PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM-63763
WELL NAME & NO.:	MJ Fed Com 222H
SURFACE HOLE FOOTAGE:	0186' FNL & 2249' FWL
BOTTOM HOLE FOOTAGE	0240' FSL & 1980' FWL
LOCATION:	Section 23, T. 19 S., R 33 E., NMPM
COUNTY:	County, New Mexico

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)

☐ **Lea County**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 3933612

A. **Hydrogen Sulfide**

1. A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Yates** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**

2. 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. 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 is located, this does not include the dog house or stairway area.

4. **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

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.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

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.
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.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Secretary's Potash
Possibility of water and brine flows in the Artesia and Salado Groups.
Possibility of lost circulation in the Rustler, Capitan Reef, Red Beds, Delaware, and Artesia Group.
Abnormal pressures may be encountered upon penetrating the 3rd Bone Spring Sandstone and all subsequent formations.

1. The **13-3/8** inch surface casing shall be set at approximately **1495** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

    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 is to include the lead cement slurry.**

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

2. The minimum required fill of cement behind the **9-5/8** inch 1st intermediate casing is:

Option #1 (Single Stage):

☐ 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 Potash.**

Option #2 (DV tool):

Operator has proposed DV tool at depth of 4500', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

a. First stage to DV tool:___

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

☐ 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 Potash.**

3. The minimum required fill of cement behind the **7-5/8** X **7** inch 2nd intermediate casing is:

☐ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to Potash.**

Formation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required through the curve and a minimum of one every other joint.

4. The minimum required fill of cement behind the **5-1/2 X 4-1/2** inch production casing is:

☐ Cement as proposed by operator. Operator shall provide method of verification.

5. 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.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.

2. Variance approved to use flex line from BOP to choke manifold. 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.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. **Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 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. **Operator shall perform the 9-5/8" and 7" casing integrity tests to 70% of the casing burst. This will test the multi-bowl seals.**
    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.**

Variance approved to use a 5M annular. The annular must be tested to full working pressure (5000 psi.)

4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi.

5. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** 2nd intermediate casing shoe shall be psi.

6. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7-5/8 X 7** 1st intermediate casing shoe shall be psi.

10M 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.

7. The appropriate BLM office shall be notified a minimum of hours in advance for a representative to witness the tests.

   a. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.

   b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

   c. 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.

   d. The results of the test shall be reported to the appropriate BLM office.

   e. 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.**

   f. 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.

   g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. **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.

JAM 013018

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MATADOR PRODUCTION COMPANY
LEASE NO.:	NMNM63763
WELL NAME & NO.:	222H –MJ FEDERAL
SURFACE HOLE FOOTAGE:	186'/N & 2249'/W
BOTTOM HOLE FOOTAGE	240'/S & 1980'/W
LOCATION:	Section 23 T.19 S., R.33E., NMP
COUNTY:	LEA County, New Mexico

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.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

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 and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

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)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Below 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. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

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. 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.

Watershed/Water Quality:
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. (Any access road crossing the berm cannot be lower than the berm height.)

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 (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. 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 six 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

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

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.

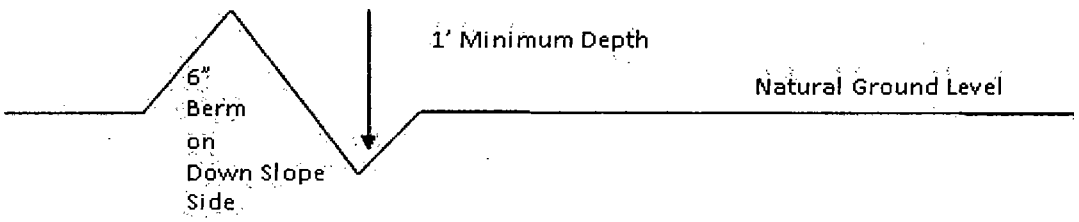
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

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 (in %);

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

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route 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 cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

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

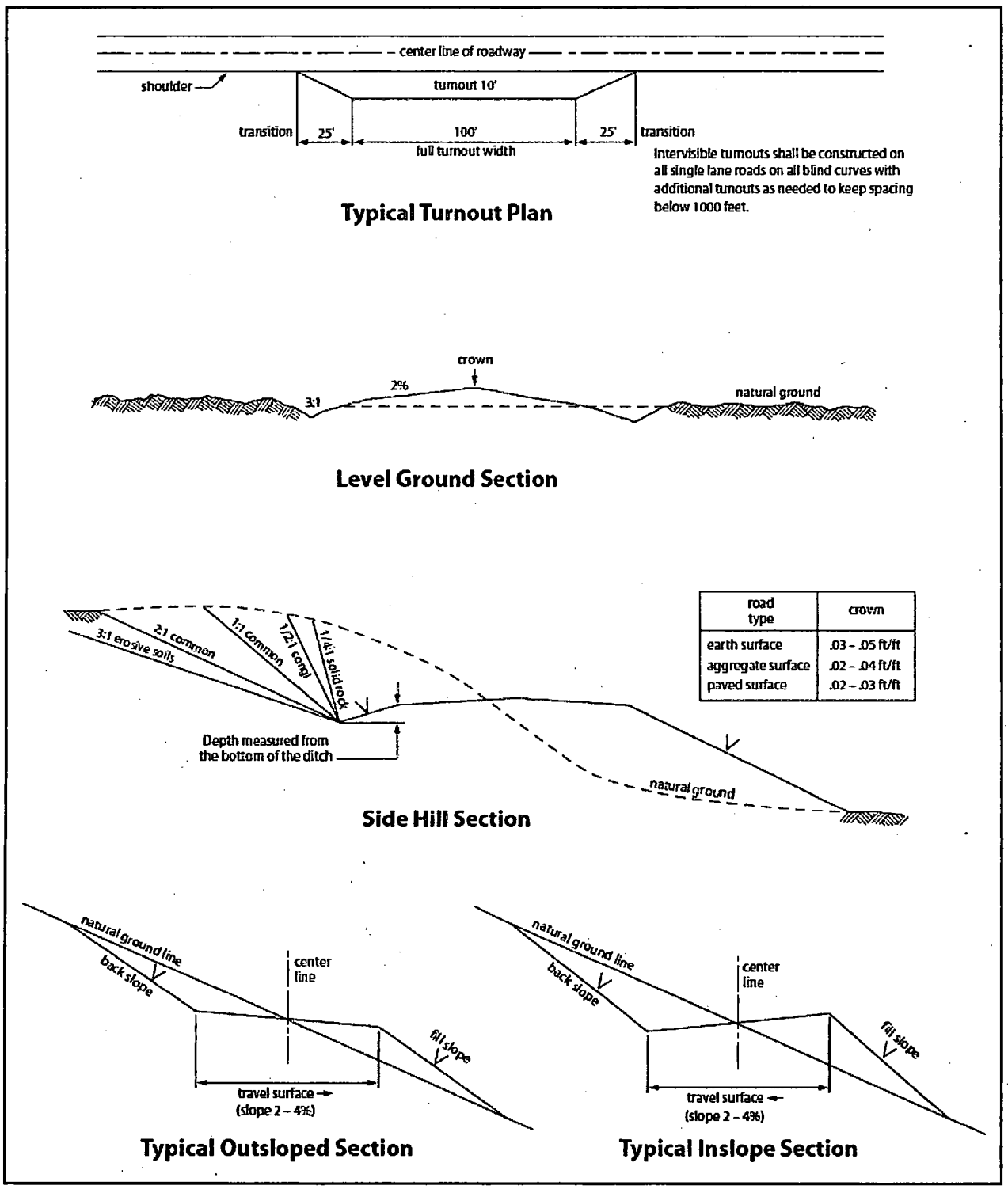


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

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. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

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.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

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 is important to increasing the success of revegetating the site. 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).

Below 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.

Seed Mixture for LPC Sand/Shinnery 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 will be tested and the viability testing of seed shall 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 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). 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. 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 Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

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

AFMSS

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

Operator Certification Data Report

02/01/2018

Operator 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.

NAME: Brian Wood **Signed on:** 08/14/2017

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

Representative Name: Sam Pryor

Street Address: 5400 LBJ Freeway, Suite 1500

City: Dallas **State:** TX **Zip:** 75240

Phone: (972)371-5241

Email address:

Hydrogen Sulfide Drilling

Operations Plan

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 30-minute pressure demand air packs

2 H2S Detection and Alarm Systems:

- H2S sensor/detectors will 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 attachments

6 Communication:

- While working under masks, chalkboards will be used for communications.
- Hand signals will be used where chalkboard 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 drilling foreman's trailer or living quarters.

Casing Design Criteria and Load Case Assumptions

Production Casing

Collapse: DF_C=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.65 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: DF_b=1.125

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: DF_t=1.8

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (12.5 ppg).

7 Drilling Stem Testing:

- No DSTs or 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

- See following page

H2S Contingency Plan Emergency Contacts
MJ Federal wells
Matador Production Company
Sec. 23, T19S, R33E Lea County, NM

Company Office			
Matador Production Company	(972)-371-5200		
Key Personnel			
Name	**Title**	**Office**	**Mobile**
Billy Goodwin	Vice President Drilling	972-371-5210	817-522-2928
Gary Martin	Drilling Superintendent		601-669-1774
Dee Smith	Drilling Superintendent	972-371-5447	972-822-1010
Patrick Walsh	Drilling Engineer	972-371-5291	626-318-5808
Greg Deevers	Construction Superintendent		405-431-9527
Jimmy Benefield	Construction Superintendent		318-548-6659

Lea County		
Ambulance	911	
Nor Lea General Hospital (Hobbs)	575-397-0560	
State Police (Hobbs)	575-392-5580	
City Police (Hobbs)	575-397-9625	
Sheriff's Office (Lovington)	575-396-3611	
Fire Marshall (Lovington)	575-391-2983	
Volunteer Fire Dept. (Monument)	575-393-4339	
Emergency Management (Lovington)	575-391-2983	
New Mexico Oil Conservation Division (Hobbs)	575-393-6161	575-390-3186
BLM (Hobbs)	575-393-3612	
Hobbs Animal Clinic	575-392-5563	
Dal Paso Animal Hospital (Hobbs)	575-397-2286	
Mountain States Equine (Hobbs)	575-392-7488	
Carlsbad		
BLM	575-234-5972	
Santa Fe		
New Mexico Emergency Response Commission (Santa Fe)	505-476-9600	
New Mexico Emergency Response Commission (Santa Fe) 24 hrs	505-827-9126	
New Mexico State Emergency Operations Center	505-476-9635	
National		
National Emergency Response Center (Washington, D.C.)	800-424-8802	
Medical		
Flight for Life- 4000 24th St.; Lubbock, TX	806-743-9911	
Aerocare- R3, Box 49F; Lubbock, TX	806-747-8923	
Med Flight Air Amb- 2301 Yale Blvd SE, D3; Albuquerque, NM	505-842-4433	
SB Air Med Service- 2505 Clark Carr Loop SE; Albuquerque, NM	505-842-4949	

Other		
Boots & Coots IWC	800-256-9688	or 281-931-8884
Cudd Pressure Control	432-699-0139	or 432-563-3356
Halliburton	575-746-2757	
B.J. Services	575-746-3569	
NM Dept. of Transportation (Roswell)	575-637-7200	

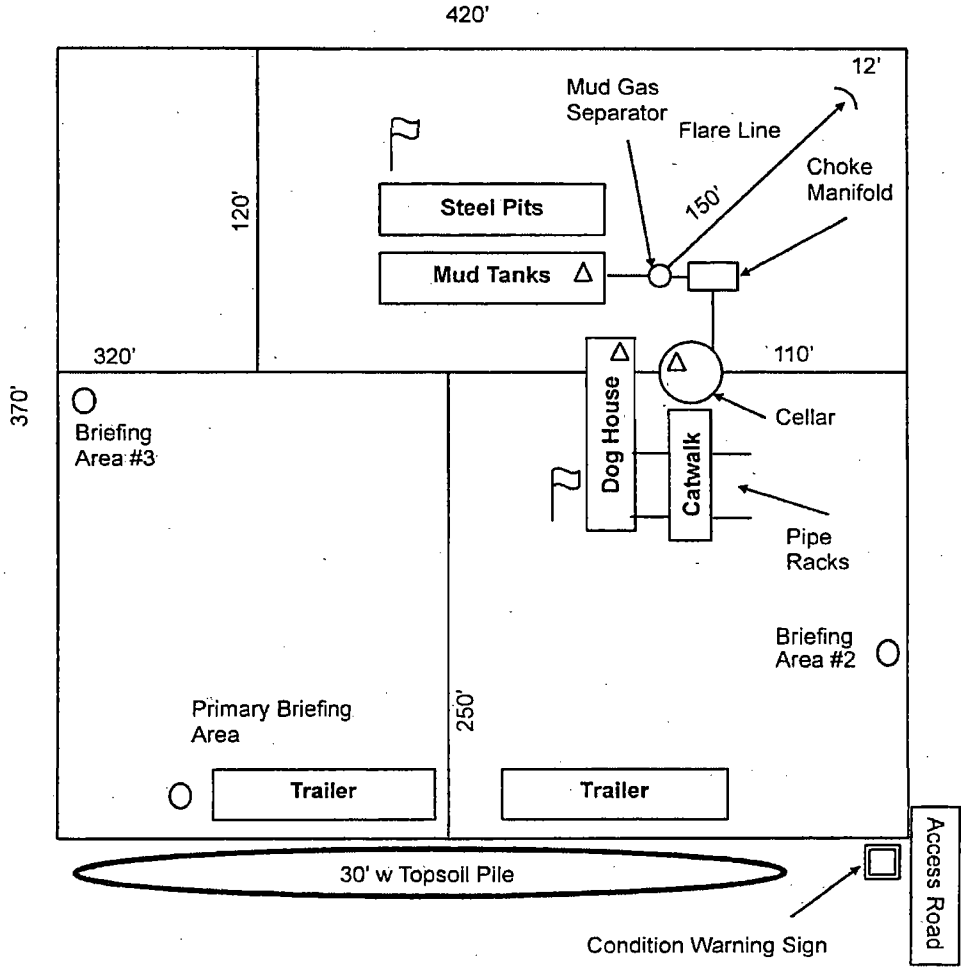
H2S Rig Diagram

MJ Federal #222H
SHL 186' FNL & 2249' FWL
23-19S-33E Lea County, NM

Wind Direction Indicator

△ H2S Monitors

○ Briefing Areas

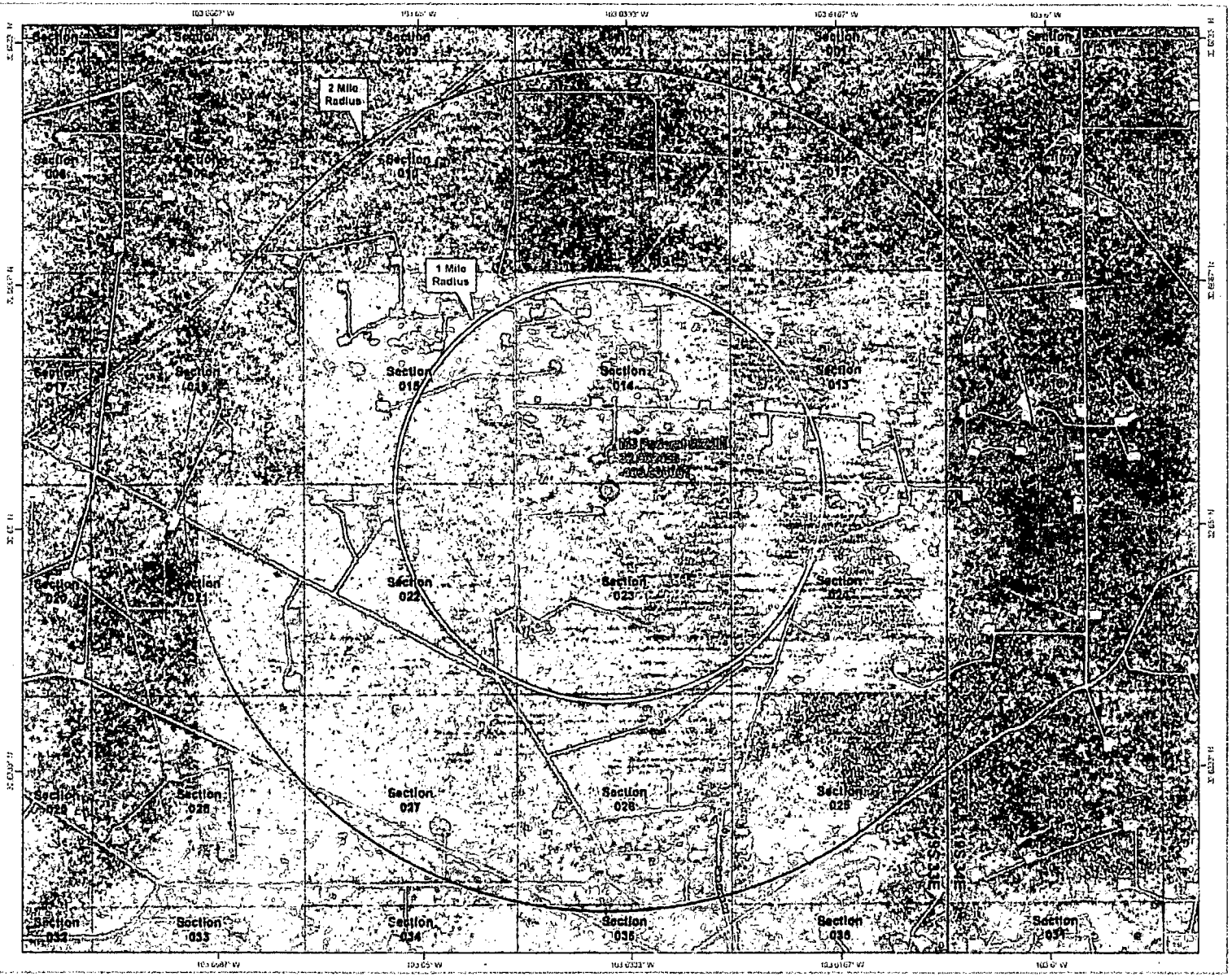


Prevailing Wind Out of the South

Matador Production Company

MJ Federal #222H
H_2S Contingency Plan:
2 Mile Radius Map

Section 23, Township 19S, Range 33E
Lea County, New Mexico



Surface Hole Location

1:27,000

0 0.25 0.5 1

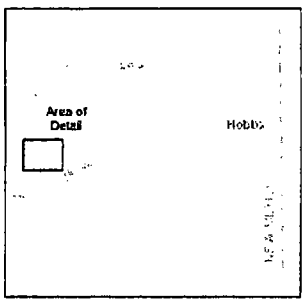
Miles

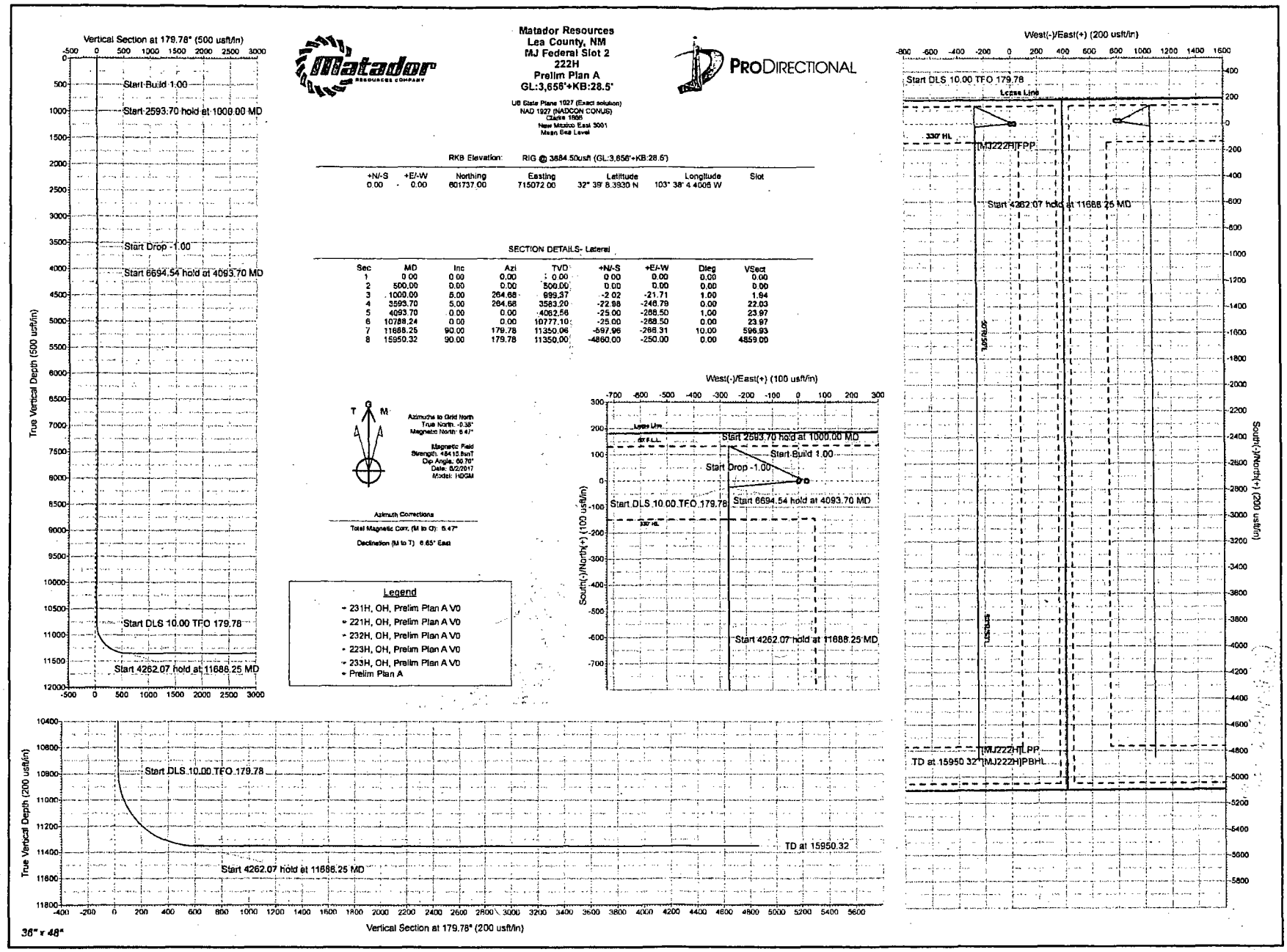
N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMIAN WEST

Prepared by Permits West, Inc., July 19, 2017
for Matador Production Company




Matador Resources
Lea County, NM
MJ Federal Slot 2
222H
Prelim Plan A
GL:3,656'+KB:28.5'
US State Plane 1927 (Exact solution)
NAD 1927 (NADCON CONUS)
Clarke 1866
New Mexico East 3001
Mean Sea Level
PRODIRECTIONAL
RKB Elevation: RIG @ 3684.50usft (GL:3,656'+KB:28.5')
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 601737.00 715072.00 32° 39' 8.3930 N 103° 38' 4.4008 W
SECTION DETAILS- Lateral
Sec MD Inc Azi TVD +N/-S +E/-W Dleg VSect
1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
2 500.00 0.00 0.00 500.00 0.00 0.00 0.00 0.00
3 1000.00 5.00 264.68 999.37 -2.02 -21.71 1.00 1.94
4 3593.70 5.00 264.68 3583.20 -22.98 -246.79 0.00 22.03
5 4093.70 0.00 0.00 4082.56 -25.00 -268.50 1.00 23.97
6 10788.24 0.00 0.00 10777.10 -25.00 -268.50 0.00 23.97
7 11688.25 90.00 179.78 11350.06 -597.96 -268.31 10.00 596.93
8 15950.32 90.00 179.78 11350.00 -4860.00 -250.00 0.00 4859.00
Azimuths to Grid North
True North: -0.38°
Magnetic North: 6.47°
Magnetic Field
Strength: 48415.8nT
Dip Angle: 60.76°
Date: 8/2/2017
Model: HDGM
Azimuth Corrections
Total Magnetic Corr. (M to G): 6.47°
Declination (M to T): 6.85° East
Legend
231H, OH, Prelim Plan A V0
221H, OH, Prelim Plan A V0
232H, OH, Prelim Plan A V0
223H, OH, Prelim Plan A V0
233H, OH, Prelim Plan A V0
Prelim Plan A
Vertical Section at 179.78° (500 usft/in)
True Vertical Depth (500 usft/in)
Start Build 1.00
Start 2593.70 hold at 1000.00 MD
Start Drop -1.00
Start 6694.54 hold at 4093.70 MD
Start DLS 10.00 TFO 179.78
Start 4262.07 hold at 11688.25 MD
West(-)/East(+) (100 usft/in)
South(-)/North(+) (100 usft/in)
Lease Line
330' FNL
330' FEL
Start 2593.70 hold at 1000.00 MD
Start Build 1.00
Start Drop -1.00
Start DLS 10.00 TFO 179.78
Start 6694.54 hold at 4093.70 MD
Start 4262.07 hold at 11688.25 MD
West(-)/East(+) (200 usft/in)
South(-)/North(+) (200 usft/in)
Start DLS 10.00 TFO 179.78
Lease Line
330' FNL
[MJ222H]FPP
Start 4262.07 hold at 11688.25 MD
330' FSL
[MJ222H]LPP
TD at 15950.32 [MJ222H]PBHL
True Vertical Depth (200 usft/in)
Start DLS 10.00 TFO 179.78
TD at 15950.32
Start 4262.07 hold at 11688.25 MD
Vertical Section at 179.78° (200 usft/in)
36" x 48"

Pro Directional

Survey Report

Company:	Matador Resources	Local Co-ordinate Reference:	Site MJ Federal Slot 2
Project:	Lea County, NM	TVD Reference:	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site:	MJ Federal Slot 2	MD Reference:	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Well:	222H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan A	Database:	WellPlanner1

Project Lea County, NM

Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site MJ Federal Slot 2

Site Position:		Northing:	601,737.00 usft	Latitude:	32° 39' 8.3930 N
From:	Map	Easting:	715,072.00 usft	Longitude:	103° 38' 4.4005 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.38 °

Well 222H

Well Position	+N/-S	0.00 usft	Northing:	601,737.00 usft	Latitude:	32° 39' 8.3930 N
	+E/-W	0.00 usft	Easting:	715,072.00 usft	Longitude:	103° 38' 4.4005 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,656.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/2/2017	6.85	60.70	48,415.80

Design Prelim Plan A

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	179.78

Survey Tool Program Date 6/2/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	500.00	Prelim Plan A (OH)	MWD - OWSG	MWD - OWSG
500.00	10,780.00	Prelim Plan A (OH)	MWD - OWSG	MWD - OWSG
10,780.00	15,950.32	Prelim Plan A (OH)	MWD - OWSG	MWD - OWSG

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	1.00	264.68	599.99	-0.08	-0.87	0.08	1.00	1.00	0.00
700.00	2.00	264.68	699.96	-0.32	-3.48	0.31	1.00	1.00	0.00
800.00	3.00	264.68	799.86	-0.73	-7.82	0.70	1.00	1.00	0.00

Pro Directional

Survey Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Well:	222H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	WellPlanner1

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
900.00	4.00	264.68	899.68	-1.29	-13.90	1.24	1.00	1.00	0.00
1,000.00	5.00	264.68	999.37	-2.02	-21.71	1.94	1.00	1.00	0.00
1,100.00	5.00	264.68	1,098.99	-2.83	-30.39	2.71	0.00	0.00	0.00
1,200.00	5.00	264.68	1,198.60	-3.64	-39.06	3.49	0.00	0.00	0.00
1,300.00	5.00	264.68	1,298.22	-4.45	-47.74	4.26	0.00	0.00	0.00
1,400.00	5.00	264.68	1,397.84	-5.25	-56.42	5.04	0.00	0.00	0.00
1,500.00	5.00	264.68	1,497.46	-6.06	-65.10	5.81	0.00	0.00	0.00
1,600.00	5.00	264.68	1,597.08	-6.87	-73.78	6.59	0.00	0.00	0.00
1,700.00	5.00	264.68	1,696.70	-7.68	-82.46	7.36	0.00	0.00	0.00
1,800.00	5.00	264.68	1,796.32	-8.49	-91.13	8.14	0.00	0.00	0.00
1,900.00	5.00	264.68	1,895.94	-9.29	-99.81	8.91	0.00	0.00	0.00
2,000.00	5.00	264.68	1,995.56	-10.10	-108.49	9.68	0.00	0.00	0.00
2,100.00	5.00	264.68	2,095.18	-10.91	-117.17	10.46	0.00	0.00	0.00
2,200.00	5.00	264.68	2,194.80	-11.72	-125.85	11.23	0.00	0.00	0.00
2,300.00	5.00	264.68	2,294.42	-12.53	-134.52	12.01	0.00	0.00	0.00
2,400.00	5.00	264.68	2,394.04	-13.33	-143.20	12.78	0.00	0.00	0.00
2,500.00	5.00	264.68	2,493.66	-14.14	-151.88	13.56	0.00	0.00	0.00
2,600.00	5.00	264.68	2,593.28	-14.95	-160.56	14.33	0.00	0.00	0.00
2,700.00	5.00	264.68	2,692.90	-15.76	-169.24	15.11	0.00	0.00	0.00
2,800.00	5.00	264.68	2,792.52	-16.57	-177.91	15.88	0.00	0.00	0.00
2,900.00	5.00	264.68	2,892.14	-17.37	-186.59	16.66	0.00	0.00	0.00
3,000.00	5.00	264.68	2,991.76	-18.18	-195.27	17.43	0.00	0.00	0.00
3,100.00	5.00	264.68	3,091.37	-18.99	-203.95	18.21	0.00	0.00	0.00
3,200.00	5.00	264.68	3,190.99	-19.80	-212.63	18.98	0.00	0.00	0.00
3,300.00	5.00	264.68	3,290.61	-20.61	-221.30	19.76	0.00	0.00	0.00
3,400.00	5.00	264.68	3,390.23	-21.41	-229.98	20.53	0.00	0.00	0.00
3,500.00	5.00	264.68	3,489.85	-22.22	-238.66	21.31	0.00	0.00	0.00
3,593.70	5.00	264.68	3,583.20	-22.98	-246.79	22.03	0.00	0.00	0.00
3,600.00	4.94	264.68	3,589.47	-23.03	-247.33	22.08	1.00	-1.00	0.00
3,700.00	3.94	264.68	3,689.17	-23.75	-255.04	22.77	1.00	-1.00	0.00
3,800.00	2.94	264.68	3,788.99	-24.30	-261.01	23.30	1.00	-1.00	0.00
3,900.00	1.94	264.68	3,888.90	-24.70	-265.24	23.68	1.00	-1.00	0.00
4,000.00	0.94	264.68	3,988.87	-24.93	-267.74	23.90	1.00	-1.00	0.00
4,093.70	0.00	0.00	4,082.56	-25.00	-268.50	23.97	1.00	-1.00	0.00
4,100.00	0.00	0.00	4,088.86	-25.00	-268.50	23.97	0.00	0.00	0.00
4,200.00	0.00	0.00	4,188.86	-25.00	-268.50	23.97	0.00	0.00	0.00
4,300.00	0.00	0.00	4,288.86	-25.00	-268.50	23.97	0.00	0.00	0.00
4,400.00	0.00	0.00	4,388.86	-25.00	-268.50	23.97	0.00	0.00	0.00
4,500.00	0.00	0.00	4,488.86	-25.00	-268.50	23.97	0.00	0.00	0.00
4,600.00	0.00	0.00	4,588.86	-25.00	-268.50	23.97	0.00	0.00	0.00
4,700.00	0.00	0.00	4,688.86	-25.00	-268.50	23.97	0.00	0.00	0.00
4,800.00	0.00	0.00	4,788.86	-25.00	-268.50	23.97	0.00	0.00	0.00
4,900.00	0.00	0.00	4,888.86	-25.00	-268.50	23.97	0.00	0.00	0.00

Pro Directional

Survey Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Well:	222H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	WellPlanner1

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.00	0.00	0.00	4,988.86	-25.00	-268.50	23.97	0.00	0.00	0.00
5,100.00	0.00	0.00	5,088.86	-25.00	-268.50	23.97	0.00	0.00	0.00
5,200.00	0.00	0.00	5,188.86	-25.00	-268.50	23.97	0.00	0.00	0.00
5,300.00	0.00	0.00	5,288.86	-25.00	-268.50	23.97	0.00	0.00	0.00
5,400.00	0.00	0.00	5,388.86	-25.00	-268.50	23.97	0.00	0.00	0.00
5,500.00	0.00	0.00	5,488.86	-25.00	-268.50	23.97	0.00	0.00	0.00
5,600.00	0.00	0.00	5,588.86	-25.00	-268.50	23.97	0.00	0.00	0.00
5,700.00	0.00	0.00	5,688.86	-25.00	-268.50	23.97	0.00	0.00	0.00
5,800.00	0.00	0.00	5,788.86	-25.00	-268.50	23.97	0.00	0.00	0.00
5,900.00	0.00	0.00	5,888.86	-25.00	-268.50	23.97	0.00	0.00	0.00
6,000.00	0.00	0.00	5,988.86	-25.00	-268.50	23.97	0.00	0.00	0.00
6,100.00	0.00	0.00	6,088.86	-25.00	-268.50	23.97	0.00	0.00	0.00
6,200.00	0.00	0.00	6,188.86	-25.00	-268.50	23.97	0.00	0.00	0.00
6,300.00	0.00	0.00	6,288.86	-25.00	-268.50	23.97	0.00	0.00	0.00
6,400.00	0.00	0.00	6,388.86	-25.00	-268.50	23.97	0.00	0.00	0.00
6,500.00	0.00	0.00	6,488.86	-25.00	-268.50	23.97	0.00	0.00	0.00
6,600.00	0.00	0.00	6,588.86	-25.00	-268.50	23.97	0.00	0.00	0.00
6,700.00	0.00	0.00	6,688.86	-25.00	-268.50	23.97	0.00	0.00	0.00
6,800.00	0.00	0.00	6,788.86	-25.00	-268.50	23.97	0.00	0.00	0.00
6,900.00	0.00	0.00	6,888.86	-25.00	-268.50	23.97	0.00	0.00	0.00
7,000.00	0.00	0.00	6,988.86	-25.00	-268.50	23.97	0.00	0.00	0.00
7,100.00	0.00	0.00	7,088.86	-25.00	-268.50	23.97	0.00	0.00	0.00
7,200.00	0.00	0.00	7,188.86	-25.00	-268.50	23.97	0.00	0.00	0.00
7,300.00	0.00	0.00	7,288.86	-25.00	-268.50	23.97	0.00	0.00	0.00
7,400.00	0.00	0.00	7,388.86	-25.00	-268.50	23.97	0.00	0.00	0.00
7,500.00	0.00	0.00	7,488.86	-25.00	-268.50	23.97	0.00	0.00	0.00
7,600.00	0.00	0.00	7,588.86	-25.00	-268.50	23.97	0.00	0.00	0.00
7,700.00	0.00	0.00	7,688.86	-25.00	-268.50	23.97	0.00	0.00	0.00
7,800.00	0.00	0.00	7,788.86	-25.00	-268.50	23.97	0.00	0.00	0.00
7,900.00	0.00	0.00	7,888.86	-25.00	-268.50	23.97	0.00	0.00	0.00
8,000.00	0.00	0.00	7,988.86	-25.00	-268.50	23.97	0.00	0.00	0.00
8,100.00	0.00	0.00	8,088.86	-25.00	-268.50	23.97	0.00	0.00	0.00
8,200.00	0.00	0.00	8,188.86	-25.00	-268.50	23.97	0.00	0.00	0.00
8,300.00	0.00	0.00	8,288.86	-25.00	-268.50	23.97	0.00	0.00	0.00
8,400.00	0.00	0.00	8,388.86	-25.00	-268.50	23.97	0.00	0.00	0.00
8,500.00	0.00	0.00	8,488.86	-25.00	-268.50	23.97	0.00	0.00	0.00
8,600.00	0.00	0.00	8,588.86	-25.00	-268.50	23.97	0.00	0.00	0.00
8,700.00	0.00	0.00	8,688.86	-25.00	-268.50	23.97	0.00	0.00	0.00
8,800.00	0.00	0.00	8,788.86	-25.00	-268.50	23.97	0.00	0.00	0.00
8,900.00	0.00	0.00	8,888.86	-25.00	-268.50	23.97	0.00	0.00	0.00
9,000.00	0.00	0.00	8,988.86	-25.00	-268.50	23.97	0.00	0.00	0.00
9,100.00	0.00	0.00	9,088.86	-25.00	-268.50	23.97	0.00	0.00	0.00
9,200.00	0.00	0.00	9,188.86	-25.00	-268.50	23.97	0.00	0.00	0.00

Pro Directional

Survey Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Well:	222H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	WellPlanner1

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,300.00	0.00	0.00	9,288.86	-25.00	-268.50	23.97	0.00	0.00	0.00
9,400.00	0.00	0.00	9,388.86	-25.00	-268.50	23.97	0.00	0.00	0.00
9,500.00	0.00	0.00	9,488.86	-25.00	-268.50	23.97	0.00	0.00	0.00
9,600.00	0.00	0.00	9,588.86	-25.00	-268.50	23.97	0.00	0.00	0.00
9,700.00	0.00	0.00	9,688.86	-25.00	-268.50	23.97	0.00	0.00	0.00
9,800.00	0.00	0.00	9,788.86	-25.00	-268.50	23.97	0.00	0.00	0.00
9,900.00	0.00	0.00	9,888.86	-25.00	-268.50	23.97	0.00	0.00	0.00
10,000.00	0.00	0.00	9,988.86	-25.00	-268.50	23.97	0.00	0.00	0.00
10,100.00	0.00	0.00	10,088.86	-25.00	-268.50	23.97	0.00	0.00	0.00
10,200.00	0.00	0.00	10,188.86	-25.00	-268.50	23.97	0.00	0.00	0.00
10,300.00	0.00	0.00	10,288.86	-25.00	-268.50	23.97	0.00	0.00	0.00
10,400.00	0.00	0.00	10,388.86	-25.00	-268.50	23.97	0.00	0.00	0.00
10,500.00	0.00	0.00	10,488.86	-25.00	-268.50	23.97	0.00	0.00	0.00
10,600.00	0.00	0.00	10,588.86	-25.00	-268.50	23.97	0.00	0.00	0.00
10,700.00	0.00	0.00	10,688.86	-25.00	-268.50	23.97	0.00	0.00	0.00
10,788.24	0.00	0.00	10,777.10	-25.00	-268.50	23.97	0.00	0.00	0.00
10,800.00	1.18	179.78	10,788.86	-25.12	-268.50	24.09	10.00	10.00	0.00
10,850.00	6.18	179.78	10,838.74	-28.33	-268.49	27.29	10.00	10.00	0.00
10,900.00	11.18	179.78	10,888.15	-35.87	-268.46	34.83	10.00	10.00	0.00
10,950.00	16.18	179.78	10,936.72	-47.68	-268.41	46.65	10.00	10.00	0.00
11,000.00	21.18	179.78	10,984.07	-63.69	-268.35	62.66	10.00	10.00	0.00
11,050.00	26.18	179.78	11,029.85	-83.76	-268.28	82.73	10.00	10.00	0.00
11,100.00	31.18	179.78	11,073.70	-107.75	-268.18	106.72	10.00	10.00	0.00
11,150.00	36.18	179.78	11,115.30	-135.46	-268.08	134.43	10.00	10.00	0.00
11,200.00	41.18	179.78	11,154.32	-166.70	-267.96	165.67	10.00	10.00	0.00
11,250.00	46.18	179.78	11,190.47	-201.22	-267.83	200.19	10.00	10.00	0.00
11,300.00	51.18	179.78	11,223.48	-238.75	-267.68	237.72	10.00	10.00	0.00
11,350.00	56.18	179.78	11,253.09	-279.02	-267.53	277.99	10.00	10.00	0.00
11,400.00	61.18	179.78	11,279.07	-321.72	-267.36	320.69	10.00	10.00	0.00
11,450.00	66.18	179.78	11,301.24	-366.52	-267.19	365.49	10.00	10.00	0.00
11,500.00	71.18	179.78	11,319.41	-413.08	-267.02	412.06	10.00	10.00	0.00
11,550.00	76.18	179.78	11,333.46	-461.05	-266.83	460.03	10.00	10.00	0.00
11,600.00	81.18	179.78	11,343.28	-510.06	-266.64	509.04	10.00	10.00	0.00
11,650.00	86.18	179.78	11,348.78	-559.74	-266.45	558.72	10.00	10.00	0.00
11,688.25	90.00	179.78	11,350.06	-597.96	-266.31	596.93	10.00	10.00	0.00
11,700.00	90.00	179.78	11,350.06	-609.71	-266.26	608.69	0.00	0.00	0.00
11,800.00	90.00	179.78	11,350.06	-709.71	-265.88	708.69	0.00	0.00	0.00
11,900.00	90.00	179.78	11,350.06	-809.71	-265.50	808.69	0.00	0.00	0.00
12,000.00	90.00	179.78	11,350.05	-909.71	-265.11	908.69	0.00	0.00	0.00
12,100.00	90.00	179.78	11,350.05	-1,009.71	-264.73	1,008.69	0.00	0.00	0.00
12,200.00	90.00	179.78	11,350.05	-1,109.71	-264.35	1,108.69	0.00	0.00	0.00
12,300.00	90.00	179.78	11,350.05	-1,209.71	-263.97	1,208.69	0.00	0.00	0.00
12,400.00	90.00	179.78	11,350.05	-1,309.71	-263.58	1,308.69	0.00	0.00	0.00
12,500.00	90.00	179.78	11,350.05	-1,409.71	-263.20	1,408.69	0.00	0.00	0.00

Pro Directional

Survey Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Well:	222H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	WellPlanner1

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,600.00	90.00	179.78	11,350.05	-1,509.71	-262.82	1,508.69	0.00	0.00	0.00
12,700.00	90.00	179.78	11,350.04	-1,609.71	-262.44	1,608.69	0.00	0.00	0.00
12,800.00	90.00	179.78	11,350.04	-1,709.71	-262.05	1,708.69	0.00	0.00	0.00
12,900.00	90.00	179.78	11,350.04	-1,809.71	-261.67	1,808.69	0.00	0.00	0.00
13,000.00	90.00	179.78	11,350.04	-1,909.71	-261.29	1,908.69	0.00	0.00	0.00
13,100.00	90.00	179.78	11,350.04	-2,009.70	-260.91	2,008.69	0.00	0.00	0.00
13,200.00	90.00	179.78	11,350.04	-2,109.70	-260.52	2,108.69	0.00	0.00	0.00
13,300.00	90.00	179.78	11,350.04	-2,209.70	-260.14	2,208.69	0.00	0.00	0.00
13,400.00	90.00	179.78	11,350.03	-2,309.70	-259.76	2,308.69	0.00	0.00	0.00
13,500.00	90.00	179.78	11,350.03	-2,409.70	-259.38	2,408.69	0.00	0.00	0.00
13,600.00	90.00	179.78	11,350.03	-2,509.70	-258.99	2,508.69	0.00	0.00	0.00
13,700.00	90.00	179.78	11,350.03	-2,609.70	-258.61	2,608.69	0.00	0.00	0.00
13,800.00	90.00	179.78	11,350.03	-2,709.70	-258.23	2,708.69	0.00	0.00	0.00
13,900.00	90.00	179.78	11,350.03	-2,809.70	-257.85	2,808.69	0.00	0.00	0.00
14,000.00	90.00	179.78	11,350.03	-2,909.70	-257.46	2,908.69	0.00	0.00	0.00
14,100.00	90.00	179.78	11,350.03	-3,009.70	-257.08	3,008.69	0.00	0.00	0.00
14,200.00	90.00	179.78	11,350.02	-3,109.70	-256.70	3,108.69	0.00	0.00	0.00
14,300.00	90.00	179.78	11,350.02	-3,209.70	-256.31	3,208.69	0.00	0.00	0.00
14,400.00	90.00	179.78	11,350.02	-3,309.70	-255.93	3,308.69	0.00	0.00	0.00
14,500.00	90.00	179.78	11,350.02	-3,409.69	-255.55	3,408.69	0.00	0.00	0.00
14,600.00	90.00	179.78	11,350.02	-3,509.69	-255.17	3,508.69	0.00	0.00	0.00
14,700.00	90.00	179.78	11,350.02	-3,609.69	-254.78	3,608.69	0.00	0.00	0.00
14,800.00	90.00	179.78	11,350.02	-3,709.69	-254.40	3,708.69	0.00	0.00	0.00
14,900.00	90.00	179.78	11,350.01	-3,809.69	-254.02	3,808.69	0.00	0.00	0.00
15,000.00	90.00	179.78	11,350.01	-3,909.69	-253.64	3,908.69	0.00	0.00	0.00
15,100.00	90.00	179.78	11,350.01	-4,009.69	-253.25	4,008.69	0.00	0.00	0.00
15,200.00	90.00	179.78	11,350.01	-4,109.69	-252.87	4,108.69	0.00	0.00	0.00
15,300.00	90.00	179.78	11,350.01	-4,209.69	-252.49	4,208.69	0.00	0.00	0.00
15,400.00	90.00	179.78	11,350.01	-4,309.69	-252.11	4,308.69	0.00	0.00	0.00
15,500.00	90.00	179.78	11,350.01	-4,409.69	-251.72	4,408.69	0.00	0.00	0.00
15,600.00	90.00	179.78	11,350.01	-4,509.69	-251.34	4,508.69	0.00	0.00	0.00
15,700.00	90.00	179.78	11,350.00	-4,609.69	-250.96	4,608.69	0.00	0.00	0.00
15,800.00	90.00	179.78	11,350.00	-4,709.69	-250.58	4,708.69	0.00	0.00	0.00
15,900.00	90.00	179.78	11,350.00	-4,809.68	-250.19	4,808.69	0.00	0.00	0.00
15,950.32	90.00	179.78	11,350.00	-4,860.00	-250.00	4,859.00	0.00	0.00	0.00

Pro Directional

Survey Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Well:	222H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	WellPlanner1

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
[MJ222H]FPP - plan misses target center by 305.19usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	-146.00	-268.00	601,591.00	714,804.00	32° 39' 6.9657 N	103° 38' 7.5462 W
[MJ222H]LPP - plan misses target center by 4776.55usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	-4,770.00	-250.00	596,967.00	714,822.00	32° 38' 21.2102 N	103° 38' 7.6910 W
[MJ222H]PBHL - plan hits target center - Point	0.00	0.00	11,350.00	-4,860.00	-250.00	596,877.00	714,822.00	32° 38' 20.3196 N	103° 38' 7.6980 W

Checked By: _____ Approved By: _____ Date: _____

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Reference Prelim Plan A

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	**Casing Method:**	Not applied

Survey Tool Program **Date** 6/2/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	500.00	Prelim Plan A (OH)	MWD - OWSG	MWD - OWSG
500.00	10,780.00	Prelim Plan A (OH)	MWD - OWSG	MWD - OWSG
10,780.00	15,950.32	Prelim Plan A (OH)	MWD - OWSG	MWD - OWSG

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
MJ Federal Slot 1						
221H - OH - Prelim Plan A	3,593.70	3,445.44	1,643.37	1,621.23	74.240	CC
221H - OH - Prelim Plan A	15,950.32	15,955.54	1,650.08	1,472.48	9.291	ES, SF
231H - OH - Prelim Plan A	3,616.60	3,479.82	1,598.47	1,576.36	72.313	CC
231H - OH - Prelim Plan A	15,950.32	16,543.07	1,708.96	1,534.95	9.821	ES, SF
MJ Federal Slot 2						
232H - OH - Prelim Plan A	511.44	512.50	30.00	27.01	10.036	CC
232H - OH - Prelim Plan A	600.00	601.48	30.06	26.82	9.290	ES
232H - OH - Prelim Plan A	10,788.24	10,808.21	160.00	86.37	2.173	SF
MJ Federal Slots 3 & 4						
223H - OH - Prelim Plan A	500.00	477.50	792.28	789.18	256.027	CC, ES
223H - OH - Prelim Plan A	15,950.32	15,929.18	1,327.02	1,148.12	7.418	SF
233H - OH - Prelim Plan A	500.00	507.00	822.27	819.54	301.516	CC, ES
233H - OH - Prelim Plan A	15,950.32	16,488.22	1,378.44	1,204.12	7.907	SF

Offset Design MJ Federal Slot 1 - 221H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG, 500-MWD - OWSG, 10798-MWD - OWSG — **Offset Well Error:** 0.00 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	5.00	-5.00	0.00	0.01	-90.38	-11.00	-1,650.00	1,650.04				
100.00	100.00	105.00	95.00	0.13	0.15	-90.38	-11.00	-1,650.00	1,650.04	1,649.76	0.27	6,016.957	
200.00	200.00	205.00	195.00	0.49	0.50	-90.38	-11.00	-1,650.00	1,650.04	1,649.05	0.99	1,664.728	
300.00	300.00	305.00	295.00	0.85	0.86	-90.38	-11.00	-1,650.00	1,650.04	1,648.33	1.71	965.997	
400.00	400.00	405.00	395.00	1.20	1.21	-90.38	-11.00	-1,650.00	1,650.04	1,647.62	2.42	682.771	
500.00	500.00	495.00	495.00	1.56	1.38	-90.38	-11.00	-1,650.00	1,650.04	1,647.09	2.95	559.928	
600.00	599.99	573.82	573.82	1.75	1.46	4.94	-11.04	-1,650.47	1,649.78	1,646.57	3.21	514.083	
700.00	699.96	651.53	651.51	1.82	1.56	4.94	-11.19	-1,652.00	1,649.13	1,645.74	3.39	486.948	
800.00	799.86	729.25	729.18	1.96	1.71	4.94	-11.43	-1,654.57	1,648.09	1,644.43	3.66	449.824	
900.00	899.68	806.97	806.82	2.16	1.88	4.95	-11.76	-1,658.19	1,646.67	1,642.64	4.02	409.244	
1,000.00	999.37	884.71	884.42	2.40	2.09	4.95	-12.20	-1,662.85	1,644.86	1,640.40	4.45	369.444	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slot 1 - 221H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG, 500-MWD - OWSG, 10798-MWD - OWSG — **Offset Well Error:** 0.00 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
1,100.00	1,098.99	962.47	961.97	2.68	2.31	4.96	-12.73	-1,668.57	1,643.53	1,638.60	4.93	333.518	
1,164.42	1,163.16	1,016.16	1,015.47	2.87	2.47	4.96	-13.15	-1,673.11	1,643.37	1,638.11	5.26	312.137	
1,200.00	1,198.60	1,051.74	1,050.91	2.98	2.59	4.96	-13.44	-1,676.20	1,643.37	1,637.90	5.47	300.236	
1,300.00	1,298.22	1,151.74	1,150.53	3.30	2.91	4.96	-14.25	-1,684.88	1,643.37	1,637.29	6.08	270.117	
1,400.00	1,397.84	1,251.74	1,250.15	3.63	3.25	4.96	-15.06	-1,693.56	1,643.37	1,636.65	6.72	244.620	
1,500.00	1,497.46	1,351.74	1,349.77	3.97	3.60	4.96	-15.86	-1,702.23	1,643.37	1,636.00	7.37	223.049	
1,600.00	1,597.08	1,451.74	1,449.39	4.32	3.96	4.96	-16.67	-1,710.91	1,643.37	1,635.34	8.03	204.572	
1,700.00	1,696.70	1,551.74	1,549.01	4.67	4.32	4.96	-17.48	-1,719.59	1,643.37	1,634.66	8.71	188.720	
1,800.00	1,796.32	1,651.74	1,648.63	5.03	4.68	4.96	-18.29	-1,728.27	1,643.37	1,633.98	9.39	174.999	
1,900.00	1,895.94	1,751.74	1,748.25	5.39	5.05	4.96	-19.10	-1,736.95	1,643.37	1,633.29	10.08	163.035	
2,000.00	1,995.56	1,851.74	1,847.87	5.76	5.42	4.96	-19.90	-1,745.62	1,643.37	1,632.60	10.77	152.529	
2,100.00	2,095.18	1,951.74	1,947.49	6.13	5.80	4.96	-20.71	-1,754.30	1,643.37	1,631.90	11.47	143.243	
2,200.00	2,194.80	2,051.74	2,047.11	6.50	6.17	4.96	-21.52	-1,762.98	1,643.37	1,631.20	12.17	134.984	
2,300.00	2,294.42	2,151.74	2,146.73	6.87	6.54	4.96	-22.33	-1,771.66	1,643.37	1,630.49	12.88	127.596	
2,400.00	2,394.04	2,251.74	2,246.34	7.24	6.92	4.96	-23.14	-1,780.34	1,643.37	1,629.78	13.59	120.953	
2,500.00	2,493.66	2,351.74	2,345.96	7.62	7.30	4.96	-23.94	-1,789.01	1,643.37	1,629.07	14.30	114.950	
2,600.00	2,593.28	2,451.74	2,445.58	7.99	7.68	4.96	-24.75	-1,797.69	1,643.37	1,628.36	15.01	109.502	
2,700.00	2,692.90	2,551.74	2,545.20	8.37	8.05	4.96	-25.56	-1,806.37	1,643.37	1,627.65	15.72	104.537	
2,800.00	2,792.52	2,651.74	2,644.82	8.74	8.43	4.96	-26.37	-1,815.05	1,643.37	1,626.94	16.43	99.994	
2,900.00	2,892.14	2,751.74	2,744.44	9.12	8.81	4.96	-27.18	-1,823.73	1,643.37	1,626.22	17.15	95.823	
3,000.00	2,991.76	2,851.74	2,844.06	9.50	9.19	4.96	-27.98	-1,832.40	1,643.37	1,625.50	17.87	91.980	
3,100.00	3,091.37	2,951.74	2,943.68	9.88	9.58	4.96	-28.79	-1,841.08	1,643.37	1,624.79	18.58	88.430	
3,200.00	3,190.99	3,051.74	3,043.30	10.26	9.96	4.96	-29.60	-1,849.76	1,643.37	1,624.07	19.30	85.140	
3,300.00	3,290.61	3,151.74	3,142.92	10.64	10.34	4.96	-30.41	-1,858.44	1,643.37	1,623.35	20.02	82.082	
3,400.00	3,390.23	3,251.74	3,242.54	11.02	10.72	4.96	-31.22	-1,867.12	1,643.37	1,622.63	20.74	79.235	
3,500.00	3,489.85	3,351.74	3,342.16	11.40	11.10	4.96	-32.02	-1,875.79	1,643.37	1,621.91	21.46	76.576	
3,593.70	3,583.20	3,445.44	3,435.50	11.76	11.46	4.96	-32.78	-1,883.93	1,643.37	1,621.23	22.14	74.240 CC	
3,600.00	3,589.47	3,451.74	3,441.78	11.78	11.48	4.96	-32.83	-1,884.47	1,643.37	1,621.19	22.18	74.088	
3,700.00	3,689.17	3,551.74	3,541.39	12.16	11.87	4.96	-33.64	-1,893.15	1,644.35	1,621.45	22.90	71.801	
3,800.00	3,788.99	3,674.97	3,664.20	12.52	12.33	4.95	-34.58	-1,903.27	1,646.66	1,622.96	23.70	69.471	
3,900.00	3,888.90	3,815.10	3,804.07	12.88	12.85	4.94	-35.37	-1,911.76	1,648.49	1,623.93	24.55	67.145	
4,000.00	3,988.87	3,955.29	3,944.17	13.23	13.35	4.94	-35.85	-1,916.84	1,649.61	1,624.23	25.38	64.993	
4,093.70	4,082.56	4,086.69	4,075.55	13.54	13.79	-90.38	-36.00	-1,918.50	1,650.03	1,623.91	26.13	63.158	
4,100.00	4,088.86	4,095.52	4,084.38	13.56	13.82	-90.38	-36.00	-1,918.50	1,650.04	1,623.88	26.17	63.041	
4,132.91	4,121.77	4,127.91	4,116.77	13.66	13.93	-90.38	-36.00	-1,918.50	1,650.04	1,623.65	26.39	62.522	
4,200.00	4,188.86	4,205.00	4,193.86	13.88	14.18	-90.38	-36.00	-1,918.50	1,650.04	1,623.17	26.87	61.406	
4,300.00	4,288.86	4,305.00	4,293.86	14.20	14.50	-90.38	-36.00	-1,918.50	1,650.04	1,622.50	27.54	59.918	
4,400.00	4,388.86	4,405.00	4,393.86	14.52	14.83	-90.38	-36.00	-1,918.50	1,650.04	1,621.83	28.21	58.495	
4,500.00	4,488.86	4,505.00	4,493.86	14.85	15.15	-90.38	-36.00	-1,918.50	1,650.04	1,621.16	28.88	57.133	
4,600.00	4,588.86	4,605.00	4,593.86	15.17	15.48	-90.38	-36.00	-1,918.50	1,650.04	1,620.48	29.55	55.830	
4,700.00	4,688.86	4,705.00	4,693.86	15.50	15.81	-90.38	-36.00	-1,918.50	1,650.04	1,619.81	30.23	54.581	
4,800.00	4,788.86	4,805.00	4,793.86	15.83	16.14	-90.38	-36.00	-1,918.50	1,650.04	1,619.13	30.91	53.383	
4,900.00	4,888.86	4,905.00	4,893.86	16.16	16.48	-90.38	-36.00	-1,918.50	1,650.04	1,618.45	31.59	52.234	
5,000.00	4,988.86	5,005.00	4,993.86	16.49	16.81	-90.38	-36.00	-1,918.50	1,650.04	1,617.77	32.27	51.131	
5,100.00	5,088.86	5,105.00	5,093.86	16.83	17.14	-90.38	-36.00	-1,918.50	1,650.04	1,617.08	32.95	50.072	
5,200.00	5,188.86	5,205.00	5,193.86	17.16	17.48	-90.38	-36.00	-1,918.50	1,650.04	1,616.40	33.64	49.053	
5,300.00	5,288.86	5,305.00	5,293.86	17.50	17.82	-90.38	-36.00	-1,918.50	1,650.04	1,615.71	34.32	48.073	
5,400.00	5,388.86	5,405.00	5,393.86	17.83	18.15	-90.38	-36.00	-1,918.50	1,650.04	1,615.03	35.01	47.130	
5,500.00	5,488.86	5,505.00	5,493.86	18.17	18.49	-90.38	-36.00	-1,918.50	1,650.04	1,614.34	35.70	46.221	
5,600.00	5,588.86	5,605.00	5,593.86	18.50	18.83	-90.38	-36.00	-1,918.50	1,650.04	1,613.65	36.39	45.346	
5,700.00	5,688.86	5,705.00	5,693.86	18.84	19.17	-90.38	-36.00	-1,918.50	1,650.04	1,612.96	37.08	44.502	
5,800.00	5,788.86	5,805.00	5,793.86	19.18	19.51	-90.38	-36.00	-1,918.50	1,650.04	1,612.27	37.77	43.687	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slot 1 - 221H - OH - Prelim Plan A — Offset Site Error: 0.00 usft

Survey Program: 0-MWD - OWSG, 500-MWD - OWSG, 10798-MWD - OWSG — Offset Well Error: 0.00 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
5,900.00	5,888.86	5,905.00	5,883.86	19.52	19.85	-90.38	-36.00	-1,918.50	1,650.04	1,611.58	38.46	42.901	
6,000.00	5,988.86	6,005.00	5,983.86	19.86	20.19	-90.38	-36.00	-1,918.50	1,650.04	1,610.88	39.15	42.141	
6,100.00	6,088.86	6,105.00	6,083.86	20.20	20.53	-90.38	-36.00	-1,918.50	1,650.04	1,610.19	39.85	41.407	
6,200.00	6,188.86	6,205.00	6,183.86	20.54	20.88	-90.38	-36.00	-1,918.50	1,650.04	1,609.49	40.54	40.698	
6,300.00	6,288.86	6,305.00	6,283.86	20.89	21.22	-90.38	-36.00	-1,918.50	1,650.04	1,608.80	41.24	40.012	
6,400.00	6,388.86	6,405.00	6,383.86	21.23	21.56	-90.38	-36.00	-1,918.50	1,650.04	1,608.10	41.94	39.347	
6,500.00	6,488.86	6,505.00	6,483.86	21.57	21.91	-90.38	-36.00	-1,918.50	1,650.04	1,607.40	42.63	38.704	
6,600.00	6,588.86	6,605.00	6,583.86	21.92	22.25	-90.38	-36.00	-1,918.50	1,650.04	1,606.71	43.33	38.081	
6,700.00	6,688.86	6,705.00	6,683.86	22.26	22.60	-90.38	-36.00	-1,918.50	1,650.04	1,606.01	44.03	37.477	
6,800.00	6,788.86	6,805.00	6,783.86	22.60	22.94	-90.38	-36.00	-1,918.50	1,650.04	1,605.31	44.73	36.891	
6,900.00	6,888.86	6,905.00	6,883.86	22.95	23.29	-90.38	-36.00	-1,918.50	1,650.04	1,604.61	45.43	36.324	
7,000.00	6,988.86	7,005.00	6,983.86	23.29	23.63	-90.38	-36.00	-1,918.50	1,650.04	1,603.91	46.13	35.772	
7,100.00	7,088.86	7,105.00	7,083.86	23.64	23.98	-90.38	-36.00	-1,918.50	1,650.04	1,603.21	46.83	35.237	
7,200.00	7,188.86	7,205.00	7,183.86	23.99	24.33	-90.38	-36.00	-1,918.50	1,650.04	1,602.51	47.53	34.718	
7,300.00	7,288.86	7,305.00	7,283.86	24.33	24.67	-90.38	-36.00	-1,918.50	1,650.04	1,601.81	48.23	34.213	
7,400.00	7,388.86	7,405.00	7,383.86	24.68	25.02	-90.38	-36.00	-1,918.50	1,650.04	1,601.11	48.93	33.722	
7,500.00	7,488.86	7,505.00	7,483.86	25.03	25.37	-90.38	-36.00	-1,918.50	1,650.04	1,600.40	49.63	33.245	
7,600.00	7,588.86	7,605.00	7,583.86	25.37	25.72	-90.38	-36.00	-1,918.50	1,650.04	1,599.70	50.34	32.781	
7,700.00	7,688.86	7,705.00	7,683.86	25.72	26.07	-90.38	-36.00	-1,918.50	1,650.04	1,599.00	51.04	32.329	
7,800.00	7,788.86	7,805.00	7,783.86	26.07	26.42	-90.38	-36.00	-1,918.50	1,650.04	1,598.29	51.74	31.890	
7,900.00	7,888.86	7,905.00	7,883.86	26.42	26.76	-90.38	-36.00	-1,918.50	1,650.04	1,597.59	52.45	31.462	
8,000.00	7,988.86	8,005.00	7,983.86	26.77	27.11	-90.38	-36.00	-1,918.50	1,650.04	1,596.89	53.15	31.045	
8,100.00	8,088.86	8,105.00	8,083.86	27.12	27.46	-90.38	-36.00	-1,918.50	1,650.04	1,596.18	53.85	30.639	
8,200.00	8,188.86	8,205.00	8,183.86	27.47	27.81	-90.38	-36.00	-1,918.50	1,650.04	1,595.48	54.56	30.243	
8,300.00	8,288.86	8,305.00	8,283.86	27.82	28.16	-90.38	-36.00	-1,918.50	1,650.04	1,594.77	55.26	29.857	
8,400.00	8,388.86	8,405.00	8,383.86	28.16	28.51	-90.38	-36.00	-1,918.50	1,650.04	1,594.07	55.97	29.481	
8,500.00	8,488.86	8,505.00	8,483.86	28.51	28.86	-90.38	-36.00	-1,918.50	1,650.04	1,593.36	56.68	29.114	
8,600.00	8,588.86	8,605.00	8,583.86	28.86	29.21	-90.38	-36.00	-1,918.50	1,650.04	1,592.65	57.38	28.755	
8,700.00	8,688.86	8,705.00	8,683.86	29.21	29.56	-90.38	-36.00	-1,918.50	1,650.04	1,591.95	58.09	28.406	
8,800.00	8,788.86	8,805.00	8,783.86	29.57	29.91	-90.38	-36.00	-1,918.50	1,650.04	1,591.24	58.79	28.064	
8,900.00	8,888.86	8,905.00	8,883.86	29.92	30.27	-90.38	-36.00	-1,918.50	1,650.04	1,590.54	59.50	27.731	
9,000.00	8,988.86	9,005.00	8,983.86	30.27	30.62	-90.38	-36.00	-1,918.50	1,650.04	1,589.83	60.21	27.405	
9,100.00	9,088.86	9,105.00	9,083.86	30.62	30.97	-90.38	-36.00	-1,918.50	1,650.04	1,589.12	60.92	27.087	
9,200.00	9,188.86	9,205.00	9,183.86	30.97	31.32	-90.38	-36.00	-1,918.50	1,650.04	1,588.41	61.62	26.776	
9,300.00	9,288.86	9,305.00	9,283.86	31.32	31.67	-90.38	-36.00	-1,918.50	1,650.04	1,587.71	62.33	26.472	
9,400.00	9,388.86	9,405.00	9,383.86	31.67	32.02	-90.38	-36.00	-1,918.50	1,650.04	1,587.00	63.04	26.175	
9,500.00	9,488.86	9,505.00	9,483.86	32.02	32.38	-90.38	-36.00	-1,918.50	1,650.04	1,586.29	63.75	25.884	
9,600.00	9,588.86	9,605.00	9,583.86	32.38	32.73	-90.38	-36.00	-1,918.50	1,650.04	1,585.58	64.46	25.600	
9,700.00	9,688.86	9,705.00	9,683.86	32.73	33.08	-90.38	-36.00	-1,918.50	1,650.04	1,584.87	65.16	25.321	
9,800.00	9,788.86	9,805.00	9,783.86	33.08	33.43	-90.38	-36.00	-1,918.50	1,650.04	1,584.16	65.87	25.049	
9,900.00	9,888.86	9,905.00	9,883.86	33.43	33.78	-90.38	-36.00	-1,918.50	1,650.04	1,583.46	66.58	24.782	
10,000.00	9,988.86	10,005.00	9,983.86	33.78	34.14	-90.38	-36.00	-1,918.50	1,650.04	1,582.75	67.29	24.521	
10,100.00	10,088.86	10,105.00	10,083.86	34.14	34.49	-90.38	-36.00	-1,918.50	1,650.04	1,582.04	68.00	24.265	
10,200.00	10,188.86	10,205.00	10,183.86	34.49	34.84	-90.38	-36.00	-1,918.50	1,650.04	1,581.33	68.71	24.015	
10,300.00	10,288.86	10,305.00	10,283.86	34.84	35.20	-90.38	-36.00	-1,918.50	1,650.04	1,580.62	69.42	23.770	
10,400.00	10,388.86	10,405.00	10,383.86	35.19	35.55	-90.38	-36.00	-1,918.50	1,650.04	1,579.91	70.13	23.529	
10,500.00	10,488.86	10,505.00	10,483.86	35.55	35.90	-90.38	-36.00	-1,918.50	1,650.04	1,579.20	70.84	23.293	
10,600.00	10,588.86	10,605.00	10,583.86	35.90	36.26	-90.38	-36.00	-1,918.50	1,650.04	1,578.49	71.55	23.062	
10,700.00	10,688.86	10,705.00	10,683.86	36.25	36.60	-90.38	-36.00	-1,918.50	1,650.04	1,577.79	72.25	22.838	
10,788.24	10,777.10	10,793.24	10,772.10	36.41	36.74	-90.38	-36.00	-1,918.50	1,650.04	1,577.49	72.55	22.745	
10,800.00	10,788.86	10,795.00	10,783.86	36.41	36.76	89.84	-36.00	-1,918.50	1,650.04	1,577.47	72.57	22.738	
10,850.00	10,838.74	10,844.67	10,833.48	36.41	36.77	89.89	-37.89	-1,918.49	1,650.03	1,577.46	72.58	22.735	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slot 1 - 221H - OH - Prelim Plan A — Offset Site Error: 0.00 usft

Survey Program: 0-MWD - OWSG, 500-MWD - OWSG, 10798-MWD - OWSG — Offset Well Error: 0.00 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
10,900.00	10,888.15	10,894.43	10,882.83	36.42	36.77	89.93	-44.07	-1,918.47	1,650.03	1,577.45	72.58	22.733	
10,950.00	10,938.72	10,944.30	10,931.58	36.43	36.78	89.98	-54.54	-1,918.43	1,650.03	1,577.44	72.59	22.730	
10,973.21	10,958.88	10,967.49	10,953.90	36.43	36.78	90.00	-60.85	-1,918.40	1,650.03	1,577.43	72.60	22.727	
11,000.00	10,984.07	10,994.29	10,979.34	36.44	36.79	90.03	-69.25	-1,918.37	1,650.03	1,577.42	72.61	22.724	
11,050.00	11,029.85	11,044.40	11,025.75	36.46	36.81	90.07	-88.11	-1,918.30	1,650.03	1,577.39	72.64	22.715	
11,100.00	11,073.70	11,094.63	11,070.44	36.48	36.83	90.12	-111.02	-1,918.21	1,650.03	1,577.35	72.68	22.703	
11,150.00	11,115.30	11,144.98	11,113.05	36.51	36.85	90.17	-137.81	-1,918.11	1,650.04	1,577.30	72.73	22.686	
11,200.00	11,154.32	11,195.45	11,153.23	36.55	36.89	90.21	-168.32	-1,917.99	1,650.04	1,577.23	72.81	22.662	
11,250.00	11,190.47	11,246.03	11,190.65	36.59	36.93	90.25	-202.32	-1,917.86	1,650.05	1,577.13	72.91	22.631	
11,300.00	11,223.48	11,296.72	11,225.00	36.65	36.99	90.30	-239.58	-1,917.72	1,650.05	1,577.01	73.04	22.591	
11,350.00	11,253.09	11,347.51	11,255.98	36.72	37.05	90.33	-279.81	-1,917.57	1,650.06	1,576.86	73.20	22.542	
11,400.00	11,279.07	11,398.40	11,283.33	36.81	37.14	90.37	-322.70	-1,917.40	1,650.06	1,576.67	73.40	22.482	
11,450.00	11,301.24	11,449.39	11,306.80	36.91	37.24	90.40	-367.94	-1,917.23	1,650.07	1,576.44	73.63	22.410	
11,500.00	11,319.41	11,500.46	11,326.19	37.04	37.36	90.43	-415.17	-1,917.05	1,650.08	1,576.17	73.91	22.327	
11,550.00	11,333.46	11,551.60	11,341.32	37.18	37.51	90.46	-464.01	-1,916.86	1,650.08	1,575.86	74.22	22.232	
11,600.00	11,343.28	11,602.82	11,352.05	37.35	37.67	90.48	-514.07	-1,916.67	1,650.09	1,575.51	74.58	22.126	
11,650.00	11,348.78	11,654.09	11,358.27	37.54	37.86	90.50	-564.95	-1,916.47	1,650.09	1,575.12	74.97	22.010	
11,688.25	11,350.06	11,693.34	11,359.94	37.70	38.02	90.52	-604.16	-1,916.32	1,650.09	1,574.80	75.30	21.915	
11,700.00	11,350.06	11,705.22	11,359.96	37.75	38.07	90.52	-616.03	-1,916.28	1,650.10	1,574.69	75.40	21.884	
11,800.00	11,350.06	11,805.22	11,359.96	38.22	38.53	90.52	-716.03	-1,915.90	1,650.09	1,573.74	76.36	21.610	
11,900.00	11,350.06	11,905.22	11,359.96	38.75	39.06	90.52	-816.03	-1,915.51	1,650.09	1,572.65	77.44	21.307	
12,000.00	11,350.05	12,005.22	11,359.96	39.36	39.66	90.52	-916.03	-1,915.13	1,650.09	1,571.44	78.66	20.978	
12,100.00	11,350.05	12,105.22	11,359.96	40.02	40.32	90.52	-1,016.03	-1,914.75	1,650.09	1,570.10	79.99	20.628	
12,200.00	11,350.05	12,205.22	11,359.96	40.75	41.03	90.52	-1,116.03	-1,914.36	1,650.09	1,568.65	81.45	20.260	
12,300.00	11,350.05	12,305.22	11,359.96	41.53	41.80	90.52	-1,216.03	-1,913.98	1,650.09	1,567.09	83.01	19.879	
12,400.00	11,350.05	12,405.22	11,359.97	42.36	42.63	90.52	-1,316.03	-1,913.60	1,650.09	1,565.42	84.67	19.489	
12,500.00	11,350.05	12,505.22	11,359.97	43.24	43.50	90.52	-1,416.03	-1,913.21	1,650.09	1,563.66	86.43	19.092	
12,600.00	11,350.05	12,605.22	11,359.97	44.16	44.41	90.52	-1,516.03	-1,912.83	1,650.09	1,561.81	88.28	18.691	
12,700.00	11,350.04	12,705.22	11,359.97	45.13	45.38	90.52	-1,616.03	-1,912.45	1,650.09	1,559.87	90.22	18.290	
12,800.00	11,350.04	12,805.22	11,359.97	46.14	46.38	90.52	-1,716.03	-1,912.07	1,650.09	1,557.85	92.24	17.889	
12,900.00	11,350.04	12,905.22	11,359.97	47.19	47.42	90.52	-1,816.03	-1,911.68	1,650.09	1,555.76	94.33	17.492	
13,000.00	11,350.04	13,005.22	11,359.97	48.27	48.49	90.52	-1,916.03	-1,911.30	1,650.09	1,553.59	96.50	17.100	
13,100.00	11,350.04	13,105.22	11,359.97	49.39	49.60	90.52	-2,016.02	-1,910.92	1,650.09	1,551.37	98.72	16.714	
13,200.00	11,350.04	13,205.22	11,359.97	50.53	50.74	90.52	-2,116.02	-1,910.53	1,650.09	1,549.07	101.02	16.335	
13,300.00	11,350.04	13,305.22	11,359.97	51.71	51.90	90.52	-2,216.02	-1,910.15	1,650.09	1,546.73	103.36	15.964	
13,400.00	11,350.03	13,405.22	11,359.97	52.91	53.10	90.52	-2,316.02	-1,909.77	1,650.09	1,544.32	105.76	15.601	
13,500.00	11,350.03	13,505.22	11,359.98	54.14	54.32	90.52	-2,416.02	-1,909.38	1,650.09	1,541.87	108.22	15.248	
13,600.00	11,350.03	13,605.22	11,359.98	55.38	55.56	90.52	-2,516.02	-1,909.00	1,650.09	1,539.37	110.71	14.904	
13,700.00	11,350.03	13,705.22	11,359.98	56.66	56.83	90.52	-2,616.02	-1,908.62	1,650.09	1,536.83	113.26	14.570	
13,800.00	11,350.03	13,805.22	11,359.98	57.95	58.11	90.52	-2,716.02	-1,908.23	1,650.09	1,534.25	115.84	14.245	
13,900.00	11,350.03	13,905.22	11,359.98	59.26	59.42	90.52	-2,816.02	-1,907.85	1,650.09	1,531.63	118.46	13.930	
14,000.00	11,350.03	14,005.22	11,359.98	60.59	60.74	90.52	-2,916.02	-1,907.47	1,650.09	1,528.97	121.11	13.624	
14,100.00	11,350.03	14,105.22	11,359.98	61.93	62.08	90.52	-3,016.02	-1,907.09	1,650.09	1,526.28	123.80	13.328	
14,200.00	11,350.02	14,205.22	11,359.98	63.29	63.43	90.52	-3,116.02	-1,906.70	1,650.09	1,523.56	126.52	13.042	
14,300.00	11,350.02	14,305.22	11,359.98	64.67	64.80	90.52	-3,216.02	-1,906.32	1,650.09	1,520.81	129.27	12.765	
14,400.00	11,350.02	14,405.22	11,359.98	66.05	66.19	90.52	-3,316.02	-1,905.94	1,650.08	1,518.04	132.05	12.496	
14,500.00	11,350.02	14,505.22	11,359.99	67.46	67.58	90.52	-3,416.01	-1,905.55	1,650.08	1,515.24	134.85	12.237	
14,600.00	11,350.02	14,605.22	11,359.99	68.87	68.99	90.52	-3,516.01	-1,905.17	1,650.08	1,512.41	137.67	11.985	
14,700.00	11,350.02	14,705.22	11,359.99	70.29	70.41	90.52	-3,616.01	-1,904.79	1,650.08	1,509.56	140.52	11.742	
14,800.00	11,350.02	14,805.22	11,359.99	71.73	71.84	90.52	-3,716.01	-1,904.40	1,650.08	1,506.69	143.39	11.507	
14,900.00	11,350.01	14,905.22	11,359.99	73.17	73.29	90.52	-3,816.01	-1,904.02	1,650.08	1,503.80	146.28	11.280	
15,000.00	11,350.01	15,005.22	11,359.99	74.63	74.73	90.52	-3,916.01	-1,903.64	1,650.08	1,500.89	149.19	11.060	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slot 1 - 221H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG, 500-MWD - OWSG, 10798-MWD - OWSG — **Offset Well Error:** 0.00 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
15,100.00	11,350.01	15,105.22	11,359.99	76.09	76.19	90.52	-4,016.01	-1,903.26	1,650.08	1,497.96	152.12	10.847	
15,200.00	11,350.01	15,205.22	11,359.99	77.56	77.66	90.52	-4,116.01	-1,902.87	1,650.08	1,495.02	155.06	10.641	
15,300.00	11,350.01	15,305.22	11,359.99	79.04	79.14	90.52	-4,216.01	-1,902.49	1,650.08	1,492.06	158.02	10.442	
15,400.00	11,350.01	15,405.22	11,359.99	80.53	80.62	90.52	-4,316.01	-1,902.11	1,650.08	1,489.09	161.00	10.249	
15,500.00	11,350.01	15,505.22	11,360.00	82.03	82.11	90.52	-4,416.01	-1,901.72	1,650.08	1,486.10	163.98	10.062	
15,600.00	11,350.01	15,605.22	11,360.00	83.53	83.61	90.52	-4,516.01	-1,901.34	1,650.08	1,483.09	166.99	9.882	
15,700.00	11,350.00	15,705.22	11,360.00	85.03	85.12	90.52	-4,616.01	-1,900.96	1,650.08	1,480.08	170.00	9.706	
15,800.00	11,350.00	15,805.22	11,360.00	86.55	86.63	90.52	-4,716.00	-1,900.57	1,650.08	1,477.05	173.03	9.537	
15,900.00	11,350.00	15,905.22	11,360.00	88.07	88.14	90.52	-4,816.00	-1,900.19	1,650.08	1,474.01	176.06	9.372	
15,950.32	11,350.00	15,955.54	11,360.00	88.83	89.91	90.52	-4,866.32	-1,900.00	1,650.08	1,472.48	177.60	9.291	ES, SF

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slot 1 - 231H - OH - Prelim Plan A — Offset Site Error: 0.00 usft

Survey Program: 0-MWD - OWSG, 500-MWD - OWSG, 11230-MWD - OWSG — Offset Well Error: 0.00 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	5.00	-5.00	0.00	0.01	-90.39	-11.00	-1,620.00	1,620.04				
100.00	100.00	105.00	95.00	0.13	0.15	-90.39	-11.00	-1,620.00	1,620.04	1,619.76	0.27	5,907.583	
200.00	200.00	205.00	195.00	0.49	0.50	-90.39	-11.00	-1,620.00	1,620.04	1,619.05	0.99	1,634.483	
300.00	300.00	305.00	295.00	0.85	0.86	-90.39	-11.00	-1,620.00	1,620.04	1,618.33	1.71	948.435	
400.00	400.00	405.00	395.00	1.20	1.22	-90.39	-11.00	-1,620.00	1,620.04	1,617.61	2.43	668.040	
500.00	500.00	495.00	495.00	1.56	1.54	-90.39	-11.00	-1,620.00	1,620.04	1,616.93	3.11	521.557	
600.00	599.99	575.48	575.48	1.75	1.70	4.94	-10.80	-1,620.46	1,619.74	1,616.29	3.45	468.827	
700.00	699.96	654.94	654.92	1.82	1.79	4.97	-10.16	-1,621.92	1,618.97	1,615.36	3.61	448.119	
800.00	799.86	734.38	734.32	1.96	1.87	5.02	-9.09	-1,624.40	1,617.73	1,613.90	3.83	422.558	
900.00	899.68	813.82	813.66	2.16	1.99	5.09	-7.57	-1,627.88	1,616.03	1,611.89	4.13	391.022	
1,000.00	999.37	893.24	892.93	2.40	2.14	5.18	-5.62	-1,632.37	1,613.86	1,609.34	4.51	357.641	
1,100.00	1,098.99	972.65	972.11	2.68	2.33	5.29	-3.23	-1,637.87	1,612.09	1,607.14	4.95	325.551	
1,200.00	1,198.60	1,065.49	1,064.61	2.98	2.58	5.43	-0.03	-1,645.23	1,611.34	1,605.87	5.47	294.639	
1,300.00	1,298.22	1,165.40	1,164.14	3.30	2.87	5.58	3.44	-1,653.21	1,610.67	1,604.63	6.04	266.456	
1,400.00	1,397.84	1,265.31	1,263.66	3.63	3.18	5.74	6.91	-1,661.20	1,610.02	1,603.36	6.65	242.056	
1,500.00	1,497.46	1,365.21	1,363.19	3.97	3.50	5.89	10.38	-1,669.19	1,609.37	1,602.09	7.28	221.049	
1,600.00	1,597.08	1,465.12	1,462.71	4.32	3.84	6.04	13.86	-1,677.17	1,608.74	1,600.81	7.93	202.933	
1,700.00	1,696.70	1,565.02	1,562.24	4.67	4.18	6.19	17.33	-1,685.16	1,608.12	1,599.53	8.59	187.255	
1,800.00	1,796.32	1,664.93	1,661.77	5.03	4.54	6.35	20.80	-1,693.14	1,607.50	1,598.25	9.26	173.621	
1,900.00	1,895.94	1,764.84	1,761.29	5.39	4.89	6.50	24.27	-1,701.13	1,606.91	1,596.97	9.94	161.695	
2,000.00	1,995.56	1,864.74	1,860.82	5.76	5.25	6.65	27.74	-1,709.11	1,606.32	1,595.69	10.62	151.199	
2,100.00	2,095.18	1,964.65	1,960.34	6.13	5.61	6.81	31.22	-1,717.10	1,605.74	1,594.43	11.32	141.909	
2,200.00	2,194.80	2,064.55	2,059.87	6.50	5.98	6.96	34.69	-1,725.08	1,605.18	1,593.17	12.01	133.639	
2,300.00	2,294.42	2,164.46	2,159.39	6.87	6.35	7.11	38.16	-1,733.07	1,604.62	1,591.91	12.71	126.239	
2,400.00	2,394.04	2,264.37	2,258.92	7.24	6.72	7.27	41.63	-1,741.05	1,604.08	1,590.67	13.41	119.583	
2,500.00	2,493.66	2,364.27	2,358.45	7.62	7.09	7.42	45.10	-1,749.04	1,603.55	1,589.43	14.12	113.569	
2,600.00	2,593.28	2,464.18	2,457.97	7.99	7.46	7.57	48.58	-1,757.02	1,603.03	1,588.21	14.83	108.111	
2,700.00	2,692.90	2,564.08	2,557.50	8.37	7.83	7.73	52.05	-1,765.01	1,602.53	1,586.99	15.54	103.138	
2,800.00	2,792.52	2,663.99	2,657.02	8.74	8.21	7.88	55.52	-1,772.99	1,602.03	1,585.78	16.25	98.590	
2,900.00	2,892.14	2,763.90	2,756.55	9.12	8.58	8.03	58.99	-1,780.98	1,601.55	1,584.59	16.96	94.416	
3,000.00	2,991.76	2,863.80	2,856.07	9.50	8.96	8.19	62.46	-1,788.96	1,601.08	1,583.40	17.68	90.573	
3,100.00	3,091.37	2,963.71	2,955.60	9.88	9.33	8.34	65.93	-1,796.95	1,600.62	1,582.22	18.39	87.023	
3,200.00	3,190.99	3,063.61	3,055.13	10.26	9.71	8.50	69.41	-1,804.94	1,600.17	1,581.06	19.11	83.735	
3,300.00	3,290.61	3,163.52	3,154.65	10.64	10.09	8.65	72.88	-1,812.92	1,599.73	1,579.90	19.83	80.682	
3,400.00	3,390.23	3,263.43	3,254.18	11.02	10.47	8.81	76.35	-1,820.91	1,599.30	1,578.76	20.55	77.840	
3,500.00	3,489.85	3,363.33	3,353.70	11.40	10.84	8.96	79.82	-1,828.89	1,598.89	1,577.62	21.27	75.187	
3,593.70	3,583.20	3,456.94	3,446.96	11.76	11.20	9.11	83.08	-1,836.37	1,598.51	1,576.57	21.94	72.858	
3,600.00	3,589.47	3,463.24	3,453.23	11.78	11.22	9.12	83.29	-1,836.88	1,598.49	1,576.51	21.99	72.707	
3,616.60	3,606.01	3,479.82	3,469.75	11.84	11.29	9.14	83.87	-1,838.20	1,598.47	1,576.36	22.10	72.313	CC
3,700.00	3,689.17	3,563.15	3,552.76	12.16	11.60	9.27	86.77	-1,844.86	1,599.07	1,576.36	22.70	70.428	
3,800.00	3,788.99	3,663.04	3,652.28	12.52	11.98	9.41	90.24	-1,852.85	1,601.38	1,577.96	23.42	68.369	
3,900.00	3,888.90	3,762.90	3,751.75	12.88	12.36	9.54	93.71	-1,860.83	1,605.42	1,581.28	24.14	66.510	
4,000.00	3,988.87	3,862.68	3,851.15	13.23	12.74	9.67	97.17	-1,868.80	1,611.19	1,586.34	24.85	64.833	
4,093.70	4,082.56	3,956.07	3,944.19	13.54	13.09	-85.54	100.42	-1,876.27	1,618.16	1,592.65	25.51	63.438	
4,100.00	4,088.86	3,962.35	3,950.44	13.56	13.12	-85.53	100.64	-1,876.77	1,618.68	1,593.13	25.55	63.350	
4,200.00	4,188.86	4,061.97	4,049.68	13.88	13.50	-85.43	104.10	-1,884.73	1,626.92	1,600.68	26.24	61.998	
4,300.00	4,288.86	4,161.59	4,148.92	14.20	13.88	-85.33	107.56	-1,892.69	1,635.17	1,608.24	26.93	60.712	
4,400.00	4,388.86	4,268.91	4,255.85	14.52	14.28	-85.23	111.26	-1,901.21	1,643.38	1,615.72	27.65	59.426	
4,500.00	4,488.86	4,406.01	4,392.60	14.85	14.79	-85.12	115.11	-1,910.05	1,650.04	1,621.56	28.48	57.943	
4,600.00	4,588.86	4,543.48	4,529.92	15.17	15.29	-85.05	117.65	-1,915.89	1,654.44	1,625.15	29.29	56.492	
4,700.00	4,688.86	4,681.18	4,667.59	15.50	15.76	-85.02	118.88	-1,918.72	1,656.56	1,626.48	30.08	55.071	
4,800.00	4,788.86	4,802.54	4,783.86	15.83	16.17	-85.01	119.00	-1,919.00	1,656.77	1,625.95	30.82	53.760	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slot 1 - 231H - OH - Prelim Plan A — Offset Site Error: 0.00 usft

Survey Program: 0-MWD - OWSG, 500-MWD - OWSG, 11230-MWD - OWSG — Offset Well Error: 0.00 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
4,900.00	4,888.86	4,902.54	4,883.86	16.16	16.50	-85.01	119.00	-1,919.00	1,656.77	1,625.27	31.50	52.602	
5,000.00	4,988.86	5,002.54	4,983.86	16.49	16.83	-85.01	119.00	-1,919.00	1,656.77	1,624.59	32.18	51.490	
5,100.00	5,088.86	5,102.54	5,083.86	16.83	17.16	-85.01	119.00	-1,919.00	1,656.77	1,623.91	32.86	50.422	
5,200.00	5,188.86	5,202.54	5,183.86	17.16	17.49	-85.01	119.00	-1,919.00	1,656.77	1,623.23	33.54	49.395	
5,300.00	5,288.86	5,302.54	5,283.86	17.50	17.83	-85.01	119.00	-1,919.00	1,656.77	1,622.54	34.23	48.407	
5,400.00	5,388.86	5,402.54	5,383.86	17.83	18.16	-85.01	119.00	-1,919.00	1,656.77	1,621.86	34.91	47.456	
5,500.00	5,488.86	5,502.54	5,483.86	18.17	18.49	-85.01	119.00	-1,919.00	1,656.77	1,621.17	35.60	46.540	
5,600.00	5,588.86	5,602.54	5,583.86	18.50	18.83	-85.01	119.00	-1,919.00	1,656.77	1,620.48	36.29	45.657	
5,700.00	5,688.86	5,702.54	5,683.86	18.84	19.17	-85.01	119.00	-1,919.00	1,656.77	1,619.79	36.98	44.806	
5,800.00	5,788.86	5,802.54	5,783.86	19.18	19.51	-85.01	119.00	-1,919.00	1,656.77	1,619.10	37.67	43.985	
5,900.00	5,888.86	5,902.54	5,883.86	19.52	19.84	-85.01	119.00	-1,919.00	1,656.77	1,618.41	38.36	43.192	
6,000.00	5,988.86	6,002.54	5,983.86	19.86	20.18	-85.01	119.00	-1,919.00	1,656.77	1,617.72	39.05	42.426	
6,100.00	6,088.86	6,102.54	6,083.86	20.20	20.52	-85.01	119.00	-1,919.00	1,656.77	1,617.03	39.74	41.687	
6,200.00	6,188.86	6,202.54	6,183.86	20.54	20.86	-85.01	119.00	-1,919.00	1,656.77	1,616.33	40.44	40.971	
6,300.00	6,288.86	6,302.54	6,283.86	20.89	21.21	-85.01	119.00	-1,919.00	1,656.77	1,615.64	41.13	40.279	
6,400.00	6,388.86	6,402.54	6,383.86	21.23	21.55	-85.01	119.00	-1,919.00	1,656.77	1,614.94	41.83	39.609	
6,500.00	6,488.86	6,502.54	6,483.86	21.57	21.89	-85.01	119.00	-1,919.00	1,656.77	1,614.25	42.52	38.961	
6,600.00	6,588.86	6,602.54	6,583.86	21.92	22.23	-85.01	119.00	-1,919.00	1,656.77	1,613.55	43.22	38.333	
6,700.00	6,688.86	6,702.54	6,683.86	22.26	22.58	-85.01	119.00	-1,919.00	1,656.77	1,612.85	43.92	37.724	
6,800.00	6,788.86	6,802.54	6,783.86	22.60	22.92	-85.01	119.00	-1,919.00	1,656.77	1,612.15	44.62	37.134	
6,900.00	6,888.86	6,902.54	6,883.86	22.95	23.26	-85.01	119.00	-1,919.00	1,656.77	1,611.45	45.32	36.561	
7,000.00	6,988.86	7,002.54	6,983.86	23.29	23.61	-85.01	119.00	-1,919.00	1,656.77	1,610.76	46.01	36.005	
7,100.00	7,088.86	7,102.54	7,083.86	23.64	23.95	-85.01	119.00	-1,919.00	1,656.77	1,610.06	46.71	35.466	
7,200.00	7,188.86	7,202.54	7,183.86	23.99	24.30	-85.01	119.00	-1,919.00	1,656.77	1,609.36	47.41	34.942	
7,300.00	7,288.86	7,302.54	7,283.86	24.33	24.64	-85.01	119.00	-1,919.00	1,656.77	1,608.65	48.12	34.433	
7,400.00	7,388.86	7,402.54	7,383.86	24.68	24.99	-85.01	119.00	-1,919.00	1,656.77	1,607.95	48.82	33.939	
7,500.00	7,488.86	7,502.54	7,483.86	25.03	25.34	-85.01	119.00	-1,919.00	1,656.77	1,607.25	49.52	33.458	
7,600.00	7,588.86	7,602.54	7,583.86	25.37	25.68	-85.01	119.00	-1,919.00	1,656.77	1,606.55	50.22	32.990	
7,700.00	7,688.86	7,702.54	7,683.86	25.72	26.03	-85.01	119.00	-1,919.00	1,656.77	1,605.85	50.92	32.535	
7,800.00	7,788.86	7,802.54	7,783.86	26.07	26.38	-85.01	119.00	-1,919.00	1,656.77	1,605.14	51.63	32.092	
7,900.00	7,888.86	7,902.54	7,883.86	26.42	26.72	-85.01	119.00	-1,919.00	1,656.77	1,604.44	52.33	31.660	
8,000.00	7,988.86	8,002.54	7,983.86	26.77	27.07	-85.01	119.00	-1,919.00	1,656.77	1,603.74	53.03	31.240	
8,100.00	8,088.86	8,102.54	8,083.86	27.12	27.42	-85.01	119.00	-1,919.00	1,656.77	1,603.03	53.74	30.831	
8,200.00	8,188.86	8,202.54	8,183.86	27.47	27.77	-85.01	119.00	-1,919.00	1,656.77	1,602.33	54.44	30.432	
8,300.00	8,288.86	8,302.54	8,283.86	27.82	28.12	-85.01	119.00	-1,919.00	1,656.77	1,601.62	55.15	30.043	
8,400.00	8,388.86	8,402.54	8,383.86	28.16	28.47	-85.01	119.00	-1,919.00	1,656.77	1,600.92	55.85	29.664	
8,500.00	8,488.86	8,502.54	8,483.86	28.51	28.82	-85.01	119.00	-1,919.00	1,656.77	1,600.21	56.56	29.294	
8,600.00	8,588.86	8,602.54	8,583.86	28.86	29.17	-85.01	119.00	-1,919.00	1,656.77	1,599.51	57.26	28.933	
8,700.00	8,688.86	8,702.54	8,683.86	29.21	29.52	-85.01	119.00	-1,919.00	1,656.77	1,598.80	57.97	28.581	
8,800.00	8,788.86	8,802.54	8,783.86	29.57	29.87	-85.01	119.00	-1,919.00	1,656.77	1,598.10	58.67	28.237	
8,900.00	8,888.86	8,902.54	8,883.86	29.92	30.22	-85.01	119.00	-1,919.00	1,656.77	1,597.39	59.38	27.901	
9,000.00	8,988.86	9,002.54	8,983.86	30.27	30.57	-85.01	119.00	-1,919.00	1,656.77	1,596.68	60.09	27.573	
9,100.00	9,088.86	9,102.54	9,083.86	30.62	30.92	-85.01	119.00	-1,919.00	1,656.77	1,595.98	60.79	27.252	
9,200.00	9,188.86	9,202.54	9,183.86	30.97	31.27	-85.01	119.00	-1,919.00	1,656.77	1,595.27	61.50	26.939	
9,300.00	9,288.86	9,302.54	9,283.86	31.32	31.62	-85.01	119.00	-1,919.00	1,656.77	1,594.56	62.21	26.632	
9,400.00	9,388.86	9,402.54	9,383.86	31.67	31.97	-85.01	119.00	-1,919.00	1,656.77	1,593.85	62.92	26.333	
9,500.00	9,488.86	9,502.54	9,483.86	32.02	32.32	-85.01	119.00	-1,919.00	1,656.77	1,593.15	63.62	26.040	
9,600.00	9,588.86	9,602.54	9,583.86	32.38	32.67	-85.01	119.00	-1,919.00	1,656.77	1,592.44	64.33	25.753	
9,700.00	9,688.86	9,702.54	9,683.86	32.73	33.02	-85.01	119.00	-1,919.00	1,656.77	1,591.73	65.04	25.473	
9,800.00	9,788.86	9,802.54	9,783.86	33.08	33.37	-85.01	119.00	-1,919.00	1,656.77	1,591.02	65.75	25.198	
9,900.00	9,888.86	9,902.54	9,883.86	33.43	33.73	-85.01	119.00	-1,919.00	1,656.77	1,590.31	66.46	24.930	
10,000.00	9,988.86	10,002.54	9,983.86	33.78	34.08	-85.01	119.00	-1,919.00	1,656.77	1,589.60	67.17	24.667	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slot 1 - 231H - OH - Prelim Plan A — Offset Site Error: 0.00 usft

Survey Program: 0-MWD - OWSG, 500-MWD - OWSG, 11230-MWD - OWSG — Offset Well Error: 0.00 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	10,088.86	10,102.54	10,083.86	34.14	34.43	-85.01	119.00	-1,919.00	1,656.77	1,588.89	67.88	24.409	
10,200.00	10,188.86	10,202.54	10,183.86	34.49	34.78	-85.01	119.00	-1,919.00	1,656.77	1,588.19	68.58	24.157	
10,300.00	10,288.86	10,302.54	10,283.86	34.84	35.13	-85.01	119.00	-1,919.00	1,656.77	1,587.48	69.29	23.909	
10,400.00	10,388.86	10,402.54	10,383.86	35.19	35.49	-85.01	119.00	-1,919.00	1,656.77	1,586.77	70.00	23.667	
10,500.00	10,488.86	10,502.54	10,483.86	35.55	35.84	-85.01	119.00	-1,919.00	1,656.77	1,586.06	70.71	23.430	
10,600.00	10,588.86	10,602.54	10,583.86	35.90	36.19	-85.01	119.00	-1,919.00	1,656.77	1,585.35	71.42	23.197	
10,700.00	10,688.86	10,702.54	10,683.86	36.25	36.54	-85.01	119.00	-1,919.00	1,656.77	1,584.64	72.13	22.969	
10,788.24	10,777.10	10,785.70	10,772.10	36.41	36.84	-85.01	119.00	-1,919.00	1,656.77	1,584.19	72.58	22.825	
10,800.00	10,788.86	10,802.54	10,783.86	36.41	36.90	95.21	119.00	-1,919.00	1,656.78	1,584.14	72.64	22.807	
10,850.00	10,838.74	10,847.34	10,833.74	36.41	37.06	95.29	119.00	-1,919.00	1,657.07	1,584.27	72.81	22.760	
10,900.00	10,888.15	10,903.25	10,883.15	36.42	37.25	95.47	119.00	-1,919.00	1,657.79	1,584.78	73.01	22.707	
10,950.00	10,936.72	10,945.32	10,931.72	36.43	37.40	95.75	119.00	-1,919.00	1,658.98	1,585.82	73.17	22.674	
11,000.00	10,984.07	11,007.33	10,979.07	36.44	37.62	96.10	119.00	-1,919.00	1,660.73	1,587.33	73.40	22.626	
11,050.00	11,029.85	11,038.45	11,024.85	36.46	37.73	96.49	119.00	-1,919.00	1,663.13	1,589.60	73.53	22.619	
11,100.00	11,073.70	11,082.30	11,068.70	36.48	37.89	96.89	119.00	-1,919.00	1,666.32	1,592.60	73.71	22.606	
11,150.00	11,115.30	11,123.90	11,110.30	36.51	38.03	97.27	119.00	-1,919.00	1,670.42	1,596.52	73.90	22.604	
11,200.00	11,154.32	11,162.92	11,149.32	36.55	38.17	97.59	119.00	-1,919.00	1,675.58	1,601.49	74.09	22.616	
11,250.00	11,190.47	11,200.93	11,185.47	36.59	38.30	97.80	119.00	-1,919.00	1,681.94	1,607.65	74.29	22.641	
11,300.00	11,223.48	11,234.48	11,220.88	36.65	38.36	97.94	118.99	-1,919.00	1,689.63	1,615.20	74.42	22.703	
11,350.00	11,253.09	11,334.81	11,320.64	36.72	38.35	99.63	109.57	-1,918.96	1,698.09	1,623.69	74.40	22.824	
11,400.00	11,279.07	11,400.00	11,418.67	36.81	38.35	101.12	81.92	-1,918.86	1,706.24	1,631.93	74.31	22.961	
11,450.00	11,301.24	11,450.00	11,568.07	36.91	38.80	103.97	-17.91	-1,918.48	1,712.73	1,639.22	73.51	23.299	
11,500.00	11,319.41	11,935.07	11,756.98	37.04	38.62	105.89	-262.10	-1,917.55	1,715.49	1,642.25	73.24	23.423	
11,550.00	11,333.46	12,144.09	11,790.06	37.18	39.12	105.20	-467.35	-1,916.77	1,713.30	1,639.55	73.74	23.233	
11,600.00	11,343.28	12,206.89	11,790.06	37.35	39.34	105.14	-516.36	-1,916.58	1,710.68	1,636.46	74.22	23.049	
11,650.00	11,348.78	12,242.79	11,790.06	37.54	39.48	105.10	-566.04	-1,916.39	1,709.24	1,634.64	74.60	22.913	
11,689.21	11,350.06	12,280.97	11,790.06	37.70	39.64	105.09	-604.22	-1,916.24	1,708.90	1,633.98	74.92	22.809	
11,689.25	11,350.06	12,281.00	11,790.06	37.70	39.64	105.09	-604.26	-1,916.24	1,708.90	1,633.98	74.92	22.809	
11,700.00	11,350.06	12,292.76	11,790.06	37.75	39.69	105.09	-616.01	-1,916.20	1,708.90	1,633.88	75.02	22.779	
11,800.00	11,350.06	12,407.24	11,790.05	38.22	40.23	105.09	-716.01	-1,915.82	1,708.90	1,632.88	76.03	22.478	
11,900.00	11,350.06	12,507.24	11,790.05	38.75	40.78	105.09	-816.01	-1,915.44	1,708.91	1,631.81	77.09	22.166	
12,000.00	11,350.05	12,607.24	11,790.05	39.36	41.39	105.09	-916.01	-1,915.06	1,708.91	1,630.62	78.28	21.830	
12,100.00	11,350.05	12,707.24	11,790.05	40.02	42.05	105.09	-1,016.01	-1,914.67	1,708.91	1,629.32	79.59	21.472	
12,200.00	11,350.05	12,807.24	11,790.05	40.75	42.77	105.09	-1,116.01	-1,914.29	1,708.91	1,627.91	81.00	21.097	
12,300.00	11,350.05	12,907.24	11,790.05	41.53	43.55	105.09	-1,216.01	-1,913.91	1,708.91	1,626.39	82.52	20.709	
12,400.00	11,350.05	13,007.24	11,790.05	42.36	44.37	105.09	-1,316.00	-1,913.53	1,708.91	1,624.77	84.14	20.311	
12,500.00	11,350.05	13,107.24	11,790.05	43.24	45.24	105.09	-1,416.00	-1,913.15	1,708.92	1,623.07	85.85	19.906	
12,600.00	11,350.05	13,207.24	11,790.04	44.16	46.16	105.09	-1,516.00	-1,912.77	1,708.92	1,621.27	87.65	19.498	
12,700.00	11,350.04	13,307.24	11,790.04	45.13	47.11	105.09	-1,616.00	-1,912.39	1,708.92	1,619.39	89.53	19.089	
12,800.00	11,350.04	13,407.24	11,790.04	46.14	48.11	105.09	-1,716.00	-1,912.01	1,708.92	1,617.44	91.48	18.680	
12,900.00	11,350.04	13,492.76	11,790.04	47.19	48.99	105.09	-1,816.00	-1,911.62	1,708.92	1,615.56	93.36	18.304	
13,000.00	11,350.04	13,607.24	11,790.04	48.27	50.21	105.09	-1,916.00	-1,911.24	1,708.92	1,613.32	95.61	17.875	
13,100.00	11,350.04	13,707.24	11,790.04	49.39	51.31	105.09	-2,016.00	-1,910.86	1,708.92	1,611.16	97.77	17.480	
13,200.00	11,350.04	13,807.24	11,790.04	50.53	52.44	105.09	-2,116.00	-1,910.48	1,708.93	1,608.94	99.98	17.092	
13,300.00	11,350.04	13,907.24	11,790.03	51.71	53.59	105.09	-2,216.00	-1,910.10	1,708.93	1,606.67	102.26	16.712	
13,400.00	11,350.03	14,007.24	11,790.03	52.91	54.78	105.09	-2,316.00	-1,909.72	1,708.93	1,604.34	104.58	16.340	
13,500.00	11,350.03	14,107.24	11,790.03	54.14	55.99	105.09	-2,416.00	-1,909.34	1,708.93	1,601.97	106.96	15.977	
13,600.00	11,350.03	14,207.24	11,790.03	55.38	57.22	105.09	-2,516.00	-1,908.96	1,708.93	1,599.55	109.38	15.624	
13,700.00	11,350.03	14,307.24	11,790.03	56.66	58.47	105.09	-2,615.99	-1,908.58	1,708.93	1,597.09	111.84	15.280	
13,800.00	11,350.03	14,407.24	11,790.03	57.95	59.75	105.09	-2,715.99	-1,908.19	1,708.93	1,594.59	114.34	14.946	
13,900.00	11,350.03	14,507.24	11,790.03	59.26	61.04	105.09	-2,815.99	-1,907.81	1,708.94	1,592.06	116.88	14.621	
14,000.00	11,350.03	14,607.24	11,790.03	60.59	62.35	105.09	-2,915.99	-1,907.43	1,708.94	1,589.49	119.45	14.307	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slot 1 - 231H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG, 500-MWD - OWSG, 11230-MWD - OWSG — **Offset Well Error:** 0.00 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
14,100.00	11,350.03	14,707.24	11,790.02	61.93	63.68	105.09	-3,015.99	-1,907.05	1,708.94	1,586.88	122.06	14.001	
14,200.00	11,350.02	14,807.24	11,790.02	63.29	65.02	105.09	-3,115.99	-1,906.67	1,708.94	1,584.25	124.69	13.705	
14,300.00	11,350.02	14,907.24	11,790.02	64.67	66.38	105.09	-3,215.99	-1,906.29	1,708.94	1,581.58	127.36	13.419	
14,400.00	11,350.02	15,007.24	11,790.02	66.05	67.75	105.09	-3,315.99	-1,905.91	1,708.94	1,578.90	130.05	13.141	
14,500.00	11,350.02	15,092.76	11,790.02	67.46	68.94	105.09	-3,415.99	-1,905.53	1,708.94	1,576.38	132.57	12.891	
14,600.00	11,350.02	15,207.24	11,790.02	68.87	70.54	105.09	-3,515.99	-1,905.15	1,708.95	1,573.44	135.50	12.612	
14,700.00	11,350.02	15,307.24	11,790.02	70.29	71.95	105.09	-3,615.99	-1,904.76	1,708.95	1,570.68	138.26	12.360	
14,800.00	11,350.02	15,407.24	11,790.02	71.73	73.37	105.09	-3,715.99	-1,904.38	1,708.95	1,567.90	141.05	12.116	
14,900.00	11,350.01	15,507.24	11,790.01	73.17	74.80	105.09	-3,815.99	-1,904.00	1,708.95	1,565.10	143.85	11.880	
15,000.00	11,350.01	15,592.76	11,790.01	74.63	76.03	105.09	-3,915.99	-1,903.62	1,708.95	1,562.48	146.47	11.668	
15,100.00	11,350.01	15,707.24	11,790.01	76.09	77.69	105.09	-4,015.98	-1,903.24	1,708.95	1,559.44	149.51	11.430	
15,200.00	11,350.01	15,807.24	11,790.01	77.56	79.15	105.09	-4,115.98	-1,902.86	1,708.95	1,556.59	152.36	11.216	
15,300.00	11,350.01	15,907.24	11,790.01	79.04	80.62	105.09	-4,215.98	-1,902.48	1,708.96	1,553.72	155.23	11.009	
15,400.00	11,350.01	16,007.24	11,790.01	80.53	82.09	105.09	-4,315.98	-1,902.10	1,708.96	1,550.84	158.12	10.808	
15,500.00	11,350.01	16,107.24	11,790.01	82.03	83.57	105.09	-4,415.98	-1,901.72	1,708.96	1,547.94	161.02	10.613	
15,600.00	11,350.01	16,207.24	11,790.00	83.53	85.06	105.09	-4,515.98	-1,901.33	1,708.96	1,545.03	163.93	10.425	
15,700.00	11,350.00	16,307.24	11,790.00	85.03	86.56	105.09	-4,615.98	-1,900.95	1,708.96	1,542.10	166.86	10.242	
15,800.00	11,350.00	16,407.24	11,790.00	86.55	88.06	105.09	-4,715.98	-1,900.57	1,708.96	1,539.17	169.79	10.065	
15,900.00	11,350.00	16,492.76	11,790.00	88.07	89.35	105.09	-4,815.98	-1,900.19	1,708.96	1,536.43	172.53	9.905	
15,950.32	11,350.00	16,543.07	11,790.00	88.83	90.11	105.09	-4,866.29	-1,900.00	1,708.96	1,534.95	174.02	9.821	ES, SF

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slot 2 - 232H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG, 500-MWD - OWSG, 11200-MWD - OWSG — **Offset Well Error:** 0.00 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	0.00	0.00	90.00	0.00	30.00	30.00				
100.00	100.00	101.00	101.00	0.13	0.13	90.00	0.00	30.00	30.00	29.74	0.26	115.432	
200.00	200.00	201.00	201.00	0.49	0.49	90.00	0.00	30.00	30.00	29.02	0.98	30.711	
300.00	300.00	301.00	301.00	0.85	0.85	90.00	0.00	30.00	30.00	28.31	1.69	17.712	
400.00	400.00	401.00	401.00	1.20	1.21	90.00	0.00	30.00	30.00	27.59	2.41	12.453	
500.00	500.00	501.00	501.00	1.56	1.40	90.00	0.00	30.00	30.00	27.04	2.96	10.144	
511.44	511.44	512.50	512.50	1.58	1.41	-174.69	0.01	29.99	30.00	27.01	2.99	10.036	CC
600.00	599.98	601.48	601.48	1.75	1.49	-175.54	0.37	29.18	30.06	26.82	3.24	9.290	ES
700.00	699.96	701.95	701.91	1.82	1.85	-178.07	1.46	26.76	30.30	26.83	3.47	8.732	
800.00	799.88	802.39	802.25	1.98	1.87	177.84	3.26	22.73	30.84	27.01	3.83	8.060	
900.00	899.68	902.79	902.46	2.16	2.14	172.40	5.82	17.10	31.85	27.58	4.28	7.449	
1,000.00	999.37	1,003.14	1,002.50	2.40	2.43	165.97	9.09	9.88	33.55	28.75	4.80	6.994	
1,100.00	1,098.99	1,103.03	1,102.01	2.68	2.75	159.74	12.67	1.94	35.91	30.54	5.37	6.682	
1,200.00	1,198.60	1,202.93	1,201.53	2.98	3.09	154.32	16.25	-5.99	38.64	32.65	5.99	6.449	
1,300.00	1,298.22	1,302.83	1,301.05	3.30	3.43	149.66	19.83	-13.93	41.67	35.03	6.64	6.275	
1,400.00	1,397.84	1,402.73	1,400.57	3.63	3.78	145.65	23.42	-21.86	44.94	37.62	7.31	6.145	
1,500.00	1,497.46	1,502.63	1,500.09	3.97	4.14	142.19	27.00	-29.80	48.39	40.39	8.00	6.047	
1,600.00	1,597.08	1,602.54	1,599.61	4.32	4.50	139.21	30.58	-37.73	52.00	43.29	8.71	5.973	
1,700.00	1,696.70	1,702.44	1,699.13	4.67	4.87	136.62	34.16	-45.67	55.73	46.31	9.42	5.916	
1,800.00	1,796.32	1,802.34	1,798.65	5.03	5.23	134.36	37.75	-53.60	59.56	49.42	10.14	5.872	
1,900.00	1,895.94	1,902.24	1,898.17	5.39	5.60	132.37	41.33	-61.54	63.47	52.60	10.87	5.839	
2,000.00	1,995.56	2,002.14	1,997.69	5.76	5.97	130.62	44.91	-69.48	67.45	55.85	11.61	5.812	
2,100.00	2,095.18	2,102.04	2,097.21	6.13	6.35	129.08	48.50	-77.41	71.49	59.15	12.34	5.791	
2,200.00	2,194.80	2,201.94	2,196.73	6.50	6.72	127.67	52.08	-85.35	75.57	62.49	13.09	5.775	
2,300.00	2,294.42	2,301.84	2,296.25	6.87	7.10	126.42	55.66	-93.28	79.69	65.86	13.83	5.762	
2,400.00	2,394.04	2,401.74	2,395.77	7.24	7.47	125.30	59.25	-101.22	83.85	69.27	14.58	5.752	
2,500.00	2,493.66	2,501.64	2,495.29	7.62	7.85	124.28	62.83	-109.15	88.04	72.71	15.33	5.744	
2,600.00	2,593.28	2,601.54	2,594.81	7.99	8.23	123.36	66.41	-117.09	92.25	76.17	16.08	5.738	
2,700.00	2,692.90	2,701.44	2,694.33	8.37	8.60	122.51	69.99	-125.02	96.48	79.65	16.83	5.733	
2,800.00	2,792.52	2,801.34	2,793.86	8.74	8.98	121.74	73.58	-132.96	100.73	83.15	17.58	5.729	
2,900.00	2,892.14	2,901.25	2,893.38	9.12	9.36	121.03	77.16	-140.90	105.00	86.66	18.34	5.726	
3,000.00	2,991.76	3,001.15	2,992.90	9.50	9.74	120.38	80.74	-148.83	109.28	90.19	19.09	5.724	
3,100.00	3,091.37	3,101.05	3,092.42	9.88	10.12	119.77	84.33	-156.77	113.58	93.73	19.85	5.722	
3,200.00	3,190.99	3,200.95	3,191.94	10.26	10.50	119.21	87.91	-164.70	117.89	97.28	20.61	5.721	
3,300.00	3,290.61	3,300.85	3,291.46	10.64	10.88	118.69	91.49	-172.64	122.21	100.84	21.36	5.720	
3,400.00	3,390.23	3,400.75	3,390.98	11.02	11.26	118.20	95.07	-180.57	126.53	104.41	22.12	5.720	
3,500.00	3,489.85	3,500.65	3,490.50	11.40	11.64	117.75	98.66	-188.51	130.87	107.99	22.88	5.719	
3,593.70	3,583.20	3,605.74	3,583.75	11.76	12.04	117.35	102.02	-195.94	134.94	111.30	23.64	5.709	
3,600.00	3,589.47	3,600.55	3,590.02	11.78	12.02	117.33	102.24	-196.44	135.21	111.57	23.64	5.719	
3,700.00	3,689.17	3,700.46	3,689.55	12.16	12.40	116.60	105.82	-204.38	139.12	114.72	24.40	5.702	
3,800.00	3,788.99	3,800.35	3,789.06	12.52	12.78	115.28	109.41	-212.32	142.30	117.15	25.16	5.657	
3,900.00	3,888.90	3,900.20	3,888.53	12.88	13.16	113.39	112.99	-220.25	144.88	118.95	25.91	5.591	
4,000.00	3,988.87	4,000.02	3,987.93	13.23	13.54	110.93	116.57	-228.17	146.94	120.28	26.65	5.513	
4,093.70	4,082.56	4,106.63	4,080.97	13.54	13.95	12.79	119.92	-235.59	148.63	121.24	27.39	5.427	
4,100.00	4,088.86	4,100.35	4,087.22	13.56	13.93	12.59	120.14	-236.09	148.74	121.35	27.38	5.431	
4,200.00	4,188.86	4,200.73	4,186.46	13.88	14.31	9.35	123.71	-244.00	150.76	122.66	28.10	5.365	
4,300.00	4,288.86	4,299.18	4,286.00	14.20	14.69	6.24	127.25	-251.84	153.21	124.41	28.80	5.320	
4,400.00	4,388.86	4,399.82	4,386.38	14.52	15.06	3.70	130.24	-258.47	155.61	126.11	29.50	5.275	
4,500.00	4,488.86	4,500.69	4,487.09	14.85	15.43	1.82	132.51	-263.50	157.62	127.43	30.19	5.221	
4,600.00	4,588.86	4,601.72	4,588.05	15.17	15.79	0.57	134.06	-266.91	159.07	128.20	30.87	5.153	
4,700.00	4,688.86	4,702.85	4,689.16	15.50	16.14	-0.07	134.87	-268.70	159.87	128.32	31.55	5.068	
4,800.00	4,788.86	4,803.55	4,789.86	15.83	16.48	-0.18	135.00	-269.00	160.00	127.79	32.21	4.967	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slot 2 - 232H - OH - Prelim Plan A — Offset Site Error: 0.00 usft

Survey Program: 0-MWD - OWSG, 500-MWD - OWSG, 11200-MWD - OWSG — Offset Well Error: 0.00 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
4,900.00	4,888.86	4,903.55	4,889.86	16.16	16.81	-0.18	135.00	-269.00	160.00	127.13	32.88	4.867	
5,000.00	4,988.86	5,003.55	4,989.86	16.49	17.14	-0.18	135.00	-269.00	160.00	126.46	33.54	4.770	
5,100.00	5,088.86	5,103.55	5,089.86	16.83	17.47	-0.18	135.00	-269.00	160.00	125.79	34.21	4.677	
5,200.00	5,188.86	5,203.55	5,189.86	17.16	17.81	-0.18	135.00	-269.00	160.00	125.12	34.88	4.587	
5,300.00	5,288.86	5,303.55	5,289.86	17.50	18.14	-0.18	135.00	-269.00	160.00	124.45	35.55	4.501	
5,400.00	5,388.86	5,403.55	5,389.86	17.83	18.48	-0.18	135.00	-269.00	160.00	123.78	36.22	4.417	
5,500.00	5,488.86	5,503.55	5,489.86	18.17	18.81	-0.18	135.00	-269.00	160.00	123.10	36.90	4.336	
5,600.00	5,588.86	5,603.55	5,589.86	18.50	19.15	-0.18	135.00	-269.00	160.00	122.43	37.57	4.258	
5,700.00	5,688.86	5,703.55	5,689.86	18.84	19.49	-0.18	135.00	-269.00	160.00	121.75	38.25	4.183	
5,800.00	5,788.86	5,803.55	5,789.86	19.18	19.83	-0.18	135.00	-269.00	160.00	121.07	38.93	4.110	
5,900.00	5,888.86	5,903.55	5,889.86	19.52	20.17	-0.18	135.00	-269.00	160.00	120.39	39.61	4.039	
6,000.00	5,988.86	6,003.55	5,989.86	19.86	20.51	-0.18	135.00	-269.00	160.00	119.71	40.30	3.971	
6,100.00	6,088.86	6,103.55	6,089.86	20.20	20.85	-0.18	135.00	-269.00	160.00	119.02	40.98	3.905	
6,200.00	6,188.86	6,203.55	6,189.86	20.54	21.19	-0.18	135.00	-269.00	160.00	118.34	41.66	3.840	
6,300.00	6,288.86	6,303.55	6,289.86	20.89	21.53	-0.18	135.00	-269.00	160.00	117.65	42.35	3.778	
6,400.00	6,388.86	6,403.55	6,389.86	21.23	21.88	-0.18	135.00	-269.00	160.00	116.97	43.03	3.718	
6,500.00	6,488.86	6,503.55	6,489.86	21.57	22.22	-0.18	135.00	-269.00	160.00	116.28	43.72	3.660	
6,600.00	6,588.86	6,603.55	6,589.86	21.92	22.56	-0.18	135.00	-269.00	160.00	115.59	44.41	3.603	
6,700.00	6,688.86	6,703.55	6,689.86	22.26	22.91	-0.18	135.00	-269.00	160.00	114.90	45.10	3.548	
6,800.00	6,788.86	6,803.55	6,789.86	22.60	23.25	-0.18	135.00	-269.00	160.00	114.21	45.79	3.494	
6,900.00	6,888.86	6,903.55	6,889.86	22.95	23.60	-0.18	135.00	-269.00	160.00	113.52	46.48	3.442	
7,000.00	6,988.86	7,003.55	6,989.86	23.29	23.94	-0.18	135.00	-269.00	160.00	112.83	47.17	3.392	
7,100.00	7,088.86	7,103.55	7,089.86	23.64	24.29	-0.18	135.00	-269.00	160.00	112.14	47.86	3.343	
7,200.00	7,188.86	7,203.55	7,189.86	23.99	24.63	-0.18	135.00	-269.00	160.00	111.44	48.56	3.295	
7,300.00	7,288.86	7,303.55	7,289.86	24.33	24.98	-0.18	135.00	-269.00	160.00	110.75	49.25	3.249	
7,400.00	7,388.86	7,403.55	7,389.86	24.68	25.33	-0.18	135.00	-269.00	160.00	110.06	49.95	3.204	
7,500.00	7,488.86	7,503.55	7,489.86	25.03	25.67	-0.18	135.00	-269.00	160.00	109.36	50.64	3.160	
7,600.00	7,588.86	7,603.55	7,589.86	25.37	26.02	-0.18	135.00	-269.00	160.00	108.66	51.34	3.117	
7,700.00	7,688.86	7,703.55	7,689.86	25.72	26.37	-0.18	135.00	-269.00	160.00	107.97	52.03	3.075	
7,800.00	7,788.86	7,803.55	7,789.86	26.07	26.72	-0.18	135.00	-269.00	160.00	107.27	52.73	3.034	
7,900.00	7,888.86	7,903.55	7,889.86	26.42	27.06	-0.18	135.00	-269.00	160.00	106.57	53.43	2.995	
8,000.00	7,988.86	8,003.55	7,989.86	26.77	27.41	-0.18	135.00	-269.00	160.00	105.88	54.12	2.956	
8,100.00	8,088.86	8,103.55	8,089.86	27.12	27.76	-0.18	135.00	-269.00	160.00	105.18	54.82	2.918	
8,200.00	8,188.86	8,203.55	8,189.86	27.47	28.11	-0.18	135.00	-269.00	160.00	104.48	55.52	2.882	
8,300.00	8,288.86	8,303.55	8,289.86	27.82	28.46	-0.18	135.00	-269.00	160.00	103.78	56.22	2.846	
8,400.00	8,388.86	8,403.55	8,389.86	28.16	28.81	-0.18	135.00	-269.00	160.00	103.08	56.92	2.811	
8,500.00	8,488.86	8,503.55	8,489.86	28.51	29.16	-0.18	135.00	-269.00	160.00	102.38	57.62	2.777	
8,600.00	8,588.86	8,603.55	8,589.86	28.86	29.51	-0.18	135.00	-269.00	160.00	101.68	58.32	2.743	
8,700.00	8,688.86	8,703.55	8,689.86	29.21	29.86	-0.18	135.00	-269.00	160.00	100.98	59.02	2.711	
8,800.00	8,788.86	8,803.55	8,789.86	29.57	30.21	-0.18	135.00	-269.00	160.00	100.28	59.72	2.679	
8,900.00	8,888.86	8,903.55	8,889.86	29.92	30.56	-0.18	135.00	-269.00	160.00	99.58	60.43	2.648	
9,000.00	8,988.86	9,003.55	8,989.86	30.27	30.91	-0.18	135.00	-269.00	160.00	98.87	61.13	2.617	
9,100.00	9,088.86	9,103.55	9,089.86	30.62	31.26	-0.18	135.00	-269.00	160.00	98.17	61.83	2.588	
9,200.00	9,188.86	9,203.55	9,189.86	30.97	31.61	-0.18	135.00	-269.00	160.00	97.47	62.53	2.559	
9,300.00	9,288.86	9,303.55	9,289.86	31.32	31.96	-0.18	135.00	-269.00	160.00	96.77	63.24	2.530	
9,400.00	9,388.86	9,403.55	9,389.86	31.67	32.31	-0.18	135.00	-269.00	160.00	96.06	63.94	2.502	
9,500.00	9,488.86	9,503.55	9,489.86	32.02	32.67	-0.18	135.00	-269.00	160.00	95.36	64.64	2.475	
9,600.00	9,588.86	9,603.55	9,589.86	32.38	33.02	-0.18	135.00	-269.00	160.00	94.65	65.35	2.448	
9,700.00	9,688.86	9,703.55	9,689.86	32.73	33.37	-0.18	135.00	-269.00	160.00	93.95	66.05	2.422	
9,800.00	9,788.86	9,803.55	9,789.86	33.08	33.72	-0.18	135.00	-269.00	160.00	93.25	66.76	2.397	
9,900.00	9,888.86	9,903.55	9,889.86	33.43	34.07	-0.18	135.00	-269.00	160.00	92.54	67.46	2.372	
10,000.00	9,988.86	10,003.55	9,989.86	33.78	34.43	-0.18	135.00	-269.00	160.00	91.84	68.17	2.347	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slot 2 - 232H - OH - Prelim Plan A — Offset Site Error: 0.00 usft

Survey Program: 0-MWD - OWSG, 500-MWD - OWSG, 11200-MWD - OWSG — Offset Well Error: 0.00 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	10,088.86	10,103.55	10,089.86	34.14	34.78	-0.18	135.00	-269.00	160.00	91.13	68.87	2.323	
10,200.00	10,188.86	10,203.55	10,189.86	34.49	35.13	-0.18	135.00	-269.00	160.00	90.42	69.58	2.300	
10,300.00	10,288.86	10,303.55	10,289.86	34.84	35.48	-0.18	135.00	-269.00	160.00	89.72	70.28	2.277	
10,400.00	10,388.86	10,403.55	10,389.86	35.19	35.84	-0.18	135.00	-269.00	160.00	89.01	70.99	2.254	
10,500.00	10,488.86	10,503.55	10,489.86	35.55	36.19	-0.18	135.00	-269.00	160.00	88.31	71.69	2.232	
10,600.00	10,588.86	10,603.55	10,589.86	35.90	36.54	-0.18	135.00	-269.00	160.00	87.60	72.40	2.210	
10,700.00	10,688.86	10,703.55	10,689.86	36.25	36.89	-0.18	135.00	-269.00	160.00	86.89	73.11	2.189	
10,788.24	10,777.10	10,808.21	10,778.10	36.41	37.26	-0.18	135.00	-269.00	160.00	86.37	73.63	2.173 SF	
10,800.00	10,788.86	10,803.55	10,789.86	36.41	37.25	-179.98	135.00	-269.00	160.12	86.51	73.62	2.175	
10,850.00	10,838.74	10,853.43	10,839.74	36.41	37.42	-179.98	135.00	-269.00	163.33	89.53	73.79	2.213	
10,900.00	10,888.15	10,902.84	10,889.15	36.42	37.60	-179.98	135.00	-269.00	170.87	96.89	73.97	2.310	
10,950.00	10,936.72	10,951.41	10,937.72	36.43	37.77	-179.98	135.00	-269.00	182.68	108.53	74.15	2.464	
11,000.00	10,984.07	11,001.24	10,985.07	36.44	37.95	-179.97	135.00	-269.00	198.69	124.35	74.34	2.673	
11,050.00	11,029.85	11,044.54	11,030.85	36.46	38.10	-179.97	135.00	-269.00	218.76	144.26	74.50	2.936	
11,100.00	11,073.70	11,088.39	11,074.70	36.48	38.25	-179.97	135.00	-269.00	242.75	168.08	74.67	3.251	
11,150.00	11,115.30	11,129.99	11,116.30	36.51	38.35	-179.97	135.00	-269.00	270.46	195.69	74.78	3.617	
11,200.00	11,154.32	11,169.01	11,155.32	36.55	38.42	-179.97	135.00	-269.00	301.70	226.84	74.86	4.030	
11,250.00	11,190.47	11,211.37	11,197.68	36.59	38.47	-179.97	134.90	-269.00	336.18	261.26	74.91	4.488	
11,300.00	11,223.48	11,307.06	11,292.77	36.65	38.47	-179.98	125.17	-268.96	370.28	296.27	74.00	5.003	
11,350.00	11,253.09	11,429.33	11,409.63	36.72	38.48	-179.98	90.02	-268.83	400.49	329.42	71.07	5.635	
11,400.00	11,279.07	11,587.34	11,544.99	36.81	38.50	-179.98	9.48	-268.52	424.12	359.17	64.94	6.531	
11,450.00	11,301.24	11,782.63	11,673.97	36.91	38.60	-179.99	-135.90	-267.97	437.46	381.63	55.84	7.835	
11,500.00	11,319.41	11,995.12	11,750.34	37.04	38.90	-179.99	-332.88	-267.22	437.34	388.49	48.86	8.952	
11,550.00	11,333.46	12,123.89	11,760.06	37.18	39.26	-179.99	-461.06	-266.73	425.60	377.19	48.40	8.793	
11,600.00	11,343.28	12,172.90	11,760.06	37.35	39.43	-179.99	-510.07	-266.55	415.78	367.25	48.53	8.568	
11,650.00	11,348.78	12,222.58	11,760.06	37.54	39.62	-179.99	-559.75	-266.36	410.27	361.62	48.66	8.432	
11,688.25	11,350.06	12,260.80	11,760.06	37.70	39.78	-179.99	-597.97	-266.21	409.00	360.24	48.76	8.389	
11,688.25	11,350.06	12,260.80	11,760.06	37.70	39.78	-179.99	-597.97	-266.21	409.00	360.24	48.76	8.389	
11,700.00	11,350.06	12,272.56	11,760.06	37.75	39.83	-179.99	-609.72	-266.17	409.00	360.21	48.79	8.383	
11,800.00	11,350.06	12,372.56	11,760.05	38.22	40.31	-179.99	-709.72	-265.79	409.00	359.91	49.08	8.333	
11,900.00	11,350.06	12,472.56	11,760.05	38.75	40.84	-179.99	-809.72	-265.41	409.00	359.57	49.43	8.274	
12,000.00	11,350.05	12,572.56	11,760.05	39.36	41.45	-179.99	-909.72	-265.03	409.00	359.18	49.82	8.209	
12,100.00	11,350.05	12,672.56	11,760.05	40.02	42.10	-179.99	-1,009.72	-264.65	409.00	358.74	50.26	8.138	
12,200.00	11,350.05	12,772.56	11,760.05	40.75	42.82	-179.99	-1,109.72	-264.27	409.00	358.26	50.74	8.060	
12,300.00	11,350.05	12,872.56	11,760.05	41.53	43.59	-179.99	-1,209.72	-263.88	409.00	357.73	51.27	7.977	
12,400.00	11,350.05	12,972.56	11,760.05	42.36	44.40	-179.99	-1,309.71	-263.50	409.00	357.16	51.84	7.890	
12,500.00	11,350.05	13,072.56	11,760.05	43.24	45.27	-179.99	-1,409.71	-263.12	409.00	356.55	52.45	7.798	
12,600.00	11,350.05	13,172.56	11,760.04	44.16	46.18	-179.99	-1,509.71	-262.74	409.00	355.90	53.10	7.703	
12,700.00	11,350.04	13,272.56	11,760.04	45.13	47.13	-179.99	-1,609.71	-262.36	409.00	355.21	53.78	7.604	
12,800.00	11,350.04	13,372.56	11,760.04	46.14	48.12	-179.99	-1,709.71	-261.98	409.00	354.49	54.51	7.503	
12,900.00	11,350.04	13,472.56	11,760.04	47.19	49.15	-179.99	-1,809.71	-261.60	409.00	353.73	55.27	7.400	
13,000.00	11,350.04	13,572.56	11,760.04	48.27	50.21	-179.99	-1,909.71	-261.22	409.00	352.94	56.06	7.296	
13,100.00	11,350.04	13,672.56	11,760.04	49.39	51.30	-179.99	-2,009.71	-260.84	409.00	352.11	56.88	7.190	
13,200.00	11,350.04	13,772.56	11,760.04	50.53	52.43	-179.99	-2,109.71	-260.46	409.00	351.26	57.74	7.083	
13,300.00	11,350.04	13,872.56	11,760.03	51.71	53.58	-179.99	-2,209.71	-260.08	409.00	350.37	58.63	6.976	
13,400.00	11,350.03	13,972.56	11,760.03	52.91	54.76	-179.99	-2,309.71	-259.70	409.00	349.46	59.54	6.869	
13,500.00	11,350.03	14,072.56	11,760.03	54.14	55.96	-179.99	-2,409.71	-259.32	409.00	348.52	60.48	6.763	
13,600.00	11,350.03	14,172.56	11,760.03	55.38	57.19	-179.99	-2,509.71	-258.94	409.00	347.55	61.45	6.658	
13,700.00	11,350.03	14,272.56	11,760.03	56.66	58.44	-179.99	-2,609.71	-258.56	409.00	346.56	62.44	6.551	
13,800.00	11,350.03	14,372.56	11,760.03	57.95	59.71	-179.99	-2,709.70	-258.18	409.00	345.55	63.45	6.446	
13,900.00	11,350.03	14,472.56	11,760.03	59.26	61.00	-179.99	-2,809.70	-257.80	409.00	344.51	64.49	6.342	
14,000.00	11,350.03	14,572.56	11,760.03	60.59	62.31	-179.99	-2,909.70	-257.42	409.00	343.45	65.55	6.240	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slot 2 - 232H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG, 500-MWD - OWSG, 11200-MWD - OWSG — **Offset Well Error:** 0.00 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
14,100.00	11,350.03	14,672.56	11,760.02	61.93	63.64	-179.99	-3,009.70	-257.04	409.00	342.37	66.62	6.139	
14,200.00	11,350.02	14,772.56	11,760.02	63.29	64.98	-179.99	-3,109.70	-256.66	409.00	341.28	67.72	6.039	
14,300.00	11,350.02	14,872.56	11,760.02	64.67	66.33	-179.99	-3,209.70	-256.28	409.00	340.16	68.84	5.942	
14,400.00	11,350.02	14,972.56	11,760.02	66.05	67.70	-180.00	-3,309.70	-255.90	409.00	339.03	69.97	5.845	
14,500.00	11,350.02	15,072.56	11,760.02	67.46	69.09	-180.00	-3,409.70	-255.52	409.00	337.88	71.12	5.751	
14,600.00	11,350.02	15,172.56	11,760.02	68.87	70.48	-180.00	-3,509.70	-255.14	409.00	336.71	72.29	5.658	
14,700.00	11,350.02	15,272.56	11,760.02	70.29	71.89	-180.00	-3,609.70	-254.76	409.00	335.53	73.47	5.567	
14,800.00	11,350.02	15,372.56	11,760.02	71.73	73.31	-180.00	-3,709.70	-254.38	409.00	334.34	74.66	5.478	
14,900.00	11,350.01	15,472.56	11,760.01	73.17	74.74	-180.00	-3,809.70	-254.00	409.00	333.13	75.87	5.391	
15,000.00	11,350.01	15,572.56	11,760.01	74.63	76.18	-180.00	-3,909.70	-253.61	409.00	331.91	77.09	5.305	
15,100.00	11,350.01	15,672.56	11,760.01	76.09	77.62	-180.00	-4,009.70	-253.23	409.00	330.68	78.32	5.222	
15,200.00	11,350.01	15,772.56	11,760.01	77.56	79.08	-180.00	-4,109.69	-252.85	409.00	329.43	79.57	5.140	
15,300.00	11,350.01	15,872.56	11,760.01	79.04	80.55	-180.00	-4,209.69	-252.47	409.00	328.17	80.83	5.060	
15,400.00	11,350.01	15,972.56	11,760.01	80.53	82.02	-180.00	-4,309.69	-252.09	409.00	326.91	82.09	4.982	
15,500.00	11,350.01	16,072.56	11,760.01	82.03	83.50	-180.00	-4,409.69	-251.71	409.00	325.63	83.37	4.906	
15,600.00	11,350.01	16,172.56	11,760.00	83.53	84.99	-180.00	-4,509.69	-251.33	409.00	324.34	84.66	4.831	
15,700.00	11,350.00	16,272.56	11,760.00	85.03	86.48	-180.00	-4,609.69	-250.95	409.00	323.04	85.96	4.758	
15,800.00	11,350.00	16,372.56	11,760.00	86.55	87.98	-180.00	-4,709.69	-250.57	409.00	321.74	87.26	4.687	
15,900.00	11,350.00	16,472.56	11,760.00	88.07	89.49	-180.00	-4,809.69	-250.19	409.00	320.42	88.58	4.617	
15,950.32	11,350.00	16,522.87	11,760.00	88.83	90.25	180.00	-4,860.01	-250.00	409.00	319.76	89.24	4.583	

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slots 3 & 4 - 223H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG — **Offset Well Error:** 0.00 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	0.00	0.00	88.48	21.00	792.00	792.60				
100.00	100.00	77.50	77.50	0.13	0.14	88.48	21.00	792.00	792.28	792.01	0.27	2,966.152	
200.00	200.00	177.50	177.50	0.49	0.46	88.48	21.00	792.00	792.28	791.33	0.94	839.566	
300.00	300.00	277.50	277.50	0.85	0.82	88.48	21.00	792.00	792.28	790.62	1.66	477.098	
400.00	400.00	377.50	377.50	1.20	1.17	88.48	21.00	792.00	792.28	789.90	2.38	333.231	
500.00	500.00	477.50	477.50	1.56	1.53	88.48	21.00	792.00	792.28	789.18	3.09	256.027	CC, ES
600.00	599.99	568.20	568.20	1.75	1.85	-176.20	20.94	792.40	793.60	790.00	3.60	220.311	
700.00	699.96	656.09	656.07	1.82	2.16	-176.18	20.68	794.10	798.14	794.16	3.98	200.486	
800.00	799.86	743.71	743.64	1.96	2.46	-176.16	20.21	797.12	805.92	801.49	4.42	182.144	
900.00	899.68	830.94	830.76	2.16	2.77	-176.12	19.55	801.44	816.93	812.00	4.92	165.976	
1,000.00	999.37	917.65	917.28	2.40	3.08	-176.07	18.69	807.04	831.14	825.69	5.46	152.262	
1,100.00	1,098.99	1,004.40	1,003.75	2.68	3.39	-176.02	17.63	813.93	847.69	841.67	6.02	140.762	
1,200.00	1,198.60	1,102.90	1,101.88	2.98	3.75	-175.96	16.32	822.41	864.90	858.25	6.65	130.093	
1,300.00	1,298.22	1,201.41	1,200.01	3.30	4.12	-175.90	15.01	830.90	882.11	874.82	7.29	120.964	
1,400.00	1,397.84	1,300.09	1,298.13	3.63	4.49	-175.85	13.71	839.38	899.33	891.38	7.95	113.111	
1,500.00	1,497.46	1,401.59	1,396.26	3.97	4.87	-175.79	12.40	847.87	916.54	907.91	8.63	106.206	
1,600.00	1,597.08	1,503.08	1,494.39	4.32	5.25	-175.74	11.10	856.35	933.75	924.44	9.32	100.222	
1,700.00	1,696.70	1,604.58	1,592.52	4.67	5.63	-175.69	9.79	864.84	950.97	940.96	10.01	94.999	
1,800.00	1,796.32	1,706.08	1,690.65	5.03	6.02	-175.64	8.49	873.33	968.19	957.48	10.71	90.410	
1,900.00	1,895.94	1,807.57	1,788.78	5.39	6.40	-175.59	7.18	881.81	985.40	973.99	11.41	86.352	
2,000.00	1,995.56	1,909.07	1,886.91	5.76	6.79	-175.55	5.87	890.30	1,002.62	990.50	12.12	82.741	
2,100.00	2,095.18	1,989.44	1,985.04	6.13	7.09	-175.50	4.57	898.78	1,019.84	1,007.09	12.75	79.989	
2,200.00	2,194.80	2,087.94	2,083.16	6.50	7.47	-175.46	3.26	907.27	1,037.06	1,023.61	13.45	77.105	
2,300.00	2,294.42	2,186.44	2,181.29	6.87	7.84	-175.42	1.96	915.75	1,054.28	1,040.12	14.15	74.495	
2,400.00	2,394.04	2,284.95	2,279.42	7.24	8.22	-175.38	0.65	924.24	1,071.50	1,056.64	14.86	72.125	
2,500.00	2,493.66	2,383.45	2,377.55	7.62	8.60	-175.34	-0.65	932.72	1,088.72	1,073.16	15.56	69.962	
2,600.00	2,593.28	2,481.95	2,475.68	7.99	8.97	-175.30	-1.96	941.21	1,105.94	1,089.67	16.27	67.982	
2,700.00	2,692.90	2,580.48	2,573.81	8.37	9.35	-175.27	-3.27	949.69	1,123.16	1,106.18	16.98	66.163	
2,800.00	2,792.52	2,678.96	2,671.94	8.74	9.72	-175.23	-4.57	958.18	1,140.38	1,122.70	17.68	64.485	
2,900.00	2,892.14	2,777.46	2,770.07	9.12	10.10	-175.20	-5.88	966.66	1,157.60	1,139.21	18.39	62.934	
3,000.00	2,991.76	2,875.97	2,868.19	9.50	10.48	-175.16	-7.18	975.15	1,174.82	1,155.72	19.10	61.496	
3,100.00	3,091.37	2,974.47	2,966.32	9.88	10.86	-175.13	-8.49	983.63	1,192.05	1,172.23	19.81	60.159	
3,200.00	3,190.99	3,072.97	3,064.45	10.26	11.23	-175.10	-9.79	992.12	1,209.27	1,188.74	20.53	58.913	
3,300.00	3,290.61	3,171.48	3,162.58	10.64	11.61	-175.07	-11.10	1,000.60	1,226.49	1,205.26	21.24	57.749	
3,400.00	3,390.23	3,269.98	3,260.71	11.02	11.99	-175.04	-12.41	1,009.09	1,243.72	1,221.77	21.95	56.659	
3,500.00	3,489.85	3,368.49	3,358.84	11.40	12.37	-175.01	-13.71	1,017.57	1,260.94	1,238.28	22.66	55.636	
3,593.70	3,583.20	3,460.78	3,450.78	11.76	12.72	-174.99	-14.93	1,025.53	1,277.08	1,253.75	23.33	54.734	
3,600.00	3,589.47	3,466.99	3,456.97	11.78	12.74	-174.99	-15.02	1,026.06	1,278.16	1,254.79	23.38	54.675	
3,700.00	3,689.17	3,579.54	3,569.11	12.16	13.17	-174.97	-16.46	1,035.42	1,294.16	1,270.00	24.16	53.572	
3,800.00	3,788.99	3,707.43	3,696.74	12.52	13.65	-174.95	-17.73	1,043.66	1,306.55	1,281.55	25.00	52.257	
3,900.00	3,888.90	3,836.16	3,825.34	12.88	14.12	-174.94	-18.56	1,049.11	1,315.01	1,289.17	25.84	50.897	
4,000.00	3,988.87	3,965.41	3,954.56	13.23	14.57	-174.94	-18.96	1,051.71	1,319.52	1,292.86	26.66	49.496	
4,093.70	4,082.56	4,070.91	4,060.06	13.54	14.93	89.74	-19.00	1,051.94	1,320.46	1,293.11	27.34	48.292	
4,100.00	4,088.88	4,077.21	4,066.36	13.56	14.95	89.74	-19.00	1,051.94	1,320.46	1,293.07	27.39	48.217	
4,200.00	4,188.88	4,177.21	4,166.36	13.88	15.28	89.74	-19.00	1,051.94	1,320.46	1,292.40	28.06	47.066	
4,300.00	4,288.86	4,277.21	4,266.36	14.20	15.61	89.74	-19.00	1,051.94	1,320.46	1,291.73	28.73	45.964	
4,400.00	4,388.86	4,377.21	4,366.36	14.52	15.94	89.74	-19.00	1,051.94	1,320.46	1,291.06	29.40	44.910	
4,500.00	4,488.86	4,477.21	4,466.36	14.85	16.27	89.74	-19.00	1,051.94	1,320.46	1,290.38	30.08	43.900	
4,600.00	4,588.86	4,577.21	4,566.36	15.17	16.61	89.74	-19.00	1,051.94	1,320.46	1,289.70	30.76	42.932	
4,700.00	4,688.86	4,677.21	4,666.36	15.50	16.95	89.74	-19.00	1,051.94	1,320.46	1,289.02	31.44	42.003	
4,800.00	4,788.86	4,777.21	4,766.36	15.83	17.28	89.74	-19.00	1,051.94	1,320.46	1,288.34	32.12	41.112	
4,900.00	4,888.86	4,877.21	4,866.36	16.16	17.62	89.74	-19.00	1,051.94	1,320.46	1,287.68	32.80	40.256	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slots 3 & 4 - 223H - OH - Prelim Plan A — Offset Site Error: 0.00 usft

Survey Program: 0-MWD - OWSG — Offset Well Error: 0.00 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	4,988.86	4,977.21	4,966.36	16.49	17.96	89.74	-19.00	1,051.94	1,320.46	1,286.97	33.49	39.433	
5,100.00	5,088.86	5,077.21	5,066.36	16.83	18.30	89.74	-19.00	1,051.94	1,320.46	1,286.29	34.17	38.641	
5,200.00	5,188.86	5,177.21	5,166.36	17.18	18.64	89.74	-19.00	1,051.94	1,320.46	1,285.60	34.86	37.880	
5,300.00	5,288.86	5,277.21	5,266.36	17.50	18.98	89.74	-19.00	1,051.94	1,320.46	1,284.91	35.55	37.146	
5,400.00	5,388.86	5,377.21	5,366.36	17.83	19.32	89.74	-19.00	1,051.94	1,320.46	1,284.22	36.24	36.439	
5,500.00	5,488.86	5,477.21	5,466.36	18.17	19.66	89.74	-19.00	1,051.94	1,320.46	1,283.53	36.93	35.758	
5,600.00	5,588.86	5,577.21	5,566.36	18.50	20.00	89.74	-19.00	1,051.94	1,320.46	1,282.84	37.62	35.101	
5,700.00	5,688.86	5,677.21	5,666.36	18.84	20.35	89.74	-19.00	1,051.94	1,320.46	1,282.15	38.31	34.466	
5,800.00	5,788.86	5,777.21	5,766.36	19.18	20.69	89.74	-19.00	1,051.94	1,320.46	1,281.45	39.00	33.854	
5,900.00	5,888.86	5,877.21	5,866.36	19.52	21.03	89.74	-19.00	1,051.94	1,320.46	1,280.76	39.70	33.262	
6,000.00	5,988.86	5,977.21	5,966.36	19.86	21.38	89.74	-19.00	1,051.94	1,320.46	1,280.06	40.39	32.689	
6,100.00	6,088.86	6,077.21	6,066.36	20.20	21.72	89.74	-19.00	1,051.94	1,320.46	1,279.37	41.09	32.136	
6,200.00	6,188.86	6,177.21	6,166.36	20.54	22.07	89.74	-19.00	1,051.94	1,320.46	1,278.67	41.79	31.600	
6,300.00	6,288.86	6,277.21	6,266.36	20.89	22.41	89.74	-19.00	1,051.94	1,320.46	1,277.97	42.48	31.082	
6,400.00	6,388.86	6,377.21	6,366.36	21.23	22.76	89.74	-19.00	1,051.94	1,320.46	1,277.28	43.18	30.579	
6,500.00	6,488.86	6,477.21	6,466.36	21.57	23.11	89.74	-19.00	1,051.94	1,320.46	1,276.58	43.88	30.093	
6,600.00	6,588.86	6,577.21	6,566.36	21.92	23.45	89.74	-19.00	1,051.94	1,320.46	1,275.88	44.58	29.621	
6,700.00	6,688.86	6,677.21	6,666.36	22.26	23.80	89.74	-19.00	1,051.94	1,320.46	1,275.18	45.28	29.163	
6,800.00	6,788.86	6,777.21	6,766.36	22.60	24.15	89.74	-19.00	1,051.94	1,320.46	1,274.48	45.98	28.719	
6,900.00	6,888.86	6,877.21	6,866.36	22.95	24.50	89.74	-19.00	1,051.94	1,320.46	1,273.78	46.68	28.288	
7,000.00	6,988.86	6,977.21	6,966.36	23.29	24.84	89.74	-19.00	1,051.94	1,320.46	1,273.08	47.38	27.869	
7,100.00	7,088.86	7,077.21	7,066.36	23.64	25.19	89.74	-19.00	1,051.94	1,320.46	1,272.38	48.08	27.463	
7,200.00	7,188.86	7,177.21	7,166.36	23.99	25.54	89.74	-19.00	1,051.94	1,320.46	1,271.67	48.78	27.068	
7,300.00	7,288.86	7,277.21	7,266.36	24.33	25.89	89.74	-19.00	1,051.94	1,320.46	1,270.97	49.49	26.683	
7,400.00	7,388.86	7,377.21	7,366.36	24.68	26.24	89.74	-19.00	1,051.94	1,320.46	1,270.27	50.19	26.310	
7,500.00	7,488.86	7,477.21	7,466.36	25.03	26.59	89.74	-19.00	1,051.94	1,320.46	1,269.57	50.89	25.946	
7,600.00	7,588.86	7,577.21	7,566.36	25.37	26.94	89.74	-19.00	1,051.94	1,320.46	1,268.86	51.60	25.592	
7,700.00	7,688.86	7,677.21	7,666.36	25.72	27.29	89.74	-19.00	1,051.94	1,320.46	1,268.16	52.30	25.248	
7,800.00	7,788.86	7,777.21	7,766.36	26.07	27.64	89.74	-19.00	1,051.94	1,320.46	1,267.45	53.00	24.912	
7,900.00	7,888.86	7,877.21	7,866.36	26.42	27.99	89.74	-19.00	1,051.94	1,320.46	1,266.75	53.71	24.585	
8,000.00	7,988.86	7,977.21	7,966.36	26.77	28.34	89.74	-19.00	1,051.94	1,320.46	1,266.04	54.41	24.267	
8,100.00	8,088.86	8,077.21	8,066.36	27.12	28.69	89.74	-19.00	1,051.94	1,320.46	1,265.34	55.12	23.956	
8,200.00	8,188.86	8,177.21	8,166.36	27.47	29.04	89.74	-19.00	1,051.94	1,320.46	1,264.63	55.83	23.653	
8,300.00	8,288.86	8,277.21	8,266.36	27.82	29.39	89.74	-19.00	1,051.94	1,320.46	1,263.93	56.53	23.358	
8,400.00	8,388.86	8,377.21	8,366.36	28.16	29.74	89.74	-19.00	1,051.94	1,320.46	1,263.22	57.24	23.070	
8,500.00	8,488.86	8,477.21	8,466.36	28.51	30.10	89.74	-19.00	1,051.94	1,320.46	1,262.51	57.94	22.789	
8,600.00	8,588.86	8,577.21	8,566.36	28.86	30.45	89.74	-19.00	1,051.94	1,320.46	1,261.81	58.65	22.514	
8,700.00	8,688.86	8,677.21	8,666.36	29.21	30.80	89.74	-19.00	1,051.94	1,320.46	1,261.10	59.36	22.246	
8,800.00	8,788.86	8,777.21	8,766.36	29.57	31.15	89.74	-19.00	1,051.94	1,320.46	1,260.39	60.06	21.984	
8,900.00	8,888.86	8,877.21	8,866.36	29.92	31.50	89.74	-19.00	1,051.94	1,320.46	1,259.69	60.77	21.728	
9,000.00	8,988.86	8,977.21	8,966.36	30.27	31.86	89.74	-19.00	1,051.94	1,320.46	1,258.98	61.48	21.478	
9,100.00	9,088.86	9,077.21	9,066.36	30.62	32.21	89.74	-19.00	1,051.94	1,320.46	1,258.27	62.19	21.234	
9,200.00	9,188.86	9,177.21	9,166.36	30.97	32.56	89.74	-19.00	1,051.94	1,320.46	1,257.56	62.90	20.994	
9,300.00	9,288.86	9,277.21	9,266.36	31.32	32.91	89.74	-19.00	1,051.94	1,320.46	1,256.85	63.60	20.761	
9,400.00	9,388.86	9,377.21	9,366.36	31.67	33.27	89.74	-19.00	1,051.94	1,320.46	1,256.15	64.31	20.532	
9,500.00	9,488.86	9,477.21	9,466.36	32.02	33.62	89.74	-19.00	1,051.94	1,320.46	1,255.44	65.02	20.308	
9,600.00	9,588.86	9,577.21	9,566.36	32.38	33.97	89.74	-19.00	1,051.94	1,320.46	1,254.73	65.73	20.089	
9,700.00	9,688.86	9,677.21	9,666.36	32.73	34.32	89.74	-19.00	1,051.94	1,320.46	1,254.02	66.44	19.875	
9,800.00	9,788.86	9,777.21	9,766.36	33.08	34.68	89.74	-19.00	1,051.94	1,320.46	1,253.31	67.15	19.665	
9,900.00	9,888.86	9,877.21	9,866.36	33.43	35.03	89.74	-19.00	1,051.94	1,320.46	1,252.60	67.86	19.459	
10,000.00	9,988.86	9,977.21	9,966.36	33.78	35.38	89.74	-19.00	1,051.94	1,320.46	1,251.89	68.57	19.258	
10,100.00	10,088.86	10,077.21	10,066.36	34.14	35.74	89.74	-19.00	1,051.94	1,320.46	1,251.18	69.28	19.061	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slots 3 & 4 - 223H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG — **Offset Well Error:** 0.00 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	10,188.86	10,177.21	10,166.36	34.49	36.09	89.74	-19.00	1,051.94	1,320.46	1,250.47	69.99	18.867	
10,300.00	10,288.86	10,277.21	10,266.36	34.84	36.45	89.74	-19.00	1,051.94	1,320.46	1,249.76	70.70	18.678	
10,400.00	10,388.86	10,377.21	10,366.36	35.19	36.80	89.74	-19.00	1,051.94	1,320.46	1,249.05	71.41	18.492	
10,500.00	10,488.86	10,477.21	10,466.36	35.55	37.15	89.74	-19.00	1,051.94	1,320.46	1,248.34	72.12	18.310	
10,600.00	10,588.86	10,577.21	10,566.36	35.90	37.51	89.74	-19.00	1,051.94	1,320.46	1,247.63	72.83	18.132	
10,700.00	10,688.86	10,677.21	10,666.36	36.25	37.86	89.74	-19.00	1,051.94	1,320.46	1,246.92	73.54	17.956	
10,788.24	10,777.10	10,765.45	10,754.60	36.41	38.17	89.74	-19.00	1,051.94	1,320.46	1,246.45	74.01	17.842	
10,800.00	10,788.86	10,777.20	10,766.35	36.41	38.21	-90.04	-19.07	1,051.94	1,320.46	1,246.41	74.05	17.832	
10,850.00	10,838.74	10,827.14	10,816.18	36.41	38.38	-90.05	-22.05	1,051.96	1,320.46	1,246.24	74.22	17.791	
10,900.00	10,888.15	10,877.10	10,865.59	36.42	38.55	-90.06	-29.36	1,052.00	1,320.47	1,246.09	74.39	17.751	
10,950.00	10,936.72	10,927.07	10,914.19	36.43	38.71	-90.07	-40.95	1,052.06	1,320.49	1,245.93	74.56	17.711	
11,000.00	10,984.07	10,977.07	10,961.61	36.44	38.87	-90.08	-56.74	1,052.14	1,320.51	1,245.78	74.73	17.671	
11,050.00	11,029.85	11,027.09	11,007.50	36.46	39.02	-90.08	-76.61	1,052.24	1,320.54	1,245.63	74.90	17.630	
11,100.00	11,073.70	11,077.13	11,051.50	36.48	39.17	-90.09	-100.42	1,052.37	1,320.57	1,245.49	75.08	17.588	
11,150.00	11,115.30	11,127.19	11,093.26	36.51	39.32	-90.10	-127.98	1,052.51	1,320.61	1,245.33	75.27	17.544	
11,200.00	11,154.32	11,177.27	11,132.48	36.55	39.46	-90.10	-159.09	1,052.67	1,320.65	1,245.18	75.47	17.498	
11,250.00	11,190.47	11,227.37	11,168.85	36.59	39.60	-90.11	-193.53	1,052.85	1,320.70	1,245.01	75.69	17.450	
11,300.00	11,223.48	11,277.48	11,202.08	36.65	39.75	-90.11	-231.02	1,053.04	1,320.75	1,244.83	75.92	17.398	
11,350.00	11,253.09	11,327.61	11,231.92	36.72	39.90	-90.11	-271.28	1,053.25	1,320.80	1,244.64	76.17	17.341	
11,400.00	11,279.07	11,377.76	11,258.13	36.81	40.06	-90.11	-314.01	1,053.47	1,320.86	1,244.42	76.44	17.280	
11,450.00	11,301.24	11,427.92	11,280.51	36.91	40.23	-90.12	-358.89	1,053.71	1,320.92	1,244.19	76.73	17.215	
11,500.00	11,319.41	11,478.10	11,298.89	37.04	40.41	-90.12	-405.56	1,053.95	1,320.99	1,243.93	77.05	17.144	
11,550.00	11,333.46	11,528.29	11,313.12	37.18	40.59	-90.12	-453.67	1,054.20	1,321.05	1,243.65	77.40	17.069	
11,600.00	11,343.28	11,578.49	11,323.09	37.35	40.78	-90.11	-502.85	1,054.45	1,321.12	1,243.35	77.76	16.989	
11,650.00	11,348.78	11,628.70	11,328.71	37.54	40.97	-90.11	-552.73	1,054.71	1,321.18	1,243.03	78.16	16.904	
11,688.25	11,350.06	11,667.11	11,330.06	37.70	41.13	-90.11	-591.11	1,054.91	1,321.24	1,242.77	78.47	16.838	
11,700.00	11,350.06	11,678.87	11,330.06	37.75	41.17	-90.11	-602.87	1,054.97	1,321.25	1,242.68	78.57	16.817	
11,800.00	11,350.06	11,778.87	11,330.06	38.22	41.61	-90.11	-702.87	1,055.49	1,321.39	1,241.90	79.49	16.624	
11,900.00	11,350.06	11,878.87	11,330.06	38.75	42.11	-90.11	-802.87	1,056.01	1,321.52	1,241.00	80.53	16.411	
12,000.00	11,350.05	11,978.87	11,330.05	39.36	42.66	-90.11	-902.86	1,056.52	1,321.66	1,239.97	81.69	16.178	
12,100.00	11,350.05	12,078.87	11,330.05	40.02	43.28	-90.11	-1,002.86	1,057.04	1,321.80	1,238.82	82.98	15.930	
12,200.00	11,350.05	12,178.87	11,330.05	40.75	43.94	-90.11	-1,102.86	1,057.56	1,321.93	1,237.56	84.37	15.668	
12,300.00	11,350.05	12,278.87	11,330.05	41.53	44.66	-90.11	-1,202.86	1,058.08	1,322.07	1,236.19	85.88	15.395	
12,400.00	11,350.05	12,378.87	11,330.05	42.36	45.43	-90.11	-1,302.86	1,058.60	1,322.20	1,234.72	87.48	15.114	
12,500.00	11,350.05	12,478.87	11,330.05	43.24	46.25	-90.11	-1,402.86	1,059.12	1,322.34	1,233.15	89.18	14.827	
12,600.00	11,350.05	12,578.87	11,330.05	44.16	47.11	-90.11	-1,502.86	1,059.63	1,322.47	1,231.49	90.98	14.536	
12,700.00	11,350.04	12,678.87	11,330.04	45.13	48.01	-90.11	-1,602.85	1,060.15	1,322.61	1,229.75	92.86	14.244	
12,800.00	11,350.04	12,778.87	11,330.04	46.14	48.95	-90.11	-1,702.85	1,060.67	1,322.74	1,227.93	94.82	13.951	
12,900.00	11,350.04	12,878.87	11,330.04	47.19	49.94	-90.11	-1,802.85	1,061.19	1,322.88	1,226.03	96.85	13.659	
13,000.00	11,350.04	12,978.87	11,330.04	48.27	50.95	-90.11	-1,902.85	1,061.71	1,323.02	1,224.06	98.96	13.370	
13,100.00	11,350.04	13,078.87	11,330.04	49.39	52.00	-90.11	-2,002.85	1,062.22	1,323.15	1,222.02	101.13	13.084	
13,200.00	11,350.04	13,178.86	11,330.04	50.53	53.09	-90.11	-2,102.85	1,062.74	1,323.29	1,219.92	103.36	12.802	
13,300.00	11,350.04	13,278.86	11,330.04	51.71	54.20	-90.11	-2,202.85	1,063.26	1,323.42	1,217.76	105.66	12.526	
13,400.00	11,350.03	13,378.86	11,330.03	52.91	55.34	-90.11	-2,302.84	1,063.78	1,323.56	1,215.55	108.01	12.255	
13,500.00	11,350.03	13,478.86	11,330.03	54.14	56.51	-90.11	-2,402.84	1,064.30	1,323.69	1,213.29	110.40	11.990	
13,600.00	11,350.03	13,578.86	11,330.03	55.38	57.70	-90.11	-2,502.84	1,064.82	1,323.83	1,210.98	112.85	11.731	
13,700.00	11,350.03	13,678.86	11,330.03	56.66	58.92	-90.11	-2,602.84	1,065.33	1,323.96	1,208.62	115.34	11.478	
13,800.00	11,350.03	13,778.86	11,330.03	57.95	60.16	-90.11	-2,702.84	1,065.85	1,324.10	1,206.22	117.88	11.233	
13,900.00	11,350.03	13,878.86	11,330.03	59.26	61.41	-90.11	-2,802.84	1,066.37	1,324.24	1,203.79	120.45	10.994	
14,000.00	11,350.03	13,978.86	11,330.03	60.59	62.69	-90.11	-2,902.84	1,066.89	1,324.37	1,201.31	123.06	10.762	
14,100.00	11,350.03	14,078.86	11,330.03	61.93	63.99	-90.11	-3,002.83	1,067.41	1,324.51	1,198.80	125.71	10.537	
14,200.00	11,350.02	14,178.86	11,330.02	63.29	65.30	-90.11	-3,102.83	1,067.93	1,324.64	1,196.26	128.38	10.318	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slots 3 & 4 - 223H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG — **Offset Well Error:** 0.00 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
14,300.00	11,350.02	14,278.86	11,330.02	64.67	66.63	-90.11	-3,202.83	1,068.44	1,324.78	1,193.69	131.09	10.106	
14,400.00	11,350.02	14,378.86	11,330.02	66.05	67.97	-90.11	-3,302.83	1,068.96	1,324.91	1,191.09	133.83	9.900	
14,500.00	11,350.02	14,478.86	11,330.02	67.46	69.33	-90.11	-3,402.83	1,069.48	1,325.05	1,188.46	136.59	9.701	
14,600.00	11,350.02	14,578.86	11,330.02	68.87	70.70	-90.11	-3,502.83	1,070.00	1,325.18	1,185.81	139.38	9.508	
14,700.00	11,350.02	14,678.86	11,330.02	70.29	72.09	-90.11	-3,602.83	1,070.52	1,325.32	1,183.13	142.19	9.321	
14,800.00	11,350.02	14,778.86	11,330.02	71.73	73.48	-90.11	-3,702.82	1,071.03	1,325.46	1,180.43	145.03	9.139	
14,900.00	11,350.01	14,878.86	11,330.01	73.17	74.89	-90.11	-3,802.82	1,071.55	1,325.59	1,177.71	147.88	8.964	
15,000.00	11,350.01	14,978.86	11,330.01	74.63	76.31	-90.11	-3,902.82	1,072.07	1,325.73	1,174.97	150.76	8.794	
15,100.00	11,350.01	15,078.86	11,330.01	76.09	77.74	-90.11	-4,002.82	1,072.59	1,325.86	1,172.21	153.65	8.629	
15,200.00	11,350.01	15,178.86	11,330.01	77.56	79.17	-90.11	-4,102.82	1,073.11	1,326.00	1,169.43	156.57	8.469	
15,300.00	11,350.01	15,278.86	11,330.01	79.04	80.62	-90.11	-4,202.82	1,073.63	1,326.13	1,166.64	159.49	8.315	
15,400.00	11,350.01	15,378.86	11,330.01	80.53	82.07	-90.11	-4,302.82	1,074.14	1,326.27	1,163.83	162.44	8.165	
15,500.00	11,350.01	15,478.86	11,330.01	82.03	83.54	-90.11	-4,402.81	1,074.66	1,326.41	1,161.00	165.40	8.019	
15,600.00	11,350.01	15,578.86	11,330.01	83.53	85.01	-90.11	-4,502.81	1,075.18	1,326.54	1,158.17	168.37	7.878	
15,700.00	11,350.00	15,678.86	11,330.00	85.03	86.49	-90.11	-4,602.81	1,075.70	1,326.68	1,155.31	171.36	7.742	
15,800.00	11,350.00	15,778.86	11,330.00	86.55	87.97	-90.11	-4,702.81	1,076.22	1,326.81	1,152.45	174.36	7.609	
15,900.00	11,350.00	15,878.86	11,330.00	88.07	89.46	-90.11	-4,802.81	1,076.73	1,326.95	1,149.57	177.38	7.481	
15,950.32	11,350.00	15,929.18	11,330.00	88.83	90.22	-90.11	-4,853.12	1,077.00	1,327.02	1,148.12	178.90	7.418 SF	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slots 3 & 4 - 233H - OH - Prelim Plan A — Offset Site Error: 0.00 usft

Survey Program: 0-MWD - OWSG, 400-MWD - OWSG, 11168-MWD - OWSG — Offset Well Error: 0.00 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	7.00	7.00	0.00	0.01	88.54	21.00	822.00	822.27				
100.00	100.00	107.00	107.00	0.13	0.15	88.54	21.00	822.00	822.27	821.99	0.28	2,922.057	
200.00	200.00	207.00	207.00	0.49	0.51	88.54	21.00	822.00	822.27	821.27	1.00	823.633	
300.00	300.00	307.00	307.00	0.85	0.86	88.54	21.00	822.00	822.27	820.56	1.70	482.600	
400.00	400.00	407.00	407.00	1.20	1.05	88.54	21.00	822.00	822.27	820.02	2.25	365.184	
500.00	500.00	507.00	507.00	1.56	1.17	88.54	21.00	822.00	822.27	819.54	2.73	301.516	CC, ES
600.00	599.99	594.74	594.74	1.75	1.35	-176.17	21.36	822.70	823.93	820.84	3.10	265.854	
700.00	699.96	683.14	683.11	1.82	1.57	-176.24	22.35	824.60	826.73	825.33	3.40	243.948	
800.00	799.86	771.27	771.17	1.96	1.82	-176.36	23.95	827.70	836.65	832.86	3.79	220.925	
900.00	899.68	858.99	858.75	2.16	2.09	-176.52	26.17	831.98	847.68	843.44	4.25	199.617	
1,000.00	999.37	946.17	945.72	2.40	2.37	-176.71	28.98	837.42	861.83	857.07	4.76	181.188	
1,100.00	1,098.99	1,037.38	1,036.60	2.68	2.68	-176.96	32.52	844.26	878.10	872.79	5.31	165.236	
1,200.00	1,198.60	1,135.92	1,134.77	2.98	3.03	-177.23	36.47	851.86	894.66	888.74	5.92	151.052	
1,300.00	1,298.22	1,234.45	1,232.93	3.30	3.38	-177.48	40.41	859.51	911.24	904.68	6.55	139.032	
1,400.00	1,397.84	1,332.99	1,331.09	3.63	3.74	-177.73	44.36	867.14	927.83	920.63	7.20	128.853	
1,500.00	1,497.46	1,431.53	1,429.25	3.97	4.10	-177.97	48.31	874.77	944.44	936.57	7.86	120.147	
1,600.00	1,597.08	1,530.06	1,527.41	4.32	4.46	-178.20	52.25	882.39	961.06	952.53	8.53	112.666	
1,700.00	1,696.70	1,628.60	1,625.57	4.67	4.83	-178.42	56.20	890.02	977.70	968.49	9.21	106.189	
1,800.00	1,796.32	1,727.13	1,723.73	5.03	5.19	-178.64	60.15	897.65	994.35	984.46	9.89	100.540	
1,900.00	1,895.94	1,825.67	1,821.89	5.39	5.56	-178.84	64.10	905.27	1,011.01	1,000.44	10.58	95.578	
2,000.00	1,995.56	1,924.21	1,920.06	5.76	5.93	-179.05	68.04	912.90	1,027.69	1,016.42	11.27	91.192	
2,100.00	2,095.18	2,022.74	2,018.22	6.13	6.30	-179.24	71.99	920.53	1,044.38	1,032.42	11.96	87.291	
2,200.00	2,194.80	2,121.28	2,116.38	6.50	6.67	-179.43	75.94	928.16	1,061.08	1,048.42	12.66	83.801	
2,300.00	2,294.42	2,219.82	2,214.54	6.87	7.04	-179.61	79.88	935.78	1,077.80	1,064.43	13.36	80.663	
2,400.00	2,394.04	2,318.35	2,312.70	7.24	7.42	-179.79	83.83	943.41	1,094.52	1,080.45	14.06	77.827	
2,500.00	2,493.66	2,416.89	2,410.86	7.62	7.79	-179.96	87.78	951.04	1,111.25	1,096.48	14.77	75.253	
2,600.00	2,593.28	2,515.42	2,509.02	7.99	8.16	179.87	91.73	958.66	1,127.99	1,112.52	15.47	72.908	
2,700.00	2,692.90	2,613.96	2,607.19	8.37	8.54	179.71	95.67	966.29	1,144.74	1,128.56	16.18	70.761	
2,800.00	2,792.52	2,712.50	2,705.35	8.74	8.91	179.55	99.62	973.92	1,161.50	1,144.62	16.88	68.791	
2,900.00	2,892.14	2,811.03	2,803.51	9.12	9.29	179.40	103.57	981.55	1,178.27	1,160.68	17.59	66.976	
3,000.00	2,991.76	2,909.57	2,901.67	9.50	9.66	179.25	107.51	989.17	1,195.04	1,176.74	18.30	65.298	
3,100.00	3,091.37	3,008.11	2,999.83	9.88	10.04	179.11	111.46	996.80	1,211.83	1,192.82	19.01	63.744	
3,200.00	3,190.99	3,106.64	3,097.99	10.26	10.41	178.97	115.41	1,004.43	1,228.62	1,208.90	19.72	62.300	
3,300.00	3,290.61	3,205.18	3,196.15	10.64	10.79	178.83	119.36	1,012.05	1,245.41	1,224.98	20.43	60.955	
3,400.00	3,390.23	3,303.72	3,294.31	11.02	11.16	178.70	123.30	1,019.68	1,262.22	1,241.07	21.14	59.699	
3,500.00	3,489.85	3,402.25	3,392.48	11.40	11.54	178.57	127.25	1,027.31	1,279.03	1,257.17	21.85	58.524	
3,593.70	3,583.20	3,501.08	3,490.94	11.76	11.91	178.44	131.17	1,034.89	1,294.72	1,272.17	22.55	57.408	
3,600.00	3,589.47	3,508.97	3,498.80	11.78	11.94	178.44	131.47	1,035.45	1,295.75	1,273.14	22.61	57.319	
3,700.00	3,689.17	3,634.74	3,624.26	12.16	12.41	178.32	135.48	1,043.22	1,309.96	1,286.52	23.44	55.886	
3,800.00	3,788.99	3,761.46	3,750.84	12.52	12.87	178.24	138.25	1,048.56	1,320.39	1,296.13	24.27	54.414	
3,900.00	3,888.90	3,888.85	3,878.19	12.88	13.32	178.20	139.73	1,051.43	1,327.02	1,301.93	25.08	52.907	
4,000.00	3,988.87	4,006.53	3,995.87	13.23	13.71	178.20	140.00	1,051.94	1,329.95	1,304.10	25.85	51.458	
4,093.70	4,082.56	4,100.23	4,089.56	13.54	14.03	82.88	140.00	1,051.94	1,330.71	1,304.23	26.49	50.241	
4,100.00	4,088.86	4,106.53	4,095.86	13.56	14.05	82.88	140.00	1,051.94	1,330.71	1,304.18	26.53	50.161	
4,200.00	4,188.86	4,206.53	4,195.86	13.88	14.38	82.88	140.00	1,051.94	1,330.71	1,303.51	27.20	48.915	
4,300.00	4,288.86	4,306.53	4,295.86	14.20	14.72	82.88	140.00	1,051.94	1,330.71	1,302.83	27.88	47.725	
4,400.00	4,388.86	4,406.53	4,395.86	14.52	15.06	82.88	140.00	1,051.94	1,330.71	1,302.15	28.56	46.589	
4,500.00	4,488.86	4,506.53	4,495.86	14.85	15.40	82.88	140.00	1,051.94	1,330.71	1,301.47	29.24	45.504	
4,600.00	4,588.86	4,606.53	4,595.86	15.17	15.74	82.88	140.00	1,051.94	1,330.71	1,300.79	29.93	44.465	
4,700.00	4,688.86	4,706.53	4,695.86	15.50	16.08	82.88	140.00	1,051.94	1,330.71	1,300.10	30.61	43.470	
4,800.00	4,788.86	4,806.53	4,795.86	15.83	16.42	82.88	140.00	1,051.94	1,330.71	1,299.42	31.30	42.517	
4,900.00	4,888.86	4,906.53	4,895.86	16.16	16.76	82.88	140.00	1,051.94	1,330.71	1,298.73	31.99	41.603	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slots 3 & 4 - 233H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG, 400-MWD - OWSG, 11168-MWD - OWSG — **Offset Well Error:** 0.00 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	4,988.86	5,006.53	4,995.86	16.49	17.10	82.88	140.00	1,051.94	1,330.71	1,298.04	32.67	40.726	
5,100.00	5,088.86	5,106.53	5,095.86	16.83	17.45	82.88	140.00	1,051.94	1,330.71	1,297.35	33.37	39.883	
5,200.00	5,188.86	5,206.53	5,195.86	17.16	17.79	82.88	140.00	1,051.94	1,330.71	1,296.66	34.06	39.074	
5,300.00	5,288.86	5,306.53	5,295.86	17.50	18.14	82.88	140.00	1,051.94	1,330.71	1,295.97	34.75	38.296	
5,400.00	5,388.86	5,406.53	5,395.86	17.83	18.48	82.88	140.00	1,051.94	1,330.71	1,295.27	35.44	37.547	
5,500.00	5,488.86	5,506.53	5,495.86	18.17	18.83	82.88	140.00	1,051.94	1,330.71	1,294.58	36.14	36.825	
5,600.00	5,588.86	5,606.53	5,595.86	18.50	19.17	82.88	140.00	1,051.94	1,330.71	1,293.88	36.83	36.130	
5,700.00	5,688.86	5,706.53	5,695.86	18.84	19.52	82.88	140.00	1,051.94	1,330.71	1,293.19	37.53	35.460	
5,800.00	5,788.86	5,806.53	5,795.86	19.18	19.87	82.88	140.00	1,051.94	1,330.71	1,292.49	38.22	34.814	
5,900.00	5,888.86	5,906.53	5,895.86	19.52	20.21	82.88	140.00	1,051.94	1,330.71	1,291.79	38.92	34.190	
6,000.00	5,988.86	6,006.53	5,995.86	19.86	20.56	82.88	140.00	1,051.94	1,330.71	1,291.10	39.62	33.588	
6,100.00	6,088.86	6,106.53	6,095.86	20.20	20.91	82.88	140.00	1,051.94	1,330.71	1,290.40	40.32	33.006	
6,200.00	6,188.86	6,206.53	6,195.86	20.54	21.26	82.88	140.00	1,051.94	1,330.71	1,289.70	41.02	32.443	
6,300.00	6,288.86	6,306.53	6,295.86	20.89	21.60	82.88	140.00	1,051.94	1,330.71	1,289.00	41.72	31.899	
6,400.00	6,388.86	6,406.53	6,395.86	21.23	21.95	82.88	140.00	1,051.94	1,330.71	1,288.30	42.42	31.372	
6,500.00	6,488.86	6,506.53	6,495.86	21.57	22.30	82.88	140.00	1,051.94	1,330.71	1,287.60	43.12	30.862	
6,600.00	6,588.86	6,606.53	6,595.86	21.92	22.65	82.88	140.00	1,051.94	1,330.71	1,286.89	43.82	30.368	
6,700.00	6,688.86	6,706.53	6,695.86	22.26	23.00	82.88	140.00	1,051.94	1,330.71	1,286.19	44.52	29.889	
6,800.00	6,788.86	6,806.53	6,795.86	22.60	23.35	82.88	140.00	1,051.94	1,330.71	1,285.49	45.22	29.424	
6,900.00	6,888.86	6,906.53	6,895.86	22.95	23.70	82.88	140.00	1,051.94	1,330.71	1,284.79	45.93	28.974	
7,000.00	6,988.86	7,006.53	6,995.86	23.29	24.05	82.88	140.00	1,051.94	1,330.71	1,284.08	46.63	28.537	
7,100.00	7,088.86	7,106.53	7,095.86	23.64	24.40	82.88	140.00	1,051.94	1,330.71	1,283.38	47.34	28.113	
7,200.00	7,188.86	7,206.53	7,195.86	23.99	24.76	82.88	140.00	1,051.94	1,330.71	1,282.67	48.04	27.700	
7,300.00	7,288.86	7,306.53	7,295.86	24.33	25.11	82.88	140.00	1,051.94	1,330.71	1,281.97	48.74	27.300	
7,400.00	7,388.86	7,406.53	7,395.86	24.68	25.46	82.88	140.00	1,051.94	1,330.71	1,281.26	49.45	26.911	
7,500.00	7,488.86	7,506.53	7,495.86	25.03	25.81	82.88	140.00	1,051.94	1,330.71	1,280.56	50.15	26.532	
7,600.00	7,588.86	7,606.53	7,595.86	25.37	26.16	82.88	140.00	1,051.94	1,330.71	1,279.85	50.86	26.164	
7,700.00	7,688.86	7,706.53	7,695.86	25.72	26.51	82.88	140.00	1,051.94	1,330.71	1,279.15	51.57	25.806	
7,800.00	7,788.86	7,806.53	7,795.86	26.07	26.87	82.88	140.00	1,051.94	1,330.71	1,278.44	52.27	25.457	
7,900.00	7,888.86	7,906.53	7,895.86	26.42	27.22	82.88	140.00	1,051.94	1,330.71	1,277.74	52.98	25.118	
8,000.00	7,988.86	8,006.53	7,995.86	26.77	27.57	82.88	140.00	1,051.94	1,330.71	1,277.03	53.69	24.787	
8,100.00	8,088.86	8,106.53	8,095.86	27.12	27.92	82.88	140.00	1,051.94	1,330.71	1,276.32	54.39	24.465	
8,200.00	8,188.86	8,206.53	8,195.86	27.47	28.28	82.88	140.00	1,051.94	1,330.71	1,275.61	55.10	24.151	
8,300.00	8,288.86	8,306.53	8,295.86	27.82	28.63	82.88	140.00	1,051.94	1,330.71	1,274.91	55.81	23.845	
8,400.00	8,388.86	8,406.53	8,395.86	28.16	28.98	82.88	140.00	1,051.94	1,330.71	1,274.20	56.52	23.546	
8,500.00	8,488.86	8,506.53	8,495.86	28.51	29.34	82.88	140.00	1,051.94	1,330.71	1,273.49	57.22	23.255	
8,600.00	8,588.86	8,606.53	8,595.86	28.86	29.69	82.88	140.00	1,051.94	1,330.71	1,272.78	57.93	22.970	
8,700.00	8,688.86	8,706.53	8,695.86	29.21	30.04	82.88	140.00	1,051.94	1,330.71	1,272.07	58.64	22.693	
8,800.00	8,788.86	8,806.53	8,795.86	29.57	30.40	82.88	140.00	1,051.94	1,330.71	1,271.37	59.35	22.422	
8,900.00	8,888.86	8,906.53	8,895.86	29.92	30.75	82.88	140.00	1,051.94	1,330.71	1,270.66	60.06	22.157	
9,000.00	8,988.86	9,006.53	8,995.86	30.27	31.10	82.88	140.00	1,051.94	1,330.71	1,269.95	60.77	21.899	
9,100.00	9,088.86	9,106.53	9,095.86	30.62	31.46	82.88	140.00	1,051.94	1,330.71	1,269.24	61.48	21.646	
9,200.00	9,188.86	9,206.53	9,195.86	30.97	31.81	82.88	140.00	1,051.94	1,330.71	1,268.53	62.19	21.399	
9,300.00	9,288.86	9,306.53	9,295.86	31.32	32.17	82.88	140.00	1,051.94	1,330.71	1,267.82	62.89	21.158	
9,400.00	9,388.86	9,406.53	9,395.86	31.67	32.52	82.88	140.00	1,051.94	1,330.71	1,267.11	63.60	20.922	
9,500.00	9,488.86	9,506.53	9,495.86	32.02	32.87	82.88	140.00	1,051.94	1,330.71	1,266.40	64.31	20.691	
9,600.00	9,588.86	9,606.53	9,595.86	32.38	33.23	82.88	140.00	1,051.94	1,330.71	1,265.69	65.02	20.465	
9,700.00	9,688.86	9,706.53	9,695.86	32.73	33.58	82.88	140.00	1,051.94	1,330.71	1,264.98	65.73	20.244	
9,800.00	9,788.86	9,806.53	9,795.86	33.08	33.94	82.88	140.00	1,051.94	1,330.71	1,264.27	66.45	20.027	
9,900.00	9,888.86	9,906.53	9,895.86	33.43	34.29	82.88	140.00	1,051.94	1,330.71	1,263.56	67.16	19.815	
10,000.00	9,988.86	10,006.53	9,995.86	33.78	34.65	82.88	140.00	1,051.94	1,330.71	1,262.85	67.87	19.608	
10,100.00	10,088.86	10,106.53	10,095.86	34.14	35.00	82.88	140.00	1,051.94	1,330.71	1,262.14	68.58	19.405	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slots 3 & 4 - 233H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG, 400-MWD - OWSG, 11168-MWD - OWSG — **Offset Well Error:** 0.00 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	10,188.86	10,206.53	10,195.86	34.49	35.36	82.88	140.00	1,051.94	1,330.71	1,261.43	69.29	19.205	
10,300.00	10,288.86	10,306.53	10,295.86	34.84	35.71	82.88	140.00	1,051.94	1,330.71	1,260.71	70.00	19.010	
10,400.00	10,388.86	10,406.53	10,395.86	35.19	36.07	82.88	140.00	1,051.94	1,330.71	1,260.00	70.71	18.819	
10,500.00	10,488.86	10,506.53	10,495.86	35.55	36.42	82.88	140.00	1,051.94	1,330.71	1,259.29	71.42	18.632	
10,600.00	10,588.86	10,606.53	10,595.86	35.90	36.78	82.88	140.00	1,051.94	1,330.71	1,258.58	72.13	18.448	
10,700.00	10,688.86	10,706.53	10,695.86	36.25	37.13	82.88	140.00	1,051.94	1,330.71	1,257.87	72.84	18.268	
10,788.24	10,777.10	10,805.23	10,784.10	36.41	37.48	82.88	140.00	1,051.94	1,330.71	1,257.36	73.35	18.141	
10,800.00	10,788.86	10,808.53	10,795.86	36.41	37.49	-96.91	140.00	1,051.94	1,330.73	1,257.37	73.36	18.140	
10,850.00	10,838.74	10,856.41	10,845.74	36.41	37.66	-97.01	140.00	1,051.94	1,331.12	1,257.58	73.54	18.101	
10,900.00	10,888.15	10,905.82	10,895.15	36.42	37.84	-97.23	140.00	1,051.94	1,332.06	1,258.35	73.72	18.070	
10,950.00	10,936.72	10,954.39	10,943.72	36.43	38.01	-97.56	140.00	1,051.94	1,333.63	1,259.74	73.89	18.049	
11,000.00	10,984.07	11,001.74	10,991.07	36.44	38.18	-97.98	140.00	1,051.94	1,335.92	1,261.85	74.06	18.037	
11,050.00	11,029.85	11,047.52	11,036.85	36.46	38.34	-98.45	140.00	1,051.94	1,339.05	1,264.81	74.24	18.038	
11,100.00	11,073.70	11,091.37	11,080.70	36.48	38.50	-98.93	140.00	1,051.94	1,343.17	1,268.77	74.40	18.052	
11,150.00	11,115.30	11,132.97	11,122.30	36.51	38.65	-99.38	140.00	1,051.94	1,348.46	1,273.89	74.57	18.083	
11,200.00	11,154.32	11,176.63	11,165.99	36.55	38.79	-99.88	139.93	1,051.95	1,355.06	1,280.32	74.74	18.131	
11,250.00	11,190.47	11,263.90	11,252.75	36.59	38.83	-101.43	131.95	1,051.99	1,362.34	1,287.57	74.77	18.221	
11,300.00	11,223.48	11,368.48	11,353.73	36.65	38.83	-103.14	105.20	1,052.12	1,369.44	1,294.78	74.66	18.342	
11,350.00	11,253.09	11,494.54	11,466.44	36.72	38.85	-104.89	49.32	1,052.40	1,375.72	1,301.31	74.40	18.490	
11,400.00	11,279.07	11,643.54	11,580.05	36.81	38.90	-106.36	-46.44	1,052.88	1,380.31	1,306.27	74.04	18.643	
11,450.00	11,301.24	11,809.78	11,672.95	36.91	39.04	-107.06	-183.59	1,053.57	1,382.35	1,308.53	73.82	18.726	
11,500.00	11,319.41	11,978.82	11,723.17	37.04	39.35	-106.68	-344.36	1,054.37	1,381.38	1,307.29	74.09	18.646	
11,550.00	11,333.46	12,089.25	11,730.06	37.18	39.68	-105.99	-454.43	1,054.93	1,378.00	1,303.33	74.67	18.455	
11,600.00	11,343.28	12,138.26	11,730.06	37.35	39.86	-105.86	-503.44	1,055.17	1,375.31	1,300.20	75.11	18.311	
11,650.00	11,348.78	12,187.94	11,730.06	37.54	40.05	-105.78	-553.12	1,055.42	1,373.86	1,298.32	75.54	18.188	
11,685.83	11,350.05	12,223.74	11,730.06	37.69	40.21	-105.76	-588.92	1,055.60	1,373.55	1,297.71	75.85	18.110	
11,688.25	11,350.06	12,226.16	11,730.06	37.70	40.22	-105.76	-591.33	1,055.61	1,373.55	1,297.69	75.87	18.105	
11,700.00	11,350.06	12,237.91	11,730.06	37.75	40.27	-105.76	-603.09	1,055.67	1,373.57	1,297.60	75.97	18.091	
11,800.00	11,350.06	12,337.91	11,730.05	38.22	40.75	-105.76	-703.09	1,056.17	1,373.88	1,298.78	76.90	17.864	
11,900.00	11,350.06	12,437.91	11,730.05	38.75	41.30	-105.75	-803.08	1,056.68	1,373.80	1,295.84	77.95	17.624	
12,000.00	11,350.05	12,537.91	11,730.05	39.36	41.90	-105.75	-903.08	1,057.18	1,373.91	1,294.79	79.12	17.364	
12,100.00	11,350.05	12,637.91	11,730.05	40.02	42.56	-105.75	-1,003.08	1,057.68	1,374.03	1,293.61	80.41	17.088	
12,200.00	11,350.05	12,737.91	11,730.05	40.75	43.28	-105.75	-1,103.08	1,058.18	1,374.14	1,292.33	81.81	16.797	
12,300.00	11,350.05	12,837.91	11,730.05	41.53	44.05	-105.75	-1,203.08	1,058.68	1,374.25	1,290.95	83.30	16.497	
12,400.00	11,350.05	12,937.91	11,730.05	42.36	44.86	-105.75	-1,303.08	1,059.18	1,374.37	1,289.47	84.90	16.188	
12,500.00	11,350.05	13,037.91	11,730.05	43.24	45.73	-105.75	-1,403.08	1,059.69	1,374.48	1,287.89	86.59	15.874	
12,600.00	11,350.05	13,137.91	11,730.04	44.16	46.64	-105.74	-1,503.08	1,060.19	1,374.60	1,286.23	88.36	15.556	
12,700.00	11,350.04	13,237.91	11,730.04	45.13	47.59	-105.74	-1,603.07	1,060.69	1,374.71	1,284.49	90.22	15.237	
12,800.00	11,350.04	13,337.91	11,730.04	46.14	48.57	-105.74	-1,703.07	1,061.19	1,374.83	1,282.67	92.16	14.918	
12,900.00	11,350.04	13,437.91	11,730.04	47.19	49.60	-105.74	-1,803.07	1,061.69	1,374.94	1,280.78	94.16	14.602	
13,000.00	11,350.04	13,537.91	11,730.04	48.27	50.66	-105.74	-1,903.07	1,062.19	1,375.06	1,278.82	96.24	14.288	
13,100.00	11,350.04	13,637.91	11,730.04	49.39	51.75	-105.74	-2,003.07	1,062.70	1,375.17	1,276.80	98.37	13.979	
13,200.00	11,350.04	13,737.91	11,730.04	50.53	52.87	-105.74	-2,103.07	1,063.20	1,375.29	1,274.72	100.57	13.675	
13,300.00	11,350.04	13,837.91	11,730.03	51.71	54.02	-105.74	-2,203.07	1,063.70	1,375.40	1,272.58	102.82	13.377	
13,400.00	11,350.03	13,937.91	11,730.03	52.91	55.20	-105.73	-2,303.07	1,064.20	1,375.52	1,270.39	105.13	13.085	
13,500.00	11,350.03	14,037.91	11,730.03	54.14	56.40	-105.73	-2,403.06	1,064.70	1,375.63	1,268.15	107.48	12.799	
13,600.00	11,350.03	14,137.91	11,730.03	55.38	57.63	-105.73	-2,503.06	1,065.21	1,375.74	1,265.87	109.88	12.521	
13,700.00	11,350.03	14,237.91	11,730.03	56.66	58.88	-105.73	-2,603.06	1,065.71	1,375.86	1,263.54	112.32	12.250	
13,800.00	11,350.03	14,337.91	11,730.03	57.95	60.14	-105.73	-2,703.06	1,066.21	1,375.97	1,261.18	114.80	11.986	
13,900.00	11,350.03	14,437.91	11,730.03	59.26	61.43	-105.73	-2,803.06	1,066.71	1,376.09	1,258.77	117.31	11.730	
14,000.00	11,350.03	14,537.91	11,730.03	60.59	62.74	-105.73	-2,903.06	1,067.21	1,376.20	1,256.34	119.87	11.481	
14,100.00	11,350.03	14,637.91	11,730.02	61.93	64.06	-105.72	-3,003.06	1,067.71	1,376.32	1,253.86	122.45	11.240	

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

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design MJ Federal Slots 3 & 4 - 233H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG, 400-MWD - OWSG, 11188-MWD - OWSG — **Offset Well Error:** 0.00 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
14,200.00	11,350.02	14,737.91	11,730.02	63.29	65.40	-105.72	-3,103.05	1,068.22	1,376.43	1,251.36	125.07	11.005	
14,300.00	11,350.02	14,837.91	11,730.02	64.87	66.75	-105.72	-3,203.05	1,068.72	1,376.55	1,248.83	127.71	10.778	
14,400.00	11,350.02	14,937.91	11,730.02	66.05	68.12	-105.72	-3,303.05	1,069.22	1,376.68	1,246.27	130.39	10.558	
14,500.00	11,350.02	15,037.91	11,730.02	67.46	69.50	-105.72	-3,403.05	1,069.72	1,376.78	1,243.69	133.08	10.345	
14,600.00	11,350.02	15,137.91	11,730.02	68.87	70.89	-105.72	-3,503.05	1,070.22	1,376.89	1,241.08	135.81	10.139	
14,700.00	11,350.02	15,237.91	11,730.02	70.29	72.30	-105.72	-3,603.05	1,070.72	1,377.01	1,238.45	138.55	9.939	
14,800.00	11,350.02	15,337.91	11,730.02	71.73	73.71	-105.72	-3,703.05	1,071.23	1,377.12	1,235.80	141.32	9.745	
14,900.00	11,350.01	15,437.91	11,730.01	73.17	75.14	-105.71	-3,803.05	1,071.73	1,377.23	1,233.13	144.10	9.557	
15,000.00	11,350.01	15,537.91	11,730.01	74.63	76.58	-105.71	-3,903.04	1,072.23	1,377.35	1,230.44	146.91	9.376	
15,100.00	11,350.01	15,637.91	11,730.01	76.09	78.02	-105.71	-4,003.04	1,072.73	1,377.46	1,227.74	149.73	9.200	
15,200.00	11,350.01	15,737.91	11,730.01	77.56	79.48	-105.71	-4,103.04	1,073.23	1,377.58	1,225.01	152.57	9.029	
15,300.00	11,350.01	15,837.91	11,730.01	79.04	80.94	-105.71	-4,203.04	1,073.73	1,377.69	1,222.27	155.42	8.864	
15,400.00	11,350.01	15,937.91	11,730.01	80.53	82.41	-105.71	-4,303.04	1,074.24	1,377.81	1,219.51	158.29	8.704	
15,500.00	11,350.01	16,037.91	11,730.01	82.03	83.89	-105.71	-4,403.04	1,074.74	1,377.92	1,216.75	161.18	8.549	
15,600.00	11,350.01	16,137.91	11,730.00	83.53	85.38	-105.70	-4,503.04	1,075.24	1,378.04	1,213.96	164.08	8.399	
15,700.00	11,350.00	16,237.91	11,730.00	85.03	86.87	-105.70	-4,603.03	1,075.74	1,378.15	1,211.17	166.99	8.253	
15,800.00	11,350.00	16,337.91	11,730.00	86.55	88.37	-105.70	-4,703.03	1,076.24	1,378.27	1,208.36	169.91	8.112	
15,900.00	11,350.00	16,437.91	11,730.00	88.07	89.87	-105.70	-4,803.03	1,076.74	1,378.38	1,205.54	172.84	7.975	
15,950.32	11,350.00	16,488.22	11,730.00	88.83	90.63	-105.70	-4,853.35	1,077.00	1,378.44	1,204.12	174.32	7.907 SF	

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RIG @ 3684.50usft (GL:3,656'+KB:28

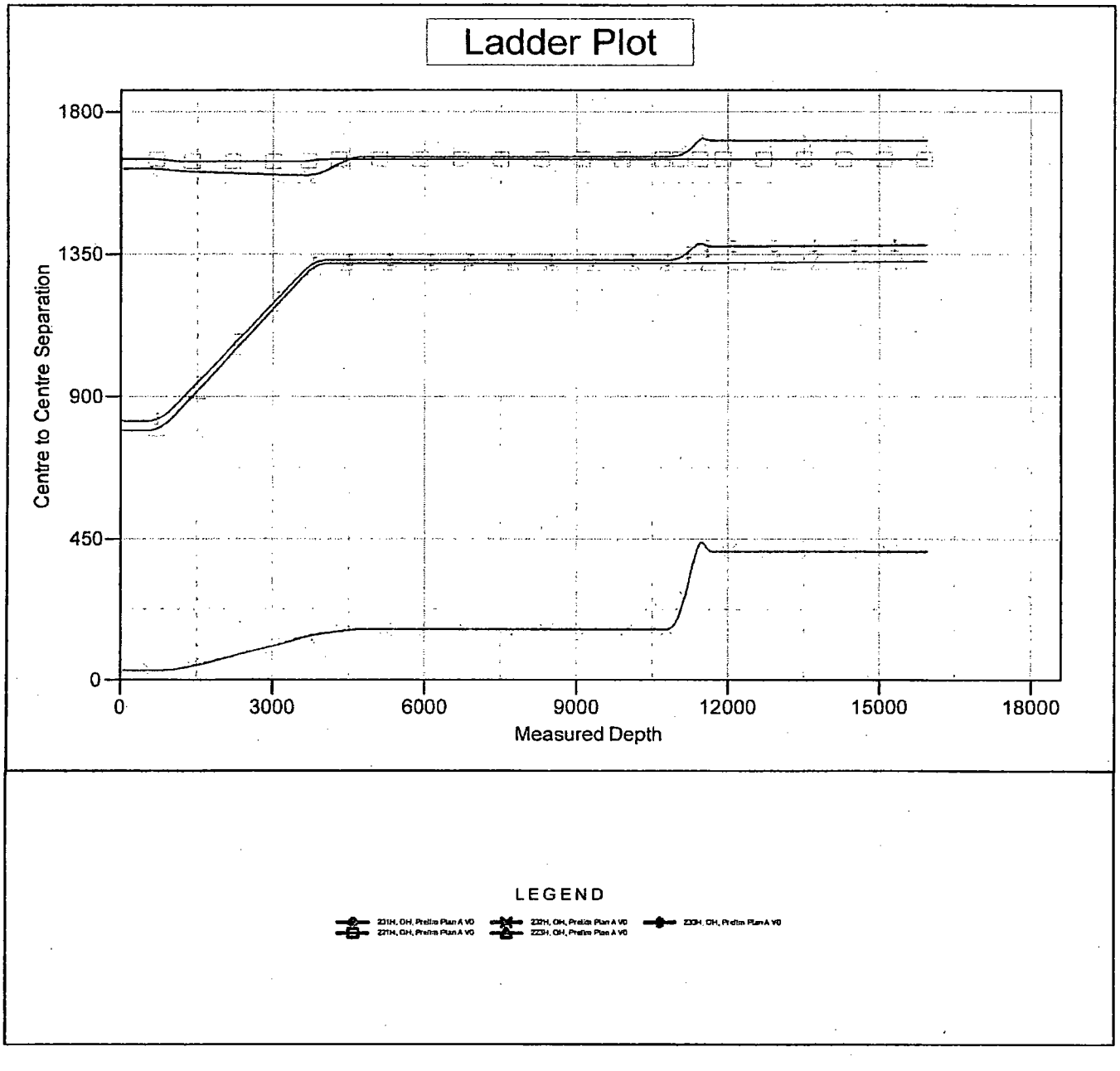
Offset Depths are relative to Offset Datum

Central Meridian is 104° 19' 60.0000 W

Coordinates are relative to: MJ Federal Slot 2

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grid Convergence at Surface is: 0.38°

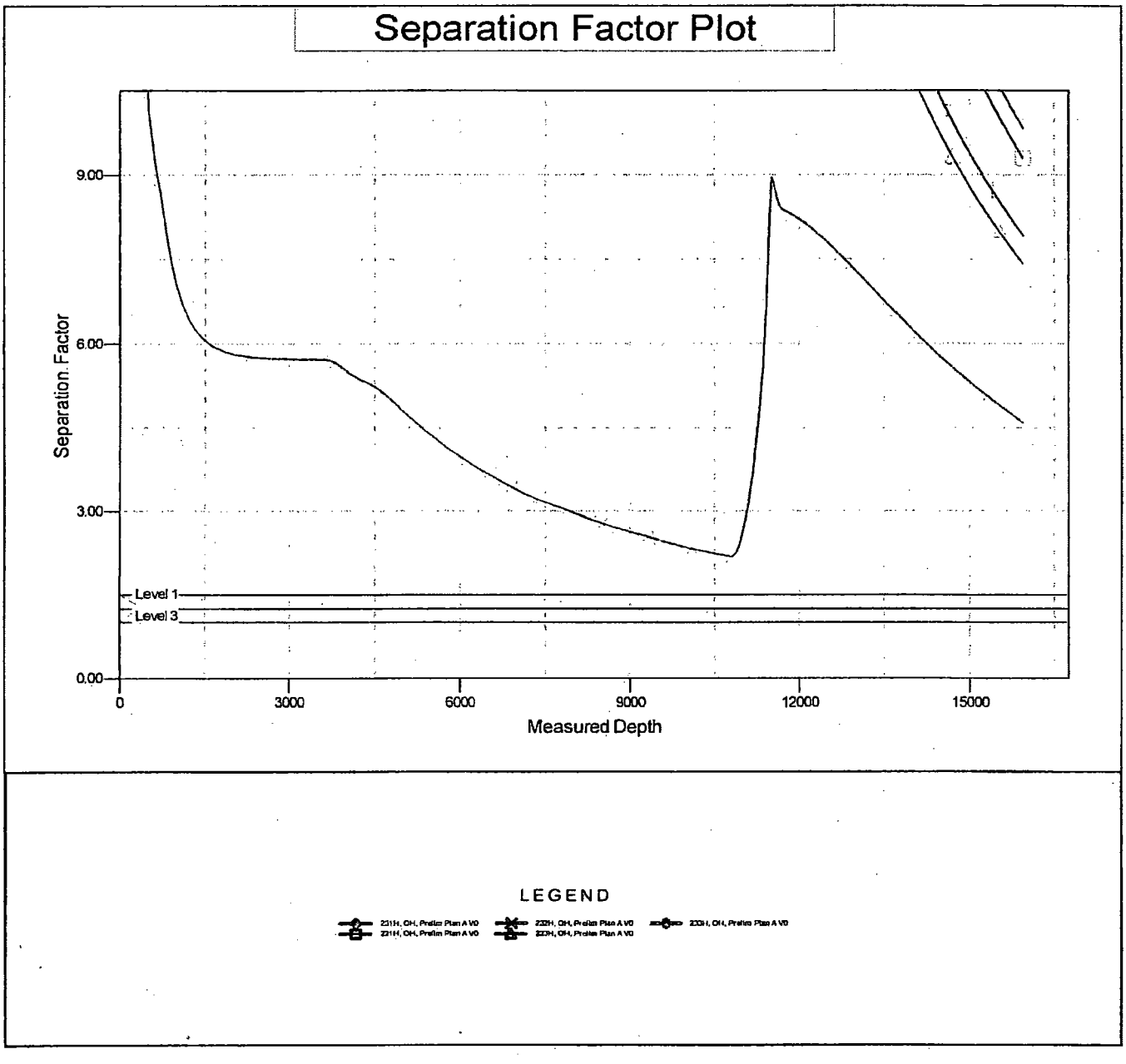


Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site MJ Federal Slot 2
Project:	Lea County, NM	**TVD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Reference Site:	MJ Federal Slot 2	**MD Reference:**	RIG @ 3684.50usft (GL:3,656'+KB:28.5')
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	222H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	WellPlanner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RIG @ 3684.50usft (GL:3,656'+KB:28	Coordinates are relative to: MJ Federal Slot 2
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Central Meridian is 104° 19' 60.0000 W	Grid Convergence at Surface is: 0.38°



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

Matador Production Company
MJ Federal 222H
SHL 186' FNL & 2249' FWL
BHL 240' FSL & 1980' FWL
Sec. 23, T. 19 S., R. 33 E., Lea County, NM

Drilling Program

1. ESTIMATED TOPS

Formation Name	TVD	MD	Bearing
Quaternary	000'	000'	water
Rustler anhydrite	1470'	1473'	N/A
Top salt	1575'	1578'	N/A
Base salt	3170'	3179'	N/A
Yates gypsum	3360'	3370'	N/A
Seven Rivers dolomite	3750'	3761'	N/A
Queen sandstone	4300'	4311'	N/A
Grayburg sandstone	4795'	4806'	N/A
Delaware Mt. Group sandstones	5520'	5531'	hydrocarbons
Brushy Canyon sandstone	6120'	6131'	hydrocarbons
Bone Spring Limestone	7945'	7956'	hydrocarbons
1st Bone Spring sandstone	9190'	9201'	hydrocarbons
2nd Bone Spring sandstone	9695'	9706'	hydrocarbons
3rd Bone Spring sandstone	10575'	10586'	hydrocarbons
Wolfcamp carbonates	10775'	10786'	
(KOP	10787'	10800'	hydrocarbons
Wolfcamp B sandstone	10990'	11006'	hydrocarbons & goal
TD	11350'	15950'	hydrocarbons

2. NOTABLE ZONES

Wolfcamp B is the goal. Hole will extend south of the last perforation point to allow for pump installation. All perforations will be ≥330' from the dedication perimeter. Closest water well (CP 00658) is 8518' southeast. Depth to water is unknown in this 100' deep inactive well.

3. PRESSURE CONTROL

A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attached BOP, choke manifold, co-flex hose, and speed head diagrams.

An accumulator complying with Onshore Order 2 for the BOP stack pressure rating will be present. Rotating head will be installed as needed.

Pressure tests will be conducted before drilling out from under all casing strings. BOP will be inspected and operated as required in Onshore Order 2. Kelly cock 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.

A third party company will test the BOPs.

After surface casing is set and the BOP is nippled up, then BOP pressure tests will be made to 250 psi low and 2000 psi high. Intermediate 1 pressure tests will be made to 250 psi low and 3000 psi high. Intermediate 2 pressure tests will be made to 250 psi low and 7500 psi high. Annular preventer will be tested to 250 psi low and 2500 psi high on the surface casing, and 250 psi low and 2500 psi high on the intermediate 1 and 2 casing.

In the case of running a speed head with landing mandrel for 9.625" and 7" casing, after surface casing is set, BOP test pressures will be 250 psi low and 3000 psi high. Wellhead seals will be tested to 5000 psi once the 9.625" casing has been landed and cemented. BOP will then be lifted to install the C-section of the wellhead. BOP will then be nippled back up and pressure tested to 250 psi low and 7500 psi high. Annular will be tested to 250 psi low and 2500 psi high.

Matador is requesting a variance to use a speed head. Speed head diameter range is 13.375" x 9.625" x 7.625" x 5.5".

Matador 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. Manufacturer does not require the hose to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

4. CASING & CEMENT

All casing will be API and new. See attached casing assumption work sheet. Minimum safety factors are: burst = 1.125, collapse = 1.125, tension = 1.8.

Hole O. D.	Set MD	Set TVD	Name	Casing O. D.	TOC	Weight (lb/ft)	Grade	Joint
20"	0' - 1495'	0' - 1492'	Surface	13.375"	GL	54.5	J-55	BTC
12.25"	0' - 5000'	0' - 4989'	Intermediate 1	9.625"	GL	40	J-55	BTC
8.75"	0' - 4900'	0' - 4889'	Intermediate 2	7.625"	4400'	29.7	P-110	BTC
	4900'- 10736'	4889' - 10725'		7.625"		29.7	P-110	VAM HTF-NR
	10736'- 11600'	10725' -11343'		7"		29	P-110	BTC
6.125"	0' - 10636'	0' - 10625'	Production	5.5"	10100'	20	P-110	Tenaris XP
	10636'- 15950'	10625'- 11350'		4.5"		13.5	P-110	Tenaris XP

Name	Type	Sacks	Yield	Cu. Ft.	Weight	Blend
Surface	Lead	1647	1.75	2882	13.5	Class C + 3% NaCl + LCM
	Tail	524	1.38	723	14.8	Class C + 5% NaCl + LCM
TOC = GL		100% Excess			Centralizers per Onshore Order 2.III.B.1f	
Intermediate 1	Lead	1166	1.81	2110	13.5	Class C + Bentonite + 1% $CaCl_2$ + 8% NaCl + LCM
	Tail	454	1.38	626	14.8	Class C + 5% NaCl + LCM
TOC = GL		100% Excess			2 on btm jt, 1 on 2nd jt, 1 every 4th jt to surface	
Intermediate 2	Lead	836	2.36	1972	11.5	TXI + Fluid Loss + Dispersant + Retarder + LCM
	Tail	190	1.38	262	13.2	TXI + Fluid Loss + Dispersant + Retarder + LCM
TOC = 4000'		35% Excess			2 on btm jt, 1 on 2nd jt, 1 every other jt to top of tail cement (500' above TOC), 1 every 4th jt to GL	
Production	Tail	402	1.38	554	15.8	Class H + Fluid Loss + Dispersant + Retarder + LCM
TOC = 10600'		10% Excess			2 on btm jt, 1 on 2nd jt, 1 every third jt to top of tail cement (1000' tie back)	

Matador requests the option to run a DV tool with annular packer as contingency in the intermediate or production casing if lost circulation occurs. If losses occur, then a DV tool with packer will be placed ≥100' above the loss zone to give the option to pump cement as either a single stage or two stage.

5. MUD PROGRAM

An electronic Pason mud monitoring system complying with Onshore Order 1 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions. A closed loop system will be used.

Type	Casing	Interval (MD)	lb/gal	Viscosity	Fluid Loss
fresh water spud	surface	0' - 1495'	8.3	28	NC
brine water	intermediate 1	1495' - 5000'	10.0	30-32	NC
fresh water & cut brine	intermediate 2	5000' - 11600'	9.0	30-31	NC
OBM	production	11600' - 15950'	12.5	50-60	<10

6. CORES, TESTS, & LOGS

No core or drill stem test is planned.

A 2-person mud logging program will be used from ≈1475' to TD.

No electric log is planned at this time. GR will be collected through the MWD tools from intermediate casing to TD. CBL with CCL will be run 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 ≈7945 psi. Expected bottom hole temperature is ≈170° F.

In accordance with Onshore Order 6, Matador does not anticipate that there will be enough H_2S from the surface to the Bone Spring to meet BLM's minimum requirements for submitting an "H_2S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Since Matador has an H_2S safety package on all wells, an "H_2S Drilling Operations Plan" is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

8. OTHER INFORMATION

Anticipated spud date is upon approval. It is expected it will take ≈3 months to drill and complete the well.

Matador Production Company owns the majority working interest in this well. Per its discussions with its potential partners, Matador will be named operator upon execution of the final Operating Agreements signed by the partners or the issuance of a pooling order by the State.

Matador requests the option to run a DV tool with annular packer as contingency in the intermediate 1 section on 9-5/8" casing if lost circulation is encountered. If losses occur the DV tool with packer will be placed at least 100' above loss zone to give the option to pump cement as either a single stage or two stage.

Matador DV Tool Specifications

Example:

Assuming DV tool set at 4500' MD but if the setting depth changes, cement volumes will be adjusted proportionately.

Stage 1:

Lead	1262	1.81	13.5	Class C + Bentonite + 1% CaCL2 + 8% NaCl + LCM
Tail	490	1.38	14.8	Class C + 5% NaCl + LCM
100% excess, TOC = 0' MD				

Stage 2:

Lead	1324	1.81	13.5	Class C + Bentonite + 1% CaCL2 + 8% NaCl + LCM
100% excess, TOC = 0' MD				

- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: DF_b=1.125

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 100 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.65 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.47 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: DF_t=1.8

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

Production Casing

Collapse: DF_c=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.65 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: DF_b=1.125

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.65 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: DF_t=1.8

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (12.5 ppg).

Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: DF_C=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst: DF_b=1.125

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: DF_t=1.8

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #1 Casing

Collapse: DF_C=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: DF_b=1.125

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.47 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: DF_t=1.8

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

Intermediate #2 Casing

Collapse: DF_C=1.125

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that (0.65 psi/ft).

For the latest performance data, always visit our website: www.tenaris.com

December 31 2015

Tenaris

Connection: TenarisXP® BTC
Casing/Tubing: CAS
Coupling Option: REGULAR

Size: 4.500 in.
Wall: 0.290 in.
Weight: 13.50 lbs/ft
Grade: P110-ICY
Min. Wall Thickness: 87.5 %

Nominal OD	4.500 in.	Nominal Weight	13.50 lbs/ft	Standard Drift Diameter	3.795 in.
Nominal ID	3.920 in.	Wall Thickness	0.290 in.	Special Drift Diameter	N/A
Plain End Weight	13.05 lbs/ft				

Body Yield Strength	479 x 1000 lbs	Internal Yield	14100 psi	SMYS	125000 psi
Collapse	11620 psi				

Connection OD	5.000 in.	Coupling Length	9.075 in.	Connection ID	3.908 in.
Critical Section Area	3.836 sq. in.	Threads per in.	5.00	Make-Up Loss	4.016 in.

Tension Efficiency	100 %	Joint Yield Strength	479 x 1000 lbs	Internal Pressure Capacity[1]	14100 psi
Structural Compression Efficiency	100 %	Structural Compression Strength	479 x 1000 lbs	Structural Bending[2]	127 °/100 ft
External Pressure Capacity	11620 psi				

Minimum	6950 ft-lbs	Optimum	7720 ft-lbs	Maximum	8490 ft-lbs

Operating Torque	10500 ft-lbs	Yield Torque	12200 ft-lbs		

Blanking Dimensions

BLANKING DIMENSIONS

Blanking Dimensions

(1) Internal Pressure Capacity related to structural resistance only. Internal pressure leak resistance as per section 10.3 API 5C3 / ISO 10400 - 2007.

(2) Structural rating, pure bending to yield (i.e no other loads applied)

(3) Torque values calculated for API Modified thread compounds with Friction Factor=1. For other thread compounds please contact us at licensees@oilfield.tenaris.com. Torque values may be further reviewed.

For additional information, please contact us at contact-tenarishydril@tenaris.com

For the latest performance data, always visit our website: www.tenaris.com

July 15 2015

Tenaris

Size: 5.500 in.
Wall: 0.361 in.
Weight: 20.00 lbs/ft
Grade: P110-IC
Min. Wall Thickness: 87.5 %

Connection: TenarisXP™ BTC
Casing/Tubing: CAS
Coupling Option: REGULAR

PIPE BODY DATA

GEOMETRY

Nominal OD	**5.500** in.	Nominal Weight	**20.00** lbs/ft	Standard Drift Diameter	**4.653** in.
Nominal ID	**4.778** in.	Wall Thickness	**0.361** in.	Special Drift Diameter	**N/A**
Plain End Weight	**19.83** lbs/ft				

PERFORMANCE

Body Yield Strength	**641** x 1000 lbs	Internal Yield	**12630** psi	SMYS	**110000** psi
Collapse	**12100** psi				

TENARISXP™ BTC CONNECTION DATA

GEOMETRY

Connection OD	**6.100** in.	Coupling Length	**9.450** in.	Connection ID	**4.766** in.
Critical Section Area	**5.828** sq. in.	Threads per in.	**5.00**	Make-Up Loss	**4.204** in.

PERFORMANCE

Tension Efficiency	**100** %	Joint Yield Strength	**641** x 1000 lbs	Internal Pressure Capacity(1)	**12630** psi
Structural Compression Efficiency	**100** %	Structural Compression Strength	**641** x 1000 lbs	Structural Bending(2)	**92** °/100 ft
External Pressure Capacity	**12100** psi				

ESTIMATED MAKE-UP TORQUES(3)

Minimum	**11270** ft-lbs	Optimum	**12520** ft-lbs	Maximum	**13770** ft-lbs

OPERATIONAL LIMIT TORQUES

Operating Torque	**21500** ft-lbs	Yield Torque	**23900** ft-lbs		

Issued on: 12 Janv. 2017 by T. DELBOSCO

VRCC 16-1177 Rev02 for Houston Field Service

DATA ARE INFORMATIVE ONLY.
BASED ON SI_PD-101836 P&B

VAM® HTF-NR™
Connection Data Sheet

OD	Weight	Wall Th.	Grade	API Drift	Connection
7 5/8 in.	29.70 lb/ft	0.375 in.	P110 EC	6.750 in.	VAM® HTF NR

PIPE PROPERTIES	
Nominal OD	7.625 in.
Nominal ID	6.875 in.
Nominal Cross Section Area	8.541 sqin.
Grade Type	Enhanced API
Min. Yield Strength	125 ksi
Max. Yield Strength	140 ksi
Min. Ultimate Tensile Strength	135 ksi
Tensile Yield Strength	1 068 klb
Internal Yield Pressure	10 760 psi
Collapse pressure	7 360 psi

CONNECTION PROPERTIES	
Connection Type	Premium Integral Flush
Connection OD (nom)	7.701 in.
Connection ID (nom)	6.782 in.
Make-Up Loss	4.657 in.
Critical Cross Section	4.971 sqin.
Tension Efficiency	58 % of pipe
Compression Efficiency	72.7 % of pipe
Compression Efficiency with Sealability	34.8 % of pipe
Internal Pressure Efficiency	100 % of pipe
External Pressure Efficiency	100 % of pipe

CONNECTION PERFORMANCES	
Tensile Yield Strength	619 klb
Compression Resistance	778 klb
Compression with Sealability	372 klb
Internal Yield Pressure	10 760 psi
External Pressure Resistance	7 360 psi
Max. Bending	44 °/100ft
Max. Bending with Sealability	17 °/100ft

TORQUE VALUES	
Min. Make-up torque	9 600 ft.lb
Opti. Make-up torque	11 300 ft.lb
Max. Make-up torque	13 000 ft.lb
Max. Torque with Sealability	58 500 ft.lb
Max. Torsional Value	73 000 ft.lb

VAM® HTF™ (High Torque Flush) is a flush OD integral connection providing maximum clearance along with torque strength for challenging applications such as extended reach and slim hole wells, drilling liner / casing, liner rotation to acheive better cementation in highly deviated and critical High Pressure / High Temperature wells.

Looking ahea on the outcoming testing industry standards, VAM® decided to create an upgraded design and launch on the market the VAM® HTF-NR as the new standard version of VAM® extreme high torque flush connection. The VAM® HTF-NR has extensive tests as per API RP 5C5:2015 CAL II which include the gas sealability having load points with bending, internal pressure and high temperature at 135°C.

Do you need help on this product? - Remember no one knows VAM® like VAM®

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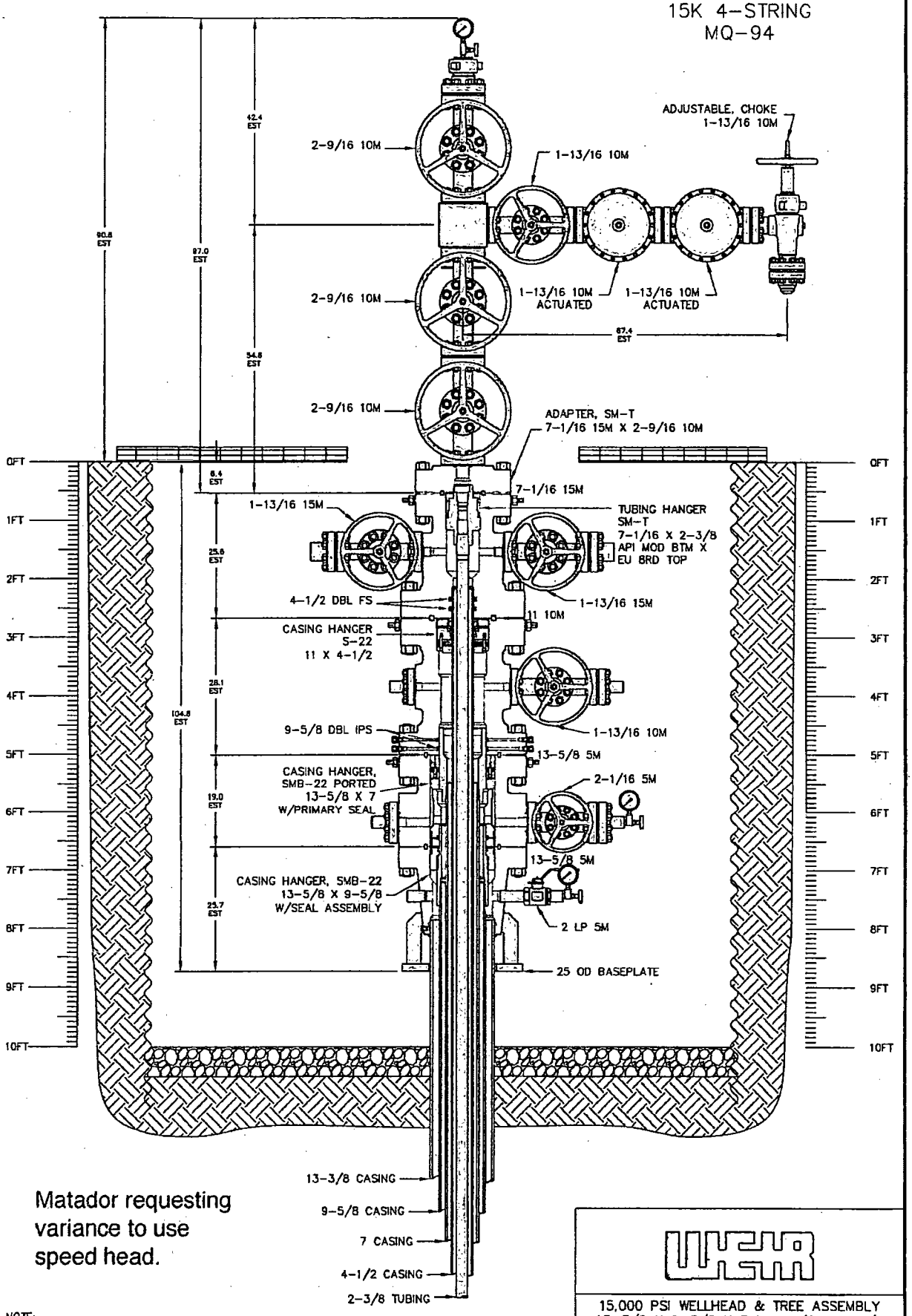
Over 180 VAM® Specialists available worldwide 24/7 for Rig Site Assistance

Other Connection Data Sheets are available at www.vamservices.com

Vallourec Group

vallourec

MATADOR
15K 4-STRING
MQ-94



Matador requesting variance to use speed head.

NOTE:
DIMENSIONS SHOWN ON THIS DRAWING ARE ESTIMATES ONLY AND CAN VARY SIGNIFICANTLY DEPENDING ON RAW MATERIAL LENGTHS. NO GUARANTEE OF STACKUP HEIGHT IS IMPLIED. DIMENSIONS SHOWN SHOULD BE CONSIDERED

15,000 PSI WELLHEAD & TREE ASSEMBLY
13-3/8 X 9-5/8 X 7 X 4-1/2 X 2-3/8

DRAWN BY:	RPL	SCALE	1:10	DATE	18JAN16	REV
CHECKED BY:		DRAWING NO.				

Matador Production Company
MJ Federal 222H
SHL 186' FNL & 2249' FWL
BHL 240' FSL & 1980' FWL
Sec. 23, T. 19 S., R. 33 E., Lea County, NM

Surface Use Plan

1. ROAD DIRECTIONS & DESCRIPTIONS (See MAPS 1 - 5)

From the junction of US 285 and US 62/180 in Carlsbad...
Go E 26.6 miles on US 62/180 to NM 243
Then turn left and go N and NE 3.7 miles on paved NM 243
Then turn left and go N 6.1 miles on paved County Road 126
Then turn right and go ENE 5.1 miles on a caliche road
Then turn left and go N 0.15 miles on a caliche road.
Then turn right and go ESE 4.1 miles on a caliche road
Then turn left and go N 0.8 miles on a caliche road
Then turn right and go E 0.4 mile on a caliche road to SE corner of Legacy's pad
Then turn left and go E & N 643' cross-country to the proposed pad

Non-county roads will be maintained as needed to Gold Book standards. This includes pulling ditches, preserving the crown, and cleaning culverts. This will be done at least once a year, and more often as needed.

2. ROAD TO BE BUILT OR UPGRADED (See MAP 5)

The 643' of new road will be crowned and ditched, have a 14' wide driving surface, and be surfaced with caliche. Maximum disturbed width = 30'. Maximum grade = 1%. Maximum cut or fill = 1'. No culvert, cattle guard, or vehicle turn out is needed. Upgrading will consist of patching potholes with caliche.

3. EXISTING WELLS (See MAP 3)

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

4. PROPOSED PRODUCTION FACILITIES

No pipeline or power line plans have been finalized at this time.

5. WATER SUPPLY (See MAP 6)

Water will be trucked from existing water stations on private land. Sonny's water station (L 07431A) is in NENE 5-19s-36e. Berry's water station (CP 00802) is in SWNE 2-21s-33e.

6. CONSTRUCTION MATERIALS & METHODS (See MAPS 6 & 7)

NM One Call (811) will be notified before construction starts. Top ≈6" of soil and brush will be stockpiled south of the pad. V-door will face north. Closed loop drilling system will be used. Caliche will be hauled from existing caliche pits on private land. Caviness pit is in SWNE 9-18s-33e. Berry pit is in SENE 35-20s-34e.

7. WASTE DISPOSAL

All trash will be placed in a portable trash cage. It will be hauled to the Lea 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 Hobbs 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, and mud logger.

9. WELL SITE LAYOUT (See MAP 7)

Also see Rig Layout diagram for depictions of the well pad, trash cage, access onto the location, parking, living facilities, and rig orientation.

10. RECLAMATION (See MAPS 8 & 9)

Interim reclamation will be completed within 6 months of completing the well. Interim reclamation will consist of shrinking the pad ≈24% (0.87 acre) by removing caliche and reclaiming the southwest corner (100' x 380'). This will leave 2.78 acres for the production equipment (e. g., tank battery, heater-treaters, flare/CBU), pump jacks, and tractor-trailer turn around. 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 the surface owner's requirements.

Enough stockpiled topsoil will be retained to cover the remainder of the pad when the well is plugged. Once the well is plugged, then the rest of the pad and 643' of new road will be similarly reclaimed within 6 months of plugging. Noxious weeds will be controlled. Land use:

643' x 30' road = 0.44 acre
+ 370' x 430' pad = 3.65 acres
4.09 acres short term
- 0.24 acre interim reclamation
3.85 acres long term (0.44 ac. road + 3.41 ac. pad)

11. SURFACE OWNER

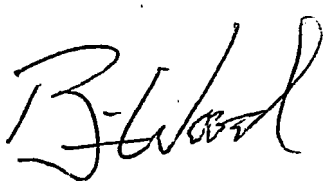
All construction will be on BLM.

12. OTHER INFORMATION

On site inspection was held with Vance Wolf (BLM) on April 20, 2017. Lone Mountain will inspect and file an archaeology report.

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 4th day of August, 2017.



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