PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMLC065607
WELL NAME & NO.:	114H-Verna RAE Fed Com
SURFACE HOLE FOOTAGE:	229'/N & 722'/N
BOTTOM HOLE FOOTAGE	240'/S & 660'/E
LOCATION:	Section 6, R. 34E, T.20S, NMPM
COUNTY:	Lea County, New Mexico.

Potash	○ None	◉ Secretary	○ R-111-P
Cave/Karst Potential	○ Low	◉ Medium	○ High
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	
Other	☐ 4 String Area	☒ Capitan Reef	☐ WIPP

A. Hydrogen Sulfide

1. A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Yates - Seven Rivers** 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.

B. CASING

1. The **20** inch surface casing shall be set at approximately **1600** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.

   a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

   b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

   c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours

after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

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

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

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

Option 1;

- 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 and Capitan Reef.**

Option 2;

Operator has proposed DV tool, the depth may be adjusted as long as the cement is changed proportionally. 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 off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

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

❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:

- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.

- Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on

these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

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

    - Cement should tie-back at least **50 feet above the Capitan Reef** (Top of Capitan Reef estimated at 4750'). Operator shall provide method of verification.

C. PRESSURE CONTROL

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

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

3.

Option 1:

i. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9 5/8** inch intermediate casing shoe shall be **3000 (3M)** psi.

Option 2:

i. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the intermediate casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9 5/8** first intermediate casing shoe shall be **3000 (3M)** psi.

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.

c. Manufacturer representative shall install the test plug for the initial BOP test.

d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

D. SPECIAL REQUIREMENT(S)

Waste Minimization Plan (WMP)

In the interest of resource development, submission of additional well gas capture development plan information is deferred but may be required by the BLM Authorized Officer at a later date.

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

MHH 12102017

GENERAL REQUIREMENTS

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

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

☒ Chaves and Roosevelt Counties
Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
During office hours call (575) 627-0272.
After office hours call (575)

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

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

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

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Operator shall perform the intermediate casing integrity test 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.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after

installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

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

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

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

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

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

downstream facilities could cause flaring at the wellhead. The actual flow of the gas will be based on compression operating parameters and gathering system pressures measured when the well starts producing.

Flowback Strategy

After fracture treatment/completion operations (flowback), the well will be produced to temporary production tanks and the gas will be flared or vented. During flowback, the fluids and sand content will be monitored. If the produced fluids contain minimal sand, then the well will be turned to production facilities. The gas sales should start as soon as the well starts flowing through the production facilities, unless there are operational issues on the midstream system at that time. Based on current information, it is Matador's belief the system will be able to take the gas upon completion of the well.

Safety requirements during cleanout operations may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint, but determined to be impractical, to reduce the amount of gas flared.

- Power Generation – On lease
  - Operating a generator will only utilize a portion of the produced gas and the remainder of gas would still need to be flared.
  - Power generation also requires an agreement with a power company that is willing to purchase the gas. The terms of any such agreement typically require a long term commitment from the operator at certain and steady deliverables. With gas decline rates and the unpredictability of markets, it is impracticable for the operator to agree to a long term commitment because as the wells decline the operator would be burdened with penalties for failure to meet the deliverables.
- Compressed Natural Gas – On lease
  - Compressed Natural Gas is likely to be uneconomic to operate when the gas volume declines.
- NGL Removal – On lease
  - NGL Removal requires a plant and is expensive on such a small scale rendering it uneconomic and still requires residue gas to be flared.

Approval Date: 12/21/2017

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMLC065607
WELL NAME & NO.:	114H-Verna RAE Fed Com
SURFACE HOLE FOOTAGE:	229'/N & 722'/N
BOTTOM HOLE FOOTAGE	240'/S & 660'/E
LOCATION:	Section 6, R. 34E, T.20S, NMPM
COUNTY:	Lea County, New Mexico.

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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.

Potash

Lessees must comply with the 2012Secretarial Potash Order. The Order is designed to manage the efficient development of oil, gas, and potash resources. Section 6 of the Order provides general provisions which must be followed to minimize conflict between the industries and ensure the safety of operations. Three exceptions to this policy will be permitted if the drilling will occur under the following conditions from:

(a) A Drilling Island associated with a Development Area established under this Order or a Drilling Island established under a prior Order;

(b) A Barren Area and the Authorized Officer determines that such operations will not adversely affect active or planned potash mining operations in the immediate vicinity of the proposed drill-site; or

(c) A Drilling Island, not covered by (a) above or single well site established under this Order by the approval and in the sole discretion of the Authorized Officer, provided that such site was jointly recommended to the Authorized Officer by the oil and gas lessee(s) and the nearest potash lessee(s).

When the Authorized Officer determines that unitization is necessary for orderly oil and gas development and proper protection of potash deposits, no well shall be drilled for oil or gas except pursuant to a unit plan approved by the authorized officer.

The drilling or the abandonment of any well on said lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Authorized Officer may prescribe as necessary to prevent the infiltration of oil, gas or water into formations containing potash deposits or into mines or working being utilized in the extraction of such deposits.

To minimize impacts to potash resources, the proposed well is confined within the boundaries of the established Verna Rae Drill Island (See Potash Memo and Map in attached file for Drill Island description).

Watershed

The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.

1. The compacted berm shall be constructed at a minimum of 24 inches high with impermeable mineral material (e.g. caliche).
2. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
3. The topsoil stockpile shall be located outside the bermed well pad.
4. Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
5. No storm drains, tubing or openings shall be placed in the berm.
6. 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.
7. 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.
8. 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.)

Tank Battery:

1. 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.
1. 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.

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.

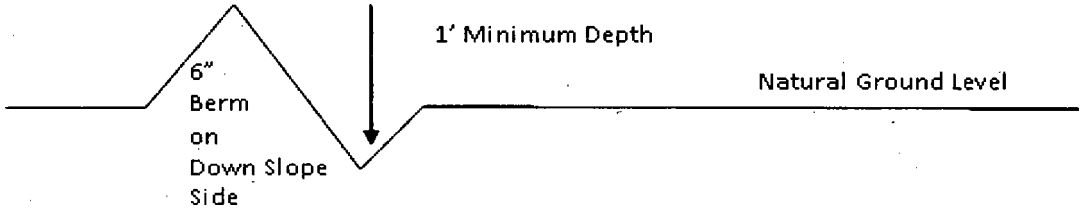
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

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

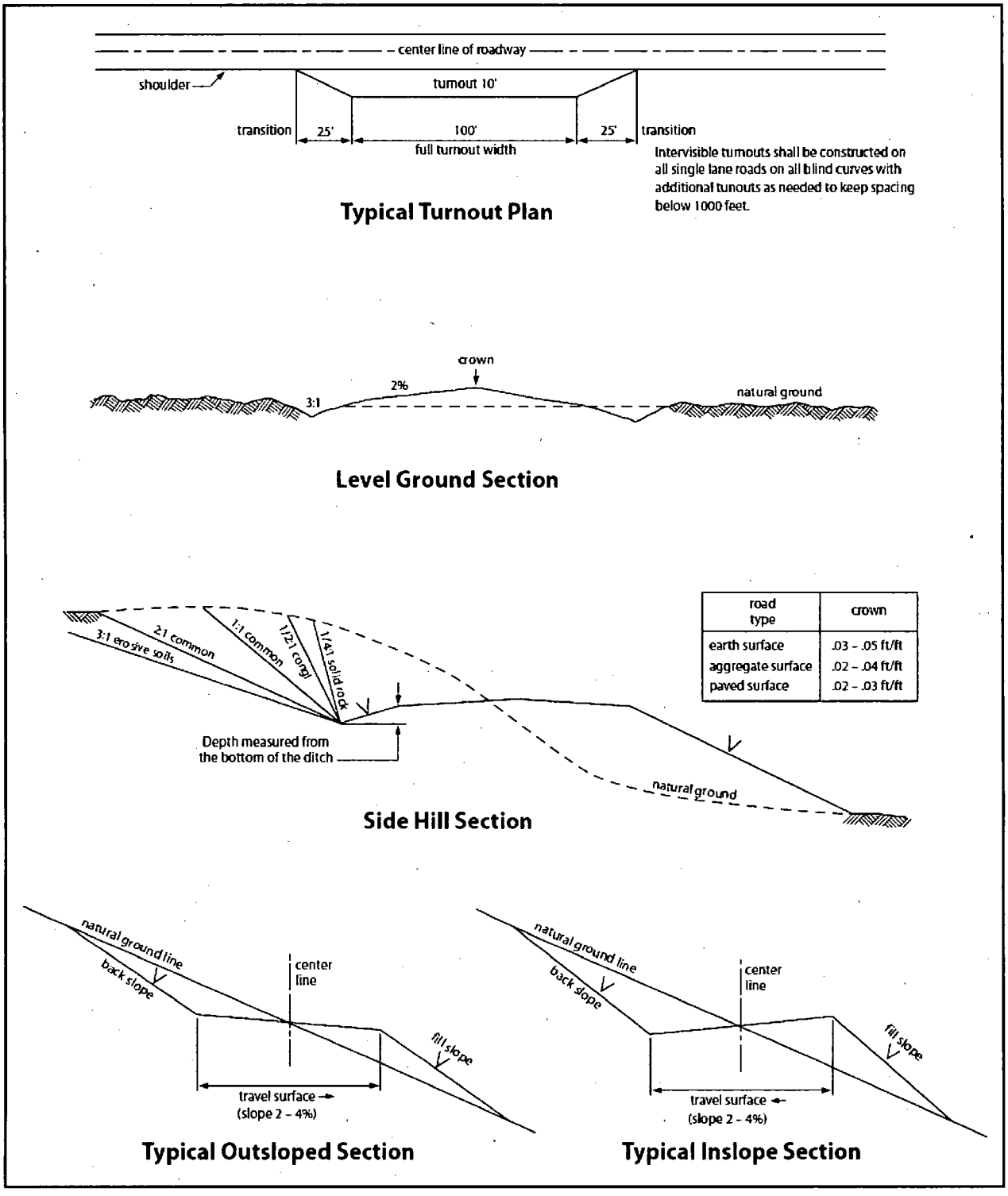


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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).

B. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder 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 will be made by the

Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:
    - For reclamation remove poles, lines, transformer, etc. and dispose of properly.
    - Fill in any holes from the poles removed.

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, geophysical exploration other than 3-D operations, and 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 ft. from the source of the noise.

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

Hydrogen Sulfide Drilling

Operations Plan

Matador Resources

1 H2S safety instructions to the following:

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

Production Casing

Collapse: DF_c=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 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 (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: DF_b=1.125

- Pressure Test: 8000 psi casing test 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.
- 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 (0.47 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).

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
Verna Rae Fed Com wells
Matador Production Company
Sec. 6, T20S, R34E 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	

Matador Resources
Lea County, NM
Verna Rae
114H
Prelim Plan A
GL:3624'+KB:28.5'(809)

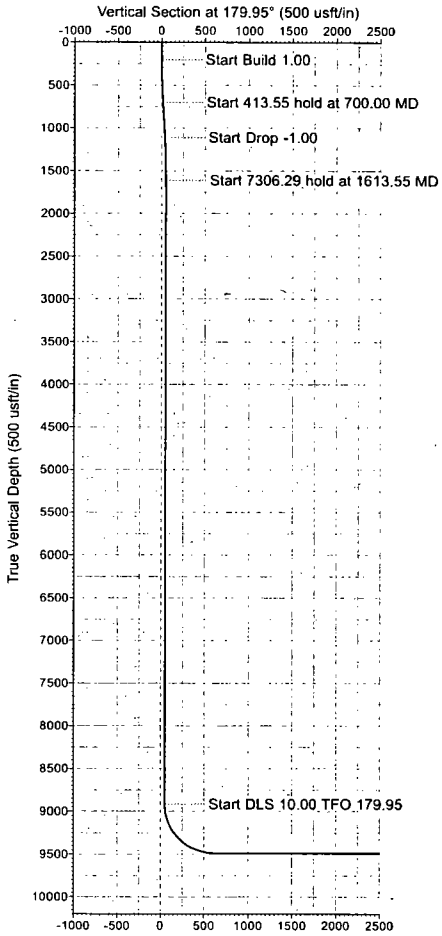
US State Plane 1927 (Exact solution)
NAD 1927 (NADCON CONUS)
Clarke 1866
New Mexico East 3001
Mean Sea Level

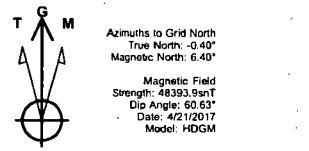
RKB Elevation: Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	585932.00	728049.00	32° 36' 31.133 N	103° 35' 33.914 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	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00
3	700.00	5.00	128.88	699.37	-13.69	16.97	1.00	13.70
4	1113.55	5.00	128.88	1111.35	-36.31	45.03	0.00	36.35
5	1613.55	0.00	0.00	1610.71	-50.00	62.00	1.00	50.05
6	8919.84	0.00	0.00	8917.00	-50.00	62.00	0.00	50.05
7	9819.84	90.00	179.95	9489.96	-622.95	62.48	10.00	623.01
8	14000.89	90.00	179.95	9490.00	-4804.00	66.00	0.00	4804.06





Azimuths to Grid North
True North: -0.40°
Magnetic North: 6.40°

Magnetic Field
Strength: 48393.9snT
Dip Angle: 60.63°
Date: 4/21/2017
Model: HDGM

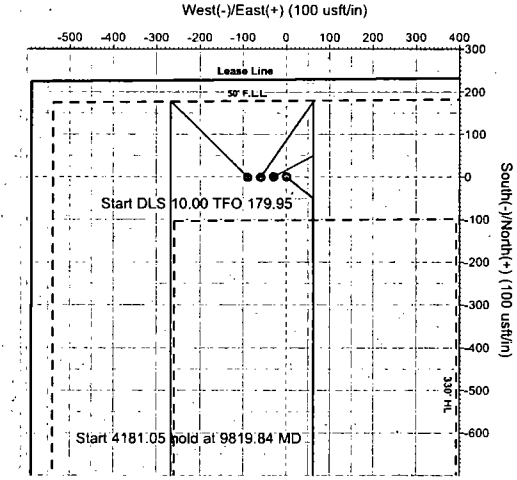
Azimuth Corrections

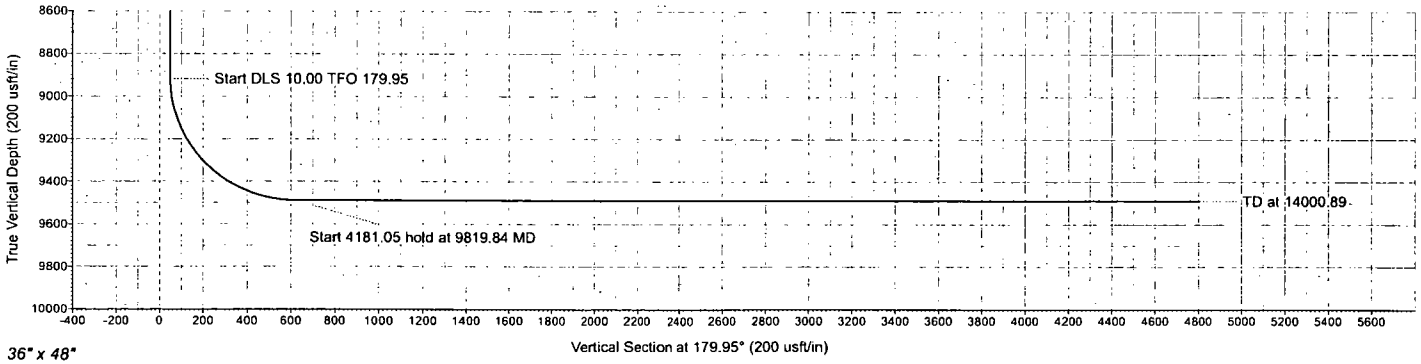
Total Magnetic Corr. (M to G): 6.40°

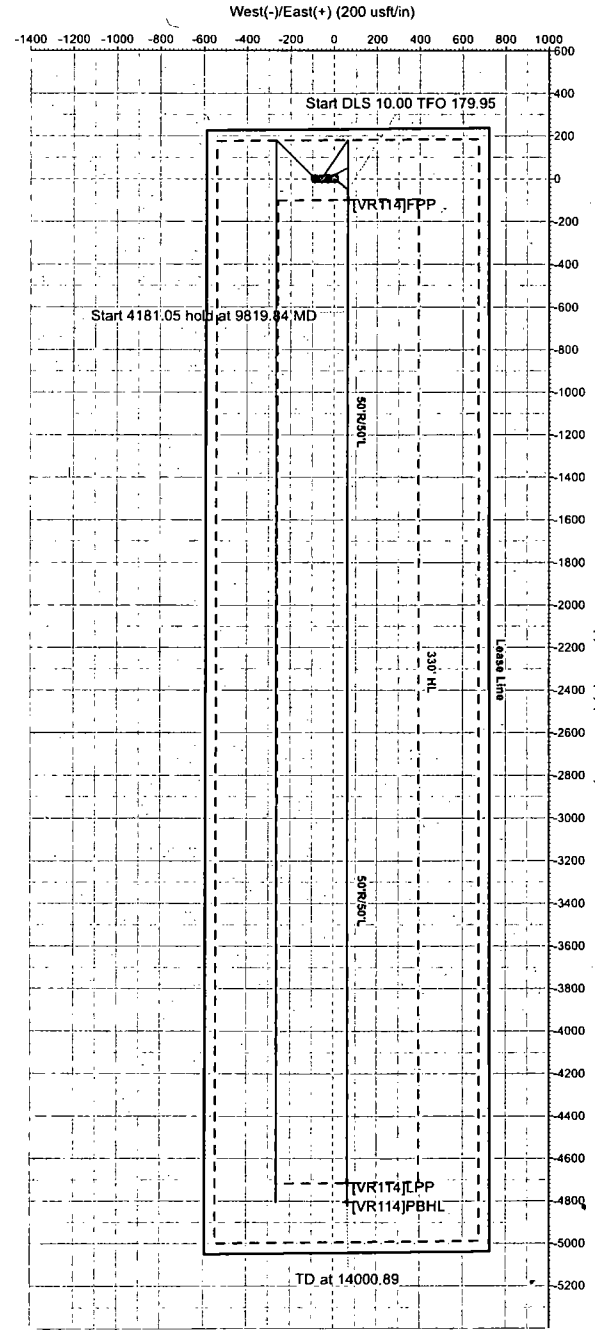
Declination (M to T) 6.80° East

LEGEND

- 124H, OH, Prelim Plan A V0
- 204H, OH, Prelim Plan A V0
- 134H, OH, Prelim Plan A V0
- Prelim Plan A





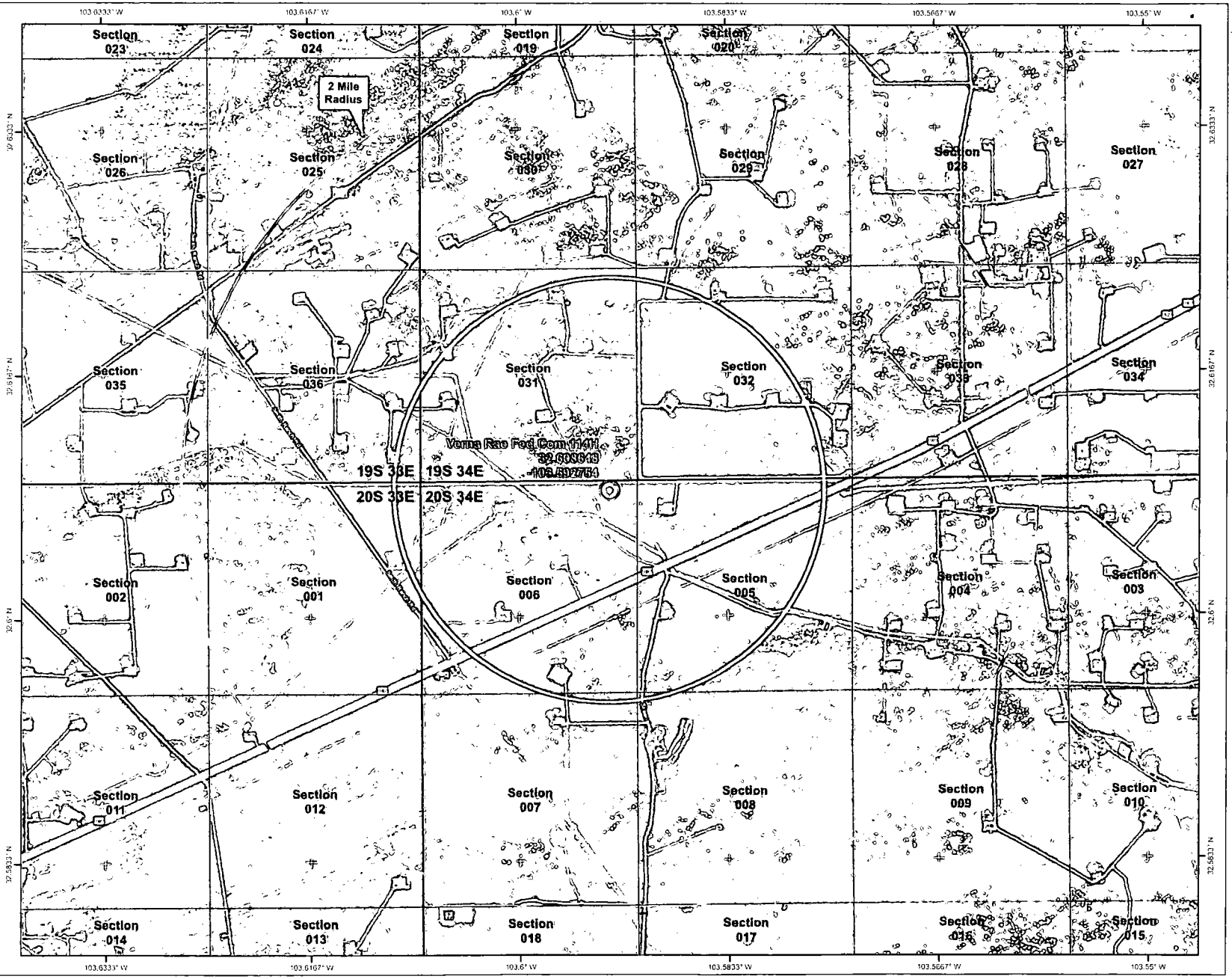


36" x 48"

Matador Production Company

Verna Rae Fed Com #114H
H_2S Contingency Plan:
2 Mile Radius Map

Section 6, Township 20S, Range 34E
Lea County, New Mexico



Surface Hole Location

1:27,000

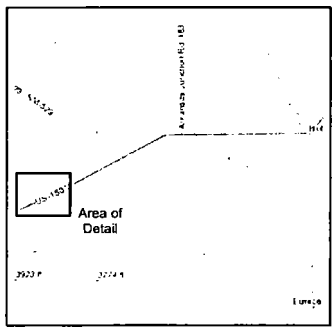
0 0.25 0.5 1

Miles

NAD 1927 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST, INC.

Prepared by Permits West, Inc., May 16, 2017
for Matador Production Company



Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Reference Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	114H	**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** 4/28/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	14,000.89	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
Verna Rae						
124H - OH - Prelim Plan A	200.00	204.00	30.00	29.01	30.158	CC
124H - OH - Prelim Plan A	300.00	304.01	30.68	28.98	18.049	ES
124H - OH - Prelim Plan A	8,919.84	8,916.94	100.00	36.93	1.586	SF
134H - OH - Prelim Plan A	200.00	200.00	60.01	59.04	61.658	CC
134H - OH - Prelim Plan A	300.00	300.01	60.68	59.00	36.152	ES
134H - OH - Prelim Plan A	8,919.84	8,925.82	228.00	164.83	3.609	SF
204H - OH - Prelim Plan A	200.00	200.00	90.01	89.03	92.479	CC, ES
204H - OH - Prelim Plan A	8,950.00	8,957.53	401.56	338.32	6.350	SF

Offset Design Verna Rae - 124H - 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	4.00	-4.00	0.00	0.01	-90.00	0.00	-30.00	30.00				
100.00	100.00	104.00	96.00	0.13	0.15	-90.00	0.00	-30.00	30.00	29.72	0.28	107.985	
200.00	200.00	204.00	196.00	0.49	0.51	-90.00	0.00	-30.00	30.00	29.01	0.99	30.158	CC
300.00	299.99	304.01	295.99	0.83	0.87	142.13	0.00	-30.00	30.68	28.98	1.70	18.049	ES
400.00	399.96	395.96	395.96	1.18	1.20	144.93	0.00	-30.00	32.79	30.41	2.38	13.797	
500.00	499.86	496.35	496.34	1.54	1.55	149.64	0.39	-29.29	35.80	32.72	3.09	11.603	
600.00	599.68	596.69	596.65	1.90	1.91	156.41	1.61	-27.03	39.30	35.51	3.80	10.356	
700.00	699.37	696.90	696.77	2.27	2.26	164.45	3.67	-23.24	43.82	39.31	4.51	9.718	
800.00	798.99	796.99	796.67	2.64	2.63	172.79	6.56	-17.92	49.00	43.78	5.23	9.376	
900.00	898.60	896.96	896.33	3.02	2.99	-178.89	10.28	-11.08	54.35	48.40	5.95	9.134	
1,000.00	998.22	1,003.50	995.50	3.40	3.38	-171.35	14.43	-3.45	60.39	53.69	6.71	9.005	
1,100.00	1,097.84	1,103.97	1,094.65	3.78	3.76	-165.26	18.57	4.17	67.28	59.84	7.45	9.036	
1,113.55	1,111.35	1,109.52	1,108.09	3.84	3.78	-164.53	19.13	5.20	68.27	60.75	7.52	9.082	
1,200.00	1,197.52	1,204.40	1,193.84	4.16	4.14	-160.19	22.71	11.79	74.18	65.99	8.19	9.058	
1,300.00	1,297.31	1,304.77	1,293.09	4.54	4.51	-155.52	26.86	19.42	79.99	71.05	8.93	8.953	
1,400.00	1,397.21	1,405.11	1,392.38	4.90	4.89	-150.94	31.01	27.05	84.73	75.05	9.68	8.755	
1,500.00	1,497.17	1,505.43	1,491.67	5.26	5.27	-146.25	35.16	34.69	88.50	78.08	10.42	8.493	
1,600.00	1,597.16	1,594.22	1,590.94	5.61	5.61	-141.31	39.30	42.32	91.46	80.34	11.12	8.227	
1,613.55	1,610.71	1,607.75	1,604.42	5.66	5.66	-11.72	39.86	43.35	91.81	80.59	11.22	8.186	
1,700.00	1,697.16	1,694.38	1,690.79	5.94	5.98	-7.75	43.11	49.32	94.00	82.17	11.83	7.944	

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:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Reference Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	114H	**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 Verna Rae - 124H - 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
1,800.00	1,797.16	1,794.83	1,791.04	6.27	6.36	-4.28	46.09	54.81	96.38	83.84	12.54	7.684	
1,900.00	1,897.16	1,895.47	1,891.58	6.60	6.72	-1.89	48.24	58.76	98.30	85.06	13.25	7.420	
2,000.00	1,997.16	1,996.23	1,992.30	6.94	7.08	-0.49	49.54	61.16	99.55	85.60	13.95	7.137	
2,100.00	2,097.16	2,097.06	2,093.12	7.28	7.43	0.00	50.00	62.00	100.00	85.36	14.64	6.829	
2,200.00	2,197.16	2,202.91	2,193.16	7.62	7.80	0.00	50.00	62.00	100.00	84.65	15.35	6.514	
2,300.00	2,297.16	2,302.91	2,293.16	7.96	8.15	0.00	50.00	62.00	100.00	83.96	16.04	6.233	
2,400.00	2,397.16	2,402.91	2,393.16	8.30	8.49	0.00	50.00	62.00	100.00	83.26	16.74	5.975	
2,500.00	2,497.16	2,502.91	2,493.16	8.65	8.84	0.00	50.00	62.00	100.00	82.57	17.43	5.736	
2,600.00	2,597.16	2,602.91	2,593.16	8.99	9.19	0.00	50.00	62.00	100.00	81.87	18.13	5.516	
2,700.00	2,697.16	2,702.91	2,693.16	9.34	9.54	0.00	50.00	62.00	100.00	81.17	18.83	5.311	
2,800.00	2,797.16	2,802.91	2,793.16	9.69	9.89	0.00	50.00	62.00	100.00	80.47	19.53	5.121	
2,900.00	2,897.16	2,902.91	2,893.16	10.04	10.24	0.00	50.00	62.00	100.00	79.77	20.23	4.944	
3,000.00	2,997.16	3,002.91	2,993.16	10.38	10.59	0.00	50.00	62.00	100.00	79.07	20.93	4.778	
3,100.00	3,097.16	3,102.91	3,093.16	10.73	10.94	0.00	50.00	62.00	100.00	78.37	21.63	4.622	
3,200.00	3,197.16	3,202.91	3,193.16	11.08	11.30	0.00	50.00	62.00	100.00	77.66	22.34	4.477	
3,300.00	3,297.16	3,302.91	3,293.16	11.43	11.65	0.00	50.00	62.00	100.00	76.96	23.04	4.340	
3,400.00	3,397.16	3,402.91	3,393.16	11.79	12.00	0.00	50.00	62.00	100.00	76.25	23.75	4.211	
3,500.00	3,497.16	3,502.91	3,493.16	12.14	12.36	0.00	50.00	62.00	100.00	75.55	24.45	4.089	
3,600.00	3,597.16	3,602.91	3,593.16	12.49	12.71	0.00	50.00	62.00	100.00	74.84	25.16	3.974	
3,700.00	3,697.16	3,702.91	3,693.16	12.84	13.06	0.00	50.00	62.00	100.00	74.13	25.87	3.866	
3,800.00	3,797.16	3,802.91	3,793.16	13.19	13.42	0.00	50.00	62.00	100.00	73.42	26.58	3.763	
3,900.00	3,897.16	3,902.91	3,893.16	13.55	13.77	0.00	50.00	62.00	100.00	72.72	27.28	3.665	
4,000.00	3,997.16	4,002.91	3,993.16	13.90	14.13	0.00	50.00	62.00	100.00	72.01	27.99	3.572	
4,100.00	4,097.16	4,102.91	4,093.16	14.25	14.48	0.00	50.00	62.00	100.00	71.30	28.70	3.484	
4,200.00	4,197.16	4,202.91	4,193.16	14.61	14.84	0.00	50.00	62.00	100.00	70.59	29.41	3.400	
4,300.00	4,297.16	4,302.91	4,293.16	14.96	15.19	0.00	50.00	62.00	100.00	69.88	30.12	3.320	
4,400.00	4,397.16	4,402.91	4,393.16	15.31	15.55	0.00	50.00	62.00	100.00	69.17	30.83	3.243	
4,500.00	4,497.16	4,502.91	4,493.16	15.67	15.90	0.00	50.00	62.00	100.00	68.46	31.54	3.170	
4,600.00	4,597.16	4,602.91	4,593.16	16.02	16.26	0.00	50.00	62.00	100.00	67.75	32.25	3.100	
4,700.00	4,697.16	4,702.91	4,693.16	16.38	16.61	0.00	50.00	62.00	100.00	67.04	32.96	3.034	
4,800.00	4,797.16	4,802.91	4,793.16	16.73	16.97	0.00	50.00	62.00	100.00	66.32	33.68	2.970	
4,900.00	4,897.16	4,902.91	4,893.16	17.09	17.32	0.00	50.00	62.00	100.00	65.61	34.39	2.908	
5,000.00	4,997.16	5,002.91	4,993.16	17.44	17.68	0.00	50.00	62.00	100.00	64.90	35.10	2.849	
5,100.00	5,097.16	5,102.91	5,093.16	17.80	18.04	0.00	50.00	62.00	100.00	64.19	35.81	2.792	
5,200.00	5,197.16	5,202.91	5,193.16	18.15	18.39	0.00	50.00	62.00	100.00	63.48	36.52	2.738	
5,300.00	5,297.16	5,302.91	5,293.16	18.51	18.75	0.00	50.00	62.00	100.00	62.76	37.24	2.686	
5,400.00	5,397.16	5,402.91	5,393.16	18.86	19.11	0.00	50.00	62.00	100.00	62.05	37.95	2.635	
5,500.00	5,497.16	5,502.91	5,493.16	19.22	19.46	0.00	50.00	62.00	100.00	61.34	38.66	2.587	
5,600.00	5,597.16	5,602.91	5,593.16	19.58	19.82	0.00	50.00	62.00	100.00	60.63	39.37	2.540	
5,700.00	5,697.16	5,702.91	5,693.16	19.93	20.18	0.00	50.00	62.00	100.00	59.91	40.09	2.495	
5,800.00	5,797.16	5,802.91	5,793.16	20.29	20.53	0.00	50.00	62.00	100.00	59.20	40.80	2.451	
5,900.00	5,897.16	5,902.91	5,893.16	20.64	20.89	0.00	50.00	62.00	100.00	58.49	41.51	2.409	
6,000.00	5,997.16	6,002.91	5,993.16	21.00	21.25	0.00	50.00	62.00	100.00	57.77	42.23	2.368	
6,100.00	6,097.16	6,102.91	6,093.16	21.36	21.60	0.00	50.00	62.00	100.00	57.06	42.94	2.329	
6,200.00	6,197.16	6,202.91	6,193.16	21.71	21.96	0.00	50.00	62.00	100.00	56.35	43.65	2.291	
6,300.00	6,297.16	6,302.91	6,293.16	22.07	22.32	0.00	50.00	62.00	100.00	55.63	44.37	2.254	
6,400.00	6,397.16	6,402.91	6,393.16	22.43	22.67	0.00	50.00	62.00	100.00	54.92	45.08	2.218	
6,500.00	6,497.16	6,502.91	6,493.16	22.78	23.03	0.00	50.00	62.00	100.00	54.21	45.79	2.184	
6,600.00	6,597.16	6,602.91	6,593.16	23.14	23.39	0.00	50.00	62.00	100.00	53.49	46.51	2.150	
6,700.00	6,697.16	6,702.91	6,693.16	23.50	23.74	0.00	50.00	62.00	100.00	52.78	47.22	2.118	
6,800.00	6,797.16	6,802.91	6,793.16	23.85	24.10	0.00	50.00	62.00	100.00	52.06	47.94	2.086	
6,900.00	6,897.16	6,902.91	6,893.16	24.21	24.46	0.00	50.00	62.00	100.00	51.35	48.65	2.055	

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:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Reference Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	114H	**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 Verna Rae - 124H - 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
7,000.00	6,997.16	7,002.91	6,993.16	24.57	24.82	0.00	50.00	62.00	100.00	50.63	49.37	2.026	
7,100.00	7,097.16	7,102.91	7,093.16	24.92	25.17	0.00	50.00	62.00	100.00	49.92	50.08	1.997	
7,200.00	7,197.16	7,202.91	7,193.16	25.28	25.53	0.00	50.00	62.00	100.00	49.21	50.79	1.969	
7,300.00	7,297.16	7,302.91	7,293.16	25.64	25.89	0.00	50.00	62.00	100.00	48.49	51.51	1.941	
7,400.00	7,397.16	7,402.91	7,393.16	25.99	26.25	0.00	50.00	62.00	100.00	47.78	52.22	1.915	
7,500.00	7,497.16	7,502.91	7,493.16	26.35	26.60	0.00	50.00	62.00	100.00	47.06	52.94	1.889	
7,600.00	7,597.16	7,602.91	7,593.16	26.71	26.96	0.00	50.00	62.00	100.00	46.35	53.65	1.864	
7,700.00	7,697.16	7,702.91	7,693.16	27.07	27.32	0.00	50.00	62.00	100.00	45.63	54.37	1.839	
7,800.00	7,797.16	7,802.91	7,793.16	27.42	27.68	0.00	50.00	62.00	100.00	44.92	55.08	1.815	
7,900.00	7,897.16	7,902.91	7,893.16	27.78	28.03	0.00	50.00	62.00	100.00	44.20	55.80	1.792	
8,000.00	7,997.16	8,002.91	7,993.16	28.14	28.39	0.00	50.00	62.00	100.00	43.49	56.51	1.770	
8,100.00	8,097.16	8,102.91	8,093.16	28.49	28.75	0.00	50.00	62.00	100.00	42.77	57.23	1.747	
8,200.00	8,197.16	8,202.91	8,193.16	28.85	29.11	0.00	50.00	62.00	100.00	42.06	57.94	1.726	
8,300.00	8,297.16	8,302.91	8,293.16	29.21	29.46	0.00	50.00	62.00	100.00	41.34	58.66	1.705	
8,400.00	8,397.16	8,402.91	8,393.16	29.57	29.82	0.00	50.00	62.00	100.00	40.63	59.37	1.684	
8,500.00	8,497.16	8,502.91	8,493.16	29.92	30.18	0.00	50.00	62.00	100.00	39.91	60.09	1.664	
8,600.00	8,597.16	8,602.91	8,593.16	30.28	30.54	0.00	50.00	62.00	100.00	39.20	60.80	1.645	
8,700.00	8,697.16	8,702.91	8,693.16	30.64	30.89	0.00	50.00	62.00	100.00	38.48	61.52	1.626	
8,800.00	8,797.16	8,802.91	8,793.16	31.00	31.25	0.00	50.00	62.00	100.00	37.77	62.23	1.607	
8,900.00	8,897.16	8,902.91	8,893.16	31.35	31.61	0.00	50.00	62.00	100.00	37.05	62.95	1.589	
8,919.84	8,917.00	8,916.94	8,913.00	31.42	31.66	0.00	50.00	62.00	100.00	36.93	63.07	1.586 SF	
8,950.00	8,947.14	8,947.08	8,943.14	31.53	31.77	-179.95	50.00	62.00	100.79	37.51	63.28	1.593	
9,000.00	8,996.90	9,003.17	8,992.90	31.69	31.97	-179.95	50.00	62.00	105.60	41.95	63.65	1.659	
9,050.00	9,046.04	9,045.98	9,042.04	31.86	32.12	-179.96	50.00	62.00	114.72	50.76	63.96	1.794	
9,100.00	9,094.20	9,105.86	9,090.20	32.02	32.33	-179.96	50.00	62.00	128.09	63.76	64.34	1.991	
9,150.00	9,141.02	9,140.95	9,137.02	32.18	32.46	-179.96	50.00	62.00	145.61	81.00	64.61	2.254	
9,200.00	9,186.13	9,186.06	9,182.13	32.34	32.62	-179.97	50.00	62.00	167.14	102.22	64.92	2.575	
9,250.00	9,229.19	9,229.12	9,225.19	32.50	32.78	-179.97	50.00	62.00	192.52	127.31	65.21	2.952	
9,300.00	9,269.87	9,269.81	9,265.87	32.66	32.92	-179.97	50.00	62.00	221.56	156.08	65.48	3.384	
9,350.00	9,307.87	9,307.81	9,303.87	32.82	33.06	-179.97	50.00	62.00	254.03	188.31	65.73	3.865	
9,400.00	9,342.90	9,342.83	9,338.90	33.00	33.18	-179.98	50.00	62.00	289.69	223.74	65.95	4.393	
9,450.00	9,374.68	9,374.62	9,370.68	33.17	33.30	-179.98	50.00	62.00	328.27	262.12	66.15	4.963	
9,500.00	9,402.98	9,402.92	9,398.98	33.36	33.40	-179.98	50.00	62.00	369.47	303.15	66.32	5.571	
9,550.00	9,427.58	9,427.52	9,423.58	33.55	33.49	-179.97	50.00	62.00	412.98	346.51	66.47	6.213	
9,600.00	9,448.30	9,448.23	9,444.30	33.75	33.56	-179.97	50.00	62.00	458.47	391.88	66.59	6.885	
9,650.00	9,464.97	9,464.91	9,460.97	33.96	33.62	-179.97	50.00	62.00	505.59	438.90	66.69	7.581	
9,700.00	9,477.47	9,477.41	9,473.47	34.17	33.66	-179.96	50.00	62.00	553.99	487.23	66.76	8.298	
9,750.00	9,485.71	9,485.64	9,481.71	34.40	33.69	-179.93	50.00	62.00	603.29	536.48	66.80	9.031	
9,800.00	9,489.61	9,489.55	9,485.61	34.63	33.71	-179.79	50.00	62.00	653.12	586.29	66.83	9.773	
9,819.84	9,489.96	9,489.89	9,485.96	34.72	33.71	-94.62	50.00	62.00	672.95	606.12	66.83	10.069	
9,900.00	9,489.96	9,489.90	9,485.96	35.13	33.71	-95.16	50.00	62.00	753.12	686.28	66.84	11.268	
10,000.00	9,489.96	10,925.34	10,316.55	35.69	38.68	-180.00	-801.36	62.70	830.59	791.98	38.61	21.511	
10,100.00	9,489.96	11,025.34	10,316.76	36.32	39.27	-180.00	-901.36	62.78	830.80	791.72	39.08	21.259	
10,200.00	9,489.96	11,125.34	10,316.97	37.02	39.92	-180.00	-1,001.36	62.87	831.01	791.41	39.60	20.984	
10,300.00	9,489.96	11,225.34	10,317.18	37.78	40.63	-180.00	-1,101.36	62.95	831.22	791.04	40.18	20.687	
10,400.00	9,489.96	11,325.34	10,317.39	38.59	41.39	-180.00	-1,201.36	63.03	831.43	790.62	40.81	20.372	
10,500.00	9,489.96	11,425.34	10,317.60	39.46	42.21	-180.00	-1,301.36	63.11	831.64	790.15	41.49	20.043	
10,600.00	9,489.97	11,525.34	10,317.81	40.38	43.07	-180.00	-1,401.36	63.20	831.85	789.63	42.22	19.702	
10,700.00	9,489.97	11,625.34	10,318.03	41.35	43.99	-180.00	-1,501.36	63.28	832.06	789.07	43.00	19.352	
10,800.00	9,489.97	11,725.34	10,318.24	42.35	44.94	-180.00	-1,601.36	63.36	832.27	788.46	43.81	18.997	
10,900.00	9,489.97	11,825.34	10,318.45	43.40	45.94	-180.00	-1,701.36	63.44	832.48	787.81	44.67	18.637	
11,000.00	9,489.97	11,925.34	10,318.66	44.49	46.97	-180.00	-1,801.36	63.53	832.69	787.13	45.56	18.276	

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Reference Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	114H	**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 Verna Rae - 124H - 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
11,100.00	9,489.97	12,025.34	10,318.87	45.61	48.04	-180.00	-1,901.36	63.61	832.90	786.41	46.49	17.914	
11,200.00	9,489.97	12,125.34	10,319.08	46.77	49.14	-180.00	-2,001.36	63.69	833.11	785.65	47.46	17.555	
11,300.00	9,489.97	12,225.34	10,319.29	47.96	50.28	-180.00	-2,101.35	63.77	833.32	784.87	48.45	17.198	
11,400.00	9,489.97	12,325.34	10,319.50	49.17	51.44	-180.00	-2,201.35	63.86	833.53	784.05	49.48	16.846	
11,500.00	9,489.97	12,425.34	10,319.72	50.41	52.63	-180.00	-2,301.35	63.94	833.74	783.21	50.53	16.499	
11,600.00	9,489.98	12,525.34	10,319.93	51.67	53.85	-180.00	-2,401.35	64.02	833.95	782.34	51.61	16.158	
11,700.00	9,489.98	12,625.34	10,320.14	52.96	55.09	-180.00	-2,501.35	64.10	834.16	781.45	52.72	15.823	
11,800.00	9,489.98	12,725.34	10,320.35	54.26	56.35	-180.00	-2,601.35	64.18	834.37	780.53	53.84	15.496	
11,900.00	9,489.98	12,825.34	10,320.56	55.59	57.63	-180.00	-2,701.35	64.27	834.58	779.59	54.99	15.176	
12,000.00	9,489.98	12,925.34	10,320.77	56.93	58.93	-180.00	-2,801.35	64.35	834.79	778.63	56.16	14.864	
12,100.00	9,489.98	13,025.34	10,320.98	58.29	60.25	-180.00	-2,901.35	64.43	835.00	777.65	57.35	14.559	
12,200.00	9,489.98	13,125.34	10,321.19	59.67	61.59	-180.00	-3,001.35	64.51	835.21	776.65	58.56	14.263	
12,300.00	9,489.98	13,225.34	10,321.40	61.06	62.94	-180.00	-3,101.35	64.60	835.42	775.64	59.78	13.975	
12,400.00	9,489.98	13,325.34	10,321.62	62.47	64.31	-180.00	-3,201.35	64.68	835.63	774.61	61.02	13.694	
12,500.00	9,489.99	13,425.34	10,321.83	63.88	65.69	-180.00	-3,301.35	64.76	835.84	773.57	62.27	13.422	
12,600.00	9,489.99	13,525.34	10,322.04	65.31	67.08	-180.00	-3,401.35	64.84	836.05	772.51	63.54	13.157	
12,700.00	9,489.99	13,625.33	10,322.25	66.75	68.49	-180.00	-3,501.35	64.93	836.26	771.44	64.82	12.900	
12,800.00	9,489.99	13,725.33	10,322.46	68.20	69.91	-180.00	-3,601.35	65.01	836.47	770.36	66.12	12.651	
12,900.00	9,489.99	13,825.33	10,322.67	69.66	71.34	-180.00	-3,701.35	65.09	836.68	769.26	67.42	12.409	
13,000.00	9,489.99	13,925.33	10,322.88	71.13	72.77	-180.00	-3,801.35	65.17	836.89	768.15	68.74	12.175	
13,100.00	9,489.99	14,025.33	10,323.09	72.61	74.22	-180.00	-3,901.35	65.26	837.10	767.04	70.07	11.947	
13,200.00	9,489.99	14,125.33	10,323.31	74.10	75.68	-180.00	-4,001.35	65.34	837.31	765.91	71.40	11.727	
13,300.00	9,489.99	14,225.33	10,323.52	75.59	77.15	-180.00	-4,101.35	65.42	837.53	764.78	72.75	11.513	
13,400.00	9,489.99	14,325.33	10,323.73	77.09	78.62	-180.00	-4,201.34	65.50	837.74	763.63	74.10	11.305	
13,500.00	9,490.00	14,425.33	10,323.94	78.60	80.10	-180.00	-4,301.34	65.59	837.95	762.48	75.47	11.104	
13,600.00	9,490.00	14,525.33	10,324.15	80.11	81.59	-180.00	-4,401.34	65.67	838.16	761.32	76.84	10.908	
13,700.00	9,490.00	14,625.33	10,324.36	81.63	83.09	-180.00	-4,501.34	65.75	838.37	760.15	78.22	10.719	
13,800.00	9,490.00	14,725.33	10,324.57	83.16	84.59	-180.00	-4,601.34	65.83	838.58	758.97	79.60	10.535	
13,900.00	9,490.00	14,825.33	10,324.78	84.69	86.10	-180.00	-4,701.34	65.92	838.79	757.79	80.99	10.356	
14,000.89	9,490.00	14,926.22	10,325.00	86.24	87.62	-180.00	-4,802.23	66.00	839.00	756.59	82.40	10.182	

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Reference Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	114H	**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 Verna Rae - 134H - 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	-90.95	-1.00	-60.00	60.01				
100.00	100.00	100.00	100.00	0.13	0.13	-90.95	-1.00	-60.00	60.01	59.75	0.26	234.126	
200.00	200.00	200.00	200.00	0.49	0.49	-90.95	-1.00	-60.00	60.01	59.04	0.97	61.658	CC
300.00	299.99	300.01	299.99	0.83	0.85	140.68	-1.00	-60.00	60.68	59.00	1.68	36.152	ES
400.00	399.96	400.04	399.96	1.18	1.20	142.19	-1.00	-60.00	62.73	60.34	2.38	26.312	
500.00	499.86	500.14	499.86	1.54	1.56	144.48	-1.00	-60.00	66.23	63.13	3.10	21.383	
600.00	599.68	599.68	599.68	1.90	1.92	147.30	-1.00	-60.00	71.29	67.48	3.81	18.696	
700.00	699.37	699.93	699.92	2.27	2.28	150.98	-0.28	-59.51	77.65	73.12	4.53	17.136	
800.00	798.99	800.03	799.99	2.64	2.63	155.49	1.88	-58.03	84.46	79.21	5.25	16.093	
900.00	898.60	899.98	899.84	3.02	2.99	160.34	5.49	-55.58	91.24	85.28	5.96	15.297	
1,000.00	998.22	999.72	999.40	3.40	3.35	165.49	10.52	-52.15	98.27	91.59	6.68	14.707	
1,100.00	1,097.84	1,099.20	1,098.57	3.78	3.71	170.85	16.96	-47.76	105.83	98.43	7.40	14.299	
1,113.55	1,111.35	1,112.65	1,111.97	3.84	3.76	171.58	17.93	-47.10	106.91	99.41	7.50	14.257	
1,200.00	1,197.52	1,201.56	1,197.43	4.16	4.09	175.87	24.11	-42.89	113.54	105.41	8.13	13.959	
1,300.00	1,297.31	1,302.19	1,296.43	4.54	4.46	-179.77	31.26	-38.01	120.29	111.43	8.86	13.573	
1,400.00	1,397.21	1,397.30	1,395.53	4.90	4.81	-175.84	38.43	-33.13	125.92	116.35	9.57	13.156	
1,500.00	1,497.17	1,503.15	1,494.71	5.26	5.21	-172.16	45.60	-28.24	130.37	120.05	10.32	12.631	
1,600.00	1,597.16	1,603.54	1,593.93	5.61	5.58	-168.59	52.77	-23.35	133.61	122.56	11.05	12.090	
1,613.55	1,610.71	1,609.96	1,607.39	5.66	5.61	-39.23	53.74	-22.69	133.96	122.84	11.12	12.045	
1,700.00	1,697.16	1,703.92	1,693.17	5.94	5.96	-36.20	59.94	-18.46	136.30	124.54	11.76	11.588	
1,800.00	1,797.16	1,804.30	1,792.41	6.27	6.34	-32.83	67.12	-13.57	139.47	126.99	12.47	11.181	
1,900.00	1,897.16	1,904.68	1,891.65	6.60	6.72	-29.63	74.29	-8.68	143.09	129.90	13.19	10.851	
2,000.00	1,997.16	2,005.07	1,990.89	6.94	7.10	-26.59	81.47	-3.79	147.15	133.24	13.90	10.585	
2,100.00	2,097.16	2,105.45	2,090.14	7.28	7.48	-23.71	88.64	1.10	151.59	136.98	14.62	10.371	
2,200.00	2,197.16	2,205.83	2,189.38	7.62	7.86	-21.01	95.82	5.99	156.40	141.07	15.33	10.200	
2,300.00	2,297.16	2,306.21	2,288.62	7.96	8.23	-18.48	102.99	10.88	161.53	145.48	16.05	10.065	
2,400.00	2,397.16	2,406.59	2,387.86	8.30	8.62	-16.10	110.17	15.77	166.96	150.20	16.76	9.960	
2,500.00	2,497.16	2,493.03	2,487.10	8.65	8.94	-13.88	117.34	20.66	172.67	155.24	17.43	9.907	
2,600.00	2,597.16	2,607.35	2,586.34	8.99	9.38	-11.80	124.52	25.55	178.61	160.41	18.20	9.816	
2,700.00	2,697.16	2,707.73	2,685.58	9.34	9.76	-9.86	131.69	30.44	184.77	165.86	18.91	9.771	
2,800.00	2,797.16	2,808.11	2,784.82	9.69	10.14	-8.04	138.86	35.33	191.14	171.51	19.63	9.739	
2,900.00	2,897.16	2,908.49	2,884.06	10.04	10.52	-6.34	146.04	40.22	197.68	177.34	20.34	9.718	
3,000.00	2,997.16	2,991.13	2,983.30	10.38	10.83	-4.75	153.21	45.11	204.38	183.39	20.99	9.736	
3,100.00	3,097.16	3,090.92	3,082.71	10.73	11.21	-3.26	160.40	50.00	211.23	189.53	21.71	9.732	
3,200.00	3,197.16	3,193.70	3,185.18	11.08	11.60	-1.99	166.96	54.47	217.42	194.98	22.44	9.689	
3,300.00	3,297.16	3,296.73	3,288.03	11.43	11.98	-1.05	172.00	57.91	222.23	199.06	23.17	9.591	
3,400.00	3,397.16	3,399.95	3,391.16	11.79	12.35	-0.43	175.53	60.31	225.61	201.72	23.90	9.441	
3,500.00	3,497.16	3,503.29	3,494.47	12.14	12.72	-0.08	177.52	61.67	227.53	202.92	24.61	9.244	
3,600.00	3,597.16	3,605.98	3,597.16	12.49	13.07	0.00	178.00	62.00	228.00	202.68	25.32	9.003	
3,700.00	3,697.16	3,705.98	3,697.16	12.84	13.42	0.00	178.00	62.00	228.00	201.97	26.03	8.760	
3,800.00	3,797.16	3,805.98	3,797.16	13.19	13.76	0.00	178.00	62.00	228.00	201.27	26.73	8.529	
3,900.00	3,897.16	3,905.98	3,897.16	13.55	14.11	0.00	178.00	62.00	228.00	200.56	27.44	8.310	
4,000.00	3,997.16	4,005.98	3,997.16	13.90	14.45	0.00	178.00	62.00	228.00	199.86	28.14	8.101	
4,100.00	4,097.16	4,105.98	4,097.16	14.25	14.80	0.00	178.00	62.00	228.00	199.15	28.85	7.903	
4,200.00	4,197.16	4,205.98	4,197.16	14.61	15.15	0.00	178.00	62.00	228.00	198.44	29.56	7.714	
4,300.00	4,297.16	4,305.98	4,297.16	14.96	15.50	0.00	178.00	62.00	228.00	197.74	30.26	7.534	
4,400.00	4,397.16	4,405.98	4,397.16	15.31	15.85	0.00	178.00	62.00	228.00	197.03	30.97	7.362	
4,500.00	4,497.16	4,505.98	4,497.16	15.67	16.19	0.00	178.00	62.00	228.00	196.32	31.68	7.197	
4,600.00	4,597.16	4,605.98	4,597.16	16.02	16.54	0.00	178.00	62.00	228.00	195.61	32.39	7.040	
4,700.00	4,697.16	4,705.98	4,697.16	16.38	16.89	0.00	178.00	62.00	228.00	194.90	33.10	6.889	
4,800.00	4,797.16	4,805.98	4,797.16	16.73	17.24	0.00	178.00	62.00	228.00	194.20	33.80	6.745	
4,900.00	4,897.16	4,905.98	4,897.16	17.09	17.59	0.00	178.00	62.00	228.00	193.49	34.51	6.606	

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:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Reference Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	114H	**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 Verna Rae - 134H - 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	4,997.16	5,005.98	4,997.16	17.44	17.94	0.00	178.00	62.00	228.00	192.78	35.22	6.473	
5,100.00	5,097.16	5,105.98	5,097.16	17.80	18.30	0.00	178.00	62.00	228.00	192.07	35.93	6.345	
5,200.00	5,197.16	5,205.98	5,197.16	18.15	18.65	0.00	178.00	62.00	228.00	191.36	36.64	6.222	
5,300.00	5,297.16	5,305.98	5,297.16	18.51	19.00	0.00	178.00	62.00	228.00	190.65	37.35	6.104	
5,400.00	5,397.16	5,405.98	5,397.16	18.86	19.35	0.00	178.00	62.00	228.00	189.93	38.07	5.990	
5,500.00	5,497.16	5,505.98	5,497.16	19.22	19.70	0.00	178.00	62.00	228.00	189.22	38.78	5.880	
5,600.00	5,597.16	5,605.98	5,597.16	19.58	20.05	0.00	178.00	62.00	228.00	188.51	39.49	5.774	
5,700.00	5,697.16	5,705.98	5,697.16	19.93	20.41	0.00	178.00	62.00	228.00	187.80	40.20	5.672	
5,800.00	5,797.16	5,805.98	5,797.16	20.29	20.76	0.00	178.00	62.00	228.00	187.09	40.91	5.573	
5,900.00	5,897.16	5,905.98	5,897.16	20.64	21.11	0.00	178.00	62.00	228.00	186.38	41.62	5.478	
6,000.00	5,997.16	6,005.98	5,997.16	21.00	21.47	0.00	178.00	62.00	228.00	185.67	42.33	5.386	
6,100.00	6,097.16	6,105.98	6,097.16	21.36	21.82	0.00	178.00	62.00	228.00	184.95	43.05	5.297	
6,200.00	6,197.16	6,205.98	6,197.16	21.71	22.17	0.00	178.00	62.00	228.00	184.24	43.76	5.210	
6,300.00	6,297.16	6,305.98	6,297.16	22.07	22.53	0.00	178.00	62.00	228.00	183.53	44.47	5.127	
6,400.00	6,397.16	6,405.98	6,397.16	22.43	22.88	0.00	178.00	62.00	228.00	182.82	45.18	5.046	
6,500.00	6,497.16	6,505.98	6,497.16	22.78	23.23	0.00	178.00	62.00	228.00	182.10	45.90	4.968	
6,600.00	6,597.16	6,605.98	6,597.16	23.14	23.59	0.00	178.00	62.00	228.00	181.39	46.61	4.892	
6,700.00	6,697.16	6,705.98	6,697.16	23.50	23.94	0.00	178.00	62.00	228.00	180.68	47.32	4.818	
6,800.00	6,797.16	6,805.98	6,797.16	23.85	24.30	0.00	178.00	62.00	228.00	179.96	48.04	4.747	
6,900.00	6,897.16	6,905.98	6,897.16	24.21	24.65	0.00	178.00	62.00	228.00	179.25	48.75	4.677	
7,000.00	6,997.16	7,005.98	6,997.16	24.57	25.00	0.00	178.00	62.00	228.00	178.54	49.46	4.610	
7,100.00	7,097.16	7,105.98	7,097.16	24.92	25.36	0.00	178.00	62.00	228.00	177.82	50.18	4.544	
7,200.00	7,197.16	7,205.98	7,197.16	25.28	25.71	0.00	178.00	62.00	228.00	177.11	50.89	4.480	
7,300.00	7,297.16	7,305.98	7,297.16	25.64	26.07	0.00	178.00	62.00	228.00	176.40	51.60	4.418	
7,400.00	7,397.16	7,405.98	7,397.16	25.99	26.42	0.00	178.00	62.00	228.00	175.68	52.32	4.358	
7,500.00	7,497.16	7,505.98	7,497.16	26.35	26.78	0.00	178.00	62.00	228.00	174.97	53.03	4.299	
7,600.00	7,597.16	7,605.98	7,597.16	26.71	27.13	0.00	178.00	62.00	228.00	174.26	53.74	4.242	
7,700.00	7,697.16	7,705.98	7,697.16	27.07	27.49	0.00	178.00	62.00	228.00	173.54	54.46	4.187	
7,800.00	7,797.16	7,805.98	7,797.16	27.42	27.84	0.00	178.00	62.00	228.00	172.83	55.17	4.133	
7,900.00	7,897.16	7,905.98	7,897.16	27.78	28.20	0.00	178.00	62.00	228.00	172.11	55.89	4.080	
8,000.00	7,997.16	8,005.98	7,997.16	28.14	28.56	0.00	178.00	62.00	228.00	171.40	56.60	4.028	
8,100.00	8,097.16	8,105.98	8,097.16	28.49	28.91	0.00	178.00	62.00	228.00	170.69	57.31	3.978	
8,200.00	8,197.16	8,205.98	8,197.16	28.85	29.27	0.00	178.00	62.00	228.00	169.97	58.03	3.929	
8,300.00	8,297.16	8,305.98	8,297.16	29.21	29.62	0.00	178.00	62.00	228.00	169.26	58.74	3.881	
8,400.00	8,397.16	8,405.98	8,397.16	29.57	29.98	0.00	178.00	62.00	228.00	168.54	59.46	3.835	
8,500.00	8,497.16	8,505.98	8,497.16	29.92	30.33	0.00	178.00	62.00	228.00	167.83	60.17	3.789	
8,600.00	8,597.16	8,605.98	8,597.16	30.28	30.69	0.00	178.00	62.00	228.00	167.11	60.89	3.745	
8,700.00	8,697.16	8,705.98	8,697.16	30.64	31.05	0.00	178.00	62.00	228.00	166.40	61.60	3.701	
8,800.00	8,797.16	8,805.98	8,797.16	31.00	31.40	0.00	178.00	62.00	228.00	165.68	62.32	3.659	
8,900.00	8,897.16	8,905.98	8,897.16	31.35	31.76	0.00	178.00	62.00	228.00	164.97	63.03	3.617	
8,919.84	8,917.00	8,925.82	8,917.00	31.42	31.83	0.00	178.00	62.00	228.00	164.83	63.17	3.609	SF
8,950.00	8,947.14	8,955.97	8,947.14	31.53	31.94	-179.95	178.00	62.00	228.79	165.41	63.38	3.610	
9,000.00	8,996.90	9,005.72	8,996.90	31.69	32.11	-179.95	178.00	62.00	233.60	169.87	63.73	3.666	
9,050.00	9,046.04	9,054.86	9,046.04	31.86	32.29	-179.95	178.00	62.00	242.72	178.66	64.06	3.789	
9,100.00	9,094.20	9,103.03	9,094.20	32.02	32.46	-179.95	178.00	62.00	256.09	191.70	64.39	3.977	
9,150.00	9,141.02	9,149.84	9,141.02	32.18	32.63	-179.96	178.00	62.00	273.61	208.90	64.71	4.228	
9,200.00	9,186.13	9,205.05	9,186.13	32.34	32.82	-179.96	178.00	62.00	295.14	230.09	65.05	4.537	
9,250.00	9,229.19	9,238.01	9,229.19	32.50	32.94	-179.96	178.00	62.00	320.52	255.21	65.31	4.908	
9,300.00	9,269.87	9,278.70	9,269.87	32.66	33.09	-179.96	178.00	62.00	349.56	283.98	65.58	5.331	
9,350.00	9,307.87	9,316.69	9,307.87	32.82	33.22	-179.96	178.00	62.00	382.03	316.21	65.82	5.804	
9,400.00	9,342.90	9,351.72	9,342.90	33.00	33.35	-179.96	178.00	62.00	417.69	351.64	66.05	6.324	
9,450.00	9,374.68	9,383.50	9,374.68	33.17	33.46	-179.96	178.00	62.00	456.27	390.02	66.25	6.887	

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:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Reference Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	114H	**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 Verna Rae - 134H - 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
9,500.00	9,402.98	9,411.80	9,402.98	33.36	33.56	-179.96	178.00	62.00	497.47	431.05	66.42	7.490	
9,550.00	9,427.58	9,436.40	9,427.58	33.55	33.65	-179.96	178.00	62.00	540.98	474.41	66.57	8.126	
9,600.00	9,448.30	9,457.12	9,448.30	33.75	33.72	-179.95	178.00	62.00	586.47	519.78	66.69	8.794	
9,650.00	9,464.97	9,473.79	9,464.97	33.96	33.78	-179.94	178.00	62.00	633.59	566.81	66.79	9.487	
9,700.00	9,477.47	9,486.29	9,477.47	34.17	33.83	-179.92	178.00	62.00	681.99	615.13	66.86	10.201	
9,750.00	9,485.71	9,505.47	9,485.71	34.40	33.89	-179.88	178.00	62.00	731.29	664.35	66.94	10.924	
9,800.00	9,489.61	9,501.56	9,489.61	34.63	33.88	-179.59	178.00	62.00	781.12	714.18	66.94	11.670	
9,819.84	9,489.96	9,501.22	9,489.96	34.72	33.88	-92.41	178.00	62.00	800.95	734.01	66.94	11.966	
9,900.00	9,489.96	9,501.22	9,489.96	35.13	33.88	-92.65	178.00	62.00	881.12	814.17	66.94	13.162	
10,000.00	9,489.96	9,501.22	9,489.96	35.69	33.88	-92.96	178.00	62.00	981.12	914.16	66.95	14.654	
10,100.00	9,489.96	9,501.22	9,489.96	36.32	33.88	-93.26	178.00	62.00	1,081.12	1,014.15	66.96	16.145	
10,200.00	9,489.96	9,501.22	9,489.96	37.02	33.88	-93.56	178.00	62.00	1,181.12	1,114.14	66.97	17.635	
10,300.00	9,489.96	9,501.21	9,489.96	37.78	33.88	-93.86	178.00	62.00	1,281.12	1,214.13	66.99	19.125	
10,400.00	9,489.96	11,928.97	10,784.97	38.59	43.20	-179.99	-1,203.10	63.11	1,295.00	1,252.35	42.65	30.365	
10,500.00	9,489.96	12,028.97	10,784.97	39.46	44.01	-179.99	-1,303.10	63.19	1,295.00	1,251.66	43.34	29.881	
10,600.00	9,489.97	12,128.97	10,784.97	40.38	44.86	-179.99	-1,403.10	63.27	1,295.00	1,250.93	44.08	29.382	
10,700.00	9,489.97	12,228.97	10,784.97	41.35	45.76	-179.99	-1,503.10	63.35	1,295.00	1,250.15	44.86	28.871	
10,800.00	9,489.97	12,328.97	10,784.97	42.35	46.70	-179.99	-1,603.10	63.43	1,295.00	1,249.33	45.68	28.352	
10,900.00	9,489.97	12,428.97	10,784.97	43.40	47.68	-179.99	-1,703.10	63.51	1,295.00	1,248.47	46.54	27.828	
11,000.00	9,489.97	12,528.97	10,784.97	44.49	48.70	-179.99	-1,803.10	63.59	1,295.00	1,247.57	47.43	27.302	
11,100.00	9,489.97	12,628.97	10,784.97	45.61	49.75	-180.00	-1,903.10	63.67	1,295.00	1,246.64	48.36	26.777	
11,200.00	9,489.97	12,728.97	10,784.97	46.77	50.83	-180.00	-2,003.10	63.75	1,295.00	1,245.68	49.33	26.254	
11,300.00	9,489.97	12,828.97	10,784.97	47.96	51.95	-180.00	-2,103.10	63.83	1,295.00	1,244.68	50.32	25.735	
11,400.00	9,489.97	12,928.97	10,784.98	49.17	53.10	-180.00	-2,203.10	63.91	1,295.00	1,243.66	51.34	25.222	
11,500.00	9,489.97	13,028.97	10,784.98	50.41	54.27	-180.00	-2,303.10	63.99	1,295.00	1,242.61	52.39	24.717	
11,600.00	9,489.98	13,128.97	10,784.98	51.67	55.47	-180.00	-2,403.10	64.07	1,295.00	1,241.53	53.47	24.220	
11,700.00	9,489.98	13,228.97	10,784.98	52.96	56.69	-180.00	-2,503.10	64.15	1,295.00	1,240.43	54.57	23.732	
11,800.00	9,489.98	13,328.97	10,784.98	54.26	57.93	-180.00	-2,603.10	64.23	1,295.00	1,239.31	55.69	23.253	
11,900.00	9,489.98	13,428.97	10,784.98	55.59	59.20	-180.00	-2,703.10	64.31	1,295.00	1,238.17	56.83	22.786	
12,000.00	9,489.98	13,528.97	10,784.98	56.93	60.48	-180.00	-2,803.10	64.39	1,295.00	1,237.00	58.00	22.329	
12,100.00	9,489.98	13,628.97	10,784.98	58.29	61.78	-180.00	-2,903.10	64.47	1,295.00	1,235.82	59.18	21.883	
12,200.00	9,489.98	13,728.97	10,784.98	59.67	63.10	-180.00	-3,003.10	64.55	1,295.00	1,234.62	60.38	21.448	
12,300.00	9,489.98	13,828.97	10,784.98	61.06	64.44	-180.00	-3,103.10	64.63	1,295.00	1,233.41	61.60	21.024	
12,400.00	9,489.98	13,928.97	10,784.98	62.47	65.79	-180.00	-3,203.10	64.71	1,295.00	1,232.17	62.83	20.612	
12,500.00	9,489.99	14,028.97	10,784.99	63.88	67.15	-180.00	-3,303.10	64.79	1,295.00	1,230.93	64.07	20.211	
12,600.00	9,489.99	14,128.97	10,784.99	65.31	68.53	-180.00	-3,403.10	64.88	1,295.00	1,229.67	65.33	19.821	
12,700.00	9,489.99	14,228.97	10,784.99	66.75	69.92	-180.00	-3,503.10	64.96	1,295.00	1,228.39	66.61	19.442	
12,800.00	9,489.99	14,328.97	10,784.99	68.20	71.33	-180.00	-3,603.10	65.04	1,295.00	1,227.11	67.89	19.074	
12,900.00	9,489.99	14,428.97	10,784.99	69.66	72.74	-180.00	-3,703.10	65.12	1,295.00	1,225.81	69.19	18.716	
13,000.00	9,489.99	14,528.97	10,784.99	71.13	74.17	-180.00	-3,803.10	65.20	1,295.00	1,224.50	70.50	18.369	
13,100.00	9,489.99	14,628.97	10,784.99	72.61	75.60	-180.00	-3,903.10	65.28	1,295.00	1,223.18	71.82	18.031	
13,200.00	9,489.99	14,728.97	10,784.99	74.10	77.05	-180.00	-4,003.10	65.36	1,295.00	1,221.85	73.15	17.704	
13,300.00	9,489.99	14,828.97	10,784.99	75.59	78.50	-180.00	-4,103.10	65.44	1,295.00	1,220.51	74.49	17.386	
13,400.00	9,489.99	14,928.97	10,784.99	77.09	79.96	-180.00	-4,203.10	65.52	1,295.00	1,219.17	75.83	17.077	
13,500.00	9,490.00	15,028.97	10,785.00	78.60	81.43	-180.00	-4,303.10	65.60	1,295.00	1,217.81	77.19	16.777	
13,600.00	9,490.00	15,128.97	10,785.00	80.11	82.91	-180.00	-4,403.10	65.68	1,295.00	1,216.45	78.55	16.486	
13,700.00	9,490.00	15,228.97	10,785.00	81.63	84.39	-180.00	-4,503.10	65.76	1,295.00	1,215.08	79.92	16.203	
13,800.00	9,490.00	15,328.97	10,785.00	83.16	85.88	-180.00	-4,603.10	65.84	1,295.00	1,213.70	81.30	15.928	
13,900.00	9,490.00	15,428.97	10,785.00	84.69	87.38	-180.00	-4,703.10	65.92	1,295.00	1,212.31	82.69	15.662	
14,000.89	9,490.00	15,529.85	10,785.00	86.24	88.89	-180.00	-4,803.99	66.00	1,295.00	1,210.91	84.09	15.400	

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Reference Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	114H	**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 Verna Rae - 204H - 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	-90.64	-1.00	-90.00	90.01				
100.00	100.00	100.00	100.00	0.13	0.13	-90.64	-1.00	-90.00	90.01	89.75	0.26	351.162	
200.00	200.00	200.00	200.00	0.49	0.49	-90.64	-1.00	-90.00	90.01	89.03	0.97	92.479	CC, ES
300.00	299.99	298.89	298.88	0.83	0.84	141.20	-0.39	-90.60	91.29	89.61	1.67	54.552	
400.00	399.96	397.60	397.56	1.18	1.19	143.24	1.42	-92.40	95.22	92.84	2.37	40.102	
500.00	499.86	495.95	495.82	1.54	1.55	146.28	4.42	-95.39	102.01	98.93	3.08	33.085	
600.00	599.68	593.78	593.47	1.90	1.90	149.88	8.59	-99.54	111.93	108.13	3.80	29.492	
700.00	699.37	709.26	690.14	2.27	2.33	153.62	13.89	-104.80	125.20	120.63	4.57	27.375	
800.00	798.99	789.23	788.25	2.64	2.63	157.10	19.97	-110.86	140.60	135.38	5.22	26.934	
900.00	898.60	887.71	886.36	3.02	3.00	159.88	26.06	-116.91	156.40	150.47	5.93	26.367	
1,000.00	998.22	986.20	984.47	3.40	3.37	162.15	32.15	-122.96	172.50	165.85	6.64	25.964	
1,100.00	1,097.84	1,084.68	1,082.58	3.78	3.74	164.04	38.23	-129.01	188.82	181.46	7.36	25.667	
1,113.55	1,111.35	1,101.97	1,095.88	3.84	3.81	164.27	39.06	-129.83	191.04	183.58	7.47	25.583	
1,200.00	1,197.52	1,183.28	1,180.80	4.16	4.12	165.61	44.33	-135.07	204.68	196.61	8.07	25.368	
1,300.00	1,297.31	1,282.15	1,279.30	4.54	4.49	166.86	50.44	-141.15	219.00	210.22	8.78	24.944	
1,400.00	1,397.21	1,381.26	1,378.03	4.90	4.87	167.86	56.56	-147.24	231.72	222.22	9.49	24.412	
1,500.00	1,497.17	1,480.59	1,476.99	5.26	5.25	168.67	62.70	-153.35	242.79	232.59	10.20	23.791	
1,600.00	1,597.16	1,580.11	1,576.12	5.61	5.63	169.33	68.85	-159.46	252.20	241.28	10.92	23.098	
1,613.55	1,610.71	1,606.39	1,589.57	5.66	5.73	-61.70	69.69	-160.29	253.35	242.29	11.06	22.907	
1,700.00	1,697.16	1,679.73	1,675.36	5.94	6.01	-61.22	75.01	-165.58	260.57	248.96	11.61	22.438	
1,800.00	1,797.16	1,779.34	1,774.60	6.27	6.39	-60.70	81.16	-171.71	268.94	256.64	12.31	21.850	
1,900.00	1,897.16	1,878.96	1,873.84	6.60	6.77	-60.21	87.32	-177.83	277.34	264.33	13.01	21.321	
2,000.00	1,997.16	1,978.58	1,973.08	6.94	7.15	-59.74	93.48	-183.95	285.76	272.05	13.71	20.845	
2,100.00	2,097.16	2,078.20	2,072.32	7.28	7.53	-59.31	99.63	-190.07	294.19	279.78	14.41	20.413	
2,200.00	2,197.16	2,177.82	2,171.56	7.62	7.91	-58.89	105.79	-196.19	302.64	287.52	15.12	20.021	
2,300.00	2,297.16	2,277.44	2,270.81	7.96	8.29	-58.50	111.95	-202.32	311.10	295.28	15.82	19.663	
2,400.00	2,397.16	2,377.06	2,370.05	8.30	8.67	-58.14	118.10	-208.44	319.58	303.05	16.53	19.335	
2,500.00	2,497.16	2,476.68	2,469.29	8.65	9.05	-57.79	124.26	-214.56	328.07	310.83	17.24	19.033	
2,600.00	2,597.16	2,576.30	2,568.53	8.99	9.43	-57.45	130.42	-220.68	336.57	318.62	17.95	18.755	
2,700.00	2,697.16	2,675.92	2,667.77	9.34	9.81	-57.14	136.57	-226.80	345.08	326.43	18.66	18.498	
2,800.00	2,797.16	2,775.54	2,767.01	9.69	10.19	-56.84	142.73	-232.93	353.60	334.24	19.37	18.259	
2,900.00	2,897.16	2,875.16	2,866.25	10.04	10.57	-56.55	148.89	-239.05	362.14	342.06	20.08	18.037	
3,000.00	2,997.16	2,974.78	2,965.49	10.38	10.96	-56.28	155.04	-245.17	370.67	349.89	20.79	17.831	
3,100.00	3,097.16	3,074.40	3,064.73	10.73	11.34	-56.02	161.20	-251.29	379.22	357.72	21.50	17.638	
3,200.00	3,197.16	3,179.56	3,169.54	11.08	11.74	-55.77	167.27	-257.33	387.22	364.97	22.25	17.405	
3,300.00	3,297.16	3,286.52	3,276.28	11.43	12.13	-55.58	172.07	-262.10	393.44	370.44	23.00	17.108	
3,400.00	3,397.16	3,393.69	3,383.35	11.79	12.52	-55.45	175.47	-265.48	397.83	374.09	23.74	16.757	
3,500.00	3,497.16	3,501.01	3,490.63	12.14	12.90	-55.38	177.44	-267.44	400.38	375.91	24.48	16.358	
3,600.00	3,597.16	3,607.54	3,597.16	12.49	13.26	-55.36	178.00	-268.00	401.10	375.91	25.20	15.918	
3,700.00	3,697.16	3,707.54	3,697.16	12.84	13.60	-55.36	178.00	-268.00	401.10	375.20	25.90	15.486	
3,800.00	3,797.16	3,807.54	3,797.16	13.19	13.94	-55.36	178.00	-268.00	401.10	374.50	26.60	15.077	
3,900.00	3,897.16	3,907.54	3,897.16	13.55	14.28	-55.36	178.00	-268.00	401.10	373.80	27.31	14.688	
4,000.00	3,997.16	4,007.54	3,997.16	13.90	14.62	-55.36	178.00	-268.00	401.10	373.09	28.01	14.318	
4,100.00	4,097.16	4,107.54	4,097.16	14.25	14.96	-55.36	178.00	-268.00	401.10	372.38	28.72	13.967	
4,200.00	4,197.16	4,207.54	4,197.16	14.61	15.31	-55.36	178.00	-268.00	401.10	371.68	29.42	13.632	
4,300.00	4,297.16	4,307.54	4,297.16	14.96	15.65	-55.36	178.00	-268.00	401.10	370.97	30.13	13.312	
4,400.00	4,397.16	4,407.54	4,397.16	15.31	15.99	-55.36	178.00	-268.00	401.10	370.27	30.84	13.007	
4,500.00	4,497.16	4,507.54	4,497.16	15.67	16.34	-55.36	178.00	-268.00	401.10	369.56	31.55	12.715	
4,600.00	4,597.16	4,607.54	4,597.16	16.02	16.68	-55.36	178.00	-268.00	401.10	368.85	32.25	12.436	
4,700.00	4,697.16	4,707.54	4,697.16	16.38	17.03	-55.36	178.00	-268.00	401.10	368.14	32.96	12.169	
4,800.00	4,797.16	4,807.54	4,797.16	16.73	17.38	-55.36	178.00	-268.00	401.10	367.43	33.67	11.913	
4,900.00	4,897.16	4,907.54	4,897.16	17.09	17.72	-55.36	178.00	-268.00	401.10	366.72	34.38	11.667	

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:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Reference Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	114H	**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 Verna Rae - 204H - 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	4,997.16	5,007.54	4,997.16	17.44	18.07	-55.36	178.00	-268.00	401.10	366.02	35.09	11.431	
5,100.00	5,097.16	5,107.54	5,097.16	17.80	18.42	-55.36	178.00	-268.00	401.10	365.31	35.80	11.205	
5,200.00	5,197.16	5,207.54	5,197.16	18.15	18.77	-55.36	178.00	-268.00	401.10	364.60	36.51	10.987	
5,300.00	5,297.16	5,307.54	5,297.16	18.51	19.12	-55.36	178.00	-268.00	401.10	363.89	37.22	10.777	
5,400.00	5,397.16	5,407.54	5,397.16	18.86	19.46	-55.36	178.00	-268.00	401.10	363.18	37.93	10.575	
5,500.00	5,497.16	5,507.54	5,497.16	19.22	19.81	-55.36	178.00	-268.00	401.10	362.46	38.64	10.381	
5,600.00	5,597.16	5,607.54	5,597.16	19.58	20.16	-55.36	178.00	-268.00	401.10	361.75	39.35	10.193	
5,700.00	5,697.16	5,707.54	5,697.16	19.93	20.51	-55.36	178.00	-268.00	401.10	361.04	40.06	10.012	
5,800.00	5,797.16	5,807.54	5,797.16	20.29	20.86	-55.36	178.00	-268.00	401.10	360.33	40.77	9.838	
5,900.00	5,897.16	5,907.54	5,897.16	20.64	21.21	-55.36	178.00	-268.00	401.10	359.62	41.48	9.669	
6,000.00	5,997.16	6,007.54	5,997.16	21.00	21.56	-55.36	178.00	-268.00	401.10	358.91	42.20	9.506	
6,100.00	6,097.16	6,107.54	6,097.16	21.36	21.92	-55.36	178.00	-268.00	401.10	358.20	42.91	9.348	
6,200.00	6,197.16	6,207.54	6,197.16	21.71	22.27	-55.36	178.00	-268.00	401.10	357.48	43.62	9.196	
6,300.00	6,297.16	6,307.54	6,297.16	22.07	22.62	-55.36	178.00	-268.00	401.10	356.77	44.33	9.048	
6,400.00	6,397.16	6,407.54	6,397.16	22.43	22.97	-55.36	178.00	-268.00	401.10	356.06	45.04	8.905	
6,500.00	6,497.16	6,507.54	6,497.16	22.78	23.32	-55.36	178.00	-268.00	401.10	355.35	45.76	8.766	
6,600.00	6,597.16	6,607.54	6,597.16	23.14	23.67	-55.36	178.00	-268.00	401.10	354.64	46.47	8.632	
6,700.00	6,697.16	6,707.54	6,697.16	23.50	24.03	-55.36	178.00	-268.00	401.10	353.92	47.18	8.501	
6,800.00	6,797.16	6,807.54	6,797.16	23.85	24.38	-55.36	178.00	-268.00	401.10	353.21	47.89	8.375	
6,900.00	6,897.16	6,907.54	6,897.16	24.21	24.73	-55.36	178.00	-268.00	401.10	352.50	48.61	8.252	
7,000.00	6,997.16	7,007.54	6,997.16	24.57	25.08	-55.36	178.00	-268.00	401.10	351.78	49.32	8.133	
7,100.00	7,097.16	7,107.54	7,097.16	24.92	25.44	-55.36	178.00	-268.00	401.10	351.07	50.03	8.017	
7,200.00	7,197.16	7,207.54	7,197.16	25.28	25.79	-55.36	178.00	-268.00	401.10	350.36	50.75	7.904	
7,300.00	7,297.16	7,307.54	7,297.16	25.64	26.14	-55.36	178.00	-268.00	401.10	349.64	51.46	7.795	
7,400.00	7,397.16	7,407.54	7,397.16	25.99	26.50	-55.36	178.00	-268.00	401.10	348.93	52.17	7.688	
7,500.00	7,497.16	7,507.54	7,497.16	26.35	26.85	-55.36	178.00	-268.00	401.10	348.22	52.89	7.584	
7,600.00	7,597.16	7,607.54	7,597.16	26.71	27.20	-55.36	178.00	-268.00	401.10	347.50	53.60	7.483	
7,700.00	7,697.16	7,707.54	7,697.16	27.07	27.56	-55.36	178.00	-268.00	401.10	346.79	54.31	7.385	
7,800.00	7,797.16	7,807.54	7,797.16	27.42	27.91	-55.36	178.00	-268.00	401.10	346.08	55.03	7.289	
7,900.00	7,897.16	7,907.54	7,897.16	27.78	28.27	-55.36	178.00	-268.00	401.10	345.36	55.74	7.196	
8,000.00	7,997.16	8,007.54	7,997.16	28.14	28.62	-55.36	178.00	-268.00	401.10	344.65	56.46	7.105	
8,100.00	8,097.16	8,107.54	8,097.16	28.49	28.97	-55.36	178.00	-268.00	401.10	343.93	57.17	7.016	
8,200.00	8,197.16	8,207.54	8,197.16	28.85	29.33	-55.36	178.00	-268.00	401.10	343.22	57.88	6.929	
8,300.00	8,297.16	8,307.54	8,297.16	29.21	29.68	-55.36	178.00	-268.00	401.10	342.51	58.60	6.845	
8,400.00	8,397.16	8,407.54	8,397.16	29.57	30.04	-55.36	178.00	-268.00	401.10	341.79	59.31	6.763	
8,500.00	8,497.16	8,507.54	8,497.16	29.92	30.39	-55.36	178.00	-268.00	401.10	341.08	60.03	6.682	
8,600.00	8,597.16	8,607.54	8,597.16	30.28	30.75	-55.36	178.00	-268.00	401.10	340.36	60.74	6.603	
8,700.00	8,697.16	8,707.54	8,697.16	30.64	31.10	-55.36	178.00	-268.00	401.10	339.65	61.46	6.527	
8,800.00	8,797.16	8,807.54	8,797.16	31.00	31.46	-55.36	178.00	-268.00	401.10	338.93	62.17	6.452	
8,900.00	8,897.16	8,907.54	8,897.16	31.35	31.81	-55.36	178.00	-268.00	401.10	338.22	62.89	6.378	
8,919.84	8,917.00	8,927.39	8,917.00	31.42	31.88	-55.36	178.00	-268.00	401.10	338.08	63.03	6.364	
8,950.00	8,947.14	8,957.53	8,947.14	31.53	31.99	124.75	178.00	-268.00	401.56	338.32	63.24	6.350	SF
9,000.00	8,996.90	9,007.28	8,996.90	31.69	32.17	125.08	178.00	-268.00	404.32	340.74	63.58	6.359	
9,050.00	9,046.04	9,056.43	9,046.04	31.86	32.34	125.67	178.00	-268.00	409.66	345.74	63.92	6.409	
9,100.00	9,094.20	9,104.59	9,094.20	32.02	32.51	126.47	178.00	-268.00	417.73	353.48	64.25	6.502	
9,150.00	9,141.02	9,151.40	9,141.02	32.18	32.68	127.39	178.00	-268.00	428.70	364.13	64.57	6.639	
9,200.00	9,186.13	9,203.49	9,186.13	32.34	32.86	128.34	178.00	-268.00	442.77	377.86	64.91	6.821	
9,250.00	9,229.19	9,239.57	9,229.19	32.50	32.99	129.20	178.00	-268.00	460.09	394.91	65.18	7.058	
9,300.00	9,269.87	9,280.26	9,269.87	32.66	33.14	129.88	178.00	-268.00	480.79	415.32	65.47	7.344	
9,350.00	9,307.87	9,318.26	9,307.87	32.82	33.27	130.28	178.00	-268.00	504.91	439.17	65.73	7.681	
9,400.00	9,342.90	9,353.28	9,342.90	33.00	33.39	130.29	178.00	-268.00	532.42	466.44	65.98	8.070	
9,450.00	9,374.68	9,385.07	9,374.68	33.17	33.51	129.79	178.00	-268.00	563.21	497.01	66.20	8.508	

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:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Reference Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	114H	**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 Verna Rae - 204H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG — **Offset Well Error:** 0.00 usft

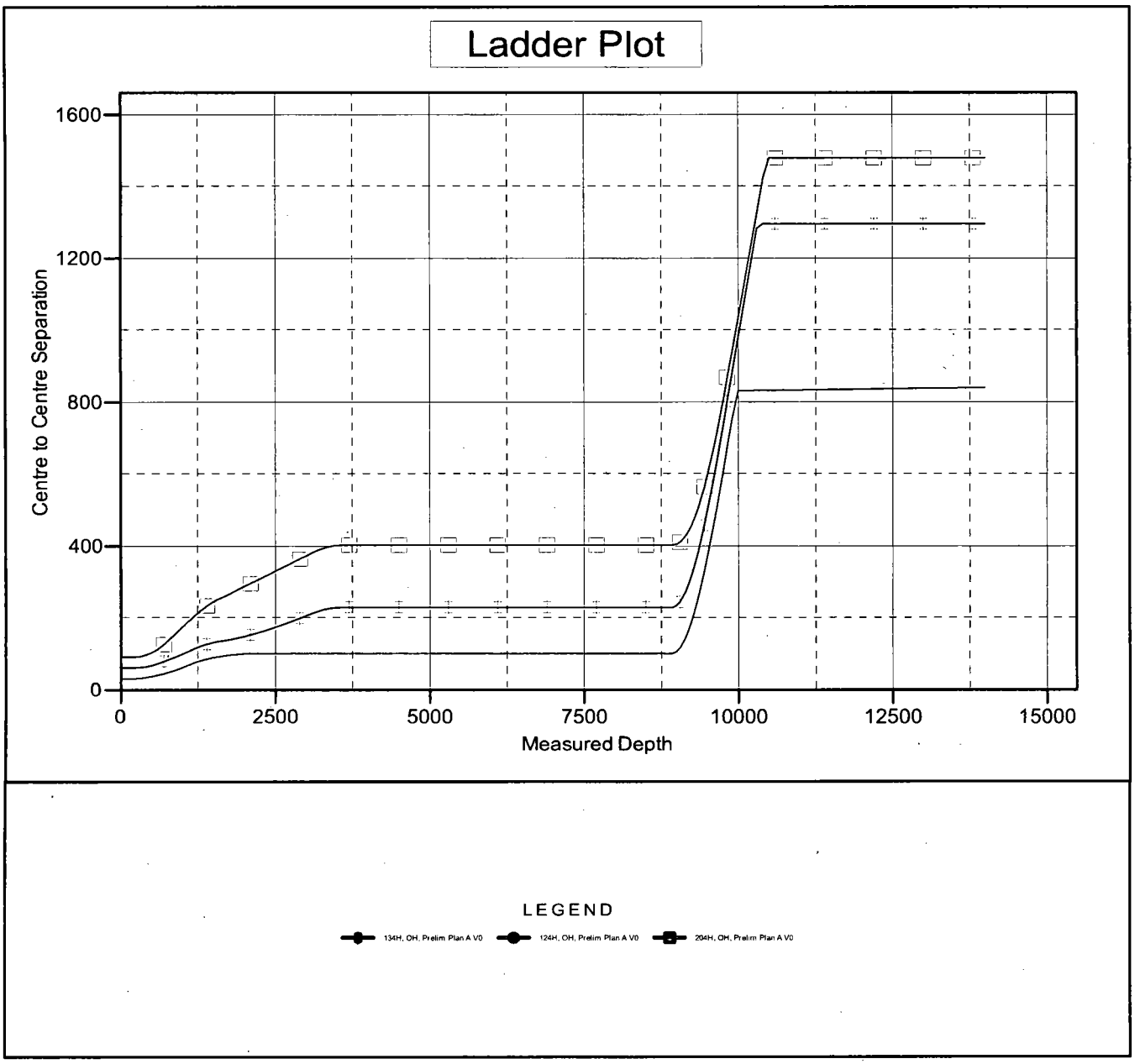
Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,500.00	9,402.98	9,413.37	9,402.98	33.36	33.61	128.64	178.00	-268.00	597.10	530.70	66.40	8.993	
9,550.00	9,427.58	9,437.97	9,427.58	33.55	33.70	126.67	178.00	-268.00	633.82	567.26	66.57	9.522	
9,600.00	9,448.30	9,458.68	9,448.30	33.75	33.77	123.66	178.00	-268.00	673.09	606.38	66.71	10.090	
9,650.00	9,464.97	9,475.36	9,464.97	33.96	33.83	119.31	178.00	-268.00	714.54	647.72	66.82	10.693	
9,700.00	9,477.47	9,487.86	9,477.47	34.17	33.87	113.25	178.00	-268.00	757.80	690.89	66.91	11.326	
9,750.00	9,485.71	9,503.91	9,485.71	34.40	33.93	105.09	178.00	-268.00	802.47	735.48	67.00	11.978	
9,800.00	9,489.61	9,500.00	9,489.61	34.63	33.92	94.69	178.00	-268.00	848.15	781.14	67.00	12.658	
9,819.84	9,489.96	9,500.34	9,489.96	34.72	33.92	90.00	178.00	-268.00	866.45	799.44	67.01	12.930	
9,900.00	9,489.96	9,500.35	9,489.96	35.13	33.92	90.00	178.00	-268.00	941.08	874.04	67.04	14.039	
10,000.00	9,489.96	9,500.35	9,489.96	35.69	33.92	90.00	178.00	-268.00	1,035.33	968.27	67.06	15.438	
10,100.00	9,489.96	9,500.35	9,489.96	36.32	33.92	90.00	178.00	-268.00	1,130.57	1,063.48	67.09	16.852	
10,200.00	9,489.96	9,500.35	9,489.96	37.02	33.92	90.00	178.00	-268.00	1,226.57	1,159.45	67.11	18.276	
10,300.00	9,489.96	9,500.35	9,489.96	37.78	33.92	90.00	178.00	-268.00	1,323.16	1,256.02	67.14	19.709	
10,400.00	9,489.96	9,500.35	9,489.96	38.59	33.92	90.00	178.00	-268.00	1,420.22	1,353.06	67.16	21.147	
10,500.00	9,489.96	12,175.80	10,929.97	39.46	44.47	167.10	-1,303.37	-266.81	1,477.30	1,430.86	46.44	31.812	
10,600.00	9,489.97	12,275.80	10,929.97	40.38	45.31	167.10	-1,403.37	-266.73	1,477.30	1,430.05	47.25	31.267	
10,700.00	9,489.97	12,375.80	10,929.97	41.35	46.20	167.10	-1,503.37	-266.65	1,477.30	1,429.20	48.10	30.711	
10,800.00	9,489.97	12,475.80	10,929.97	42.35	47.14	167.10	-1,603.37	-266.57	1,477.30	1,428.30	49.00	30.147	
10,900.00	9,489.97	12,575.80	10,929.97	43.40	48.11	167.10	-1,703.37	-266.49	1,477.30	1,427.36	49.95	29.578	
11,000.00	9,489.97	12,675.80	10,929.97	44.49	49.12	167.10	-1,803.37	-266.41	1,477.30	1,426.38	50.93	29.008	
11,100.00	9,489.97	12,775.80	10,929.97	45.61	50.16	167.10	-1,903.37	-266.33	1,477.31	1,425.36	51.95	28.439	
11,200.00	9,489.97	12,875.80	10,929.97	46.77	51.24	167.10	-2,003.37	-266.25	1,477.31	1,424.31	53.00	27.873	
11,300.00	9,489.97	12,975.80	10,929.97	47.96	52.35	167.10	-2,103.37	-266.17	1,477.31	1,423.22	54.09	27.313	
11,400.00	9,489.97	13,075.80	10,929.98	49.17	53.49	167.10	-2,203.37	-266.09	1,477.31	1,422.10	55.21	26.759	
11,500.00	9,489.97	13,175.80	10,929.98	50.41	54.65	167.10	-2,303.37	-266.01	1,477.31	1,420.95	56.35	26.214	
11,600.00	9,489.98	13,275.80	10,929.98	51.67	55.84	167.10	-2,403.37	-265.93	1,477.31	1,419.78	57.53	25.679	
11,700.00	9,489.98	13,375.80	10,929.98	52.96	57.06	167.10	-2,503.37	-265.85	1,477.31	1,418.58	58.73	25.154	
11,800.00	9,489.98	13,475.80	10,929.98	54.26	58.30	167.10	-2,603.37	-265.77	1,477.31	1,417.35	59.96	24.640	
11,900.00	9,489.98	13,575.80	10,929.98	55.59	59.55	167.10	-2,703.37	-265.69	1,477.31	1,416.11	61.20	24.137	
12,000.00	9,489.98	13,675.80	10,929.98	56.93	60.83	167.10	-2,803.37	-265.61	1,477.31	1,414.84	62.47	23.647	
12,100.00	9,489.98	13,775.80	10,929.98	58.29	62.13	167.10	-2,903.37	-265.53	1,477.31	1,413.55	63.76	23.169	
12,200.00	9,489.98	13,875.80	10,929.98	59.67	63.44	167.10	-3,003.37	-265.45	1,477.31	1,412.24	65.07	22.703	
12,300.00	9,489.98	13,975.80	10,929.98	61.06	64.77	167.10	-3,103.37	-265.37	1,477.32	1,410.92	66.40	22.249	
12,400.00	9,489.98	14,075.80	10,929.98	62.47	66.11	167.09	-3,203.37	-265.29	1,477.32	1,409.57	67.74	21.808	
12,500.00	9,489.99	14,175.80	10,929.99	63.88	67.47	167.09	-3,303.37	-265.21	1,477.32	1,408.22	69.10	21.379	
12,600.00	9,489.99	14,275.80	10,929.99	65.31	68.85	167.09	-3,403.37	-265.13	1,477.32	1,406.84	70.47	20.962	
12,700.00	9,489.99	14,375.80	10,929.99	66.75	70.23	167.09	-3,503.37	-265.05	1,477.32	1,405.46	71.86	20.558	
12,800.00	9,489.99	14,475.80	10,929.99	68.20	71.63	167.09	-3,603.37	-264.97	1,477.32	1,404.06	73.26	20.165	
12,900.00	9,489.99	14,575.80	10,929.99	69.66	73.04	167.09	-3,703.37	-264.89	1,477.32	1,402.64	74.68	19.783	
13,000.00	9,489.99	14,675.80	10,929.99	71.13	74.46	167.09	-3,803.37	-264.81	1,477.32	1,401.22	76.10	19.412	
13,100.00	9,489.99	14,775.80	10,929.99	72.61	75.89	167.09	-3,903.37	-264.73	1,477.32	1,399.78	77.54	19.053	
13,200.00	9,489.99	14,875.80	10,929.99	74.10	77.33	167.09	-4,003.37	-264.64	1,477.32	1,398.34	78.99	18.704	
13,300.00	9,489.99	14,975.80	10,929.99	75.59	78.78	167.09	-4,103.36	-264.56	1,477.32	1,396.88	80.44	18.365	
13,400.00	9,489.99	15,075.80	10,929.99	77.09	80.23	167.09	-4,203.36	-264.48	1,477.32	1,395.42	81.91	18.036	
13,500.00	9,490.00	15,175.80	10,930.00	78.60	81.70	167.09	-4,303.36	-264.40	1,477.33	1,393.94	83.38	17.717	
13,600.00	9,490.00	15,275.80	10,930.00	80.11	83.17	167.09	-4,403.36	-264.32	1,477.33	1,392.46	84.87	17.407	
13,700.00	9,490.00	15,375.80	10,930.00	81.63	84.65	167.09	-4,503.36	-264.24	1,477.33	1,390.97	86.36	17.107	
13,800.00	9,490.00	15,475.80	10,930.00	83.16	86.14	167.09	-4,603.36	-264.16	1,477.33	1,389.47	87.86	16.815	
13,900.00	9,490.00	15,575.80	10,930.00	84.69	87.63	167.09	-4,703.36	-264.08	1,477.33	1,387.96	89.37	16.531	
14,000.89	9,490.00	15,676.68	10,930.00	86.24	89.14	167.09	-4,804.25	-264.00	1,477.33	1,386.44	90.89	16.254	

Pro Directional

Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Reference Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	114H	**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

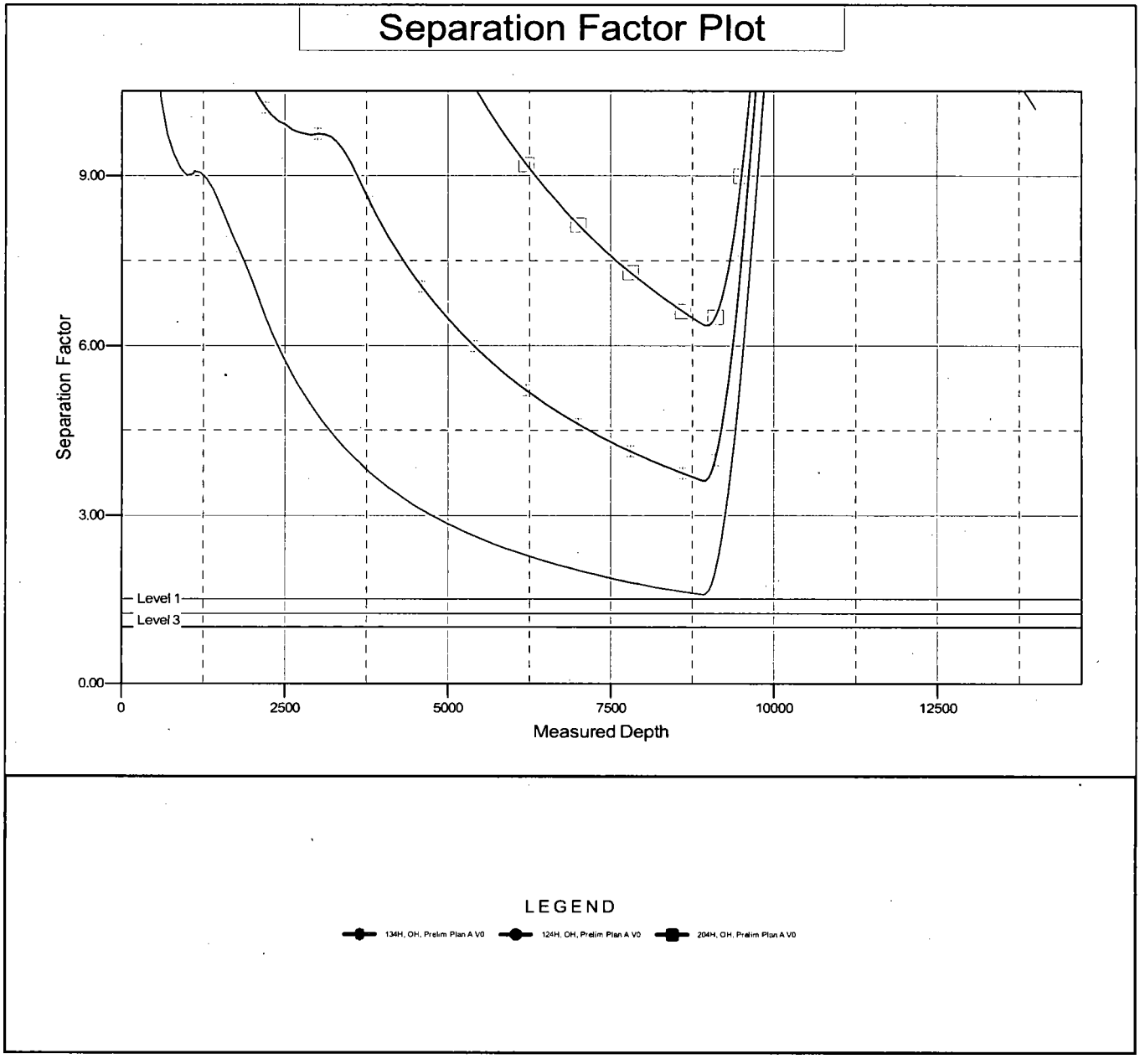
Reference Depths are relative to Rig @ 3652.50usft (GL:3624'+KB:28.5	Coordinates are relative to: 114H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Central Meridian is 104° 20' 0.000 W	Grid Convergence at Surface is: 0.40°



Company:	Matador Resources	**Local Co-ordinate Reference:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Reference Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	114H	**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 @ 3652.50usft (GL:3624'+KB:28.5
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: 114H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.40°



Pro Directional

Survey Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Well:	114H	**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	Verna Rae				
Site Position:		**Northing:**	585,923.00 usft	**Latitude:**	32° 36' 31.113 N
From:	Map	**Easting:**	727,046.00 usft	**Longitude:**	103° 35' 45.639 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.40 °

Well	114H					
Well Position	**+N/-S**	0.00 usft	**Northing:**	585,932.00 usft	**Latitude:**	32° 36' 31.133 N
	+E/-W	0.00 usft	**Easting:**	728,049.00 usft	**Longitude:**	103° 35' 33.914 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,624.00 usft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM	4/21/2017	6.80	60.63	48,393.90

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	179.95	

Survey Tool Program **Date** 4/28/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	14,000.89	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	1.00	128.88	299.99	-0.55	0.68	0.55	1.00	1.00	0.00
400.00	2.00	128.88	399.96	-2.19	2.72	2.19	1.00	1.00	0.00
500.00	3.00	128.88	499.86	-4.93	6.11	4.93	1.00	1.00	0.00
600.00	4.00	128.88	599.68	-8.76	10.86	8.77	1.00	1.00	0.00
700.00	5.00	128.88	699.37	-13.69	16.97	13.70	1.00	1.00	0.00
800.00	5.00	128.88	798.99	-19.16	23.76	19.18	0.00	0.00	0.00
900.00	5.00	128.88	898.60	-24.63	30.54	24.66	0.00	0.00	0.00

Pro Directional

Survey Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Well:	114H	**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)
1,000.00	5.00	128.88	998.22	-30.10	37.32	30.13	0.00	0.00	0.00
1,100.00	5.00	128.88	1,097.84	-35.57	44.11	35.61	0.00	0.00	0.00
1,113.55	5.00	128.88	1,111.35	-36.31	45.03	36.35	0.00	0.00	0.00
1,200.00	4.14	128.88	1,197.52	-40.63	50.39	40.68	1.00	-1.00	0.00
1,300.00	3.14	128.88	1,297.31	-44.62	55.32	44.66	1.00	-1.00	0.00
1,400.00	2.14	128.88	1,397.21	-47.50	58.90	47.55	1.00	-1.00	0.00
1,500.00	1.14	128.88	1,497.17	-49.29	61.12	49.35	1.00	-1.00	0.00
1,600.00	0.14	128.88	1,597.16	-49.99	61.99	50.04	1.00	-1.00	0.00
1,613.55	0.00	0.00	1,610.71	-50.00	62.00	50.05	1.00	-1.00	0.00
1,700.00	0.00	0.00	1,697.16	-50.00	62.00	50.05	0.00	0.00	0.00
1,800.00	0.00	0.00	1,797.16	-50.00	62.00	50.05	0.00	0.00	0.00
1,900.00	0.00	0.00	1,897.16	-50.00	62.00	50.05	0.00	0.00	0.00
2,000.00	0.00	0.00	1,997.16	-50.00	62.00	50.05	0.00	0.00	0.00
2,100.00	0.00	0.00	2,097.16	-50.00	62.00	50.05	0.00	0.00	0.00
2,200.00	0.00	0.00	2,197.16	-50.00	62.00	50.05	0.00	0.00	0.00
2,300.00	0.00	0.00	2,297.16	-50.00	62.00	50.05	0.00	0.00	0.00
2,400.00	0.00	0.00	2,397.16	-50.00	62.00	50.05	0.00	0.00	0.00
2,500.00	0.00	0.00	2,497.16	-50.00	62.00	50.05	0.00	0.00	0.00
2,600.00	0.00	0.00	2,597.16	-50.00	62.00	50.05	0.00	0.00	0.00
2,700.00	0.00	0.00	2,697.16	-50.00	62.00	50.05	0.00	0.00	0.00
2,800.00	0.00	0.00	2,797.16	-50.00	62.00	50.05	0.00	0.00	0.00
2,900.00	0.00	0.00	2,897.16	-50.00	62.00	50.05	0.00	0.00	0.00
3,000.00	0.00	0.00	2,997.16	-50.00	62.00	50.05	0.00	0.00	0.00
3,100.00	0.00	0.00	3,097.16	-50.00	62.00	50.05	0.00	0.00	0.00
3,200.00	0.00	0.00	3,197.16	-50.00	62.00	50.05	0.00	0.00	0.00
3,300.00	0.00	0.00	3,297.16	-50.00	62.00	50.05	0.00	0.00	0.00
3,400.00	0.00	0.00	3,397.16	-50.00	62.00	50.05	0.00	0.00	0.00
3,500.00	0.00	0.00	3,497.16	-50.00	62.00	50.05	0.00	0.00	0.00
3,600.00	0.00	0.00	3,597.16	-50.00	62.00	50.05	0.00	0.00	0.00
3,700.00	0.00	0.00	3,697.16	-50.00	62.00	50.05	0.00	0.00	0.00
3,800.00	0.00	0.00	3,797.16	-50.00	62.00	50.05	0.00	0.00	0.00
3,900.00	0.00	0.00	3,897.16	-50.00	62.00	50.05	0.00	0.00	0.00
4,000.00	0.00	0.00	3,997.16	-50.00	62.00	50.05	0.00	0.00	0.00
4,100.00	0.00	0.00	4,097.16	-50.00	62.00	50.05	0.00	0.00	0.00
4,200.00	0.00	0.00	4,197.16	-50.00	62.00	50.05	0.00	0.00	0.00
4,300.00	0.00	0.00	4,297.16	-50.00	62.00	50.05	0.00	0.00	0.00
4,400.00	0.00	0.00	4,397.16	-50.00	62.00	50.05	0.00	0.00	0.00
4,500.00	0.00	0.00	4,497.16	-50.00	62.00	50.05	0.00	0.00	0.00
4,600.00	0.00	0.00	4,597.16	-50.00	62.00	50.05	0.00	0.00	0.00
4,700.00	0.00	0.00	4,697.16	-50.00	62.00	50.05	0.00	0.00	0.00
4,800.00	0.00	0.00	4,797.16	-50.00	62.00	50.05	0.00	0.00	0.00
4,900.00	0.00	0.00	4,897.16	-50.00	62.00	50.05	0.00	0.00	0.00
5,000.00	0.00	0.00	4,997.16	-50.00	62.00	50.05	0.00	0.00	0.00
5,100.00	0.00	0.00	5,097.16	-50.00	62.00	50.05	0.00	0.00	0.00

Pro Directional

Survey Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Well:	114H	**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)
5,200.00	0.00	0.00	5,197.16	-50.00	62.00	50.05	0.00	0.00	0.00
5,300.00	0.00	0.00	5,297.16	-50.00	62.00	50.05	0.00	0.00	0.00
5,400.00	0.00	0.00	5,397.16	-50.00	62.00	50.05	0.00	0.00	0.00
5,500.00	0.00	0.00	5,497.16	-50.00	62.00	50.05	0.00	0.00	0.00
5,600.00	0.00	0.00	5,597.16	-50.00	62.00	50.05	0.00	0.00	0.00
5,700.00	0.00	0.00	5,697.16	-50.00	62.00	50.05	0.00	0.00	0.00
5,800.00	0.00	0.00	5,797.16	-50.00	62.00	50.05	0.00	0.00	0.00
5,900.00	0.00	0.00	5,897.16	-50.00	62.00	50.05	0.00	0.00	0.00
6,000.00	0.00	0.00	5,997.16	-50.00	62.00	50.05	0.00	0.00	0.00
6,100.00	0.00	0.00	6,097.16	-50.00	62.00	50.05	0.00	0.00	0.00
6,200.00	0.00	0.00	6,197.16	-50.00	62.00	50.05	0.00	0.00	0.00
6,300.00	0.00	0.00	6,297.16	-50.00	62.00	50.05	0.00	0.00	0.00
6,400.00	0.00	0.00	6,397.16	-50.00	62.00	50.05	0.00	0.00	0.00
6,500.00	0.00	0.00	6,497.16	-50.00	62.00	50.05	0.00	0.00	0.00
6,600.00	0.00	0.00	6,597.16	-50.00	62.00	50.05	0.00	0.00	0.00
6,700.00	0.00	0.00	6,697.16	-50.00	62.00	50.05	0.00	0.00	0.00
6,800.00	0.00	0.00	6,797.16	-50.00	62.00	50.05	0.00	0.00	0.00
6,900.00	0.00	0.00	6,897.16	-50.00	62.00	50.05	0.00	0.00	0.00
7,000.00	0.00	0.00	6,997.16	-50.00	62.00	50.05	0.00	0.00	0.00
7,100.00	0.00	0.00	7,097.16	-50.00	62.00	50.05	0.00	0.00	0.00
7,200.00	0.00	0.00	7,197.16	-50.00	62.00	50.05	0.00	0.00	0.00
7,300.00	0.00	0.00	7,297.16	-50.00	62.00	50.05	0.00	0.00	0.00
7,400.00	0.00	0.00	7,397.16	-50.00	62.00	50.05	0.00	0.00	0.00
7,500.00	0.00	0.00	7,497.16	-50.00	62.00	50.05	0.00	0.00	0.00
7,600.00	0.00	0.00	7,597.16	-50.00	62.00	50.05	0.00	0.00	0.00
7,700.00	0.00	0.00	7,697.16	-50.00	62.00	50.05	0.00	0.00	0.00
7,800.00	0.00	0.00	7,797.16	-50.00	62.00	50.05	0.00	0.00	0.00
7,900.00	0.00	0.00	7,897.16	-50.00	62.00	50.05	0.00	0.00	0.00
8,000.00	0.00	0.00	7,997.16	-50.00	62.00	50.05	0.00	0.00	0.00
8,100.00	0.00	0.00	8,097.16	-50.00	62.00	50.05	0.00	0.00	0.00
8,200.00	0.00	0.00	8,197.16	-50.00	62.00	50.05	0.00	0.00	0.00
8,300.00	0.00	0.00	8,297.16	-50.00	62.00	50.05	0.00	0.00	0.00
8,400.00	0.00	0.00	8,397.16	-50.00	62.00	50.05	0.00	0.00	0.00
8,500.00	0.00	0.00	8,497.16	-50.00	62.00	50.05	0.00	0.00	0.00
8,600.00	0.00	0.00	8,597.16	-50.00	62.00	50.05	0.00	0.00	0.00
8,700.00	0.00	0.00	8,697.16	-50.00	62.00	50.05	0.00	0.00	0.00
8,800.00	0.00	0.00	8,797.16	-50.00	62.00	50.05	0.00	0.00	0.00
8,900.00	0.00	0.00	8,897.16	-50.00	62.00	50.05	0.00	0.00	0.00
8,919.84	0.00	0.00	8,917.00	-50.00	62.00	50.05	0.00	0.00	0.00
8,950.00	3.02	179.95	8,947.14	-50.79	62.00	50.85	10.00	10.00	0.00
9,000.00	8.02	179.95	8,996.90	-55.60	62.00	55.65	10.00	10.00	0.00
9,050.00	13.02	179.95	9,046.04	-64.72	62.01	64.77	10.00	10.00	0.00
9,100.00	18.02	179.95	9,094.20	-78.09	62.02	78.15	10.00	10.00	0.00

Pro Directional

Survey Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Well:	114H	**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)
9,150.00	23.02	179.95	9,141.02	-95.61	62.04	95.66	10.00	10.00	0.00
9,200.00	28.02	179.95	9,186.13	-117.14	62.06	117.19	10.00	10.00	0.00
9,250.00	33.02	179.95	9,229.19	-142.52	62.08	142.57	10.00	10.00	0.00
9,300.00	38.02	179.95	9,269.87	-171.56	62.10	171.61	10.00	10.00	0.00
9,350.00	43.02	179.95	9,307.87	-204.03	62.13	204.08	10.00	10.00	0.00
9,400.00	48.02	179.95	9,342.90	-239.69	62.16	239.75	10.00	10.00	0.00
9,450.00	53.02	179.95	9,374.68	-278.27	62.19	278.32	10.00	10.00	0.00
9,500.00	58.02	179.95	9,402.98	-319.47	62.23	319.52	10.00	10.00	0.00
9,550.00	63.02	179.95	9,427.58	-362.98	62.26	363.03	10.00	10.00	0.00
9,600.00	68.02	179.95	9,448.30	-408.47	62.30	408.52	10.00	10.00	0.00
9,650.00	73.02	179.95	9,464.97	-455.59	62.34	455.65	10.00	10.00	0.00
9,700.00	78.02	179.95	9,477.47	-503.99	62.38	504.04	10.00	10.00	0.00
9,750.00	83.02	179.95	9,485.71	-553.29	62.42	553.34	10.00	10.00	0.00
9,800.00	88.02	179.95	9,489.61	-603.12	62.47	603.17	10.00	10.00	0.00
9,819.84	90.00	179.95	9,489.96	-622.95	62.48	623.01	10.00	10.00	0.00
9,900.00	90.00	179.95	9,489.96	-703.12	62.55	703.17	0.00	0.00	0.00
10,000.00	90.00	179.95	9,489.96	-803.12	62.63	803.17	0.00	0.00	0.00
10,100.00	90.00	179.95	9,489.96	-903.12	62.72	903.17	0.00	0.00	0.00
10,200.00	90.00	179.95	9,489.96	-1,003.12	62.80	1,003.17	0.00	0.00	0.00
10,300.00	90.00	179.95	9,489.96	-1,103.11	62.89	1,103.17	0.00	0.00	0.00
10,400.00	90.00	179.95	9,489.96	-1,203.11	62.97	1,203.17	0.00	0.00	0.00
10,500.00	90.00	179.95	9,489.96	-1,303.11	63.05	1,303.17	0.00	0.00	0.00
10,600.00	90.00	179.95	9,489.97	-1,403.11	63.14	1,403.17	0.00	0.00	0.00
10,700.00	90.00	179.95	9,489.97	-1,503.11	63.22	1,503.17	0.00	0.00	0.00
10,800.00	90.00	179.95	9,489.97	-1,603.11	63.31	1,603.17	0.00	0.00	0.00
10,900.00	90.00	179.95	9,489.97	-1,703.11	63.39	1,703.17	0.00	0.00	0.00
11,000.00	90.00	179.95	9,489.97	-1,803.11	63.48	1,803.17	0.00	0.00	0.00
11,100.00	90.00	179.95	9,489.97	-1,903.11	63.56	1,903.17	0.00	0.00	0.00
11,200.00	90.00	179.95	9,489.97	-2,003.11	63.64	2,003.17	0.00	0.00	0.00
11,300.00	90.00	179.95	9,489.97	-2,103.11	63.73	2,103.17	0.00	0.00	0.00
11,400.00	90.00	179.95	9,489.97	-2,203.11	63.81	2,203.17	0.00	0.00	0.00
11,500.00	90.00	179.95	9,489.97	-2,303.11	63.90	2,303.17	0.00	0.00	0.00
11,600.00	90.00	179.95	9,489.98	-2,403.11	63.98	2,403.17	0.00	0.00	0.00
11,700.00	90.00	179.95	9,489.98	-2,503.11	64.06	2,503.17	0.00	0.00	0.00
11,800.00	90.00	179.95	9,489.98	-2,603.11	64.15	2,603.17	0.00	0.00	0.00
11,900.00	90.00	179.95	9,489.98	-2,703.11	64.23	2,703.17	0.00	0.00	0.00
12,000.00	90.00	179.95	9,489.98	-2,803.11	64.32	2,803.17	0.00	0.00	0.00
12,100.00	90.00	179.95	9,489.98	-2,903.11	64.40	2,903.17	0.00	0.00	0.00
12,200.00	90.00	179.95	9,489.98	-3,003.11	64.48	3,003.17	0.00	0.00	0.00
12,300.00	90.00	179.95	9,489.98	-3,103.11	64.57	3,103.17	0.00	0.00	0.00
12,400.00	90.00	179.95	9,489.98	-3,203.11	64.65	3,203.17	0.00	0.00	0.00
12,500.00	90.00	179.95	9,489.99	-3,303.11	64.74	3,303.17	0.00	0.00	0.00
12,600.00	90.00	179.95	9,489.99	-3,403.11	64.82	3,403.17	0.00	0.00	0.00

Pro Directional

Survey Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well 114H
Project:	Lea County, NM	**TVD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Site:	Verna Rae	**MD Reference:**	Rig @ 3652.50usft (GL:3624'+KB:28.5'(809))
Well:	114H	**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)
12,700.00	90.00	179.95	9,489.99	-3,503.11	64.91	3,503.17	0.00	0.00	0.00
12,800.00	90.00	179.95	9,489.99	-3,603.11	64.99	3,603.17	0.00	0.00	0.00
12,900.00	90.00	179.95	9,489.99	-3,703.11	65.07	3,703.17	0.00	0.00	0.00
13,000.00	90.00	179.95	9,489.99	-3,803.11	65.16	3,803.17	0.00	0.00	0.00
13,100.00	90.00	179.95	9,489.99	-3,903.11	65.24	3,903.17	0.00	0.00	0.00
13,200.00	90.00	179.95	9,489.99	-4,003.11	65.33	4,003.17	0.00	0.00	0.00
13,300.00	90.00	179.95	9,489.99	-4,103.11	65.41	4,103.17	0.00	0.00	0.00
13,400.00	90.00	179.95	9,489.99	-4,203.11	65.49	4,203.17	0.00	0.00	0.00
13,500.00	90.00	179.95	9,490.00	-4,303.11	65.58	4,303.17	0.00	0.00	0.00
13,600.00	90.00	179.95	9,490.00	-4,403.11	65.66	4,403.17	0.00	0.00	0.00
13,700.00	90.00	179.95	9,490.00	-4,503.11	65.75	4,503.17	0.00	0.00	0.00
13,800.00	90.00	179.95	9,490.00	-4,603.11	65.83	4,603.17	0.00	0.00	0.00
13,900.00	90.00	179.95	9,490.00	-4,703.11	65.92	4,703.17	0.00	0.00	0.00
14,000.89	90.00	179.95	9,490.00	-4,804.00	66.00	4,804.06	0.00	0.00	0.00

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
[VR114]FPP	0.00	0.00	0.00	-101.00	62.00	585,831.00	728,111.00	32° 36' 30.130 N	103° 35' 33.197 W
- plan misses target center by 118.51usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
[VR114]LPP	0.00	0.00	0.00	-4,714.00	66.00	581,218.00	728,115.00	32° 35' 44.484 N	103° 35' 33.526 W
- plan misses target center by 4714.46usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
[VR114]PBHL	0.00	0.00	9,490.00	-4,804.00	66.00	581,128.00	728,115.00	32° 35' 43.594 N	103° 35' 33.533 W
- plan hits target center									
- Point									

Checked By: _____ Approved By: _____ Date: _____