarbons
1st BS Sand	5,865	5,884	Sandstone	Hydrocarbons
2nd BS Carb	6,070	6,202	Carbonate	Hydrocarbons
KOP	5,592	5,597	Carbonate	Hydrocarbons
TD	6,381	16,655	Carbonate	Hydrocarbons

2. Notable Zones

2nd BS Carb is the formation target.

3. Pressure Control

Pressure Control Equipment (See Schematics):
At 16,655' , a 5M pressure control system is required. The BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as 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.

Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826' FNL & 170' FEL, Sec. 10
BHL 1,651' FNL & 5' FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

BOP Test procedure will be as follows:
After surface casing is set and the BOP is nippled 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 250 psi low, 2500 psi high.

Variance Requests:
Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate and Production Strings. Tap Rock requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Tap Rock requests a variance to have the option of batch drilling this well with other wells on the same pad. If this well is batch drilled, after cementing a casing string, a 5M dry hole cap with bleed off valve will be installed. The rig will then walk to another well on the pad. Tap Rock Operating requests to only test BOP connection breaks after rig walks per the procedures and stipulations set forth in the "BOP Shell Test Procedure" document emailed to the BLM on 8/11/22.

4. Casing & Cement

All Casing will be new.
Casing Design:

Section	Drilled Interval			Casing Size	Standard	Tapered	Casing Set Depths				Casing Details					
	Hole Size	Top	Btm				Top MD	Bottom MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	17 1/2	0	250	13 3/8	API	No	0	250	0	250	J-55	54.5	BUTT	1.13	1.15	1.6
Intermediate	12 1/4	250	1,513	9 5/8	API	No	0	1,513	0	1,513	J-55	40	BUTT	1.13	1.15	1.6
Production	8 3/4	1,513	5,597	5 1/2	NON API	No	0	5,597	0	5,592	P-110	20	TXP	1.13	1.15	1.6
	7 7/8	5,597	16,655	5 1/2	NON API	No	5,597	16,655	5,592	6,381	P-110	20	TXP	1.13	1.15	1.6

Cement Volumes:

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Tail	0	261	1.33	347	14.8	100%	C	5% NCl + LCM
Intermediate	Lead	0	189	2.7	509	11.0	75%	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	1013	153	1.33	204	14.8	30%	C	5% NaCl + LCM
Production	Lead	1313	385	3.35	1290	10.5	20%	C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	5597	1934	1.63	3153	13.2	20%	H	Fluid Loss + Dispersant + Retarder + LCM

5. Mud Program

Mud Design:

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	250	FW Spud Mud	8.40	27-30	NC
Intermediate	250	1,513	Brine Water	10.00	27-30	NC
Production	1,513	16,655	FW/Cut Brine	9.00	27-30	NC

Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826' FNL & 170' FEL, Sec. 10
BHL 1,651' FNL & 5' FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

Electronic Pason mud monitor system complying with Onshore Order 1 will be used. All necessary mud products (i.e., barite, pac) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions. A closed loop system will be used.

6. Cores, Tests, & Logs

- Electric Logging Program: No open-hole logs are planned at this time.
- GR will be collected while drilling through the MWD tools from KOP to TD.
- A 2-person mud logging program will be used from KOP to TD.
- No DSTs or cores are planned at this time.
- CBL w/ CCL from as far as gravity will let it fall to TOC.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈ 2,986 psi. Expected bottom hole temperature is ≈135˚ F.

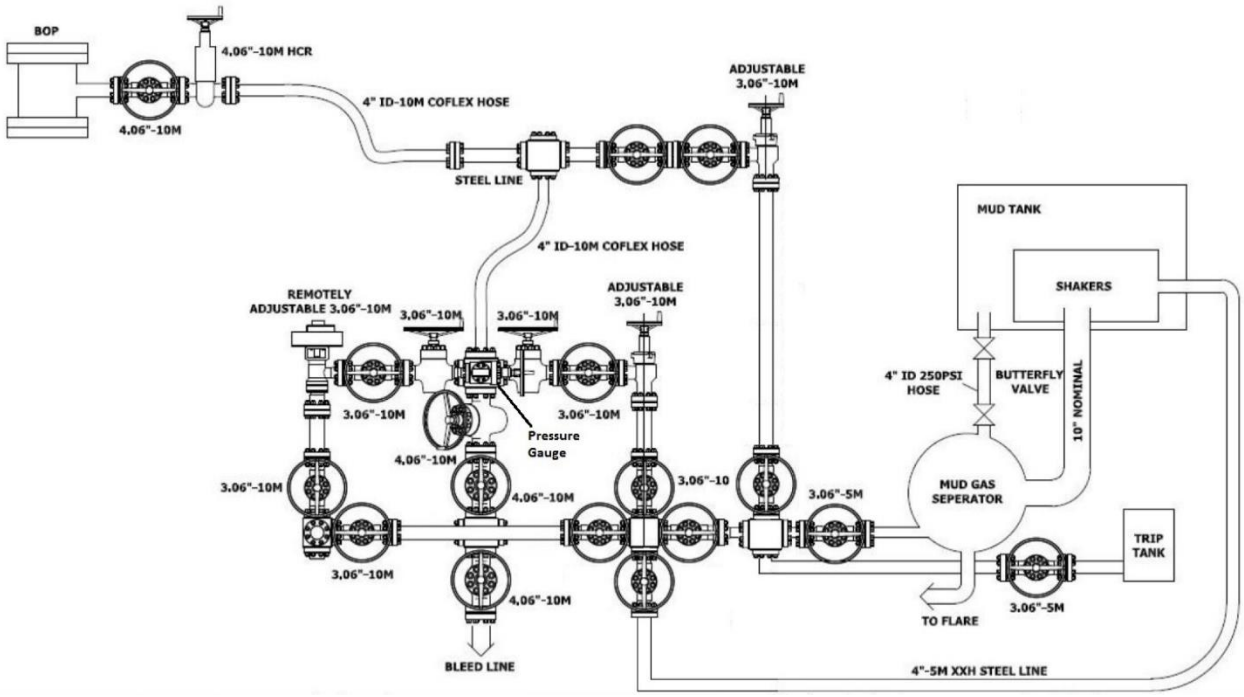
Tap Rock does not anticipate that there will be enough H2S from the surface to the 2nd BS Carb formations to meet the BLM's Onshore Order 6 requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Tap Rock has an H2S safety package on all wells and an "H2S Drilling Operations Plan" is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be safely flared. All personnel will be familiar with all aspects of safe operation of equipment being used.

8. Other Information

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

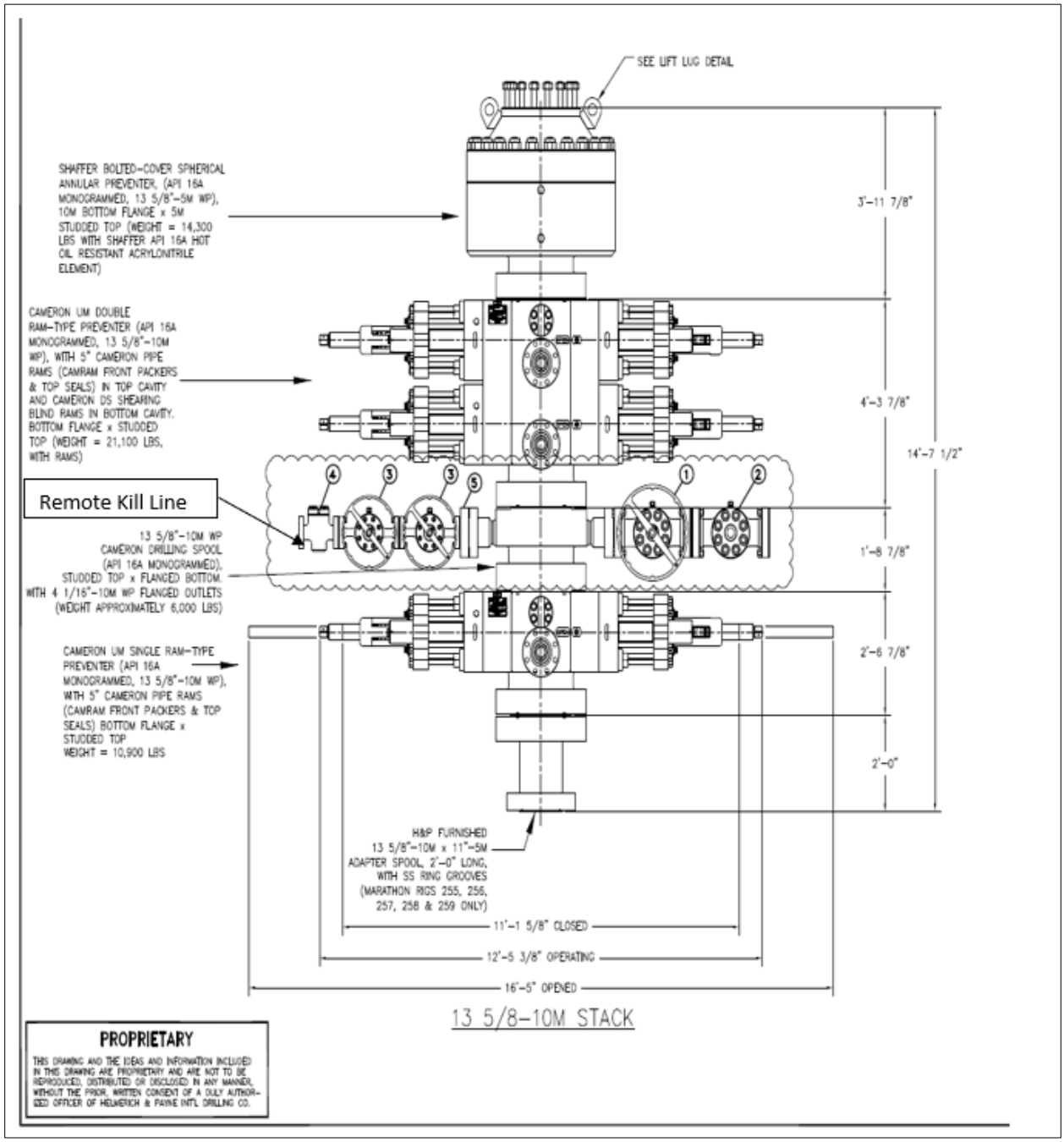
Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826' FNL & 170' FEL, Sec. 10
BHL 1,651' FNL & 5' FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

10M Choke Layout



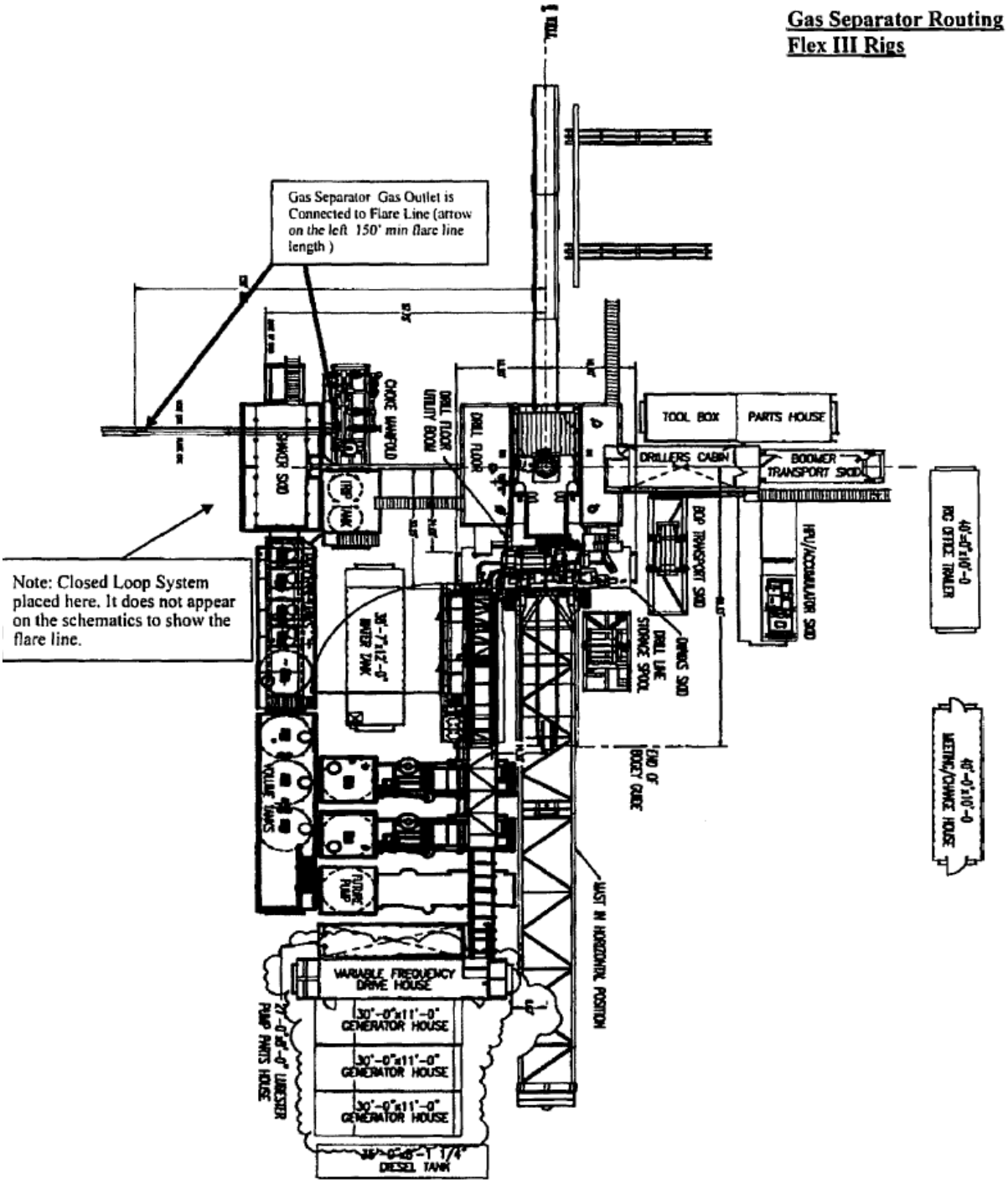
Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826' FNL & 170' FEL, Sec. 10
BHL 1,651' FNL & 5' FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

10,000 psi BOP Stack



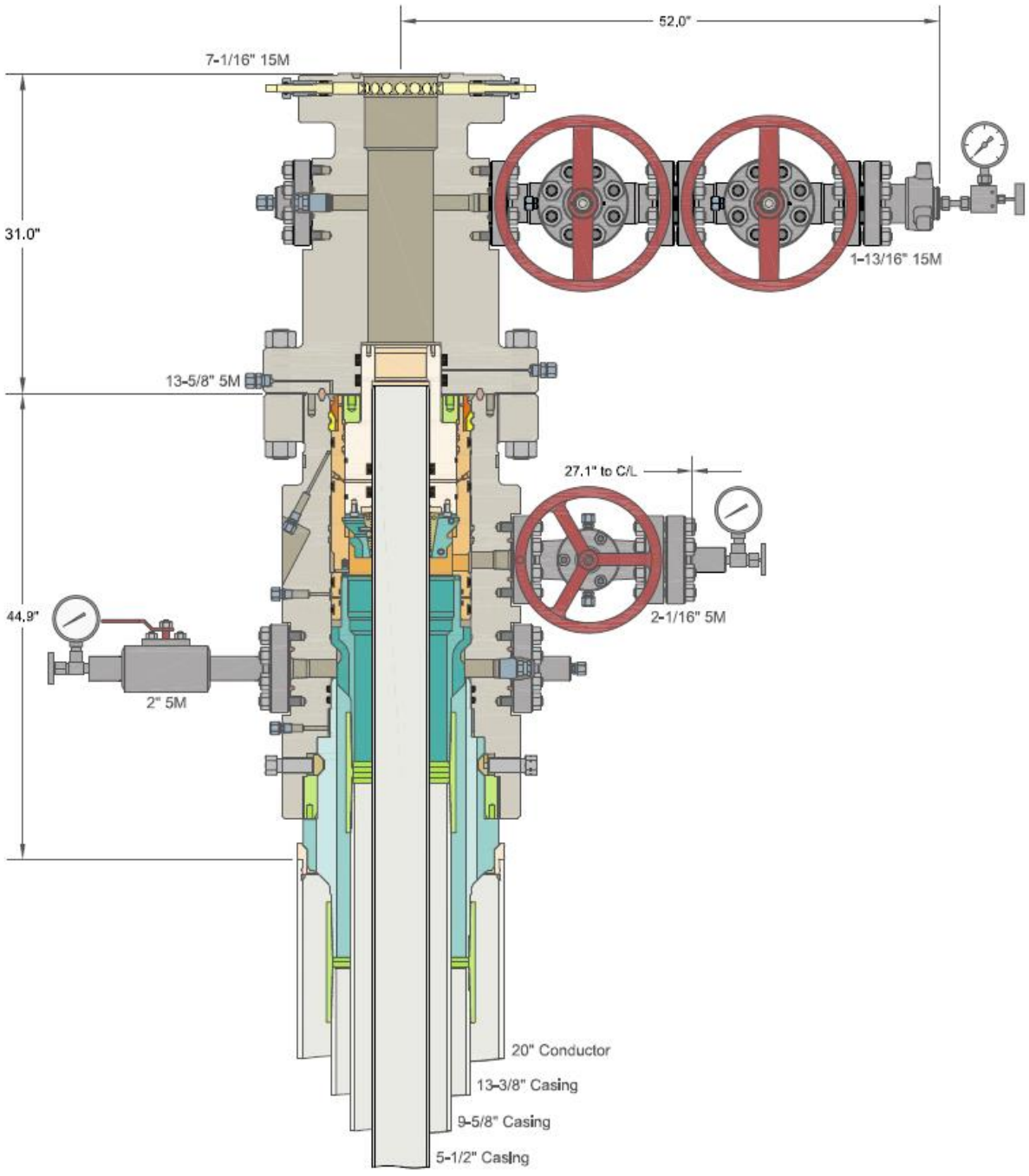
Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826' FNL & 170' FEL, Sec. 10
BHL 1,651' FNL & 5' FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

Gas Separator Routing
Flex III Rigs



Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826’ FNL & 170’ FEL, Sec. 10
BHL 1,651’ FNL & 5’ FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

Multi-bowl Wellhead Design



Tap Rock Resources, LLC

Eddy County, NM (NAD 83 NME)
Sec-10-25S-25E(High Life N)
High Life Fed Com #142H

Wellbore #1
Plan 1

Total Directional
"Driven by TOTAL performance"

Anticollision Report

Minimum Magnetic Interference Warning level is 50' center to center

10 May, 2023

Total Report Version 1.20

COMPASS 5000.16 Build 97

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Reference	Plan 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,919.03usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 5/10/2023

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	16,655.32	Plan 1 (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
High Life Unit Offsets						
SHEARNWEST FEDERAL #001 - 30-015-23457 - Wellbo						Out of range
WILD HOG 11 FEDERAL #001 - 30-015-31943 - Wellbore						Out of range
Sec-10-25S-25E(High Life N)						
High Life Fed Com #121H - Wellbore #1 - Plan 1	1,100.00	1,100.00	25.00	17.24	3.220	CC
High Life Fed Com #121H - Wellbore #1 - Plan 1	1,400.00	1,398.67	25.87	15.99	2.618	ES
High Life Fed Com #121H - Wellbore #1 - Plan 1	16,655.32	17,171.84	1,069.55	610.49	2.330	SF
High Life Fed Com #122H - Wellbore #1 - Plan 1	1,226.43	1,226.80	23.75	15.14	2.758	CC, ES
High Life Fed Com #122H - Wellbore #1 - Plan 1	16,655.32	17,037.39	515.08	173.04	1.506	SF
High Life Fed Com #141H - Wellbore #1 - Plan 1	1,000.00	1,000.00	35.36	28.30	5.012	CC
High Life Fed Com #141H - Wellbore #1 - Plan 1	1,100.00	1,099.59	35.93	28.17	4.629	ES
High Life Fed Com #141H - Wellbore #1 - Plan 1	16,655.32	16,875.31	1,260.02	766.84	2.555	SF
High Life Fed Com #151H - Wellbore #1 - Plan 1	1,000.00	1,000.00	107.71	100.65	15.268	CC
High Life Fed Com #151H - Wellbore #1 - Plan 1	1,200.00	1,199.59	108.26	99.79	12.778	ES
High Life Fed Com #151H - Wellbore #1 - Plan 1	16,655.32	17,975.47	1,731.26	1,356.77	4.623	SF
High Life Fed Com #152H - Wellbore #1 - Plan 1	2,897.27	2,905.93	60.10	39.21	2.877	CC
High Life Fed Com #152H - Wellbore #1 - Plan 1	5,700.00	5,714.62	79.07	38.21	1.935	ES, SF
High Life Fed Com #202H - Wellbore #1 - Plan 1	3,128.37	3,141.03	118.53	95.74	5.202	CC
High Life Fed Com #202H - Wellbore #1 - Plan 1	3,200.00	3,212.22	118.79	95.47	5.093	ES
High Life Fed Com #202H - Wellbore #1 - Plan 1	5,800.00	5,820.34	176.08	134.22	4.206	SF
High Life Fed Com #211H - Wellbore #1 - Plan 1	1,123.73	1,124.97	186.48	178.55	23.496	CC
High Life Fed Com #211H - Wellbore #1 - Plan 1	1,300.00	1,301.49	187.18	177.99	20.371	ES
High Life Fed Com #211H - Wellbore #1 - Plan 1	2,900.00	2,890.28	260.16	239.21	12.418	SF
High Life Fed Com #231H - Wellbore #1 - Plan 1	1,100.76	1,101.77	211.26	203.48	27.176	CC
High Life Fed Com #231H - Wellbore #1 - Plan 1	1,300.00	1,302.05	211.90	202.71	23.056	ES
High Life Fed Com #231H - Wellbore #1 - Plan 1	3,800.00	3,795.86	290.76	263.11	10.517	SF
High Life Fed Com #232H - Wellbore #1 - Plan 1	2,815.21	2,834.40	164.31	144.16	8.154	CC
High Life Fed Com #232H - Wellbore #1 - Plan 1	2,900.00	2,917.92	164.97	144.16	7.929	ES
High Life Fed Com #232H - Wellbore #1 - Plan 1	5,700.00	5,714.58	217.70	176.90	5.336	SF
Sec-11-25S-25E(High Life S)						
High Life Fed Com #123H - Wellbore #1 - Plan 1	5,884.90	5,876.94	1,626.16	1,583.84	38.426	CC
High Life Fed Com #123H - Wellbore #1 - Plan 1	16,655.32	16,868.51	1,730.53	1,253.11	3.625	ES, SF
High Life Fed Com #143H - Wellbore #1 - Plan 1	7,016.74	6,888.24	1,360.64	1,298.60	21.933	CC
High Life Fed Com #143H - Wellbore #1 - Plan 1	16,655.32	16,509.80	1,398.05	911.42	2.873	ES, SF

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #121H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
0.00	0.00	0.00	0.00	0.50	0.50	0.00	25.00	0.00	25.00				
100.00	100.00	100.00	100.00	0.57	0.57	0.00	25.00	0.00	25.00	23.87	1.13	22.084	
200.00	200.00	200.00	200.00	0.80	0.80	0.00	25.00	0.00	25.00	23.40	1.60	15.637	
300.00	300.00	300.00	300.00	1.10	1.10	0.00	25.00	0.00	25.00	22.80	2.20	11.341	
400.00	400.00	400.00	400.00	1.43	1.43	0.00	25.00	0.00	25.00	22.14	2.86	8.736	
500.00	500.00	500.00	500.00	1.77	1.77	0.00	25.00	0.00	25.00	21.46	3.54	7.057	
600.00	600.00	600.00	600.00	2.12	2.12	0.00	25.00	0.00	25.00	20.76	4.24	5.903	
700.00	700.00	700.00	700.00	2.47	2.47	0.00	25.00	0.00	25.00	20.07	4.93	5.066	
800.00	800.00	800.00	800.00	2.82	2.82	0.00	25.00	0.00	25.00	19.36	5.64	4.434	
900.00	900.00	900.00	900.00	3.17	3.17	0.00	25.00	0.00	25.00	18.65	6.35	3.940	
1,000.00	1,000.00	1,000.00	1,000.00	3.53	3.53	0.00	25.00	0.00	25.00	17.95	7.05	3.544	
1,100.00	1,100.00	1,100.00	1,100.00	3.88	3.88	0.00	25.00	0.00	25.00	17.24	7.76	3.220	CC
1,200.00	1,199.99	1,199.57	1,199.56	4.24	4.24	-26.18	25.86	0.05	25.08	16.61	8.47	2.960	
1,300.00	1,299.96	1,299.12	1,299.08	4.59	4.59	-28.33	28.45	0.22	25.35	16.17	9.18	2.762	
1,400.00	1,399.86	1,398.67	1,398.54	4.95	4.95	-31.81	32.77	0.49	25.87	15.99	9.88	2.618	ES
1,500.00	1,499.68	1,498.20	1,497.88	5.30	5.30	-36.39	38.80	0.87	26.78	16.19	10.59	2.529	
1,600.00	1,599.45	1,597.69	1,597.07	5.66	5.66	-40.30	46.56	1.36	29.04	17.75	11.29	2.572	
1,700.00	1,699.23	1,697.10	1,696.02	6.02	6.01	-42.52	56.02	1.96	33.04	21.04	11.99	2.755	
1,800.00	1,799.01	1,796.36	1,794.65	6.38	6.37	-43.28	67.18	2.66	38.68	25.98	12.69	3.047	
1,900.00	1,898.79	1,895.42	1,892.86	6.74	6.74	-43.04	80.01	3.47	45.93	32.54	13.39	3.430	
2,000.00	1,998.56	1,994.21	1,990.59	7.10	7.11	-42.22	94.50	4.39	54.79	40.70	14.09	3.890	
2,100.00	2,098.34	2,092.68	2,087.73	7.46	7.48	-41.12	110.61	5.41	65.27	50.49	14.78	4.417	
2,200.00	2,198.12	2,190.78	2,184.20	7.82	7.86	-39.92	128.31	6.52	77.38	61.92	15.46	5.005	
2,300.00	2,297.90	2,288.45	2,279.94	8.19	8.24	-38.73	147.57	7.74	91.14	75.00	16.14	5.647	
2,400.00	2,397.67	2,386.31	2,375.56	8.55	8.63	-37.62	168.37	9.05	106.43	89.59	16.83	6.322	
2,500.00	2,497.45	2,485.07	2,471.99	8.91	9.03	-36.74	189.66	10.40	122.04	104.48	17.56	6.951	
2,600.00	2,597.23	2,583.83	2,568.41	9.28	9.44	-36.06	210.95	11.74	137.67	119.39	18.28	7.531	
2,700.00	2,697.01	2,682.59	2,664.84	9.64	9.85	-35.52	232.24	13.09	153.31	134.31	19.01	8.066	
2,800.00	2,796.78	2,781.35	2,761.27	10.01	10.26	-35.08	253.53	14.43	168.97	149.24	19.73	8.562	
2,900.00	2,896.56	2,880.10	2,857.70	10.37	10.68	-34.71	274.82	15.78	184.64	164.17	20.46	9.023	
3,000.00	2,996.34	2,978.86	2,954.13	10.74	11.10	-34.40	296.11	17.12	200.31	179.11	21.19	9.451	
3,100.00	3,096.11	3,077.62	3,050.55	11.10	11.52	-34.14	317.40	18.47	215.98	194.06	21.93	9.851	
3,200.00	3,195.89	3,176.38	3,146.98	11.47	11.94	-33.91	338.69	19.81	231.66	209.00	22.66	10.224	
3,300.00	3,295.67	3,275.14	3,243.41	11.83	12.37	-33.71	359.98	21.16	247.35	223.95	23.39	10.574	
3,400.00	3,395.45	3,373.90	3,339.84	12.20	12.80	-33.53	381.27	22.50	263.03	238.91	24.13	10.902	
3,500.00	3,495.22	3,472.66	3,436.26	12.56	13.23	-33.38	402.56	23.85	278.72	253.86	24.86	11.211	
3,600.00	3,595.05	3,571.31	3,532.59	12.93	13.66	-33.24	423.83	25.19	295.02	269.43	25.60	11.526	
3,700.00	3,694.96	3,669.71	3,628.66	13.29	14.09	-32.97	445.04	26.53	312.77	286.44	26.33	11.880	
3,800.00	3,794.93	3,767.81	3,724.44	13.65	14.52	-32.58	466.19	27.86	331.97	304.92	27.05	12.271	
3,900.00	3,894.92	3,865.58	3,819.91	14.00	14.95	-6.63	487.26	29.20	352.64	324.87	27.78	12.696	
4,000.00	3,994.92	3,963.22	3,915.25	14.36	15.38	-6.05	508.31	30.52	373.93	345.44	28.49	13.123	
4,100.00	4,094.92	4,060.86	4,010.58	14.71	15.81	-5.52	529.36	31.85	395.26	366.04	29.21	13.530	
4,200.00	4,194.92	4,158.50	4,105.91	15.06	16.24	-5.05	550.41	33.18	416.61	386.67	29.93	13.917	
4,300.00	4,294.92	4,256.14	4,201.25	15.42	16.67	-4.62	571.46	34.51	437.98	407.33	30.66	14.287	
4,400.00	4,394.92	4,353.78	4,296.58	15.77	17.10	-4.24	592.51	35.84	459.38	428.00	31.38	14.640	
4,500.00	4,494.92	4,451.42	4,391.92	16.12	17.54	-3.89	613.55	37.17	480.80	448.70	32.10	14.977	
4,600.00	4,594.92	4,549.06	4,487.25	16.48	17.97	-3.56	634.60	38.50	502.23	469.40	32.82	15.300	
4,700.00	4,694.92	4,646.70	4,582.59	16.83	18.41	-3.27	655.65	39.83	523.68	490.13	33.55	15.609	
4,800.00	4,794.92	4,744.34	4,677.92	17.19	18.84	-3.00	676.70	41.16	545.13	510.86	34.27	15.906	
4,900.00	4,894.92	4,841.98	4,773.25	17.54	19.28	-2.75	697.75	42.49	566.60	531.60	35.00	16.190	
5,000.00	4,994.92	4,939.61	4,868.59	17.90	19.71	-2.51	718.80	43.82	588.08	552.36	35.72	16.462	
5,100.00	5,094.92	5,037.25	4,963.92	18.25	20.15	-2.30	739.85	45.15	609.57	573.12	36.45	16.724	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #121H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
5,200.00	5,194.92	5,134.89	5,059.26	18.61	20.59	-2.09	760.89	46.48	631.06	593.89	37.17	16.976	
5,300.00	5,294.92	5,232.53	5,154.59	18.96	21.03	-1.91	781.94	47.81	652.56	614.66	37.90	17.218	
5,400.00	5,394.92	5,330.17	5,249.93	19.32	21.46	-1.73	802.99	49.14	674.07	635.44	38.63	17.451	
5,500.00	5,494.92	5,427.81	5,345.26	19.68	21.90	-1.56	824.04	50.47	695.58	656.23	39.35	17.675	
5,600.00	5,594.92	5,525.45	5,440.59	20.03	22.34	-88.04	845.09	51.80	717.10	677.02	40.08	17.891	
5,700.00	5,694.26	5,622.70	5,535.55	20.38	22.78	-86.32	866.05	53.12	738.20	697.39	40.81	18.090	
5,800.00	5,789.83	5,716.77	5,627.40	20.74	23.20	-86.02	886.33	54.40	758.62	717.07	41.55	18.258	
5,900.00	5,878.13	5,804.20	5,712.76	21.12	23.60	-86.63	905.18	55.59	779.44	737.13	42.31	18.421	
6,000.00	5,955.92	5,881.78	5,788.51	21.53	23.94	-87.49	921.90	56.65	802.58	759.46	43.12	18.614	
6,100.00	6,020.34	5,946.66	5,851.86	22.03	24.24	-87.81	935.89	57.53	830.14	786.15	43.99	18.873	
6,200.00	6,069.02	5,996.46	5,900.48	22.66	24.46	-86.90	946.63	58.21	863.84	818.92	44.92	19.230	
6,300.00	6,100.17	6,029.34	5,932.59	23.44	24.61	-84.19	953.71	58.66	904.45	858.57	45.88	19.712	
6,400.00	6,112.65	6,044.10	5,947.00	24.36	24.68	-79.40	956.90	58.86	951.49	904.70	46.79	20.334	
6,500.00	6,115.27	6,048.89	5,951.68	25.44	24.70	-79.44	957.93	58.92	1,006.32	958.69	47.62	21.130	
6,600.00	6,117.88	7,037.42	6,520.18	26.66	29.96	-112.41	1,159.26	674.40	1,063.84	1,014.18	49.67	21.420	
6,700.00	6,120.49	7,189.81	6,524.18	28.02	31.52	-112.25	1,168.94	826.41	1,068.80	1,016.52	52.29	20.441	
6,800.00	6,123.10	7,316.52	6,527.49	29.49	33.03	-112.23	1,171.24	953.05	1,069.44	1,014.39	55.05	19.427	
6,900.00	6,125.72	7,416.52	6,530.11	31.06	34.35	-112.23	1,172.24	1,053.01	1,069.44	1,011.56	57.88	18.476	
7,000.00	6,128.33	7,516.52	6,532.72	32.72	35.79	-112.23	1,173.24	1,152.97	1,069.44	1,008.55	60.88	17.565	
7,100.00	6,130.94	7,616.52	6,535.34	34.45	37.32	-112.23	1,174.25	1,252.93	1,069.44	1,005.41	64.03	16.702	
7,200.00	6,133.55	7,716.52	6,537.95	36.25	38.93	-112.23	1,175.25	1,352.89	1,069.44	1,002.14	67.31	15.889	
7,300.00	6,136.16	7,816.52	6,540.57	38.09	40.60	-112.23	1,176.25	1,452.85	1,069.44	998.76	70.69	15.129	
7,400.00	6,138.78	7,916.52	6,543.18	39.99	42.34	-112.23	1,177.25	1,552.81	1,069.44	995.28	74.16	14.421	
7,500.00	6,141.39	8,016.52	6,545.80	41.92	44.14	-112.23	1,178.25	1,652.77	1,069.44	991.73	77.72	13.761	
7,600.00	6,144.00	8,116.52	6,548.41	43.89	45.98	-112.23	1,179.25	1,752.73	1,069.45	988.11	81.34	13.148	
7,700.00	6,146.61	8,216.52	6,551.03	45.88	47.86	-112.23	1,180.25	1,852.70	1,069.45	984.42	85.03	12.578	
7,800.00	6,149.23	8,316.52	6,553.64	47.91	49.77	-112.23	1,181.25	1,952.66	1,069.45	980.68	88.76	12.048	
7,900.00	6,151.84	8,416.52	6,556.26	49.96	51.72	-112.23	1,182.25	2,052.62	1,069.45	976.90	92.55	11.555	
8,000.00	6,154.45	8,516.52	6,558.88	52.02	53.70	-112.23	1,183.25	2,152.58	1,069.45	973.07	96.38	11.096	
8,100.00	6,157.06	8,616.52	6,561.49	54.11	55.70	-112.23	1,184.25	2,252.54	1,069.45	969.21	100.24	10.669	
8,200.00	6,159.68	8,716.52	6,564.11	56.21	57.72	-112.23	1,185.25	2,352.50	1,069.45	965.31	104.14	10.269	
8,300.00	6,162.29	8,816.52	6,566.72	58.33	59.76	-112.23	1,186.25	2,452.46	1,069.45	961.39	108.07	9.896	
8,400.00	6,164.90	8,916.52	6,569.34	60.45	61.82	-112.23	1,187.25	2,552.42	1,069.46	957.44	112.02	9.547	
8,500.00	6,167.51	9,016.52	6,571.95	62.60	63.90	-112.23	1,188.25	2,652.38	1,069.46	953.46	115.99	9.220	
8,600.00	6,170.12	9,116.52	6,574.57	64.75	65.99	-112.23	1,189.25	2,752.34	1,069.46	949.47	119.99	8.913	
8,700.00	6,172.74	9,216.52	6,577.18	66.91	68.09	-112.23	1,190.25	2,852.30	1,069.46	945.45	124.00	8.624	
8,800.00	6,175.35	9,316.52	6,579.80	69.08	70.21	-112.23	1,191.25	2,952.26	1,069.46	941.42	128.04	8.353	
8,900.00	6,177.96	9,416.52	6,582.41	71.25	72.34	-112.23	1,192.25	3,052.22	1,069.46	937.38	132.08	8.097	
9,000.00	6,180.57	9,516.52	6,585.03	73.43	74.47	-112.23	1,193.25	3,152.19	1,069.46	933.31	136.15	7.855	
9,100.00	6,183.19	9,616.52	6,587.64	75.62	76.62	-112.23	1,194.25	3,252.15	1,069.46	929.24	140.22	7.627	
9,200.00	6,185.80	9,716.52	6,590.26	77.82	78.78	-112.23	1,195.25	3,352.11	1,069.46	925.15	144.31	7.411	
9,300.00	6,188.41	9,816.52	6,592.87	80.02	80.94	-112.23	1,196.25	3,452.07	1,069.47	921.06	148.41	7.206	
9,400.00	6,191.02	9,916.52	6,595.49	82.23	83.11	-112.23	1,197.25	3,552.03	1,069.47	916.95	152.52	7.012	
9,500.00	6,193.63	10,016.52	6,598.10	84.44	85.28	-112.23	1,198.25	3,651.99	1,069.47	912.83	156.63	6.828	
9,600.00	6,196.25	10,116.52	6,600.72	86.65	87.46	-112.23	1,199.25	3,751.95	1,069.47	908.71	160.76	6.653	
9,700.00	6,198.86	10,216.52	6,603.33	88.87	89.65	-112.23	1,200.25	3,851.91	1,069.47	904.58	164.89	6.486	
9,800.00	6,201.47	10,316.52	6,605.95	91.09	91.84	-112.23	1,201.25	3,951.87	1,069.47	900.44	169.04	6.327	
9,900.00	6,204.08	10,416.52	6,608.56	93.32	94.04	-112.23	1,202.25	4,051.83	1,069.47	896.29	173.18	6.175	
10,000.00	6,206.70	10,516.52	6,611.18	95.55	96.24	-112.23	1,203.25	4,151.79	1,069.47	892.14	177.34	6.031	
10,100.00	6,209.31	10,616.52	6,613.80	97.78	98.45	-112.23	1,204.25	4,251.75	1,069.48	887.98	181.50	5.893	
10,200.00	6,211.92	10,716.52	6,616.41	100.02	100.66	-112.23	1,205.25	4,351.72	1,069.48	883.81	185.66	5.760	
10,300.00	6,214.53	10,816.52	6,619.03	102.25	102.87	-112.23	1,206.25	4,451.68	1,069.48	879.64	189.83	5.634	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #121H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
10,400.00	6,217.14	10,916.52	6,621.64	104.49	105.09	-112.23	1,207.25	4,551.64	1,069.48	875.47	194.01	5.513	
10,500.00	6,219.76	11,016.52	6,624.26	106.73	107.31	-112.23	1,208.25	4,651.60	1,069.48	871.29	198.19	5.396	
10,600.00	6,222.37	11,116.52	6,626.87	108.98	109.53	-112.23	1,209.25	4,751.56	1,069.48	867.11	202.37	5.285	
10,700.00	6,224.98	11,216.52	6,629.49	111.22	111.75	-112.23	1,210.26	4,851.52	1,069.48	862.92	206.56	5.178	
10,800.00	6,227.59	11,316.52	6,632.10	113.47	113.98	-112.23	1,211.26	4,951.48	1,069.48	858.73	210.75	5.075	
10,900.00	6,230.21	11,416.52	6,634.72	115.72	116.21	-112.23	1,212.26	5,051.44	1,069.48	854.53	214.95	4.976	
11,000.00	6,232.82	11,516.52	6,637.33	117.97	118.45	-112.23	1,213.26	5,151.40	1,069.49	850.34	219.15	4.880	
11,100.00	6,235.43	11,616.52	6,639.95	120.22	120.68	-112.23	1,214.26	5,251.36	1,069.49	846.14	223.35	4.788	
11,200.00	6,238.04	11,716.52	6,642.56	122.48	122.92	-112.23	1,215.26	5,351.32	1,069.49	841.93	227.55	4.700	
11,300.00	6,240.66	11,816.52	6,645.18	124.73	125.16	-112.23	1,216.26	5,451.28	1,069.49	837.73	231.76	4.615	
11,400.00	6,243.27	11,916.52	6,647.79	126.99	127.40	-112.23	1,217.26	5,551.24	1,069.49	833.52	235.97	4.532	
11,500.00	6,245.88	12,016.52	6,650.41	129.25	129.64	-112.23	1,218.26	5,651.21	1,069.49	829.31	240.19	4.453	
11,600.00	6,248.49	12,116.52	6,653.02	131.51	131.89	-112.23	1,219.26	5,751.17	1,069.49	825.09	244.40	4.376	
11,700.00	6,251.10	12,216.52	6,655.64	133.77	134.13	-112.23	1,220.26	5,851.13	1,069.49	820.88	248.62	4.302	
11,800.00	6,253.72	12,316.52	6,658.25	136.03	136.38	-112.23	1,221.26	5,951.09	1,069.50	816.66	252.84	4.230	
11,900.00	6,256.33	12,416.52	6,660.87	138.29	138.63	-112.23	1,222.26	6,051.05	1,069.50	812.44	257.06	4.161	
12,000.00	6,258.94	12,516.52	6,663.48	140.56	140.88	-112.23	1,223.26	6,151.01	1,069.50	808.22	261.28	4.093	
12,100.00	6,261.55	12,616.52	6,666.10	142.82	143.13	-112.23	1,224.26	6,250.97	1,069.50	803.99	265.51	4.028	
12,200.00	6,264.17	12,716.52	6,668.72	145.09	145.39	-112.23	1,225.26	6,350.93	1,069.50	799.77	269.73	3.965	
12,300.00	6,266.78	12,816.52	6,671.33	147.35	147.64	-112.23	1,226.26	6,450.89	1,069.50	795.54	273.96	3.904	
12,400.00	6,269.39	12,916.52	6,673.95	149.62	149.90	-112.23	1,227.26	6,550.85	1,069.50	791.31	278.19	3.844	
12,500.00	6,272.00	13,016.52	6,676.56	151.89	152.15	-112.23	1,228.26	6,650.81	1,069.50	787.08	282.42	3.787	
12,600.00	6,274.61	13,116.52	6,679.18	154.15	154.41	-112.23	1,229.26	6,750.77	1,069.50	782.85	286.66	3.731	
12,700.00	6,277.23	13,216.52	6,681.79	156.42	156.67	-112.23	1,230.26	6,850.74	1,069.51	778.61	290.89	3.677	
12,800.00	6,279.84	13,316.52	6,684.41	158.69	158.93	-112.23	1,231.26	6,950.70	1,069.51	774.38	295.13	3.624	
12,900.00	6,282.45	13,416.52	6,687.02	160.96	161.19	-112.24	1,232.26	7,050.66	1,069.51	770.14	299.36	3.573	
13,000.00	6,285.06	13,516.52	6,689.64	163.23	163.45	-112.24	1,233.26	7,150.62	1,069.51	765.91	303.60	3.523	
13,100.00	6,287.68	13,616.52	6,692.25	165.50	165.72	-112.24	1,234.26	7,250.58	1,069.51	761.67	307.84	3.474	
13,200.00	6,290.29	13,716.52	6,694.87	167.78	167.98	-112.24	1,235.26	7,350.54	1,069.51	757.43	312.08	3.427	
13,300.00	6,292.90	13,816.52	6,697.48	170.05	170.24	-112.24	1,236.26	7,450.50	1,069.51	753.19	316.32	3.381	
13,400.00	6,295.51	13,916.52	6,700.10	172.32	172.51	-112.24	1,237.26	7,550.46	1,069.51	748.95	320.57	3.336	
13,500.00	6,298.12	14,016.52	6,702.71	174.60	174.77	-112.24	1,238.26	7,650.42	1,069.51	744.70	324.81	3.293	
13,600.00	6,300.74	14,116.52	6,705.33	176.87	177.04	-112.24	1,239.26	7,750.38	1,069.52	740.46	329.06	3.250	
13,700.00	6,303.35	14,216.52	6,707.94	179.14	179.31	-112.24	1,240.26	7,850.34	1,069.52	736.22	333.30	3.209	
13,800.00	6,305.96	14,316.52	6,710.56	181.42	181.57	-112.24	1,241.26	7,950.30	1,069.52	731.97	337.55	3.169	
13,900.00	6,308.57	14,416.52	6,713.17	183.69	183.84	-112.24	1,242.26	8,050.26	1,069.52	727.73	341.79	3.129	
14,000.00	6,311.19	14,516.52	6,715.79	185.97	186.11	-112.24	1,243.26	8,150.23	1,069.52	723.48	346.04	3.091	
14,100.00	6,313.80	14,616.52	6,718.40	188.25	188.38	-112.24	1,244.26	8,250.19	1,069.52	719.23	350.29	3.053	
14,200.00	6,316.41	14,716.52	6,721.02	190.52	190.65	-112.24	1,245.26	8,350.15	1,069.52	714.98	354.54	3.017	
14,300.00	6,319.02	14,816.52	6,723.64	192.80	192.92	-112.24	1,246.27	8,450.11	1,069.52	710.73	358.79	2.981	
14,400.00	6,321.64	14,916.52	6,726.25	195.08	195.19	-112.24	1,247.27	8,550.07	1,069.53	706.48	363.04	2.946	
14,500.00	6,324.25	15,016.52	6,728.87	197.35	197.46	-112.24	1,248.27	8,650.03	1,069.53	702.23	367.29	2.912	
14,600.00	6,326.86	15,116.52	6,731.48	199.63	199.73	-112.24	1,249.27	8,749.99	1,069.53	697.98	371.55	2.879	
14,700.00	6,329.47	15,216.52	6,734.10	201.91	202.01	-112.24	1,250.27	8,849.95	1,069.53	693.73	375.80	2.846	
14,800.00	6,332.08	15,316.52	6,736.71	204.19	204.28	-112.24	1,251.27	8,949.91	1,069.53	689.48	380.05	2.814	
14,900.00	6,334.70	15,416.52	6,739.33	206.47	206.55	-112.24	1,252.27	9,049.87	1,069.53	685.22	384.31	2.783	
15,000.00	6,337.31	15,516.52	6,741.94	208.75	208.82	-112.24	1,253.27	9,149.83	1,069.53	680.97	388.56	2.753	
15,100.00	6,339.92	15,616.52	6,744.56	211.03	211.10	-112.24	1,254.27	9,249.79	1,069.53	676.72	392.82	2.723	
15,200.00	6,342.53	15,716.52	6,747.17	213.31	213.37	-112.24	1,255.27	9,349.75	1,069.53	672.46	397.07	2.694	
15,300.00	6,345.15	15,816.52	6,749.79	215.59	215.65	-112.24	1,256.27	9,449.72	1,069.54	668.21	401.33	2.665	
15,400.00	6,347.76	15,916.52	6,752.40	217.87	217.92	-112.24	1,257.27	9,549.68	1,069.54	663.95	405.59	2.637	
15,500.00	6,350.37	16,016.52	6,755.02	220.15	220.20	-112.24	1,258.27	9,649.64	1,069.54	659.69	409.84	2.610	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #121H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM **Offset Well Error:** 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
15,600.00	6,352.98	16,116.52	6,757.63	222.43	222.47	-112.24	1,259.27	9,749.60	1,069.54	655.44	414.10	2.583	
15,700.00	6,355.59	16,216.52	6,760.25	224.71	224.75	-112.24	1,260.27	9,849.56	1,069.54	651.18	418.36	2.557	
15,800.00	6,358.21	16,316.52	6,762.86	226.99	227.03	-112.24	1,261.27	9,949.52	1,069.54	646.92	422.62	2.531	
15,900.00	6,360.82	16,416.52	6,765.48	229.27	229.30	-112.24	1,262.27	10,049.48	1,069.54	642.67	426.88	2.506	
16,000.00	6,363.43	16,516.52	6,768.09	231.55	231.58	-112.24	1,263.27	10,149.44	1,069.54	638.41	431.14	2.481	
16,100.00	6,366.04	16,616.52	6,770.71	233.83	233.86	-112.24	1,264.27	10,249.40	1,069.55	634.15	435.40	2.456	
16,200.00	6,368.66	16,716.52	6,773.32	236.12	236.13	-112.24	1,265.27	10,349.36	1,069.55	629.89	439.66	2.433	
16,300.00	6,371.27	16,816.52	6,775.94	238.40	238.41	-112.24	1,266.27	10,449.32	1,069.55	625.63	443.92	2.409	
16,400.00	6,373.88	16,916.52	6,778.56	240.68	240.69	-112.24	1,267.27	10,549.28	1,069.55	621.37	448.18	2.386	
16,500.00	6,376.49	17,016.52	6,781.17	242.96	242.97	-112.24	1,268.27	10,649.25	1,069.55	617.11	452.44	2.364	
16,600.00	6,379.10	17,116.52	6,783.79	245.25	245.25	-112.24	1,269.27	10,749.21	1,069.55	612.85	456.70	2.342	
16,655.32	6,380.55	17,171.84	6,785.23	246.51	246.51	-112.24	1,269.82	10,804.51	1,069.55	610.49	459.06	2.330 SF	

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #122H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
0.00	0.00	0.00	0.00	0.50	0.50	-90.00	0.00	-25.00	25.00				
100.00	100.00	100.00	100.00	0.57	0.57	-90.00	0.00	-25.00	25.00	23.87	1.13	22.084	
200.00	200.00	200.00	200.00	0.80	0.80	-90.00	0.00	-25.00	25.00	23.40	1.60	15.637	
300.00	300.00	300.00	300.00	1.10	1.10	-90.00	0.00	-25.00	25.00	22.80	2.20	11.341	
400.00	400.00	400.00	400.00	1.43	1.43	-90.00	0.00	-25.00	25.00	22.14	2.86	8.736	
500.00	500.00	500.00	500.00	1.77	1.77	-90.00	0.00	-25.00	25.00	21.46	3.54	7.057	
600.00	600.00	600.00	600.00	2.12	2.12	-90.00	0.00	-25.00	25.00	20.76	4.24	5.903	
700.00	700.00	700.00	700.00	2.47	2.47	-90.00	0.00	-25.00	25.00	20.07	4.93	5.066	
800.00	800.00	800.00	800.00	2.82	2.82	-90.00	0.00	-25.00	25.00	19.36	5.64	4.434	
900.00	900.00	900.00	900.00	3.17	3.17	-90.00	0.00	-25.00	25.00	18.65	6.35	3.940	
1,000.00	1,000.00	1,000.00	1,000.00	3.53	3.53	-90.00	0.00	-25.00	25.00	17.95	7.05	3.544	
1,100.00	1,100.00	1,100.22	1,100.22	3.88	3.87	-91.73	-0.74	-24.53	24.54	16.80	7.75	3.168	
1,200.00	1,199.99	1,200.36	1,200.32	4.24	4.20	-124.52	-2.96	-23.13	23.81	15.38	8.43	2.824	
1,226.43	1,226.42	1,226.80	1,226.74	4.33	4.28	-127.75	-3.80	-22.61	23.75	15.14	8.61	2.758	CC, ES
1,300.00	1,299.96	1,300.29	1,300.15	4.59	4.53	-139.17	-6.65	-20.80	24.36	15.25	9.12	2.672	
1,400.00	1,399.86	1,399.85	1,399.53	4.95	4.86	-157.46	-11.80	-17.56	28.20	18.39	9.81	2.874	
1,500.00	1,499.68	1,499.17	1,498.59	5.30	5.20	-172.36	-17.79	-13.78	36.25	25.75	10.51	3.451	
1,600.00	1,599.45	1,598.44	1,597.60	5.66	5.55	178.51	-23.80	-9.99	46.43	35.23	11.20	4.146	
1,700.00	1,699.23	1,697.70	1,696.62	6.02	5.90	172.75	-29.80	-6.21	57.36	45.46	11.90	4.821	
1,800.00	1,799.01	1,796.97	1,795.63	6.38	6.25	168.85	-35.80	-2.42	68.67	56.07	12.60	5.451	
1,900.00	1,898.79	1,896.24	1,894.64	6.74	6.60	166.06	-41.80	1.36	80.21	66.91	13.30	6.031	
2,000.00	1,998.56	1,995.51	1,993.66	7.10	6.95	163.98	-47.81	5.14	91.89	77.88	14.01	6.561	
2,100.00	2,098.34	2,094.77	2,092.67	7.46	7.31	162.36	-53.81	8.93	103.66	88.95	14.71	7.046	
2,200.00	2,198.12	2,194.04	2,191.68	7.82	7.66	161.08	-59.81	12.71	115.50	100.08	15.42	7.490	
2,300.00	2,297.90	2,293.31	2,290.70	8.19	8.02	160.04	-65.81	16.50	127.38	111.25	16.13	7.897	
2,400.00	2,397.67	2,392.57	2,389.71	8.55	8.38	159.17	-71.81	20.28	139.29	122.46	16.84	8.272	
2,500.00	2,497.45	2,491.84	2,488.72	8.91	8.74	158.44	-77.82	24.07	151.24	133.69	17.55	8.617	
2,600.00	2,597.23	2,591.11	2,587.74	9.28	9.10	157.82	-83.82	27.85	163.20	144.94	18.26	8.936	
2,700.00	2,697.01	2,690.38	2,686.75	9.64	9.47	157.28	-89.82	31.64	175.18	156.21	18.98	9.232	
2,800.00	2,796.78	2,789.64	2,785.76	10.01	9.83	156.81	-95.82	35.42	187.18	167.49	19.69	9.506	
2,900.00	2,896.56	2,888.91	2,884.78	10.37	10.19	156.40	-101.83	39.21	199.18	178.78	20.40	9.762	
3,000.00	2,996.34	2,988.18	2,983.79	10.74	10.55	156.04	-107.83	42.99	211.19	190.07	21.12	10.000	
3,100.00	3,096.11	3,087.45	3,082.80	11.10	10.92	155.71	-113.83	46.78	223.22	201.38	21.83	10.223	
3,200.00	3,195.89	3,186.71	3,181.82	11.47	11.28	155.42	-119.83	50.56	235.24	212.69	22.55	10.432	
3,300.00	3,295.67	3,285.98	3,280.83	11.83	11.65	155.15	-125.83	54.35	247.28	224.01	23.27	10.628	
3,400.00	3,395.45	3,385.25	3,379.84	12.20	12.01	154.91	-131.84	58.13	259.31	235.33	23.98	10.812	
3,500.00	3,495.22	3,484.51	3,478.86	12.56	12.38	154.70	-137.84	61.92	271.35	246.65	24.70	10.986	
3,600.00	3,595.05	3,583.86	3,577.94	12.93	12.74	154.48	-143.84	65.70	282.73	257.32	25.42	11.124	
3,700.00	3,694.96	3,687.29	3,681.16	13.29	13.12	154.18	-149.49	69.26	291.97	265.81	26.16	11.160	
3,800.00	3,794.93	3,791.66	3,785.42	13.65	13.50	153.93	-153.60	71.86	298.13	271.22	26.91	11.080	
3,900.00	3,894.92	3,896.27	3,889.99	14.00	13.88	179.16	-156.11	73.44	301.18	273.54	27.64	10.895	
4,000.00	3,994.92	4,000.98	3,994.68	14.36	14.24	179.05	-157.00	74.00	302.04	273.68	28.36	10.649	
4,100.00	4,094.92	4,101.22	4,094.92	14.71	14.57	179.05	-157.00	74.00	302.04	272.98	29.06	10.394	
4,200.00	4,194.92	4,201.22	4,194.92	15.06	14.91	179.05	-157.00	74.00	302.04	272.29	29.75	10.152	
4,300.00	4,294.92	4,301.22	4,294.92	15.42	15.24	179.05	-157.00	74.00	302.04	271.59	30.45	9.920	
4,400.00	4,394.92	4,401.22	4,394.92	15.77	15.58	179.05	-157.00	74.00	302.04	270.90	31.14	9.698	
4,500.00	4,494.92	4,501.22	4,494.92	16.12	15.92	179.05	-157.00	74.00	302.04	270.20	31.84	9.486	
4,600.00	4,594.92	4,601.22	4,594.92	16.48	16.25	179.05	-157.00	74.00	302.04	269.50	32.54	9.282	
4,700.00	4,694.92	4,701.22	4,694.92	16.83	16.59	179.05	-157.00	74.00	302.04	268.80	33.24	9.087	
4,800.00	4,794.92	4,801.22	4,794.92	17.19	16.93	179.05	-157.00	74.00	302.04	268.10	33.94	8.900	
4,900.00	4,894.92	4,901.22	4,894.92	17.54	17.27	179.05	-157.00	74.00	302.04	267.40	34.64	8.720	
5,000.00	4,994.92	5,001.22	4,994.92	17.90	17.62	179.05	-157.00	74.00	302.04	266.70	35.34	8.547	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #122H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
5,100.00	5,094.92	5,101.22	5,094.92	18.25	17.96	179.05	-157.00	74.00	302.04	266.00	36.04	8.380	
5,200.00	5,194.92	5,201.22	5,194.92	18.61	18.30	179.05	-157.00	74.00	302.04	265.30	36.74	8.220	
5,300.00	5,294.92	5,301.22	5,294.92	18.96	18.64	179.05	-157.00	74.00	302.04	264.59	37.45	8.066	
5,400.00	5,394.92	5,401.22	5,394.92	19.32	18.99	179.05	-157.00	74.00	302.04	263.89	38.15	7.917	
5,500.00	5,494.92	5,501.22	5,494.92	19.68	19.33	179.05	-157.00	74.00	302.04	263.19	38.85	7.774	
5,510.11	5,505.04	5,511.33	5,505.04	19.71	19.37	92.35	-157.00	74.00	302.04	263.12	38.93	7.760	
5,600.00	5,594.92	5,601.22	5,594.92	20.03	19.68	92.35	-157.00	74.00	302.04	262.48	39.56	7.635	
5,700.00	5,694.26	5,700.55	5,694.26	20.38	20.02	94.19	-157.00	74.00	302.63	262.37	40.26	7.517	
5,800.00	5,789.83	5,796.12	5,789.83	20.74	20.35	98.96	-157.00	74.00	306.14	265.18	40.96	7.475	
5,900.00	5,878.13	5,884.43	5,878.13	21.12	20.66	105.18	-157.00	74.00	317.31	275.67	41.64	7.621	
6,000.00	5,955.92	5,962.22	5,955.92	21.53	20.93	110.85	-157.00	74.00	341.87	299.59	42.28	8.087	
6,100.00	6,020.34	6,051.21	6,044.80	22.03	21.24	116.88	-156.97	77.22	382.59	339.70	42.89	8.920	
6,200.00	6,069.02	6,185.96	6,175.31	22.66	21.73	125.11	-156.65	109.23	432.26	389.42	42.84	10.091	
6,300.00	6,100.17	6,394.21	6,349.49	23.44	22.54	134.46	-155.54	220.82	481.29	441.04	40.25	11.957	
6,400.00	6,112.65	6,738.07	6,502.71	24.36	24.77	140.50	-152.55	521.69	511.43	476.13	35.30	14.487	
6,500.00	6,115.27	6,883.26	6,509.93	25.44	26.22	140.20	-151.10	666.59	514.03	477.39	36.65	14.027	
6,600.00	6,117.88	6,983.25	6,512.55	26.66	27.40	140.16	-150.11	766.55	514.20	475.93	38.27	13.435	
6,700.00	6,120.49	7,083.25	6,515.16	28.02	28.72	140.16	-149.12	866.52	514.21	474.13	40.08	12.831	
6,800.00	6,123.10	7,183.25	6,517.78	29.49	30.16	140.16	-148.12	966.48	514.22	472.17	42.05	12.230	
6,900.00	6,125.72	7,283.25	6,520.40	31.06	31.69	140.16	-147.13	1,066.44	514.23	470.07	44.16	11.646	
7,000.00	6,128.33	7,383.25	6,523.02	32.72	33.31	140.16	-146.13	1,166.40	514.23	467.85	46.39	11.086	
7,100.00	6,130.94	7,483.25	6,525.63	34.45	35.01	140.16	-145.14	1,266.36	514.24	465.52	48.73	10.554	
7,200.00	6,133.55	7,583.25	6,528.25	36.25	36.77	140.16	-144.14	1,366.32	514.25	463.09	51.16	10.053	
7,300.00	6,136.16	7,683.25	6,530.87	38.09	38.59	140.16	-143.15	1,466.28	514.26	460.59	53.66	9.583	
7,400.00	6,138.78	7,783.25	6,533.49	39.99	40.46	140.16	-142.15	1,566.24	514.27	458.03	56.24	9.144	
7,500.00	6,141.39	7,883.25	6,536.11	41.92	42.37	140.16	-141.16	1,666.20	514.27	455.40	58.87	8.735	
7,600.00	6,144.00	7,983.25	6,538.72	43.89	44.31	140.16	-140.17	1,766.16	514.28	452.72	61.56	8.354	
7,700.00	6,146.61	8,083.25	6,541.34	45.88	46.29	140.16	-139.17	1,866.12	514.29	449.99	64.29	7.999	
7,800.00	6,149.23	8,183.25	6,543.96	47.91	48.29	140.16	-138.18	1,966.08	514.30	447.23	67.07	7.668	
7,900.00	6,151.84	8,283.25	6,546.58	49.96	50.32	140.16	-137.18	2,066.04	514.30	444.43	69.87	7.361	
8,000.00	6,154.45	8,383.25	6,549.19	52.02	52.37	140.15	-136.19	2,166.01	514.31	441.60	72.71	7.073	
8,100.00	6,157.06	8,483.25	6,551.81	54.11	54.44	140.15	-135.19	2,265.97	514.32	438.74	75.58	6.805	
8,200.00	6,159.68	8,583.25	6,554.43	56.21	56.53	140.15	-134.20	2,365.93	514.33	435.86	78.47	6.555	
8,300.00	6,162.29	8,683.25	6,557.05	58.33	58.63	140.15	-133.20	2,465.89	514.34	432.96	81.38	6.320	
8,400.00	6,164.90	8,783.25	6,559.66	60.45	60.75	140.15	-132.21	2,565.85	514.34	430.04	84.31	6.101	
8,500.00	6,167.51	8,883.25	6,562.28	62.60	62.87	140.15	-131.21	2,665.81	514.35	427.09	87.26	5.895	
8,600.00	6,170.12	8,983.25	6,564.90	64.75	65.01	140.15	-130.22	2,765.77	514.36	424.14	90.22	5.701	
8,700.00	6,172.74	9,083.25	6,567.52	66.91	67.16	140.15	-129.23	2,865.73	514.37	421.17	93.20	5.519	
8,800.00	6,175.35	9,183.25	6,570.14	69.08	69.32	140.15	-128.23	2,965.69	514.38	418.18	96.19	5.347	
8,900.00	6,177.96	9,283.25	6,572.75	71.25	71.49	140.15	-127.24	3,065.65	514.38	415.19	99.20	5.186	
9,000.00	6,180.57	9,383.25	6,575.37	73.43	73.66	140.15	-126.24	3,165.61	514.39	412.18	102.21	5.033	
9,100.00	6,183.19	9,483.25	6,577.99	75.62	75.85	140.15	-125.25	3,265.57	514.40	409.16	105.23	4.888	
9,200.00	6,185.80	9,583.25	6,580.61	77.82	78.03	140.15	-124.25	3,365.53	514.41	406.14	108.27	4.751	
9,300.00	6,188.41	9,683.25	6,583.22	80.02	80.23	140.15	-123.26	3,465.50	514.41	403.10	111.31	4.621	
9,400.00	6,191.02	9,783.25	6,585.84	82.23	82.43	140.15	-122.26	3,565.46	514.42	400.06	114.36	4.498	
9,500.00	6,193.63	9,883.25	6,588.46	84.44	84.63	140.15	-121.27	3,665.42	514.43	397.02	117.42	4.381	
9,600.00	6,196.25	9,983.25	6,591.08	86.65	86.84	140.15	-120.28	3,765.38	514.44	393.96	120.48	4.270	
9,700.00	6,198.86	10,083.25	6,593.69	88.87	89.05	140.15	-119.28	3,865.34	514.45	390.90	123.55	4.164	
9,800.00	6,201.47	10,183.25	6,596.31	91.09	91.27	140.15	-118.29	3,965.30	514.45	387.83	126.62	4.063	
9,900.00	6,204.08	10,283.25	6,598.93	93.32	93.49	140.15	-117.29	4,065.26	514.46	384.76	129.70	3.967	
10,000.00	6,206.70	10,383.25	6,601.55	95.55	95.71	140.15	-116.30	4,165.22	514.47	381.68	132.79	3.874	
10,100.00	6,209.31	10,483.25	6,604.17	97.78	97.94	140.15	-115.30	4,265.18	514.48	378.60	135.87	3.786	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #122H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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	Rule Assigned: Warning
10,200.00	6,211.92	10,583.25	6,606.78	100.02	100.17	140.15	-114.31	4,365.14	514.49	375.52	138.97	3.702	
10,300.00	6,214.53	10,683.25	6,609.40	102.25	102.40	140.15	-113.31	4,465.10	514.49	372.43	142.06	3.622	
10,400.00	6,217.14	10,783.25	6,612.02	104.49	104.64	140.15	-112.32	4,565.06	514.50	369.34	145.17	3.544	
10,500.00	6,219.76	10,883.25	6,614.64	106.73	106.87	140.15	-111.33	4,665.03	514.51	366.24	148.27	3.470	
10,600.00	6,222.37	10,983.25	6,617.25	108.98	109.11	140.15	-110.33	4,764.99	514.52	363.14	151.38	3.399	
10,700.00	6,224.98	11,083.25	6,619.87	111.22	111.36	140.15	-109.34	4,864.95	514.52	360.04	154.49	3.331	
10,800.00	6,227.59	11,183.25	6,622.49	113.47	113.60	140.15	-108.34	4,964.91	514.53	356.93	157.60	3.265	
10,900.00	6,230.21	11,283.25	6,625.11	115.72	115.85	140.15	-107.35	5,064.87	514.54	353.82	160.72	3.202	
11,000.00	6,232.82	11,383.25	6,627.72	117.97	118.09	140.15	-106.35	5,164.83	514.55	350.71	163.84	3.141	
11,100.00	6,235.43	11,483.25	6,630.34	120.22	120.34	140.15	-105.36	5,264.79	514.56	347.60	166.96	3.082	
11,200.00	6,238.04	11,583.25	6,632.96	122.48	122.59	140.15	-104.36	5,364.75	514.56	344.48	170.08	3.025	
11,300.00	6,240.66	11,683.25	6,635.58	124.73	124.85	140.15	-103.37	5,464.71	514.57	341.37	173.21	2.971	
11,400.00	6,243.27	11,783.25	6,638.20	126.99	127.10	140.15	-102.37	5,564.67	514.58	338.25	176.33	2.918	
11,500.00	6,245.88	11,883.25	6,640.81	129.25	129.36	140.15	-101.38	5,664.63	514.59	335.12	179.46	2.867	
11,600.00	6,248.49	11,983.25	6,643.43	131.51	131.61	140.15	-100.39	5,764.59	514.60	332.00	182.59	2.818	
11,700.00	6,251.10	12,083.25	6,646.05	133.77	133.87	140.15	-99.39	5,864.55	514.60	328.88	185.73	2.771	
11,800.00	6,253.72	12,183.25	6,648.67	136.03	136.13	140.15	-98.40	5,964.52	514.61	325.75	188.86	2.725	
11,900.00	6,256.33	12,283.25	6,651.28	138.29	138.39	140.15	-97.40	6,064.48	514.62	322.62	192.00	2.680	
12,000.00	6,258.94	12,383.25	6,653.90	140.56	140.65	140.15	-96.41	6,164.44	514.63	319.49	195.14	2.637	
12,100.00	6,261.55	12,483.25	6,656.52	142.82	142.91	140.15	-95.41	6,264.40	514.63	316.36	198.27	2.596	
12,200.00	6,264.17	12,583.25	6,659.14	145.09	145.17	140.15	-94.42	6,364.36	514.64	313.23	201.41	2.555	
12,300.00	6,266.78	12,683.25	6,661.75	147.35	147.44	140.15	-93.42	6,464.32	514.65	310.09	204.56	2.516	
12,400.00	6,269.39	12,783.25	6,664.37	149.62	149.70	140.15	-92.43	6,564.28	514.66	306.96	207.70	2.478	
12,500.00	6,272.00	12,883.25	6,666.99	151.89	151.97	140.15	-91.44	6,664.24	514.67	303.82	210.84	2.441	
12,600.00	6,274.61	12,983.25	6,669.61	154.15	154.23	140.15	-90.44	6,764.20	514.67	300.68	213.99	2.405	
12,700.00	6,277.23	13,083.25	6,672.23	156.42	156.50	140.15	-89.45	6,864.16	514.68	297.55	217.14	2.370	
12,800.00	6,279.84	13,183.25	6,674.84	158.69	158.77	140.15	-88.45	6,964.12	514.69	294.41	220.28	2.336	
12,900.00	6,282.45	13,283.25	6,677.46	160.96	161.04	140.15	-87.46	7,064.08	514.70	291.27	223.43	2.304	
13,000.00	6,285.06	13,383.25	6,680.08	163.23	163.31	140.15	-86.46	7,164.04	514.71	288.12	226.58	2.272	
13,100.00	6,287.68	13,483.25	6,682.70	165.50	165.58	140.15	-85.47	7,264.01	514.71	284.98	229.73	2.241	
13,200.00	6,290.29	13,583.25	6,685.31	167.78	167.85	140.15	-84.47	7,363.97	514.72	281.84	232.88	2.210	
13,300.00	6,292.90	13,683.25	6,687.93	170.05	170.12	140.15	-83.48	7,463.93	514.73	278.69	236.03	2.181	
13,400.00	6,295.51	13,783.25	6,690.55	172.32	172.39	140.15	-82.49	7,563.89	514.74	275.55	239.19	2.152	
13,500.00	6,298.12	13,883.25	6,693.17	174.60	174.66	140.15	-81.49	7,663.85	514.74	272.40	242.34	2.124	
13,600.00	6,300.74	13,983.25	6,695.78	176.87	176.93	140.15	-80.50	7,763.81	514.75	269.26	245.50	2.097	
13,700.00	6,303.35	14,083.25	6,698.40	179.14	179.21	140.15	-79.50	7,863.77	514.76	266.11	248.65	2.070	
13,800.00	6,305.96	14,183.25	6,701.02	181.42	181.48	140.15	-78.51	7,963.73	514.77	262.96	251.81	2.044	
13,900.00	6,308.57	14,283.25	6,703.64	183.69	183.75	140.15	-77.51	8,063.69	514.78	259.81	254.96	2.019	
14,000.00	6,311.19	14,383.25	6,706.26	185.97	186.03	140.15	-76.52	8,163.65	514.78	256.66	258.12	1.994	
14,100.00	6,313.80	14,483.25	6,708.87	188.25	188.30	140.15	-75.52	8,263.61	514.79	253.51	261.28	1.970	
14,200.00	6,316.41	14,583.25	6,711.49	190.52	190.58	140.15	-74.53	8,363.57	514.80	250.36	264.44	1.947	
14,300.00	6,319.02	14,683.25	6,714.11	192.80	192.85	140.15	-73.53	8,463.54	514.81	247.21	267.59	1.924	
14,400.00	6,321.64	14,783.25	6,716.73	195.08	195.13	140.15	-72.54	8,563.50	514.82	244.06	270.75	1.901	
14,500.00	6,324.25	14,883.25	6,719.34	197.35	197.41	140.15	-71.55	8,663.46	514.82	240.91	273.91	1.880	
14,600.00	6,326.86	14,983.25	6,721.96	199.63	199.68	140.15	-70.55	8,763.42	514.83	237.76	277.07	1.858	
14,700.00	6,329.47	15,083.25	6,724.58	201.91	201.96	140.15	-69.56	8,863.38	514.84	234.60	280.24	1.837	
14,800.00	6,332.08	15,183.25	6,727.20	204.19	204.24	140.15	-68.56	8,963.34	514.85	231.45	283.40	1.817	
14,900.00	6,334.70	15,283.25	6,729.81	206.47	206.51	140.15	-67.57	9,063.30	514.85	228.30	286.56	1.797	
15,000.00	6,337.31	15,383.25	6,732.43	208.75	208.79	140.15	-66.57	9,163.26	514.86	225.14	289.72	1.777	
15,100.00	6,339.92	15,483.25	6,735.05	211.03	211.07	140.15	-65.58	9,263.22	514.87	221.99	292.88	1.758	
15,200.00	6,342.53	15,583.25	6,737.67	213.31	213.35	140.15	-64.58	9,363.18	514.88	218.83	296.05	1.739	
15,300.00	6,345.15	15,683.25	6,740.29	215.59	215.63	140.15	-63.59	9,463.14	514.89	215.67	299.21	1.721	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #122H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
15,400.00	6,347.76	15,783.25	6,742.90	217.87	217.91	140.15	-62.60	9,563.10	514.89	212.52	302.38	1.703	
15,500.00	6,350.37	15,883.25	6,745.52	220.15	220.19	140.15	-61.60	9,663.06	514.90	209.36	305.54	1.685	
15,600.00	6,352.98	15,983.25	6,748.14	222.43	222.47	140.15	-60.61	9,763.03	514.91	206.20	308.71	1.668	
15,700.00	6,355.59	16,083.25	6,750.76	224.71	224.75	140.15	-59.61	9,862.99	514.92	203.05	311.87	1.651	
15,800.00	6,358.21	16,183.25	6,753.37	226.99	227.03	140.15	-58.62	9,962.95	514.93	199.89	315.04	1.634	
15,900.00	6,360.82	16,283.25	6,755.99	229.27	229.31	140.15	-57.62	10,062.91	514.93	196.73	318.20	1.618	
16,000.00	6,363.43	16,383.25	6,758.61	231.55	231.59	140.15	-56.63	10,162.87	514.94	193.57	321.37	1.602	
16,100.00	6,366.04	16,483.25	6,761.23	233.83	233.87	140.15	-55.63	10,262.83	514.95	190.41	324.53	1.587	
16,200.00	6,368.66	16,583.25	6,763.84	236.12	236.15	140.15	-54.64	10,362.79	514.96	187.26	327.70	1.571	
16,300.00	6,371.27	16,683.25	6,766.46	238.40	238.43	140.15	-53.65	10,462.75	514.96	184.10	330.87	1.556	
16,400.00	6,373.88	16,783.25	6,769.08	240.68	240.71	140.15	-52.65	10,562.71	514.97	180.94	334.04	1.542	
16,500.00	6,376.49	16,883.25	6,771.70	242.96	243.00	140.15	-51.66	10,662.67	514.98	177.78	337.20	1.527	
16,600.00	6,379.10	16,983.25	6,774.32	245.25	245.28	140.15	-50.66	10,762.63	514.99	174.62	340.37	1.513	
16,655.32	6,380.55	17,037.39	6,775.87	246.51	246.51	140.16	-50.09	10,816.75	515.08	173.04	342.04	1.506	SF

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #141H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
0.00	0.00	0.00	0.00	0.50	0.50	-45.00	25.00	-25.00	35.36				
100.00	100.00	100.00	100.00	0.57	0.57	-45.00	25.00	-25.00	35.36	34.22	1.13	31.232	
200.00	200.00	200.00	200.00	0.80	0.80	-45.00	25.00	-25.00	35.36	33.76	1.60	22.113	
300.00	300.00	300.00	300.00	1.10	1.10	-45.00	25.00	-25.00	35.36	33.15	2.20	16.039	
400.00	400.00	400.00	400.00	1.43	1.43	-45.00	25.00	-25.00	35.36	32.49	2.86	12.354	
500.00	500.00	500.00	500.00	1.77	1.77	-45.00	25.00	-25.00	35.36	31.81	3.54	9.981	
600.00	600.00	600.00	600.00	2.12	2.12	-45.00	25.00	-25.00	35.36	31.12	4.24	8.348	
700.00	700.00	700.00	700.00	2.47	2.47	-45.00	25.00	-25.00	35.36	30.42	4.93	7.165	
800.00	800.00	800.00	800.00	2.82	2.82	-45.00	25.00	-25.00	35.36	29.72	5.64	6.270	
900.00	900.00	900.00	900.00	3.17	3.17	-45.00	25.00	-25.00	35.36	29.01	6.35	5.572	
1,000.00	1,000.00	1,000.00	1,000.00	3.53	3.53	-45.00	25.00	-25.00	35.36	28.30	7.05	5.012	CC
1,100.00	1,100.00	1,099.59	1,099.58	3.88	3.88	-43.96	25.86	-24.94	35.93	28.17	7.76	4.629	ES
1,200.00	1,199.99	1,199.13	1,199.09	4.24	4.24	-67.70	28.45	-24.77	37.39	28.92	8.47	4.415	
1,300.00	1,299.96	1,298.64	1,298.51	4.59	4.59	-66.65	32.76	-24.48	39.42	30.24	9.18	4.296	
1,400.00	1,399.86	1,398.11	1,397.79	4.95	4.95	-66.23	38.79	-24.08	41.99	32.11	9.88	4.249	
1,500.00	1,499.68	1,497.52	1,496.90	5.30	5.30	-66.30	46.54	-23.56	45.10	34.51	10.59	4.260	
1,600.00	1,599.45	1,596.85	1,595.78	5.66	5.66	-65.59	55.99	-22.92	49.21	37.91	11.29	4.357	
1,700.00	1,699.23	1,696.04	1,694.33	6.02	6.02	-63.76	67.13	-22.18	54.59	42.59	12.00	4.549	
1,800.00	1,799.01	1,795.02	1,792.47	6.38	6.38	-61.21	79.95	-21.32	61.34	48.63	12.70	4.828	
1,900.00	1,898.79	1,893.74	1,890.12	6.74	6.75	-58.31	94.41	-20.35	69.56	56.15	13.40	5.189	
2,000.00	1,998.56	1,992.14	1,987.19	7.10	7.12	-55.33	110.49	-19.27	79.34	65.24	14.10	5.626	
2,100.00	2,098.34	2,090.17	2,083.60	7.46	7.50	-52.46	128.17	-18.09	90.74	75.95	14.79	6.135	
2,200.00	2,198.12	2,187.76	2,179.27	7.82	7.89	-49.79	147.40	-16.80	103.82	88.34	15.48	6.708	
2,300.00	2,297.90	2,284.87	2,274.13	8.19	8.28	-47.36	168.14	-15.41	118.58	102.43	16.16	7.340	
2,400.00	2,397.67	2,381.45	2,368.10	8.55	8.68	-45.20	190.36	-13.93	135.04	118.22	16.83	8.025	
2,500.00	2,497.45	2,477.44	2,461.12	8.91	9.08	-43.27	214.01	-12.34	153.19	135.70	17.50	8.756	
2,600.00	2,597.23	2,572.79	2,553.12	9.28	9.50	-41.58	239.04	-10.67	173.02	154.86	18.16	9.529	
2,700.00	2,697.01	2,667.47	2,644.03	9.64	9.92	-40.08	265.39	-8.90	194.51	175.69	18.81	10.339	
2,800.00	2,796.78	2,761.42	2,733.81	10.01	10.35	-38.76	293.03	-7.05	217.63	198.17	19.46	11.182	
2,900.00	2,896.56	2,856.14	2,823.89	10.37	10.79	-37.58	322.24	-5.09	242.26	222.12	20.14	12.030	
3,000.00	2,996.34	2,952.88	2,915.80	10.74	11.25	-36.58	352.34	-3.08	267.23	246.37	20.86	12.809	
3,100.00	3,096.11	3,049.62	3,007.72	11.10	11.72	-35.75	382.44	-1.06	292.26	270.67	21.59	13.537	
3,200.00	3,195.89	3,146.35	3,099.63	11.47	12.19	-35.05	412.53	0.95	317.35	295.03	22.32	14.218	
3,300.00	3,295.67	3,243.09	3,191.54	11.83	12.67	-34.45	442.63	2.97	342.47	319.42	23.05	14.856	
3,400.00	3,395.45	3,339.82	3,283.45	12.20	13.15	-33.94	472.73	4.99	367.62	343.84	23.79	15.454	
3,500.00	3,495.22	3,436.56	3,375.37	12.56	13.63	-33.49	502.82	7.00	392.80	368.27	24.52	16.017	
3,600.00	3,595.05	3,533.12	3,467.12	12.93	14.12	-33.17	532.87	9.01	418.60	393.34	25.26	16.571	
3,700.00	3,694.96	3,629.27	3,558.47	13.29	14.60	-32.80	562.78	11.02	445.83	419.84	25.99	17.151	
3,800.00	3,794.93	3,724.96	3,649.39	13.65	15.09	-32.38	592.55	13.01	474.51	447.79	26.72	17.757	
3,900.00	3,894.92	3,820.18	3,739.86	14.00	15.58	-6.46	622.18	14.99	504.64	477.19	27.45	18.387	
4,000.00	3,994.92	3,915.19	3,830.13	14.36	16.07	-5.86	651.74	16.97	535.39	507.23	28.17	19.008	
4,100.00	4,094.92	4,010.20	3,920.41	14.71	16.56	-5.33	681.30	18.95	566.19	537.31	28.89	19.599	
4,200.00	4,194.92	4,105.22	4,010.69	15.06	17.05	-4.86	710.86	20.93	597.04	567.42	29.61	20.162	
4,300.00	4,294.92	4,200.23	4,100.96	15.42	17.54	-4.43	740.42	22.91	627.91	597.57	30.34	20.698	
4,400.00	4,394.92	4,295.25	4,191.24	15.77	18.04	-4.04	769.98	24.89	658.81	627.75	31.06	21.209	
4,500.00	4,494.92	4,390.26	4,281.52	16.12	18.53	-3.68	799.54	26.87	689.74	657.95	31.79	21.697	
4,600.00	4,594.92	4,485.27	4,371.79	16.48	19.03	-3.36	829.11	28.85	720.69	688.18	32.52	22.163	
4,700.00	4,694.92	4,580.29	4,462.07	16.83	19.53	-3.06	858.67	30.83	751.66	718.42	33.25	22.609	
4,800.00	4,794.92	4,675.30	4,552.35	17.19	20.03	-2.79	888.23	32.81	782.65	748.67	33.98	23.035	
4,900.00	4,894.92	4,770.32	4,642.62	17.54	20.53	-2.53	917.79	34.79	813.65	778.94	34.71	23.443	
5,000.00	4,994.92	4,865.33	4,732.90	17.90	21.03	-2.30	947.35	36.77	844.67	809.23	35.44	23.834	
5,100.00	5,094.92	4,960.35	4,823.18	18.25	21.53	-2.08	976.91	38.75	875.69	839.52	36.17	24.210	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #141H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
5,200.00	5,194.92	5,055.36	4,913.45	18.61	22.03	-1.88	1,006.47	40.73	906.73	869.83	36.90	24.570	
5,300.00	5,294.92	5,150.37	5,003.73	18.96	22.54	-1.69	1,036.03	42.71	937.78	900.14	37.64	24.916	
5,400.00	5,394.92	5,245.39	5,094.01	19.32	23.04	-1.51	1,065.59	44.69	968.83	930.46	38.37	25.249	
5,500.00	5,494.92	5,340.40	5,184.28	19.68	23.55	-1.35	1,095.16	46.67	999.90	960.79	39.11	25.569	
5,600.00	5,594.92	5,435.42	5,274.56	20.03	24.05	-87.79	1,124.72	48.65	1,030.97	991.12	39.84	25.877	
5,700.00	5,694.26	5,530.19	5,364.61	20.38	24.56	-84.69	1,154.20	50.63	1,061.50	1,020.93	40.58	26.159	
5,800.00	5,789.83	5,622.11	5,451.95	20.74	25.05	-82.73	1,182.80	52.54	1,090.69	1,049.36	41.33	26.387	
5,900.00	5,878.13	5,707.82	5,533.38	21.12	25.51	-81.61	1,209.47	54.33	1,118.71	1,076.60	42.11	26.566	
6,000.00	5,955.92	5,784.16	5,605.91	21.53	25.91	-80.91	1,233.22	55.92	1,146.37	1,103.45	42.93	26.705	
6,100.00	6,020.34	5,857.78	5,675.82	22.03	26.31	-80.49	1,256.16	58.27	1,174.73	1,130.81	43.91	26.752	
6,200.00	6,069.02	5,961.02	5,771.96	22.66	26.86	-81.22	1,288.62	76.32	1,203.21	1,157.84	45.37	26.518	
6,300.00	6,100.17	6,106.96	5,897.44	23.44	27.61	-83.34	1,333.14	134.93	1,230.15	1,182.93	47.22	26.052	
6,400.00	6,112.65	6,352.66	6,056.97	24.36	28.76	-87.68	1,395.77	307.80	1,251.52	1,202.17	49.35	25.361	
6,500.00	6,115.27	6,670.62	6,124.91	25.44	30.49	-90.48	1,435.95	611.49	1,259.35	1,207.20	52.15	24.148	
6,600.00	6,117.88	6,819.99	6,128.81	26.66	31.66	-90.50	1,439.64	760.75	1,260.33	1,205.54	54.79	23.003	
6,700.00	6,120.49	6,919.99	6,131.42	28.02	32.62	-90.50	1,440.64	860.71	1,260.33	1,202.89	57.44	21.942	
6,800.00	6,123.10	7,019.99	6,134.03	29.49	33.74	-90.50	1,441.63	960.68	1,260.32	1,200.00	60.32	20.893	
6,900.00	6,125.72	7,119.99	6,136.64	31.06	35.01	-90.50	1,442.63	1,060.64	1,260.32	1,196.92	63.40	19.878	
7,000.00	6,128.33	7,219.99	6,139.25	32.72	36.39	-90.50	1,443.63	1,160.60	1,260.32	1,193.66	66.66	18.907	
7,100.00	6,130.94	7,319.99	6,141.86	34.45	37.88	-90.50	1,444.63	1,260.56	1,260.31	1,190.25	70.06	17.988	
7,200.00	6,133.55	7,419.99	6,144.47	36.25	39.46	-90.50	1,445.62	1,360.52	1,260.31	1,186.72	73.59	17.125	
7,300.00	6,136.16	7,519.99	6,147.08	38.09	41.12	-90.50	1,446.62	1,460.48	1,260.31	1,183.07	77.24	16.317	
7,400.00	6,138.78	7,619.99	6,149.69	39.99	42.84	-90.50	1,447.62	1,560.44	1,260.30	1,179.33	80.98	15.564	
7,500.00	6,141.39	7,719.99	6,152.30	41.92	44.62	-90.50	1,448.61	1,660.40	1,260.30	1,175.50	84.80	14.863	
7,600.00	6,144.00	7,819.99	6,154.90	43.89	46.45	-90.50	1,449.61	1,760.36	1,260.30	1,171.61	88.69	14.210	
7,700.00	6,146.61	7,919.99	6,157.51	45.88	48.33	-90.50	1,450.61	1,860.32	1,260.30	1,167.65	92.65	13.603	
7,800.00	6,149.23	8,019.99	6,160.12	47.91	50.24	-90.50	1,451.61	1,960.29	1,260.29	1,163.63	96.66	13.038	
7,900.00	6,151.84	8,119.99	6,162.73	49.96	52.18	-90.50	1,452.60	2,060.25	1,260.29	1,159.57	100.72	12.513	
8,000.00	6,154.45	8,219.99	6,165.34	52.02	54.15	-90.50	1,453.60	2,160.21	1,260.29	1,155.46	104.82	12.023	
8,100.00	6,157.06	8,319.99	6,167.95	54.11	56.15	-90.50	1,454.60	2,260.17	1,260.28	1,151.32	108.97	11.566	
8,200.00	6,159.68	8,419.99	6,170.56	56.21	58.17	-90.49	1,455.59	2,360.13	1,260.28	1,147.14	113.14	11.139	
8,300.00	6,162.29	8,519.99	6,173.17	58.33	60.21	-90.49	1,456.59	2,460.09	1,260.28	1,142.93	117.35	10.740	
8,400.00	6,164.90	8,619.99	6,175.78	60.45	62.27	-90.49	1,457.59	2,560.05	1,260.27	1,138.69	121.58	10.365	
8,500.00	6,167.51	8,719.99	6,178.39	62.60	64.35	-90.49	1,458.59	2,660.01	1,260.27	1,134.43	125.84	10.015	
8,600.00	6,170.12	8,819.99	6,180.99	64.75	66.44	-90.49	1,459.58	2,759.97	1,260.27	1,130.15	130.12	9.685	
8,700.00	6,172.74	8,919.99	6,183.60	66.91	68.55	-90.49	1,460.58	2,859.93	1,260.26	1,125.84	134.42	9.375	
8,800.00	6,175.35	9,019.99	6,186.21	69.08	70.66	-90.49	1,461.58	2,959.90	1,260.26	1,121.52	138.74	9.083	
8,900.00	6,177.96	9,119.99	6,188.82	71.25	72.79	-90.49	1,462.58	3,059.86	1,260.26	1,117.18	143.08	8.808	
9,000.00	6,180.57	9,219.99	6,191.43	73.43	74.93	-90.49	1,463.57	3,159.82	1,260.26	1,112.83	147.43	8.548	
9,100.00	6,183.19	9,319.99	6,194.04	75.62	77.07	-90.49	1,464.57	3,259.78	1,260.25	1,108.46	151.79	8.303	
9,200.00	6,185.80	9,419.99	6,196.65	77.82	79.23	-90.49	1,465.57	3,359.74	1,260.25	1,104.08	156.17	8.070	
9,300.00	6,188.41	9,519.99	6,199.26	80.02	81.39	-90.49	1,466.56	3,459.70	1,260.25	1,099.69	160.56	7.849	
9,400.00	6,191.02	9,619.99	6,201.87	82.23	83.56	-90.49	1,467.56	3,559.66	1,260.24	1,095.29	164.96	7.640	
9,500.00	6,193.63	9,719.99	6,204.48	84.44	85.73	-90.49	1,468.56	3,659.62	1,260.24	1,090.88	169.36	7.441	
9,600.00	6,196.25	9,819.99	6,207.08	86.65	87.92	-90.49	1,469.56	3,759.58	1,260.24	1,086.46	173.78	7.252	
9,700.00	6,198.86	9,919.99	6,209.69	88.87	90.10	-90.49	1,470.55	3,859.54	1,260.23	1,082.03	178.21	7.072	
9,800.00	6,201.47	10,019.99	6,212.30	91.09	92.30	-90.49	1,471.55	3,959.51	1,260.23	1,077.59	182.64	6.900	
9,900.00	6,204.08	10,119.99	6,214.91	93.32	94.49	-90.49	1,472.55	4,059.47	1,260.23	1,073.15	187.08	6.736	
10,000.00	6,206.70	10,219.99	6,217.52	95.55	96.70	-90.49	1,473.54	4,159.43	1,260.23	1,068.69	191.53	6.580	
10,100.00	6,209.31	10,319.99	6,220.13	97.78	98.90	-90.49	1,474.54	4,259.39	1,260.22	1,064.24	195.98	6.430	
10,200.00	6,211.92	10,419.99	6,222.74	100.02	101.11	-90.49	1,475.54	4,359.35	1,260.22	1,059.77	200.44	6.287	
10,300.00	6,214.53	10,519.99	6,225.35	102.25	103.33	-90.49	1,476.54	4,459.31	1,260.22	1,055.31	204.91	6.150	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #141H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
10,400.00	6,217.14	10,619.99	6,227.96	104.49	105.54	-90.49	1,477.53	4,559.27	1,260.21	1,050.83	209.38	6.019	
10,500.00	6,219.76	10,719.99	6,230.57	106.73	107.76	-90.49	1,478.53	4,659.23	1,260.21	1,046.35	213.86	5.893	
10,600.00	6,222.37	10,819.99	6,233.17	108.98	109.99	-90.49	1,479.53	4,759.19	1,260.21	1,041.87	218.34	5.772	
10,700.00	6,224.98	10,919.99	6,235.78	111.22	112.21	-90.49	1,480.52	4,859.15	1,260.20	1,037.38	222.82	5.656	
10,800.00	6,227.59	11,019.99	6,238.39	113.47	114.44	-90.49	1,481.52	4,959.12	1,260.20	1,032.89	227.31	5.544	
10,900.00	6,230.21	11,119.99	6,241.00	115.72	116.67	-90.49	1,482.52	5,059.08	1,260.20	1,028.40	231.80	5.437	
11,000.00	6,232.82	11,219.99	6,243.61	117.97	118.91	-90.49	1,483.52	5,159.04	1,260.19	1,023.90	236.30	5.333	
11,100.00	6,235.43	11,319.99	6,246.22	120.22	121.14	-90.49	1,484.51	5,259.00	1,260.19	1,019.40	240.79	5.233	
11,200.00	6,238.04	11,419.99	6,248.83	122.48	123.38	-90.49	1,485.51	5,358.96	1,260.19	1,014.89	245.30	5.137	
11,300.00	6,240.66	11,519.99	6,251.44	124.73	125.62	-90.49	1,486.51	5,458.92	1,260.19	1,010.38	249.80	5.045	
11,400.00	6,243.27	11,619.99	6,254.05	126.99	127.86	-90.49	1,487.51	5,558.88	1,260.18	1,005.87	254.31	4.955	
11,500.00	6,245.88	11,719.99	6,256.66	129.25	130.11	-90.49	1,488.50	5,658.84	1,260.18	1,001.36	258.82	4.869	
11,600.00	6,248.49	11,819.99	6,259.27	131.51	132.35	-90.49	1,489.50	5,758.80	1,260.18	996.84	263.33	4.786	
11,700.00	6,251.10	11,919.99	6,261.87	133.77	134.60	-90.49	1,490.50	5,858.76	1,260.17	992.33	267.85	4.705	
11,800.00	6,253.72	12,019.99	6,264.48	136.03	136.85	-90.49	1,491.49	5,958.73	1,260.17	987.81	272.36	4.627	
11,900.00	6,256.33	12,119.99	6,267.09	138.29	139.10	-90.49	1,492.49	6,058.69	1,260.17	983.28	276.88	4.551	
12,000.00	6,258.94	12,219.99	6,269.70	140.56	141.35	-90.49	1,493.49	6,158.65	1,260.16	978.76	281.41	4.478	
12,100.00	6,261.55	12,319.99	6,272.31	142.82	143.60	-90.49	1,494.49	6,258.61	1,260.16	974.23	285.93	4.407	
12,200.00	6,264.17	12,419.99	6,274.92	145.09	145.85	-90.49	1,495.48	6,358.57	1,260.16	969.70	290.46	4.339	
12,300.00	6,266.78	12,519.99	6,277.53	147.35	148.11	-90.49	1,496.48	6,458.53	1,260.15	965.17	294.98	4.272	
12,400.00	6,269.39	12,619.99	6,280.14	149.62	150.36	-90.49	1,497.48	6,558.49	1,260.15	960.64	299.51	4.207	
12,500.00	6,272.00	12,719.99	6,282.75	151.89	152.62	-90.49	1,498.47	6,658.45	1,260.15	956.11	304.04	4.145	
12,600.00	6,274.61	12,819.99	6,285.36	154.15	154.88	-90.49	1,499.47	6,758.41	1,260.15	951.57	308.58	4.084	
12,700.00	6,277.23	12,919.99	6,287.96	156.42	157.14	-90.49	1,500.47	6,858.37	1,260.14	947.03	313.11	4.025	
12,800.00	6,279.84	13,019.99	6,290.57	158.69	159.40	-90.49	1,501.47	6,958.34	1,260.14	942.49	317.64	3.967	
12,900.00	6,282.45	13,119.99	6,293.18	160.96	161.66	-90.49	1,502.46	7,058.30	1,260.14	937.96	322.18	3.911	
13,000.00	6,285.06	13,219.99	6,295.79	163.23	163.92	-90.49	1,503.46	7,158.26	1,260.13	933.41	326.72	3.857	
13,100.00	6,287.68	13,319.99	6,298.40	165.50	166.18	-90.49	1,504.46	7,258.22	1,260.13	928.87	331.26	3.804	
13,200.00	6,290.29	13,419.99	6,301.01	167.78	168.45	-90.49	1,505.46	7,358.18	1,260.13	924.33	335.80	3.753	
13,300.00	6,292.90	13,519.99	6,303.62	170.05	170.71	-90.49	1,506.45	7,458.14	1,260.12	919.78	340.34	3.703	
13,400.00	6,295.51	13,619.99	6,306.23	172.32	172.98	-90.49	1,507.45	7,558.10	1,260.12	915.24	344.88	3.654	
13,500.00	6,298.12	13,719.99	6,308.84	174.60	175.24	-90.49	1,508.45	7,658.06	1,260.12	910.69	349.43	3.606	
13,600.00	6,300.74	13,819.99	6,311.45	176.87	177.51	-90.49	1,509.44	7,758.02	1,260.12	906.14	353.97	3.560	
13,700.00	6,303.35	13,919.99	6,314.05	179.14	179.77	-90.49	1,510.44	7,857.98	1,260.11	901.59	358.52	3.515	
13,800.00	6,305.96	14,019.99	6,316.66	181.42	182.04	-90.49	1,511.44	7,957.95	1,260.11	897.04	363.07	3.471	
13,900.00	6,308.57	14,119.99	6,319.27	183.69	184.31	-90.49	1,512.44	8,057.91	1,260.11	892.49	367.61	3.428	
14,000.00	6,311.19	14,219.99	6,321.88	185.97	186.58	-90.49	1,513.43	8,157.87	1,260.10	887.94	372.16	3.386	
14,100.00	6,313.80	14,319.99	6,324.49	188.25	188.85	-90.49	1,514.43	8,257.83	1,260.10	883.39	376.71	3.345	
14,200.00	6,316.41	14,419.99	6,327.10	190.52	191.12	-90.49	1,515.43	8,357.79	1,260.10	878.84	381.26	3.305	
14,300.00	6,319.02	14,519.99	6,329.71	192.80	193.39	-90.49	1,516.42	8,457.75	1,260.09	874.28	385.81	3.266	
14,400.00	6,321.64	14,619.99	6,332.32	195.08	195.66	-90.49	1,517.42	8,557.71	1,260.09	869.73	390.36	3.228	
14,500.00	6,324.25	14,719.99	6,334.93	197.35	197.93	-90.49	1,518.42	8,657.67	1,260.09	865.17	394.92	3.191	
14,600.00	6,326.86	14,819.99	6,337.54	199.63	200.20	-90.49	1,519.42	8,757.63	1,260.08	860.61	399.47	3.154	
14,700.00	6,329.47	14,919.99	6,340.14	201.91	202.48	-90.49	1,520.41	8,857.59	1,260.08	856.06	404.02	3.119	
14,800.00	6,332.08	15,019.99	6,342.75	204.19	204.75	-90.49	1,521.41	8,957.55	1,260.08	851.50	408.58	3.084	
14,900.00	6,334.70	15,119.99	6,345.36	206.47	207.02	-90.49	1,522.41	9,057.52	1,260.08	846.94	413.13	3.050	
15,000.00	6,337.31	15,219.99	6,347.97	208.75	209.30	-90.48	1,523.40	9,157.48	1,260.07	842.38	417.69	3.017	
15,100.00	6,339.92	15,319.99	6,350.58	211.03	211.57	-90.48	1,524.40	9,257.44	1,260.07	837.82	422.25	2.984	
15,200.00	6,342.53	15,419.99	6,353.19	213.31	213.84	-90.48	1,525.40	9,357.40	1,260.07	833.26	426.80	2.952	
15,300.00	6,345.15	15,519.99	6,355.80	215.59	216.12	-90.48	1,526.40	9,457.36	1,260.06	828.70	431.36	2.921	
15,400.00	6,347.76	15,619.99	6,358.41	217.87	218.39	-90.48	1,527.39	9,557.32	1,260.06	824.14	435.92	2.891	
15,500.00	6,350.37	15,719.99	6,361.02	220.15	220.67	-90.48	1,528.39	9,657.28	1,260.06	819.58	440.48	2.861	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #141H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
15,600.00	6,352.98	15,819.99	6,363.63	222.43	222.95	-90.48	1,529.39	9,757.24	1,260.05	815.02	445.04	2.831	
15,700.00	6,355.59	15,919.99	6,366.23	224.71	225.22	-90.48	1,530.39	9,857.20	1,260.05	810.45	449.60	2.803	
15,800.00	6,358.21	16,019.99	6,368.84	226.99	227.50	-90.48	1,531.38	9,957.16	1,260.05	805.89	454.16	2.774	
15,900.00	6,360.82	16,119.99	6,371.45	229.27	229.77	-90.48	1,532.38	10,057.13	1,260.05	801.33	458.72	2.747	
16,000.00	6,363.43	16,219.99	6,374.06	231.55	232.05	-90.48	1,533.38	10,157.09	1,260.04	796.76	463.28	2.720	
16,100.00	6,366.04	16,319.99	6,376.67	233.83	234.33	-90.48	1,534.37	10,257.05	1,260.04	792.20	467.84	2.693	
16,200.00	6,368.66	16,419.99	6,379.28	236.12	236.61	-90.48	1,535.37	10,357.01	1,260.04	787.63	472.40	2.667	
16,300.00	6,371.27	16,519.99	6,381.89	238.40	238.88	-90.48	1,536.37	10,456.97	1,260.03	783.07	476.97	2.642	
16,400.00	6,373.88	16,619.99	6,384.50	240.68	241.16	-90.48	1,537.37	10,556.93	1,260.03	778.50	481.53	2.617	
16,500.00	6,376.49	16,719.99	6,387.11	242.96	243.44	-90.48	1,538.36	10,656.89	1,260.03	773.93	486.09	2.592	
16,600.00	6,379.10	16,819.99	6,389.72	245.25	245.72	-90.48	1,539.36	10,756.85	1,260.02	769.37	490.66	2.568	
16,655.32	6,380.55	16,875.31	6,391.16	246.51	246.98	-90.48	1,539.91	10,812.15	1,260.02	766.84	493.18	2.555 SF	

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #151H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
0.00	0.00	0.00	0.00	0.50	0.50	-77.13	24.00	-105.00	107.71				
100.00	100.00	100.00	100.00	0.57	0.57	-77.13	24.00	-105.00	107.71	106.58	1.13	95.147	
200.00	200.00	200.00	200.00	0.80	0.80	-77.13	24.00	-105.00	107.71	106.11	1.60	67.367	
300.00	300.00	300.00	300.00	1.10	1.10	-77.13	24.00	-105.00	107.71	105.50	2.20	48.863	
400.00	400.00	400.00	400.00	1.43	1.43	-77.13	24.00	-105.00	107.71	104.85	2.86	37.637	
500.00	500.00	500.00	500.00	1.77	1.77	-77.13	24.00	-105.00	107.71	104.17	3.54	30.405	
600.00	600.00	600.00	600.00	2.12	2.12	-77.13	24.00	-105.00	107.71	103.47	4.24	25.433	
700.00	700.00	700.00	700.00	2.47	2.47	-77.13	24.00	-105.00	107.71	102.77	4.93	21.827	
800.00	800.00	800.00	800.00	2.82	2.82	-77.13	24.00	-105.00	107.71	102.07	5.64	19.102	
900.00	900.00	900.00	900.00	3.17	3.17	-77.13	24.00	-105.00	107.71	101.36	6.35	16.974	
1,000.00	1,000.00	1,000.00	1,000.00	3.53	3.53	-77.13	24.00	-105.00	107.71	100.65	7.05	15.268	CC
1,100.00	1,100.00	1,099.81	1,099.81	3.88	3.88	-76.66	24.86	-104.89	107.79	100.03	7.76	13.885	
1,200.00	1,199.99	1,199.59	1,199.55	4.24	4.24	-101.19	27.45	-104.55	108.26	99.79	8.47	12.778	ES
1,300.00	1,299.96	1,299.33	1,299.19	4.59	4.59	-100.26	31.75	-103.99	109.30	100.12	9.18	11.905	
1,400.00	1,399.86	1,399.03	1,398.70	4.95	4.95	-99.34	37.77	-103.20	110.91	101.02	9.89	11.214	
1,500.00	1,499.68	1,498.68	1,498.05	5.30	5.30	-98.45	45.51	-102.19	113.09	102.49	10.60	10.666	
1,600.00	1,599.45	1,598.25	1,597.17	5.66	5.66	-97.05	54.94	-100.96	115.69	104.37	11.32	10.221	
1,700.00	1,699.23	1,697.69	1,695.96	6.02	6.02	-94.90	66.07	-99.51	118.74	106.71	12.04	9.864	
1,800.00	1,799.01	1,796.92	1,794.35	6.38	6.39	-92.08	78.87	-97.84	122.42	109.66	12.76	9.594	
1,900.00	1,898.79	1,895.89	1,892.25	6.74	6.76	-88.71	93.31	-95.95	126.93	113.45	13.48	9.415	
2,000.00	1,998.56	1,994.55	1,989.56	7.10	7.13	-84.91	109.38	-93.86	132.53	118.32	14.21	9.329	
2,100.00	2,098.34	2,092.83	2,086.21	7.46	7.51	-80.82	127.03	-91.55	139.44	124.52	14.93	9.343	
2,200.00	2,198.12	2,190.68	2,182.13	7.82	7.90	-76.59	146.24	-89.05	147.90	132.26	15.64	9.456	
2,300.00	2,297.90	2,288.05	2,277.22	8.19	8.29	-72.34	166.96	-86.34	158.08	141.73	16.35	9.669	
2,400.00	2,397.67	2,384.96	2,371.51	8.55	8.69	-68.21	189.17	-83.44	170.12	153.07	17.05	9.979	
2,500.00	2,497.45	2,483.37	2,467.08	8.91	9.11	-64.40	212.46	-80.41	183.48	165.71	17.77	10.326	
2,600.00	2,597.23	2,581.77	2,562.64	9.28	9.52	-61.11	235.75	-77.37	197.53	179.04	18.49	10.682	
2,700.00	2,697.01	2,680.18	2,658.20	9.64	9.95	-58.26	259.04	-74.33	212.14	192.93	19.22	11.040	
2,800.00	2,796.78	2,778.59	2,753.77	10.01	10.37	-55.78	282.32	-71.29	227.21	207.27	19.94	11.394	
2,900.00	2,896.56	2,877.00	2,849.33	10.37	10.81	-53.61	305.61	-68.25	242.64	221.97	20.67	11.740	
3,000.00	2,996.34	2,975.40	2,944.90	10.74	11.24	-51.70	328.90	-65.21	258.37	236.98	21.40	12.076	
3,100.00	3,096.11	3,073.81	3,040.46	11.10	11.68	-50.01	352.19	-62.17	274.35	252.23	22.13	12.400	
3,200.00	3,195.89	3,172.22	3,136.02	11.47	12.11	-48.51	375.48	-59.13	290.54	267.69	22.86	12.711	
3,300.00	3,295.67	3,270.63	3,231.59	11.83	12.55	-47.16	398.77	-56.09	306.91	283.32	23.59	13.010	
3,400.00	3,395.45	3,369.04	3,327.15	12.20	13.00	-45.96	422.06	-53.05	323.42	299.10	24.32	13.297	
3,500.00	3,495.22	3,467.44	3,422.72	12.56	13.44	-44.86	445.34	-50.01	340.06	315.01	25.06	13.572	
3,600.00	3,595.05	3,565.73	3,518.16	12.93	13.89	-43.90	468.60	-46.98	357.34	331.55	25.79	13.856	
3,700.00	3,694.96	3,663.70	3,613.30	13.29	14.33	-42.88	491.79	-43.95	375.99	349.47	26.52	14.180	
3,800.00	3,794.93	3,761.34	3,708.12	13.65	14.78	-41.80	514.89	-40.94	396.04	368.81	27.24	14.541	
3,900.00	3,894.92	3,858.60	3,802.57	14.00	15.22	-15.22	537.91	-37.93	417.54	389.59	27.95	14.939	
4,000.00	3,994.92	3,955.71	3,896.88	14.36	15.67	-14.03	560.89	-34.93	439.75	411.09	28.66	15.343	
4,100.00	4,094.92	4,052.82	3,991.18	14.71	16.12	-12.95	583.88	-31.93	462.13	432.75	29.38	15.732	
4,200.00	4,194.92	4,149.94	4,085.49	15.06	16.56	-11.97	606.86	-28.93	484.64	454.55	30.09	16.106	
4,300.00	4,294.92	4,247.05	4,179.79	15.42	17.01	-11.08	629.84	-25.94	507.28	476.48	30.81	16.466	
4,400.00	4,394.92	4,344.16	4,274.09	15.77	17.46	-10.26	652.82	-22.94	530.03	498.51	31.52	16.813	
4,500.00	4,494.92	4,441.27	4,368.40	16.12	17.91	-9.51	675.80	-19.94	552.87	520.63	32.24	17.147	
4,600.00	4,594.92	4,538.38	4,462.70	16.48	18.36	-8.82	698.78	-16.94	575.80	542.83	32.96	17.468	
4,700.00	4,694.92	4,635.49	4,557.01	16.83	18.81	-8.18	721.76	-13.94	598.80	565.11	33.68	17.777	
4,800.00	4,794.92	4,732.60	4,651.31	17.19	19.26	-7.59	744.75	-10.94	621.86	587.45	34.41	18.074	
4,900.00	4,894.92	4,829.71	4,745.62	17.54	19.71	-7.04	767.73	-7.94	644.98	609.85	35.13	18.361	
5,000.00	4,994.92	4,926.82	4,839.92	17.90	20.16	-6.53	790.71	-4.94	668.16	632.30	35.85	18.636	
5,100.00	5,094.92	5,023.93	4,934.22	18.25	20.62	-6.06	813.69	-1.94	691.38	654.80	36.58	18.902	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #151H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
5,200.00	5,194.92	5,121.04	5,028.53	18.61	21.07	-5.61	836.67	1.06	714.64	677.34	37.30	19.159	
5,300.00	5,294.92	5,218.15	5,122.83	18.96	21.52	-5.19	859.65	4.06	737.94	699.92	38.03	19.406	
5,400.00	5,394.92	5,315.26	5,217.14	19.32	21.98	-4.80	882.63	7.06	761.28	722.53	38.75	19.645	
5,500.00	5,494.92	5,412.37	5,311.44	19.68	22.43	-4.43	905.62	10.05	784.65	745.17	39.48	19.876	
5,600.00	5,594.92	5,509.48	5,405.74	20.03	22.89	-90.71	928.60	13.05	808.05	767.84	40.20	20.098	
5,700.00	5,694.26	5,606.39	5,499.86	20.38	23.34	-88.45	951.53	16.05	831.46	790.52	40.94	20.309	
5,800.00	5,789.83	5,700.49	5,591.23	20.74	23.78	-87.43	973.80	18.95	854.72	813.02	41.71	20.493	
5,900.00	5,878.13	5,788.31	5,676.52	21.12	24.19	-87.27	994.58	21.67	878.48	835.97	42.51	20.666	
6,000.00	5,955.92	5,866.64	5,752.58	21.53	24.56	-87.39	1,013.12	24.08	904.13	860.77	43.35	20.854	
6,100.00	6,020.34	5,932.59	5,816.62	22.03	24.87	-87.13	1,028.73	26.12	933.33	889.05	44.27	21.082	
6,200.00	6,069.02	5,983.73	5,866.29	22.66	25.11	-85.88	1,040.83	27.70	967.48	922.22	45.26	21.377	
6,300.00	6,100.17	6,018.20	5,899.76	23.44	25.27	-83.14	1,048.99	28.77	1,007.28	960.99	46.28	21.764	
6,400.00	6,112.65	6,034.72	5,915.81	24.36	25.35	-78.65	1,052.90	29.28	1,052.38	1,005.11	47.27	22.263	
6,500.00	6,115.27	6,041.31	5,922.21	25.44	25.38	-78.78	1,054.46	29.48	1,104.58	1,056.39	48.19	22.920	
6,600.00	6,117.88	6,047.23	5,927.96	26.66	25.41	-79.07	1,055.86	29.66	1,165.19	1,116.14	49.05	23.753	
6,700.00	6,120.49	6,053.09	5,933.65	28.02	25.44	-79.44	1,057.24	29.84	1,231.10	1,181.25	49.84	24.699	
6,800.00	6,123.10	6,058.95	5,939.34	29.49	25.46	-79.82	1,058.63	30.02	1,301.33	1,250.77	50.56	25.738	
6,900.00	6,125.72	6,064.81	5,945.03	31.06	25.49	-80.19	1,060.02	30.20	1,375.23	1,324.03	51.20	26.859	
7,000.00	6,128.33	6,070.67	5,950.72	32.72	25.52	-80.56	1,061.41	30.39	1,452.24	1,400.46	51.78	28.049	
7,100.00	6,130.94	6,076.53	5,956.41	34.45	25.55	-80.93	1,062.79	30.57	1,531.88	1,479.60	52.28	29.299	
7,200.00	6,133.55	6,082.40	5,962.10	36.25	25.58	-81.30	1,064.18	30.75	1,613.77	1,561.03	52.74	30.599	
7,300.00	6,136.16	6,088.26	5,967.80	38.09	25.60	-81.67	1,065.57	30.93	1,697.58	1,644.44	53.15	31.942	
7,400.00	6,138.78	8,720.14	7,325.53	39.99	45.28	-133.29	1,447.44	1,529.71	1,731.45	1,670.56	60.89	28.436	
7,500.00	6,141.39	8,820.14	7,328.15	41.92	46.97	-133.29	1,448.43	1,629.67	1,731.45	1,667.71	63.73	27.167	
7,600.00	6,144.00	8,920.14	7,330.76	43.89	48.70	-133.29	1,449.43	1,729.63	1,731.44	1,664.81	66.64	25.982	
7,700.00	6,146.61	9,020.14	7,333.37	45.88	50.49	-133.29	1,450.42	1,829.60	1,731.44	1,661.84	69.60	24.877	
7,800.00	6,149.23	9,120.14	7,335.99	47.91	52.31	-133.29	1,451.42	1,929.56	1,731.44	1,658.83	72.61	23.846	
7,900.00	6,151.84	9,220.14	7,338.60	49.96	54.18	-133.29	1,452.41	2,029.52	1,731.44	1,655.78	75.66	22.885	
8,000.00	6,154.45	9,320.14	7,341.22	52.02	56.08	-133.29	1,453.41	2,129.48	1,731.44	1,652.69	78.75	21.987	
8,100.00	6,157.06	9,420.14	7,343.83	54.11	58.00	-133.29	1,454.41	2,229.44	1,731.43	1,649.57	81.87	21.149	
8,200.00	6,159.68	9,520.14	7,346.44	56.21	59.96	-133.29	1,455.40	2,329.40	1,731.43	1,646.41	85.02	20.365	
8,300.00	6,162.29	9,620.14	7,349.06	58.33	61.94	-133.29	1,456.40	2,429.36	1,731.43	1,643.24	88.20	19.632	
8,400.00	6,164.90	9,720.14	7,351.67	60.45	63.94	-133.29	1,457.39	2,529.32	1,731.43	1,640.03	91.40	18.944	
8,500.00	6,167.51	9,820.14	7,354.29	62.60	65.95	-133.29	1,458.39	2,629.28	1,731.43	1,636.81	94.62	18.299	
8,600.00	6,170.12	9,920.14	7,356.90	64.75	67.99	-133.29	1,459.39	2,729.24	1,731.42	1,633.57	97.86	17.693	
8,700.00	6,172.74	10,020.14	7,359.51	66.91	70.05	-133.29	1,460.38	2,829.20	1,731.42	1,630.31	101.12	17.123	
8,800.00	6,175.35	10,120.14	7,362.13	69.08	72.11	-133.29	1,461.38	2,929.17	1,731.42	1,627.03	104.39	16.586	
8,900.00	6,177.96	10,220.14	7,364.74	71.25	74.20	-133.29	1,462.37	3,029.13	1,731.42	1,623.74	107.68	16.080	
9,000.00	6,180.57	10,320.14	7,367.36	73.43	76.29	-133.29	1,463.37	3,129.09	1,731.42	1,620.44	110.98	15.602	
9,100.00	6,183.19	10,420.14	7,369.97	75.62	78.40	-133.29	1,464.37	3,229.05	1,731.41	1,617.12	114.29	15.149	
9,200.00	6,185.80	10,520.14	7,372.58	77.82	80.51	-133.29	1,465.36	3,329.01	1,731.41	1,613.80	117.61	14.721	
9,300.00	6,188.41	10,620.14	7,375.20	80.02	82.64	-133.29	1,466.36	3,428.97	1,731.41	1,610.46	120.95	14.316	
9,400.00	6,191.02	10,720.14	7,377.81	82.23	84.77	-133.29	1,467.35	3,528.93	1,731.41	1,607.12	124.29	13.931	
9,500.00	6,193.63	10,820.14	7,380.42	84.44	86.91	-133.29	1,468.35	3,628.89	1,731.41	1,603.77	127.64	13.565	
9,600.00	6,196.25	10,920.14	7,383.04	86.65	89.07	-133.29	1,469.34	3,728.85	1,731.40	1,600.41	131.00	13.217	
9,700.00	6,198.86	11,020.14	7,385.65	88.87	91.22	-133.29	1,470.34	3,828.81	1,731.40	1,597.04	134.36	12.886	
9,800.00	6,201.47	11,120.14	7,388.27	91.09	93.39	-133.29	1,471.34	3,928.77	1,731.40	1,593.66	137.73	12.571	
9,900.00	6,204.08	11,220.14	7,390.88	93.32	95.56	-133.29	1,472.33	4,028.73	1,731.40	1,590.28	141.11	12.270	
10,000.00	6,206.70	11,320.14	7,393.49	95.55	97.73	-133.29	1,473.33	4,128.70	1,731.39	1,586.90	144.50	11.982	
10,100.00	6,209.31	11,420.14	7,396.11	97.78	99.91	-133.29	1,474.32	4,228.66	1,731.39	1,583.51	147.89	11.708	
10,200.00	6,211.92	11,520.14	7,398.72	100.02	102.10	-133.29	1,475.32	4,328.62	1,731.39	1,580.11	151.28	11.445	
10,300.00	6,214.53	11,620.14	7,401.34	102.25	104.29	-133.29	1,476.32	4,428.58	1,731.39	1,576.71	154.68	11.193	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #151H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
10,400.00	6,217.14	11,720.14	7,403.95	104.49	106.48	-133.29	1,477.31	4,528.54	1,731.39	1,573.30	158.08	10.952	
10,500.00	6,219.76	11,820.14	7,406.56	106.73	108.68	-133.29	1,478.31	4,628.50	1,731.38	1,569.89	161.49	10.721	
10,600.00	6,222.37	11,920.14	7,409.18	108.98	110.88	-133.29	1,479.30	4,728.46	1,731.38	1,566.48	164.90	10.499	
10,700.00	6,224.98	12,020.14	7,411.79	111.22	113.09	-133.29	1,480.30	4,828.42	1,731.38	1,563.06	168.32	10.286	
10,800.00	6,227.59	12,120.14	7,414.40	113.47	115.30	-133.29	1,481.29	4,928.38	1,731.38	1,559.64	171.74	10.082	
10,900.00	6,230.21	12,220.14	7,417.02	115.72	117.51	-133.29	1,482.29	5,028.34	1,731.38	1,556.22	175.16	9.885	
11,000.00	6,232.82	12,320.14	7,419.63	117.97	119.73	-133.29	1,483.29	5,128.30	1,731.37	1,552.79	178.58	9.695	
11,100.00	6,235.43	12,420.14	7,422.25	120.22	121.95	-133.29	1,484.28	5,228.27	1,731.37	1,549.36	182.01	9.512	
11,200.00	6,238.04	12,520.14	7,424.86	122.48	124.17	-133.29	1,485.28	5,328.23	1,731.37	1,545.93	185.44	9.337	
11,300.00	6,240.66	12,620.14	7,427.47	124.73	126.39	-133.29	1,486.27	5,428.19	1,731.37	1,542.49	188.87	9.167	
11,400.00	6,243.27	12,720.14	7,430.09	126.99	128.62	-133.29	1,487.27	5,528.15	1,731.37	1,539.06	192.31	9.003	
11,500.00	6,245.88	12,820.14	7,432.70	129.25	130.85	-133.29	1,488.27	5,628.11	1,731.36	1,535.62	195.75	8.845	
11,600.00	6,248.49	12,920.14	7,435.32	131.51	133.08	-133.29	1,489.26	5,728.07	1,731.36	1,532.18	199.18	8.692	
11,700.00	6,251.10	13,020.14	7,437.93	133.77	135.31	-133.29	1,490.26	5,828.03	1,731.36	1,528.73	202.63	8.545	
11,800.00	6,253.72	13,120.14	7,440.54	136.03	137.55	-133.29	1,491.25	5,927.99	1,731.36	1,525.29	206.07	8.402	
11,900.00	6,256.33	13,220.14	7,443.16	138.29	139.78	-133.29	1,492.25	6,027.95	1,731.36	1,521.84	209.51	8.264	
12,000.00	6,258.94	13,320.14	7,445.77	140.56	142.02	-133.29	1,493.25	6,127.91	1,731.35	1,518.39	212.96	8.130	
12,100.00	6,261.55	13,420.14	7,448.38	142.82	144.26	-133.29	1,494.24	6,227.87	1,731.35	1,514.94	216.41	8.000	
12,200.00	6,264.17	13,520.14	7,451.00	145.09	146.50	-133.29	1,495.24	6,327.83	1,731.35	1,511.49	219.86	7.875	
12,300.00	6,266.78	13,620.14	7,453.61	147.35	148.75	-133.29	1,496.23	6,427.80	1,731.35	1,508.04	223.31	7.753	
12,400.00	6,269.39	13,720.14	7,456.23	149.62	150.99	-133.29	1,497.23	6,527.76	1,731.35	1,504.58	226.77	7.635	
12,500.00	6,272.00	13,820.14	7,458.84	151.89	153.24	-133.29	1,498.22	6,627.72	1,731.34	1,501.12	230.22	7.520	
12,600.00	6,274.61	13,920.14	7,461.45	154.15	155.48	-133.29	1,499.22	6,727.68	1,731.34	1,497.67	233.68	7.409	
12,700.00	6,277.23	14,020.14	7,464.07	156.42	157.73	-133.29	1,500.22	6,827.64	1,731.34	1,494.21	237.13	7.301	
12,800.00	6,279.84	14,120.14	7,466.68	158.69	159.98	-133.29	1,501.21	6,927.60	1,731.34	1,490.75	240.59	7.196	
12,900.00	6,282.45	14,220.14	7,469.30	160.96	162.23	-133.29	1,502.21	7,027.56	1,731.33	1,487.28	244.05	7.094	
13,000.00	6,285.06	14,320.14	7,471.91	163.23	164.49	-133.29	1,503.20	7,127.52	1,731.33	1,483.82	247.51	6.995	
13,100.00	6,287.68	14,420.14	7,474.52	165.50	166.74	-133.29	1,504.20	7,227.48	1,731.33	1,480.36	250.97	6.898	
13,200.00	6,290.29	14,520.14	7,477.14	167.78	169.00	-133.29	1,505.20	7,327.44	1,731.33	1,476.89	254.43	6.805	
13,300.00	6,292.90	14,620.14	7,479.75	170.05	171.25	-133.29	1,506.19	7,427.40	1,731.33	1,473.43	257.90	6.713	
13,400.00	6,295.51	14,720.14	7,482.37	172.32	173.51	-133.29	1,507.19	7,527.37	1,731.32	1,469.96	261.36	6.624	
13,500.00	6,298.12	14,820.14	7,484.98	174.60	175.76	-133.29	1,508.18	7,627.33	1,731.32	1,466.49	264.83	6.538	
13,600.00	6,300.74	14,920.14	7,487.59	176.87	178.02	-133.29	1,509.18	7,727.29	1,731.32	1,463.03	268.29	6.453	
13,700.00	6,303.35	15,020.14	7,490.21	179.14	180.28	-133.30	1,510.17	7,827.25	1,731.32	1,459.56	271.76	6.371	
13,800.00	6,305.96	15,120.14	7,492.82	181.42	182.54	-133.30	1,511.17	7,927.21	1,731.32	1,456.09	275.23	6.290	
13,900.00	6,308.57	15,220.14	7,495.43	183.69	184.80	-133.30	1,512.17	8,027.17	1,731.31	1,452.62	278.70	6.212	
14,000.00	6,311.19	15,320.14	7,498.05	185.97	187.06	-133.30	1,513.16	8,127.13	1,731.31	1,449.14	282.17	6.136	
14,100.00	6,313.80	15,420.14	7,500.66	188.25	189.33	-133.30	1,514.16	8,227.09	1,731.31	1,445.67	285.64	6.061	
14,200.00	6,316.41	15,520.14	7,503.28	190.52	191.59	-133.30	1,515.15	8,327.05	1,731.31	1,442.20	289.11	5.988	
14,300.00	6,319.02	15,620.14	7,505.89	192.80	193.85	-133.30	1,516.15	8,427.01	1,731.31	1,438.73	292.58	5.917	
14,400.00	6,321.64	15,720.14	7,508.50	195.08	196.12	-133.30	1,517.15	8,526.97	1,731.30	1,435.25	296.05	5.848	
14,500.00	6,324.25	15,820.14	7,511.12	197.35	198.38	-133.30	1,518.14	8,626.94	1,731.30	1,431.78	299.52	5.780	
14,600.00	6,326.86	15,920.14	7,513.73	199.63	200.65	-133.30	1,519.14	8,726.90	1,731.30	1,428.30	303.00	5.714	
14,700.00	6,329.47	16,020.14	7,516.35	201.91	202.91	-133.30	1,520.13	8,826.86	1,731.30	1,424.83	306.47	5.649	
14,800.00	6,332.08	16,120.14	7,518.96	204.19	205.18	-133.30	1,521.13	8,926.82	1,731.30	1,421.35	309.94	5.586	
14,900.00	6,334.70	16,220.14	7,521.57	206.47	207.45	-133.30	1,522.13	9,026.78	1,731.29	1,417.87	313.42	5.524	
15,000.00	6,337.31	16,320.14	7,524.19	208.75	209.72	-133.30	1,523.12	9,126.74	1,731.29	1,414.40	316.89	5.463	
15,100.00	6,339.92	16,420.14	7,526.80	211.03	211.98	-133.30	1,524.12	9,226.70	1,731.29	1,410.92	320.37	5.404	
15,200.00	6,342.53	16,520.14	7,529.41	213.31	214.25	-133.30	1,525.11	9,326.66	1,731.29	1,407.44	323.85	5.346	
15,300.00	6,345.15	16,620.14	7,532.03	215.59	216.52	-133.30	1,526.11	9,426.62	1,731.28	1,403.96	327.32	5.289	
15,400.00	6,347.76	16,720.14	7,534.64	217.87	218.79	-133.30	1,527.10	9,526.58	1,731.28	1,400.48	330.80	5.234	
15,500.00	6,350.37	16,820.14	7,537.26	220.15	221.06	-133.30	1,528.10	9,626.54	1,731.28	1,397.00	334.28	5.179	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #151H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
15,600.00	6,352.98	16,920.14	7,539.87	222.43	223.33	-133.30	1,529.10	9,726.50	1,731.28	1,393.52	337.76	5.126	
15,700.00	6,355.59	17,020.14	7,542.48	224.71	225.61	-133.30	1,530.09	9,826.47	1,731.28	1,390.04	341.24	5.074	
15,800.00	6,358.21	17,120.14	7,545.10	226.99	227.88	-133.30	1,531.09	9,926.43	1,731.27	1,386.56	344.71	5.022	
15,900.00	6,360.82	17,220.14	7,547.71	229.27	230.15	-133.30	1,532.08	10,026.39	1,731.27	1,383.08	348.19	4.972	
16,000.00	6,363.43	17,320.14	7,550.33	231.55	232.42	-133.30	1,533.08	10,126.35	1,731.27	1,379.60	351.67	4.923	
16,100.00	6,366.04	17,420.14	7,552.94	233.83	234.69	-133.30	1,534.08	10,226.31	1,731.27	1,376.12	355.15	4.875	
16,200.00	6,368.66	17,520.14	7,555.55	236.12	236.97	-133.30	1,535.07	10,326.27	1,731.27	1,372.63	358.63	4.827	
16,300.00	6,371.27	17,620.14	7,558.17	238.40	239.24	-133.30	1,536.07	10,426.23	1,731.26	1,369.15	362.11	4.781	
16,400.00	6,373.88	17,720.14	7,560.78	240.68	241.51	-133.30	1,537.06	10,526.19	1,731.26	1,365.67	365.59	4.735	
16,500.00	6,376.49	17,820.14	7,563.40	242.96	243.79	-133.30	1,538.06	10,626.15	1,731.26	1,362.18	369.08	4.691	
16,600.00	6,379.10	17,920.14	7,566.01	245.25	246.06	-133.30	1,539.05	10,726.11	1,731.26	1,358.70	372.56	4.647	
16,655.32	6,380.55	17,975.47	7,567.46	246.51	247.32	-133.30	1,539.61	10,781.42	1,731.26	1,356.77	374.48	4.623	SF

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #152H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
0.00	0.00	0.00	0.00	0.50	0.50	-90.55	-1.00	-105.00	105.00				
100.00	100.00	100.00	100.00	0.57	0.57	-90.55	-1.00	-105.00	105.00	103.87	1.13	92.759	
200.00	200.00	200.00	200.00	0.80	0.80	-90.55	-1.00	-105.00	105.00	103.41	1.60	65.677	
300.00	300.00	300.00	300.00	1.10	1.10	-90.55	-1.00	-105.00	105.00	102.80	2.20	47.636	
400.00	400.00	400.00	400.00	1.43	1.43	-90.55	-1.00	-105.00	105.00	102.14	2.86	36.692	
500.00	500.00	500.00	500.00	1.77	1.77	-90.55	-1.00	-105.00	105.00	101.46	3.54	29.642	
600.00	600.00	600.00	600.00	2.12	2.12	-90.55	-1.00	-105.00	105.00	100.77	4.24	24.794	
700.00	700.00	700.00	700.00	2.47	2.47	-90.55	-1.00	-105.00	105.00	100.07	4.93	21.279	
800.00	800.00	800.00	800.00	2.82	2.82	-90.55	-1.00	-105.00	105.00	99.37	5.64	18.623	
900.00	900.00	900.00	900.00	3.17	3.17	-90.55	-1.00	-105.00	105.00	98.66	6.35	16.548	
1,000.00	1,000.00	1,000.00	1,000.00	3.53	3.53	-90.55	-1.00	-105.00	105.00	97.95	7.05	14.885	
1,100.00	1,100.00	1,100.00	1,100.00	3.88	3.88	-90.55	-1.00	-105.00	105.00	97.24	7.76	13.523	
1,200.00	1,199.99	1,199.99	1,199.99	4.24	4.24	-116.42	-1.00	-105.00	105.39	96.92	8.48	12.435	
1,300.00	1,299.96	1,299.96	1,299.96	4.59	4.59	-117.67	-1.00	-105.00	106.58	97.40	9.19	11.604	
1,400.00	1,399.86	1,399.86	1,399.86	4.95	4.95	-119.68	-1.00	-105.00	108.68	98.78	9.90	10.982	
1,500.00	1,499.68	1,500.78	1,500.78	5.30	5.31	-122.19	-0.55	-104.65	111.42	100.81	10.61	10.502	
1,600.00	1,599.45	1,602.10	1,602.07	5.66	5.67	-124.24	1.29	-103.23	113.44	102.12	11.32	10.020	
1,700.00	1,699.23	1,703.54	1,703.42	6.02	6.03	-125.63	4.55	-100.71	114.28	102.25	12.03	9.496	
1,800.00	1,799.01	1,805.04	1,804.75	6.38	6.39	-126.40	9.23	-97.09	113.85	101.10	12.75	8.932	
1,900.00	1,898.79	1,906.53	1,905.94	6.74	6.75	-126.58	15.33	-92.37	112.10	98.64	13.46	8.330	
2,000.00	1,998.56	2,007.94	2,006.91	7.10	7.11	-126.14	22.84	-86.56	109.02	94.85	14.17	7.694	
2,100.00	2,098.34	2,109.23	2,107.57	7.46	7.48	-125.03	31.75	-79.67	104.65	89.76	14.88	7.032	
2,200.00	2,198.12	2,210.32	2,207.81	7.82	7.85	-123.10	42.05	-71.71	99.05	83.45	15.60	6.351	
2,300.00	2,297.90	2,311.14	2,307.56	8.19	8.22	-120.14	53.71	-62.69	92.38	76.06	16.32	5.661	
2,400.00	2,397.67	2,411.65	2,406.71	8.55	8.60	-115.81	66.72	-52.63	84.89	67.84	17.05	4.980	
2,500.00	2,497.45	2,511.60	2,505.02	8.91	8.98	-109.65	80.97	-41.61	77.06	59.26	17.80	4.329	
2,600.00	2,597.23	2,610.86	2,602.56	9.28	9.37	-101.91	95.50	-30.38	70.11	51.53	18.58	3.774	
2,700.00	2,697.01	2,710.12	2,700.11	9.64	9.75	-92.69	110.03	-19.14	64.70	45.33	19.36	3.341	
2,800.00	2,796.78	2,809.38	2,797.66	10.01	10.14	-82.14	124.56	-7.90	61.25	41.10	20.14	3.040	
2,897.27	2,893.83	2,905.93	2,892.53	10.36	10.53	-71.11	138.69	3.03	60.10	39.21	20.89	2.877 CC	
2,900.00	2,896.56	2,908.64	2,895.20	10.37	10.54	-70.79	139.09	3.33	60.10	39.19	20.91	2.874	
3,000.00	2,996.34	3,008.08	2,992.97	10.74	10.94	-59.67	153.44	14.44	61.30	39.66	21.64	2.832	
3,100.00	3,096.11	3,107.97	3,091.45	11.10	11.33	-50.51	166.65	24.65	63.97	41.61	22.36	2.861	
3,200.00	3,195.89	3,208.19	3,190.53	11.47	11.73	-43.46	178.54	33.84	67.13	44.06	23.08	2.909	
3,300.00	3,295.67	3,308.67	3,290.13	11.83	12.12	-38.20	189.08	41.99	70.08	46.28	23.80	2.945	
3,400.00	3,395.45	3,409.37	3,390.16	12.20	12.50	-34.39	198.25	49.09	72.35	47.83	24.52	2.951	
3,500.00	3,495.22	3,510.21	3,490.51	12.56	12.89	-31.77	206.05	55.12	73.63	48.39	25.24	2.917	
3,600.00	3,595.05	3,611.13	3,591.11	12.93	13.26	-29.87	212.44	60.06	74.40	48.44	25.96	2.866	
3,700.00	3,694.96	3,712.09	3,691.87	13.29	13.63	-28.25	217.44	63.93	75.44	48.77	26.68	2.828	
3,800.00	3,794.93	3,813.10	3,792.78	13.65	13.99	-26.93	221.03	66.71	76.73	49.35	27.38	2.802	
3,900.00	3,894.92	3,914.14	3,893.78	14.00	14.35	-0.44	223.22	68.40	78.23	50.15	28.08	2.786	
4,000.00	3,994.92	4,015.24	3,994.87	14.36	14.70	0.00	224.00	69.00	79.00	50.22	28.77	2.746	
4,100.00	4,094.92	4,115.29	4,094.92	14.71	15.04	0.00	224.00	69.00	79.00	49.52	29.48	2.680	
4,200.00	4,194.92	4,215.29	4,194.92	15.06	15.39	0.00	224.00	69.00	79.00	48.82	30.18	2.617	
4,300.00	4,294.92	4,315.29	4,294.92	15.42	15.73	0.00	224.00	69.00	79.00	48.11	30.89	2.558	
4,400.00	4,394.92	4,415.29	4,394.92	15.77	16.08	0.00	224.00	69.00	79.00	47.40	31.60	2.500	
4,500.00	4,494.92	4,515.29	4,494.92	16.12	16.43	0.00	224.00	69.00	79.00	46.70	32.30	2.446	
4,600.00	4,594.92	4,615.29	4,594.92	16.48	16.77	0.00	224.00	69.00	79.00	45.99	33.01	2.393	
4,700.00	4,694.92	4,715.29	4,694.92	16.83	17.12	0.00	224.00	69.00	79.00	45.28	33.72	2.343	
4,800.00	4,794.92	4,815.29	4,794.92	17.19	17.47	0.00	224.00	69.00	79.00	44.57	34.43	2.295	
4,900.00	4,894.92	4,915.29	4,894.92	17.54	17.82	0.00	224.00	69.00	79.00	43.86	35.14	2.248	
5,000.00	4,994.92	5,015.29	4,994.92	17.90	18.17	0.00	224.00	69.00	79.00	43.16	35.84	2.204	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #152H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
5,100.00	5,094.92	5,115.29	5,094.92	18.25	18.52	0.00	224.00	69.00	79.00	42.45	36.55	2.161	
5,200.00	5,194.92	5,215.29	5,194.92	18.61	18.87	0.00	224.00	69.00	79.00	41.74	37.26	2.120	
5,300.00	5,294.92	5,315.29	5,294.92	18.96	19.22	0.00	224.00	69.00	79.00	41.03	37.97	2.080	
5,400.00	5,394.92	5,415.29	5,394.92	19.32	19.57	0.00	224.00	69.00	79.00	40.32	38.68	2.042	
5,500.00	5,494.92	5,515.29	5,494.92	19.68	19.92	0.00	224.00	69.00	79.00	39.61	39.39	2.005	
5,600.00	5,594.92	5,615.29	5,594.92	20.03	20.27	-86.71	224.00	69.00	79.00	38.90	40.10	1.970	
5,665.95	5,660.67	5,681.04	5,660.67	20.26	20.50	-90.00	224.00	69.00	78.87	38.28	40.59	1.943	
5,700.00	5,694.26	5,714.62	5,694.26	20.38	20.62	-93.97	224.00	69.00	79.07	38.21	40.85	1.935	ES, SF
5,800.00	5,789.83	5,810.20	5,789.83	20.74	20.95	-112.02	224.00	69.00	86.08	44.42	41.66	2.066	
5,900.00	5,878.13	5,898.50	5,878.13	21.12	21.26	-130.66	224.00	69.00	113.11	70.76	42.36	2.670	
6,000.00	5,955.92	5,976.29	5,955.92	21.53	21.54	-142.50	224.00	69.00	163.90	121.01	42.89	3.822	
6,100.00	6,020.34	6,040.71	6,020.34	22.03	21.76	-147.78	224.00	69.00	233.68	190.39	43.29	5.398	
6,200.00	6,069.02	6,089.39	6,069.02	22.66	21.93	-147.41	224.00	69.00	317.10	273.52	43.58	7.276	
6,300.00	6,100.17	6,120.54	6,100.17	23.44	22.04	-138.21	224.00	69.00	409.67	365.91	43.76	9.361	
6,400.00	6,112.65	6,133.02	6,112.65	24.36	22.09	-100.54	224.00	69.00	507.24	463.41	43.83	11.573	
6,500.00	6,115.27	6,135.63	6,115.27	25.44	22.10	-104.76	224.00	69.00	606.39	562.54	43.85	13.830	
6,600.00	6,117.88	6,138.25	6,117.88	26.66	22.11	-109.61	224.00	69.00	706.02	662.16	43.86	16.096	
6,700.00	6,120.49	6,140.86	6,120.49	28.02	22.11	-112.14	224.00	69.00	805.75	761.87	43.88	18.361	
6,800.00	6,123.10	6,143.47	6,123.10	29.49	22.12	-114.58	224.00	69.00	905.53	861.63	43.90	20.625	
6,900.00	6,125.72	6,146.08	6,125.72	31.06	22.13	-116.93	224.00	69.00	1,005.35	961.43	43.93	22.888	
7,000.00	6,128.33	6,148.70	6,128.33	32.72	22.14	-119.19	224.00	69.00	1,105.20	1,061.25	43.95	25.147	
7,100.00	6,130.94	6,151.31	6,130.94	34.45	22.15	-121.35	224.00	69.00	1,205.07	1,161.09	43.97	27.405	
7,200.00	6,133.55	8,398.05	7,348.72	36.25	39.28	-177.57	236.66	1,341.04	1,216.68	1,188.46	28.22	43.114	
7,300.00	6,136.16	8,498.05	7,351.34	38.09	41.01	-177.57	237.65	1,441.01	1,216.68	1,187.37	29.32	41.503	
7,400.00	6,138.78	8,598.05	7,353.96	39.99	42.78	-177.57	238.64	1,540.97	1,216.69	1,186.24	30.45	39.953	
7,500.00	6,141.39	8,698.05	7,356.57	41.92	44.61	-177.57	239.64	1,640.93	1,216.69	1,185.07	31.63	38.469	
7,600.00	6,144.00	8,798.05	7,359.19	43.89	46.47	-177.57	240.63	1,740.89	1,216.70	1,183.86	32.84	37.053	
7,700.00	6,146.61	8,898.05	7,361.81	45.88	48.38	-177.57	241.63	1,840.85	1,216.70	1,182.63	34.08	35.706	
7,800.00	6,149.23	8,998.05	7,364.43	47.91	50.31	-177.57	242.62	1,940.81	1,216.71	1,181.37	35.34	34.428	
7,900.00	6,151.84	9,098.05	7,367.05	49.96	52.28	-177.57	243.62	2,040.77	1,216.71	1,180.08	36.63	33.216	
8,000.00	6,154.45	9,198.05	7,369.66	52.02	54.27	-177.57	244.61	2,140.73	1,216.72	1,178.78	37.94	32.068	
8,100.00	6,157.06	9,298.05	7,372.28	54.11	56.28	-177.57	245.61	2,240.69	1,216.72	1,177.45	39.27	30.981	
8,200.00	6,159.68	9,398.05	7,374.90	56.21	58.31	-177.57	246.60	2,340.65	1,216.73	1,176.11	40.62	29.953	
8,300.00	6,162.29	9,498.05	7,377.52	58.33	60.36	-177.57	247.59	2,440.61	1,216.73	1,174.75	41.99	28.980	
8,400.00	6,164.90	9,598.05	7,380.13	60.45	62.43	-177.57	248.59	2,540.57	1,216.74	1,173.38	43.36	28.059	
8,500.00	6,167.51	9,698.05	7,382.75	62.60	64.52	-177.58	249.58	2,640.54	1,216.75	1,171.99	44.76	27.186	
8,600.00	6,170.12	9,798.05	7,385.37	64.75	66.61	-177.58	250.58	2,740.50	1,216.75	1,170.59	46.16	26.360	
8,700.00	6,172.74	9,898.05	7,387.99	66.91	68.72	-177.58	251.57	2,840.46	1,216.76	1,169.18	47.57	25.576	
8,800.00	6,175.35	9,998.05	7,390.60	69.08	70.84	-177.58	252.57	2,940.42	1,216.76	1,167.76	49.00	24.833	
8,900.00	6,177.96	10,098.05	7,393.22	71.25	72.98	-177.58	253.56	3,040.38	1,216.77	1,166.33	50.43	24.127	
9,000.00	6,180.57	10,198.05	7,395.84	73.43	75.12	-177.58	254.56	3,140.34	1,216.77	1,164.90	51.87	23.456	
9,100.00	6,183.19	10,298.05	7,398.46	75.62	77.27	-177.58	255.55	3,240.30	1,216.78	1,163.45	53.32	22.819	
9,200.00	6,185.80	10,398.05	7,401.08	77.82	79.42	-177.58	256.54	3,340.26	1,216.78	1,162.00	54.78	22.212	
9,300.00	6,188.41	10,498.05	7,403.69	80.02	81.59	-177.58	257.54	3,440.22	1,216.79	1,160.54	56.24	21.634	
9,400.00	6,191.02	10,598.05	7,406.31	82.23	83.76	-177.58	258.53	3,540.18	1,216.79	1,159.08	57.71	21.084	
9,500.00	6,193.63	10,698.05	7,408.93	84.44	85.94	-177.58	259.53	3,640.14	1,216.80	1,157.61	59.19	20.558	
9,600.00	6,196.25	10,798.05	7,411.55	86.65	88.12	-177.58	260.52	3,740.10	1,216.80	1,156.13	60.67	20.057	
9,700.00	6,198.86	10,898.05	7,414.16	88.87	90.31	-177.58	261.52	3,840.06	1,216.81	1,154.66	62.15	19.578	
9,800.00	6,201.47	10,998.05	7,416.78	91.09	92.51	-177.58	262.51	3,940.03	1,216.81	1,153.17	63.64	19.120	
9,900.00	6,204.08	11,098.05	7,419.40	93.32	94.71	-177.58	263.51	4,039.99	1,216.82	1,151.68	65.14	18.681	
10,000.00	6,206.70	11,198.05	7,422.02	95.55	96.91	-177.58	264.50	4,139.95	1,216.82	1,150.19	66.63	18.262	
10,100.00	6,209.31	11,298.05	7,424.63	97.78	99.12	-177.58	265.50	4,239.91	1,216.83	1,148.69	68.13	17.859	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #152H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
10,200.00	6,211.92	11,398.05	7,427.25	100.02	101.33	-177.58	266.49	4,339.87	1,216.83	1,147.20	69.64	17.474	
10,300.00	6,214.53	11,498.05	7,429.87	102.25	103.54	-177.58	267.48	4,439.83	1,216.84	1,145.69	71.15	17.103	
10,400.00	6,217.14	11,598.05	7,432.49	104.49	105.76	-177.58	268.48	4,539.79	1,216.84	1,144.19	72.66	16.748	
10,500.00	6,219.76	11,698.05	7,435.11	106.73	107.98	-177.58	269.47	4,639.75	1,216.85	1,142.68	74.17	16.406	
10,600.00	6,222.37	11,798.05	7,437.72	108.98	110.20	-177.58	270.47	4,739.71	1,216.85	1,141.17	75.69	16.078	
10,700.00	6,224.98	11,898.05	7,440.34	111.22	112.43	-177.58	271.46	4,839.67	1,216.86	1,139.66	77.20	15.762	
10,800.00	6,227.59	11,998.05	7,442.96	113.47	114.66	-177.58	272.46	4,939.63	1,216.86	1,138.14	78.73	15.457	
10,900.00	6,230.21	12,098.05	7,445.58	115.72	116.89	-177.58	273.45	5,039.59	1,216.87	1,136.62	80.25	15.164	
11,000.00	6,232.82	12,198.05	7,448.19	117.97	119.12	-177.58	274.45	5,139.55	1,216.88	1,135.10	81.77	14.881	
11,100.00	6,235.43	12,298.05	7,450.81	120.22	121.36	-177.58	275.44	5,239.52	1,216.88	1,133.58	83.30	14.608	
11,200.00	6,238.04	12,398.05	7,453.43	122.48	123.60	-177.58	276.43	5,339.48	1,216.89	1,132.06	84.83	14.345	
11,300.00	6,240.66	12,498.05	7,456.05	124.73	125.84	-177.58	277.43	5,439.44	1,216.89	1,130.53	86.36	14.091	
11,400.00	6,243.27	12,598.05	7,458.66	126.99	128.08	-177.58	278.42	5,539.40	1,216.90	1,129.00	87.89	13.845	
11,500.00	6,245.88	12,698.05	7,461.28	129.25	130.32	-177.58	279.42	5,639.36	1,216.90	1,127.47	89.43	13.608	
11,600.00	6,248.49	12,798.05	7,463.90	131.51	132.57	-177.58	280.41	5,739.32	1,216.91	1,125.94	90.96	13.378	
11,700.00	6,251.10	12,898.05	7,466.52	133.77	134.82	-177.58	281.41	5,839.28	1,216.91	1,124.41	92.50	13.156	
11,800.00	6,253.72	12,998.05	7,469.14	136.03	137.06	-177.58	282.40	5,939.24	1,216.92	1,122.88	94.04	12.941	
11,900.00	6,256.33	13,098.05	7,471.75	138.29	139.31	-177.58	283.40	6,039.20	1,216.92	1,121.34	95.58	12.732	
12,000.00	6,258.94	13,198.05	7,474.37	140.56	141.56	-177.59	284.39	6,139.16	1,216.93	1,119.81	97.12	12.530	
12,100.00	6,261.55	13,298.05	7,476.99	142.82	143.82	-177.59	285.38	6,239.12	1,216.93	1,118.27	98.66	12.335	
12,200.00	6,264.17	13,398.05	7,479.61	145.09	146.07	-177.59	286.38	6,339.08	1,216.94	1,116.73	100.20	12.145	
12,300.00	6,266.78	13,498.05	7,482.22	147.35	148.33	-177.59	287.37	6,439.05	1,216.94	1,115.19	101.75	11.960	
12,400.00	6,269.39	13,598.05	7,484.84	149.62	150.58	-177.59	288.37	6,539.01	1,216.95	1,113.65	103.29	11.782	
12,500.00	6,272.00	13,698.05	7,487.46	151.89	152.84	-177.59	289.36	6,638.97	1,216.95	1,112.11	104.84	11.608	
12,600.00	6,274.61	13,798.05	7,490.08	154.15	155.10	-177.59	290.36	6,738.93	1,216.96	1,110.57	106.39	11.439	
12,700.00	6,277.23	13,898.05	7,492.69	156.42	157.36	-177.59	291.35	6,838.89	1,216.96	1,109.03	107.93	11.275	
12,800.00	6,279.84	13,998.05	7,495.31	158.69	159.62	-177.59	292.35	6,938.85	1,216.97	1,107.49	109.48	11.116	
12,900.00	6,282.45	14,098.05	7,497.93	160.96	161.88	-177.59	293.34	7,038.81	1,216.97	1,105.94	111.03	10.960	
13,000.00	6,285.06	14,198.05	7,500.55	163.23	164.14	-177.59	294.34	7,138.77	1,216.98	1,104.40	112.58	10.810	
13,100.00	6,287.68	14,298.05	7,503.17	165.50	166.40	-177.59	295.33	7,238.73	1,216.98	1,102.85	114.13	10.663	
13,200.00	6,290.29	14,398.05	7,505.78	167.78	168.66	-177.59	296.32	7,338.69	1,216.99	1,101.30	115.69	10.520	
13,300.00	6,292.90	14,498.05	7,508.40	170.05	170.93	-177.59	297.32	7,438.65	1,216.99	1,099.75	117.24	10.380	
13,400.00	6,295.51	14,598.05	7,511.02	172.32	173.19	-177.59	298.31	7,538.61	1,217.00	1,098.21	118.79	10.245	
13,500.00	6,298.12	14,698.05	7,513.64	174.60	175.46	-177.59	299.31	7,638.57	1,217.00	1,096.66	120.35	10.112	
13,600.00	6,300.74	14,798.05	7,516.25	176.87	177.73	-177.59	300.30	7,738.54	1,217.01	1,095.11	121.90	9.984	
13,700.00	6,303.35	14,898.05	7,518.87	179.14	179.99	-177.59	301.30	7,838.50	1,217.02	1,093.56	123.46	9.858	
13,800.00	6,305.96	14,998.05	7,521.49	181.42	182.26	-177.59	302.29	7,938.46	1,217.02	1,092.01	125.01	9.735	
13,900.00	6,308.57	15,098.05	7,524.11	183.69	184.53	-177.59	303.29	8,038.42	1,217.03	1,090.46	126.57	9.616	
14,000.00	6,311.19	15,198.05	7,526.72	185.97	186.80	-177.59	304.28	8,138.38	1,217.03	1,088.90	128.13	9.499	
14,100.00	6,313.80	15,298.05	7,529.34	188.25	189.07	-177.59	305.27	8,238.34	1,217.04	1,087.35	129.68	9.385	
14,200.00	6,316.41	15,398.05	7,531.96	190.52	191.34	-177.59	306.27	8,338.30	1,217.04	1,085.80	131.24	9.273	
14,300.00	6,319.02	15,498.05	7,534.58	192.80	193.61	-177.59	307.26	8,438.26	1,217.05	1,084.25	132.80	9.165	
14,400.00	6,321.64	15,598.05	7,537.20	195.08	195.88	-177.59	308.26	8,538.22	1,217.05	1,082.69	134.36	9.058	
14,500.00	6,324.25	15,698.05	7,539.81	197.35	198.15	-177.59	309.25	8,638.18	1,217.06	1,081.14	135.92	8.954	
14,600.00	6,326.86	15,798.05	7,542.43	199.63	200.42	-177.59	310.25	8,738.14	1,217.06	1,079.58	137.48	8.853	
14,700.00	6,329.47	15,898.05	7,545.05	201.91	202.69	-177.59	311.24	8,838.10	1,217.07	1,078.03	139.04	8.754	
14,800.00	6,332.08	15,998.05	7,547.67	204.19	204.96	-177.59	312.24	8,938.06	1,217.07	1,076.47	140.60	8.656	
14,900.00	6,334.70	16,098.05	7,550.28	206.47	207.24	-177.59	313.23	9,038.03	1,217.08	1,074.92	142.16	8.561	
15,000.00	6,337.31	16,198.05	7,552.90	208.75	209.51	-177.59	314.22	9,137.99	1,217.08	1,073.36	143.72	8.468	
15,100.00	6,339.92	16,298.05	7,555.52	211.03	211.79	-177.59	315.22	9,237.95	1,217.09	1,071.81	145.28	8.377	
15,200.00	6,342.53	16,398.05	7,558.14	213.31	214.06	-177.59	316.21	9,337.91	1,217.09	1,070.25	146.84	8.288	
15,300.00	6,345.15	16,498.05	7,560.75	215.59	216.33	-177.59	317.21	9,437.87	1,217.10	1,068.69	148.41	8.201	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #152H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
15,400.00	6,347.76	16,598.05	7,563.37	217.87	218.61	-177.59	318.20	9,537.83	1,217.10	1,067.13	149.97	8.116	
15,500.00	6,350.37	16,698.05	7,565.99	220.15	220.88	-177.59	319.20	9,637.79	1,217.11	1,065.58	151.53	8.032	
15,600.00	6,352.98	16,798.05	7,568.61	222.43	223.16	-177.60	320.19	9,737.75	1,217.11	1,064.02	153.09	7.950	
15,700.00	6,355.59	16,898.05	7,571.23	224.71	225.44	-177.60	321.19	9,837.71	1,217.12	1,062.46	154.66	7.870	
15,800.00	6,358.21	16,998.05	7,573.84	226.99	227.71	-177.60	322.18	9,937.67	1,217.12	1,060.90	156.22	7.791	
15,900.00	6,360.82	17,098.05	7,576.46	229.27	229.99	-177.60	323.17	10,037.63	1,217.13	1,059.34	157.79	7.714	
16,000.00	6,363.43	17,198.05	7,579.08	231.55	232.27	-177.60	324.17	10,137.59	1,217.13	1,057.78	159.35	7.638	
16,100.00	6,366.04	17,298.05	7,581.70	233.83	234.54	-177.60	325.16	10,237.55	1,217.14	1,056.22	160.92	7.564	
16,200.00	6,368.66	17,398.05	7,584.31	236.12	236.82	-177.60	326.16	10,337.52	1,217.14	1,054.66	162.48	7.491	
16,300.00	6,371.27	17,498.05	7,586.93	238.40	239.10	-177.60	327.15	10,437.48	1,217.15	1,053.10	164.05	7.420	
16,400.00	6,373.88	17,598.05	7,589.55	240.68	241.38	-177.60	328.15	10,537.44	1,217.16	1,051.54	165.61	7.349	
16,500.00	6,376.49	17,698.05	7,592.17	242.96	243.66	-177.60	329.14	10,637.40	1,217.16	1,049.98	167.18	7.281	
16,600.00	6,379.10	17,798.05	7,594.78	245.25	245.93	-177.60	330.14	10,737.36	1,217.17	1,048.42	168.74	7.213	
16,655.32	6,380.55	17,849.54	7,596.29	246.51	246.70	-177.60	330.65	10,788.83	1,217.33	1,047.93	169.40	7.186	

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #202H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
0.00	0.00	0.00	0.00	0.50	0.50	-90.31	-1.00	-185.00	185.00				
100.00	100.00	100.00	100.00	0.57	0.57	-90.31	-1.00	-185.00	185.00	183.87	1.13	163.427	
200.00	200.00	200.00	200.00	0.80	0.80	-90.31	-1.00	-185.00	185.00	183.40	1.60	115.712	
300.00	300.00	300.00	300.00	1.10	1.10	-90.31	-1.00	-185.00	185.00	182.80	2.20	83.928	
400.00	400.00	400.00	400.00	1.43	1.43	-90.31	-1.00	-185.00	185.00	182.14	2.86	64.646	
500.00	500.00	500.00	500.00	1.77	1.77	-90.31	-1.00	-185.00	185.00	181.46	3.54	52.225	
600.00	600.00	600.00	600.00	2.12	2.12	-90.31	-1.00	-185.00	185.00	180.77	4.24	43.684	
700.00	700.00	700.00	700.00	2.47	2.47	-90.31	-1.00	-185.00	185.00	180.07	4.93	37.491	
800.00	800.00	800.00	800.00	2.82	2.82	-90.31	-1.00	-185.00	185.00	179.36	5.64	32.810	
900.00	900.00	900.00	900.00	3.17	3.17	-90.31	-1.00	-185.00	185.00	178.66	6.35	29.156	
1,000.00	1,000.00	1,000.00	1,000.00	3.53	3.53	-90.31	-1.00	-185.00	185.00	177.95	7.05	26.226	
1,100.00	1,100.00	1,100.00	1,100.00	3.88	3.88	-90.31	-1.00	-185.00	185.00	177.24	7.76	23.826	
1,200.00	1,199.99	1,199.99	1,199.99	4.24	4.24	-116.00	-1.00	-185.00	185.38	176.91	8.48	21.874	
1,300.00	1,299.96	1,302.06	1,302.06	4.59	4.60	-116.51	-0.29	-184.44	185.98	176.79	9.19	20.237	
1,400.00	1,399.86	1,404.16	1,404.12	4.95	4.96	-117.09	1.86	-182.75	186.24	176.34	9.90	18.807	
1,500.00	1,499.68	1,506.28	1,506.14	5.30	5.32	-117.72	5.43	-179.93	186.17	175.55	10.62	17.536	
1,600.00	1,599.45	1,608.43	1,608.09	5.66	5.69	-118.08	10.43	-175.99	185.22	173.89	11.33	16.347	
1,700.00	1,699.23	1,710.56	1,709.88	6.02	6.05	-118.03	16.85	-170.92	183.11	171.07	12.05	15.201	
1,800.00	1,799.01	1,812.60	1,811.43	6.38	6.42	-117.53	24.69	-164.74	179.85	167.09	12.76	14.092	
1,900.00	1,898.79	1,914.48	1,912.63	6.74	6.79	-116.56	33.93	-157.45	175.46	161.98	13.48	13.015	
2,000.00	1,998.56	2,016.15	2,013.40	7.10	7.16	-115.07	44.56	-149.06	170.03	155.83	14.20	11.971	
2,100.00	2,098.34	2,117.55	2,113.63	7.46	7.54	-112.97	56.56	-139.60	163.68	148.75	14.93	10.962	
2,200.00	2,198.12	2,218.32	2,212.97	7.82	7.92	-110.19	69.84	-129.12	156.61	140.94	15.67	9.995	
2,300.00	2,297.90	2,317.71	2,310.85	8.19	8.31	-106.99	83.40	-118.43	149.64	133.22	16.42	9.115	
2,400.00	2,397.67	2,417.10	2,408.73	8.55	8.69	-103.50	96.95	-107.74	143.17	126.00	17.17	8.337	
2,500.00	2,497.45	2,516.49	2,506.61	8.91	9.08	-99.70	110.51	-97.05	137.29	119.36	17.94	7.655	
2,600.00	2,597.23	2,615.88	2,604.49	9.28	9.47	-95.58	124.06	-86.36	132.07	113.37	18.70	7.061	
2,700.00	2,697.01	2,715.27	2,702.37	9.64	9.87	-91.15	137.61	-75.67	127.59	108.11	19.48	6.551	
2,800.00	2,796.78	2,814.66	2,800.25	10.01	10.27	-86.43	151.17	-64.98	123.94	103.68	20.25	6.119	
2,900.00	2,896.56	2,914.05	2,898.13	10.37	10.67	-81.47	164.72	-54.29	121.17	100.14	21.03	5.762	
3,000.00	2,996.34	3,013.44	2,996.01	10.74	11.07	-76.32	178.28	-43.60	119.37	97.57	21.80	5.475	
3,100.00	3,096.11	3,112.83	3,093.89	11.10	11.47	-71.05	191.83	-32.91	118.57	96.00	22.57	5.254	
3,128.37	3,124.42	3,141.03	3,121.66	11.21	11.58	-69.55	195.68	-29.88	118.53	95.74	22.78	5.202 CC	
3,200.00	3,195.89	3,212.22	3,191.77	11.47	11.87	-65.76	205.39	-22.22	118.79	95.47	23.33	5.093 ES	
3,300.00	3,295.67	3,311.62	3,289.65	11.83	12.28	-60.53	218.94	-11.53	120.03	95.96	24.07	4.986	
3,400.00	3,395.45	3,411.01	3,387.53	12.20	12.68	-55.45	232.49	-0.84	122.25	97.44	24.81	4.928	
3,500.00	3,495.22	3,510.40	3,485.41	12.56	13.09	-50.59	246.05	9.85	125.41	99.88	25.54	4.911	
3,600.00	3,595.05	3,610.54	3,584.10	12.93	13.50	-45.91	259.37	20.36	129.73	103.47	26.26	4.940	
3,700.00	3,694.96	3,711.19	3,683.57	13.29	13.91	-41.63	271.46	29.90	135.18	108.20	26.98	5.011	
3,800.00	3,794.93	3,812.05	3,783.50	13.65	14.31	-37.82	282.19	38.36	141.59	113.90	27.69	5.113	
3,900.00	3,894.92	3,913.12	3,883.86	14.00	14.70	-9.01	291.56	45.75	148.80	120.41	28.40	5.240	
4,000.00	3,994.92	4,014.49	3,984.72	14.36	15.08	-6.26	299.55	52.06	155.81	126.71	29.10	5.354	
4,100.00	4,094.92	4,116.20	4,086.07	14.71	15.46	-4.16	306.17	57.27	161.84	132.03	29.80	5.430	
4,200.00	4,194.92	4,218.17	4,187.83	15.06	15.83	-2.62	311.38	61.39	166.71	136.20	30.51	5.464	
4,300.00	4,294.92	4,320.36	4,289.90	15.42	16.20	-1.55	315.18	64.38	170.32	139.11	31.21	5.457	
4,400.00	4,394.92	4,422.68	4,392.17	15.77	16.55	-0.91	317.55	66.25	172.59	140.69	31.91	5.409	
4,500.00	4,494.92	4,525.07	4,494.56	16.12	16.90	-0.66	318.48	66.99	173.50	140.90	32.60	5.322	
4,600.00	4,594.92	4,625.44	4,594.92	16.48	17.24	-0.66	318.50	67.00	173.51	140.21	33.30	5.211	
4,700.00	4,694.92	4,725.44	4,694.92	16.83	17.58	-0.66	318.50	67.00	173.51	139.51	34.00	5.104	
4,800.00	4,794.92	4,825.44	4,794.92	17.19	17.92	-0.66	318.50	67.00	173.51	138.81	34.70	5.000	
4,900.00	4,894.92	4,925.44	4,894.92	17.54	18.26	-0.66	318.50	67.00	173.51	138.11	35.40	4.901	
5,000.00	4,994.92	5,025.44	4,994.92	17.90	18.60	-0.66	318.50	67.00	173.51	137.41	36.11	4.806	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #202H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM **Rule Assigned:** **Offset Well Error:** 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
5,100.00	5,094.92	5,125.44	5,094.92	18.25	18.94	-0.66	318.50	67.00	173.51	136.70	36.81	4.714	
5,200.00	5,194.92	5,225.44	5,194.92	18.61	19.28	-0.66	318.50	67.00	173.51	136.00	37.51	4.625	
5,300.00	5,294.92	5,325.44	5,294.92	18.96	19.62	-0.66	318.50	67.00	173.51	135.29	38.22	4.540	
5,400.00	5,394.92	5,425.44	5,394.92	19.32	19.96	-0.66	318.50	67.00	173.51	134.59	38.92	4.458	
5,500.00	5,494.92	5,525.44	5,494.92	19.68	20.31	-0.66	318.50	67.00	173.51	133.88	39.63	4.378	
5,600.00	5,594.92	5,625.44	5,594.92	20.03	20.65	-87.36	318.50	67.00	173.51	133.18	40.33	4.302	
5,688.43	5,682.89	5,713.40	5,682.89	20.34	20.95	-90.00	318.50	67.00	173.33	132.35	40.98	4.229	
5,700.00	5,694.26	5,724.77	5,694.26	20.38	20.99	-90.70	318.50	67.00	173.34	132.27	41.07	4.221	
5,800.00	5,789.83	5,820.34	5,789.83	20.74	21.32	-99.41	318.50	67.00	176.08	134.22	41.87	4.206	SF
5,900.00	5,878.13	5,908.65	5,878.13	21.12	21.62	-110.52	318.50	67.00	189.92	147.24	42.68	4.450	
6,000.00	5,955.92	5,986.44	5,955.92	21.53	21.89	-120.06	318.50	67.00	222.95	179.58	43.38	5.140	
6,100.00	6,020.34	6,050.86	6,020.34	22.03	22.12	-125.40	318.50	67.00	277.35	233.46	43.89	6.320	
6,200.00	6,069.02	6,099.53	6,069.02	22.66	22.28	-125.13	318.50	67.00	349.68	305.46	44.22	7.907	
6,300.00	6,100.17	6,130.68	6,100.17	23.44	22.39	-116.78	318.50	67.00	434.62	390.21	44.41	9.786	
6,400.00	6,112.65	6,143.16	6,112.65	24.36	22.43	-94.81	318.50	67.00	526.95	482.47	44.48	11.847	
6,500.00	6,115.27	6,145.78	6,115.27	25.44	22.44	-95.83	318.50	67.00	622.67	578.18	44.49	13.995	
6,600.00	6,117.88	6,148.39	6,117.88	26.66	22.45	-97.18	318.50	67.00	720.17	675.66	44.51	16.181	
6,700.00	6,120.49	6,151.00	6,120.49	28.02	22.46	-98.19	318.50	67.00	818.31	773.78	44.52	18.379	
6,800.00	6,123.10	6,153.62	6,123.10	29.49	22.47	-99.19	318.50	67.00	916.84	872.30	44.54	20.584	
6,900.00	6,125.72	6,156.23	6,125.72	31.06	22.48	-100.19	318.50	67.00	1,015.65	971.09	44.56	22.793	
7,000.00	6,128.33	6,158.84	6,128.33	32.72	22.49	-101.17	318.50	67.00	1,114.67	1,070.09	44.58	25.003	
7,100.00	6,130.94	6,161.45	6,130.94	34.45	22.50	-102.16	318.50	67.00	1,213.84	1,169.24	44.60	27.215	
7,200.00	6,133.55	6,164.07	6,133.55	36.25	22.51	-103.13	318.50	67.00	1,313.14	1,268.51	44.63	29.426	
7,300.00	6,136.16	6,166.68	6,136.16	38.09	22.52	-104.10	318.50	67.00	1,412.53	1,367.88	44.65	31.635	
7,400.00	6,138.78	6,169.29	6,138.78	39.99	22.53	-105.06	318.50	67.00	1,511.99	1,467.31	44.68	33.843	
7,500.00	6,141.39	6,171.90	6,141.39	41.92	22.53	-106.01	318.50	67.00	1,611.52	1,566.81	44.70	36.050	
7,600.00	6,144.00	6,174.51	6,144.00	43.89	22.54	-106.95	318.50	67.00	1,711.10	1,666.36	44.73	38.253	
7,700.00	6,146.61	6,177.13	6,146.61	45.88	22.55	-107.88	318.50	67.00	1,810.72	1,765.96	44.76	40.454	
7,800.00	6,149.23	6,179.74	6,149.23	47.91	22.56	-108.80	318.50	67.00	1,910.37	1,865.58	44.79	42.651	

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #211H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
0.00	0.00	1.00	1.00	0.50	0.50	-82.61	24.00	-185.00	186.55				
100.00	100.00	101.00	101.00	0.57	0.57	-82.61	24.00	-185.00	186.55	185.42	1.13	164.549	
200.00	200.00	201.00	201.00	0.80	0.80	-82.61	24.00	-185.00	186.55	184.95	1.60	116.476	
300.00	300.00	301.00	301.00	1.10	1.11	-82.61	24.00	-185.00	186.55	184.34	2.21	84.507	
400.00	400.00	401.00	401.00	1.43	1.43	-82.61	24.00	-185.00	186.55	183.69	2.87	65.111	
500.00	500.00	501.00	501.00	1.77	1.77	-82.61	24.00	-185.00	186.55	183.00	3.55	52.611	
600.00	600.00	601.00	601.00	2.12	2.12	-82.61	24.00	-185.00	186.55	182.31	4.24	44.013	
700.00	700.00	701.00	701.00	2.47	2.47	-82.61	24.00	-185.00	186.55	181.61	4.94	37.778	
800.00	800.00	801.00	801.00	2.82	2.82	-82.61	24.00	-185.00	186.55	180.91	5.64	33.064	
900.00	900.00	901.00	901.00	3.17	3.18	-82.61	24.00	-185.00	186.55	180.20	6.35	29.383	
1,000.00	1,000.00	1,001.00	1,001.00	3.53	3.53	-82.61	24.00	-185.00	186.55	179.49	7.06	26.432	
1,100.00	1,100.00	1,101.20	1,101.20	3.88	3.89	-82.33	24.88	-184.83	186.49	178.73	7.77	24.007	
1,123.73	1,123.73	1,124.97	1,124.96	3.97	3.97	-107.65	25.34	-184.74	186.48	178.55	7.94	23.496 CC	
1,200.00	1,199.99	1,201.37	1,201.32	4.24	4.24	-107.23	27.47	-184.32	186.61	178.13	8.48	22.010	
1,300.00	1,299.96	1,301.49	1,301.35	4.59	4.60	-106.64	31.78	-183.47	187.18	177.99	9.19	20.371 ES	
1,400.00	1,399.86	1,401.58	1,401.26	4.95	4.96	-106.04	37.80	-182.29	188.19	178.29	9.90	19.010	
1,500.00	1,499.68	1,501.63	1,500.99	5.30	5.31	-105.41	45.54	-180.78	189.65	179.03	10.61	17.868	
1,600.00	1,599.45	1,601.61	1,600.50	5.66	5.67	-104.46	54.97	-178.93	191.27	179.94	11.33	16.879	
1,700.00	1,699.23	1,701.44	1,699.69	6.02	6.04	-103.00	66.08	-176.75	192.97	180.92	12.05	16.010	
1,800.00	1,799.01	1,801.07	1,798.46	6.38	6.40	-101.07	78.86	-174.24	194.89	182.11	12.78	15.250	
1,900.00	1,898.79	1,900.44	1,896.74	6.74	6.78	-98.68	93.29	-171.41	197.19	183.68	13.51	14.595	
2,000.00	1,998.56	1,999.50	1,994.43	7.10	7.15	-95.87	109.33	-168.27	200.07	185.83	14.25	14.044	
2,100.00	2,098.34	2,098.17	2,091.46	7.46	7.53	-92.69	126.96	-164.81	203.78	188.79	14.98	13.599	
2,200.00	2,198.12	2,196.85	2,188.21	7.82	7.92	-89.24	146.05	-161.07	208.49	192.76	15.73	13.257	
2,300.00	2,297.90	2,295.92	2,285.28	8.19	8.32	-85.86	165.44	-157.26	214.02	197.55	16.47	12.991	
2,400.00	2,397.67	2,394.98	2,382.35	8.55	8.72	-82.67	184.83	-153.46	220.26	203.04	17.22	12.790	
2,500.00	2,497.45	2,494.04	2,479.41	8.91	9.12	-79.66	204.22	-149.66	227.16	209.19	17.97	12.642	
2,600.00	2,597.23	2,593.10	2,576.48	9.28	9.53	-76.83	223.62	-145.85	234.65	215.93	18.72	12.537	
2,700.00	2,697.01	2,692.16	2,673.55	9.64	9.94	-74.18	243.01	-142.05	242.68	223.22	19.46	12.469	
2,800.00	2,796.78	2,791.22	2,770.62	10.01	10.35	-71.70	262.40	-138.25	251.20	230.99	20.21	12.431	
2,900.00	2,896.56	2,890.28	2,867.69	10.37	10.77	-69.39	281.80	-134.44	260.16	239.21	20.95	12.418 SF	
3,000.00	2,996.34	2,989.34	2,964.76	10.74	11.18	-67.24	301.19	-130.64	269.51	247.82	21.69	12.424	
3,100.00	3,096.11	3,088.40	3,061.83	11.10	11.60	-65.22	320.58	-126.84	279.22	256.79	22.43	12.446	
3,200.00	3,195.89	3,187.46	3,158.90	11.47	12.02	-63.35	339.97	-123.03	289.25	266.08	23.18	12.481	
3,300.00	3,295.67	3,286.52	3,255.97	11.83	12.44	-61.60	359.37	-119.23	299.57	275.66	23.92	12.526	
3,400.00	3,395.45	3,385.58	3,353.04	12.20	12.86	-59.97	378.76	-115.43	310.15	285.50	24.65	12.580	
3,500.00	3,495.22	3,484.64	3,450.11	12.56	13.29	-58.45	398.15	-111.62	320.97	295.57	25.39	12.640	
3,600.00	3,595.05	3,583.60	3,547.08	12.93	13.71	-57.01	417.53	-107.83	332.40	306.27	26.13	12.722	
3,700.00	3,694.96	3,682.32	3,643.81	13.29	14.13	-55.45	436.85	-104.04	345.02	318.17	26.86	12.848	
3,800.00	3,794.93	3,780.75	3,740.26	13.65	14.56	-53.79	456.12	-100.26	358.94	331.37	27.57	13.018	
3,900.00	3,894.92	3,878.87	3,836.41	14.00	14.98	-26.61	475.33	-96.49	374.23	345.94	28.28	13.231	
4,000.00	3,994.92	3,976.86	3,932.43	14.36	15.40	-24.83	494.51	-92.73	390.32	361.33	28.99	13.464	
4,100.00	4,094.92	4,074.85	4,028.45	14.71	15.83	-23.19	513.70	-88.97	406.75	377.05	29.70	13.697	
4,200.00	4,194.92	4,172.84	4,124.47	15.06	16.25	-21.68	532.88	-85.20	423.48	393.07	30.41	13.928	
4,300.00	4,294.92	4,270.83	4,220.49	15.42	16.67	-20.28	552.06	-81.44	440.48	409.37	31.11	14.157	
4,400.00	4,394.92	4,368.82	4,316.51	15.77	17.10	-18.99	571.25	-77.68	457.72	425.89	31.82	14.383	
4,500.00	4,494.92	4,466.81	4,412.53	16.12	17.52	-17.79	590.43	-73.92	475.17	442.63	32.54	14.604	
4,600.00	4,594.92	4,564.80	4,508.55	16.48	17.95	-16.67	609.61	-70.16	492.81	459.56	33.25	14.822	
4,700.00	4,694.92	4,662.79	4,604.57	16.83	18.38	-15.63	628.80	-66.39	510.62	476.66	33.96	15.035	
4,800.00	4,794.92	4,760.78	4,700.59	17.19	18.80	-14.67	647.98	-62.63	528.59	493.91	34.68	15.244	
4,900.00	4,894.92	4,858.77	4,796.61	17.54	19.23	-13.76	667.16	-58.87	546.69	511.30	35.39	15.447	
5,000.00	4,994.92	4,956.76	4,892.63	17.90	19.66	-12.91	686.35	-55.11	564.91	528.81	36.11	15.646	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #211H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
5,100.00	5,094.92	5,054.75	4,988.65	18.25	20.09	-12.12	705.53	-51.35	583.25	546.43	36.82	15.839	
5,200.00	5,194.92	5,152.74	5,084.67	18.61	20.51	-11.37	724.71	-47.58	601.69	564.15	37.54	16.028	
5,300.00	5,294.92	5,250.73	5,180.69	18.96	20.94	-10.67	743.90	-43.82	620.23	581.97	38.26	16.212	
5,400.00	5,394.92	5,348.72	5,276.71	19.32	21.37	-10.01	763.08	-40.06	638.85	599.87	38.98	16.391	
5,500.00	5,494.92	5,446.71	5,372.73	19.68	21.80	-9.38	782.26	-36.30	657.55	617.85	39.70	16.565	
5,600.00	5,594.92	5,544.70	5,468.75	20.03	22.23	-95.43	801.45	-32.54	676.32	635.90	40.41	16.734	
5,700.00	5,694.26	5,642.54	5,564.63	20.38	22.66	-93.52	820.60	-28.78	695.95	654.80	41.15	16.912	
5,800.00	5,789.83	5,737.62	5,657.80	20.74	23.07	-92.91	839.21	-25.13	717.10	675.17	41.93	17.103	
5,900.00	5,878.13	5,826.46	5,744.86	21.12	23.46	-93.14	856.61	-21.72	740.59	697.84	42.75	17.325	
6,000.00	5,955.92	5,905.79	5,822.59	21.53	23.81	-93.51	872.14	-18.67	768.09	724.48	43.61	17.613	
6,100.00	6,020.34	5,972.70	5,888.15	22.03	24.10	-93.26	885.23	-16.10	801.47	756.95	44.52	18.002	
6,200.00	6,069.02	6,024.73	5,939.13	22.66	24.33	-91.62	895.42	-14.11	842.09	796.62	45.47	18.522	
6,300.00	6,100.17	6,059.95	5,973.65	23.44	24.49	-87.98	902.32	-12.75	890.32	843.93	46.39	19.193	
6,400.00	6,112.65	6,077.09	5,990.45	24.36	24.56	-82.01	905.67	-12.10	945.31	898.09	47.22	20.021	
6,500.00	6,115.27	6,084.29	5,997.50	25.44	24.59	-82.26	907.08	-11.82	1,007.61	959.68	47.94	21.020	
6,600.00	6,117.88	6,090.93	6,004.01	26.66	24.62	-82.69	908.38	-11.56	1,077.53	1,028.96	48.58	22.183	
6,700.00	6,120.49	6,097.53	6,010.47	28.02	24.65	-83.20	909.67	-11.31	1,152.02	1,102.88	49.14	23.444	
6,800.00	6,123.10	6,104.12	6,016.93	29.49	24.68	-83.70	910.96	-11.06	1,230.09	1,180.46	49.63	24.783	
6,900.00	6,125.72	6,110.71	6,023.39	31.06	24.71	-84.21	912.25	-10.80	1,311.12	1,261.05	50.07	26.186	
7,000.00	6,128.33	6,117.31	6,029.85	32.72	24.74	-84.71	913.54	-10.55	1,394.58	1,344.12	50.45	27.641	
7,100.00	6,130.94	6,123.90	6,036.31	34.45	24.77	-85.21	914.83	-10.30	1,480.06	1,429.26	50.79	29.140	
7,200.00	6,133.55	6,130.49	6,042.77	36.25	24.80	-85.71	916.12	-10.05	1,567.23	1,516.14	51.09	30.675	
7,300.00	6,136.16	6,137.09	6,049.23	38.09	24.83	-86.21	917.42	-9.79	1,655.82	1,604.46	51.36	32.240	
7,400.00	6,138.78	6,143.68	6,055.69	39.99	24.85	-86.71	918.71	-9.54	1,745.63	1,694.03	51.60	33.828	
7,500.00	6,141.39	6,150.27	6,062.15	41.92	24.88	-87.21	920.00	-9.29	1,836.46	1,784.64	51.82	35.437	

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #231H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
0.00	0.00	1.00	1.00	0.50	0.50	-83.75	23.00	-210.00	211.26				
100.00	100.00	101.00	101.00	0.57	0.57	-83.75	23.00	-210.00	211.26	210.12	1.13	186.340	
200.00	200.00	201.00	201.00	0.80	0.80	-83.75	23.00	-210.00	211.26	209.65	1.60	131.902	
300.00	300.00	301.00	301.00	1.10	1.11	-83.75	23.00	-210.00	211.26	209.05	2.21	95.699	
400.00	400.00	401.00	401.00	1.43	1.43	-83.75	23.00	-210.00	211.26	208.39	2.87	73.733	
500.00	500.00	501.00	501.00	1.77	1.77	-83.75	23.00	-210.00	211.26	207.71	3.55	59.579	
600.00	600.00	601.00	601.00	2.12	2.12	-83.75	23.00	-210.00	211.26	207.02	4.24	49.842	
700.00	700.00	701.00	701.00	2.47	2.47	-83.75	23.00	-210.00	211.26	206.32	4.94	42.781	
800.00	800.00	801.00	801.00	2.82	2.82	-83.75	23.00	-210.00	211.26	205.61	5.64	37.443	
900.00	900.00	901.00	901.00	3.17	3.18	-83.75	23.00	-210.00	211.26	204.91	6.35	33.274	
1,000.00	1,000.00	1,001.00	1,001.00	3.53	3.53	-83.75	23.00	-210.00	211.26	204.20	7.06	29.932	
1,100.00	1,100.00	1,101.01	1,101.01	3.88	3.89	-83.75	23.00	-210.00	211.26	203.49	7.77	27.195	
1,100.76	1,100.76	1,101.77	1,101.77	3.89	3.89	-109.20	23.00	-210.00	211.26	203.48	7.77	27.176	CC
1,200.00	1,199.99	1,201.53	1,201.52	4.24	4.24	-109.18	23.87	-209.78	211.42	202.94	8.48	24.931	
1,300.00	1,299.96	1,302.05	1,302.01	4.59	4.60	-109.13	26.45	-209.11	211.90	202.71	9.19	23.056	ES
1,400.00	1,399.86	1,402.57	1,402.43	4.95	4.96	-109.06	30.74	-208.01	212.71	202.81	9.90	21.481	
1,500.00	1,499.68	1,503.08	1,502.75	5.30	5.32	-108.96	36.73	-206.48	213.84	203.22	10.62	20.143	
1,600.00	1,599.45	1,603.57	1,602.93	5.66	5.68	-108.55	44.42	-204.50	214.92	203.59	11.33	18.965	
1,700.00	1,699.23	1,703.98	1,702.87	6.02	6.04	-107.68	53.81	-202.09	215.81	203.75	12.05	17.905	
1,800.00	1,799.01	1,804.25	1,802.48	6.38	6.40	-106.36	64.87	-199.25	216.57	203.79	12.78	16.950	
1,900.00	1,898.79	1,904.32	1,901.68	6.74	6.77	-104.59	77.59	-195.98	217.33	203.82	13.51	16.092	
2,000.00	1,998.56	2,004.12	2,000.38	7.10	7.14	-102.39	91.94	-192.30	218.25	204.01	14.24	15.327	
2,100.00	2,098.34	2,103.71	2,098.75	7.46	7.52	-100.04	106.91	-188.46	219.49	204.52	14.98	14.655	
2,200.00	2,198.12	2,203.29	2,197.13	7.82	7.90	-97.71	121.89	-184.61	221.11	205.39	15.72	14.066	
2,300.00	2,297.90	2,302.87	2,295.51	8.19	8.28	-95.43	136.86	-180.77	223.09	206.63	16.46	13.551	
2,400.00	2,397.67	2,402.46	2,393.88	8.55	8.66	-93.19	151.84	-176.92	225.42	208.21	17.21	13.098	
2,500.00	2,497.45	2,502.04	2,492.26	8.91	9.05	-90.99	166.81	-173.08	228.09	210.13	17.96	12.701	
2,600.00	2,597.23	2,601.62	2,590.63	9.28	9.44	-88.85	181.79	-169.23	231.09	212.38	18.71	12.353	
2,700.00	2,697.01	2,701.21	2,689.01	9.64	9.83	-86.77	196.76	-165.39	234.40	214.95	19.46	12.047	
2,800.00	2,796.78	2,800.79	2,787.39	10.01	10.22	-84.74	211.73	-161.55	238.02	217.81	20.21	11.779	
2,900.00	2,896.56	2,900.38	2,885.76	10.37	10.62	-82.78	226.71	-157.70	241.93	220.97	20.96	11.544	
3,000.00	2,996.34	2,999.96	2,984.14	10.74	11.01	-80.89	241.68	-153.86	246.11	224.41	21.71	11.338	
3,100.00	3,096.11	3,099.54	3,082.52	11.10	11.41	-79.05	256.66	-150.01	250.56	228.10	22.46	11.158	
3,200.00	3,195.89	3,199.13	3,180.89	11.47	11.80	-77.29	271.63	-146.17	255.25	232.05	23.20	11.000	
3,300.00	3,295.67	3,298.71	3,279.27	11.83	12.20	-75.59	286.60	-142.32	260.18	236.23	23.95	10.863	
3,400.00	3,395.45	3,398.30	3,377.65	12.20	12.60	-73.95	301.58	-138.48	265.33	240.63	24.70	10.743	
3,500.00	3,495.22	3,497.88	3,476.02	12.56	13.00	-72.37	316.55	-134.64	270.69	245.24	25.44	10.638	
3,600.00	3,595.05	3,597.39	3,574.33	12.93	13.40	-70.77	331.52	-130.79	276.49	250.30	26.19	10.558	
3,700.00	3,694.96	3,696.73	3,672.47	13.29	13.79	-68.92	346.45	-126.96	283.13	256.21	26.92	10.517	
3,800.00	3,794.93	3,795.86	3,770.39	13.65	14.19	-66.85	361.36	-123.13	290.76	263.11	27.65	10.517	SF
3,900.00	3,894.92	3,894.75	3,868.09	14.00	14.59	-39.16	376.23	-119.32	299.51	271.14	28.36	10.560	
4,000.00	3,994.92	3,993.54	3,965.68	14.36	14.99	-36.86	391.08	-115.50	309.05	279.98	29.07	10.630	
4,100.00	4,094.92	4,092.33	4,063.27	14.71	15.39	-34.70	405.94	-111.69	319.07	289.28	29.79	10.712	
4,200.00	4,194.92	4,191.12	4,160.86	15.06	15.79	-32.67	420.79	-107.87	329.51	299.01	30.50	10.805	
4,300.00	4,294.92	4,289.90	4,258.45	15.42	16.19	-30.77	435.65	-104.06	340.34	309.13	31.21	10.906	
4,400.00	4,394.92	4,388.69	4,356.04	15.77	16.59	-28.99	450.50	-100.25	351.52	319.61	31.92	11.014	
4,500.00	4,494.92	4,487.48	4,453.63	16.12	16.99	-27.31	465.36	-96.43	363.02	330.40	32.63	11.127	
4,600.00	4,594.92	4,586.27	4,551.22	16.48	17.39	-25.74	480.21	-92.62	374.81	341.48	33.34	11.244	
4,700.00	4,694.92	4,685.05	4,648.81	16.83	17.79	-24.27	495.07	-88.81	386.87	352.82	34.05	11.363	
4,800.00	4,794.92	4,783.84	4,746.40	17.19	18.19	-22.88	509.92	-84.99	399.17	364.41	34.76	11.484	
4,900.00	4,894.92	4,882.63	4,843.99	17.54	18.59	-21.58	524.77	-81.18	411.68	376.21	35.47	11.607	
5,000.00	4,994.92	4,981.42	4,941.58	17.90	18.99	-20.35	539.63	-77.37	424.39	388.21	36.18	11.730	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #231H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM **Offset Well Error:** 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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	Rule Assigned: Warning
5,100.00	5,094.92	5,080.21	5,039.17	18.25	19.39	-19.19	554.48	-73.55	437.29	400.39	36.89	11.853	
5,200.00	5,194.92	5,178.99	5,136.76	18.61	19.79	-18.11	569.34	-69.74	450.35	412.74	37.60	11.976	
5,300.00	5,294.92	5,277.78	5,234.35	18.96	20.20	-17.08	584.19	-65.92	463.56	425.24	38.32	12.098	
5,400.00	5,394.92	5,376.57	5,331.94	19.32	20.60	-16.11	599.05	-62.11	476.91	437.88	39.03	12.219	
5,500.00	5,494.92	5,475.36	5,429.53	19.68	21.00	-15.19	613.90	-58.30	490.39	450.64	39.74	12.338	
5,600.00	5,594.92	5,574.14	5,527.12	20.03	21.40	-100.98	628.75	-54.48	503.99	463.53	40.46	12.457	
5,700.00	5,694.26	5,672.75	5,624.53	20.38	21.80	-99.57	643.58	-50.68	519.47	478.28	41.19	12.611	
5,800.00	5,789.83	5,768.53	5,719.14	20.74	22.19	-99.70	657.98	-46.98	538.52	496.55	41.97	12.832	
5,900.00	5,878.13	5,857.96	5,807.49	21.12	22.56	-100.72	671.43	-43.53	562.41	519.63	42.78	13.147	
6,000.00	5,955.92	5,937.76	5,886.33	21.53	22.88	-101.71	683.43	-40.45	593.33	549.72	43.61	13.605	
6,100.00	6,020.34	6,005.00	5,952.75	22.03	23.16	-101.64	693.54	-37.85	633.36	588.91	44.46	14.247	
6,200.00	6,069.02	6,057.20	6,004.32	22.66	23.37	-99.52	701.39	-35.84	683.60	638.34	45.26	15.103	
6,300.00	6,100.17	6,092.45	6,039.14	23.44	23.52	-94.47	706.69	-34.48	743.67	697.69	45.97	16.176	
6,400.00	6,112.65	6,109.45	6,055.94	24.36	23.59	-85.90	709.25	-33.82	811.71	765.18	46.53	17.443	
6,500.00	6,115.27	6,116.51	6,062.90	25.44	23.61	-86.33	710.31	-33.55	886.65	839.69	46.97	18.879	
6,600.00	6,117.88	6,123.14	6,069.45	26.66	23.64	-86.98	711.31	-33.29	967.69	920.37	47.32	20.449	
6,700.00	6,120.49	6,129.73	6,075.96	28.02	23.67	-87.67	712.30	-33.04	1,052.09	1,004.47	47.62	22.091	
6,800.00	6,123.10	6,136.32	6,082.47	29.49	23.70	-88.36	713.29	-32.78	1,138.98	1,091.10	47.88	23.787	
6,900.00	6,125.72	6,142.91	6,088.98	31.06	23.72	-89.05	714.28	-32.53	1,227.83	1,179.73	48.11	25.523	
7,000.00	6,128.33	6,149.49	6,095.49	32.72	23.75	-89.74	715.27	-32.27	1,318.25	1,269.95	48.30	27.290	
7,100.00	6,130.94	6,156.08	6,102.00	34.45	23.78	-90.42	716.26	-32.02	1,409.93	1,361.45	48.48	29.083	
7,200.00	6,133.55	6,162.67	6,108.51	36.25	23.80	-91.11	717.25	-31.76	1,502.64	1,454.01	48.64	30.895	
7,300.00	6,136.16	6,169.26	6,115.02	38.09	23.83	-91.78	718.24	-31.51	1,596.21	1,547.43	48.78	32.723	
7,400.00	6,138.78	6,175.85	6,121.53	39.99	23.86	-92.46	719.23	-31.26	1,690.49	1,641.58	48.91	34.562	
7,500.00	6,141.39	6,182.44	6,128.04	41.92	23.88	-93.13	720.22	-31.00	1,785.36	1,736.33	49.03	36.410	
7,600.00	6,144.00	6,189.03	6,134.55	43.89	23.91	-93.80	721.21	-30.75	1,880.75	1,831.60	49.15	38.266	

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #232H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
0.00	0.00	0.00	0.00	0.50	0.50	-90.55	-2.00	-210.00	210.01				
100.00	100.00	100.00	100.00	0.57	0.57	-90.55	-2.00	-210.00	210.01	208.88	1.13	185.517	
200.00	200.00	200.00	200.00	0.80	0.80	-90.55	-2.00	-210.00	210.01	208.41	1.60	131.353	
300.00	300.00	300.00	300.00	1.10	1.10	-90.55	-2.00	-210.00	210.01	207.81	2.20	95.272	
400.00	400.00	400.00	400.00	1.43	1.43	-90.55	-2.00	-210.00	210.01	207.15	2.86	73.384	
500.00	500.00	500.00	500.00	1.77	1.77	-90.55	-2.00	-210.00	210.01	206.47	3.54	59.285	
600.00	600.00	600.00	600.00	2.12	2.12	-90.55	-2.00	-210.00	210.01	205.77	4.24	49.589	
700.00	700.00	700.00	700.00	2.47	2.47	-90.55	-2.00	-210.00	210.01	205.07	4.93	42.559	
800.00	800.00	800.00	800.00	2.82	2.82	-90.55	-2.00	-210.00	210.01	204.37	5.64	37.245	
900.00	900.00	900.00	900.00	3.17	3.17	-90.55	-2.00	-210.00	210.01	203.66	6.35	33.096	
1,000.00	1,000.00	1,000.00	1,000.00	3.53	3.53	-90.55	-2.00	-210.00	210.01	202.96	7.05	29.771	
1,100.00	1,100.00	1,100.00	1,100.00	3.88	3.88	-90.55	-2.00	-210.00	210.01	202.24	7.76	27.047	
1,200.00	1,199.99	1,199.99	1,199.99	4.24	4.24	-116.20	-2.00	-210.00	210.39	201.92	8.48	24.825	
1,300.00	1,299.96	1,299.96	1,299.96	4.59	4.59	-116.83	-2.00	-210.00	211.56	202.38	9.19	23.033	
1,400.00	1,399.86	1,399.86	1,399.86	4.95	4.95	-117.86	-2.00	-210.00	213.57	203.67	9.90	21.581	
1,500.00	1,499.68	1,503.39	1,503.38	5.30	5.31	-119.39	-2.22	-209.09	215.62	205.01	10.61	20.327	
1,600.00	1,599.45	1,606.86	1,606.81	5.66	5.66	-121.21	-2.90	-206.38	216.42	205.11	11.31	19.137	
1,700.00	1,699.23	1,710.24	1,710.09	6.02	6.01	-123.19	-4.02	-201.85	215.75	203.74	12.01	17.961	
1,800.00	1,799.01	1,813.48	1,813.12	6.38	6.37	-125.38	-5.59	-195.53	213.68	200.96	12.72	16.805	
1,900.00	1,898.79	1,916.49	1,915.80	6.74	6.73	-127.83	-7.60	-187.42	210.29	196.87	13.42	15.671	
2,000.00	1,998.56	2,019.23	2,018.02	7.10	7.09	-130.59	-10.05	-177.56	205.70	191.58	14.12	14.565	
2,100.00	2,098.34	2,121.61	2,119.70	7.46	7.46	-133.73	-12.93	-165.96	200.07	185.24	14.83	13.492	
2,200.00	2,198.12	2,223.58	2,220.75	7.82	7.83	-137.35	-16.24	-152.65	193.60	178.06	15.54	12.459	
2,300.00	2,297.90	2,325.08	2,321.06	8.19	8.20	-141.53	-19.95	-137.68	186.55	170.30	16.26	11.475	
2,400.00	2,397.67	2,425.45	2,420.00	8.55	8.58	-146.34	-24.04	-121.23	179.32	162.33	16.99	10.556	
2,500.00	2,497.45	2,523.95	2,516.99	8.91	8.96	-151.54	-28.15	-104.63	173.12	155.38	17.74	9.760	
2,600.00	2,597.23	2,622.44	2,613.99	9.28	9.34	-157.06	-32.27	-88.04	168.48	149.98	18.50	9.109	
2,700.00	2,697.01	2,720.93	2,710.99	9.64	9.73	-162.82	-36.39	-71.44	165.52	146.26	19.26	8.593	
2,800.00	2,796.78	2,819.42	2,807.99	10.01	10.12	-168.73	-40.51	-54.84	164.34	144.30	20.03	8.203	
2,815.21	2,811.96	2,834.40	2,822.74	10.06	10.18	-169.63	-41.14	-52.32	164.31	144.16	20.15	8.154 CC	
2,900.00	2,896.56	2,917.92	2,904.98	10.37	10.51	-174.66	-44.63	-38.25	164.97	144.16	20.81	7.929 ES	
3,000.00	2,996.34	3,016.41	3,001.98	10.74	10.90	179.52	-48.75	-21.65	167.39	145.82	21.58	7.759	
3,100.00	3,096.11	3,114.78	3,098.88	11.10	11.30	173.98	-52.83	-5.24	171.55	149.22	22.34	7.680	
3,200.00	3,195.89	3,213.36	3,196.23	11.47	11.69	169.19	-56.57	9.84	177.29	154.20	23.09	7.677	
3,300.00	3,295.67	3,312.40	3,294.29	11.83	12.08	165.22	-59.92	23.35	184.11	160.27	23.84	7.723	
3,400.00	3,395.45	3,411.86	3,392.98	12.20	12.47	162.05	-62.88	35.26	191.55	166.97	24.58	7.793	
3,500.00	3,495.22	3,511.67	3,492.23	12.56	12.85	159.60	-65.43	45.54	199.27	173.95	25.32	7.871	
3,600.00	3,595.05	3,611.81	3,591.97	12.93	13.22	157.76	-67.57	54.16	206.30	180.25	26.05	7.920	
3,700.00	3,694.96	3,712.26	3,692.16	13.29	13.59	156.30	-69.30	61.11	211.57	184.80	26.77	7.903	
3,800.00	3,794.93	3,812.94	3,792.70	13.65	13.96	155.17	-70.60	66.37	214.99	187.50	27.49	7.821	
3,900.00	3,894.92	3,913.78	3,893.47	14.00	14.31	179.76	-71.48	69.91	216.49	188.29	28.20	7.677	
4,000.00	3,994.92	4,014.71	3,994.39	14.36	14.66	179.28	-71.93	71.73	216.95	188.04	28.91	7.505	
4,100.00	4,094.92	4,115.25	4,094.92	14.71	15.00	179.21	-72.00	72.00	217.02	187.42	29.60	7.331	
4,200.00	4,194.92	4,215.25	4,194.92	15.06	15.34	179.21	-72.00	72.00	217.02	186.72	30.30	7.163	
4,300.00	4,294.92	4,315.25	4,294.92	15.42	15.68	179.21	-72.00	72.00	217.02	186.03	30.99	7.002	
4,400.00	4,394.92	4,415.25	4,394.92	15.77	16.02	179.21	-72.00	72.00	217.02	185.33	31.69	6.849	
4,500.00	4,494.92	4,515.25	4,494.92	16.12	16.36	179.21	-72.00	72.00	217.02	184.64	32.38	6.701	
4,600.00	4,594.92	4,615.25	4,594.92	16.48	16.70	179.21	-72.00	72.00	217.02	183.94	33.08	6.560	
4,700.00	4,694.92	4,715.25	4,694.92	16.83	17.04	179.21	-72.00	72.00	217.02	183.24	33.78	6.425	
4,800.00	4,794.92	4,815.25	4,794.92	17.19	17.38	179.21	-72.00	72.00	217.02	182.54	34.48	6.294	
4,900.00	4,894.92	4,915.25	4,894.92	17.54	17.72	179.21	-72.00	72.00	217.02	181.84	35.18	6.169	
5,000.00	4,994.92	5,015.25	4,994.92	17.90	18.07	179.21	-72.00	72.00	217.02	181.14	35.88	6.049	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-10-25S-25E(High Life N) - High Life Fed Com #232H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM **Rule Assigned:** **Offset Well Error:** 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
5,100.00	5,094.92	5,115.25	5,094.92	18.25	18.41	179.21	-72.00	72.00	217.02	180.44	36.58	5.933	
5,200.00	5,194.92	5,215.25	5,194.92	18.61	18.75	179.21	-72.00	72.00	217.02	179.74	37.28	5.821	
5,300.00	5,294.92	5,315.25	5,294.92	18.96	19.10	179.21	-72.00	72.00	217.02	179.04	37.98	5.714	
5,400.00	5,394.92	5,415.25	5,394.92	19.32	19.44	179.21	-72.00	72.00	217.02	178.33	38.69	5.610	
5,500.00	5,494.92	5,515.25	5,494.92	19.68	19.79	179.21	-72.00	72.00	217.02	177.63	39.39	5.510	
5,510.11	5,505.04	5,525.36	5,505.04	19.71	19.82	92.51	-72.00	72.00	217.02	177.56	39.46	5.500	
5,600.00	5,594.92	5,615.25	5,594.92	20.03	20.14	92.51	-72.00	72.00	217.02	176.93	40.09	5.413	
5,700.00	5,694.26	5,714.58	5,694.26	20.38	20.48	95.07	-72.00	72.00	217.70	176.90	40.80	5.336 SF	
5,800.00	5,789.83	5,810.16	5,789.83	20.74	20.81	101.70	-72.00	72.00	222.18	180.68	41.49	5.354	
5,900.00	5,878.13	5,898.46	5,878.13	21.12	21.12	110.13	-72.00	72.00	236.76	194.62	42.15	5.618	
6,000.00	5,955.92	5,976.25	5,955.92	21.53	21.39	117.49	-72.00	72.00	268.11	225.41	42.70	6.279	
6,100.00	6,020.34	6,040.67	6,020.34	22.03	21.61	121.55	-72.00	72.00	319.01	275.88	43.13	7.396	
6,200.00	6,069.02	6,089.35	6,069.02	22.66	21.78	120.75	-72.00	72.00	387.51	344.08	43.43	8.922	
6,300.00	6,100.17	6,120.50	6,100.17	23.44	21.89	112.84	-72.00	72.00	469.15	425.54	43.61	10.757	
6,400.00	6,112.65	6,132.97	6,112.65	24.36	21.93	93.98	-72.00	72.00	558.88	515.21	43.67	12.796	
6,500.00	6,115.27	6,135.59	6,115.27	25.44	21.94	93.85	-72.00	72.00	651.59	607.91	43.68	14.917	
6,600.00	6,117.88	6,138.21	6,117.88	26.66	21.95	94.30	-72.00	72.00	745.30	701.61	43.69	17.059	
6,700.00	6,120.49	6,140.82	6,120.49	28.02	21.96	94.91	-72.00	72.00	840.38	796.67	43.71	19.228	
6,800.00	6,123.10	6,143.43	6,123.10	29.49	21.97	95.52	-72.00	72.00	936.47	892.75	43.72	21.417	
6,900.00	6,125.72	6,146.04	6,125.72	31.06	21.98	96.13	-72.00	72.00	1,033.31	989.56	43.75	23.621	
7,000.00	6,128.33	6,148.65	6,128.33	32.72	21.99	96.73	-72.00	72.00	1,130.68	1,086.92	43.77	25.834	
7,100.00	6,130.94	6,151.27	6,130.94	34.45	22.00	97.33	-72.00	72.00	1,228.48	1,184.68	43.79	28.053	
7,200.00	6,133.55	6,153.88	6,133.55	36.25	22.01	97.93	-72.00	72.00	1,326.59	1,282.78	43.82	30.277	
7,300.00	6,136.16	6,156.49	6,136.16	38.09	22.02	98.53	-72.00	72.00	1,424.97	1,381.12	43.84	32.502	
7,400.00	6,138.78	6,159.10	6,138.78	39.99	22.03	99.13	-72.00	72.00	1,523.55	1,479.68	43.87	34.729	
7,500.00	6,141.39	6,161.72	6,141.39	41.92	22.03	99.73	-72.00	72.00	1,622.30	1,578.40	43.90	36.956	
7,600.00	6,144.00	6,164.33	6,144.00	43.89	22.04	100.32	-72.00	72.00	1,721.19	1,677.26	43.93	39.183	
7,700.00	6,146.61	6,166.94	6,146.61	45.88	22.05	100.91	-72.00	72.00	1,820.20	1,776.24	43.96	41.408	

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-11-25S-25E(High Life S) - High Life Fed Com #123H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
0.00	0.00	0.00	0.00	0.50	0.50	163.47	-1,836.00	545.00	1,915.31				
100.00	100.00	78.00	78.00	0.57	0.54	163.47	-1,836.00	545.00	1,915.18	1,914.07	1.11	1,729.860	
200.00	200.00	178.00	178.00	0.80	0.74	163.47	-1,836.00	545.00	1,915.18	1,913.64	1.54	1,244.490	
300.00	300.00	278.00	278.00	1.10	1.03	163.47	-1,836.00	545.00	1,915.18	1,913.05	2.13	897.190	
400.00	400.00	378.00	378.00	1.43	1.36	163.47	-1,836.00	545.00	1,915.18	1,912.39	2.79	686.898	
500.00	500.00	478.00	478.00	1.77	1.70	163.47	-1,836.00	545.00	1,915.18	1,911.71	3.47	552.423	
600.00	600.00	578.00	578.00	2.12	2.04	163.47	-1,836.00	545.00	1,915.18	1,911.02	4.16	460.551	
700.00	700.00	678.00	678.00	2.47	2.39	163.47	-1,836.00	545.00	1,915.18	1,910.32	4.86	394.280	
800.00	800.00	778.00	778.00	2.82	2.74	163.47	-1,836.00	545.00	1,915.18	1,909.62	5.56	344.399	
900.00	900.00	878.00	878.00	3.17	3.09	163.47	-1,836.00	545.00	1,915.18	1,908.91	6.27	305.572	
1,000.00	1,000.00	978.00	978.00	3.53	3.45	163.47	-1,836.00	545.00	1,915.18	1,908.21	6.98	274.530	
1,100.00	1,100.00	1,091.68	1,091.68	3.88	3.85	163.49	-1,835.87	544.28	1,914.90	1,907.17	7.73	247.771	
1,200.00	1,199.99	1,209.14	1,209.09	4.24	4.25	138.15	-1,835.34	541.24	1,914.38	1,905.90	8.49	225.562	
1,278.94	1,278.91	1,301.68	1,301.54	4.52	4.57	138.30	-1,834.62	537.18	1,914.25	1,905.17	9.09	210.650	
1,300.00	1,299.96	1,326.33	1,326.16	4.59	4.66	138.35	-1,834.39	535.85	1,914.26	1,905.01	9.25	206.989	
1,400.00	1,399.86	1,443.11	1,442.67	4.95	5.07	138.66	-1,833.03	528.13	1,914.58	1,904.56	10.01	191.221	
1,500.00	1,499.68	1,559.31	1,558.43	5.30	5.48	139.07	-1,831.26	518.14	1,915.35	1,904.57	10.78	177.677	
1,600.00	1,599.45	1,674.91	1,673.35	5.66	5.90	139.56	-1,829.11	505.90	1,915.79	1,904.24	11.55	165.846	
1,700.00	1,699.23	1,789.88	1,787.38	6.02	6.33	140.10	-1,826.56	491.47	1,915.51	1,903.18	12.33	155.373	
1,800.00	1,799.01	1,889.85	1,886.38	6.38	6.70	140.61	-1,824.15	477.77	1,914.88	1,901.82	13.06	146.622	
1,900.00	1,898.79	1,988.41	1,983.98	6.74	7.07	141.11	-1,821.76	464.26	1,914.39	1,900.60	13.79	138.817	
2,000.00	1,998.56	2,086.97	2,081.58	7.10	7.45	141.60	-1,819.38	450.76	1,914.06	1,899.53	14.52	131.778	
2,100.00	2,098.34	2,185.53	2,179.18	7.46	7.83	142.10	-1,817.00	437.25	1,913.87	1,898.61	15.26	125.402	
2,174.25	2,172.43	2,258.71	2,251.65	7.73	8.11	142.47	-1,815.23	427.22	1,913.83	1,898.02	15.81	121.044	
2,200.00	2,198.12	2,284.09	2,276.78	7.82	8.21	142.60	-1,814.62	423.74	1,913.84	1,897.83	16.00	119.603	
2,300.00	2,297.90	2,404.69	2,396.27	8.19	8.67	143.19	-1,810.96	407.81	1,913.47	1,896.65	16.82	113.755	
2,400.00	2,397.67	2,530.12	2,520.67	8.55	9.16	143.74	-1,805.09	392.93	1,911.89	1,894.24	17.65	108.306	
2,500.00	2,497.45	2,656.06	2,645.65	8.91	9.64	144.24	-1,797.06	379.73	1,909.03	1,890.55	18.48	103.308	
2,600.00	2,597.23	2,782.40	2,771.05	9.28	10.12	144.67	-1,786.85	368.25	1,904.85	1,885.55	19.30	98.708	
2,700.00	2,697.01	2,909.01	2,896.68	9.64	10.60	145.04	-1,774.46	358.53	1,899.31	1,879.20	20.11	94.457	
2,800.00	2,796.78	3,035.78	3,022.36	10.01	11.07	145.35	-1,759.90	350.59	1,892.38	1,871.47	20.91	90.513	
2,900.00	2,896.56	3,145.74	3,131.27	10.37	11.47	145.58	-1,745.79	344.95	1,884.32	1,862.66	21.66	87.013	
3,000.00	2,996.34	3,245.19	3,229.74	10.74	11.84	145.78	-1,732.88	339.96	1,876.17	1,853.79	22.38	83.847	
3,100.00	3,096.11	3,344.63	3,328.22	11.10	12.21	145.99	-1,719.97	334.98	1,868.05	1,844.95	23.10	80.875	
3,200.00	3,195.89	3,444.08	3,426.70	11.47	12.59	146.19	-1,707.06	329.99	1,859.95	1,836.13	23.82	78.081	
3,300.00	3,295.67	3,543.52	3,525.17	11.83	12.96	146.40	-1,694.14	325.01	1,851.87	1,827.33	24.54	75.451	
3,400.00	3,395.45	3,642.97	3,623.65	12.20	13.33	146.61	-1,681.23	320.02	1,843.82	1,818.56	25.27	72.969	
3,500.00	3,495.22	3,742.41	3,722.13	12.56	13.71	146.82	-1,668.32	315.03	1,835.80	1,809.81	25.99	70.625	
3,600.00	3,595.05	3,841.83	3,820.58	12.93	14.09	146.98	-1,655.42	310.05	1,827.18	1,800.46	26.72	68.386	
3,700.00	3,694.96	3,941.17	3,918.95	13.29	14.47	147.10	-1,642.52	305.07	1,817.12	1,789.68	27.44	66.217	
3,800.00	3,794.93	4,040.40	4,017.22	13.65	14.85	147.18	-1,629.64	300.10	1,805.63	1,777.47	28.16	64.114	
3,900.00	3,894.92	4,139.49	4,115.34	14.00	15.23	172.69	-1,616.77	295.13	1,792.69	1,763.81	28.88	62.071	
4,000.00	3,994.92	4,238.52	4,213.41	14.36	15.61	172.79	-1,603.92	290.16	1,779.17	1,749.57	29.60	60.112	
4,100.00	4,094.92	4,337.54	4,311.47	14.71	15.99	172.90	-1,591.06	285.20	1,765.66	1,735.34	30.31	58.244	
4,200.00	4,194.92	4,436.57	4,409.53	15.06	16.37	173.01	-1,578.20	280.24	1,752.15	1,721.12	31.03	56.462	
4,300.00	4,294.92	4,535.60	4,507.60	15.42	16.75	173.12	-1,565.35	275.27	1,738.65	1,706.90	31.75	54.759	
4,400.00	4,394.92	4,634.62	4,605.66	15.77	17.14	173.24	-1,552.49	270.31	1,725.16	1,692.69	32.47	53.132	
4,500.00	4,494.92	4,733.65	4,703.72	16.12	17.52	173.35	-1,539.63	265.34	1,711.67	1,678.48	33.19	51.574	
4,600.00	4,594.92	4,832.68	4,801.79	16.48	17.91	173.47	-1,526.78	260.38	1,698.19	1,664.28	33.91	50.082	
4,700.00	4,694.92	4,900.00	4,868.50	16.83	18.17	173.55	-1,518.34	257.12	1,685.33	1,650.78	34.55	48.777	
4,800.00	4,794.92	4,988.41	4,956.26	17.19	18.51	173.64	-1,508.37	253.27	1,673.68	1,638.44	35.24	47.489	
4,900.00	4,894.92	5,065.99	5,033.40	17.54	18.80	173.71	-1,500.67	250.30	1,663.38	1,627.48	35.90	46.331	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-11-25S-25E(High Life S) - High Life Fed Com #123H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
5,000.00	4,994.92	5,143.78	5,110.85	17.90	19.09	173.78	-1,493.92	247.69	1,654.39	1,617.83	36.56	45.257	
5,100.00	5,094.92	5,221.76	5,188.58	18.25	19.38	173.83	-1,488.14	245.46	1,646.71	1,609.50	37.20	44.262	
5,200.00	5,194.92	5,300.00	5,266.65	18.61	19.66	173.88	-1,483.33	243.60	1,640.34	1,602.50	37.85	43.342	
5,300.00	5,294.92	5,378.14	5,344.68	18.96	19.94	173.92	-1,479.52	242.13	1,635.29	1,596.81	38.48	42.495	
5,400.00	5,394.92	5,456.49	5,422.98	19.32	20.22	173.94	-1,476.70	241.04	1,631.57	1,592.46	39.11	41.717	
5,500.00	5,494.92	5,534.92	5,501.37	19.68	20.50	173.96	-1,474.87	240.34	1,629.16	1,589.43	39.73	41.003	
5,600.00	5,594.92	5,613.38	5,579.83	20.03	20.77	87.27	-1,474.05	240.02	1,628.07	1,587.73	40.35	40.352	
5,700.00	5,694.26	5,705.80	5,672.26	20.38	21.08	87.67	-1,474.00	240.00	1,627.55	1,586.54	41.02	39.681	
5,800.00	5,789.83	5,801.38	5,767.83	20.74	21.40	88.75	-1,474.00	240.00	1,626.61	1,584.89	41.72	38.988	
5,884.90	5,865.40	5,876.94	5,843.40	21.06	21.66	90.00	-1,474.00	240.00	1,626.16	1,583.84	42.32	38.426	CC
5,900.00	5,878.13	5,889.68	5,856.13	21.12	21.70	90.24	-1,474.00	240.00	1,626.18	1,583.76	42.42	38.332	
6,000.00	5,955.92	5,967.47	5,933.92	21.53	21.97	91.78	-1,474.00	240.00	1,627.70	1,584.56	43.13	37.737	
6,100.00	6,020.34	6,038.23	6,004.58	22.03	22.19	93.07	-1,473.98	242.76	1,632.70	1,588.81	43.88	37.204	
6,200.00	6,069.02	6,116.56	6,081.61	22.66	22.42	94.18	-1,473.90	256.64	1,641.86	1,597.10	44.76	36.681	
6,300.00	6,100.17	6,209.47	6,168.99	23.44	22.65	95.27	-1,473.71	287.81	1,655.23	1,609.46	45.77	36.165	
6,400.00	6,112.65	6,332.43	6,273.59	24.36	22.91	96.71	-1,473.32	351.92	1,672.33	1,625.45	46.88	35.674	
6,500.00	6,115.27	6,543.95	6,408.90	25.44	23.41	101.02	-1,472.33	512.61	1,688.12	1,639.80	48.31	34.941	
6,600.00	6,117.88	6,815.71	6,472.39	26.66	25.10	102.86	-1,470.74	773.83	1,692.57	1,641.49	51.08	33.138	
6,700.00	6,120.49	6,915.71	6,475.01	28.02	26.02	102.86	-1,470.13	873.80	1,692.95	1,639.64	53.31	31.757	
6,800.00	6,123.10	7,015.71	6,477.62	29.49	27.11	102.86	-1,469.52	973.76	1,693.33	1,637.52	55.81	30.339	
6,900.00	6,125.72	7,115.71	6,480.24	31.06	28.34	102.86	-1,468.91	1,073.72	1,693.71	1,635.16	58.55	28.926	
7,000.00	6,128.33	7,215.70	6,482.86	32.72	29.69	102.85	-1,468.30	1,173.68	1,694.09	1,632.60	61.50	27.547	
7,100.00	6,130.94	7,315.70	6,485.48	34.45	31.15	102.85	-1,467.69	1,273.65	1,694.48	1,629.85	64.62	26.221	
7,200.00	6,133.55	7,415.70	6,488.10	36.25	32.71	102.85	-1,467.08	1,373.61	1,694.86	1,626.96	67.90	24.962	
7,300.00	6,136.16	7,515.70	6,490.71	38.09	34.35	102.84	-1,466.46	1,473.57	1,695.24	1,623.93	71.31	23.774	
7,400.00	6,138.78	7,615.70	6,493.33	39.99	36.07	102.84	-1,465.85	1,573.54	1,695.62	1,620.79	74.83	22.659	
7,500.00	6,141.39	7,715.70	6,495.95	41.92	37.84	102.84	-1,465.24	1,673.50	1,696.00	1,617.55	78.45	21.618	
7,600.00	6,144.00	7,815.70	6,498.57	43.89	39.66	102.84	-1,464.63	1,773.46	1,696.38	1,614.22	82.16	20.647	
7,700.00	6,146.61	7,915.70	6,501.18	45.88	41.54	102.83	-1,464.02	1,873.43	1,696.76	1,610.82	85.95	19.742	
7,800.00	6,149.23	8,015.70	6,503.80	47.91	43.45	102.83	-1,463.41	1,973.39	1,697.14	1,607.35	89.80	18.900	
7,900.00	6,151.84	8,115.70	6,506.42	49.96	45.40	102.83	-1,462.80	2,073.35	1,697.52	1,603.82	93.70	18.116	
8,000.00	6,154.45	8,215.70	6,509.04	52.02	47.38	102.82	-1,462.19	2,173.32	1,697.91	1,600.25	97.66	17.386	
8,100.00	6,157.06	8,315.70	6,511.65	54.11	49.38	102.82	-1,461.58	2,273.28	1,698.29	1,596.63	101.66	16.706	
8,200.00	6,159.68	8,415.70	6,514.27	56.21	51.41	102.82	-1,460.97	2,373.24	1,698.67	1,592.97	105.70	16.071	
8,300.00	6,162.29	8,515.70	6,516.89	58.33	53.46	102.82	-1,460.36	2,473.21	1,699.05	1,589.27	109.77	15.478	
8,400.00	6,164.90	8,615.69	6,519.51	60.45	55.53	102.81	-1,459.75	2,573.17	1,699.43	1,585.55	113.88	14.923	
8,500.00	6,167.51	8,715.69	6,522.12	62.60	57.62	102.81	-1,459.14	2,673.13	1,699.81	1,581.80	118.02	14.403	
8,600.00	6,170.12	8,815.69	6,524.74	64.75	59.72	102.81	-1,458.53	2,773.09	1,700.19	1,578.02	122.18	13.916	
8,700.00	6,172.74	8,915.69	6,527.36	66.91	61.84	102.81	-1,457.92	2,873.06	1,700.57	1,574.22	126.36	13.458	
8,800.00	6,175.35	9,015.69	6,529.98	69.08	63.96	102.80	-1,457.30	2,973.02	1,700.95	1,570.39	130.56	13.028	
8,900.00	6,177.96	9,115.69	6,532.60	71.25	66.10	102.80	-1,456.69	3,072.98	1,701.34	1,566.55	134.78	12.623	
9,000.00	6,180.57	9,215.69	6,535.21	73.43	68.25	102.80	-1,456.08	3,172.95	1,701.72	1,562.70	139.02	12.241	
9,100.00	6,183.19	9,315.69	6,537.83	75.62	70.41	102.79	-1,455.47	3,272.91	1,702.10	1,558.82	143.27	11.880	
9,200.00	6,185.80	9,415.69	6,540.45	77.82	72.57	102.79	-1,454.86	3,372.87	1,702.48	1,554.94	147.54	11.539	
9,300.00	6,188.41	9,515.69	6,543.07	80.02	74.75	102.79	-1,454.25	3,472.84	1,702.86	1,551.04	151.82	11.216	
9,400.00	6,191.02	9,615.69	6,545.68	82.23	76.93	102.79	-1,453.64	3,572.80	1,703.24	1,547.13	156.11	10.910	
9,500.00	6,193.63	9,715.69	6,548.30	84.44	79.11	102.78	-1,453.03	3,672.76	1,703.62	1,543.20	160.42	10.620	
9,600.00	6,196.25	9,815.69	6,550.92	86.65	81.31	102.78	-1,452.42	3,772.73	1,704.00	1,539.27	164.73	10.344	
9,700.00	6,198.86	9,915.68	6,553.54	88.87	83.51	102.78	-1,451.81	3,872.69	1,704.38	1,535.33	169.05	10.082	
9,800.00	6,201.47	10,015.68	6,556.15	91.09	85.71	102.78	-1,451.20	3,972.65	1,704.77	1,531.38	173.38	9.832	
9,900.00	6,204.08	10,115.68	6,558.77	93.32	87.92	102.77	-1,450.59	4,072.61	1,705.15	1,527.42	177.72	9.594	
10,000.00	6,206.70	10,215.68	6,561.39	95.55	90.13	102.77	-1,449.98	4,172.58	1,705.53	1,523.46	182.07	9.367	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-11-25S-25E(High Life S) - High Life Fed Com #123H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
10,100.00	6,209.31	10,315.68	6,564.01	97.78	92.34	102.77	-1,449.37	4,272.54	1,705.91	1,519.49	186.42	9.151	
10,200.00	6,211.92	10,415.68	6,566.63	100.02	94.56	102.76	-1,448.76	4,372.50	1,706.29	1,515.51	190.78	8.944	
10,300.00	6,214.53	10,515.68	6,569.24	102.25	96.79	102.76	-1,448.15	4,472.47	1,706.67	1,511.52	195.15	8.746	
10,400.00	6,217.14	10,615.68	6,571.86	104.49	99.01	102.76	-1,447.53	4,572.43	1,707.05	1,507.53	199.52	8.556	
10,500.00	6,219.76	10,715.68	6,574.48	106.73	101.24	102.76	-1,446.92	4,672.39	1,707.43	1,503.54	203.89	8.374	
10,600.00	6,222.37	10,815.68	6,577.10	108.98	103.47	102.75	-1,446.31	4,772.36	1,707.82	1,499.54	208.28	8.200	
10,700.00	6,224.98	10,915.68	6,579.71	111.22	105.71	102.75	-1,445.70	4,872.32	1,708.20	1,495.53	212.66	8.032	
10,800.00	6,227.59	11,015.68	6,582.33	113.47	107.94	102.75	-1,445.09	4,972.28	1,708.58	1,491.53	217.05	7.872	
10,900.00	6,230.21	11,115.68	6,584.95	115.72	110.18	102.75	-1,444.48	5,072.25	1,708.96	1,487.51	221.45	7.717	
11,000.00	6,232.82	11,215.67	6,587.57	117.97	112.42	102.74	-1,443.87	5,172.21	1,709.34	1,483.50	225.84	7.569	
11,100.00	6,235.43	11,315.67	6,590.18	120.22	114.67	102.74	-1,443.26	5,272.17	1,709.72	1,479.48	230.25	7.426	
11,200.00	6,238.04	11,415.67	6,592.80	122.48	116.91	102.74	-1,442.65	5,372.14	1,710.10	1,475.45	234.65	7.288	
11,300.00	6,240.66	11,515.67	6,595.42	124.73	119.16	102.74	-1,442.04	5,472.10	1,710.48	1,471.42	239.06	7.155	
11,400.00	6,243.27	11,615.67	6,598.04	126.99	121.41	102.73	-1,441.43	5,572.06	1,710.86	1,467.39	243.47	7.027	
11,500.00	6,245.88	11,715.67	6,600.66	129.25	123.66	102.73	-1,440.82	5,672.02	1,711.25	1,463.36	247.88	6.903	
11,600.00	6,248.49	11,815.67	6,603.27	131.51	125.91	102.73	-1,440.21	5,771.99	1,711.63	1,459.33	252.30	6.784	
11,700.00	6,251.10	11,915.67	6,605.89	133.77	128.16	102.72	-1,439.60	5,871.95	1,712.01	1,455.29	256.72	6.669	
11,800.00	6,253.72	12,015.67	6,608.51	136.03	130.42	102.72	-1,438.99	5,971.91	1,712.39	1,451.25	261.14	6.557	
11,900.00	6,256.33	12,115.67	6,611.13	138.29	132.67	102.72	-1,438.37	6,071.88	1,712.77	1,447.20	265.57	6.449	
12,000.00	6,258.94	12,215.67	6,613.74	140.56	134.93	102.72	-1,437.76	6,171.84	1,713.15	1,443.16	269.99	6.345	
12,100.00	6,261.55	12,315.67	6,616.36	142.82	137.19	102.71	-1,437.15	6,271.80	1,713.53	1,439.11	274.42	6.244	
12,200.00	6,264.17	12,415.67	6,618.98	145.09	139.45	102.71	-1,436.54	6,371.77	1,713.91	1,435.06	278.85	6.146	
12,300.00	6,266.78	12,515.66	6,621.60	147.35	141.71	102.71	-1,435.93	6,471.73	1,714.30	1,431.01	283.29	6.051	
12,400.00	6,269.39	12,615.66	6,624.21	149.62	143.97	102.71	-1,435.32	6,571.69	1,714.68	1,426.96	287.72	5.960	
12,500.00	6,272.00	12,715.66	6,626.83	151.89	146.23	102.70	-1,434.71	6,671.66	1,715.06	1,422.90	292.16	5.870	
12,600.00	6,274.61	12,815.66	6,629.45	154.15	148.50	102.70	-1,434.10	6,771.62	1,715.44	1,418.84	296.60	5.784	
12,700.00	6,277.23	12,915.66	6,632.07	156.42	150.76	102.70	-1,433.49	6,871.58	1,715.82	1,414.78	301.04	5.700	
12,800.00	6,279.84	13,015.66	6,634.68	158.69	153.03	102.69	-1,432.88	6,971.55	1,716.20	1,410.72	305.48	5.618	
12,900.00	6,282.45	13,115.66	6,637.30	160.96	155.29	102.69	-1,432.27	7,071.51	1,716.58	1,406.66	309.92	5.539	
13,000.00	6,285.06	13,215.66	6,639.92	163.23	157.56	102.69	-1,431.66	7,171.47	1,716.96	1,402.60	314.36	5.462	
13,100.00	6,287.68	13,315.66	6,642.54	165.50	159.83	102.69	-1,431.05	7,271.43	1,717.35	1,398.54	318.81	5.387	
13,200.00	6,290.29	13,415.66	6,645.16	167.78	162.10	102.68	-1,430.44	7,371.40	1,717.73	1,394.47	323.26	5.314	
13,300.00	6,292.90	13,515.66	6,647.77	170.05	164.37	102.68	-1,429.83	7,471.36	1,718.11	1,390.40	327.71	5.243	
13,400.00	6,295.51	13,615.66	6,650.39	172.32	166.64	102.68	-1,429.21	7,571.32	1,718.49	1,386.33	332.16	5.174	
13,500.00	6,298.12	13,715.66	6,653.01	174.60	168.91	102.68	-1,428.60	7,671.29	1,718.87	1,382.26	336.61	5.106	
13,600.00	6,300.74	13,815.66	6,655.63	176.87	171.18	102.67	-1,427.99	7,771.25	1,719.25	1,378.19	341.06	5.041	
13,700.00	6,303.35	13,915.65	6,658.24	179.14	173.45	102.67	-1,427.38	7,871.21	1,719.63	1,374.12	345.51	4.977	
13,800.00	6,305.96	14,015.65	6,660.86	181.42	175.72	102.67	-1,426.77	7,971.18	1,720.01	1,370.05	349.97	4.915	
13,900.00	6,308.57	14,115.65	6,663.48	183.69	177.99	102.67	-1,426.16	8,071.14	1,720.40	1,365.98	354.42	4.854	
14,000.00	6,311.19	14,215.65	6,666.10	185.97	180.27	102.66	-1,425.55	8,171.10	1,720.78	1,361.90	358.88	4.795	
14,100.00	6,313.80	14,315.65	6,668.71	188.25	182.54	102.66	-1,424.94	8,271.07	1,721.16	1,357.82	363.33	4.737	
14,200.00	6,316.41	14,415.65	6,671.33	190.52	184.81	102.66	-1,424.33	8,371.03	1,721.54	1,353.75	367.79	4.681	
14,300.00	6,319.02	14,515.65	6,673.95	192.80	187.09	102.65	-1,423.72	8,470.99	1,721.92	1,349.67	372.25	4.626	
14,400.00	6,321.64	14,615.65	6,676.57	195.08	189.36	102.65	-1,423.11	8,570.95	1,722.30	1,345.59	376.71	4.572	
14,500.00	6,324.25	14,715.65	6,679.19	197.35	191.64	102.65	-1,422.50	8,670.92	1,722.68	1,341.51	381.17	4.519	
14,600.00	6,326.86	14,815.65	6,681.80	199.63	193.91	102.65	-1,421.89	8,770.88	1,723.07	1,337.43	385.63	4.468	
14,700.00	6,329.47	14,915.65	6,684.42	201.91	196.19	102.64	-1,421.28	8,870.84	1,723.45	1,333.35	390.10	4.418	
14,800.00	6,332.08	15,015.65	6,687.04	204.19	198.47	102.64	-1,420.67	8,970.81	1,723.83	1,329.27	394.56	4.369	
14,900.00	6,334.70	15,115.65	6,689.66	206.47	200.74	102.64	-1,420.06	9,070.77	1,724.21	1,325.19	399.02	4.321	
15,000.00	6,337.31	15,215.64	6,692.27	208.75	203.02	102.64	-1,419.44	9,170.73	1,724.59	1,321.10	403.49	4.274	
15,100.00	6,339.92	15,315.64	6,694.89	211.03	205.30	102.63	-1,418.83	9,270.70	1,724.97	1,317.02	407.95	4.228	
15,200.00	6,342.53	15,415.64	6,697.51	213.31	207.58	102.63	-1,418.22	9,370.66	1,725.35	1,312.94	412.42	4.184	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-11-25S-25E(High Life S) - High Life Fed Com #123H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM **Rule Assigned:** **Offset Well Error:** 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
15,300.00	6,345.15	15,515.64	6,700.13	215.59	209.85	102.63	-1,417.61	9,470.62	1,725.73	1,308.85	416.88	4.140	
15,400.00	6,347.76	15,615.64	6,702.74	217.87	212.13	102.63	-1,417.00	9,570.59	1,726.12	1,304.76	421.35	4.097	
15,500.00	6,350.37	15,715.64	6,705.36	220.15	214.41	102.62	-1,416.39	9,670.55	1,726.50	1,300.68	425.82	4.055	
15,600.00	6,352.98	15,815.64	6,707.98	222.43	216.69	102.62	-1,415.78	9,770.51	1,726.88	1,296.59	430.29	4.013	
15,700.00	6,355.59	15,915.64	6,710.60	224.71	218.97	102.62	-1,415.17	9,870.48	1,727.26	1,292.50	434.76	3.973	
15,800.00	6,358.21	16,015.64	6,713.22	226.99	221.25	102.61	-1,414.56	9,970.44	1,727.64	1,288.42	439.23	3.933	
15,900.00	6,360.82	16,115.64	6,715.83	229.27	223.53	102.61	-1,413.95	10,070.40	1,728.02	1,284.33	443.70	3.895	
16,000.00	6,363.43	16,215.64	6,718.45	231.55	225.81	102.61	-1,413.34	10,170.36	1,728.40	1,280.24	448.17	3.857	
16,100.00	6,366.04	16,315.64	6,721.07	233.83	228.09	102.61	-1,412.73	10,270.33	1,728.79	1,276.15	452.64	3.819	
16,200.00	6,368.66	16,415.64	6,723.69	236.12	230.37	102.60	-1,412.12	10,370.29	1,729.17	1,272.06	457.11	3.783	
16,300.00	6,371.27	16,515.63	6,726.30	238.40	232.65	102.60	-1,411.51	10,470.25	1,729.55	1,267.97	461.58	3.747	
16,400.00	6,373.88	16,615.63	6,728.92	240.68	234.93	102.60	-1,410.90	10,570.22	1,729.93	1,263.88	466.05	3.712	
16,500.00	6,376.49	16,715.63	6,731.54	242.96	237.21	102.60	-1,410.28	10,670.18	1,730.31	1,259.78	470.53	3.677	
16,600.00	6,379.10	16,825.23	6,734.35	245.25	239.72	102.59	-1,409.49	10,779.74	1,730.58	1,255.34	475.24	3.642	
16,646.25	6,380.31	16,868.51	6,735.37	246.30	240.70	102.59	-1,409.00	10,823.00	1,730.50	1,253.27	477.24	3.626	
16,655.32	6,380.55	16,868.51	6,735.37	246.51	240.70	102.59	-1,409.00	10,823.00	1,730.53	1,253.11	477.42	3.625	ES, SF

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-11-25S-25E(High Life S) - High Life Fed Com #143H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
1,300.00	1,299.96	1,368.30	1,368.05	4.59	4.82	137.65	-1,829.08	559.75	1,917.51	1,908.11	9.40	203.921	
1,400.00	1,399.86	1,500.14	1,499.50	4.95	5.29	137.99	-1,824.09	551.11	1,915.21	1,904.99	10.22	187.412	
1,500.00	1,499.68	1,631.36	1,630.08	5.30	5.76	138.43	-1,817.62	539.90	1,912.57	1,901.54	11.04	173.288	
1,600.00	1,599.45	1,747.06	1,744.97	5.66	6.19	138.87	-1,810.78	528.05	1,908.99	1,897.18	11.81	161.667	
1,700.00	1,699.23	1,846.16	1,843.33	6.02	6.55	139.25	-1,804.74	517.59	1,905.27	1,892.74	12.53	152.072	
1,800.00	1,799.01	1,945.26	1,941.69	6.38	6.92	139.63	-1,798.70	507.13	1,901.64	1,888.39	13.25	143.499	
1,900.00	1,898.79	2,084.11	2,079.44	6.74	7.45	140.16	-1,788.71	492.79	1,897.10	1,883.00	14.11	134.483	
2,000.00	1,998.56	2,224.98	2,218.97	7.10	7.98	140.64	-1,775.21	478.96	1,890.47	1,875.50	14.96	126.338	
2,100.00	2,098.34	2,365.70	2,358.05	7.46	8.52	141.09	-1,758.36	465.85	1,881.70	1,865.89	15.81	118.992	
2,200.00	2,198.12	2,506.10	2,496.44	7.82	9.07	141.49	-1,738.20	453.50	1,870.81	1,854.15	16.66	112.327	
2,300.00	2,297.90	2,624.31	2,612.64	8.19	9.54	141.81	-1,718.87	443.61	1,858.07	1,840.64	17.43	106.590	
2,400.00	2,397.67	2,723.11	2,709.72	8.55	9.93	142.07	-1,702.41	435.41	1,845.14	1,826.98	18.16	101.610	
2,500.00	2,497.45	2,821.91	2,806.79	8.91	10.33	142.34	-1,685.95	427.22	1,832.24	1,813.35	18.89	97.007	
2,600.00	2,597.23	2,920.71	2,903.86	9.28	10.73	142.61	-1,669.49	419.02	1,819.38	1,799.77	19.62	92.741	
2,700.00	2,697.01	3,019.50	3,000.94	9.64	11.13	142.88	-1,653.03	410.82	1,806.57	1,786.22	20.35	88.778	
2,800.00	2,796.78	3,118.30	3,098.01	10.01	11.53	143.16	-1,636.58	402.63	1,793.79	1,772.71	21.08	85.087	
2,900.00	2,896.56	3,217.10	3,195.08	10.37	11.94	143.44	-1,620.12	394.43	1,781.06	1,759.24	21.82	81.641	
3,000.00	2,996.34	3,315.90	3,292.16	10.74	12.34	143.73	-1,603.66	386.24	1,768.37	1,745.82	22.55	78.418	
3,100.00	3,096.11	3,414.70	3,389.23	11.10	12.75	144.01	-1,587.20	378.04	1,755.72	1,732.44	23.29	75.397	
3,200.00	3,195.89	3,513.50	3,486.31	11.47	13.16	144.31	-1,570.74	369.84	1,743.12	1,719.10	24.02	72.560	
3,300.00	3,295.67	3,612.30	3,583.38	11.83	13.57	144.61	-1,554.28	361.65	1,730.57	1,705.81	24.76	69.891	
3,400.00	3,395.45	3,711.10	3,680.45	12.20	13.98	144.91	-1,537.82	353.45	1,718.06	1,692.56	25.50	67.376	
3,500.00	3,495.22	3,809.90	3,777.53	12.56	14.40	145.22	-1,521.37	345.26	1,705.61	1,679.37	26.24	65.003	
3,600.00	3,595.05	3,908.66	3,874.56	12.93	14.81	145.44	-1,504.91	337.06	1,692.59	1,665.61	26.98	62.739	
3,700.00	3,694.96	4,007.31	3,971.49	13.29	15.23	145.63	-1,488.48	328.88	1,678.19	1,650.48	27.72	60.550	
3,800.00	3,794.93	4,105.81	4,068.27	13.65	15.64	145.78	-1,472.07	320.71	1,662.40	1,633.95	28.45	58.432	
3,900.00	3,894.92	4,204.14	4,164.88	14.00	16.06	171.35	-1,455.69	312.55	1,645.23	1,616.04	29.18	56.378	
4,000.00	3,994.92	4,302.40	4,261.42	14.36	16.47	171.55	-1,439.32	304.40	1,627.49	1,597.58	29.91	54.411	
4,100.00	4,094.92	4,400.65	4,357.95	14.71	16.89	171.75	-1,422.96	296.25	1,609.77	1,579.13	30.64	52.536	
4,200.00	4,194.92	4,498.90	4,454.49	15.06	17.31	171.96	-1,406.59	288.10	1,592.08	1,560.70	31.37	50.748	
4,300.00	4,294.92	4,585.51	4,539.62	15.42	17.67	172.15	-1,392.31	280.99	1,574.61	1,542.53	32.08	49.085	
4,400.00	4,394.92	4,663.74	4,616.68	15.77	18.00	172.31	-1,380.29	275.00	1,558.32	1,525.55	32.77	47.560	
4,500.00	4,494.92	4,742.32	4,694.28	16.12	18.32	172.46	-1,369.16	269.46	1,543.33	1,509.88	33.45	46.141	
4,600.00	4,594.92	4,821.24	4,772.37	16.48	18.64	172.60	-1,358.94	264.37	1,529.64	1,495.51	34.13	44.824	
4,700.00	4,694.92	4,900.00	4,850.44	16.83	18.95	172.73	-1,349.70	259.77	1,517.25	1,482.45	34.80	43.602	
4,800.00	4,794.92	4,979.96	4,929.85	17.19	19.26	172.84	-1,341.31	255.59	1,506.18	1,470.71	35.47	42.469	
4,900.00	4,894.92	5,059.70	5,009.16	17.54	19.57	172.95	-1,333.93	251.92	1,496.41	1,460.29	36.13	41.422	
5,000.00	4,994.92	5,139.66	5,088.80	17.90	19.86	173.04	-1,327.52	248.73	1,487.97	1,451.19	36.78	40.455	
5,100.00	5,094.92	5,219.80	5,168.71	18.25	20.16	173.12	-1,322.10	246.02	1,480.84	1,443.41	37.43	39.564	
5,200.00	5,194.92	5,300.00	5,248.76	18.61	20.45	173.18	-1,317.67	243.82	1,475.03	1,436.96	38.07	38.746	
5,300.00	5,294.92	5,380.52	5,329.18	18.96	20.73	173.23	-1,314.24	242.11	1,470.54	1,431.84	38.70	37.996	
5,400.00	5,394.92	5,461.03	5,409.65	19.32	21.01	173.27	-1,311.81	240.90	1,467.38	1,428.05	39.33	37.312	
5,500.00	5,494.92	5,541.60	5,490.21	19.68	21.28	173.29	-1,310.40	240.20	1,465.54	1,425.60	39.94	36.690	
5,600.00	5,594.92	5,626.50	5,575.10	20.03	21.55	86.59	-1,309.97	240.16	1,465.01	1,424.44	40.57	36.112	
5,700.00	5,694.26	5,745.91	5,693.09	20.38	21.90	86.57	-1,307.06	256.51	1,463.58	1,422.28	41.30	35.438	
5,800.00	5,789.83	5,863.45	5,802.55	20.74	22.19	86.65	-1,299.68	297.96	1,459.76	1,417.76	41.99	34.762	
5,900.00	5,878.13	5,978.14	5,897.65	21.12	22.40	86.84	-1,288.51	360.67	1,453.73	1,411.04	42.69	34.055	
6,000.00	5,955.92	6,089.36	5,974.43	21.53	22.55	87.14	-1,274.45	439.60	1,445.79	1,402.33	43.46	33.266	
6,100.00	6,020.34	6,196.85	6,030.87	22.03	22.64	87.55	-1,258.44	529.45	1,436.31	1,391.90	44.41	32.339	
6,200.00	6,069.02	6,300.64	6,066.50	22.66	22.93	88.06	-1,241.38	625.24	1,425.68	1,380.06	45.62	31.251	
6,300.00	6,100.17	6,400.97	6,081.97	23.44	23.67	88.65	-1,224.02	722.68	1,414.31	1,367.21	47.10	30.028	
6,400.00	6,112.65	6,472.86	6,084.13	24.36	24.30	89.56	-1,211.94	793.51	1,403.37	1,354.75	48.62	28.865	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-11-25S-25E(High Life S) - High Life Fed Com #143H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM **Rule Assigned:** **Offset Well Error:** 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
6,500.00	6,115.27	6,539.69	6,085.88	25.44	24.97	89.53	-1,202.26	859.61	1,392.92	1,342.59	50.33	27.678	
6,600.00	6,117.88	6,600.00	6,087.47	26.66	25.61	89.51	-1,194.85	919.44	1,382.01	1,329.87	52.14	26.504	
6,700.00	6,120.49	6,673.93	6,089.40	28.02	26.49	89.50	-1,187.48	992.97	1,373.14	1,318.79	54.35	25.265	
6,800.00	6,123.10	6,741.43	6,091.18	29.49	27.35	89.50	-1,182.42	1,060.27	1,366.64	1,310.00	56.63	24.131	
6,900.00	6,125.72	6,800.00	6,092.71	31.06	28.13	89.50	-1,179.31	1,118.73	1,362.53	1,303.64	58.90	23.134	
7,000.00	6,128.33	6,876.89	6,094.72	32.72	29.23	89.50	-1,177.05	1,195.56	1,360.70	1,299.10	61.60	22.089	
7,016.74	6,128.77	6,888.24	6,095.02	33.01	29.40	89.50	-1,176.89	1,206.90	1,360.64	1,298.60	62.04	21.933	CC
7,100.00	6,130.94	6,963.42	6,096.98	34.45	30.53	89.50	-1,176.38	1,282.05	1,360.89	1,296.30	64.59	21.070	
7,200.00	6,133.55	7,063.42	6,099.59	36.25	32.11	89.50	-1,175.77	1,382.02	1,361.27	1,293.30	67.97	20.027	
7,300.00	6,136.16	7,163.42	6,102.20	38.09	33.77	89.50	-1,175.16	1,481.98	1,361.66	1,290.18	71.49	19.048	
7,400.00	6,138.78	7,263.42	6,104.81	39.99	35.51	89.50	-1,174.55	1,581.94	1,362.05	1,286.93	75.12	18.131	
7,500.00	6,141.39	7,363.42	6,107.42	41.92	37.30	89.50	-1,173.93	1,681.91	1,362.44	1,283.59	78.85	17.278	
7,600.00	6,144.00	7,463.41	6,110.03	43.89	39.14	89.50	-1,173.32	1,781.87	1,362.83	1,280.15	82.67	16.484	
7,700.00	6,146.61	7,563.41	6,112.64	45.88	41.03	89.50	-1,172.71	1,881.83	1,363.22	1,276.65	86.57	15.747	
7,800.00	6,149.23	7,663.41	6,115.25	47.91	42.95	89.50	-1,172.10	1,981.80	1,363.61	1,273.08	90.53	15.062	
7,900.00	6,151.84	7,763.41	6,117.86	49.96	44.91	89.50	-1,171.49	2,081.76	1,363.99	1,269.45	94.55	14.427	
8,000.00	6,154.45	7,863.41	6,120.47	52.02	46.90	89.50	-1,170.88	2,181.72	1,364.38	1,265.77	98.61	13.835	
8,100.00	6,157.06	7,963.41	6,123.09	54.11	48.92	89.50	-1,170.27	2,281.69	1,364.77	1,262.05	102.73	13.286	
8,200.00	6,159.68	8,063.41	6,125.70	56.21	50.96	89.50	-1,169.65	2,381.65	1,365.16	1,258.28	106.88	12.773	
8,300.00	6,162.29	8,163.41	6,128.31	58.33	53.02	89.50	-1,169.04	2,481.61	1,365.55	1,254.49	111.06	12.295	
8,400.00	6,164.90	8,263.41	6,130.92	60.45	55.10	89.50	-1,168.43	2,581.58	1,365.94	1,250.66	115.28	11.849	
8,500.00	6,167.51	8,363.41	6,133.53	62.60	57.19	89.50	-1,167.82	2,681.54	1,366.33	1,246.81	119.52	11.432	
8,600.00	6,170.12	8,463.41	6,136.14	64.75	59.30	89.50	-1,167.21	2,781.50	1,366.72	1,242.93	123.79	11.041	
8,700.00	6,172.74	8,563.41	6,138.75	66.91	61.43	89.50	-1,166.60	2,881.47	1,367.10	1,239.03	128.08	10.674	
8,800.00	6,175.35	8,663.41	6,141.36	69.08	63.56	89.50	-1,165.98	2,981.43	1,367.49	1,235.11	132.39	10.330	
8,900.00	6,177.96	8,763.40	6,143.97	71.25	65.70	89.50	-1,165.37	3,081.39	1,367.88	1,231.17	136.71	10.006	
9,000.00	6,180.57	8,863.40	6,146.58	73.43	67.86	89.50	-1,164.76	3,181.36	1,368.27	1,227.21	141.06	9.700	
9,100.00	6,183.19	8,963.40	6,149.19	75.62	70.02	89.50	-1,164.15	3,281.32	1,368.66	1,223.24	145.41	9.412	
9,200.00	6,185.80	9,063.40	6,151.80	77.82	72.19	89.50	-1,163.54	3,381.28	1,369.05	1,219.26	149.79	9.140	
9,300.00	6,188.41	9,163.40	6,154.41	80.02	74.37	89.50	-1,162.93	3,481.25	1,369.44	1,215.27	154.17	8.883	
9,400.00	6,191.02	9,263.40	6,157.02	82.23	76.56	89.50	-1,162.32	3,581.21	1,369.83	1,211.26	158.57	8.639	
9,500.00	6,193.63	9,363.40	6,159.63	84.44	78.75	89.50	-1,161.70	3,681.17	1,370.21	1,207.24	162.97	8.408	
9,600.00	6,196.25	9,463.40	6,162.24	86.65	80.94	89.50	-1,161.09	3,781.14	1,370.60	1,203.21	167.39	8.188	
9,700.00	6,198.86	9,563.40	6,164.85	88.87	83.15	89.50	-1,160.48	3,881.10	1,370.99	1,199.18	171.81	7.979	
9,800.00	6,201.47	9,663.40	6,167.46	91.09	85.35	89.50	-1,159.87	3,981.06	1,371.38	1,195.13	176.25	7.781	
9,900.00	6,204.08	9,763.40	6,170.07	93.32	87.56	89.50	-1,159.26	4,081.03	1,371.77	1,191.08	180.69	7.592	
10,000.00	6,206.70	9,863.40	6,172.68	95.55	89.78	89.50	-1,158.65	4,180.99	1,372.16	1,187.02	185.14	7.412	
10,100.00	6,209.31	9,963.40	6,175.30	97.78	92.00	89.50	-1,158.03	4,280.95	1,372.55	1,182.96	189.59	7.240	
10,200.00	6,211.92	10,063.40	6,177.91	100.02	94.22	89.50	-1,157.42	4,380.92	1,372.93	1,178.88	194.05	7.075	
10,300.00	6,214.53	10,163.39	6,180.52	102.25	96.45	89.50	-1,156.81	4,480.88	1,373.32	1,174.81	198.52	6.918	
10,400.00	6,217.14	10,263.39	6,183.13	104.49	98.68	89.50	-1,156.20	4,580.84	1,373.71	1,170.73	202.99	6.767	
10,500.00	6,219.76	10,363.39	6,185.74	106.73	100.91	89.50	-1,155.59	4,680.80	1,374.10	1,166.64	207.46	6.623	
10,600.00	6,222.37	10,463.39	6,188.35	108.98	103.14	89.50	-1,154.98	4,780.77	1,374.49	1,162.55	211.94	6.485	
10,700.00	6,224.98	10,563.39	6,190.96	111.22	105.38	89.50	-1,154.37	4,880.73	1,374.88	1,158.45	216.43	6.353	
10,800.00	6,227.59	10,663.39	6,193.57	113.47	107.62	89.50	-1,153.75	4,980.69	1,375.27	1,154.35	220.92	6.225	
10,900.00	6,230.21	10,763.39	6,196.18	115.72	109.86	89.50	-1,153.14	5,080.66	1,375.66	1,150.24	225.41	6.103	
11,000.00	6,232.82	10,863.39	6,198.79	117.97	112.10	89.50	-1,152.53	5,180.62	1,376.04	1,146.14	229.91	5.985	
11,100.00	6,235.43	10,963.39	6,201.40	120.22	114.35	89.50	-1,151.92	5,280.58	1,376.43	1,142.02	234.41	5.872	
11,200.00	6,238.04	11,063.39	6,204.01	122.48	116.60	89.50	-1,151.31	5,380.55	1,376.82	1,137.91	238.91	5.763	
11,300.00	6,240.66	11,163.39	6,206.62	124.73	118.84	89.50	-1,150.70	5,480.51	1,377.21	1,133.79	243.42	5.658	
11,400.00	6,243.27	11,263.39	6,209.23	126.99	121.10	89.51	-1,150.08	5,580.47	1,377.60	1,129.67	247.93	5.556	
11,500.00	6,245.88	11,363.39	6,211.84	129.25	123.35	89.51	-1,149.47	5,680.44	1,377.99	1,125.55	252.44	5.459	

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

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Sec-11-25S-25E(High Life S) - High Life Fed Com #143H - Wellbore #1 - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HRGM

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (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
11,600.00	6,248.49	11,463.38	6,214.45	131.51	125.60	89.51	-1,148.86	5,780.40	1,378.38	1,121.42	256.96	5.364	
11,700.00	6,251.10	11,563.38	6,217.06	133.77	127.86	89.51	-1,148.25	5,880.36	1,378.77	1,117.29	261.47	5.273	
11,800.00	6,253.72	11,663.38	6,219.67	136.03	130.11	89.51	-1,147.64	5,980.33	1,379.15	1,113.16	265.99	5.185	
11,900.00	6,256.33	11,763.38	6,222.28	138.29	132.37	89.51	-1,147.03	6,080.29	1,379.54	1,109.03	270.51	5.100	
12,000.00	6,258.94	11,863.38	6,224.89	140.56	134.63	89.51	-1,146.42	6,180.25	1,379.93	1,104.89	275.04	5.017	
12,100.00	6,261.55	11,963.38	6,227.51	142.82	136.89	89.51	-1,145.80	6,280.22	1,380.32	1,100.76	279.56	4.937	
12,200.00	6,264.17	12,063.38	6,230.12	145.09	139.15	89.51	-1,145.19	6,380.18	1,380.71	1,096.62	284.09	4.860	
12,300.00	6,266.78	12,163.38	6,232.73	147.35	141.41	89.51	-1,144.58	6,480.14	1,381.10	1,092.48	288.62	4.785	
12,400.00	6,269.39	12,263.38	6,235.34	149.62	143.67	89.51	-1,143.97	6,580.11	1,381.49	1,088.34	293.15	4.713	
12,500.00	6,272.00	12,363.38	6,237.95	151.89	145.94	89.51	-1,143.36	6,680.07	1,381.87	1,084.19	297.68	4.642	
12,600.00	6,274.61	12,463.38	6,240.56	154.15	148.20	89.51	-1,142.75	6,780.03	1,382.26	1,080.05	302.22	4.574	
12,700.00	6,277.23	12,563.38	6,243.17	156.42	150.47	89.51	-1,142.13	6,880.00	1,382.65	1,075.90	306.75	4.507	
12,800.00	6,279.84	12,663.38	6,245.78	158.69	152.74	89.51	-1,141.52	6,979.96	1,383.04	1,071.75	311.29	4.443	
12,900.00	6,282.45	12,763.37	6,248.39	160.96	155.00	89.51	-1,140.91	7,079.92	1,383.43	1,067.60	315.83	4.380	
13,000.00	6,285.06	12,863.37	6,251.00	163.23	157.27	89.51	-1,140.30	7,179.89	1,383.82	1,063.45	320.37	4.319	
13,100.00	6,287.68	12,963.37	6,253.61	165.50	159.54	89.51	-1,139.69	7,279.85	1,384.21	1,059.30	324.91	4.260	
13,200.00	6,290.29	13,063.37	6,256.22	167.78	161.81	89.51	-1,139.08	7,379.81	1,384.60	1,055.14	329.45	4.203	
13,300.00	6,292.90	13,163.37	6,258.83	170.05	164.08	89.51	-1,138.47	7,479.78	1,384.98	1,050.99	334.00	4.147	
13,400.00	6,295.51	13,263.37	6,261.44	172.32	166.35	89.51	-1,137.85	7,579.74	1,385.37	1,046.83	338.54	4.092	
13,500.00	6,298.12	13,363.37	6,264.05	174.60	168.62	89.51	-1,137.24	7,679.70	1,385.76	1,042.68	343.09	4.039	
13,600.00	6,300.74	13,463.37	6,266.66	176.87	170.89	89.51	-1,136.63	7,779.67	1,386.15	1,038.52	347.63	3.987	
13,700.00	6,303.35	13,563.37	6,269.27	179.14	173.16	89.51	-1,136.02	7,879.63	1,386.54	1,034.36	352.18	3.937	
13,800.00	6,305.96	13,663.37	6,271.88	181.42	175.44	89.51	-1,135.41	7,979.59	1,386.93	1,030.20	356.73	3.888	
13,900.00	6,308.57	13,763.37	6,274.49	183.69	177.71	89.51	-1,134.80	8,079.56	1,387.32	1,026.04	361.28	3.840	
14,000.00	6,311.19	13,863.37	6,277.10	185.97	179.99	89.51	-1,134.18	8,179.52	1,387.71	1,021.88	365.83	3.793	
14,100.00	6,313.80	13,963.37	6,279.72	188.25	182.26	89.51	-1,133.57	8,279.48	1,388.09	1,017.71	370.38	3.748	
14,200.00	6,316.41	14,063.36	6,282.33	190.52	184.53	89.51	-1,132.96	8,379.45	1,388.48	1,013.55	374.93	3.703	
14,300.00	6,319.02	14,163.36	6,284.94	192.80	186.81	89.51	-1,132.35	8,479.41	1,388.87	1,009.39	379.49	3.660	
14,400.00	6,321.64	14,263.36	6,287.55	195.08	189.09	89.51	-1,131.74	8,579.37	1,389.26	1,005.22	384.04	3.617	
14,500.00	6,324.25	14,363.36	6,290.16	197.35	191.36	89.51	-1,131.13	8,679.34	1,389.65	1,001.05	388.59	3.576	
14,600.00	6,326.86	14,463.36	6,292.77	199.63	193.64	89.51	-1,130.52	8,779.30	1,390.04	996.89	393.15	3.536	
14,700.00	6,329.47	14,563.36	6,295.38	201.91	195.91	89.51	-1,129.90	8,879.26	1,390.43	992.72	397.70	3.496	
14,800.00	6,332.08	14,663.36	6,297.99	204.19	198.19	89.51	-1,129.29	8,979.23	1,390.81	988.55	402.26	3.457	
14,900.00	6,334.70	14,763.36	6,300.60	206.47	200.47	89.51	-1,128.68	9,079.19	1,391.20	984.39	406.82	3.420	
15,000.00	6,337.31	14,863.36	6,303.21	208.75	202.75	89.51	-1,128.07	9,179.15	1,391.59	980.22	411.38	3.383	
15,100.00	6,339.92	14,963.36	6,305.82	211.03	205.03	89.51	-1,127.46	9,279.12	1,391.98	976.05	415.93	3.347	
15,200.00	6,342.53	15,063.36	6,308.43	213.31	207.30	89.51	-1,126.85	9,379.08	1,392.37	971.88	420.49	3.311	
15,300.00	6,345.15	15,163.36	6,311.04	215.59	209.58	89.51	-1,126.23	9,479.04	1,392.76	967.71	425.05	3.277	
15,400.00	6,347.76	15,263.36	6,313.65	217.87	211.86	89.51	-1,125.62	9,579.01	1,393.15	963.54	429.61	3.243	
15,500.00	6,350.37	15,363.36	6,316.26	220.15	214.14	89.51	-1,125.01	9,678.97	1,393.54	959.36	434.17	3.210	
15,600.00	6,352.98	15,463.35	6,318.87	222.43	216.42	89.51	-1,124.40	9,778.93	1,393.92	955.19	438.73	3.177	
15,700.00	6,355.59	15,563.35	6,321.48	224.71	218.70	89.51	-1,123.79	9,878.90	1,394.31	951.02	443.29	3.145	
15,800.00	6,358.21	15,663.35	6,324.09	226.99	220.98	89.51	-1,123.18	9,978.86	1,394.70	946.85	447.86	3.114	
15,900.00	6,360.82	15,763.35	6,326.70	229.27	223.26	89.51	-1,122.56	10,078.82	1,395.09	942.67	452.42	3.084	
16,000.00	6,363.43	15,863.35	6,329.31	231.55	225.54	89.51	-1,121.95	10,178.79	1,395.48	938.50	456.98	3.054	
16,100.00	6,366.04	15,963.35	6,331.93	233.83	227.82	89.51	-1,121.34	10,278.75	1,395.87	934.32	461.55	3.024	
16,200.00	6,368.66	16,063.35	6,334.54	236.12	230.11	89.51	-1,120.73	10,378.71	1,396.26	930.15	466.11	2.996	
16,300.00	6,371.27	16,163.35	6,337.15	238.40	232.39	89.51	-1,120.12	10,478.68	1,396.65	925.97	470.67	2.967	
16,400.00	6,373.88	16,263.35	6,339.76	240.68	234.67	89.51	-1,119.51	10,578.64	1,397.03	921.80	475.24	2.940	
16,500.00	6,376.49	16,363.35	6,342.37	242.96	236.95	89.51	-1,118.90	10,678.60	1,397.42	917.62	479.80	2.912	
16,600.00	6,379.10	16,463.35	6,344.98	245.25	239.23	89.51	-1,118.28	10,778.57	1,397.81	913.44	484.37	2.886	
16,655.32	6,380.55	16,509.80	6,346.19	246.51	240.29	89.51	-1,118.00	10,825.00	1,398.05	911.42	486.63	2.873	ES, SF

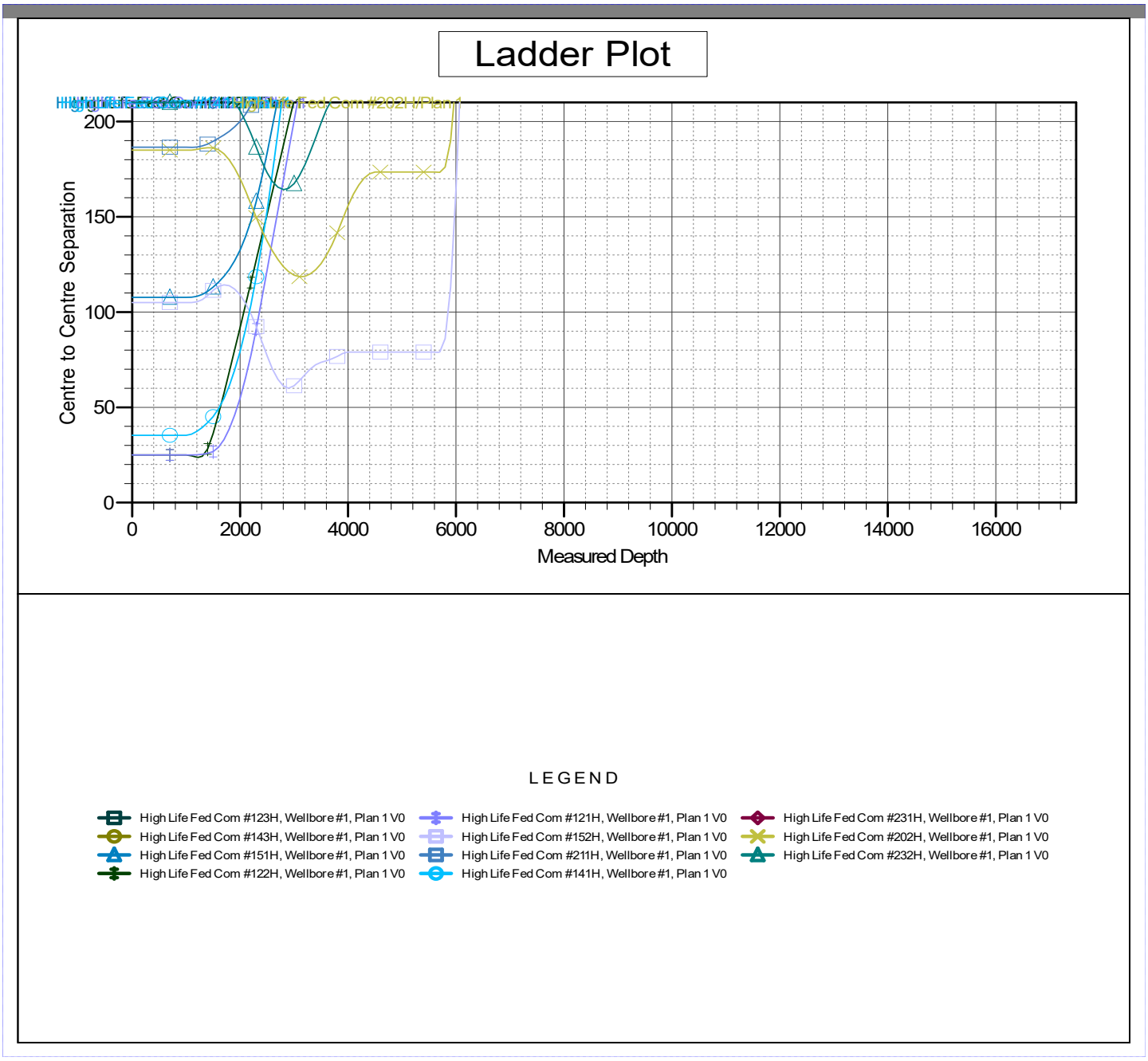
CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to GE 3511' + KB 26' @ 3537.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.3333333

Coordinates are relative to: High Life Fed Com #142H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: -0.02°

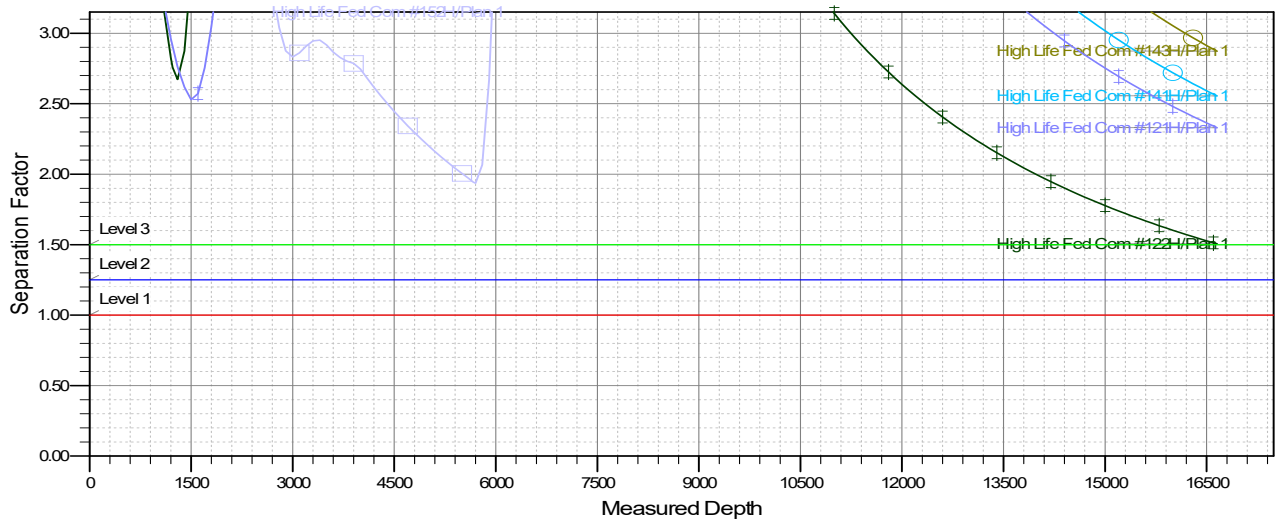


Anticollision Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Reference Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	High Life Fed Com #142H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.50 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1 Single User Db
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to GE 3511' + KB 26' @ 3537.00usft	Coordinates are relative to: High Life Fed Com #142H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Central Meridian is -104.3333333	Grid Convergence at Surface is: -0.02°

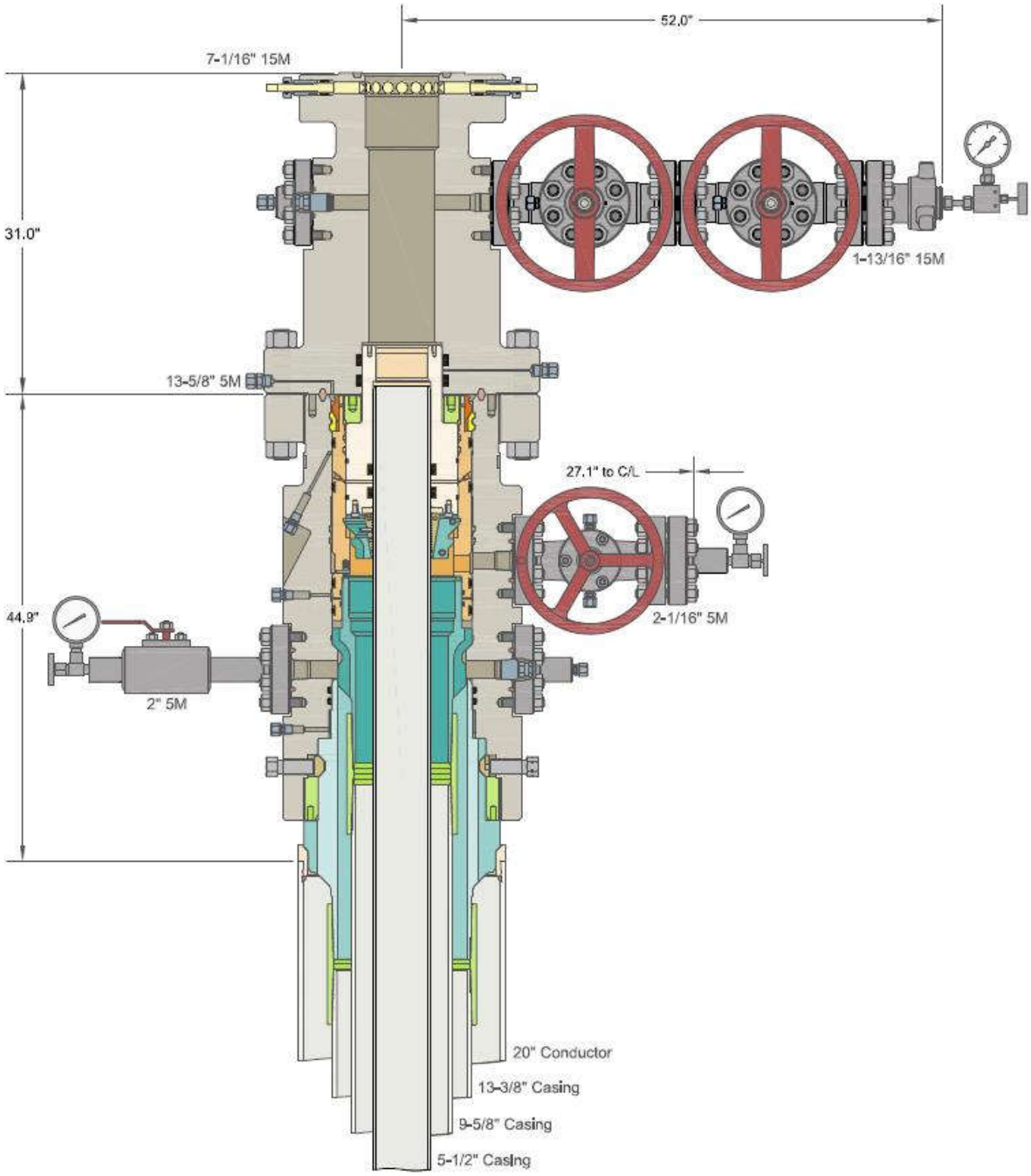
Separation Factor Plot



LEGEND

- High Life Fed Com #123H, Wellbore #1, Plan 1 V0
- High Life Fed Com #143H, Wellbore #1, Plan 1 V0
- High Life Fed Com #151H, Wellbore #1, Plan 1 V0
- High Life Fed Com #122H, Wellbore #1, Plan 1 V0
- High Life Fed Com #121H, Wellbore #1, Plan 1 V0
- High Life Fed Com #152H, Wellbore #1, Plan 1 V0
- High Life Fed Com #211H, Wellbore #1, Plan 1 V0
- High Life Fed Com #141H, Wellbore #1, Plan 1 V0
- High Life Fed Com #231H, Wellbore #1, Plan 1 V0
- High Life Fed Com #202H, Wellbore #1, Plan 1 V0
- High Life Fed Com #232H, Wellbore #1, Plan 1 V0

Multi-bowl Wellhead Design



Tap Rock Resources Annular Preventer Summary

1. Equipment and Compatibility

Two barriers to flow can always be held between the table below, and the mud program. The table below shows that independent of the annular preventer rating, two barriers of flow can be maintained.

BOPE and Components in 10M Section			
Component	OD	Preventer	Rated Pressure
Drill Pipe	4.5"	Fixed Lower VBR 3.5"-5.5"	10M
HWDP	4.5"	Fixed Lower VBR 3.5"-5.5"	10M
Drill Collars	4.75"	VBR 3.5"-5.5"	10M
Motor	5"	VBR 3.5"-5.5"	10M
Casing	5"	VBR 3.5"-5.5"	10M
Casing	5.5"	VBR 3.5"-5.5"	10M
All	0-13.375"	Annular	5M
No Pipe (OH)	0	Blind Rams	10M

Note: VBR- Variable Bore Rams. OH- Open Hole

2. Well Control Procedures

Below are the actions and steps that will be taken in a well control situation. The topics covered are tripping, shut in while drilling, running casing, no pipe in open hole, and BHA handling. In no situation will the RWP be exceeded in any operation. The operator may choose an operating pressure less than or equal to RWP.

Procedure While Drilling

i. Sound alarm
ii. Space out drill string appropriately
iii. Shut down pumps and rotary
iv. Shut-in the well. Utilize Annular Preventer first, set up for a hard shut-in. (HCR and choke in closed position).
v. Confirm successful shut-in on accumulator
vi. Notify contractor and operator supervisors
vii. Record the following measurements:

a. Shut-in drill pipe pressure (SIDPP) and shut-in casing pressure (SICP)
b. Pit gain
c. Time

viii. Identify scenario and generate a plan.
ix. When annular is shut and if pressure is increasing to RWP, then confirm spacing and close upper pipe ram.

Procedure While Tripping

i. Sound Alarm
ii. Stab FOSV and close
iii. Space drill string out
iv. Shut-in utilizing annular preventer. The manifold will be set for a hard shut-in with the HCR and choke closed
v. Confirm successful shut-in
vi. Notify operator and contractor supervisors
vii. Record the following
    a. Shut-in drill pipe pressure (SIDPP) and shut-in casing pressure (SICP)
    b. Pit gain
    c. Time
viii. Identify scenario and forward plan
ix. If pressure builds above RWP of annular preventer, confirm spacing and swamp to upper pipe ram.

Procedure While Running Casing

i. Sound Alarm
ii. Stab FOSV and close
iii. Space drill string out
iv. Shut-in utilizing annular preventer. The manifold will be set for a hard shut-in with the HCR and choke closed
v. Confirm successful shut-in
vi. Notify operator and contractor supervisors
vii. Record the following
    a. Shut-in drill pipe pressure (SIDPP) and shut-in casing pressure (SICP)
    b. Pit gain
    c. Time
viii. Identify scenario and forward plan
ix. If pressure builds above RWP of annular preventer, confirm spacing and swamp to upper pipe ram.

Procedure with No Pipe

i. Sound alarm
ii. Shut-in blind rams for a hard shut-in, HCR and chokes in closed position.
iii. Confirm shut-in
iv. Notify contractor and operator supervisors
v. Record the following:
    a. Shut-in casing pressure (SICP)
    b. Pit gain
    c. Time
x. Identify scenario and forward plan

Scenarios Handling BHA

i. Before getting BHA into the BOP stack (flowing well)
    a. Sound alarm
    b. Stab FOSV and close
    c. Space out drill string appropriately
    d. Shut-in upper ram for a hard shut-in.
    e. Confirm shut-in
    f. Notify contractor and operator supervisors
    g. Record the following:
        i. Shut-in casing pressure (SICP)
        ii. Pit gain
        iii. Time
    b. Identify scenario and forward plan

ii. BHA in the stack with compatible pipe and ram preventer combo
    a. Sound alarm
    b. Stab FOSV and close
    c. Space out drill string appropriately
    d. Shut-in upper ram for a hard shut-in.
    e. Confirm shut-in
    f. Notify contractor and operator supervisors
    g. Record the following:
        i. Shut-in casing pressure (SICP)
        ii. Pit gain
        iii. Time
    c. Identify scenario and forward plan

iii. BHA in the stack without compatible pipe and ram preventer combo
    a. Sound alarm
    b. Pick up string high enough to clear the stack and follow “No Pipe” procedure.

c. If not able to pick up string high enough, stab with FOSV if able, if not make-up crossover, stab FOSV and close.
d. Space string with tool joint beneath the upper ram
e. Close the upper ram for a hard shut-in
f. Confirm shut-in
g. Notify contractor and operator supervisors
h. Record the following
    i. SIDPP and SIDP
    ii. Pit gain
    iii. Time
i. Identify scenario and forward plan

Hydrostatic Test Certificate

ContiTech

Certificate Number	COM Order Reference	Customer Name & Address
938562	938562	HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA
Customer Purchase Order No:	740043386	
Project:	HOW	

Test Center Address	Accepted by COM Inspection		Accepted by Client Inspection
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Date:	Roger Suarez 3/13/17	

We certify that the goods detailed hereon have been inspected as described below by our Quality Management System, and to the best of our knowledge are found to conform the requirements of the above referenced purchase order as issued to ContiTech Oil & Marine Corporation.

Item	Part No.	Description	Qnty	Serial Number	Work. Press.	Test Press.	Test Time (minutes)
20		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	53631	10,000 psi	15,000 psi	60
30		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	54500	10,000 psi	15,000 psi	60
40		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	56838	10,000 psi	15,000 psi	60
50		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	56489	10,000 psi	15,000 psi	60
60		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	61475	10,000 psi	15,000 psi	60
80		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	60197	10,000 psi	15,000 psi	60
90		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	39474	10,000 psi	15,000 psi	60
100		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	60887	10,000 psi	15,000 psi	60

Certificate of Conformity

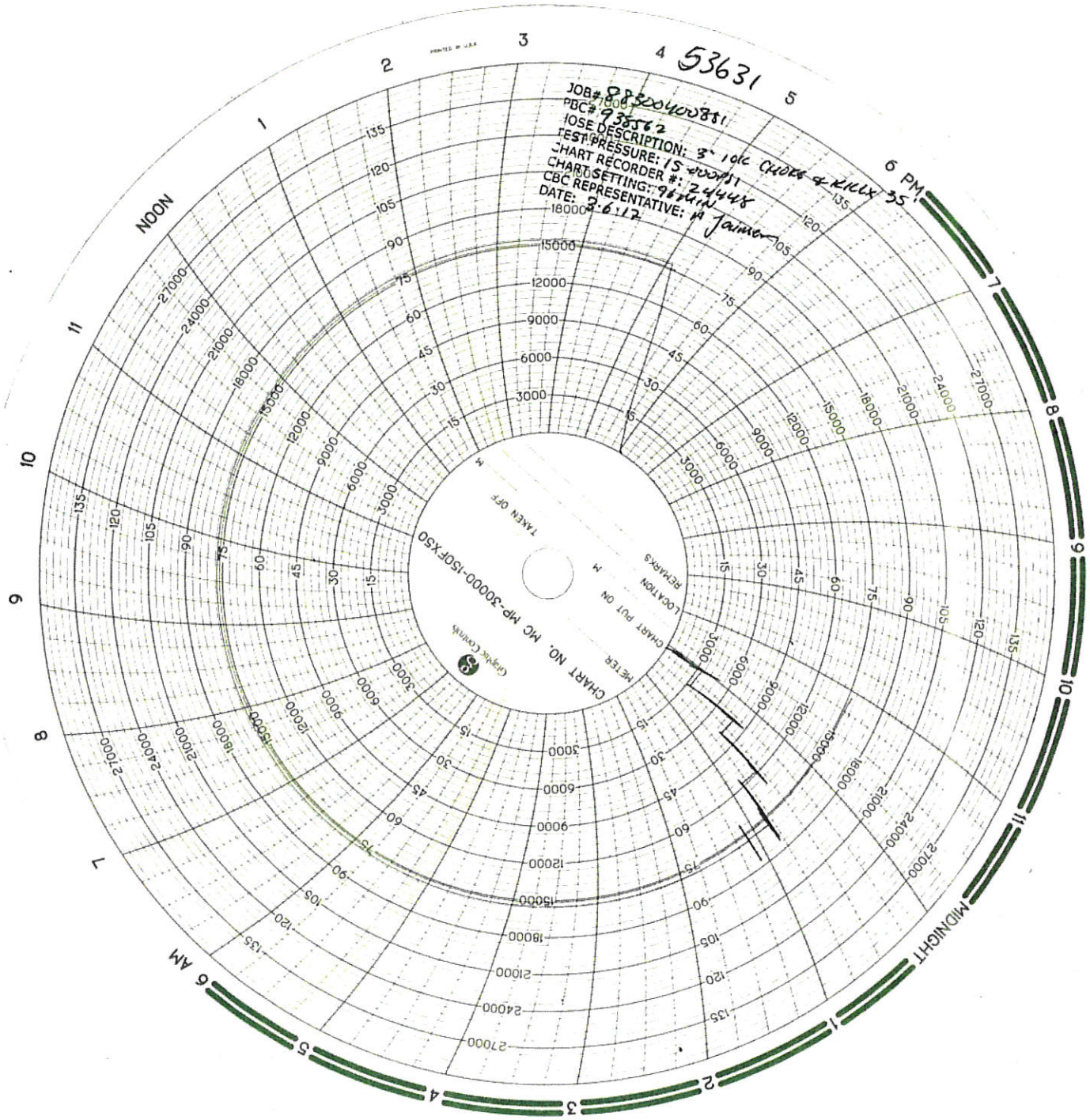
ContiTech

Certificate Number	COM Order Reference	Customer Name & Address
938562	938562	HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA
Customer Purchase Order No:	740043386	
Project: HOW		

Test Center Address	Accepted by COM Inspection	Accepted by Client Inspection
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Roger Suarez Date: 3/13/17	

We certify that the items detailed below meet the requirements of the customer's Purchase Order referenced above, and are in conformance with the specifications given below.

Item	Part No.	Description	Qnty	Serial Number	Specifications
20		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	53631	ContiTech Standard
30		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	54500	ContiTech Standard
40		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	56838	ContiTech Standard
50		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	56489	ContiTech Standard
60		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	61475	ContiTech Standard
80		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	60197	ContiTech Standard
90		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	39474	ContiTech Standard
100		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	60887	ContiTech Standard


53631
JOB# 88300400881
PBC# 938562
HOSE DESCRIPTION: 3" 10K CHOKE & KILL
TEST PRESSURE: 15,000 PSI
CHART RECORDER #: 24448
CHART SETTING: 9 AM
CBC REPRESENTATIVE: M Jaimez
DATE: 2.6.17
NOON
6 PM
MIDNIGHT
6 AM
TAKEN OFF
REMARKS
LOCATION
CHART PUT ON
METER
CHART NO. MC MP-30000-150F-X50
Cheyne Controls

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740043386	COM938562	A. Jaimes	03/06/2017

Hose Manufacturer	Contitech Rubber Industrial

Hose Serial #	53631	**Date of Manufacture**	08/2008
Hose I.D.	3"	**Working Pressure**	10000PSI
Hose Type	Choke and Kill	**Test Pressure**	15000PSI
Manufacturing Standard	API 16C		

Connections

End A: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange	**End B:** 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	**Material:** Carbon Steel
Seal Face: BX155	**Seal Face:** BX155
Length Before Hydro Test: 35'	**Length After Hydro test:** 35'

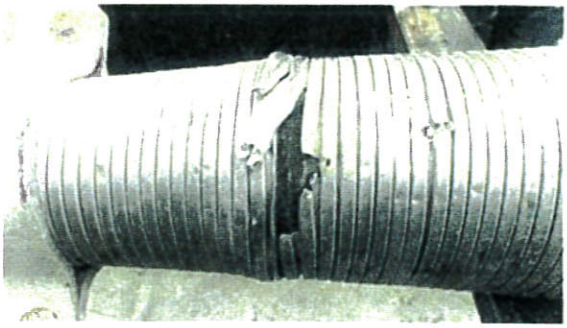
Conclusion: Hose #53631 passed the external inspection with minor damage to the hose armor. Internal borescope showed no damage to the liner. Hose #53631 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #53631 is suitable for continued service.**

Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)
Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)
Initial 5 years service: Major inspection
2nd Major inspection: Following subsequent 3 year life cycle
(Detailed description of test regime available upon request, QCP 206-1)

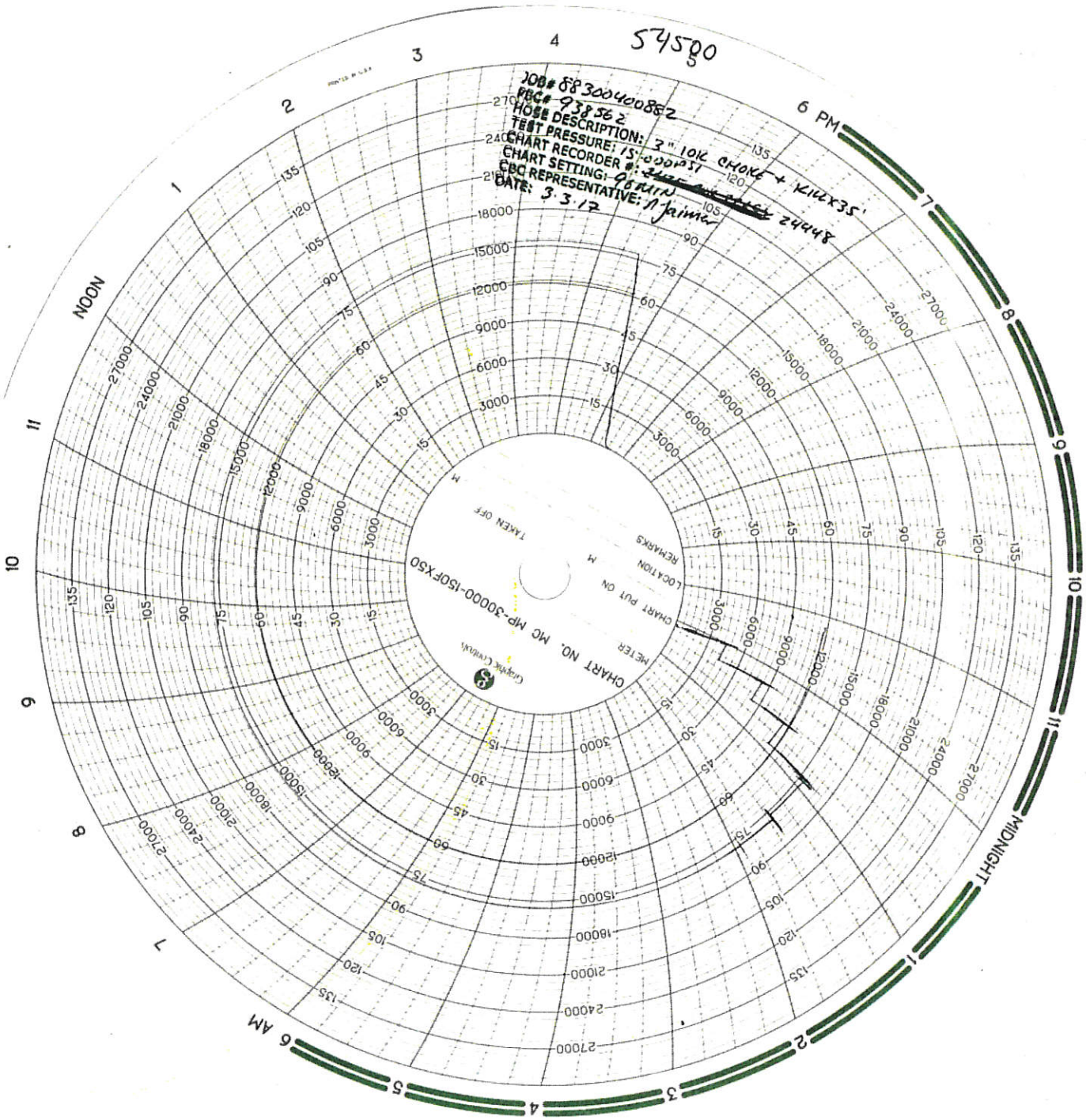
**NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

External Damage Post – Hydro test	
Approx. Distance from End A	3'
Width	8"
Length	3"
Depth	To hose body
Notes	Broken armor



Issued By: Alejandro Jaimes
Date: 03/10/2017

Checked By: Gerson Mejia-Lazo
Date: 03/10/2017


57580
JOB# 8830040862
PBC# 93856 2
HOSE DESCRIPTION: 3" 10K CHOKE + KILLX35'
TEST PRESSURE: 15,000 PSI
CHART RECORDER #: 24448
CHART SETTING: 60 MIN
PBC REPRESENTATIVE: N Jaime
DATE: 3.3.17
CHART NO. MC MP-30000-15OF-XSO
METER
CHART PUT ON
LOCATION
REMARKS
TAKEN OFF
NOON
6 PM
MIDNIGHT
6 AM

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740043386	COM938562	A. Jaimes	03/03/2017

Hose Manufacturer	Contitech Rubber Industrial

Hose Serial #	54500	**Date of Manufacture**	01/2009
Hose I.D.	3"	**Working Pressure**	10000PSI
Hose Type	Choke and Kill	**Test Pressure**	15000PSI
Manufacturing Standard	API 16C		

Connections

End A: 3.1/8" 5KPsi API Spec 6A Type 6BX Flange	**End B:** 3.1/8" 5Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	**Material:** Carbon Steel
Seal Face: BX155	**Seal Face:** BX155
Length Before Hydro Test: 35'	**Length After Hydro test:** 35'

Conclusion: Hose #54500 passed the external inspection with no notable damages to the hose armor. Internal borescope of the hose showed no damage to the liner. Hose #54500 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #54500 is suitable for continued service.**

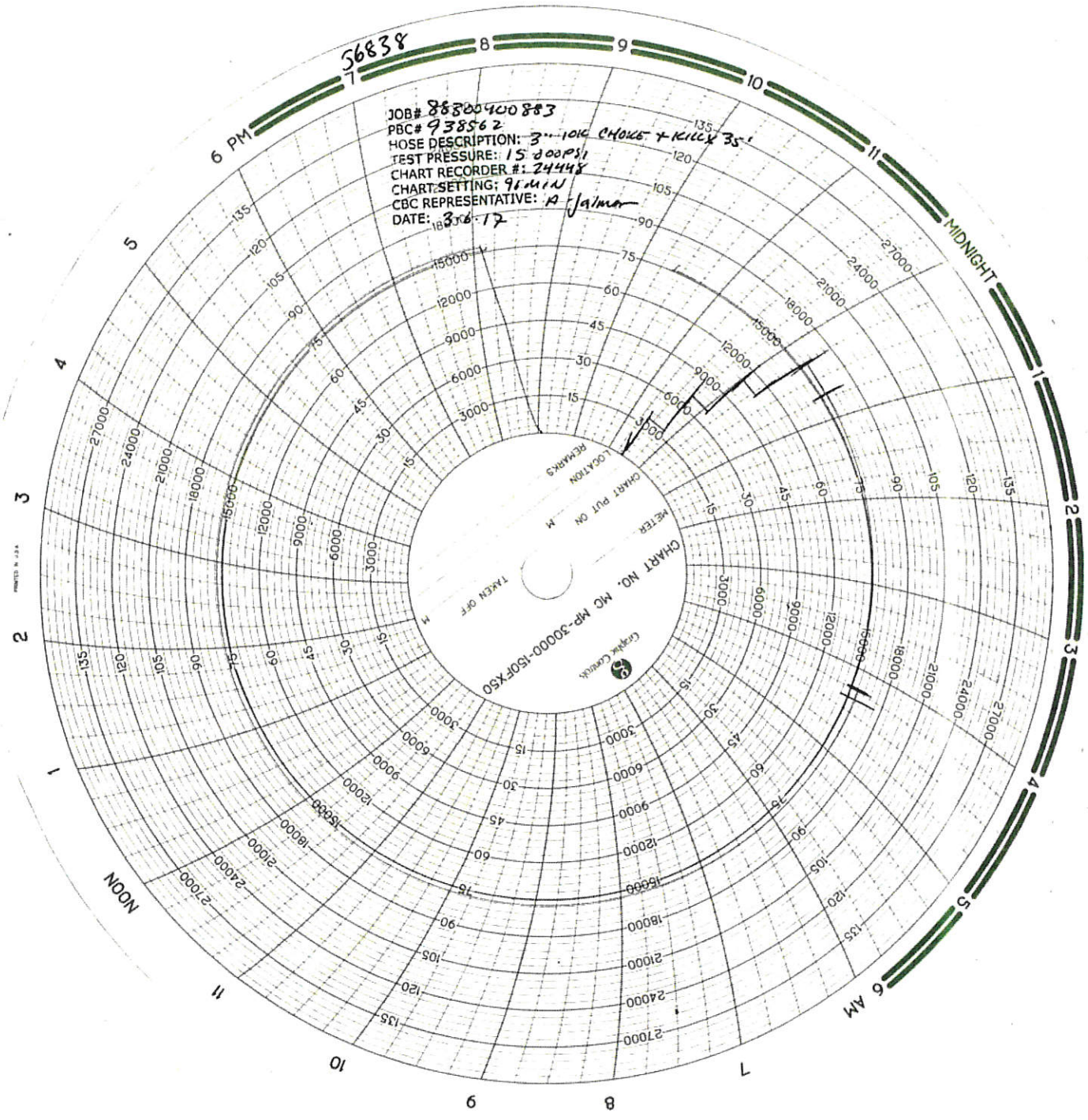
Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)
Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)
Initial 5 years service: Major inspection
2nd Major inspection: Following subsequent 3 year life cycle
(Detailed description of test regime available upon request, QCP 206-1)

**NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

Issued By: Alejandro Jaimes
Date: 03/13/2017

Checked By: Gerson Mejia-Lazo
Date: 03/13/2017


56838
JOB# 8880040883
PBC# 938562
HOSE DESCRIPTION: 3" 10K CHOKE + KILL X 35'
TEST PRESSURE: 15,000PSI
CHART RECORDER #: 24448
CHART SETTING: 90 MIN
CBC REPRESENTATIVE: A Jaimes
DATE: 3-6-17
CHART NO. MC MP-30000-150FX50
METER
CHART PUT ON
LOCATION
REMARKS
TAKEN OFF
6 PM
MIDNIGHT
NOON
6 AM

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740043386	COM938562	A. Jaimes	03/06/2017

Hose Manufacturer	Contitech Rubber Industrial

Hose Serial #	56838	**Date of Manufacture**	11/2010
Hose I.D.	3"	**Working Pressure**	10000PSI
Hose Type	Choke and Kill	**Test Pressure**	15000PSI
Manufacturing Standard	API 16C		

Connections

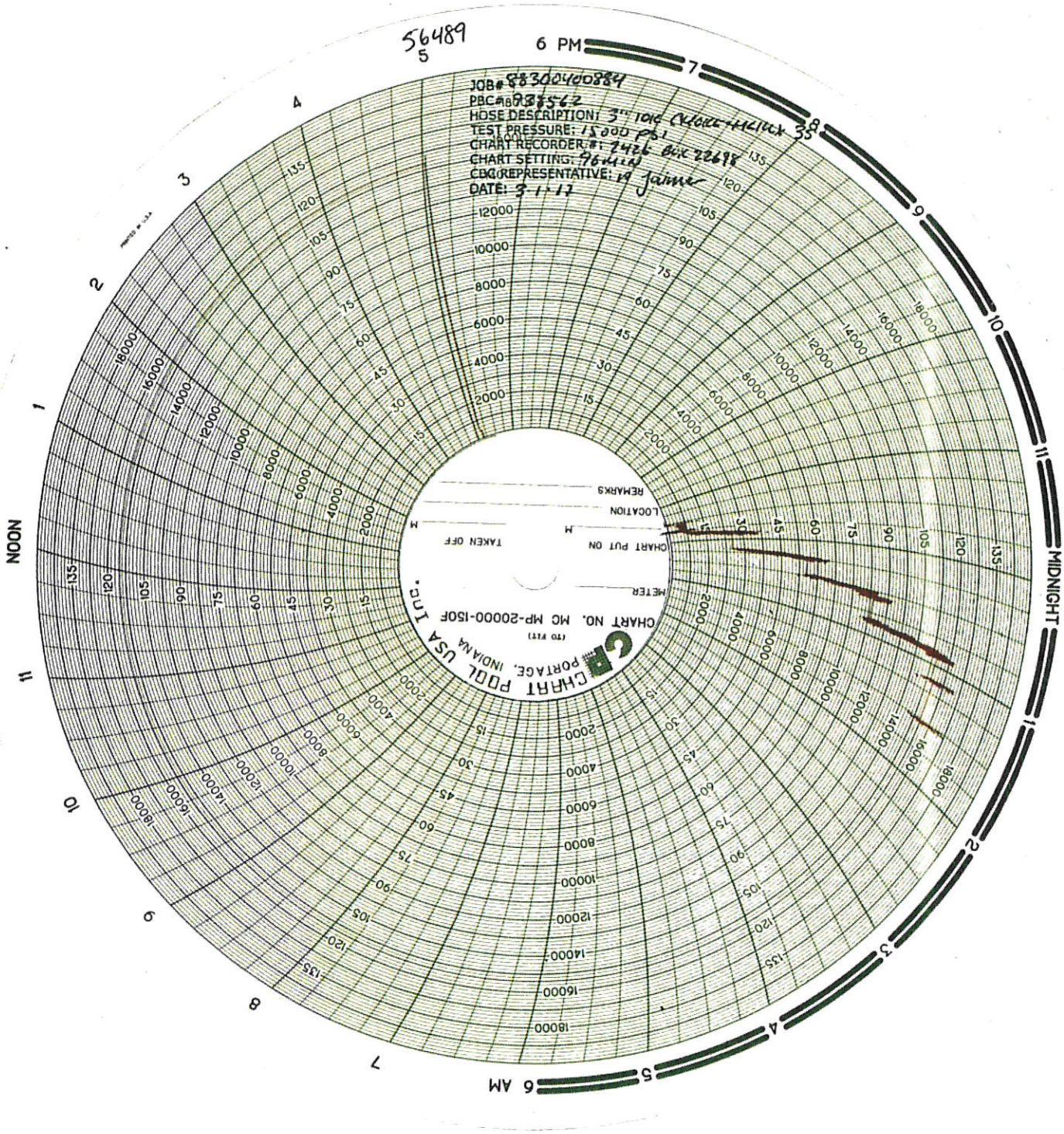
End A: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange	**End B:** 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	**Material:** Carbon Steel
Seal Face: BX155	**Seal Face:** BX155
Length Before Hydro Test: 35'	**Length After Hydro test:** 35'

Conclusion: Hose #56838 passed the external inspection with no notable damage to the hose armor. Internal borescope of the hose showed no damage to the liner. Hose #56838 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #56838 is suitable for continued service.**

Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)
Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)
Initial 5 years service: Major inspection
2nd Major inspection: Following subsequent 3 year life cycle
(Detailed description of test regime available upon request, QCP 206-1)

**NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.


56489
JOB# 8830400884
PBC# 938562
HOSE DESCRIPTION: 3" 10K CHOKE+KILLLINE
TEST PRESSURE: 15000 PSI
CHART RECORDER #: 7426 BOX 22698
CHART SETTING: 96HR
CBC REPRESENTATIVE: M Jaime
DATE: 3-1-17
6 PM
MIDNIGHT
6 AM
NOON
CHART POOL USA INC.
PORTAGE, INDIANA
CHART NO. MC MP-20000-15OF
METER
CHART PUT ON
TAKEN OFF
LOCATION
REMARKS

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740043386	COM938562	A. Jaimes	03/01/2017

Hose Manufacturer	Contitech Rubber Industrial

Hose Serial #	56489	**Date of Manufacture**	08/2010
Hose I.D.	3"	**Working Pressure**	10000PSI
Hose Type	Choke and Kill	**Test Pressure**	15000PSI
Manufacturing Standard	API 16C		

Connections

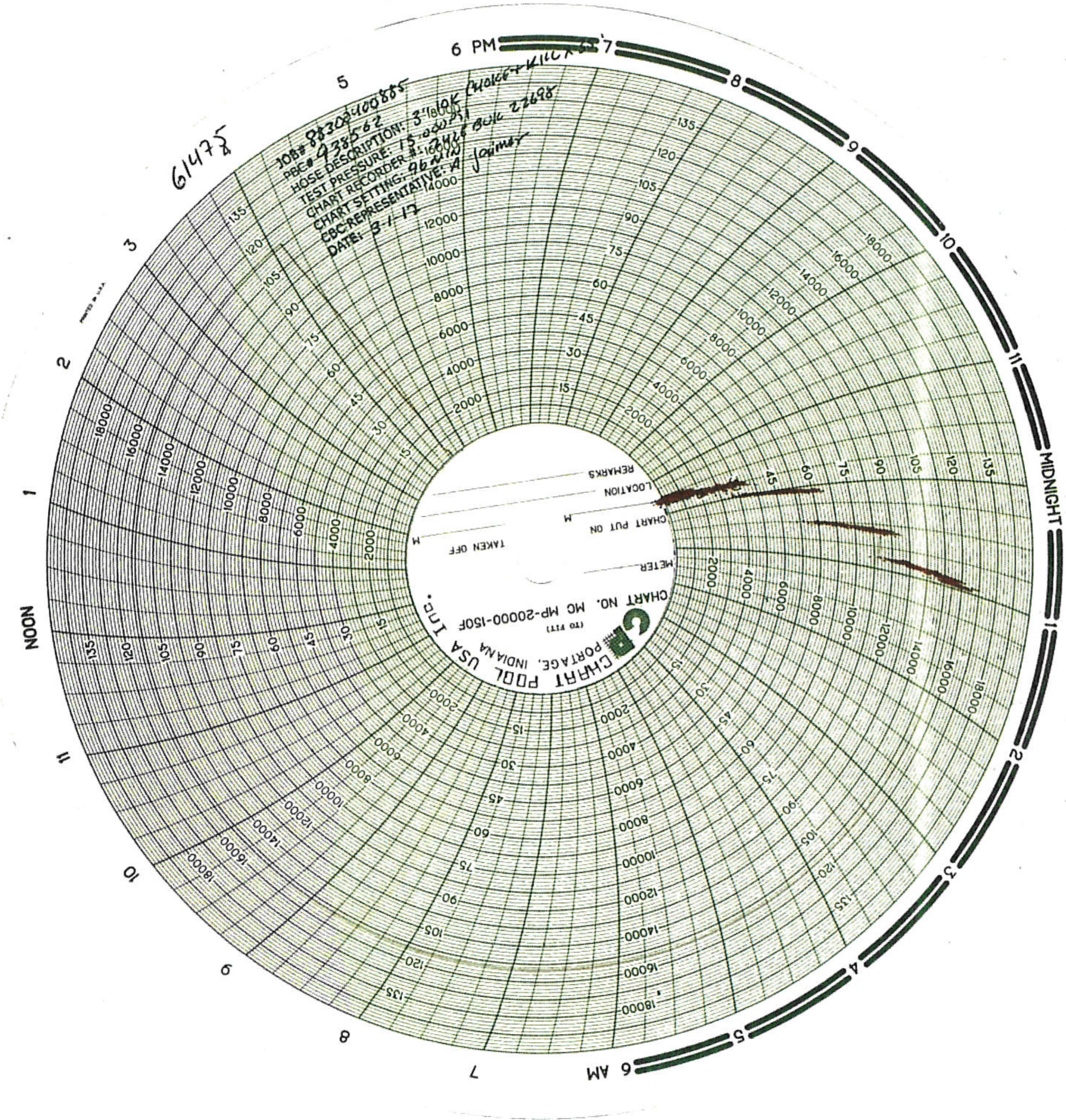
End A: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange	**End B:** 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	**Material:** Carbon Steel
Seal Face: BX155	**Seal Face:** BX155
Length Before Hydro Test: 35'	**Length After Hydro test:** 35'

Conclusion: Hose #56489 passed the external inspection with no notable damage to the hose armor. Internal borescope of the hose showed no damage to the liner. Hose #56489 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #56489 is suitable for continued service.**

Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)
Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)
Initial 5 years service: Major inspection
2nd Major inspection: Following subsequent 3 year life cycle
(Detailed description of test regime available upon request, QCP 206-1)

**NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.


61475
JOB# 88308400885
PBC# 9385562
HOSE DESCRIPTION:
TEST PRESSURE:
CHART RECORDER #:
CHART SETTING: 96 MIN
CBC REPRESENTATIVE:
DATE: 3-1-17
6 PM
MIDNIGHT
6 AM
NOON
REMARKS
LOCATION
CHART PUT ON
TAKEN OFF
METER
CHART NO. MC MP-20000-150F
CHART POOL USA Inc.
PORTAGE, INDIANA

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740043386	COM938562	A. Jaimes	03/01/2017

Hose Manufacturer	Contitech Rubber Industrial

Hose Serial #	61475	**Date of Manufacture**	01/2012
Hose I.D.	3"	**Working Pressure**	10000PSI
Hose Type	Choke and Kill	**Test Pressure**	15000PSI
Manufacturing Standard	API 16C		

Connections

End A: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange	**End B:** 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	**Material:** Carbon Steel
Seal Face: BX155	**Seal Face:** BX155
Length Before Hydro Test: 35'	**Length After Hydro test:** 35'

Conclusion: Hose #61475 passed the external inspection with no notable damage to the hose armor. Internal borescope of the hose showed no damage to the liner. Hose #61475 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #61475 is suitable for continued service.**

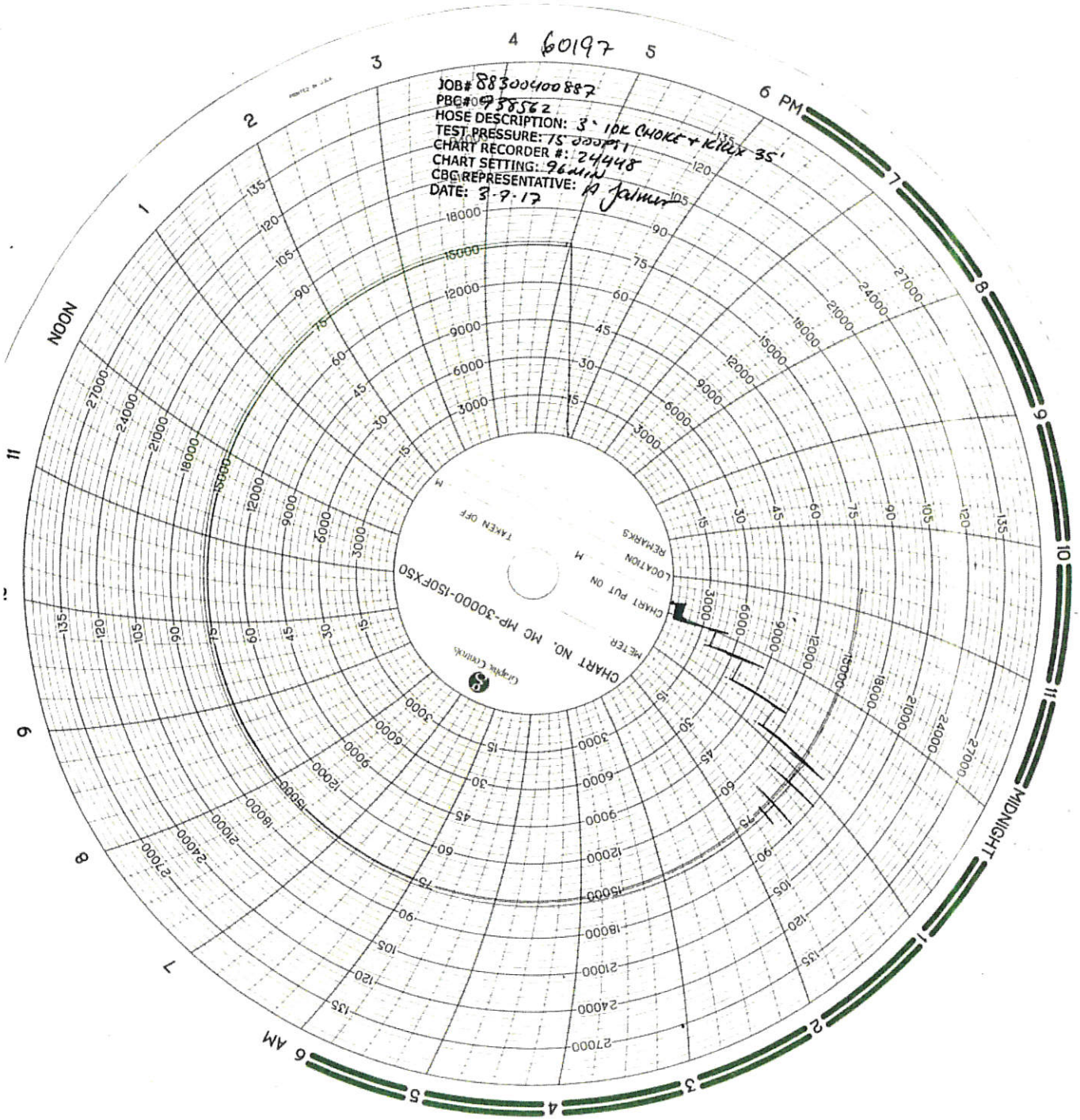
Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)
Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)
Initial 5 years service: Major inspection
2nd Major inspection: Following subsequent 3 year life cycle
(Detailed description of test regime available upon request, QCP 206-1)

**NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

Issued By: Alejandro Jaimes
Date: 03/10/2017

Checked By: Gerson Mejia-Lazo
Date: 03/10/2017


60197
JOB# 883004100887
PBC# 758562
HOSE DESCRIPTION: 3" 10K CHOKE + KILL X 35'
TEST PRESSURE: 7500 PSI
CHART RECORDER #: 24448
CHART SETTING: 96 MIN
CBC REPRESENTATIVE: A Jaimes
DATE: 3-9-17
CHART NO. MC MP-30000-15QFXS0
METER
CHART PUT ON
LOCATION
REMARKS
TAKEN OFF
NOON
MIDNIGHT
6 PM
6 AM

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740043386	COM938562	A. Jaimes	03/07/2017

Hose Manufacturer	Contitech Rubber Industrial

Hose Serial #	60197	**Date of Manufacture**	01/2011
Hose I.D.	3"	**Working Pressure**	10000PSI
Hose Type	Choke and Kill	**Test Pressure**	15000PSI
Manufacturing Standard	API 16C		

Connections

End A: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange	**End B:** 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	**Material:** Carbon Steel
Seal Face: BX155	**Seal Face:** BX155
Length Before Hydro Test: 35'	**Length After Hydro test:** 35'

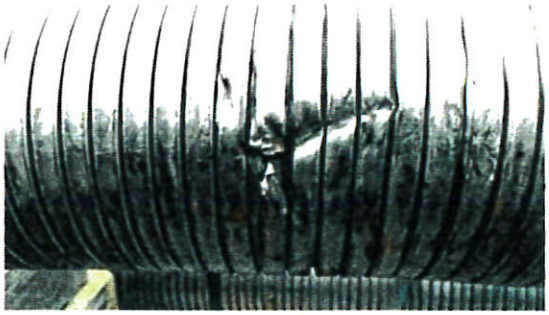
Conclusion: Hose #60197 passed the external inspection with minor damage to the hose armor. Internal borescope showed no damage to the liner. Hose #60197 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #60197 is suitable for continued service.**

Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)
Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)
Initial 5 years service: Major inspection
2nd Major inspection: Following subsequent 3 year life cycle
(Detailed description of test regime available upon request, QCP 206-1)

**NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

External Damage Post – Hydro test	
Approx. Distance from End A	6'
Width	1"
Length	1"
Depth	On armor
Notes	Crack on armor



Issued By: Alejandro Jaimes
Date: 03/10/2017

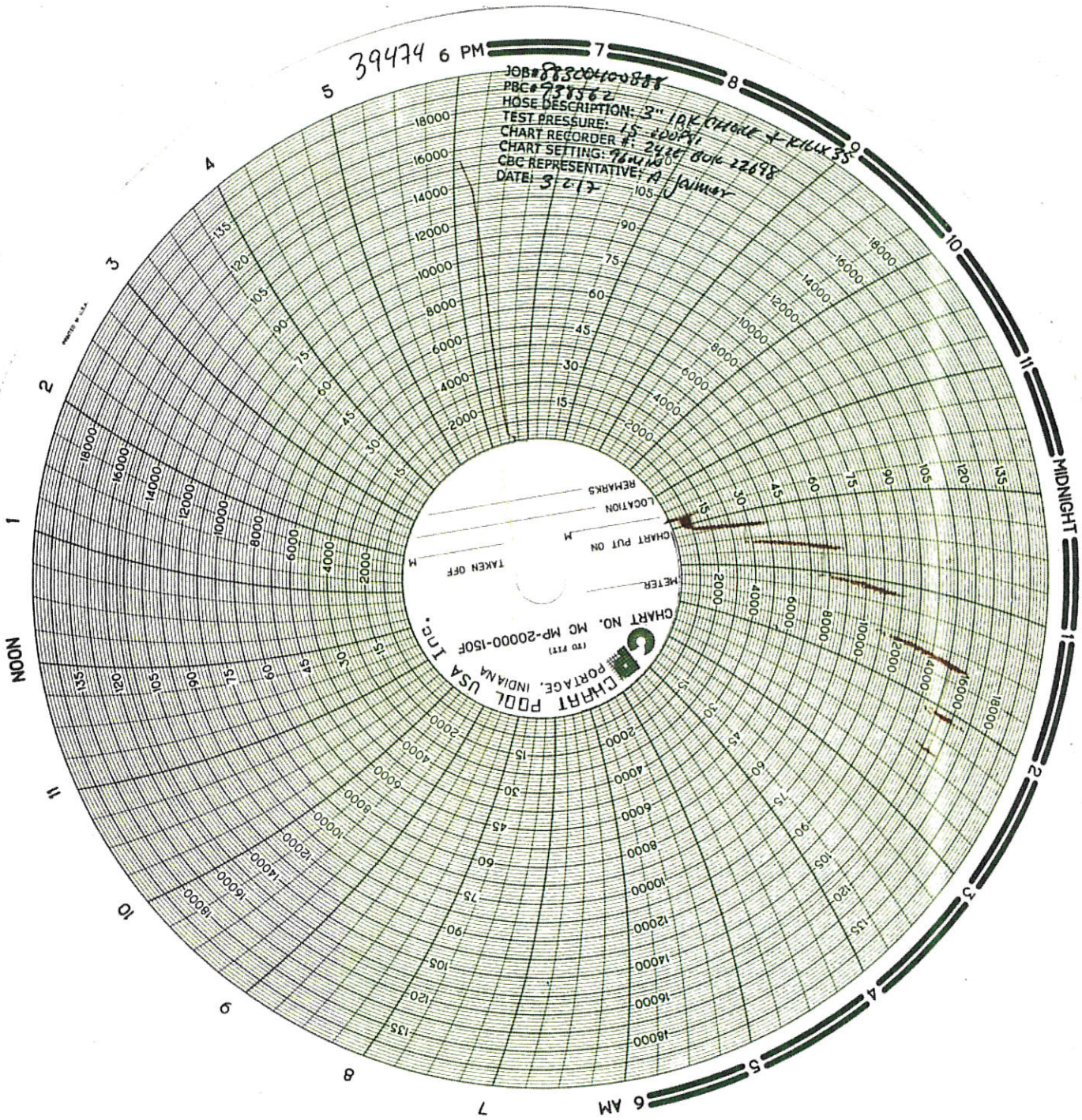
Checked By: Gerson Mejia-Lazo
Date: 03/10/2017

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740043386	COM938562	A. Jaimes	03/07/2017

External Damage Post – Hydro test	
Approx. Distance from End A	20'
Width	1"
Length	1"
Depth	On armor
Notes	Crack on armor


39474
JOB# 88300400884
PBC# 738562
HOSE DESCRIPTION: 3" IRK CHOKE + KILL 35
TEST PRESSURE: 15,000 PSI
CHART RECORDER #: 2426 BOX 22698
CHART SETTING: 90 MIN
CBC REPRESENTATIVE: A Jaimez
DATE: 3/2/17
6 PM
MIDNIGHT
NOON
6 AM
CHART POOL USA Inc.
PORTAGE, INDIANA
CHART NO. MC MP-20000-15OF
METER
CHART PUT ON
LOCATION
REMARKS
TAKEN OFF

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740043386	COM938562	A. Jaimes	03/02/2017

Hose Manufacturer	Contitech Rubber Industrial

Hose Serial #	39474	**Date of Manufacture**	08/2003
Hose I.D.	3"	**Working Pressure**	10000PSI
Hose Type	Choke and Kill	**Test Pressure**	15000PSI
Manufacturing Standard	API 16C		

Connections

End A: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange	**End B:** 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	**Material:** Carbon Steel
Seal Face: BX155	**Seal Face:** BX155
Length Before Hydro Test: 35'	**Length After Hydro test:** 35'

Conclusion: Hose #39474 passed the external inspection with minor damage to the hose armor. Internal borescope showed no damage to the liner. Hose #39474 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #39474 is suitable for continued service.**

Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)
Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)
Initial 5 years service: Major inspection
2nd Major inspection: Following subsequent 3 year life cycle
(Detailed description of test regime available upon request, QCP 206-1)

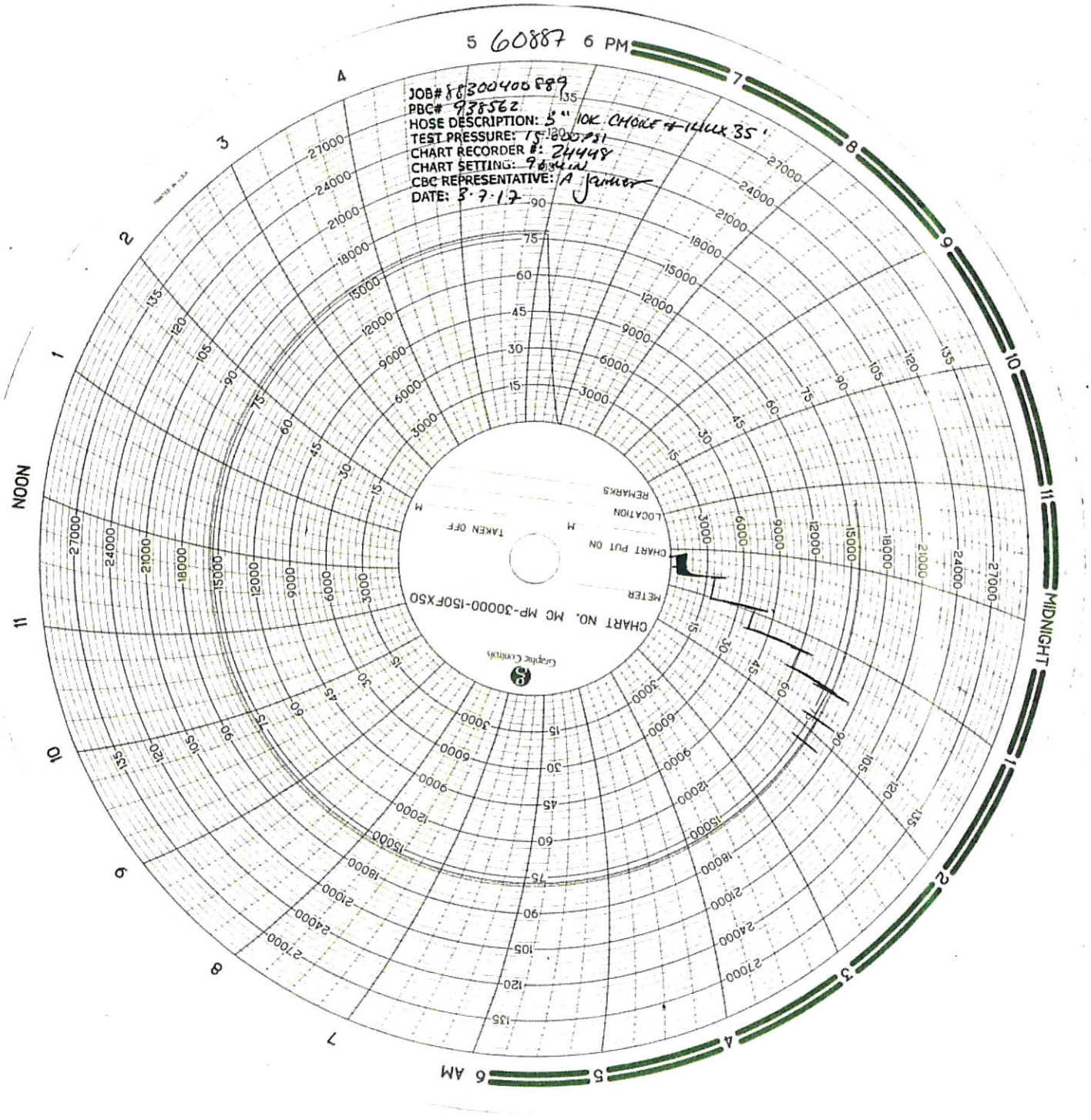
**NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

External Damage Post – Hydro test	
Approx. Distance from End A	15'
Width	1"
Length	1"
Depth	To hose body
Notes	Cracked armor

Issued By: Alejandro Jaimes
Date: 03/10/2017

Checked By: Gerson Mejia-Lazo
Date: 03/10/2017

Page **1** of **1**
QF97


5 60887 6 PM
JOB# 18300400889
PBC# 938562
HOSE DESCRIPTION: 3" 10K CHOKE & KILL X 35'
TEST PRESSURE: 15,000 PSI
CHART RECORDER #: 24448
CHART SETTING: 9834.N
CBC REPRESENTATIVE: A James
DATE: 8-7-17
CHART NO. MC MP-30000-150FX50
METER
CHART PUT ON
TAKEN OFF
LOCATION
REMARKS
Graphic Controls
NOON
MIDNIGHT
6 AM

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740043386	COM938562	A. Jaimes	03/07/2017

Hose Manufacturer	Contitech Rubber Industrial

Hose Serial #	60887	**Date of Manufacture**	10/2011
Hose I.D.	3"	**Working Pressure**	10000PSI
Hose Type	Choke and Kill	**Test Pressure**	15000PSI
Manufacturing Standard	API 16C		

Connections

End A: 4.1/16" 5Kpsi API Spec 6A Type 6BX Flange	**End B:** 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	**Material:** Carbon Steel
Seal Face: BX155	**Seal Face:** BX155
Length Before Hydro Test: 35'	**Length After Hydro test:** 35'

Conclusion: Hose #60887 passed the external inspection with minimal damage to the hose armor. Internal borescope showed no damage to the liner. Hose #60887 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #60887 is suitable for continued service.**

Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 to 6 months (or during installation/removal)
Annual: In-situ pressure test (in addition to the 3 to 6 monthly inspections)
Initial 5 years service: Major inspection
2nd Major inspection: Following subsequent 3 year life cycle
(Detailed description of test regime available upon request, QCP 206-1)

**NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

External Damage Post – Hydro test	
Approx. Distance from End A	10'
Width	1"
Length	1"
Depth	To hose body
Notes	Crack on armor

Issued By: Alejandro Jaimes
Date: 03/10/2017

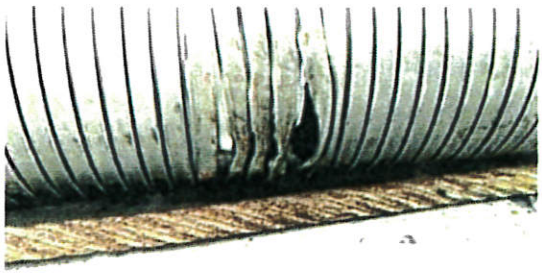
Checked By: Gerson Mejia-Lazo
Date: 03/10/2017

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740043386	COM938562	A. Jaimes	03/07/2017

External Damage Post – Hydro test	
Approx. Distance from End A	4'
Width	4"
Length	4"
Depth	To hose body
Notes	Rubber exposed



AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

SUPO Data Report
11/27/2023

APD ID: 10400093287
Submission Date: 07/08/2023
Operator Name: TAP ROCK OPERATING LLC
Well Name: HIGH LIFE FED COM
Well Number: 142H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

HL_Existing_Access_Roads_20230701162913.pdf

Existing Road Purpose: ACCESS

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

HL_New_Roads_Map_Plats_20230701162935.pdf

New road type: LOCAL

Length: 1464.12 Feet **Width (ft.):** 30

Max slope (%): 0 **Max grade (%):** 1

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 24

New road access erosion control: Crowned and ditched

New road access plan or profile prepared? N

New road access plan

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Access road engineering design? N

Access road engineering design

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: Grader

Access other construction information: Pipelines that are crossed will be padded. Upgrading will consist of filling potholes with caliche as needed.

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Crowned and ditched

Road Drainage Control Structures (DCS) description: None

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

HL_1mi_Well_Map_20230701162954.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: A 700' x 700' central tank battery (CTB) will be built 90' south of the High Life Slot 2 well pad. Topsoil will be piled on the south side of the CTB. In order to prevent commingling of production, Tap Rock will install two (2) separate batteries in the center on the proposed CTB pad (parallel trains with separate metering for all the process streams). Flare and/or CBU will be set on the southwest corner and the tank battery. 2,483.00' of 4" O. D. steel flow lines (1 per well) will be buried from the central tank battery to the respective well pads (89.96' connecting Slot 2 pad + 2,393.04' connecting Slot 1 Pad). No power line is planned at this time.

Production Facilities map:

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

HL_Production_Facilities_20230701163017.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: GW WELL

Water source use type: DUST CONTROL

SURFACE CASING

INTERMEDIATE/PRODUCTION CASING

STIMULATION

Source latitude: **Source longitude:**

Source datum:

Water source permit type: WATER WELL

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 17000 **Source volume (acre-feet):** 2.19118264

Source volume (gal): 714000

Water source and transportation

HL_H2O_Caliche_Source_Map_20230701163233.pdf

Water source comments: Water will be trucked from a private water well (DF Ranch water station) in Texas on FM Road 652 at a point 4.3 miles south of US 62/180.
New water well? N

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: NM One Call (811) will be notified before construction starts. Top 3" of soil and brush will be stockpiled to the side of the pads. V-door will face north. Closed loop mud system will be used. Caliche will be hauled from existing caliche pits on private (Lucas) land in SWSW 16-25s-25e. The Slot 1 pad will be built approximately 5' from the existing fence of the private surface owner (Berry Lucas). Tap Rock has received consent from Mr. Lucas to build this close to his fence line. Tap Rock will work closely with Mr. Lucas should they need to move the fence to allow space for pad construction.

Construction Materials source location

HL_H2O_Caliche_Source_Map_20230701163251.pdf

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Drill cuttings, mud, salts, and other chemicals

Amount of waste: 550 barrels

Waste disposal frequency : Daily

Safe containment description: Steel mud tanks

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY

Disposal location ownership: PRIVATE

Disposal type description:

Disposal location description: Mud tanks will be hauled to R360's state approved (NM-01-0006) disposal site at Halfway, NM.

Waste type: SEWAGE

Waste content description: Black and grey water

Amount of waste: 5 barrels

Waste disposal frequency : Daily

Safe containment description: Plastic holding tanks and chemical toilets

Safe containmant attachment:

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Waste disposal type: OTHER **Disposal location ownership:** OTHER

Disposal type description: Public

Disposal location description: Carlsbad wastewater treatment plant

Waste type: GARBAGE

Waste content description: Trash

Amount of waste: 10 barrels

Waste disposal frequency : Daily

Safe containment description: Portable trash cage

Safe containmant attachment:

Waste disposal type: OTHER **Disposal location ownership:** OTHER

Disposal type description: Public

Disposal location description: Eddy County landfill

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Steel tanks on pad

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

HL_Slot1_Well_Site_Layout_20230701163306.pdf

Comments:

Section 10 - Plans for Surface

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: HIGH LIFE FED COM

Multiple Well Pad Number: SLOT 1

Recontouring

HL_Slot1_Interim_Reclamation_20230701163324.pdf

HL_Slot1_Recontour_Plats_20230701163328.pdf

Drainage/Erosion control construction: Crowned and ditched

Drainage/Erosion control reclamation: Harrowed on the contour

Well pad proposed disturbance (acres): 10.14	**Well pad interim reclamation (acres):** 2.54	**Well pad long term disturbance (acres):** 7.6
Road proposed disturbance (acres): 1.04	**Road interim reclamation (acres):** 0	**Road long term disturbance (acres):** 1.04
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 1.71	**Pipeline interim reclamation (acres):** 1.71	**Pipeline long term disturbance (acres):** 0
Other proposed disturbance (acres): 12.21	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 12.21
Total proposed disturbance: 25.1	**Total interim reclamation:** 4.25	**Total long term disturbance:** 20.85

Disturbance Comments:

Reconstruction method: Interim reclamation will be completed within 6 months of completing the last well on the pad. Interim reclamation will consist of shrinking the well pads by removing caliche and spreading the stockpiled topsoil to reclaim portions of the pad and roads. Disturbed areas will be seeded in accordance with BLM requirements. Final reclamation will occur within 6 months of plugging the last well on the pad. Final reclamation will consist of using any remaining stockpiled topsoil to cover the remainder of the pads and associated roads. Disturbed areas will be contoured to match pre-construction grades.

Topsoil redistribution: Soil and brush will be evenly spread over disturbed areas and harrowed on the

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

contour. Disturbed areas will be seeded in accordance with BLM requirements. Noxious weeds will be controlled.

Soil treatment: Nonre

Existing Vegetation at the well pad: Mesquite and/or Creosote Bush

Existing Vegetation at the well pad

Existing Vegetation Community at the road: Mesquite and/or Creosote Bush

Existing Vegetation Community at the road

Existing Vegetation Community at the pipeline: Mesquite and/or Creosote Bush

Existing Vegetation Community at the pipeline

Existing Vegetation Community at other disturbances: Mesquite and/or Creosote Bush

Existing Vegetation Community at other disturbances

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project?

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation

Operator Contact/Responsible Official

First Name: **Last Name:**

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Phone: **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment

Weed treatment plan description: To BLM standards

Weed treatment plan

Monitoring plan description: To BLM standards

Monitoring plan

Success standards: To BLM satisfaction

Pit closure description: No pit

Pit closure attachment:

Section 11 - Surface

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: See attached

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: See attached

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: See attached

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: See attached

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: OTHER

Describe: Central Tank Battery

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: See attached

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other

Right of Way needed? N **Use APD as ROW?**

ROW Type(s):

ROW

SUPO Additional Information:

Use a previously conducted onsite? Y

Previous Onsite information: An onsite inspection was held with Caroline Kaufman (BLM-NRS) on April 17th, 2023.

Other SUPO

HL_Slot1_Surface_Use_Agreement_20230702102349.pdf
HL_SUPO_20230701163433.pdf

Tap Rock Operating, LLC

High Life
Existing Access Map

Section 10 & 11, T25S, R25E
Eddy County, New Mexico

- Proposed Pads
- Proposed Access Roads
- Proposed Flowlines
- National Park Service
- State Trust Lands
- BLM Lands
- Private Lands

1:10,000

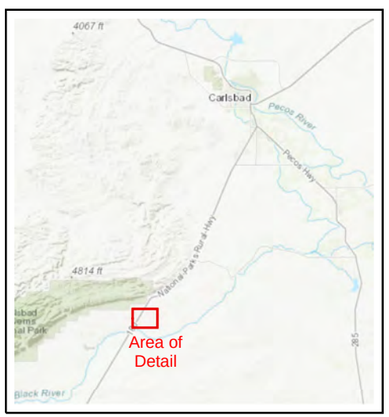
0 500 1,000
Feet

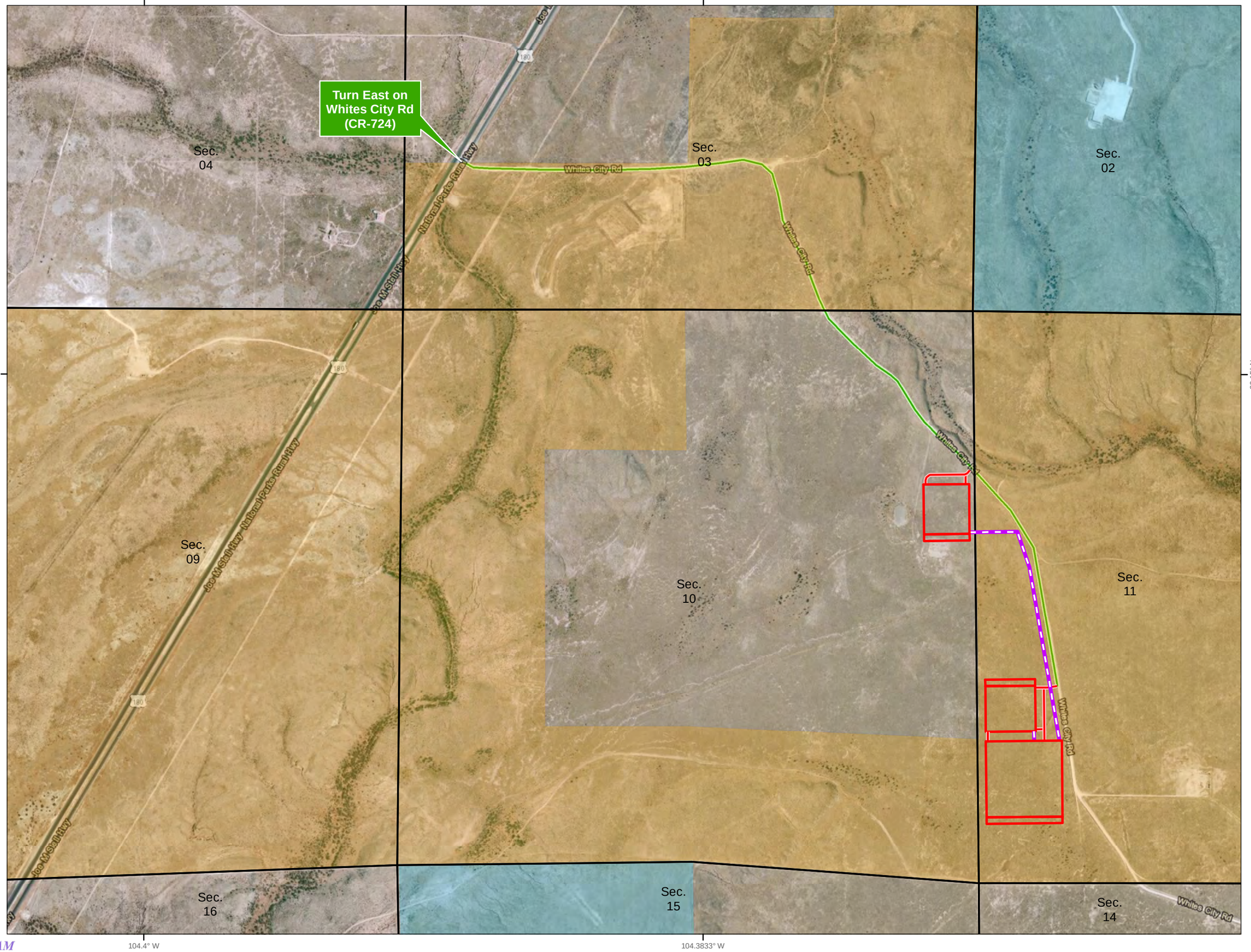
N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., March 23, 2023
for Tap Rock Operating, LLC





Tap Rock Operating, LLC

High Life Fed Com
Plan of Development Map

Section 10 & 11, T25S, R25E
Eddy County, New Mexico

- Proposed Pads
- Proposed Access Roads
- Proposed Flowlines
- National Park Service
- State Trust Lands
- BLM Lands
- Private Lands

1:5,000

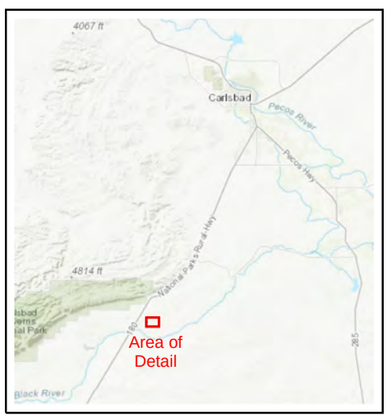
0 250 500
Feet

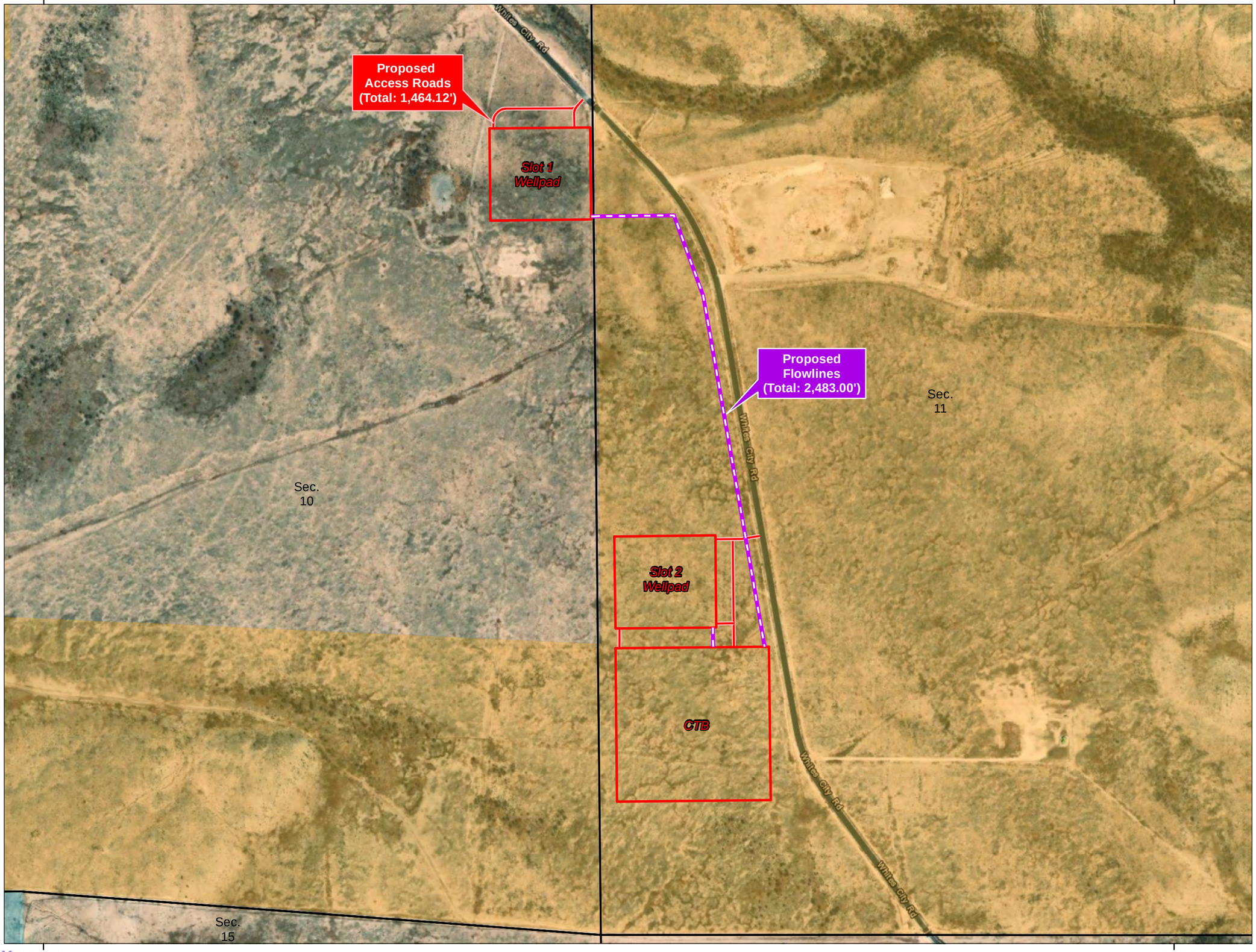
N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., June 16, 2023
for Tap Rock Operating, LLC

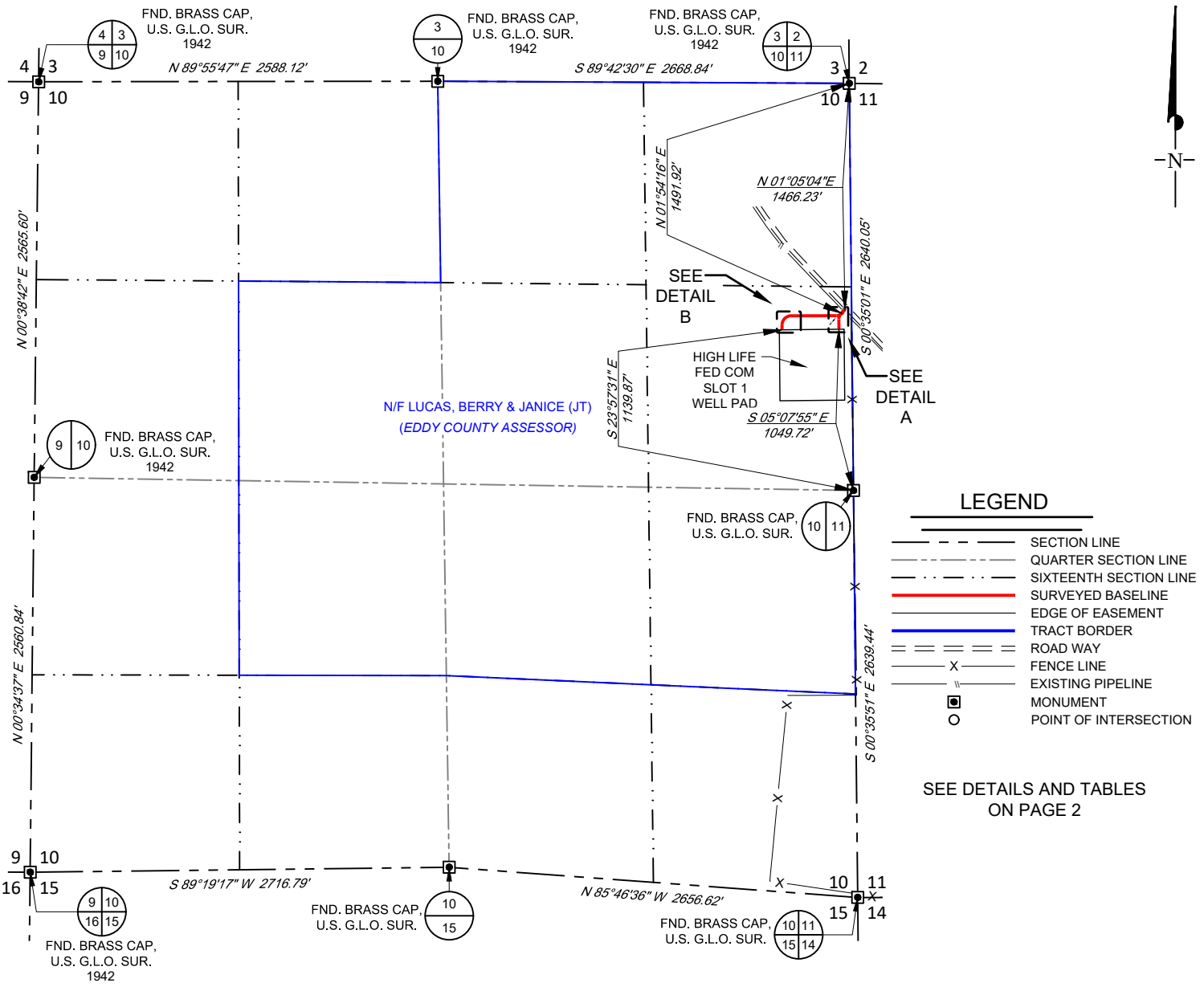




SCALE: 1" = 1000'

0' 500' 1000'

SECTION 10, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LEGEND

- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- SURVEYED BASELINE
- EDGE OF EASEMENT
- TRACT BORDER
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- MONUMENT
- POINT OF INTERSECTION

SEE DETAILS AND TABLES ON PAGE 2

HIGH LIFE SLOT 1 ROAD EASEMENT

Being proposed road easements being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 598.05 feet or 36.25 rods, containing 0.40 acre more or less.

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

TAP ROCK

HIGH LIFE SLOT 1 ROAD EASEMENT	REVISION: INT	DATE
DATE: 03/14/23		
FILE: EP_HIGH_LIFE_SLOT1_RD		
DRAWN BY: MML		
SHEET : 1 OF 2		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY TAP ROCK OPERATING, LLC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. B.O.L./ P.O.B. = BEGINNING OF LINE/ POINT OF BEGINNING
5. E.O.L./ P.O.E. = END OF LINE/ POINT OF EXIT
6. P.I. = POINT OF INTERSECTION
7. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\EP_HIGH_LIFE_SLOT1_RD.DWG 3/15/2023 1:34:26 PM mark.hamilton

SECTION 10, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

LINE TABLE A

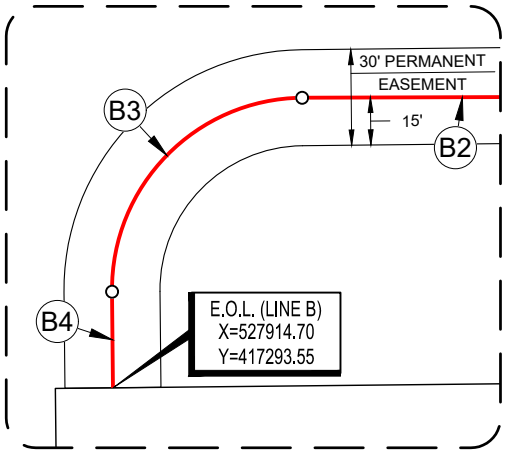
LINE	BEARING	DISTANCE
A1	S 40°59'10" W	44.08'
A3	S 00°35'51" E	65.19'

LINE TABLE B

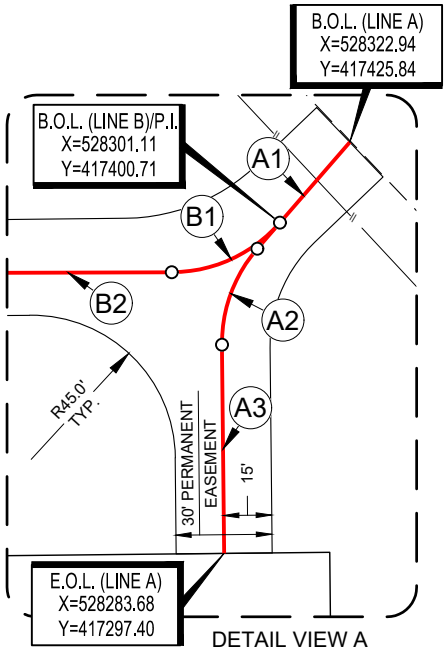
LINE	BEARING	DISTANCE
B2	S 89°47'38" W	293.54'
B4	S 00°35'51" E	30.00'

CURVE TABLE

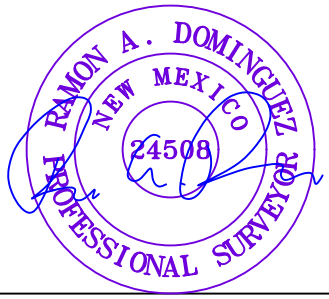
CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
A2	45.00'	32.66'	31.95'	S 20°11'39" W
B1	45.00'	38.33'	37.19'	S 65°23'24" W
B3	60.00'	94.25'	84.85'	S 44°24'09" W



DETAIL VIEW B
SCALE: 1" = 60'



DETAIL VIEW A
SCALE: 1" = 60'



Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

TAP ROCK

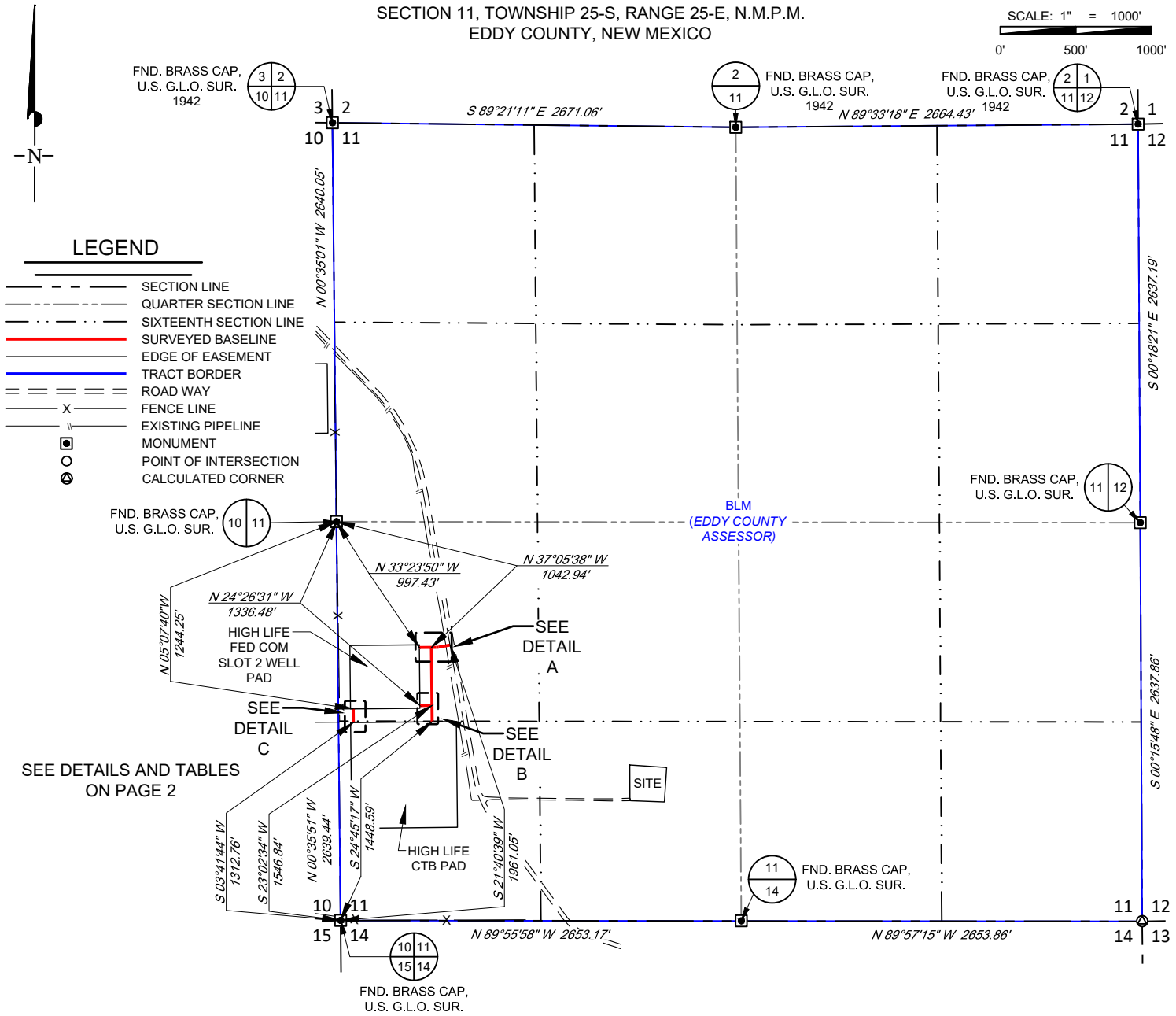
HIGH LIFE SLOT 1 ROAD EASEMENT	REVISION: INT	DATE
DATE: 03/14/23		
FILE: EP_HIGH_LIFE_SLOT1_RD		
DRAWN BY: MML		
SHEET : 2 OF 2		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY TAP ROCK OPERATING, LLC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. B.O.L./ P.O.B. = BEGINNING OF LINE/ POINT OF BEGINNING
5. E.O.L./ P.O.E. = END OF LINE/ POINT OF EXIT
6. P.I. = POINT OF INTERSECTION
7. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\EP_HIGH_LIFE_SLOT1_RD.DWG 3/15/2023 1:34:26 PM mark.hamilton

SECTION 11, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

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



HIGH LIFE SLOT 2 ROAD EASEMENTS

Being proposed road easements being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 866.07 feet or 52.49 rods, containing 0.64 acre more or less.

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

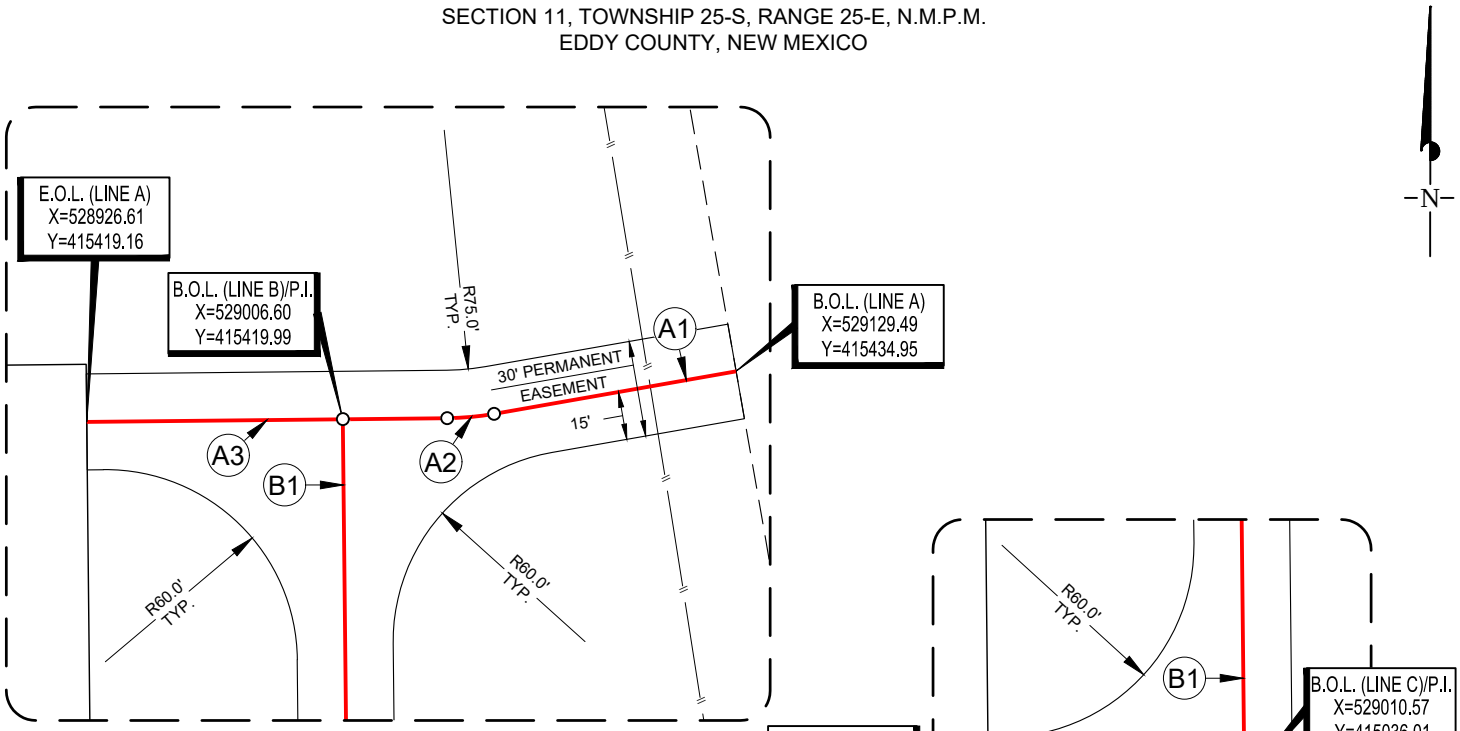
TAP ROCK

HIGH LIFE SLOT 2 ROAD EASEMENTS	REVISION: INT	DATE
DATE: 03/14/23		
FILE: EP_HIGH_LIFE_SLOT2_RDS		
DRAWN BY: MML		
SHEET : 1 OF 2		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY TAP ROCK OPERATING, LLC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. B.O.L./ P.O.B. = BEGINNING OF LINE/ POINT OF BEGINNING
5. E.O.L./ P.O.E. = END OF LINE/ POINT OF EXIT
6. P.I. = POINT OF INTERSECTION
7. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\EP_HIGH_LIFE_SLOT2_RDS.DWG 3/15/2023 1:37:03 PM mark.hamilton

SECTION 11, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LINE TABLE A

LINE	BEARING	DISTANCE
A1	S 80°02'50" W	76.79'
A3	S 89°24'28" W	112.63'

LINE TABLE B

LINE	BEARING	DISTANCE
B1	S 00°35'32" E	491.95'

LINE TABLE C

LINE	BEARING	DISTANCE
C1	S 89°24'28" W	80.00'

LINE TABLE D

LINE	BEARING	DISTANCE
D1	S 00°35'51" E	90.00'

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
A2	90.00'	14.70'	14.69'	S 84°43'39" W

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

TAP ROCK

HIGH LIFE SLOT 2 ROAD EASEMENTS	REVISION: INT	DATE
DATE: 03/14/23		
FILE: EP_HIGH_LIFE_SLOT2_RDS		
DRAWN BY: MML		
SHEET : 2 OF 2		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY TAP ROCK OPERATING, LLC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. B.O.L./ P.O.B. = BEGINNING OF LINE/ POINT OF BEGINNING
5. E.O.L./ P.O.E. = END OF LINE/ POINT OF EXIT
6. P.I. = POINT OF INTERSECTION
7. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\EP_HIGH_LIFE_SLOT2_RDS.DWG 3/15/2023 1:37:03 PM mark.hamilton

Tap Rock Operating, LLC

High Life Fed Com
1 Mile Radius & Lease Map

T25S R25E
Eddy County, New Mexico

- Oil - Active
- Oil - New
- Oil - TA
- Oil - P&A
- Gas - Active
- Gas - New
- Gas - P&A
- SWD - Active
- Proposed Well Bore
- State OG Leases
- Federal OG Leases
- BLM Surface
- State Surface
- Private Surface

N

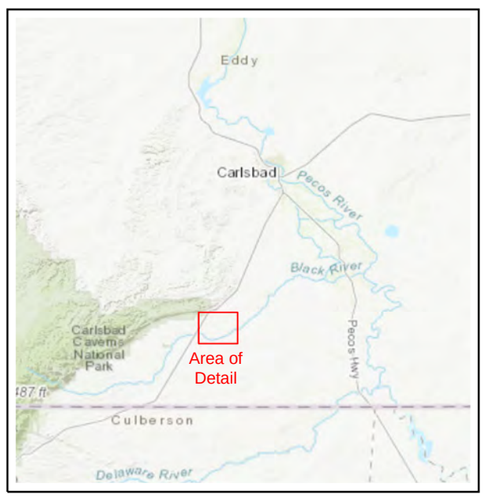
1:24,000

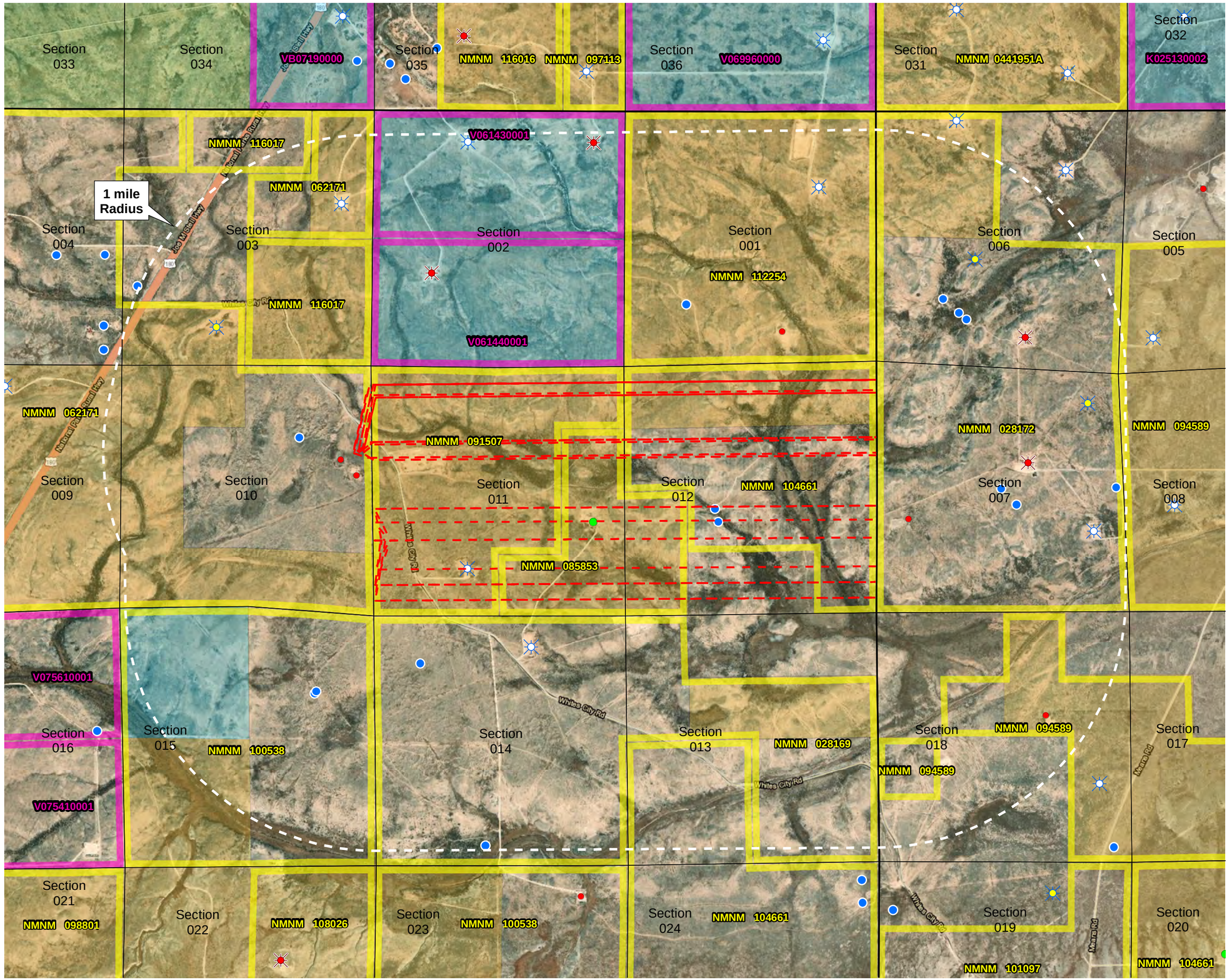
0 0.125 0.25 0.5
Miles

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., June 19, 2023
for Tap Rock Operating, LLC





SECTION 11, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

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

HIGH LIFE UNIT CTB PAD

Metes and Bounds Description of a 11.25 acre site located within Section 11, Township 25 South, Range 25 East, N.M.P.M., in Eddy County, New Mexico.

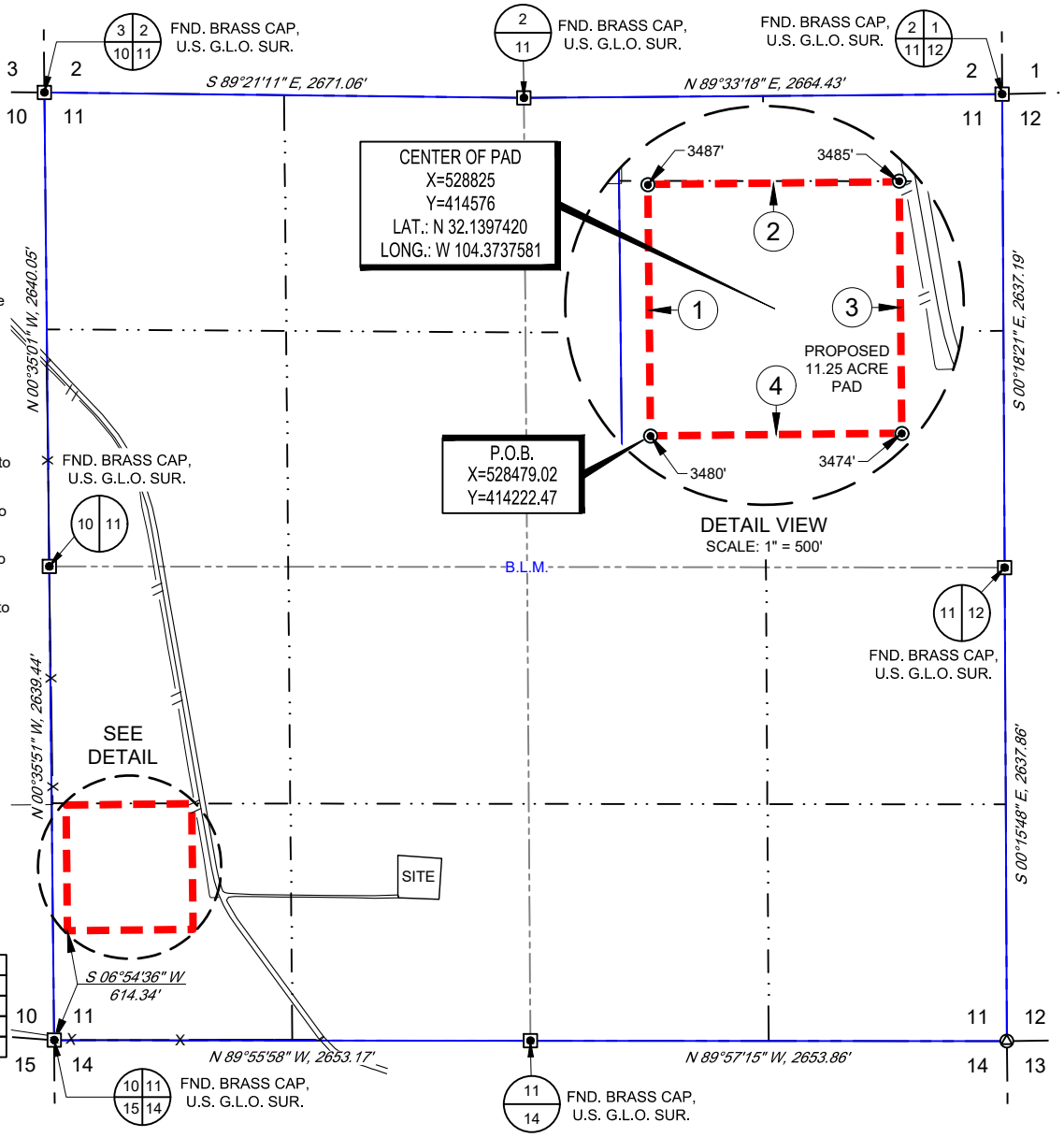
BEGINNING at the Southwest corner of this site, from whence a brass cap found for the Southwest corner of said Section 11, bears:
S 06°54'36" W, a distance of 614.34 feet;

Thence N 00°35'51" W, a distance of 700.00 feet to the Northwest corner of this site;

Thence N 89°24'09" E, a distance of 700.00 feet to the Northeast corner of this site;

Thence S 00°35'51" E, a distance of 700.00 feet to the Southeast corner of this site;

Thence S 89°24'09" W, a distance of 700.00 feet to the Point of Beginning.

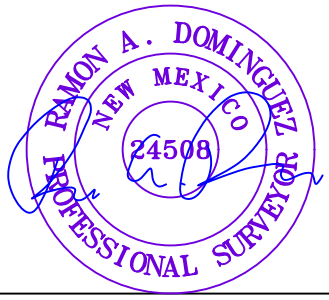


LINE TABLE

LINE	BEARING	DISTANCE
1	N 00°35'51" W	700.00'
2	N 89°24'09" E	700.00'
3	S 00°35'51" E	700.00'
4	S 89°24'09" W	700.00'

LEGEND

- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- TRACT BORDER
- AS-BUILT SITE
- FENCE LINE
- EXISTING PIPELINE
- IRON ROD SET
- MONUMENT FOUND
- CALCULATED CORNER



Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

TAP ROCK

HIGH LIFE UNIT CTB PAD	REVISION: INT	DATE
DATE: 03/10/2023		
FILE: BO_HIGH_LIFE_UNIT_CTB_PAD		
DRAWN BY: CAR		
SHEET : 1 OF 1		

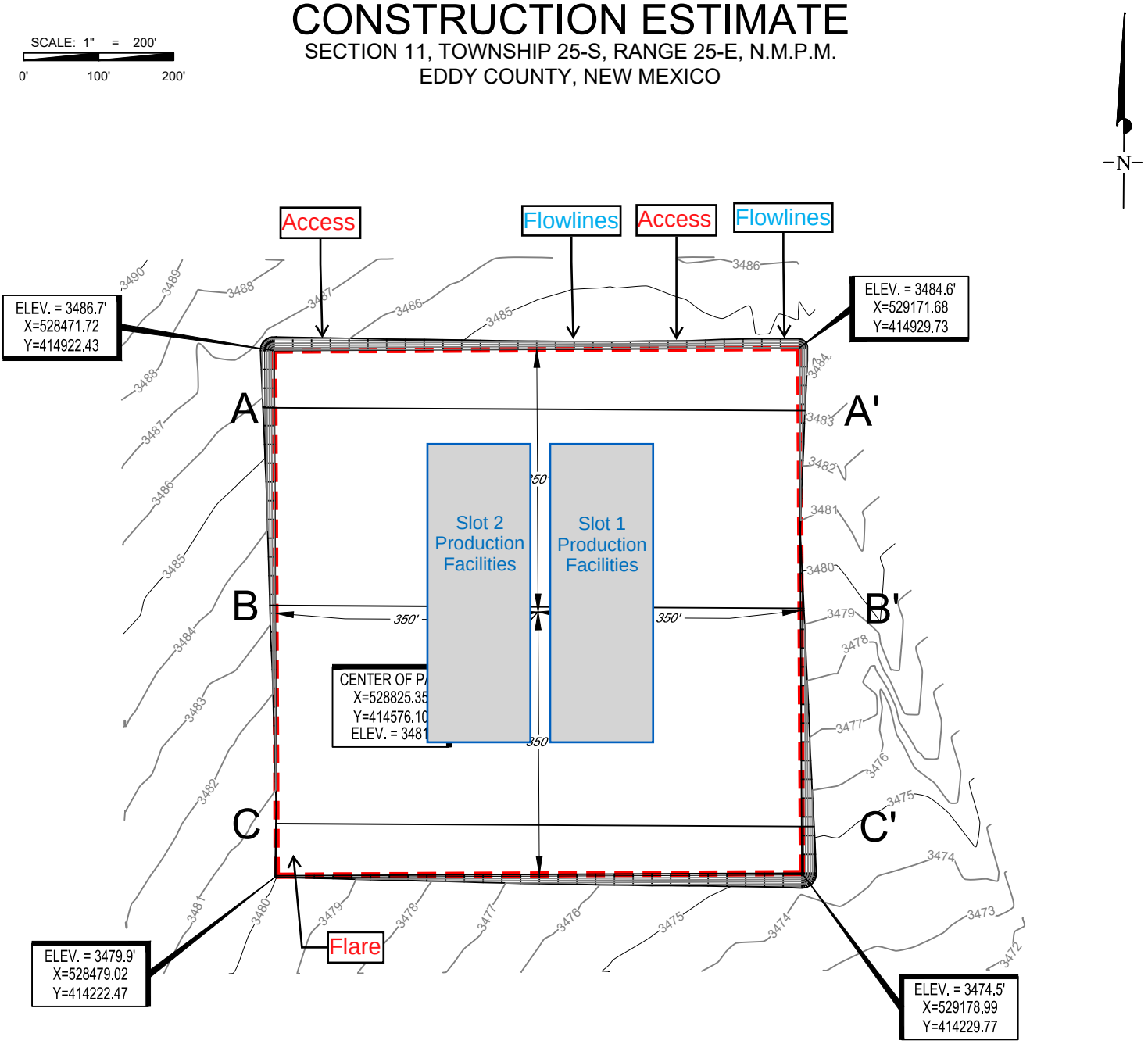
NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY TAP ROCK OPERATING, LLC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. P.O.B. = POINT OF BEGINNING
5. ADJOINER INFORMATION FOR INFORMATIONAL PURPOSES ONLY.

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\BO_HIGH_LIFE_UNIT_CTB_PAD.DWG 3/15/2023 1:39:38 PM mark.hamilton

CONSTRUCTION ESTIMATE

SECTION 11, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SCALE: 1" = 200'
0' 100' 200'



NOTE: 1' CONTOUR INTERVALS

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

TAP ROCK

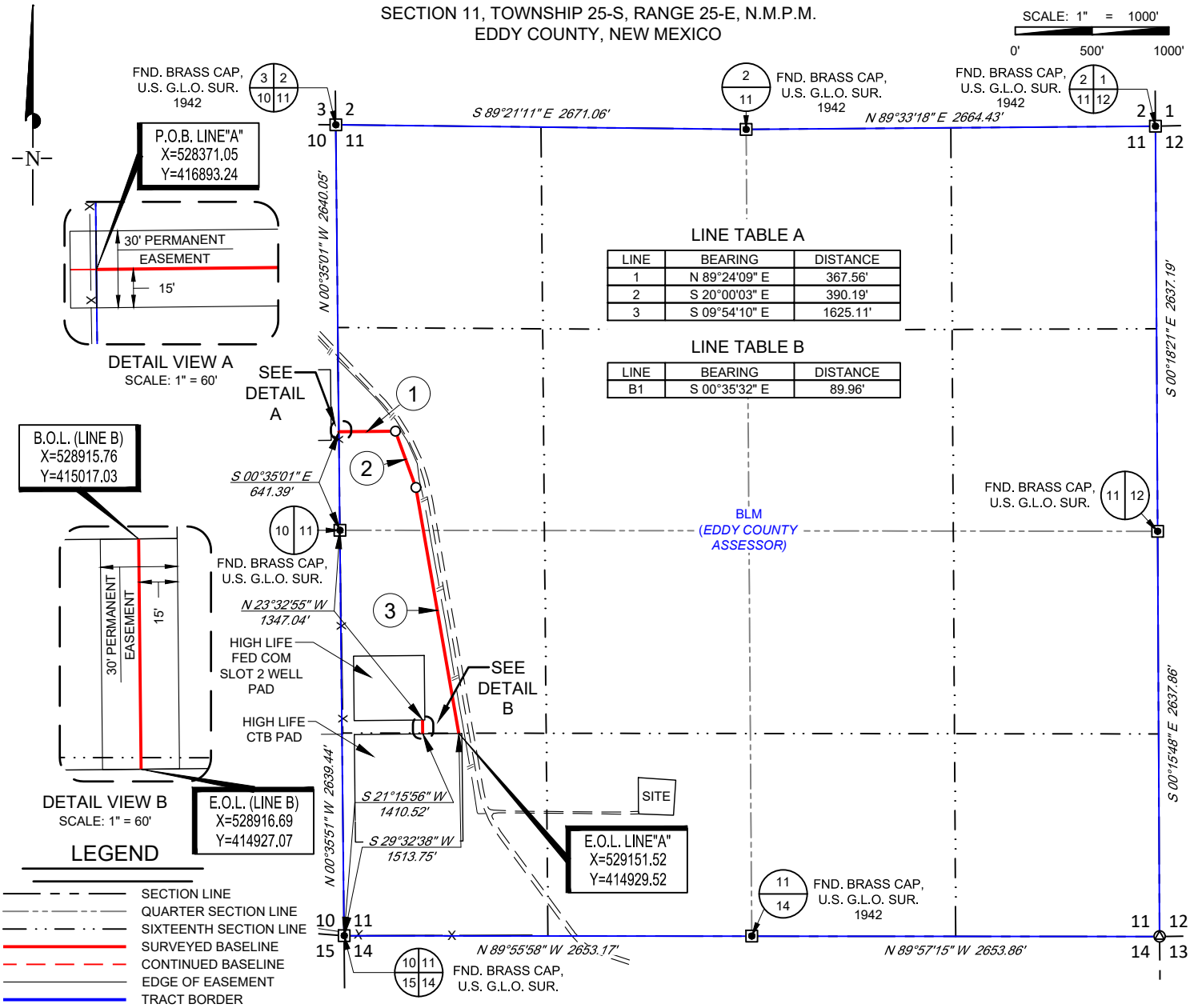
HIGH LIFE UNIT CTB SITE	REVISION:	
	INT	DATE
DATE: 03/10/2023		
FILE: CD_HIGH_LIFE_UNIT_CTB_PAD		
DRAWN BY: CAR		
SHEET : 1 OF 3		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\CD_HIGH_LIFE_UNIT_CTB_PAD.DWG 3/14/2023 8:19:08 AM craley

SECTION 11, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

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



LINE TABLE A

LINE	BEARING	DISTANCE
1	N 89°24'09" E	367.56'
2	S 20°00'03" E	390.19'
3	S 09°54'10" E	1625.11'

LINE TABLE B

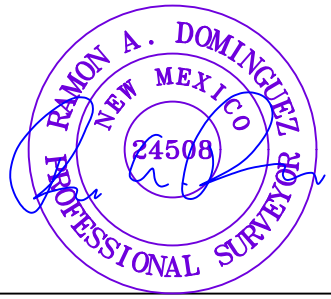
LINE	BEARING	DISTANCE
B1	S 00°35'32" E	89.96'

LEGEND

- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- EDGE OF EASEMENT
- TRACT BORDER
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- MONUMENT
- POINT OF INTERSECTION
- CALCULATED CORNER

HIGH LIFE SLOT 1 AND SLOT 2 FLOWLINE

Being proposed flowline easements being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 2472.82 feet or 149.87 rods, containing 1.70 acre more or less.



Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

TAP ROCK

HIGH LIFE SLOT 1 AND SLOT 2 FLOWLINE	REVISION: INT	DATE
	MBA	03/22/23
DATE: 03/13/23		
FILE: EP_HIGH_LIFE_SLOT1_SLOT2_FWL_SEC11_REV1		
DRAWN BY: MML		
SHEET : 1 OF 1		

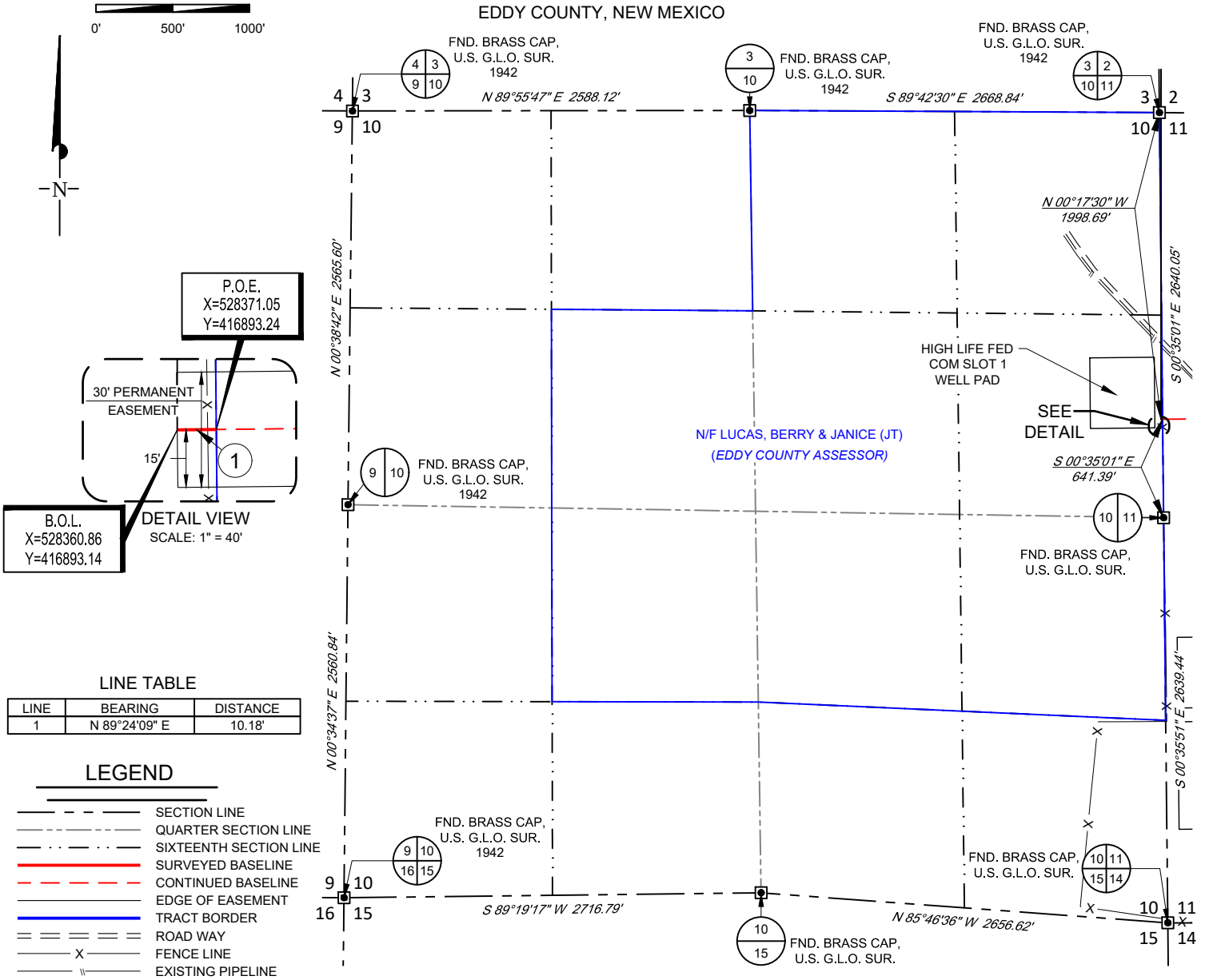
NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY TAP ROCK OPERATING, LLC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. B.O.L./ P.O.B. = BEGINNING OF LINE/ POINT OF BEGINNING
5. E.O.L./ P.O.E. = END OF LINE/ POINT OF EXIT
6. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\EP_HIGH_LIFE_SLOT1_SLOT2_FWL_SEC11_REV1.DWG 3/27/2023 9:43:24 AM kmatheny

SCALE: 1" = 1000'

0' 500' 1000'

SECTION 10, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LINE TABLE

LINE	BEARING	DISTANCE
1	N 89°24'09" E	10.18'

LEGEND

- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- EDGE OF EASEMENT
- TRACT BORDER
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- MONUMENT

HIGH LIFE SLOT 1 FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 10.18 feet or 0.62 rods, containing 0.01 acre more or less.

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

TAP ROCK

HIGH LIFE SLOT 1 FLOWLINE	REVISION: INT	DATE
	MBA	03/22/23
DATE: 03/07/23		
FILE: EP_HIGH_LIFE_SLOT1_FWL_SEC10_ REV1		
DRAWN BY: EAH		
SHEET : 1 OF 1		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY TAP ROCK OPERATING, LLC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. B.O.L./ P.O.B. = BEGINNING OF LINE/ POINT OF BEGINNING
5. E.O.L./ P.O.E. = END OF LINE/ POINT OF EXIT
6. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\EP_HIGH_LIFE_SLOT1_FWL_SEC10_ REV1.DWG 3/27/2023 9:44:13 AM kmatheny

Tap Rock Operating, LLC

High Life Fed Com
Plan of Development Map

Section 10 & 11, T25S, R25E
Eddy County, New Mexico

- Proposed Pads
- Proposed Access Roads
- Proposed Flowlines
- National Park Service
- State Trust Lands
- BLM Lands
- Private Lands

1:5,000

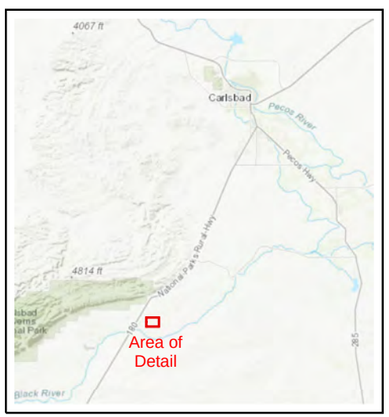
0 250 500
Feet

N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., June 16, 2023
for Tap Rock Operating, LLC



104.3833° W

104.3667° W

Proposed
Access Roads
(Total: 1,464.12')

Slot 1
Wellpad

Proposed
Flowlines
(Total: 2,483.00')

Slot 2
Wellpad

CTB

White's City Rd

Sec.
10

Sec.
11

Sec.
15

Tap Rock Operating LLC

Proposed High Life Fed Com
Water and Caliche Source Map

Section 10 & 11, Township 25S, Range 25E
Eddy County, New Mexico

BLM
Fee
State Trust Lands

N

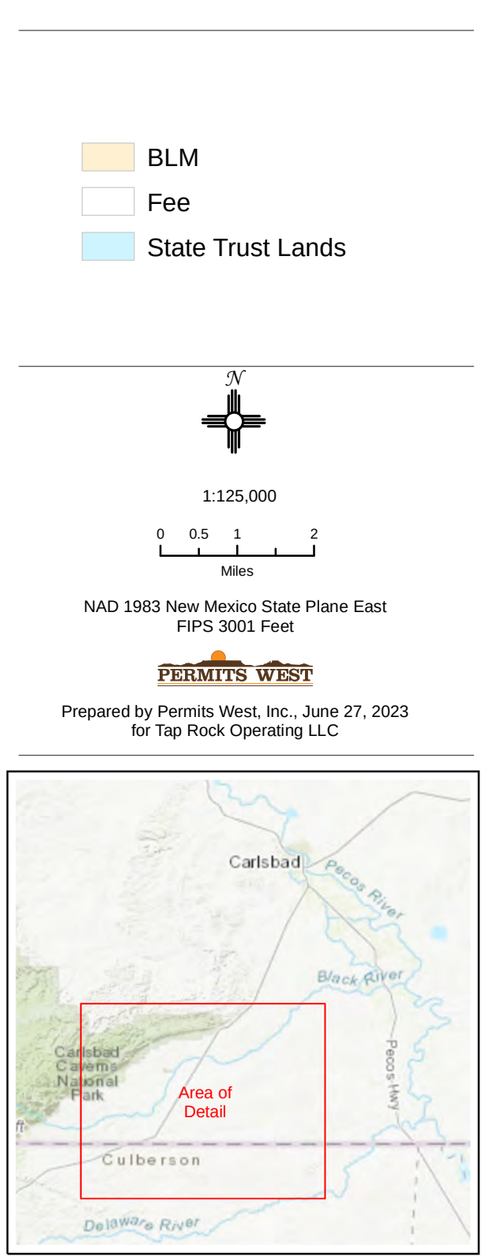
1:125,000

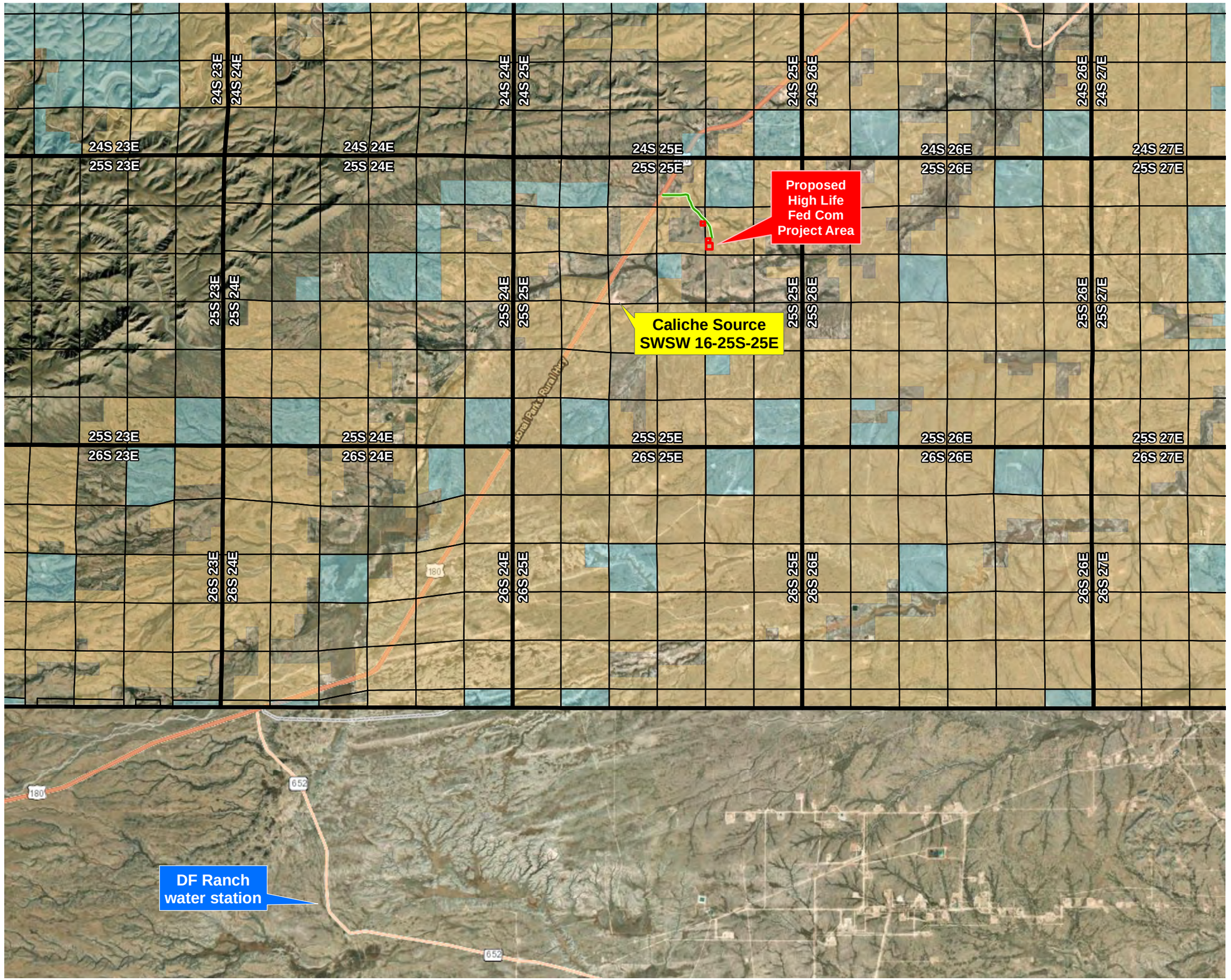
0 0.5 1 2
Miles

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., June 27, 2023
for Tap Rock Operating LLC





Tap Rock Operating LLC

Proposed High Life Fed Com
Water and Caliche Source Map

Section 10 & 11, Township 25S, Range 25E
Eddy County, New Mexico

BLM
Fee
State Trust Lands

N

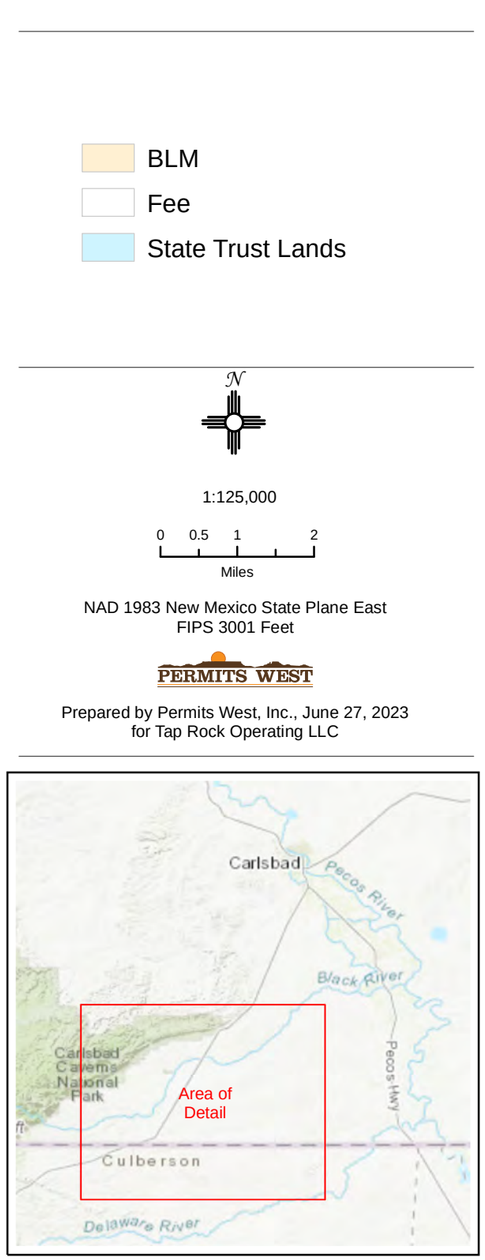
1:125,000

0 0.5 1 2
Miles

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., June 27, 2023
for Tap Rock Operating LLC



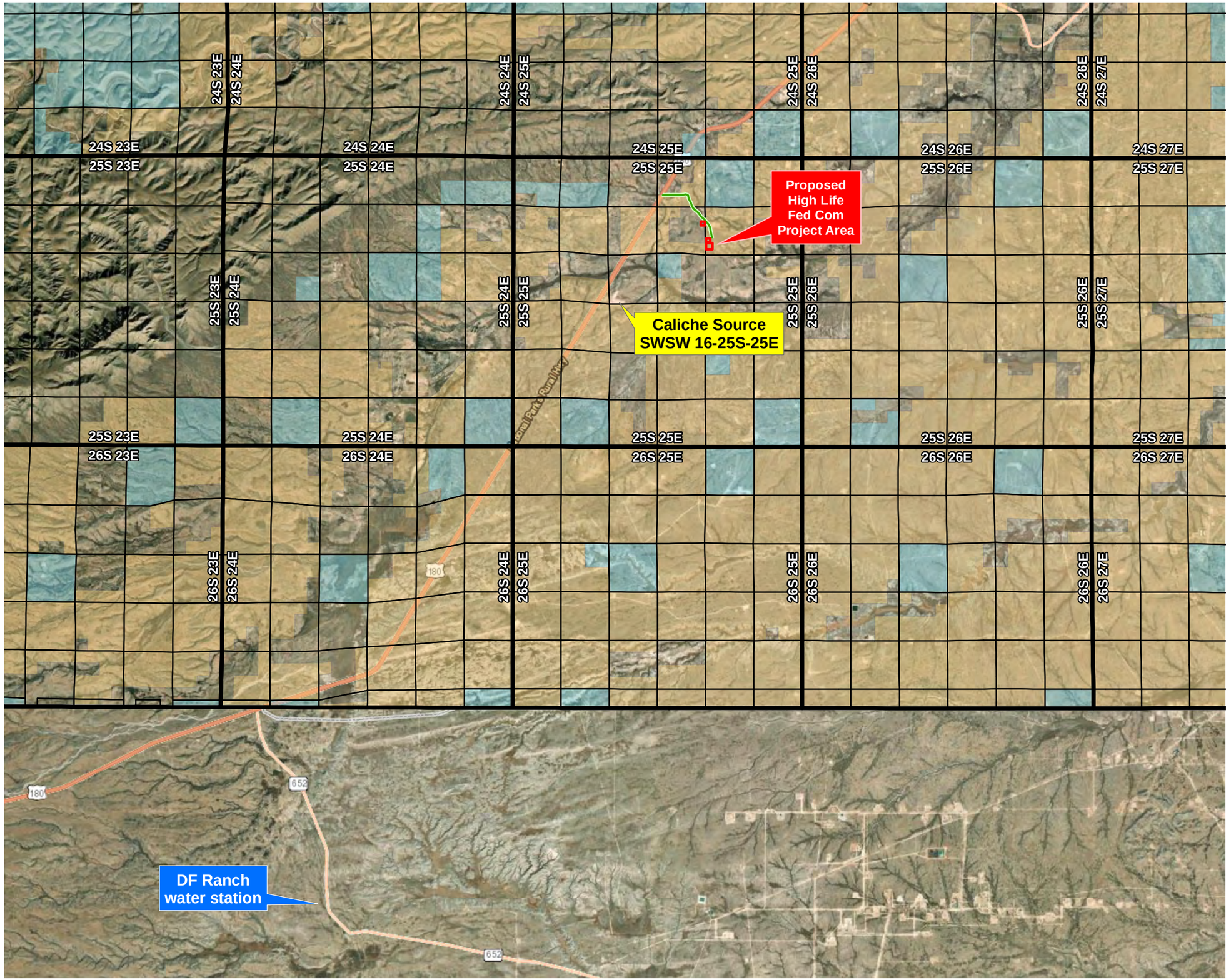


EXHIBIT 2B

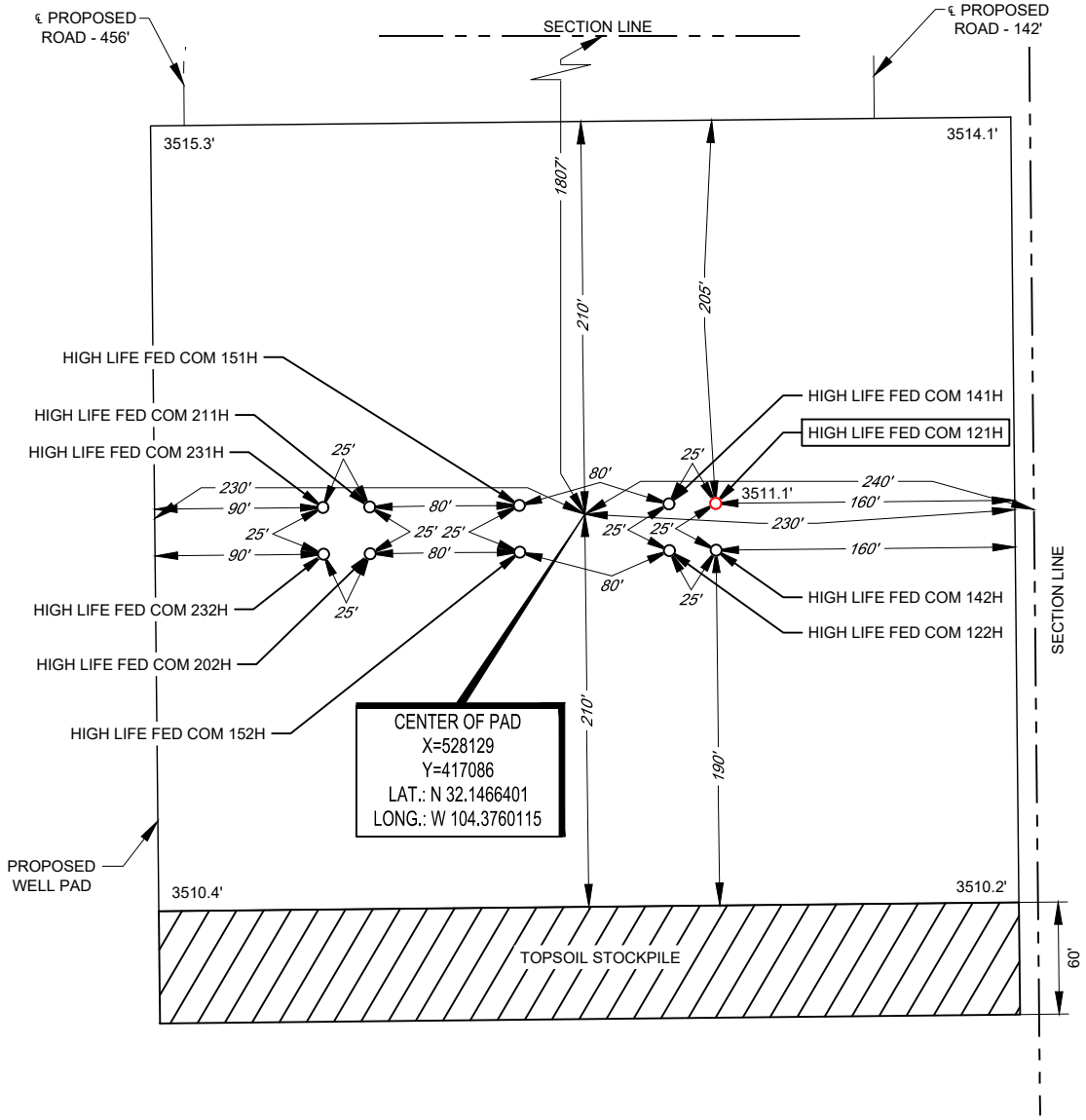
TAP ROCK

SECTION 10, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

LEGEND

SECTION LINE
PROPOSED ROAD

DETAIL VIEW
SCALE: 1" = 100'



LEASE NAME & WELL NO.: HIGH LIFE FED COM 121H

121H LATITUDE N 32.1466559 121H LONGITUDE W 104.3757855

CENTER OF PAD IS 1807' FNL & 240' FEL

RAMON DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

5/24/2023 1:55:41 PM

Ramon A Dominguez, P.S. No. 24508

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

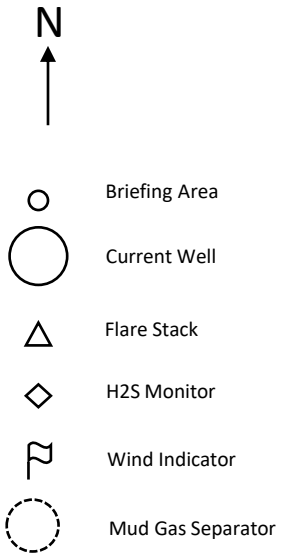
THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC. ONLY THE DATA SHOWN ABOVE IS BEING CERTIFIED TO, ALL OTHER INFORMATION WAS INTENTIONALLY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

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\LO_HIGH_LIFE_FED_COM_121H.DWG 5/24/2023 1:55:41 PM kmatheny

Rig Diagram
High Life Fed Com
Slot 1 Pad
Tap Rock Operating, LLC
10-25S-25E
Eddy County, NM



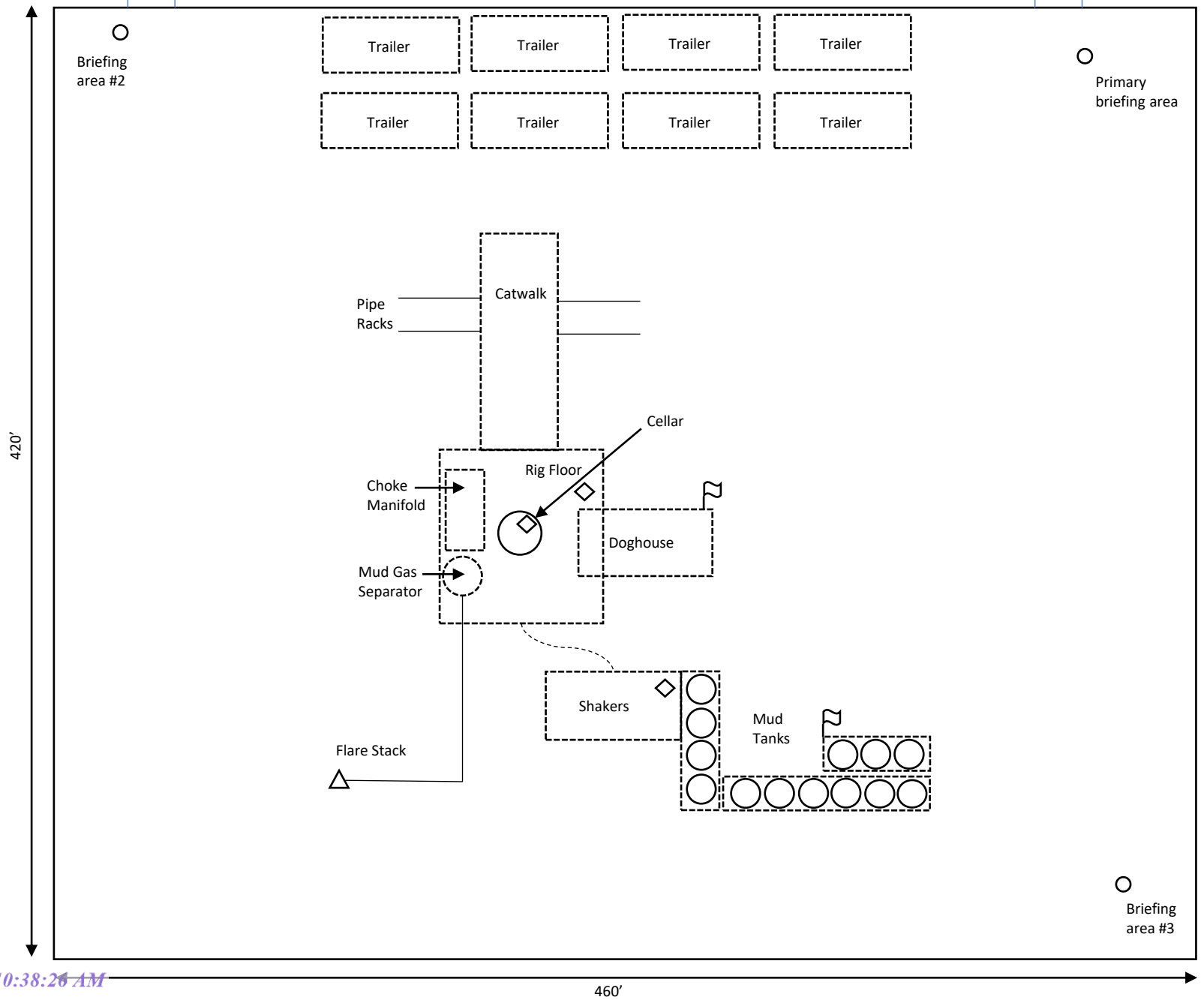


EXHIBIT 2B

TAP ROCK

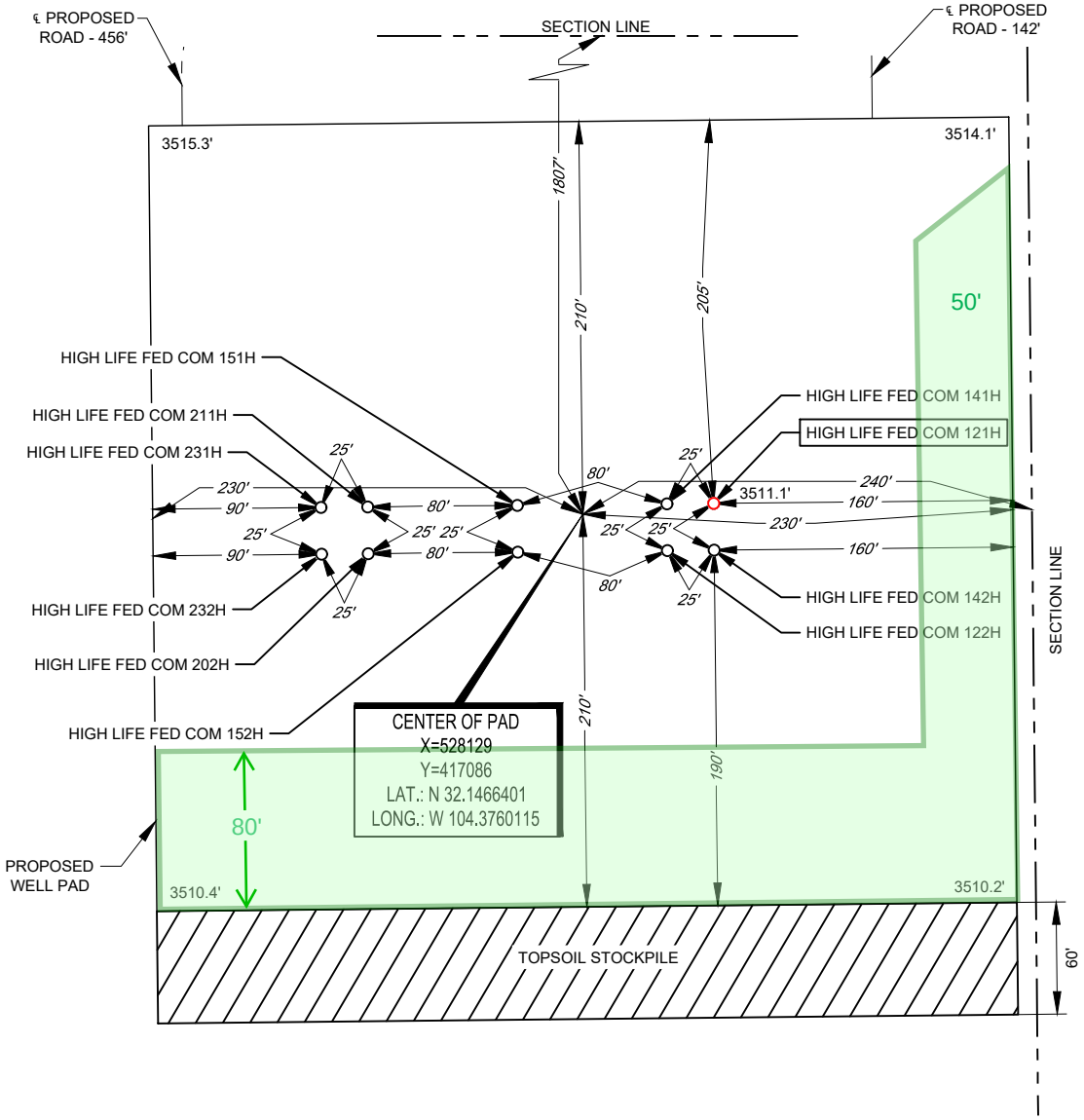
SECTION 10, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

LEGEND

SECTION LINE
PROPOSED ROAD

N

DETAIL VIEW
SCALE: 1" = 100'



Interim Reclamation (1.22 acres)

LEASE NAME & WELL NO.: HIGH LIFE FED COM 121H

121H LATITUDE N 32.1466559 121H LONGITUDE W 104.3757855

CENTER OF PAD IS 1807' FNL & 240' FEL

RAMON DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

5/24/2023 1:55:41 PM

Ramon A Dominguez, P.S. No. 24508

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

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

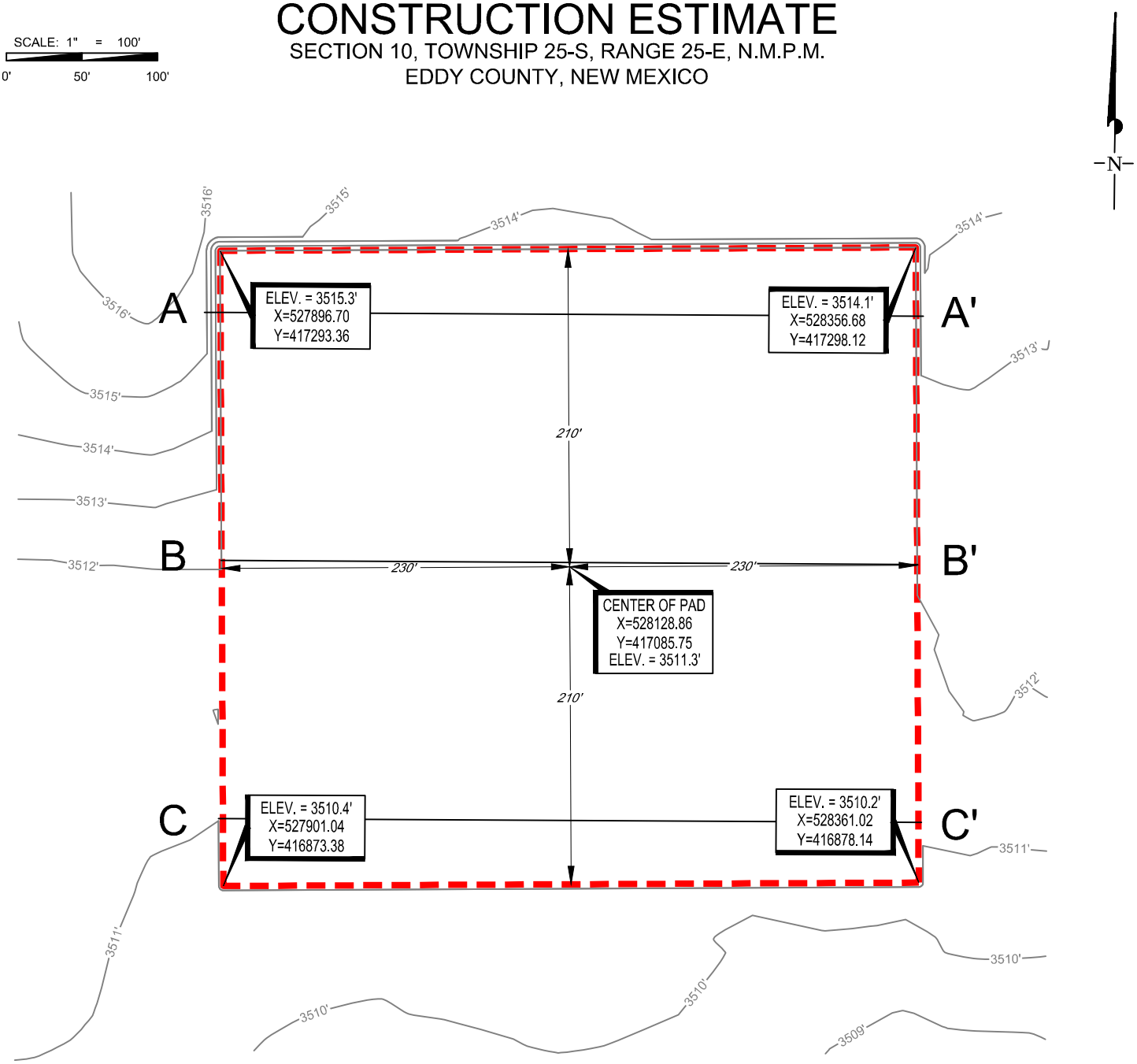
ORIGINAL DOCUMENT SIZE: 8.5" X 11"

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

CONSTRUCTION ESTIMATE

SECTION 10, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SCALE: 1" = 100'
0' 50' 100'



NOTE: 1' CONTOUR INTERVALS

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

TAP ROCK

HIGH LIFE UNIT SLOT 1 WELL PAD	REVISION:	
	MML	03/23/2023
DATE: 03/13/2023		
FILE: CD_HIGH_LIFE_UNIT_SLOT1_WELL_PAD_REV1		
DRAWN BY: SAR		
SHEET : 1 OF 3		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

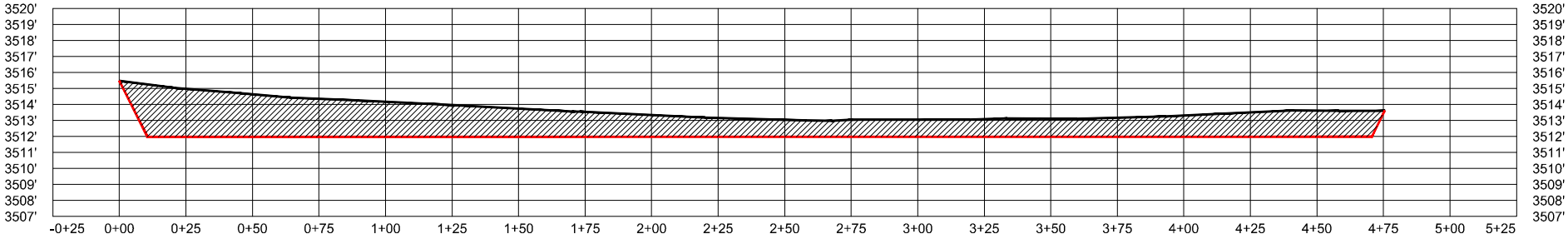
S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\CD_HIGH_LIFE_UNIT_SLOT1_WELL_PAD_REV1.DWG 3/27/2023 7:13:57 AM mlewin

Horizontal Scale = 1:60
Vertical Scale = 1:10

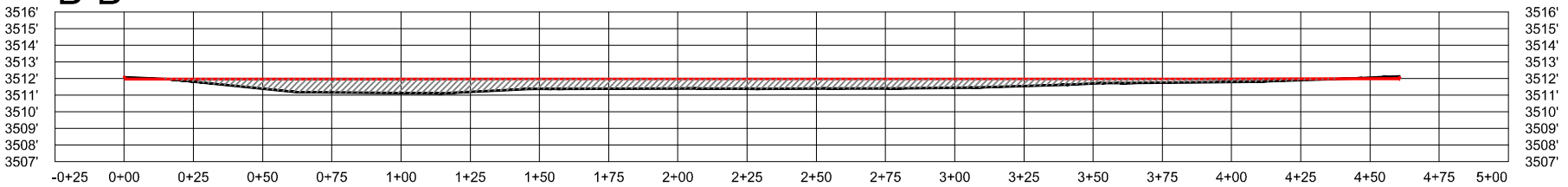
CONSTRUCTION ESTIMATE

SECTION 10, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

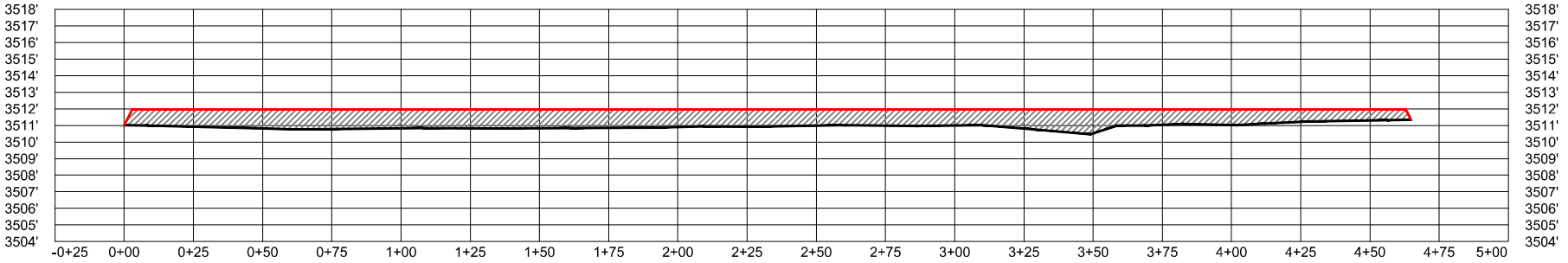
A-A'



B-B'



C-C'



	REVISION:	
HIGH LIFE UNIT SLOT 1 WELL PAD	MML	03/23/2023
DATE: 03/13/2023		
FILE: CD_HIGH_LIFE_UNIT_SLOT1_WELL_PAD_REV1		
DRAWN BY: SAR		
SHEET : 2 OF 3		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

TOP OF PAD ELEVATION: 3511.9736
CUT SLOPE: 33.33% 3.000:1 18.43°
FILL SLOPE: 33.33% 3.000:1 18.43°
BALANCE TOLERANCE (C.Y.): 0.00
CUT SWELL FACTOR: 1.00
FILL SHRINK FACTOR: 1.00

PAD EARTHWORK VOLUMES
CUT : 93,810.0 C.F., 3,474.44 C.Y.
FILL: 93,810.0 C.F., 3,474.44 C.Y.
AREA: 201181.2 SQ.FT., 4.618 ACRES

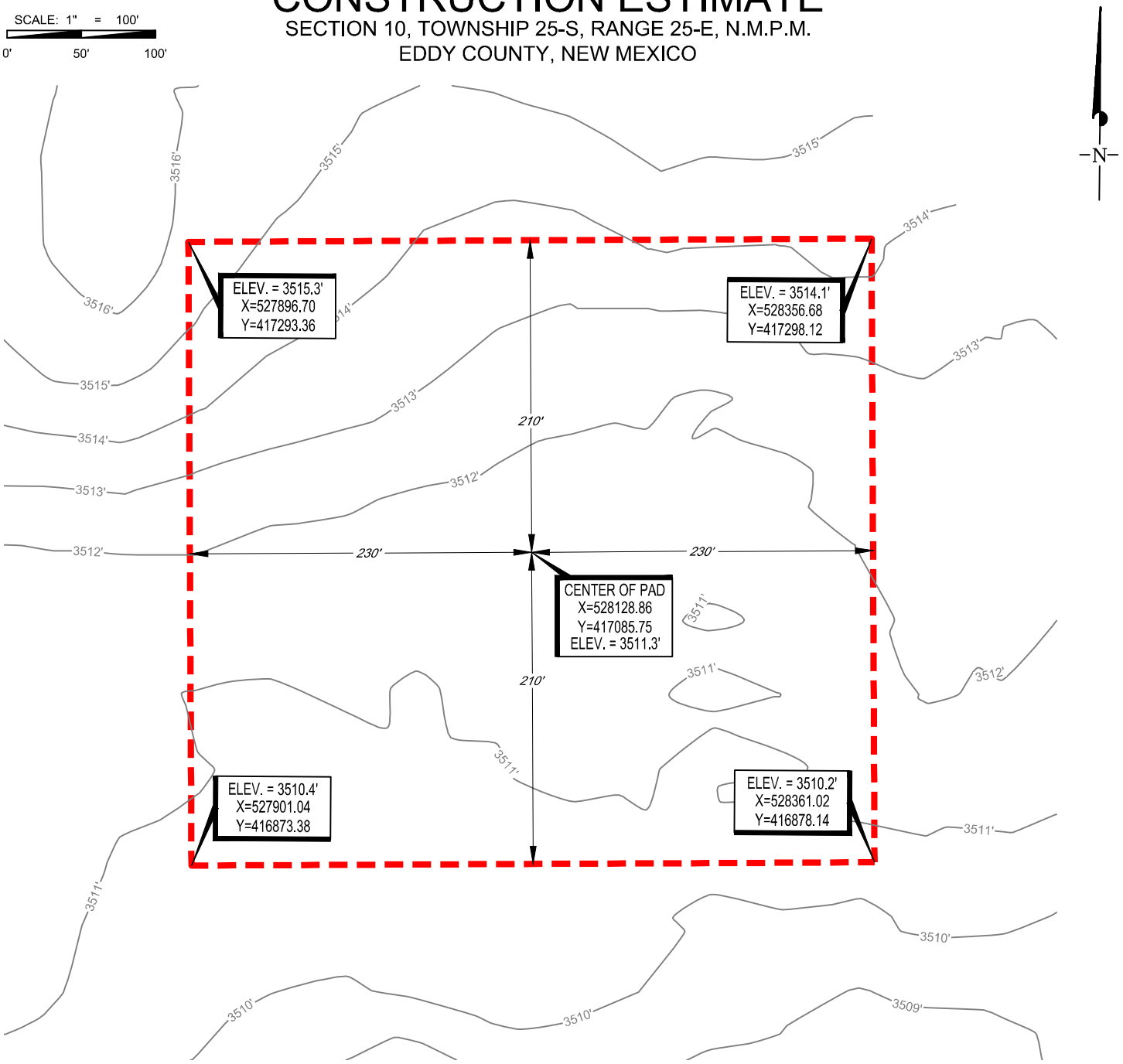
TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\CD_HIGH_LIFE_UNIT_SLOT1_WELL_PAD_REV1.DWG 3/27/2023 7:13:57 AM mlewin

CONSTRUCTION ESTIMATE

SECTION 10, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SCALE: 1" = 100'
0' 50' 100'



NOTE: 1' CONTOUR INTERVALS

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

TAP ROCK

HIGH LIFE UNIT SLOT 1 WELL PAD	REVISION:	
	MML	03/23/2023
DATE: 03/13/2023		
FILE: CD_HIGH_LIFE_UNIT_SLOT1_WELL_PAD_REV1		
DRAWN BY: SAR		
SHEET : 3 OF 3		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

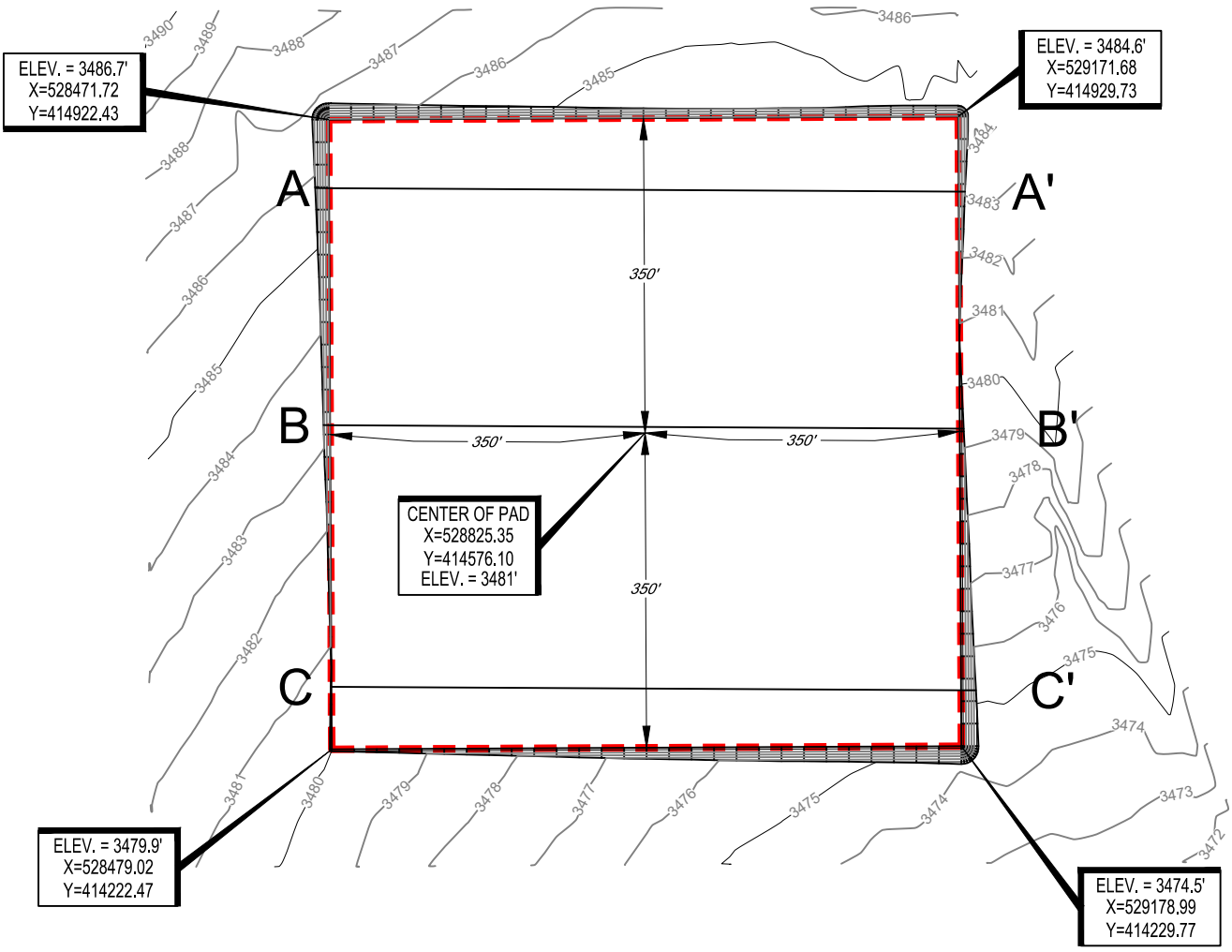
S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\CD_HIGH_LIFE_UNIT_SLOT1_WELL_PAD_REV1.DWG 3/27/2023 7:13:57 AM mlewin

CONSTRUCTION ESTIMATE

SECTION 11, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SCALE: 1" = 200'
0' 100' 200'

N



NOTE: 1' CONTOUR INTERVALS

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

TAP ROCK

HIGH LIFE UNIT CTB SITE	REVISION:	
	INT	DATE
DATE: 03/10/2023		
FILE: CD_HIGH_LIFE_UNIT_CTB_PAD		
DRAWN BY: CAR		
SHEET : 1 OF 3		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\CD_HIGH_LIFE_UNIT_CTB_PAD.DWG 3/14/2023 8:19:08 AM craley

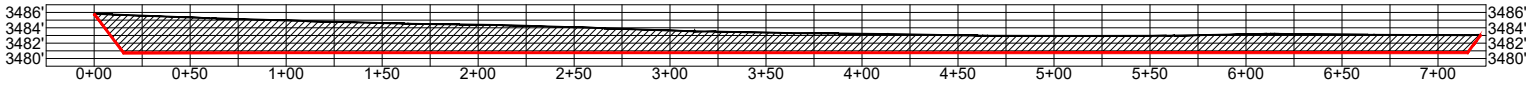
Horizontal Scale = 1:100
Vertical Scale = 1:20

CONSTRUCTION ESTIMATE

SECTION 11, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

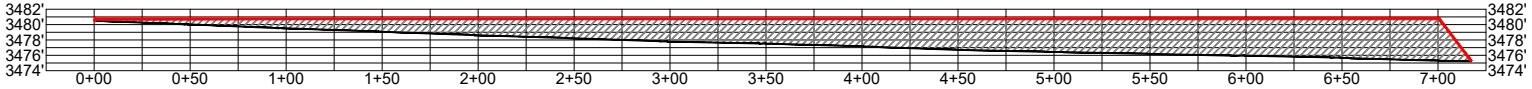
TAP ROCK

A-A'



B-B'

C-C'



HIGH LIFE UNIT CTB SITE	REVISION: INT	DATE
DATE: 03/10/2023		
FILE: CD_HIGH_LIFE_UNIT_CTB_PAD		
DRAWN BY: CAR		
SHEET : 2 OF 3		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

Top of pad elevation: 3480.7500
Cut Slope: 33.33% 3.000:1 18.43°
Fill Slope: 33.33% 3.000:1 18.43°
Balance Tolerance (C.Y.): 0.00
Cut Swell Factor: 1.00
Fill Shrink Factor: 1.00

Pad Earthwork Volumes
Cut : 543,823.1 C.F., 20,141.60 C.Y.
Fill: 543,823.1 C.F., 20,141.60 C.Y.
Area: 518473.5 Sq.Ft., 11.903 Acres

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

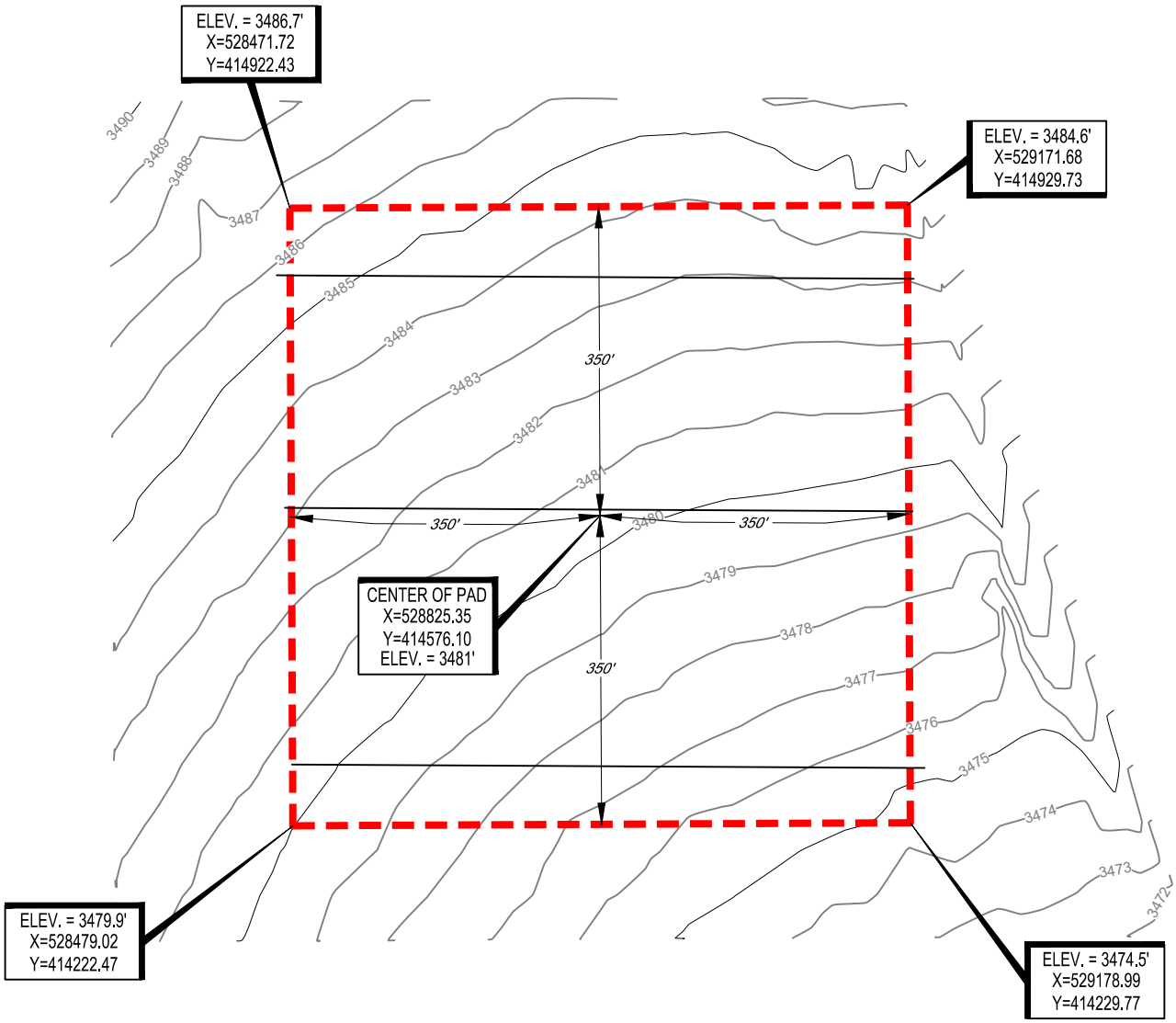
S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\CD_HIGH_LIFE_UNIT_CTB_PAD.DWG 3/14/2023 8:19:10 AM craley

CONSTRUCTION ESTIMATE

SECTION 11, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SCALE: 1" = 200'
0' 100' 200'

N



NOTE: 1' CONTOUR INTERVALS

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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

TAP ROCK

HIGH LIFE UNIT CTB SITE	REVISION:	
	INT	DATE
DATE: 03/10/2023		
FILE: CD_HIGH_LIFE_UNIT_CTB_PAD		
DRAWN BY: CAR		
SHEET : 3 OF 3		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\CD_HIGH_LIFE_UNIT_CTB_PAD.DWG 3/14/2023 8:19:10 AM craley

PERMITS WEST
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 505-466-8120

June 27, 2023

To Whom it May Concern:

Tap Rock Operating, LLC has a private surface owner use agreement with Berry and Janice Lucas (PO BOX 96, White City, NM, 88268; phone (575) 885-1305) to build oil & gas associated infrastructure (wellpad, pipelines, roads) in SENE, Sec 10, T25S, R25E, Eddy County, NM.

Cory Walk

Cory Walk

Tap Rock Operating, LLC **SURFACE USE PLAN PAGE 1**
High Life Fed Com Wells
Sec. 10, 25S, 25E
Eddy County, NM

SURFACE USE PLAN OF OPERATIONS

High Life Slot 1 Pad	High Life Slot 2 Pad
High Life Fed Com 121H	High Life Fed Com 123H
High Life Fed Com 122H	High Life Fed Com 124H
High Life Fed Com 141H	High Life Fed Com 143H
High Life Fed Com 142H	High Life Fed Com 144H
High Life Fed Com 151H	High Life Fed Com 153H
High Life Fed Com 152H	High Life Fed Com 154H
High Life Fed Com 202H	High Life Fed Com 204H
High Life Fed Com 211H	High Life Fed Com 213H
High Life Fed Com 231H	High Life Fed Com 233H
High Life Fed Com 232H	High Life Fed Com 234H

1. ROAD DIRECTIONS & DESCRIPTIONS

From Jct of NM-7 and US-62/180 in Whites City, NM…
Go south on US-62/180 for 1.6 miles.
Turn left and head east onto Whites City Rd (CR-724) and continue southeast for 1.2 miles to the Slot 1 pad location.

2. ROAD TO BE BUILT OR UPGRADED

The **1,464.12'** of new local roads will be crowned and ditched, have a <24' wide driving surface, and be surfaced with caliche. Pipelines that are crossed will be padded. Maximum disturbed width = 30'. Maximum grade = 1%. Maximum cut or fill = 1'. No cattleguard, culvert or vehicle turn out is needed. Upgrading will consist of filling potholes with caliche as needed.

3. EXISTING WELLS

Existing oil, gas, water and P & A wells are within a mile. No injection or SWD wells are within a mile.

4. PROPOSED PRODUCTION FACILITIES

A 700' x 700' central tank battery (CTB) will be built 90' south of the High Life Slot 2 well pad. Topsoil will be piled on the south side of the CTB. In order to prevent commingling of production, Tap Rock will install two (2) separate batteries in the center on the proposed CTB

PERMITS WEST

pad (parallel trains with separate metering for all the process streams). Flare and/or CBU will be set on the southwest corner and the tank battery.

2,483.00' of ≈4" O. D. steel flow lines (1 per well) will be buried from the central tank battery to the respective well pads (89.96' connecting Slot 2 pad + 2,393.04' connecting Slot 1 Pad). No power line is planned at this time.

5. WATER SUPPLY

Water will be trucked from a private water well (DF Ranch water station) in Texas on FM Road 652 at a point 4.3 miles south of US 62/180.

6. CONSTRUCTION MATERIALS & METHODS

NM One Call (811) will be notified before construction starts. Top ≈3" of soil and brush will be stockpiled to the side of the pads. V-door will face north. Closed loop mud system will be used. Caliche will be hauled from existing caliche pits on private (Lucas) land in SWSW 16-25s-25e.

The Slot 1 pad will be built approximately 5' from the existing fence of the private surface owner (Berry Lucas). Tap Rock has received consent from Mr. Lucas to build this close to his fence line. Tap Rock will work closely with Mr. Lucas should they need to move the fence to allow space for pad construction.

7. WASTE DISPOSAL

All trash will be placed in a portable trash cage. It will be hauled to the Eddy County landfill. There will be no trash burning. Contents (drill cuttings, mud, salts, and other chemicals) of the mud tanks will be hauled to R360's state approved (NM-01-0006) disposal site at Halfway. Human waste will be disposed of in chemical toilets and hauled to the Carlsbad wastewater treatment plant.

8. ANCILLARY FACILITIES

There will be no airstrip or camp. Camper trailers will be on location for the company man, tool pusher, or mud logger.

9. WELL SITE LAYOUT

See attached rig diagram for depictions of the well pad, trash cage, access onto the location, parking, living facilities, and rig orientation.

PERMITS WEST

Tap Rock Operating, LLC
High Life Fed Com Wells
Sec. 10, 25S, 25E
Eddy County, NM

SURFACE USE PLAN PAGE 3

10. RECLAMATION

Interim reclamation will be completed within 6 months of completing the last well on the pad. Interim reclamation will consist of shrinking the well pads by removing caliche and spreading the stockpiled topsoil to reclaim portions of the pad and roads. Disturbed areas will be seeded in accordance with BLM requirements.

Final reclamation will occur within 6 months of plugging the last well on the pad. Final reclamation will consist of using any remaining stockpiled topsoil to cover the remainder of the pads and associated roads. Disturbed areas will be contoured to match pre-construction grades. Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with BLM requirements. Noxious weeds will be controlled.

See the following breakdown of short-term and long-term disturbance by well pad and facility type.

Disturbance (acres)			
Facility	Short-term	Interim Reclamation	Long-term
High Life Slot 1 Wellpad (420'x460')+ Topsoil (60')	5.07	1.22	3.85
High Life Slot 2 Wellpad (420'x460') + Topsoil (60')	5.07	1.32	3.75
High Life CTB (700'x700')+ Topsoil (60')	12.21	0.00	12.21
Flowline (2,483.00' x 30')	1.71	1.71	0.00
New Access Roads (1,464.12' x 30')	1.04	0.00	1.04
Total	25.10	4.25	20.85

11. SURFACE OWNER

Construction of all well pads and associated infrastructure will be on federal lands owned by the Bureau of Land Management (620 E Greene Street, Carlsbad, NM 88220; 575-234-5972) and fee surface owned by Berry & Janice Lucas (PO BOX 96, Whites City, NM, 88268; 575-885-1305).

12. OTHER INFORMATION

An onsite inspection was held with Caroline Kaufman (BLM-NRS) on April 17th, 2023.

PERMITS WEST

Tap Rock Operating, LLC
High Life Fed Com Wells
Sec. 10, 25S, 25E
Eddy County, NM

SURFACE USE PLAN PAGE 4

CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this 23rd day of June 2023.

Cory Walk

Cory Walk, Consultant
Permits West, Inc.
37 Verano Loop, Santa Fe, NM 87508
(505) 466-8120

Field representative will be:

Christian Combs
Tap Rock Operating, LLC
602 Park Point Dr., Suite 200, Golden CO 80401
Phone: (720) 360-4028

PERMITS WEST

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

PWD Data Report

11/27/2023

APD ID: 10400093287 **Submission Date:** 07/08/2023

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Lined pit Monitor description:

Lined pit Monitor

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

Section 3 - Unlined

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

Unlined pit Monitor

Do you propose to put the produced water to beneficial use?

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic

State

Unlined Produced Water Pit Estimated

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information

Section 4 -

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection

Underground Injection Control (UIC) Permit?

UIC Permit

Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data

11/27/2023

APD ID: 10400093287 **Submission Date:** 07/08/2023

Operator Name: TAP ROCK OPERATING LLC

Well Name: HIGH LIFE FED COM **Well Number:** 142H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Bond

Federal/Indian APD: FED

BLM Bond number: NMB001443

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ **AMENDED REPORT**

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1]API Number	[2]Pool Code	[3]Pool Name
30-015- 54519	97494	Cottonwood Draw; Bone Spring

[4]Property Code	[5]Property Name	[6]Well Number
335064	HIGH LIFE FED COM	142H

[7]OGRID No.	[8]Operator Name	[9]Elevation
372043	TAP ROCK OPERATING, LLC.	3511'

[10]Surface Location

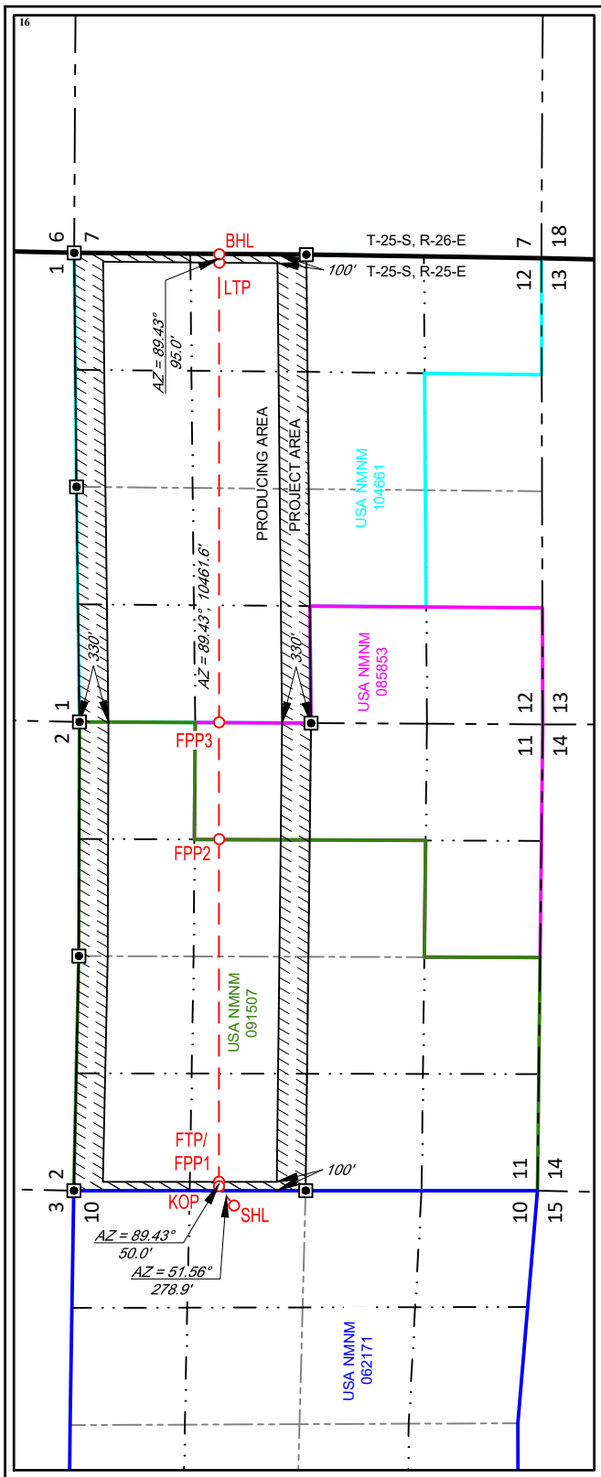
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	10	25-S	25-E	–	1826'	NORTH	170'	EAST	EDDY

[11]Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	12	25-S	25-E	–	1651'	NORTH	5'	EAST	EDDY

[12]Dedicated Acres	[13]Joint or Infill	[14]Consolidation Code	[15]Order No.
640			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



NEW MEXICO EAST
NAD 1983

SURFACE LOCATION (SHL)
1826' FNL - SEC. 10
170' FEL - SEC. 10
X=528199 Y=417066
LAT.: N 32.1465872
LONG.: W 104.3757847

KICK OFF POINT (KOP)
1651' FNL - SEC. 11
50' FWL - SEC. 11
X=528418 Y=417240
LAT.: N 32.1470641
LONG.: W 104.3750791

FIRST TAKE POINT (FTP)(FPP1)
1650' FNL - SEC. 11
100' FWL - SEC. 11
X=528468 Y=417240
LAT.: N 32.1470655
LONG.: W 104.3749175

FED PERF. POINT (FPP2)
1593' FNL - SEC. 11
1331' FEL - SEC. 11
X=532364 Y=417279
LAT.: N 32.1471762
LONG.: W 104.3623290

FED PERF. POINT (FPP3)
1590' FNL - SEC. 11
0' FEL - SEC. 11
X=533694 Y=417293
LAT.: N 32.1472137
LONG.: W 104.3580289

LAST TAKE POINT (LTP)
1650' FNL - SEC. 12
100' FEL - SEC. 12
X=538929 Y=417345
LAT.: N 32.1473598
LONG.: W 104.3411167

BOTTOM HOLE LOCATION (BHL)
1651' FNL - SEC. 12
5' FEL - SEC. 12
X=539024 Y=417346
LAT.: N 32.1473624
LONG.: W 104.3408098

[17]OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Cory Walk — 06-26-23
Signature — Date

Cory Walk
Printed Name

cory@permitswest.com
E-mail Address

[18]SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

03/18/2023
Date of Survey
Signature and Seal of Professional Surveyor

RAMON DOMINGUEZ
NEW MEXICO
24508
PROFESSIONAL SURVEYOR

7/6/2023 9:34:16 AM
Certificate Number

N

S:\SURVEY\TAPROCK\HIGH_LIFE_UNIT\FINAL_PRODUCTS\LO_HIGH_LIFE_FED_COM_142H_REV1.DWG 7/6/2023 9:34:16 AM craig.rentz

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: _____Tap Rock Operating LLC_____ **OGRID:** _____372043_____ **Date:** _11/6/2023

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water
High Life Fed Com 142H		Sec 10, T25S R 25E	1826 FNL, 170 FEL	1230	7100	1830

IV. Central Delivery Point Name: ___High Life Fed Com CDP_____ [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
High Life Fed Com 142H		4/1/23	5/1/22	6/1/23	6/30/23	7/5/23

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☐ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.
If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: Jeff Trlica
Title: Regulatory Specialist
E-mail Address: jtrlica@taprk.com
Date: 11/7/2023
Phone: 720-772-5910

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. **Separation Equipment:** Attach a complete description of how Operator will size separation equipment to optimize gas capture:

Each surface facility design includes the following process equipment: 3-phase separators (1 separator per well), a sales gas scrubber, one or two 3-phase heater treaters, a vapor recovery tower (VRT), a VRU compressor, multiple water and oil tanks, as well as flare knockouts (HP & LP), and flares (HP & LP). All process vessels will be sized to separate oil, water, gas based upon typical/historical & predicted well performance. Each process vessel will be fitted with an appropriately sized PSV as per ASME code requirements to mitigate vessel rupture and loss of containment. Additionally, the process vessels will be fitted with pressure transmitters tied to the facility control system which will allow operations to monitor pressures and when necessary, shut-in the facility to avoid vessel over-pressure and the potential vent of natural gas. Natural gas will preferentially be sold to pipeline, and only during upset/emergency conditions will gas be directed to the HP flare system. Flash gas from both the 3-phase heater treater and the VRT will be recompressed using a VRU compressor and this gas will also preferentially be directed to the gas sales pipeline. Oil tanks & water tanks will be fitted with 16 oz thief hatches as well as PVRVs to protect the tanks from rupture/collapse. Additionally, the tank vapor outlets and tank vapor capture system will be sized to keep tank pressures below 12 oz. The tank vapor capture system will include a tank vapor blower & knockout as well as a low-pressure flare and knockout. Tank vapors will preferentially be directed to the VRU and the sales gas pipeline. Only during process upsets/emergency conditions will tank vapors be directed to the LP flare system.

VII. **Operational Practices:** Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC. ← See attached reg for requirements.

- During drilling operations- Gas meters will be installed at the shakers and Volume Totalizers will be installed on the pits. In the event that elevated gas levels, or a pit gain are observed, returns will be diverted to a gas buster. Gas coming off the gas buster will be combusted at the flare stack. A 10’ or taller flare will be located at least 100’ from the SHL.

- During completions operations, including stimulation and frac plug drill out operations, hydrocarbon production to surface is minimized. When gas production does occur, gas will be combusted at a flare stack. A 10’ or taller flare will be located at least 100’ from the SHL.

- During production operations, all process vessels (separators, heater treaters, VRTs, Tanks) will recompress (where necessary) and route gas outlets into the natural gas gathering pipeline. Gas will preferentially be routed to natural gas gathering pipeline and the flare system will be used only during emergency, malfunction, or if the gas does not meet pipeline specifications. In the event of flaring off-specification gas, operations will pull gas samples twice a week and will also route gas back to pipeline as soon as the gas meets specification. Exceptions to this will include only those qualified exceptions per the regulation 19.15.27.8 Subsection D.

- To comply with state performance standards, separation and storage equipment will be designed to handle the maximum anticipated throughput and pressure to minimize waste and reduce the likelihood of venting gas to atmosphere. Additionally, each storage atmospheric tank (Oil & Water) will be fitted with a level transmitter to facilitate gauging of the tank without opening of the thief hatch. Any gas collected through the tank vent system is expected to be recompressed and routed to sales. However, in the event of an emergency, the tank vapor capture system will be designed to combust the gas using a flare stack fitted with a continuous or automatic ignitor. The flare stack will be properly anchored and will be located a minimum of 100 feet from the well and storage tanks. Operators will conduct weekly AVO inspections. These AVO inspection records will be stored for the required 5-year period and will be made available upon Division request.

VIII. **Best Management Practices:** Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

- When performing routine or preventive maintenance on a vessel or tank, initially all inlet valves are closed, and the vessel or tank is allowed to depressurize through the normal outlet connections to gas sales and/or liquid tanks. Once the vessel or tank is depressurized to lowest acceptable sales outlet pressure, usually around 20 psig, a temporary low-pressure flowline is connected from the vessel or tank to the Vapor Recovery Unit (VRU) for further pressure reduction. Once depressurized to less than 1-2 psig, the remaining natural gas in the vessel or tank is vented to atmosphere through a controlled pressure relief valve. Once the vessel or tank is depressurized to atmospheric pressure, the vessel or tank can be safely opened, and maintenance performed.

Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826' FNL & 170' FEL, Sec. 10
BHL 1,651' FNL & 5' FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

Elevation above Sea Level: 3511'

DRILLING PROGRAM

1. Estimated Tops

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0	Surface	None
Rustler	37	37	Anhydrite	None
Top Salt	337	337	Salt	Salt
Base Salt	1,236	1,236	Salt	Salt
DMG	1,462	1,462	Sandstone	None
Lamar	1,463	1,463	Sandstone	Hydrocarbons
Bell Canyon	1,492	1,492	Sandstone	Hydrocarbons
Ramsey Sand	1,570	1,570	Sandstone	Hydrocarbons
Cherry Canyon	2,395	2,397	Limestone	Hydrocarbons
Brushy Canyon	3,320	3,324	Sandstone	Hydrocarbons
Bone Spring Lime	5,010	5,015	Carbonate	Hydrocarbons
Upper Avalon	5,065	5,070	Carbonate	Hydrocarbons
Middle Avalon	5,370	5,375	Carbonate	Hydrocarbons
1st BS Sand	5,865	5,884	Sandstone	Hydrocarbons
2nd BS Carb	6,070	6,202	Carbonate	Hydrocarbons
KOP	5,592	5,597	Carbonate	Hydrocarbons
TD	6,381	16,655	Carbonate	Hydrocarbons

2. Notable Zones

2nd BS Carb is the formation target.

3. Pressure Control

Pressure Control Equipment (See Schematics):
At 16,655' , a 5M pressure control system is required. The BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as 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.

Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826' FNL & 170' FEL, Sec. 10
BHL 1,651' FNL & 5' FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

BOP Test procedure will be as follows:
After surface casing is set and the BOP is nippled 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 250 psi low, 2500 psi high.

Variance Requests:
Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate and Production Strings. Tap Rock requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Tap Rock requests a variance to have the option of batch drilling this well with other wells on the same pad. If this well is batch drilled, after cementing a casing string, a 5M dry hole cap with bleed off valve will be installed. The rig will then walk to another well on the pad. Tap Rock Operating requests to only test BOP connection breaks after rig walks per the procedures and stipulations set forth in the "BOP Shell Test Procedure" document emailed to the BLM on 8/11/22.

4. Casing & Cement

All Casing will be new.
Casing Design:

Section	Drilled Interval			Casing Size	Standard	Tapered	Casing Set Depths				Casing Details					
	Hole Size	Top	Btm				Top MD	Bottom MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	17 1/2	0	250	13 3/8	API	No	0	250	0	250	J-55	54.5	BUTT	1.13	1.15	1.6
Intermediate	12 1/4	250	1,513	9 5/8	API	No	0	1,513	0	1,513	J-55	40	BUTT	1.13	1.15	1.6
Production	8 3/4	1,513	5,597	5 1/2	NON API	No	0	5,597	0	5,592	P-110	20	TXP	1.13	1.15	1.6
	7 7/8	5,597	16,655	5 1/2	NON API	No	5,597	16,655	5,592	6,381	P-110	20	TXP	1.13	1.15	1.6

Cement Volumes:

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Tail	0	261	1.33	347	14.8	100%	C	5% NCl + LCM
Intermediate	Lead	0	189	2.7	509	11.0	75%	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	1013	153	1.33	204	14.8	30%	C	5% NaCl + LCM
Production	Lead	1313	385	3.35	1290	10.5	20%	C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	5597	1934	1.63	3153	13.2	20%	H	Fluid Loss + Dispersant + Retarder + LCM

5. Mud Program

Mud Design:

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	250	FW Spud Mud	8.40	27-30	NC
Intermediate	250	1,513	Brine Water	10.00	27-30	NC
Production	1,513	16,655	FW/Cut Brine	9.00	27-30	NC

Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826' FNL & 170' FEL, Sec. 10
BHL 1,651' FNL & 5' FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

Electronic Pason mud monitor system complying with Onshore Order 1 will be used. All necessary mud products (i.e., barite, pac) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions. A closed loop system will be used.

6. Cores, Tests, & Logs

- Electric Logging Program: No open-hole logs are planned at this time.
- GR will be collected while drilling through the MWD tools from KOP to TD.
- A 2-person mud logging program will be used from KOP to TD.
- No DSTs or cores are planned at this time.
- CBL w/ CCL from as far as gravity will let it fall to TOC.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈ 2,986 psi. Expected bottom hole temperature is ≈135˚ F.

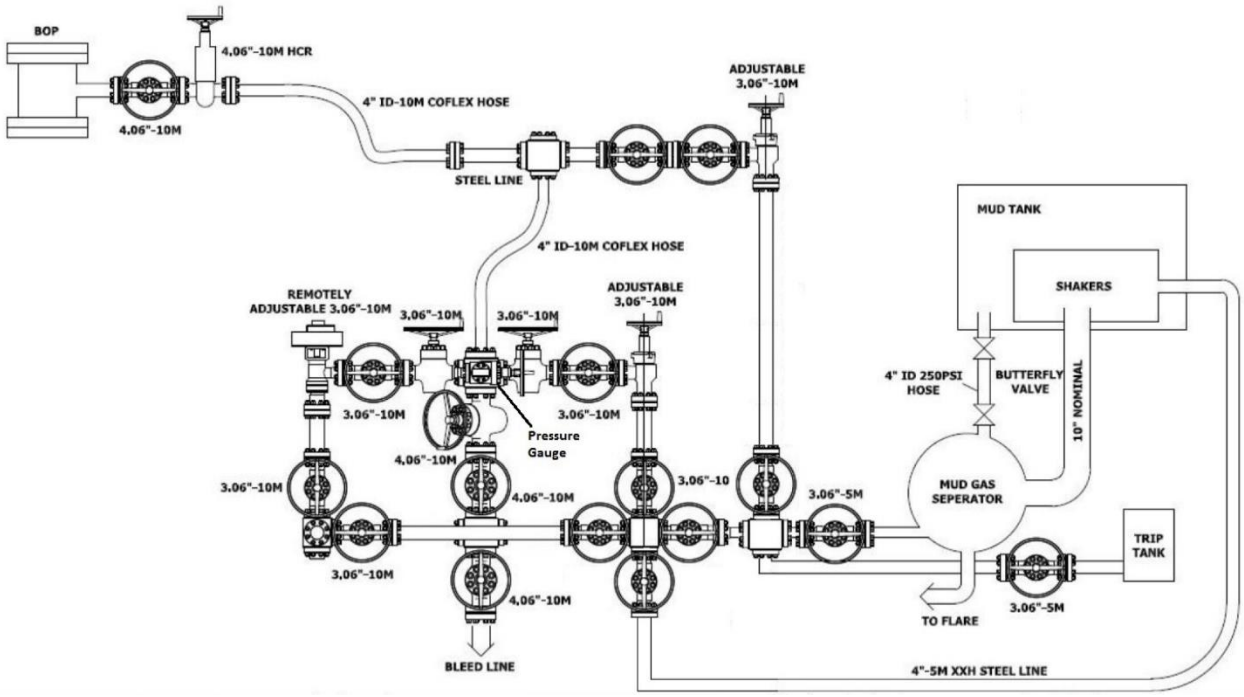
Tap Rock does not anticipate that there will be enough H2S from the surface to the 2nd BS Carb formations to meet the BLM's Onshore Order 6 requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Tap Rock has an H2S safety package on all wells and an "H2S Drilling Operations Plan" is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be safely flared. All personnel will be familiar with all aspects of safe operation of equipment being used.

8. Other Information

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

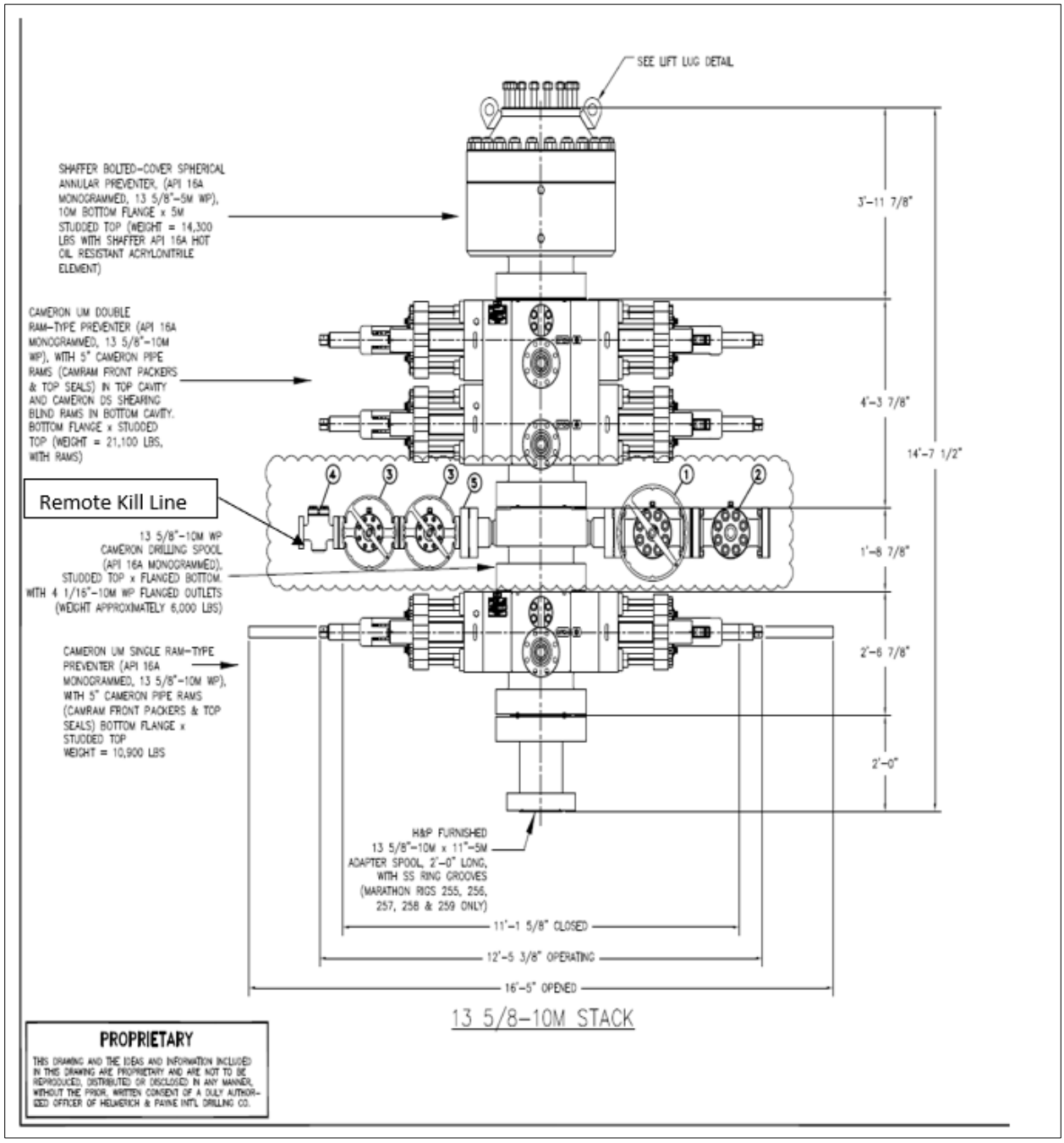
Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826' FNL & 170' FEL, Sec. 10
BHL 1,651' FNL & 5' FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

10M Choke Layout



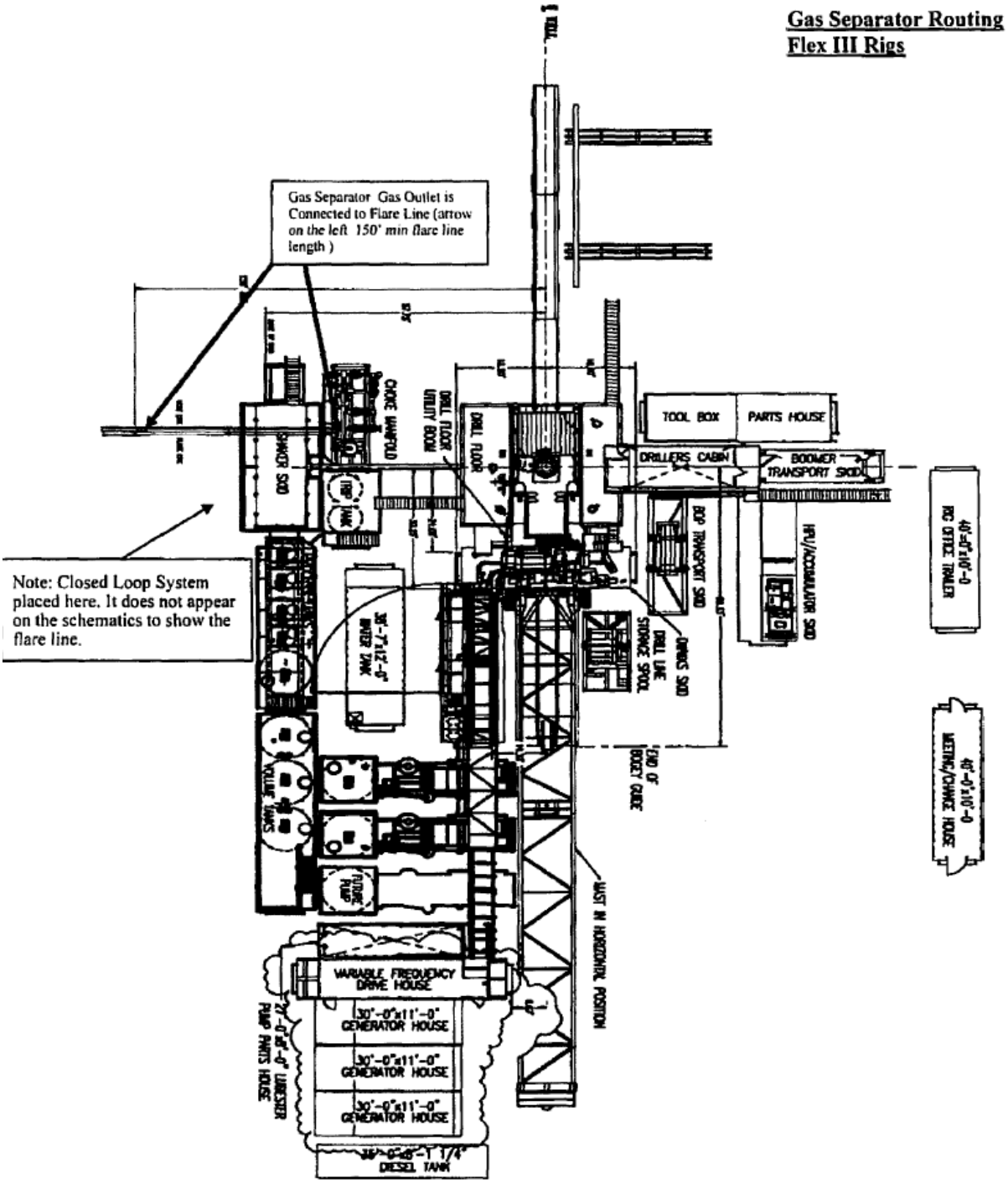
Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826' FNL & 170' FEL, Sec. 10
BHL 1,651' FNL & 5' FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

10,000 psi BOP Stack



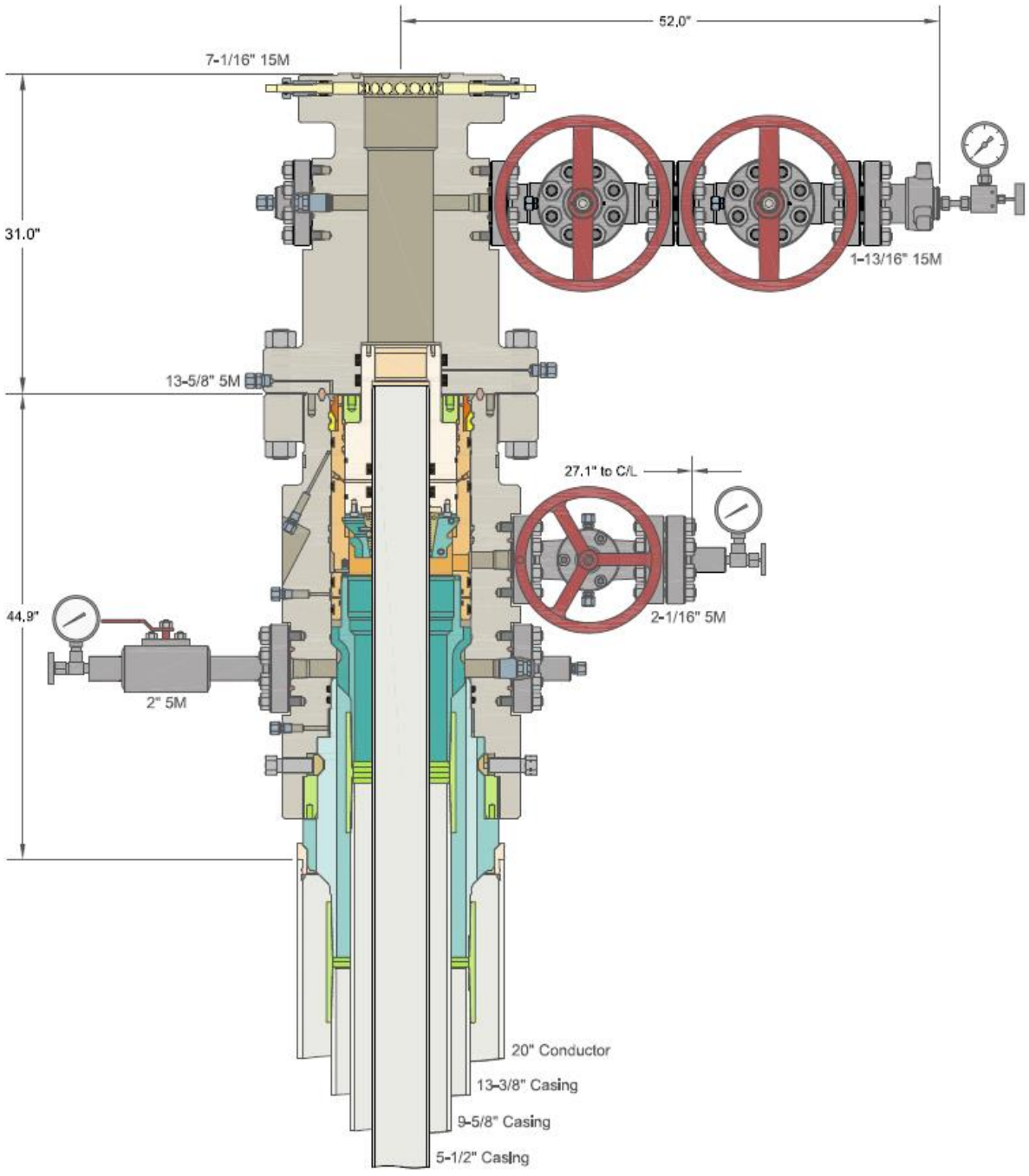
Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826' FNL & 170' FEL, Sec. 10
BHL 1,651' FNL & 5' FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

Gas Separator Routing
Flex III Rigs



Drilling Operations Plan
High Life Fed Com #142H
Tap Rock Operating, LLC
SHL 1,826’ FNL & 170’ FEL, Sec. 10
BHL 1,651’ FNL & 5’ FEL, Sec. 12
T. 25S., R. 25E Eddy County, NM

Multi-bowl Wellhead Design



Tap Rock Resources, LLC

Eddy County, NM (NAD 83 NME)
Sec-10-25S-25E(High Life N)
High Life Fed Com #142H

Wellbore #1

Plan: Plan 1

Total Directional
"Driven by TOTAL performance"
total

Standard Survey Report

10 May, 2023

Total Report Version 1.10

COMPASS 5000.16 Build 97

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

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 Sec-10-25S-25E(High Life N)

Site Position:		**Northing:**	417,091.00 usft	**Latitude:**	32.1466546
From:	Map	**Easting:**	528,199.00 usft	**Longitude:**	-104.3757849
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well High Life Fed Com #142H

Well Position	**+N/-S**	0.00 usft	**Northing:**	417,066.00 usft	**Latitude:**	32.1465859
	+E/-W	0.00 usft	**Easting:**	528,199.00 usft	**Longitude:**	-104.3757849
Position Uncertainty		0.50 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,511.00 usft
Grid Convergence:		-0.02 °				

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2023	5/8/2023	7.00	59.60	47,347.80000000

Design Plan 1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	89.43

Survey Tool Program **Date** 5/10/2023

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	16,655.32	Plan 1 (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
37.00	0.00	0.00	37.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
Rustler													
100.00	0.00	0.00	100.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
337.00	0.00	0.00	337.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
Top Salt													
400.00	0.00	0.00	400.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	417,066.00	528,199.00	32.1465859	-104.3757849	0.00	0.00	0.00	0.00
Begin Nudge													
1,200.00	1.00	25.45	1,199.99	0.79	0.37	417,066.79	528,199.37	32.1465881	-104.3757837	0.38	1.00	1.00	0.00
1,236.01	1.36	25.45	1,236.00	1.46	0.69	417,067.46	528,199.69	32.1465899	-104.3757826	0.71	1.00	1.00	0.00
Base Salt													
1,300.00	2.00	25.45	1,299.96	3.15	1.50	417,069.15	528,200.50	32.1465946	-104.3757800	1.53	1.00	1.00	0.00
1,400.00	3.00	25.45	1,399.86	7.09	3.37	417,073.09	528,202.37	32.1466054	-104.3757740	3.44	1.00	1.00	0.00
1,462.24	3.62	25.45	1,462.00	10.34	4.92	417,076.34	528,203.92	32.1466143	-104.3757690	5.02	1.00	1.00	0.00
Delaware													
1,463.24	3.63	25.45	1,463.00	10.39	4.95	417,076.39	528,203.95	32.1466145	-104.3757689	5.05	1.00	1.00	0.00
Lamar													
1,482.40	3.82	25.45	1,482.11	11.52	5.48	417,077.52	528,204.48	32.1466176	-104.3757672	5.60	1.00	1.00	0.00
EOB / Hold													
1,492.31	3.82	25.45	1,492.00	12.12	5.77	417,078.12	528,204.77	32.1466192	-104.3757663	5.89	0.00	0.00	0.00
Bell													
1,500.00	3.82	25.45	1,499.68	12.58	5.99	417,078.58	528,204.99	32.1466205	-104.3757656	6.11	0.00	0.00	0.00
1,570.48	3.82	25.45	1,570.00	16.82	8.01	417,082.82	528,207.01	32.1466322	-104.3757590	8.17	0.00	0.00	0.00
Ramsey													
1,600.00	3.82	25.45	1,599.45	18.60	8.85	417,084.60	528,207.85	32.1466370	-104.3757563	9.04	0.00	0.00	0.00
1,700.00	3.82	25.45	1,699.23	24.62	11.72	417,090.62	528,210.72	32.1466536	-104.3757471	11.96	0.00	0.00	0.00
1,800.00	3.82	25.45	1,799.01	30.64	14.58	417,096.64	528,213.58	32.1466702	-104.3757378	14.89	0.00	0.00	0.00
1,900.00	3.82	25.45	1,898.79	36.67	17.45	417,102.67	528,216.45	32.1466867	-104.3757285	17.81	0.00	0.00	0.00
2,000.00	3.82	25.45	1,998.56	42.69	20.31	417,108.69	528,219.31	32.1467033	-104.3757193	20.74	0.00	0.00	0.00
2,100.00	3.82	25.45	2,098.34	48.71	23.18	417,114.71	528,222.18	32.1467198	-104.3757100	23.66	0.00	0.00	0.00
2,200.00	3.82	25.45	2,198.12	54.73	26.05	417,120.73	528,225.05	32.1467364	-104.3757008	26.59	0.00	0.00	0.00
2,300.00	3.82	25.45	2,297.90	60.75	28.91	417,126.75	528,227.91	32.1467529	-104.3756915	29.51	0.00	0.00	0.00
2,397.32	3.82	25.45	2,395.00	66.62	31.70	417,132.62	528,230.70	32.1467691	-104.3756825	32.36	0.00	0.00	0.00
Cherry													
2,400.00	3.82	25.45	2,397.67	66.78	31.78	417,132.78	528,230.78	32.1467695	-104.3756823	32.44	0.00	0.00	0.00
2,500.00	3.82	25.45	2,497.45	72.80	34.64	417,138.80	528,233.64	32.1467861	-104.3756730	35.36	0.00	0.00	0.00

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,600.00	3.82	25.45	2,597.23	78.82	37.51	417,144.82	528,236.51	32.1468026	-104.3756638	38.29	0.00	0.00	0.00
2,700.00	3.82	25.45	2,697.01	84.84	40.37	417,150.84	528,239.37	32.1468192	-104.3756545	41.22	0.00	0.00	0.00
2,800.00	3.82	25.45	2,796.78	90.86	43.24	417,156.86	528,242.24	32.1468357	-104.3756453	44.14	0.00	0.00	0.00
2,900.00	3.82	25.45	2,896.56	96.89	46.10	417,162.89	528,245.10	32.1468523	-104.3756360	47.07	0.00	0.00	0.00
3,000.00	3.82	25.45	2,996.34	102.91	48.97	417,168.91	528,247.97	32.1468688	-104.3756268	49.99	0.00	0.00	0.00
3,100.00	3.82	25.45	3,096.11	108.93	51.84	417,174.93	528,250.84	32.1468854	-104.3756175	52.92	0.00	0.00	0.00
3,200.00	3.82	25.45	3,195.89	114.95	54.70	417,180.95	528,253.70	32.1469020	-104.3756083	55.84	0.00	0.00	0.00
3,300.00	3.82	25.45	3,295.67	120.98	57.57	417,186.98	528,256.57	32.1469185	-104.3755990	58.77	0.00	0.00	0.00
3,324.38	3.82	25.45	3,320.00	122.44	58.27	417,188.44	528,257.27	32.1469226	-104.3755968	59.48	0.00	0.00	0.00
Brushy													
3,400.00	3.82	25.45	3,395.45	127.00	60.43	417,193.00	528,259.43	32.1469351	-104.3755898	61.69	0.00	0.00	0.00
3,507.68	3.82	25.45	3,502.89	133.48	63.52	417,199.48	528,262.52	32.1469529	-104.3755798	64.84	0.00	0.00	0.00
Begin Drop													
3,600.00	2.90	25.45	3,595.05	138.37	65.85	417,204.37	528,264.85	32.1469663	-104.3755723	67.22	1.00	-1.00	0.00
3,700.00	1.90	25.45	3,694.96	142.15	67.65	417,208.15	528,266.65	32.1469767	-104.3755665	69.06	1.00	-1.00	0.00
3,800.00	0.90	25.45	3,794.93	144.36	68.70	417,210.36	528,267.70	32.1469828	-104.3755631	70.13	1.00	-1.00	0.00
3,890.08	0.00	360.00	3,885.00	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	1.00	-1.00	0.00
EOD / Hold													
3,900.00	0.00	0.00	3,894.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,000.00	0.00	0.00	3,994.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,100.00	0.00	0.00	4,094.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,200.00	0.00	0.00	4,194.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,300.00	0.00	0.00	4,294.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,400.00	0.00	0.00	4,394.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,500.00	0.00	0.00	4,494.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,600.00	0.00	0.00	4,594.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,700.00	0.00	0.00	4,694.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,800.00	0.00	0.00	4,794.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
4,900.00	0.00	0.00	4,894.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,000.00	0.00	0.00	4,994.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,015.08	0.00	0.00	5,010.00	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
Bone Spring													
5,070.08	0.00	0.00	5,065.00	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
Avalon													
5,100.00	0.00	0.00	5,094.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,200.00	0.00	0.00	5,194.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,300.00	0.00	0.00	5,294.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,375.08	0.00	0.00	5,370.00	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
Avalon Middle													

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	0.00	0.00	5,394.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,500.00	0.00	0.00	5,494.92	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
5,597.08	0.00	0.00	5,592.00	145.00	69.00	417,211.00	528,268.00	32.1469846	-104.3755621	70.44	0.00	0.00	0.00
KOP; 11° DLS													
5,600.00	0.32	86.70	5,594.92	145.00	69.01	417,211.00	528,268.01	32.1469846	-104.3755621	70.45	11.00	11.00	0.00
5,650.00	5.82	86.70	5,644.83	145.15	71.68	417,211.15	528,270.68	32.1469850	-104.3755535	73.12	11.00	11.00	0.00
5,700.00	11.32	86.70	5,694.26	145.58	79.12	417,211.58	528,278.12	32.1469862	-104.3755294	80.56	11.00	11.00	0.00
5,750.00	16.82	86.70	5,742.74	146.28	91.25	417,212.28	528,290.25	32.1469881	-104.3754902	92.70	11.00	11.00	0.00
5,800.00	22.32	86.70	5,789.83	147.25	107.97	417,213.25	528,306.97	32.1469908	-104.3754362	109.43	11.00	11.00	0.00
5,850.00	27.82	86.70	5,835.10	148.47	129.11	417,214.47	528,328.11	32.1469942	-104.3753679	130.58	11.00	11.00	0.00
5,884.43	31.61	86.70	5,865.00	149.45	146.15	417,215.45	528,345.15	32.1469969	-104.3753129	147.63	11.00	11.00	0.00
1st Bone Spring													
5,900.00	33.32	86.70	5,878.13	149.93	154.49	417,215.93	528,353.49	32.1469982	-104.3752859	155.97	11.00	11.00	0.00
5,950.00	38.82	86.70	5,918.53	151.62	183.87	417,217.62	528,382.87	32.1470029	-104.3751910	185.37	11.00	11.00	0.00
6,000.00	44.32	86.70	5,955.92	153.53	216.98	417,219.53	528,415.98	32.1470082	-104.3750840	218.50	11.00	11.00	0.00
6,050.00	49.82	86.70	5,989.97	155.64	253.51	417,221.64	528,452.51	32.1470140	-104.3749659	255.05	11.00	11.00	0.00
6,100.00	55.32	86.70	6,020.34	157.92	293.14	417,223.92	528,492.14	32.1470203	-104.3748379	294.70	11.00	11.00	0.00
6,124.63	58.03	86.70	6,033.87	159.11	313.69	417,225.11	528,512.69	32.1470236	-104.3747715	315.25	11.00	11.00	0.00
FTP - High Life Fed Com #142H													
6,150.00	60.82	86.70	6,046.78	160.37	335.49	417,226.37	528,534.49	32.1470271	-104.3747011	337.07	11.00	11.00	0.00
6,200.00	66.32	86.70	6,069.02	162.94	380.17	417,228.94	528,579.17	32.1470342	-104.3745567	381.77	11.00	11.00	0.00
6,202.45	66.59	86.70	6,070.00	163.07	382.41	417,229.07	528,581.41	32.1470346	-104.3745495	384.02	11.00	11.00	0.00
2nd Bone Spring FS													
6,250.00	71.82	86.70	6,086.87	165.63	426.78	417,231.63	528,625.78	32.1470417	-104.3744061	428.40	11.00	11.00	0.00
6,300.00	77.32	86.70	6,100.17	168.40	474.88	417,234.40	528,673.88	32.1470493	-104.3742507	476.53	11.00	11.00	0.00
6,350.00	82.82	86.70	6,108.79	171.24	524.03	417,237.24	528,723.03	32.1470572	-104.3740919	525.70	11.00	11.00	0.00
6,401.62	88.50	86.70	6,112.69	174.20	575.39	417,240.20	528,774.39	32.1470654	-104.3739259	577.10	11.00	11.00	0.00
LP / Begin Turn													
6,500.00	88.50	88.67	6,115.27	178.17	673.65	417,244.17	528,872.65	32.1470764	-104.3736085	675.39	2.00	0.00	2.00
6,537.91	88.50	89.43	6,116.26	178.80	711.55	417,244.80	528,910.55	32.1470782	-104.3734860	713.29	2.00	0.00	2.00
EOT / Hold													
6,600.00	88.50	89.43	6,117.88	179.42	773.61	417,245.42	528,972.61	32.1470799	-104.3732855	775.36	0.00	0.00	0.00
6,700.00	88.50	89.43	6,120.49	180.42	873.57	417,246.42	529,072.57	32.1470828	-104.3729625	875.32	0.00	0.00	0.00
6,800.00	88.50	89.43	6,123.10	181.42	973.53	417,247.42	529,172.53	32.1470856	-104.3726395	975.29	0.00	0.00	0.00
6,900.00	88.50	89.43	6,125.72	182.42	1,073.49	417,248.42	529,272.49	32.1470885	-104.3723165	1,075.26	0.00	0.00	0.00
7,000.00	88.50	89.43	6,128.33	183.42	1,173.45	417,249.42	529,372.45	32.1470913	-104.3719936	1,175.22	0.00	0.00	0.00
7,100.00	88.50	89.43	6,130.94	184.42	1,273.42	417,250.42	529,472.42	32.1470942	-104.3716706	1,275.19	0.00	0.00	0.00
7,200.00	88.50	89.43	6,133.55	185.42	1,373.38	417,251.42	529,572.38	32.1470970	-104.3713476	1,375.15	0.00	0.00	0.00

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,300.00	88.50	89.43	6,136.16	186.42	1,473.34	417,252.42	529,672.34	32.1470999	-104.3710246	1,475.12	0.00	0.00	0.00
7,400.00	88.50	89.43	6,138.78	187.43	1,573.30	417,253.43	529,772.30	32.1471027	-104.3707016	1,575.08	0.00	0.00	0.00
7,500.00	88.50	89.43	6,141.39	188.43	1,673.26	417,254.43	529,872.26	32.1471056	-104.3703787	1,675.05	0.00	0.00	0.00
7,600.00	88.50	89.43	6,144.00	189.43	1,773.22	417,255.43	529,972.22	32.1471084	-104.3700557	1,775.02	0.00	0.00	0.00
7,700.00	88.50	89.43	6,146.61	190.43	1,873.18	417,256.43	530,072.18	32.1471113	-104.3697327	1,874.98	0.00	0.00	0.00
7,800.00	88.50	89.43	6,149.23	191.43	1,973.14	417,257.43	530,172.14	32.1471141	-104.3694097	1,974.95	0.00	0.00	0.00
7,900.00	88.50	89.43	6,151.84	192.43	2,073.10	417,258.43	530,272.10	32.1471169	-104.3690867	2,074.91	0.00	0.00	0.00
8,000.00	88.50	89.43	6,154.45	193.43	2,173.06	417,259.43	530,372.06	32.1471198	-104.3687637	2,174.88	0.00	0.00	0.00
8,100.00	88.50	89.43	6,157.06	194.43	2,273.02	417,260.43	530,472.02	32.1471226	-104.3684408	2,274.85	0.00	0.00	0.00
8,200.00	88.50	89.43	6,159.68	195.43	2,372.99	417,261.43	530,571.99	32.1471255	-104.3681178	2,374.81	0.00	0.00	0.00
8,300.00	88.50	89.43	6,162.29	196.43	2,472.95	417,262.43	530,671.95	32.1471283	-104.3677948	2,474.78	0.00	0.00	0.00
8,400.00	88.50	89.43	6,164.90	197.43	2,572.91	417,263.43	530,771.91	32.1471311	-104.3674718	2,574.74	0.00	0.00	0.00
8,500.00	88.50	89.43	6,167.51	198.43	2,672.87	417,264.43	530,871.87	32.1471340	-104.3671488	2,674.71	0.00	0.00	0.00
8,600.00	88.50	89.43	6,170.12	199.43	2,772.83	417,265.43	530,971.83	32.1471368	-104.3668258	2,774.68	0.00	0.00	0.00
8,700.00	88.50	89.43	6,172.74	200.43	2,872.79	417,266.43	531,071.79	32.1471396	-104.3665029	2,874.64	0.00	0.00	0.00
8,800.00	88.50	89.43	6,175.35	201.43	2,972.75	417,267.43	531,171.75	32.1471425	-104.3661799	2,974.61	0.00	0.00	0.00
8,900.00	88.50	89.43	6,177.96	202.43	3,072.71	417,268.43	531,271.71	32.1471453	-104.3658569	3,074.57	0.00	0.00	0.00
9,000.00	88.50	89.43	6,180.57	203.43	3,172.67	417,269.43	531,371.67	32.1471481	-104.3655339	3,174.54	0.00	0.00	0.00
9,100.00	88.50	89.43	6,183.19	204.43	3,272.63	417,270.43	531,471.63	32.1471510	-104.3652109	3,274.50	0.00	0.00	0.00
9,200.00	88.50	89.43	6,185.80	205.43	3,372.59	417,271.43	531,571.59	32.1471538	-104.3648879	3,374.47	0.00	0.00	0.00
9,300.00	88.50	89.43	6,188.41	206.43	3,472.55	417,272.43	531,671.55	32.1471566	-104.3645650	3,474.44	0.00	0.00	0.00
9,400.00	88.50	89.43	6,191.02	207.43	3,572.52	417,273.43	531,771.52	32.1471595	-104.3642420	3,574.40	0.00	0.00	0.00
9,500.00	88.50	89.43	6,193.63	208.43	3,672.48	417,274.43	531,871.48	32.1471623	-104.3639190	3,674.37	0.00	0.00	0.00
9,600.00	88.50	89.43	6,196.25	209.43	3,772.44	417,275.43	531,971.44	32.1471651	-104.3635960	3,774.33	0.00	0.00	0.00
9,700.00	88.50	89.43	6,198.86	210.43	3,872.40	417,276.43	532,071.40	32.1471679	-104.3632730	3,874.30	0.00	0.00	0.00
9,800.00	88.50	89.43	6,201.47	211.43	3,972.36	417,277.43	532,171.36	32.1471708	-104.3629501	3,974.27	0.00	0.00	0.00
9,900.00	88.50	89.43	6,204.08	212.43	4,072.32	417,278.43	532,271.32	32.1471736	-104.3626271	4,074.23	0.00	0.00	0.00
10,000.00	88.50	89.43	6,206.70	213.43	4,172.28	417,279.43	532,371.28	32.1471764	-104.3623041	4,174.20	0.00	0.00	0.00
10,100.00	88.50	89.43	6,209.31	214.43	4,272.24	417,280.43	532,471.24	32.1471792	-104.3619811	4,274.16	0.00	0.00	0.00
10,200.00	88.50	89.43	6,211.92	215.43	4,372.20	417,281.43	532,571.20	32.1471821	-104.3616581	4,374.13	0.00	0.00	0.00
10,300.00	88.50	89.43	6,214.53	216.43	4,472.16	417,282.43	532,671.16	32.1471849	-104.3613351	4,474.10	0.00	0.00	0.00
10,400.00	88.50	89.43	6,217.14	217.43	4,572.12	417,283.43	532,771.12	32.1471877	-104.3610122	4,574.06	0.00	0.00	0.00
10,500.00	88.50	89.43	6,219.76	218.43	4,672.09	417,284.43	532,871.09	32.1471905	-104.3606892	4,674.03	0.00	0.00	0.00
10,600.00	88.50	89.43	6,222.37	219.43	4,772.05	417,285.43	532,971.05	32.1471933	-104.3603662	4,773.99	0.00	0.00	0.00
10,700.00	88.50	89.43	6,224.98	220.43	4,872.01	417,286.43	533,071.01	32.1471962	-104.3600432	4,873.96	0.00	0.00	0.00
10,800.00	88.50	89.43	6,227.59	221.43	4,971.97	417,287.43	533,170.97	32.1471990	-104.3597202	4,973.92	0.00	0.00	0.00
10,900.00	88.50	89.43	6,230.21	222.43	5,071.93	417,288.43	533,270.93	32.1472018	-104.3593972	5,073.89	0.00	0.00	0.00
11,000.00	88.50	89.43	6,232.82	223.43	5,171.89	417,289.43	533,370.89	32.1472046	-104.3590743	5,173.86	0.00	0.00	0.00

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,100.00	88.50	89.43	6,235.43	224.43	5,271.85	417,290.43	533,470.85	32.1472074	-104.3587513	5,273.82	0.00	0.00	0.00
11,200.00	88.50	89.43	6,238.04	225.43	5,371.81	417,291.43	533,570.81	32.1472102	-104.3584283	5,373.79	0.00	0.00	0.00
11,300.00	88.50	89.43	6,240.66	226.43	5,471.77	417,292.43	533,670.77	32.1472131	-104.3581053	5,473.75	0.00	0.00	0.00
11,400.00	88.50	89.43	6,243.27	227.43	5,571.73	417,293.43	533,770.73	32.1472159	-104.3577823	5,573.72	0.00	0.00	0.00
11,500.00	88.50	89.43	6,245.88	228.43	5,671.69	417,294.43	533,870.69	32.1472187	-104.3574593	5,673.69	0.00	0.00	0.00
11,600.00	88.50	89.43	6,248.49	229.44	5,771.65	417,295.44	533,970.65	32.1472215	-104.3571364	5,773.65	0.00	0.00	0.00
11,700.00	88.50	89.43	6,251.10	230.44	5,871.62	417,296.44	534,070.62	32.1472243	-104.3568134	5,873.62	0.00	0.00	0.00
11,800.00	88.50	89.43	6,253.72	231.44	5,971.58	417,297.44	534,170.58	32.1472271	-104.3564904	5,973.58	0.00	0.00	0.00
11,900.00	88.50	89.43	6,256.33	232.44	6,071.54	417,298.44	534,270.54	32.1472299	-104.3561674	6,073.55	0.00	0.00	0.00
12,000.00	88.50	89.43	6,258.94	233.44	6,171.50	417,299.44	534,370.50	32.1472327	-104.3558444	6,173.52	0.00	0.00	0.00
12,100.00	88.50	89.43	6,261.55	234.44	6,271.46	417,300.44	534,470.46	32.1472355	-104.3555214	6,273.48	0.00	0.00	0.00
12,200.00	88.50	89.43	6,264.17	235.44	6,371.42	417,301.44	534,570.42	32.1472383	-104.3551985	6,373.45	0.00	0.00	0.00
12,300.00	88.50	89.43	6,266.78	236.44	6,471.38	417,302.44	534,670.38	32.1472411	-104.3548755	6,473.41	0.00	0.00	0.00
12,400.00	88.50	89.43	6,269.39	237.44	6,571.34	417,303.44	534,770.34	32.1472439	-104.3545525	6,573.38	0.00	0.00	0.00
12,500.00	88.50	89.43	6,272.00	238.44	6,671.30	417,304.44	534,870.30	32.1472467	-104.3542295	6,673.34	0.00	0.00	0.00
12,600.00	88.50	89.43	6,274.61	239.44	6,771.26	417,305.44	534,970.26	32.1472495	-104.3539065	6,773.31	0.00	0.00	0.00
12,700.00	88.50	89.43	6,277.23	240.44	6,871.22	417,306.44	535,070.22	32.1472523	-104.3535835	6,873.28	0.00	0.00	0.00
12,800.00	88.50	89.43	6,279.84	241.44	6,971.19	417,307.44	535,170.19	32.1472552	-104.3532606	6,973.24	0.00	0.00	0.00
12,900.00	88.50	89.43	6,282.45	242.44	7,071.15	417,308.44	535,270.15	32.1472580	-104.3529376	7,073.21	0.00	0.00	0.00
13,000.00	88.50	89.43	6,285.06	243.44	7,171.11	417,309.44	535,370.11	32.1472607	-104.3526146	7,173.17	0.00	0.00	0.00
13,100.00	88.50	89.43	6,287.68	244.44	7,271.07	417,310.44	535,470.07	32.1472635	-104.3522916	7,273.14	0.00	0.00	0.00
13,200.00	88.50	89.43	6,290.29	245.44	7,371.03	417,311.44	535,570.03	32.1472663	-104.3519686	7,373.11	0.00	0.00	0.00
13,300.00	88.50	89.43	6,292.90	246.44	7,470.99	417,312.44	535,669.99	32.1472691	-104.3516456	7,473.07	0.00	0.00	0.00
13,400.00	88.50	89.43	6,295.51	247.44	7,570.95	417,313.44	535,769.95	32.1472719	-104.3513227	7,573.04	0.00	0.00	0.00
13,500.00	88.50	89.43	6,298.12	248.44	7,670.91	417,314.44	535,869.91	32.1472747	-104.3509997	7,673.00	0.00	0.00	0.00
13,600.00	88.50	89.43	6,300.74	249.44	7,770.87	417,315.44	535,969.87	32.1472775	-104.3506767	7,772.97	0.00	0.00	0.00
13,700.00	88.50	89.43	6,303.35	250.44	7,870.83	417,316.44	536,069.83	32.1472803	-104.3503537	7,872.94	0.00	0.00	0.00
13,800.00	88.50	89.43	6,305.96	251.44	7,970.79	417,317.44	536,169.79	32.1472831	-104.3500307	7,972.90	0.00	0.00	0.00
13,900.00	88.50	89.43	6,308.57	252.44	8,070.75	417,318.44	536,269.75	32.1472859	-104.3497077	8,072.87	0.00	0.00	0.00
14,000.00	88.50	89.43	6,311.19	253.44	8,170.72	417,319.44	536,369.72	32.1472887	-104.3493848	8,172.83	0.00	0.00	0.00
14,100.00	88.50	89.43	6,313.80	254.44	8,270.68	417,320.44	536,469.68	32.1472915	-104.3490618	8,272.80	0.00	0.00	0.00
14,200.00	88.50	89.43	6,316.41	255.44	8,370.64	417,321.44	536,569.64	32.1472943	-104.3487388	8,372.76	0.00	0.00	0.00
14,300.00	88.50	89.43	6,319.02	256.44	8,470.60	417,322.44	536,669.60	32.1472971	-104.3484158	8,472.73	0.00	0.00	0.00
14,400.00	88.50	89.43	6,321.64	257.44	8,570.56	417,323.44	536,769.56	32.1472999	-104.3480928	8,572.70	0.00	0.00	0.00
14,500.00	88.50	89.43	6,324.25	258.44	8,670.52	417,324.44	536,869.52	32.1473026	-104.3477698	8,672.66	0.00	0.00	0.00
14,600.00	88.50	89.43	6,326.86	259.44	8,770.48	417,325.44	536,969.48	32.1473054	-104.3474469	8,772.63	0.00	0.00	0.00
14,700.00	88.50	89.43	6,329.47	260.44	8,870.44	417,326.44	537,069.44	32.1473082	-104.3471239	8,872.59	0.00	0.00	0.00

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,800.00	88.50	89.43	6,332.08	261.44	8,970.40	417,327.44	537,169.40	32.1473110	-104.3468009	8,972.56	0.00	0.00	0.00
14,900.00	88.50	89.43	6,334.70	262.44	9,070.36	417,328.44	537,269.36	32.1473138	-104.3464779	9,072.53	0.00	0.00	0.00
15,000.00	88.50	89.43	6,337.31	263.44	9,170.32	417,329.44	537,369.32	32.1473166	-104.3461549	9,172.49	0.00	0.00	0.00
15,100.00	88.50	89.43	6,339.92	264.44	9,270.29	417,330.44	537,469.29	32.1473193	-104.3458319	9,272.46	0.00	0.00	0.00
15,200.00	88.50	89.43	6,342.53	265.44	9,370.25	417,331.44	537,569.25	32.1473221	-104.3455089	9,372.42	0.00	0.00	0.00
15,300.00	88.50	89.43	6,345.15	266.44	9,470.21	417,332.44	537,669.21	32.1473249	-104.3451860	9,472.39	0.00	0.00	0.00
15,400.00	88.50	89.43	6,347.76	267.44	9,570.17	417,333.44	537,769.17	32.1473277	-104.3448630	9,572.36	0.00	0.00	0.00
15,500.00	88.50	89.43	6,350.37	268.44	9,670.13	417,334.44	537,869.13	32.1473305	-104.3445400	9,672.32	0.00	0.00	0.00
15,600.00	88.50	89.43	6,352.98	269.44	9,770.09	417,335.44	537,969.09	32.1473332	-104.3442170	9,772.29	0.00	0.00	0.00
15,700.00	88.50	89.43	6,355.59	270.44	9,870.05	417,336.44	538,069.05	32.1473360	-104.3438940	9,872.25	0.00	0.00	0.00
15,800.00	88.50	89.43	6,358.21	271.44	9,970.01	417,337.44	538,169.01	32.1473388	-104.3435710	9,972.22	0.00	0.00	0.00
15,900.00	88.50	89.43	6,360.82	272.45	10,069.97	417,338.45	538,268.97	32.1473416	-104.3432481	10,072.18	0.00	0.00	0.00
16,000.00	88.50	89.43	6,363.43	273.45	10,169.93	417,339.45	538,368.93	32.1473443	-104.3429251	10,172.15	0.00	0.00	0.00
16,100.00	88.50	89.43	6,366.04	274.45	10,269.89	417,340.45	538,468.89	32.1473471	-104.3426021	10,272.12	0.00	0.00	0.00
16,200.00	88.50	89.43	6,368.66	275.45	10,369.85	417,341.45	538,568.85	32.1473499	-104.3422791	10,372.08	0.00	0.00	0.00
16,300.00	88.50	89.43	6,371.27	276.45	10,469.82	417,342.45	538,668.82	32.1473527	-104.3419561	10,472.05	0.00	0.00	0.00
16,400.00	88.50	89.43	6,373.88	277.45	10,569.78	417,343.45	538,768.78	32.1473554	-104.3416331	10,572.01	0.00	0.00	0.00
16,500.00	88.50	89.43	6,376.49	278.45	10,669.74	417,344.45	538,868.74	32.1473582	-104.3413102	10,671.98	0.00	0.00	0.00
16,560.29	88.50	89.43	6,378.07	279.05	10,730.00	417,345.05	538,929.00	32.1473599	-104.3411154	10,732.24	0.00	0.00	0.00
LTP - High Life Fed Com #142H													
16,600.00	88.50	89.43	6,379.10	279.45	10,769.70	417,345.45	538,968.70	32.1473610	-104.3409872	10,771.95	0.00	0.00	0.00
16,655.32	88.50	89.43	6,380.55	280.00	10,825.00	417,346.00	539,024.00	32.1473625	-104.3408085	10,827.25	0.00	0.00	0.00
PBHL - PBHL - High Life Fed Com #142H													

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP - High Life Fed Con	0.00	360.00	6,104.09	174.00	269.00	417,240.00	528,468.00	32.1470645	-104.3749159
- plan misses target center by 84.55usft at 6124.63usft MD (6033.87 TVD, 159.11 N, 313.69 E)									
- Point									
LTP - High Life Fed Con	0.00	0.01	6,378.03	279.00	10,730.00	417,345.00	538,929.00	32.1473597	-104.3411154
- plan misses target center by 0.06usft at 16560.28usft MD (6378.07 TVD, 279.05 N, 10730.00 E)									
- Point									
PBHL - High Life Fed Cc	91.50	89.43	6,380.55	280.00	10,825.00	417,346.00	539,024.00	32.1473625	-104.3408085
- plan hits target center									
- Rectangle (sides W100.00 H20.00 D10,554.00)									

Survey Report

Company:	Tap Rock Resources, LLC	**Local Co-ordinate Reference:**	Well High Life Fed Com #142H
Project:	Eddy County, NM (NAD 83 NME)	**TVD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Site:	Sec-10-25S-25E(High Life N)	**MD Reference:**	GE 3511' + KB 26' @ 3537.00usft
Well:	High Life Fed Com #142H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDM 5000.1 Single User Db

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
37.00	37.00	Rustler			
337.00	337.00	Top Salt			
1,236.01	1,236.00	Base Salt			
1,462.24	1,462.00	Delaware			
1,463.24	1,463.00	Lamar			
1,492.31	1,492.00	Bell			
1,570.48	1,570.00	Ramsey			
2,397.32	2,395.00	Cherry			
3,324.38	3,320.00	Brushy			
5,015.08	5,010.00	Bone Spring			
5,070.08	5,065.00	Avalon			
5,375.08	5,370.00	Avalon Middle			
5,884.43	5,865.00	1st Bone Spring			
6,202.45	6,070.00	2nd Bone Spring FS			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1100	1100	0	0	Begin Nudge
1482	1482	12	5	EOB / Hold
3508	3503	133	64	Begin Drop
3890	3885	145	69	EOD / Hold
5597	5592	145	69	KOP; 11° DLS
6402	6113	174	575	LP / Begin Turn
6538	6116	179	712	EOT / Hold
16,655	6381	280	10,825	PBHL

Checked By: _____ Approved By: _____ Date: _____

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Tap Rock Operating LLC
WELL NAME & NO.:	High Life Fed Com 142H
LOCATION:	Sec 11-25S-25E-NMP
COUNTY:	Eddy County, New Mexico

COA

H_2S	○ No	○ Yes		
Potash / WIPP	○ None	○ Secretary	○ R-111-P	☐ WIPP
Cave / Karst	○ Low	○ Medium	○ High	○ Critical
Wellhead	○ Conventional	○ Multibowl	○ Both	○ Diverter
Cementing	☐ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	☐ DV Tool
Special Req	☐ Break Testing	☐ Water Disposal	☑ COM	☐ Unit
Variance	☑ Flex Hose	☐ Casing Clearance	☐ Pilot Hole	☐ Capitan Reef
Variance	☐ Four-String	☐ Offline Cementing	☐ Fluid-Filled	☐ Open Annulus
☐ **Batch APD / Sundry**				

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately 350 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. ***Set depth adjusted per BLM geologist.***

    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 **8 hours** 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

 Approval Date: 11/21/2023

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 **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, Capitan Reef, or potash.**

❖ In Critical Cave/Karst Areas cement must come to surface on the first three casing strings.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

C. 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. Operator has proposed a multi-bowl wellhead assembly. 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 43 CFR 3172 must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

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
Email **or** call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, **BLM_NM_CFO_DrillingNotifications@BLM.GOV**
(575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 689-5981

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 **43 CFR part 3170 Subpart 3172** 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 intergrity 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 **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. 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 **43 CFR part 3170 Subpart 3172** 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 cement), 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** 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 **43 CFR part 3170 Subpart 3172**.

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.

Hydrogen Sulfide Drilling

Operations Plan

Tap Rock Resources

1 H2S safety instructions to the following:

- Characteristics of H2S
- Physical effects and hazards
- Principal and operation of H2S detectors, warning system and briefing areas
- Evacuation procedures, routes and first aid
- Proper use of safety equipment & life support systems
- Essential personnel meeting medical evaluation criteria will receive additional training on the proper use of 30min pressure demand air packs

2 H2S Detection and Alarm Systems:

- H2S sensor/detectors to be located on the drilling rig floor, in the base of the sub structure / cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary
- An audio alarm system will be installed on the derrick floor and in the doghouse

3 Windsocks and / Wind Streamers:

- Windsocks at mud pit area should be high enough to be visible
- Windsock on the rig floor and / top of doghouse should be high enough to be visible

4 Condition Flags and Signs:

- Warning sign on access road to location
- Flags to be displayed on sign at entrance to location
    - Green Flag – Normal Safe Operation Condition
    - Yellow Flag – Potential Pressure and Danger
    - Red Flag – Danger (H2S present in dangerous concentrations) Only H2S trained personnel admitted on location

5 Well Control Equipment:

- See Drilling Operations Plan Schematics

6 Communication:

- While working under masks chalkboards will be used for communications
- Hand signals will be used where chalk board is inappropriate
- Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7 Drilling Stem Testing:

- No DST cores are planned at this time

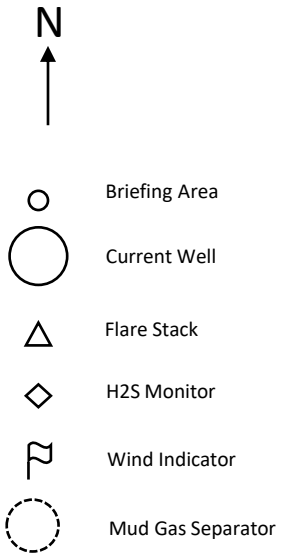
8 Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubulars good and other mechanical equipment

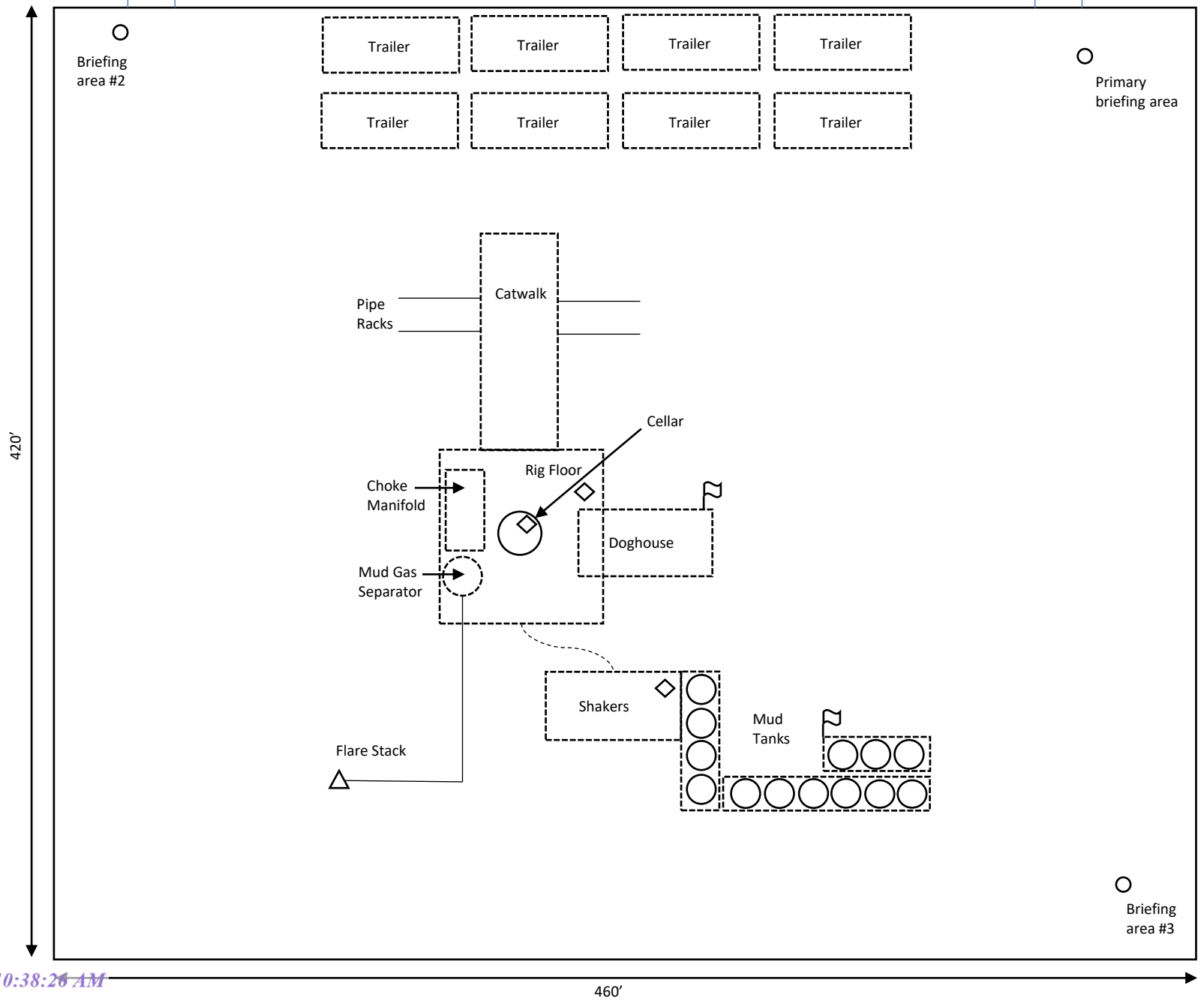
9 If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H2S scavengers if necessary

11 Emergency Contacts

Emergency Contacts		
Carlsbad Police Department	575.887.7551	911
Carlsbad Medical Center	575.887.4100	911
Eddy County Fire Service	575.628.5450	911
Eddy County Sherriff	575.887.7551	911
Lea County Fire Service	575.391.2983	911
Lea County Sherriff	575.396.3611	911
Jal Police Department	575.395.2121	911
Jal Fire Department	575.395.2221	911
Tap Rock Resources	720.772.5090	

Rig Diagram
High Life Fed Com
Slot 1 Pad
Tap Rock Operating, LLC
10-25S-25E
Eddy County, NM





Tap Rock Operating LLC

High Life Fed Com Slot 1 Pad
H2S Contingency Plan:
2 Mile Radius Map

Sec. 10, Township 25S, Range 25E
Eddy County, New Mexico

Well Pad Location

1:27,000

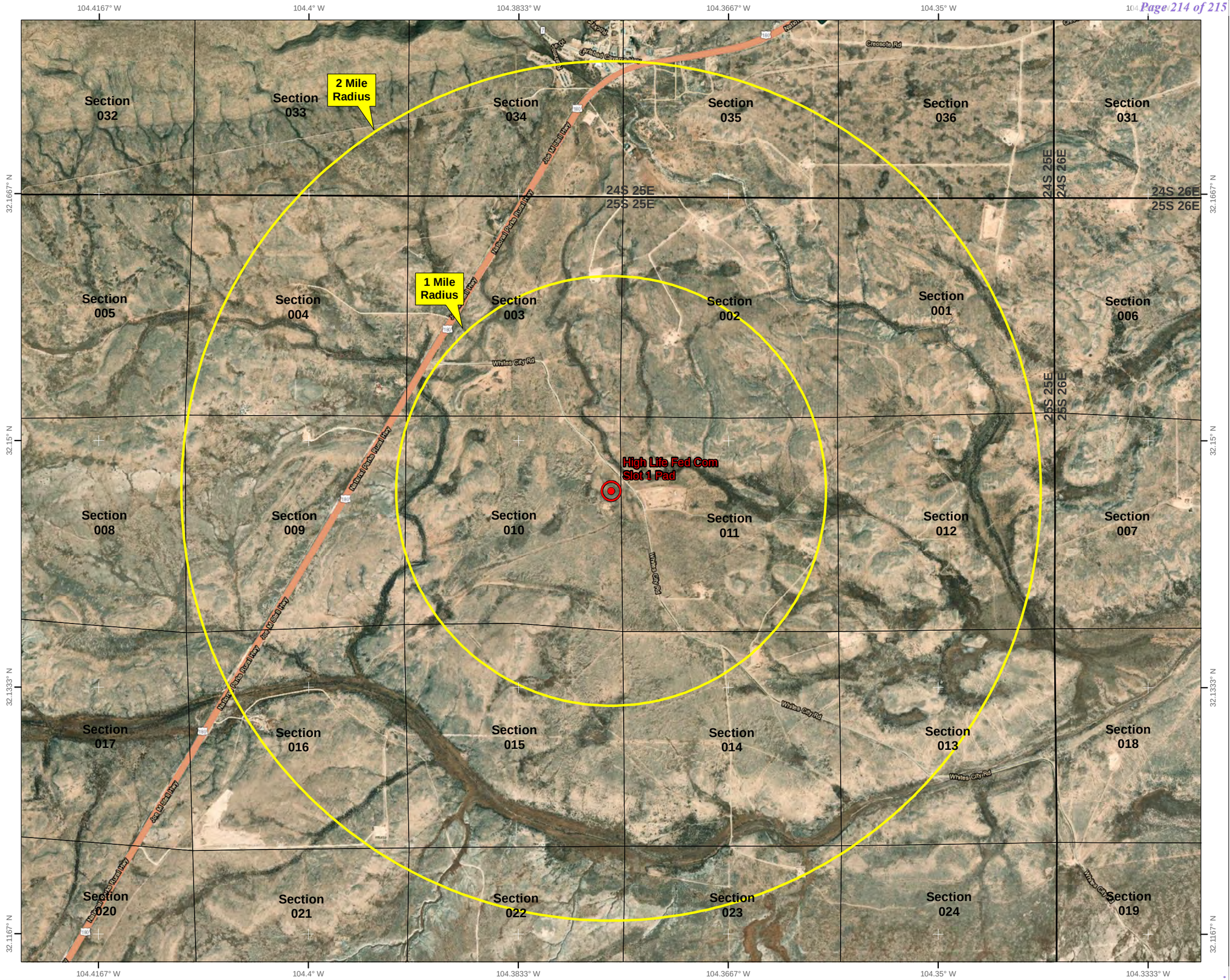
0 0.25 0.5 1
Miles

N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., June 29, 2023
for Tap Rock Operating, LLC



District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 288958

CONDITIONS

Operator: TAP ROCK OPERATING, LLC 523 Park Point Drive Golden, CO 80401	OGRID: 372043
	Action Number: 288958
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	12/20/2023
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	12/20/2023
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	12/20/2023
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	12/20/2023
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	12/20/2023
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	12/20/2023