PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Matador Production Company**
LEASE NO.:	**NMNM-113418**
WELL NAME & NO.:	**Carl Mottek Federal 101H**
SURFACE HOLE FOOTAGE:	**0326' FNL & 0440' FWL**
BOTTOM HOLE FOOTAGE	**0240' FSL & 0330' FWL**
LOCATION:	**Section 17, T. 24 S., R 34 E., NMPM**
COUNTY:	**County, New Mexico**

A. DRILLING OPERATIONS 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)

☐ **Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 3933612

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

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

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

4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper**

copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

B. **CASING**

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

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

Wait on cement (WOC) for 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.

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

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

Possibility of water and brine flows in the Salado and Castile.
Possibility of lost circulation in the Rustler, Red Beds, and Delaware.

1. The **13-3/8** inch surface casing shall be set at approximately **1300** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

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

    b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

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

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

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

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

☐ Cement to surface. If cement does not circulate see B.1.a, c-d above.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

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

☐ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

4. 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.

C. PRESSURE CONTROL

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

2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi **(Installing 5M BOP, testing to 2,000 psi)**.

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

If multibowl option is utilized:

5. **Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi.**
    a. **Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.**
    b. **If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.**
    c. **Manufacturer representative shall install the test plug for the initial BOP test.**
    d. **Operator shall perform the 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.**

5M 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.

6. The appropriate BLM office shall be notified a minimum of 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).

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

    b. 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.

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

    d. 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.**

    e. 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.

D. DRILL STEM TEST

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

E. WASTE MATERIAL AND FLUIDS

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

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

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PECOS DISTRICT
SURFACE USE
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I. GENERAL PROVISIONS

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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

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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)

- The entirety of the well pad would be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pads. Topsoil should not be used to construct the berm. No water flow from the uphill side(s) of the pad should be allowed to enter the well pad. The berm should be maintained through the life of the wells and after interim reclamation has been completed.
- Any water erosion that may occur due to the construction of the well pad or facilities during the life of the project would be quickly corrected and proper measures would be taken to prevent future erosion.
- Stockpiling of topsoil is required. The topsoil would be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and would not be used for berming or erosion control.

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

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

G. ON LEASE ACCESS ROADS

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

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

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

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

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

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

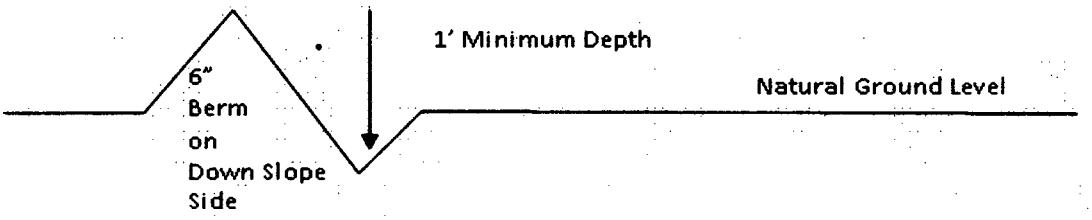
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

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

Public Access

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

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

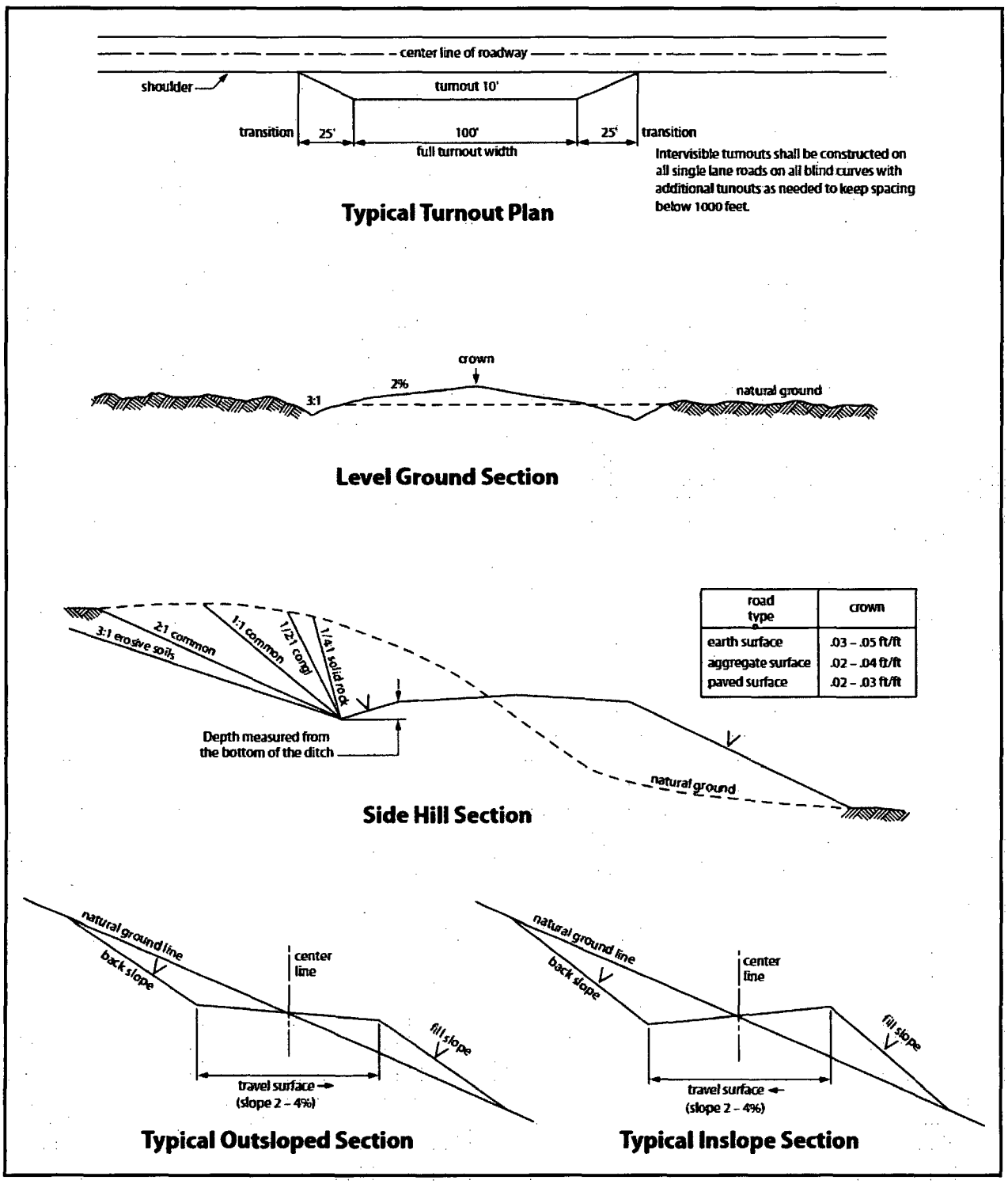


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

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

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

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

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

Containment Structures

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

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

VIII. INTERIM RECLAMATION

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

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

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory

revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

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

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

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 1 for Loamy Sites

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

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

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

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

*Pounds of pure live seed:

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

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B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

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

G. ON LEASE ACCESS ROADS

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

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

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

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

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

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

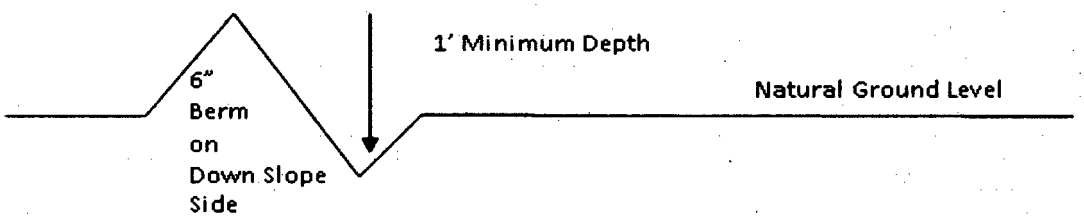
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

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

Public Access

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

Construction Steps

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

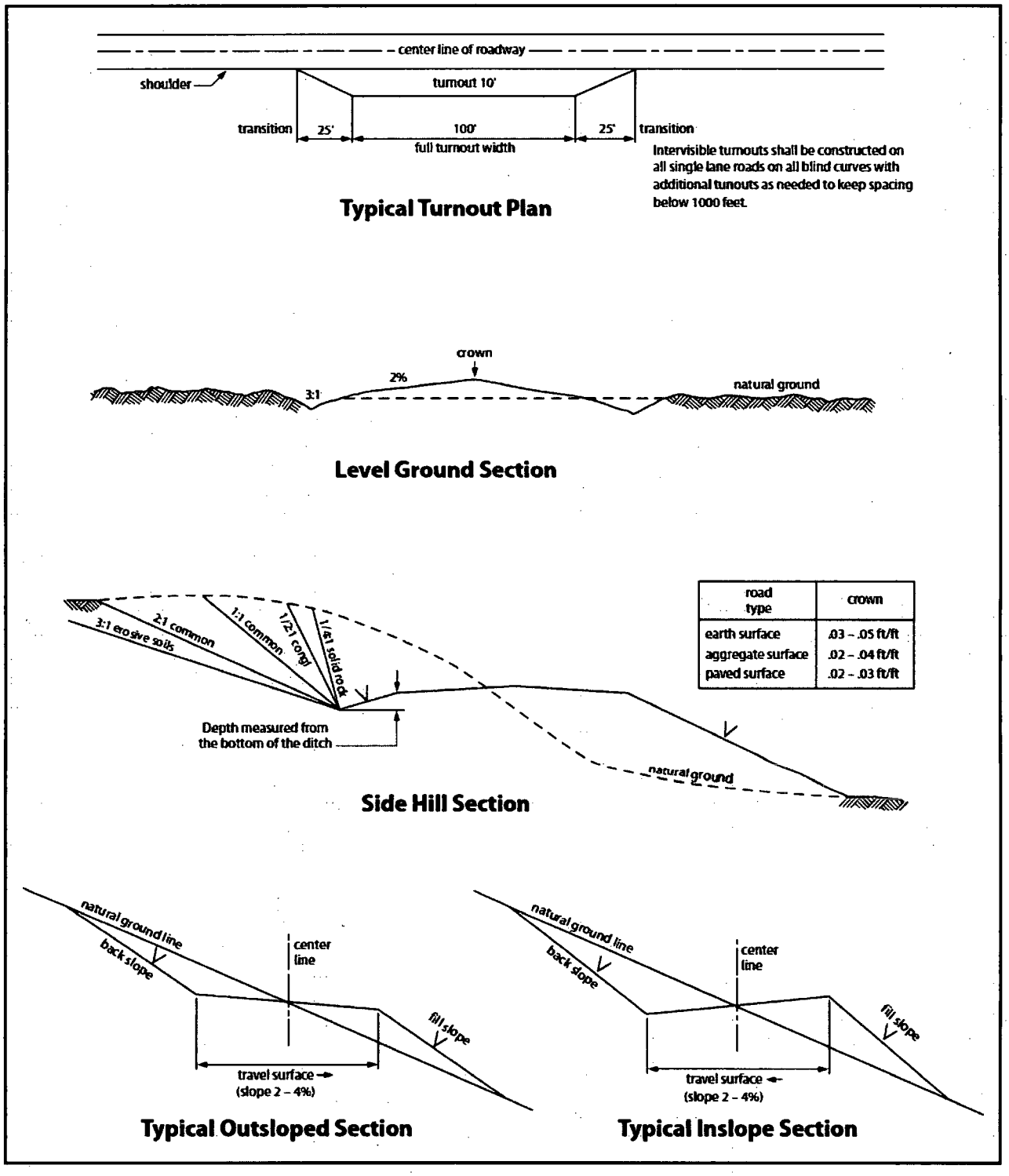


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

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

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

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

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

Containment Structures

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

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

VIII. INTERIM RECLAMATION

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

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

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory

revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

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

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

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 1 for Loamy Sites

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

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

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

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

*Pounds of pure live seed:

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

Hydrogen Sulfide Drilling

Operations Plan

1 H2S safety instructions to the following:

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

2 H2S Detection and Alarm Systems:

- H2S sensor/detectors to be located on the drilling rig floor, in the base of the sub structure / cellar area, and 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 will be high enough to be visible.
- Windsock on the rig floor and / top of doghouse will 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 attached diagram

6 Communication:

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

BLANKING DIMENSIONS

Blanking Dimensions

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

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

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

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

7 Drilling Stem Testing:

- No DST cores are planned at this time.

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

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

11 Emergency Contacts

- Attached

H2S Contingency Plan Emergency Contacts
Carl Mottek wells
Matador Production Company
Sec. 17, T24S, 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
Adam Lange	Drilling Engineer	972-371-5247	214-458-0788
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. (Jal)		575-395-2221	
Emergency Management (Lovington)		575-391-2983	
New Mexico Oil Conservation Division (Hobbs)		575-393-6161	575-390-3186
BLM (Hobbs)		575-393-3612	
Hobbs Animal Clinic		575-392-5563	
Dal Paso Animal Hospital (Hobbs)		575-397-2286	
Mountain States Equine (Hobbs)		575-392-7488	
Carlsbad			
BLM		575-234-5972	
Santa Fe			
New Mexico Emergency Response Commission (Santa Fe)		505-476-9600	
New Mexico Emergency Response Commission (Santa Fe) 24 hrs		505-827-9126	
New Mexico State Emergency Operations Center		505-476-9635	
National			
National Emergency Response Center (Washington, D.C.)		800-424-8802	
Medical			
Flight for Life- 4000 24th St.; Lubbock, TX		806-743-9911	
Aerocare- R3, Box 49F; Lubbock, TX		806-747-8923	
Med Flight Air Amb- 2301 Yale Blvd SE, D3; Albuquerque, NM		505-842-4433	
SB Air Med Service- 2505 Clark Carr Loop SE; Albuquerque, NM		505-842-4949	
Other			
Boots & Coots IWC		800-256-9688	or 281-931-8884
Cudd Pressure Control		432-699-0139	or 432-563-3356
Halliburton		575-746-2757	
B.J. Services		575-746-3569	
NM Dept. of Transportation (Roswell)		575-637-7200	

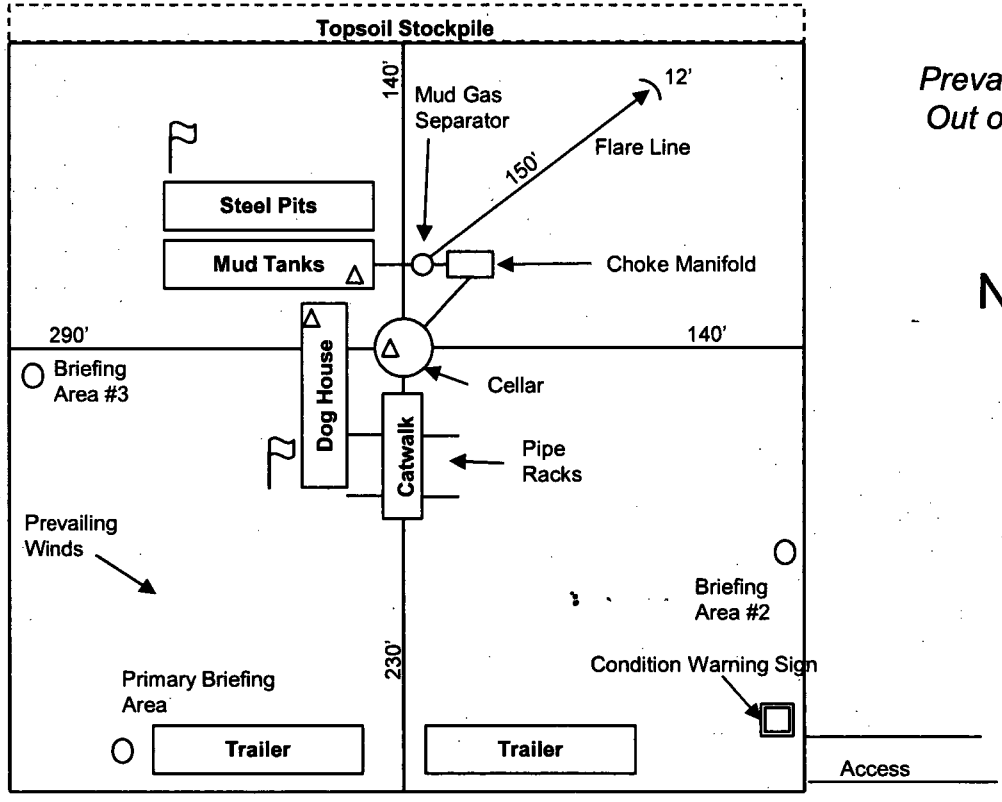
H2S Rig Diagram

Carl Mottek Federal 101H
SHL 326' FNL & 440' FWL
17-24S-34E Lea County, NM
(not to scale)

Wind Direction Indicator

H2S Monitors

Briefing Areas



Prevailing Winds Out of the South

North

Matador Production Company

Carl Mottek Federal #101H
H_2S Contingency Plan:
2 Mile Radius Map

Section 17, Township 24S, Range 34E
Lea County, New Mexico

Surface Hole Location

1:27,000

0 0.25 0.5 1

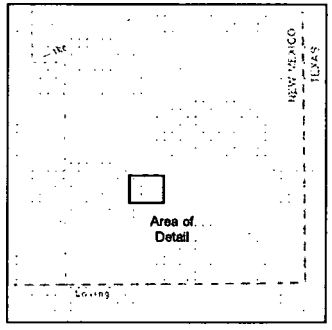
Miles

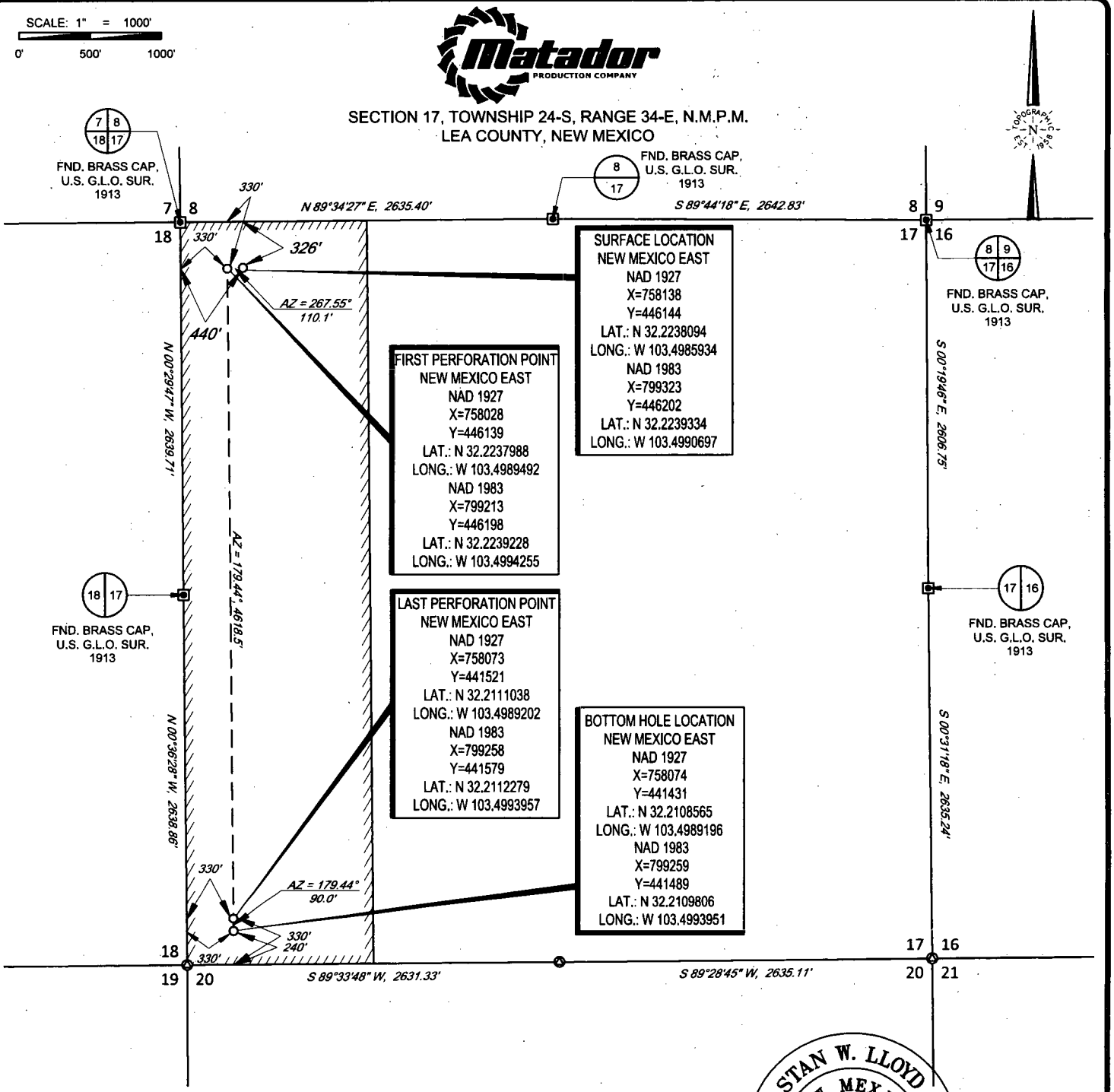
N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST, INC.

Prepared by Permits West, Inc., February 14, 2017
for Matador Production Company





LEASE NAME & WELL NO.: CARL MOTTEK FEDERAL #101H

SECTION 17 TWP 24-S RGE 34-E SURVEY N.M.P.M.

COUNTY LEA STATE NM

DESCRIPTION 326' FNL & 440' FWL

DISTANCE & DIRECTION

FROM INT. OF NM-18 N. & HWY. 82 GO WEST ON NM-182 W/E ±20.6 MILES, THENCE NORTH (RIGHT) ON DELAWARE BASIN RD, ±0.9 MILES

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

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

AS OF THE DATE OF SURVEY, ALL ABOVE GROUND APPURTENANCES WITHIN 300' OF THE STAKED LOCATION ARE SHOWN HEREON.

STAN W. LLOYD NEW MEXICO 19642 PROFESSIONAL SURVEYOR

Stan W. Lloyd

Stan W. Lloyd, P.S. No. 19642

JANUARY 30, 2018

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S:\SURVEY\MATADOR_RESOURCES\CARL_MOTTEK_FEDERAL_101H\FINAL_PRODUCTS\LO_CARL_MOTTEK_FEDERAL_101H_REV1.DWG 1/31/2018 7:04:25 AM bgregory

Matador Resources
Lea County, NM
Carl Mottek 17-24S-34E AR
#101H
Prelim A
Patterson 274

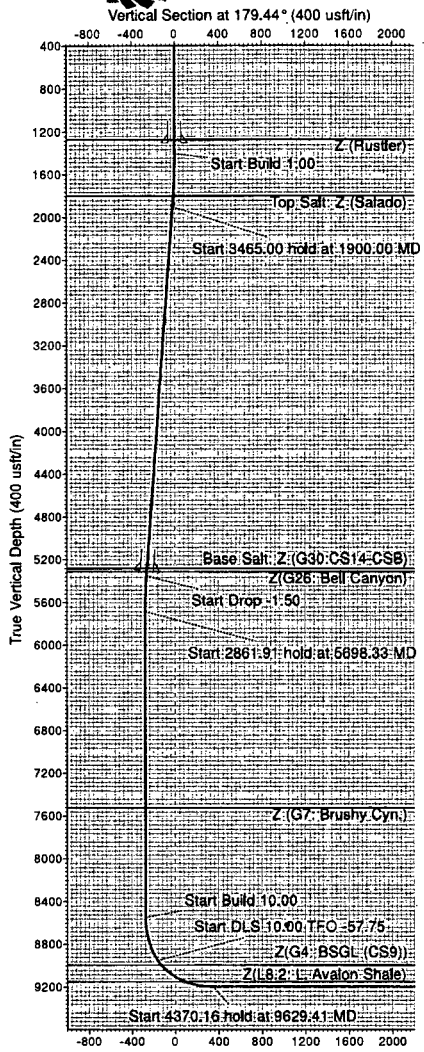
US State Plane 1927 (Exact solution)
NAD 1927 (NADCON CONUS)
Clarke 1866
New Mexico East 3001
Mean Sea Level

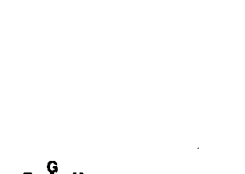
RKB Elevation: GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)

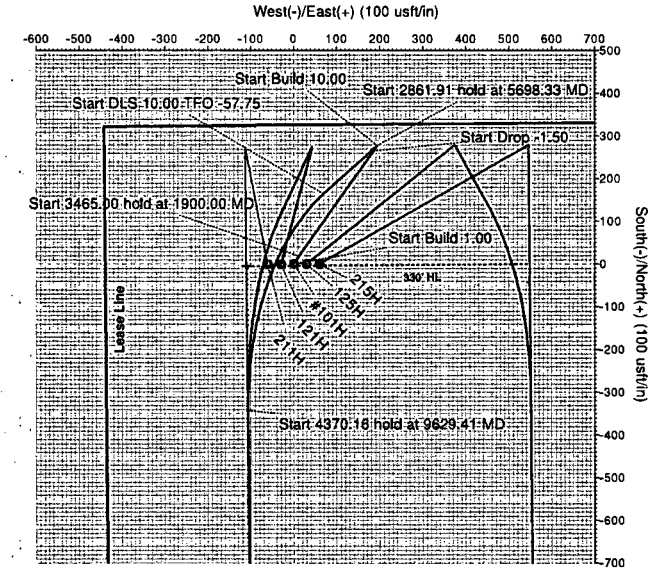
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	446144.00	758138.00	32° 13' 25.7176 N	103° 29' 54.9409 W	

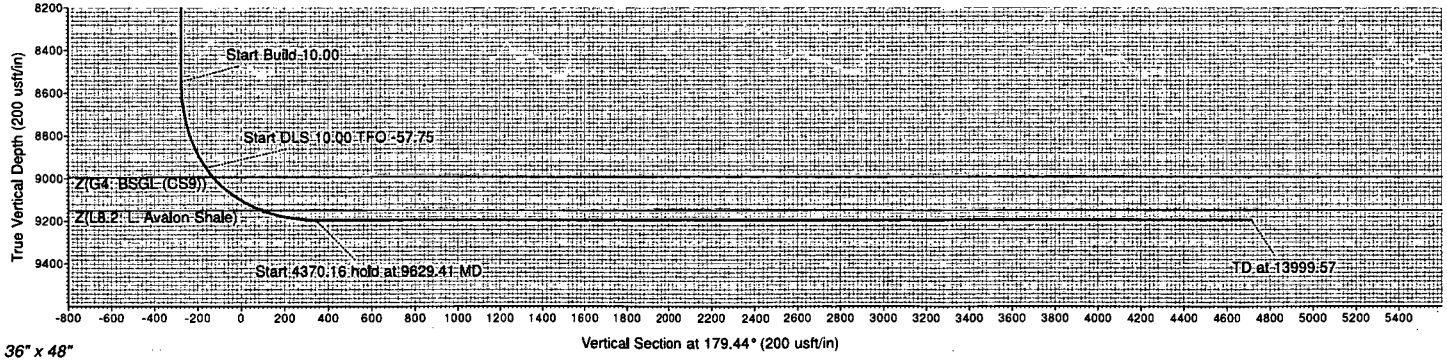
SECTION DETAILS- Lateral

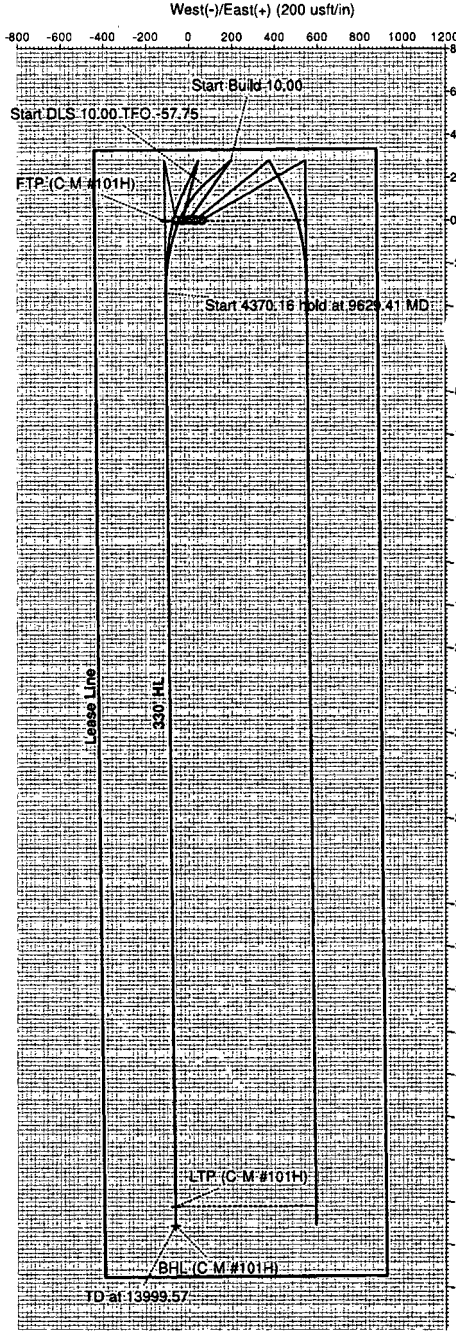
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00
3	1900.00	5.00	35.00	1899.37	17.86	12.51	1.00	-17.74
4	5365.00	5.00	35.00	5351.18	265.24	185.72	0.00	-263.41
5	5698.33	0.00	0.00	5684.09	277.15	194.06	1.50	-275.24
6	8560.24	0.00	0.00	8546.00	277.15	194.06	0.00	-275.24
7	9010.24	45.00	227.70	8951.14	164.20	69.94	10.00	-163.51
8	9629.41	90.00	179.44	9194.16	-343.04	-106.48	10.00	341.99
9	13999.57	90.00	179.44	9194.00	-4713.00	-64.00	0.00	4712.15











36" x 48"

Pro Directional
Survey Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Well:	#101H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim 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	Carl Mottek 17-24S-34E AR				
Site Position:		**Northing:**	446,143.00 usft	**Latitude:**	32° 13' 25.7101 N
From:	Map	**Easting:**	758,108.00 usft	**Longitude:**	103° 29' 55.2902 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.45 °

Well	#101H					
Well Position	**+N/-S**	0.00 usft	**Northing:**	446,144.00 usft	**Latitude:**	32° 13' 25.7176 N
	+E/-W	0.00 usft	**Easting:**	758,138.00 usft	**Longitude:**	103° 29' 54.9409 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,578.00 usft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM	1/10/2018	6.78	59.95	48,057.40

Design	Prelim 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	179.44		

Survey Tool Program **Date** 1/10/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	13,999.57	Prelim A (OH)	MWD+HDGM	OWSG MWD + HRGM

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Well:	#101H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim A	**Database:**	WellPlanner1

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,268.00	0.00	0.00	1,268.00	0.00	0.00	0.00	0.00	0.00	0.00
Z (Rustler)									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
13 3/8"									
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	1.00	35.00	1,499.99	0.71	0.50	-0.71	1.00	1.00	0.00
1,600.00	2.00	35.00	1,599.96	2.86	2.00	-2.84	1.00	1.00	0.00
1,700.00	3.00	35.00	1,699.86	6.43	4.50	-6.39	1.00	1.00	0.00
1,798.32	3.98	35.00	1,798.00	11.34	7.94	-11.26	1.00	1.00	0.00
Top Salt: Z (Salado)									
1,800.00	4.00	35.00	1,799.68	11.43	8.01	-11.35	1.00	1.00	0.00
1,900.00	5.00	35.00	1,899.37	17.86	12.51	-17.74	1.00	1.00	0.00
2,000.00	5.00	35.00	1,998.99	25.00	17.50	-24.83	0.00	0.00	0.00
2,100.00	5.00	35.00	2,098.60	32.14	22.50	-31.92	0.00	0.00	0.00
2,200.00	5.00	35.00	2,198.22	39.28	27.50	-39.01	0.00	0.00	0.00
2,300.00	5.00	35.00	2,297.84	46.42	32.50	-46.10	0.00	0.00	0.00
2,400.00	5.00	35.00	2,397.46	53.56	37.50	-53.19	0.00	0.00	0.00
2,500.00	5.00	35.00	2,497.08	60.70	42.50	-60.28	0.00	0.00	0.00
2,600.00	5.00	35.00	2,596.70	67.84	47.50	-67.37	0.00	0.00	0.00
2,700.00	5.00	35.00	2,696.32	74.97	52.50	-74.46	0.00	0.00	0.00
2,800.00	5.00	35.00	2,795.94	82.11	57.50	-81.55	0.00	0.00	0.00
2,900.00	5.00	35.00	2,895.56	89.25	62.50	-88.64	0.00	0.00	0.00
3,000.00	5.00	35.00	2,995.18	96.39	67.50	-95.73	0.00	0.00	0.00
3,100.00	5.00	35.00	3,094.80	103.53	72.49	-102.82	0.00	0.00	0.00
3,200.00	5.00	35.00	3,194.42	110.67	77.49	-109.91	0.00	0.00	0.00
3,300.00	5.00	35.00	3,294.04	117.81	82.49	-117.00	0.00	0.00	0.00
3,400.00	5.00	35.00	3,393.66	124.95	87.49	-124.09	0.00	0.00	0.00
3,500.00	5.00	35.00	3,493.28	132.09	92.49	-131.18	0.00	0.00	0.00
3,600.00	5.00	35.00	3,592.90	139.23	97.49	-138.27	0.00	0.00	0.00
3,700.00	5.00	35.00	3,692.52	146.37	102.49	-145.36	0.00	0.00	0.00
3,800.00	5.00	35.00	3,792.14	153.51	107.49	-152.45	0.00	0.00	0.00
3,900.00	5.00	35.00	3,891.76	160.65	112.49	-159.54	0.00	0.00	0.00
4,000.00	5.00	35.00	3,991.37	167.79	117.49	-166.63	0.00	0.00	0.00
4,100.00	5.00	35.00	4,090.99	174.93	122.48	-173.72	0.00	0.00	0.00
4,200.00	5.00	35.00	4,190.61	182.07	127.48	-180.81	0.00	0.00	0.00
4,300.00	5.00	35.00	4,290.23	189.20	132.48	-187.90	0.00	0.00	0.00
4,400.00	5.00	35.00	4,389.85	196.34	137.48	-194.99	0.00	0.00	0.00
4,500.00	5.00	35.00	4,489.47	203.48	142.48	-202.08	0.00	0.00	0.00

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Well:	#101H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim 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)
4,600.00	5.00	35.00	4,589.09	210.62	147.48	-209.17	0.00	0.00	0.00
4,700.00	5.00	35.00	4,688.71	217.76	152.48	-216.26	0.00	0.00	0.00
4,800.00	5.00	35.00	4,788.33	224.90	157.48	-223.35	0.00	0.00	0.00
4,900.00	5.00	35.00	4,887.95	232.04	162.48	-230.44	0.00	0.00	0.00
5,000.00	5.00	35.00	4,987.57	239.18	167.48	-237.53	0.00	0.00	0.00
5,100.00	5.00	35.00	5,087.19	246.32	172.48	-244.62	0.00	0.00	0.00
5,200.00	5.00	35.00	5,186.81	253.46	177.47	-251.71	0.00	0.00	0.00
5,292.54	5.00	35.00	5,279.00	260.07	182.10	-258.27	0.00	0.00	0.00
Base Salt: Z (G30:CS14-CSB)									
5,300.00	5.00	35.00	5,286.43	260.60	182.47	-258.80	0.00	0.00	0.00
5,313.62	5.00	35.00	5,300.00	261.57	183.15	-259.77	0.00	0.00	0.00
9 5/8"									
5,323.66	5.00	35.00	5,310.00	262.29	183.66	-260.48	0.00	0.00	0.00
Z(G26: Bell Canyon)									
5,365.00	5.00	35.00	5,351.18	265.24	185.72	-263.41	0.00	0.00	0.00
5,400.00	4.48	35.00	5,386.06	267.61	187.38	-265.76	1.50	-1.50	0.00
5,500.00	2.98	35.00	5,485.85	272.93	191.11	-271.05	1.50	-1.50	0.00
5,600.00	1.48	35.00	5,585.77	276.11	193.33	-274.21	1.50	-1.50	0.00
5,698.33	0.00	0.00	5,684.09	277.15	194.06	-275.24	1.50	-1.50	0.00
5,700.00	0.00	0.00	5,685.76	277.15	194.06	-275.24	0.00	0.00	0.00
5,800.00	0.00	0.00	5,785.76	277.15	194.06	-275.24	0.00	0.00	0.00
5,900.00	0.00	0.00	5,885.76	277.15	194.06	-275.24	0.00	0.00	0.00
6,000.00	0.00	0.00	5,985.76	277.15	194.06	-275.24	0.00	0.00	0.00
6,100.00	0.00	0.00	6,085.76	277.15	194.06	-275.24	0.00	0.00	0.00
6,200.00	0.00	0.00	6,185.76	277.15	194.06	-275.24	0.00	0.00	0.00
6,300.00	0.00	0.00	6,285.76	277.15	194.06	-275.24	0.00	0.00	0.00
6,400.00	0.00	0.00	6,385.76	277.15	194.06	-275.24	0.00	0.00	0.00
6,500.00	0.00	0.00	6,485.76	277.15	194.06	-275.24	0.00	0.00	0.00
6,600.00	0.00	0.00	6,585.76	277.15	194.06	-275.24	0.00	0.00	0.00
6,700.00	0.00	0.00	6,685.76	277.15	194.06	-275.24	0.00	0.00	0.00
6,800.00	0.00	0.00	6,785.76	277.15	194.06	-275.24	0.00	0.00	0.00
6,900.00	0.00	0.00	6,885.76	277.15	194.06	-275.24	0.00	0.00	0.00
7,000.00	0.00	0.00	6,985.76	277.15	194.06	-275.24	0.00	0.00	0.00
7,100.00	0.00	0.00	7,085.76	277.15	194.06	-275.24	0.00	0.00	0.00
7,200.00	0.00	0.00	7,185.76	277.15	194.06	-275.24	0.00	0.00	0.00
7,300.00	0.00	0.00	7,285.76	277.15	194.06	-275.24	0.00	0.00	0.00
7,400.00	0.00	0.00	7,385.76	277.15	194.06	-275.24	0.00	0.00	0.00
7,500.00	0.00	0.00	7,485.76	277.15	194.06	-275.24	0.00	0.00	0.00
7,536.24	0.00	0.00	7,522.00	277.15	194.06	-275.24	0.00	0.00	0.00
Z (G7: Brushy Cyn.)									
7,600.00	0.00	0.00	7,585.76	277.15	194.06	-275.24	0.00	0.00	0.00
7,700.00	0.00	0.00	7,685.76	277.15	194.06	-275.24	0.00	0.00	0.00

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Well:	#101H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim 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)
7,800.00	0.00	0.00	7,785.76	277.15	194.06	-275.24	0.00	0.00	0.00
7,900.00	0.00	0.00	7,885.76	277.15	194.06	-275.24	0.00	0.00	0.00
8,000.00	0.00	0.00	7,985.76	277.15	194.06	-275.24	0.00	0.00	0.00
8,100.00	0.00	0.00	8,085.76	277.15	194.06	-275.24	0.00	0.00	0.00
8,200.00	0.00	0.00	8,185.76	277.15	194.06	-275.24	0.00	0.00	0.00
8,300.00	0.00	0.00	8,285.76	277.15	194.06	-275.24	0.00	0.00	0.00
8,400.00	0.00	0.00	8,385.76	277.15	194.06	-275.24	0.00	0.00	0.00
8,500.00	0.00	0.00	8,485.76	277.15	194.06	-275.24	0.00	0.00	0.00
8,560.24	0.00	0.00	8,546.00	277.15	194.06	-275.24	0.00	0.00	0.00
8,600.00	3.98	227.70	8,585.73	276.22	193.04	-274.32	10.00	10.00	0.00
8,650.00	8.98	227.70	8,635.39	272.42	188.87	-270.56	10.00	10.00	0.00
8,700.00	13.98	227.70	8,684.38	265.73	181.51	-263.94	10.00	10.00	0.00
8,750.00	18.98	227.70	8,732.31	256.19	171.03	-254.51	10.00	10.00	0.00
8,800.00	23.98	227.70	8,778.82	243.87	157.50	-242.32	10.00	10.00	0.00
8,850.00	28.98	227.70	8,823.56	228.88	141.01	-227.49	10.00	10.00	0.00
8,900.00	33.98	227.70	8,866.19	211.31	121.71	-210.11	10.00	10.00	0.00
8,950.00	38.98	227.70	8,906.39	191.31	99.73	-190.33	10.00	10.00	0.00
9,000.00	43.98	227.70	8,943.84	169.03	75.25	-168.29	10.00	10.00	0.00
9,010.24	45.00	227.70	8,951.14	164.20	69.94	-163.51	10.00	10.00	0.00
9,050.00	47.22	223.12	8,978.71	144.09	49.56	-143.60	10.00	5.57	-11.53
9,069.78	48.38	220.96	8,992.00	133.20	39.75	-132.81	10.00	5.90	-10.90
Z(G4: BSGL (CS9))									
9,100.00	50.24	217.82	9,011.70	115.49	25.22	-115.24	10.00	6.15	-10.41
9,150.00	53.48	212.98	9,042.59	83.44	2.49	-83.41	10.00	6.49	-9.68
9,200.00	56.91	208.54	9,071.13	48.16	-18.47	-48.34	10.00	6.85	-8.88
9,250.00	60.48	204.44	9,097.12	9.93	-37.49	-10.29	10.00	7.14	-8.20
9,300.00	64.16	200.62	9,120.35	-30.96	-54.42	30.43	10.00	7.37	-7.63
9,350.00	67.94	197.04	9,140.64	-74.20	-69.15	73.52	10.00	7.56	-7.16
9,376.05	69.94	195.25	9,150.00	-97.55	-75.90	96.80	10.00	7.68	-6.87
Z(L8.2: L. Avalon Shale)									
9,400.00	71.80	193.65	9,157.85	-119.46	-81.55	118.66	10.00	7.74	-6.70
9,450.00	75.71	190.40	9,171.84	-166.40	-91.53	165.50	10.00	7.82	-6.49
9,500.00	79.66	187.27	9,182.50	-214.65	-99.02	213.68	10.00	7.91	-6.27
9,550.00	83.65	184.21	9,189.76	-263.86	-103.96	262.83	10.00	7.97	-6.11
9,600.00	87.65	181.20	9,193.56	-313.65	-106.31	312.59	10.00	8.00	-6.02
9,629.41	90.00	179.44	9,194.16	-343.04	-106.48	341.99	10.00	8.01	-5.98
9,700.00	90.00	179.44	9,194.16	-413.63	-105.79	412.58	0.00	0.00	0.00
9,800.00	90.00	179.44	9,194.16	-513.63	-104.82	512.58	0.00	0.00	0.00
9,900.00	90.00	179.44	9,194.15	-613.62	-103.85	612.58	0.00	0.00	0.00
10,000.00	90.00	179.44	9,194.15	-713.62	-102.87	712.58	0.00	0.00	0.00
10,100.00	90.00	179.44	9,194.14	-813.61	-101.90	812.58	0.00	0.00	0.00
10,200.00	90.00	179.44	9,194.14	-913.61	-100.93	912.58	0.00	0.00	0.00

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Well:	#101H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim 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)
10,300.00	90.00	179.44	9,194.14	-1,013.60	-99.96	1,012.58	0.00	0.00	0.00
10,400.00	90.00	179.44	9,194.13	-1,113.60	-98.99	1,112.58	0.00	0.00	0.00
10,500.00	90.00	179.44	9,194.13	-1,213.59	-98.01	1,212.58	0.00	0.00	0.00
10,600.00	90.00	179.44	9,194.13	-1,313.59	-97.04	1,312.58	0.00	0.00	0.00
10,700.00	90.00	179.44	9,194.12	-1,413.59	-96.07	1,412.58	0.00	0.00	0.00
10,800.00	90.00	179.44	9,194.12	-1,513.58	-95.10	1,512.58	0.00	0.00	0.00
10,900.00	90.00	179.44	9,194.11	-1,613.58	-94.13	1,612.58	0.00	0.00	0.00
11,000.00	90.00	179.44	9,194.11	-1,713.57	-93.15	1,712.58	0.00	0.00	0.00
11,100.00	90.00	179.44	9,194.11	-1,813.57	-92.18	1,812.58	0.00	0.00	0.00
11,200.00	90.00	179.44	9,194.10	-1,913.56	-91.21	1,912.58	0.00	0.00	0.00
11,300.00	90.00	179.44	9,194.10	-2,013.56	-90.24	2,012.58	0.00	0.00	0.00
11,400.00	90.00	179.44	9,194.10	-2,113.55	-89.27	2,112.58	0.00	0.00	0.00
11,500.00	90.00	179.44	9,194.09	-2,213.55	-88.29	2,212.58	0.00	0.00	0.00
11,600.00	90.00	179.44	9,194.09	-2,313.54	-87.32	2,312.58	0.00	0.00	0.00
11,700.00	90.00	179.44	9,194.09	-2,413.54	-86.35	2,412.58	0.00	0.00	0.00
11,800.00	90.00	179.44	9,194.08	-2,513.53	-85.38	2,512.58	0.00	0.00	0.00
11,900.00	90.00	179.44	9,194.08	-2,613.53	-84.41	2,612.58	0.00	0.00	0.00
12,000.00	90.00	179.44	9,194.07	-2,713.52	-83.43	2,712.58	0.00	0.00	0.00
12,100.00	90.00	179.44	9,194.07	-2,813.52	-82.46	2,812.58	0.00	0.00	0.00
12,200.00	90.00	179.44	9,194.07	-2,913.51	-81.49	2,912.58	0.00	0.00	0.00
12,300.00	90.00	179.44	9,194.06	-3,013.51	-80.52	3,012.58	0.00	0.00	0.00
12,400.00	90.00	179.44	9,194.06	-3,113.51	-79.55	3,112.58	0.00	0.00	0.00
12,500.00	90.00	179.44	9,194.06	-3,213.50	-78.57	3,212.58	0.00	0.00	0.00
12,600.00	90.00	179.44	9,194.05	-3,313.50	-77.60	3,312.58	0.00	0.00	0.00
12,700.00	90.00	179.44	9,194.05	-3,413.49	-76.63	3,412.58	0.00	0.00	0.00
12,800.00	90.00	179.44	9,194.04	-3,513.49	-75.66	3,512.58	0.00	0.00	0.00
12,900.00	90.00	179.44	9,194.04	-3,613.48	-74.69	3,612.58	0.00	0.00	0.00
13,000.00	90.00	179.44	9,194.04	-3,713.48	-73.72	3,712.58	0.00	0.00	0.00
13,100.00	90.00	179.44	9,194.03	-3,813.47	-72.74	3,812.58	0.00	0.00	0.00
13,200.00	90.00	179.44	9,194.03	-3,913.47	-71.77	3,912.58	0.00	0.00	0.00
13,300.00	90.00	179.44	9,194.03	-4,013.46	-70.80	4,012.58	0.00	0.00	0.00
13,400.00	90.00	179.44	9,194.02	-4,113.46	-69.83	4,112.58	0.00	0.00	0.00
13,500.00	90.00	179.44	9,194.02	-4,213.45	-68.86	4,212.58	0.00	0.00	0.00
13,600.00	90.00	179.44	9,194.01	-4,313.45	-67.88	4,312.58	0.00	0.00	0.00
13,700.00	90.00	179.44	9,194.01	-4,413.44	-66.91	4,412.58	0.00	0.00	0.00
13,800.00	90.00	179.44	9,194.01	-4,513.44	-65.94	4,512.58	0.00	0.00	0.00
13,900.00	90.00	179.44	9,194.00	-4,613.43	-64.97	4,612.58	0.00	0.00	0.00
13,999.57	90.00	179.44	9,194.00	-4,713.00	-64.00	4,712.15	0.00	0.00	0.00

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Well:	#101H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim A	**Database:**	WellPlanner1

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (C M #101H)	0.00	0.00	9,194.00	-5.00	-110.00	446,139.00	758,028.00	32° 13' 25.6766 N	103° 29' 56.2218 W
- plan misses target center by 92.30usft at 9323.83usft MD (9130.39 TVD, -51.29 N, -61.72 E)									
- Point									
LTP (C M #101H)	0.00	0.00	9,194.00	-4,623.00	-65.00	441,521.00	758,073.00	32° 12' 39.9765 N	103° 29' 56.1153 W
- plan misses target center by 9.57usft at 13900.00usft MD (9194.00 TVD, -4613.43 N, -64.97 E)									
- Point									
BHL (C M #101H)	0.00	0.00	9,194.00	-4,713.00	-64.00	441,431.00	758,074.00	32° 12' 39.0858 N	103° 29' 56.1118 W
- plan hits target center									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,300.00	1,300.00	13 3/8"	13-3/8	17-1/2
5,313.62	5,300.00	9 5/8"	9-5/8	12-1/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,268.00	1,268.00	Z (Rustler)			
1,798.32	1,798.00	Top Salt: Z (Salado)			
5,292.54	5,279.00	Base Salt: Z (G30:CS14-CSB)			
5,323.66	5,310.00	Z(G26: Bell Canyon)			
7,536.24	7,522.00	Z (G7: Brushy Cyn.)			
9,069.78	8,992.00	Z(G4: BSGL (CS9))			
9,376.05	9,150.00	Z(L8.2: L. Avalon Shale)			

Checked By: _____ Approved By: _____ Date: _____

Pro Directional
Anticollision Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Reference	Prelim 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 us	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 1/10/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	13,999.57	Prelim A (OH)	MWD+HDGM	OWSG MWD + HRGM

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Carl Mottek 17-24S-34E AR						
121H - OH - Prelim Plan A	1,400.00	1,400.50	30.02	20.94	3.309	CC, ES
121H - OH - Prelim Plan A	8,926.57	8,900.31	100.08	40.57	1.682	SF
125H - OH - Prelim Plan A	1,837.49	1,837.52	24.62	13.53	2.219	CC, ES
125H - OH - Prelim Plan A	1,900.00	1,899.81	25.10	13.68	2.198	SF
211H - OH - Prelim Plan A	1,400.00	1,400.50	60.01	50.94	6.615	CC, ES
211H - OH - Prelim Plan A	9,063.67	9,000.17	208.35	148.25	3.467	SF
215H - OH - Prelim Plan A	1,400.00	1,400.50	60.00	50.93	6.614	CC
215H - OH - Prelim Plan A	1,500.00	1,499.59	60.26	50.77	6.352	ES
215H - OH - Prelim Plan A	5,500.00	5,506.82	191.66	155.50	5.300	SF

Offset Design Carl Mottek 17-24S-34E AR - 121H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM — **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	0.50	0.50	0.00	0.00	-91.91	-1.00	-30.00	30.02				
100.00	100.00	100.50	100.50	0.13	0.13	-91.91	-1.00	-30.00	30.02	29.76	0.26	116.704	
200.00	200.00	200.50	200.50	0.49	0.49	-91.91	-1.00	-30.00	30.02	29.04	0.97	30.813	
300.00	300.00	300.50	300.50	0.85	0.85	-91.91	-1.00	-30.00	30.02	28.33	1.69	17.750	
400.00	400.00	400.50	400.50	1.20	1.20	-91.91	-1.00	-30.00	30.02	27.61	2.41	12.465	
500.00	500.00	500.50	500.50	1.56	1.56	-91.91	-1.00	-30.00	30.02	26.89	3.12	9.605	
600.00	600.00	600.50	600.50	1.92	1.92	-91.91	-1.00	-30.00	30.02	26.17	3.84	7.813	
700.00	700.00	700.50	700.50	2.28	2.28	-91.91	-1.00	-30.00	30.02	25.46	4.56	6.584	
800.00	800.00	800.50	800.50	2.64	2.64	-91.91	-1.00	-30.00	30.02	24.74	5.28	5.689	
900.00	900.00	900.50	900.50	3.00	3.00	-91.91	-1.00	-30.00	30.02	24.02	5.99	5.009	
1,000.00	1,000.00	1,000.50	1,000.50	3.35	3.36	-91.91	-1.00	-30.00	30.02	23.31	6.71	4.474	
1,100.00	1,100.00	1,100.50	1,100.50	3.71	3.71	-91.91	-1.00	-30.00	30.02	22.59	7.43	4.042	
1,200.00	1,200.00	1,200.50	1,200.50	4.07	4.07	-91.91	-1.00	-30.00	30.02	21.87	8.14	3.686	
1,300.00	1,300.00	1,300.50	1,300.50	4.43	4.25	-91.91	-1.00	-30.00	30.02	21.33	8.68	3.457	
1,400.00	1,400.00	1,400.50	1,400.50	4.79	4.28	-91.91	-1.00	-30.00	30.02	20.94	9.07	3.309	CC, ES
1,500.00	1,499.99	1,500.49	1,500.49	5.15	4.34	-128.21	-1.00	-30.00	30.55	21.06	9.49	3.220	

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 #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 121H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM — **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
1,600.00	1,599.96	1,600.46	1,600.46	5.50	4.43	-131.86	-1.00	-30.00	32.23	22.30	9.93	3.246	
1,700.00	1,699.86	1,700.63	1,700.63	5.86	4.55	-135.84	-0.15	-29.77	34.90	24.50	10.40	3.356	
1,800.00	1,799.68	1,800.86	1,800.81	6.21	4.69	-138.65	2.40	-29.10	38.19	27.30	10.90	3.505	
1,900.00	1,899.37	1,901.12	1,900.98	6.57	4.85	-140.46	6.65	-27.98	42.02	30.61	11.41	3.682	
2,000.00	1,998.99	2,001.44	2,001.11	6.93	5.03	-140.79	12.59	-26.41	45.66	33.71	11.95	3.820	
2,100.00	2,098.60	2,101.81	2,101.17	7.29	5.24	-139.28	20.23	-24.38	48.42	35.91	12.51	3.870	
2,200.00	2,198.22	2,201.76	2,200.73	7.66	5.46	-137.10	28.65	-22.16	50.82	37.73	13.09	3.882	
2,300.00	2,297.84	2,301.71	2,300.31	8.02	5.70	-135.13	37.07	-19.93	53.29	39.60	13.69	3.893	
2,400.00	2,397.46	2,401.66	2,399.88	8.38	5.95	-133.32	45.50	-17.70	55.82	41.52	14.30	3.902	
2,500.00	2,497.08	2,501.62	2,499.45	8.75	6.21	-131.68	53.92	-15.47	58.40	43.47	14.93	3.911	
2,600.00	2,596.70	2,601.57	2,599.03	9.12	6.49	-130.18	62.34	-13.25	61.02	45.45	15.57	3.919	
2,700.00	2,696.32	2,701.52	2,698.60	9.48	6.77	-128.80	70.76	-11.02	63.68	47.46	16.22	3.926	
2,800.00	2,795.94	2,801.48	2,798.17	9.85	7.07	-127.53	79.18	-8.79	66.38	49.50	16.88	3.933	
2,900.00	2,895.56	2,901.43	2,897.74	10.22	7.37	-126.36	87.61	-6.56	69.10	51.56	17.54	3.939	
3,000.00	2,995.18	3,001.38	2,997.32	10.59	7.67	-125.28	96.03	-4.34	71.85	53.63	18.22	3.944	
3,100.00	3,094.80	3,101.34	3,096.89	10.96	7.99	-124.28	104.45	-2.11	74.63	55.73	18.90	3.949	
3,200.00	3,194.42	3,201.29	3,196.46	11.33	8.30	-123.36	112.87	0.12	77.42	57.84	19.58	3.954	
3,300.00	3,294.04	3,301.24	3,296.04	11.70	8.63	-122.49	121.29	2.35	80.24	59.96	20.27	3.958	
3,400.00	3,393.66	3,401.20	3,395.61	12.07	8.95	-121.69	129.71	4.57	83.07	62.10	20.97	3.962	
3,500.00	3,493.28	3,501.15	3,495.18	12.44	9.28	-120.94	138.14	6.80	85.91	64.25	21.67	3.965	
3,600.00	3,592.90	3,601.10	3,594.76	12.81	9.62	-120.23	146.56	9.03	88.77	66.40	22.37	3.968	
3,700.00	3,692.52	3,701.06	3,694.33	13.18	9.95	-119.58	154.98	11.26	91.65	68.57	23.08	3.972	
3,800.00	3,792.14	3,801.01	3,793.90	13.55	10.29	-118.96	163.40	13.48	94.53	70.75	23.79	3.974	
3,900.00	3,891.76	3,900.96	3,893.47	13.92	10.63	-118.38	171.82	15.71	97.43	72.93	24.50	3.977	
4,000.00	3,991.37	4,000.92	3,993.05	14.29	10.98	-117.83	180.25	17.94	100.33	75.12	25.21	3.980	
4,100.00	4,090.99	4,100.87	4,092.62	14.67	11.32	-117.31	188.67	20.17	103.24	77.32	25.93	3.982	
4,200.00	4,190.61	4,200.82	4,192.19	15.04	11.67	-116.82	197.09	22.39	106.16	79.52	26.65	3.984	
4,300.00	4,290.23	4,300.78	4,291.77	15.41	12.02	-116.36	205.51	24.62	109.09	81.73	27.37	3.987	
4,400.00	4,389.85	4,400.73	4,391.34	15.78	12.37	-115.92	213.93	26.85	112.03	83.94	28.09	3.989	
4,500.00	4,489.47	4,500.68	4,490.91	16.16	12.72	-115.50	222.36	29.08	114.97	86.16	28.81	3.991	
4,600.00	4,589.09	4,600.64	4,590.49	16.53	13.07	-115.11	230.78	31.30	117.92	88.38	29.53	3.992	
4,700.00	4,688.71	4,700.59	4,690.06	16.90	13.43	-114.73	239.20	33.53	120.87	90.61	30.26	3.994	
4,800.00	4,788.33	4,800.54	4,789.63	17.27	13.78	-114.37	247.62	35.76	123.82	92.84	30.99	3.996	
4,900.00	4,887.95	4,900.50	4,889.20	17.65	14.14	-114.03	256.04	37.99	126.79	95.07	31.72	3.998	
5,000.00	4,987.57	5,000.36	4,988.71	18.02	14.49	-113.81	264.24	40.15	129.77	97.32	32.44	4.000	
5,100.00	5,087.19	5,100.06	5,088.20	18.39	14.84	-114.52	270.34	41.77	132.90	99.74	33.16	4.008	
5,200.00	5,186.81	5,199.59	5,187.66	18.77	15.19	-116.29	273.92	42.71	136.30	102.44	33.86	4.026	
5,300.00	5,286.43	5,301.14	5,286.93	19.14	15.53	-119.01	275.00	43.00	140.21	105.66	34.55	4.058	
5,365.00	5,351.18	5,363.62	5,351.68	19.38	15.73	-120.99	275.00	43.00	143.06	108.07	34.98	4.089	
5,400.00	5,386.06	5,401.50	5,386.56	19.51	15.86	-121.99	275.00	43.00	144.57	109.34	35.23	4.103	
5,500.00	5,485.85	5,501.72	5,486.35	19.88	16.19	-124.16	275.00	43.00	148.12	112.21	35.91	4.124	
5,600.00	5,585.77	5,601.80	5,586.27	20.24	16.53	-125.41	275.00	43.00	150.34	113.74	36.60	4.108	
5,698.33	5,684.09	5,703.47	5,684.59	20.58	16.87	-90.81	275.00	43.00	151.07	113.79	37.28	4.052	
5,700.00	5,685.76	5,701.81	5,686.26	20.59	16.86	-90.81	275.00	43.00	151.07	113.79	37.28	4.052	
5,800.00	5,785.76	5,801.81	5,786.26	20.94	17.20	-90.81	275.00	43.00	151.07	113.11	37.97	3.979	
5,900.00	5,885.76	5,901.81	5,886.26	21.29	17.54	-90.81	275.00	43.00	151.07	112.42	38.66	3.908	
6,000.00	5,985.76	6,001.81	5,986.26	21.63	17.88	-90.81	275.00	43.00	151.07	111.73	39.34	3.840	
6,100.00	6,085.76	6,101.81	6,086.26	21.98	18.22	-90.81	275.00	43.00	151.07	111.04	40.03	3.774	
6,200.00	6,185.76	6,201.81	6,186.26	22.33	18.56	-90.81	275.00	43.00	151.07	110.35	40.72	3.710	
6,300.00	6,285.76	6,301.81	6,286.26	22.68	18.90	-90.81	275.00	43.00	151.07	109.66	41.42	3.648	
6,400.00	6,385.76	6,401.81	6,386.26	23.03	19.24	-90.81	275.00	43.00	151.07	108.97	42.11	3.588	

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 #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 121H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM — **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
6,500.00	6,485.76	6,501.81	6,486.26	23.38	19.58	-90.81	275.00	43.00	151.07	108.27	42.80	3.530	
6,600.00	6,585.76	6,601.81	6,586.26	23.73	19.92	-90.81	275.00	43.00	151.07	107.58	43.50	3.473	
6,700.00	6,685.76	6,701.81	6,686.26	24.08	20.26	-90.81	275.00	43.00	151.07	106.88	44.19	3.419	
6,800.00	6,785.76	6,801.81	6,786.26	24.43	20.61	-90.81	275.00	43.00	151.07	106.19	44.89	3.366	
6,900.00	6,885.76	6,901.81	6,886.26	24.78	20.95	-90.81	275.00	43.00	151.07	105.49	45.58	3.314	
7,000.00	6,985.76	7,001.81	6,986.26	25.14	21.30	-90.81	275.00	43.00	151.07	104.80	46.28	3.264	
7,100.00	7,085.76	7,101.81	7,086.26	25.49	21.64	-90.81	275.00	43.00	151.07	104.10	46.98	3.216	
7,200.00	7,185.76	7,201.81	7,186.26	25.84	21.99	-90.81	275.00	43.00	151.07	103.40	47.67	3.169	
7,300.00	7,285.76	7,301.81	7,286.26	26.19	22.33	-90.81	275.00	43.00	151.07	102.70	48.37	3.123	
7,400.00	7,385.76	7,401.81	7,386.26	26.54	22.68	-90.81	275.00	43.00	151.07	102.00	49.07	3.079	
7,500.00	7,485.76	7,501.81	7,486.26	26.89	23.02	-90.81	275.00	43.00	151.07	101.30	49.77	3.035	
7,600.00	7,585.76	7,601.81	7,586.26	27.25	23.37	-90.81	275.00	43.00	151.07	100.60	50.47	2.993	
7,700.00	7,685.76	7,701.81	7,686.26	27.60	23.72	-90.81	275.00	43.00	151.07	99.90	51.17	2.952	
7,800.00	7,785.76	7,801.81	7,786.26	27.95	24.06	-90.81	275.00	43.00	151.07	99.20	51.87	2.912	
7,900.00	7,885.76	7,901.81	7,886.26	28.30	24.41	-90.81	275.00	43.00	151.07	98.50	52.58	2.874	
8,000.00	7,985.76	8,001.81	7,986.26	28.66	24.76	-90.81	275.00	43.00	151.07	97.80	53.28	2.836	
8,100.00	8,085.76	8,101.81	8,086.26	29.01	25.11	-90.81	275.00	43.00	151.07	97.10	53.98	2.799	
8,200.00	8,185.76	8,201.81	8,186.26	29.36	25.46	-90.81	275.00	43.00	151.07	96.39	54.68	2.763	
8,300.00	8,285.76	8,301.81	8,286.26	29.72	25.81	-90.81	275.00	43.00	151.07	95.69	55.39	2.728	
8,400.00	8,385.76	8,401.81	8,386.26	30.07	26.16	-90.81	275.00	43.00	151.07	94.99	56.09	2.693	
8,500.00	8,485.76	8,501.81	8,486.26	30.42	26.51	-90.81	275.00	43.00	151.07	94.28	56.79	2.660	
8,560.24	8,546.00	8,558.44	8,546.50	30.64	26.70	-90.81	275.00	43.00	151.07	93.87	57.20	2.641	
8,600.00	8,585.73	8,601.84	8,586.23	30.77	26.86	41.90	275.00	43.00	150.04	92.55	57.49	2.610	
8,650.00	8,635.39	8,647.83	8,635.89	30.92	27.02	43.66	275.00	43.00	145.89	88.08	57.82	2.523	
8,700.00	8,684.38	8,703.19	8,684.88	31.07	27.21	46.99	275.00	43.00	138.82	80.65	58.17	2.386	
8,750.00	8,732.31	8,744.74	8,732.81	31.21	27.36	52.22	275.00	43.00	129.40	70.93	58.48	2.213	
8,800.00	8,778.82	8,808.74	8,779.32	31.34	27.58	59.80	275.00	43.00	118.65	59.79	58.86	2.016	
8,850.00	8,823.56	8,836.00	8,824.06	31.46	27.68	70.08	275.00	43.00	108.32	49.22	59.10	1.833	
8,900.00	8,866.19	8,878.63	8,866.69	31.58	27.82	82.75	275.00	43.00	101.25	41.87	59.38	1.705	
8,926.57	8,887.87	8,900.31	8,888.37	31.64	27.90	90.00	275.00	43.00	100.08	40.57	59.51	1.682 SF	
8,950.00	8,906.39	8,918.82	8,906.89	31.70	27.97	96.37	275.00	43.00	101.10	41.49	59.61	1.696	
9,000.00	8,943.84	8,956.27	8,944.34	31.81	28.10	108.85	275.00	43.00	110.76	50.98	59.78	1.853	
9,010.24	8,951.14	8,963.58	8,951.64	31.84	28.12	111.11	275.00	43.00	114.02	54.21	59.81	1.906	
9,050.00	8,978.71	9,008.85	8,979.21	31.93	28.28	123.27	275.00	43.00	131.08	71.09	59.99	2.185	
9,100.00	9,011.70	9,024.14	9,012.20	32.05	28.33	136.27	275.00	43.00	160.49	100.42	60.08	2.672	
9,150.00	9,042.59	9,055.02	9,043.09	32.17	28.44	147.12	275.00	43.00	195.80	135.58	60.22	3.251	
9,200.00	9,071.13	9,083.57	9,071.63	32.29	28.54	156.46	275.00	43.00	235.02	174.66	60.37	3.893	
9,250.00	9,097.12	9,109.55	9,097.62	32.41	28.63	164.95	275.00	43.00	277.02	216.53	60.50	4.579	
9,300.00	9,120.35	9,132.78	9,120.85	32.53	28.72	173.23	275.00	43.00	321.10	260.48	60.61	5.298	
9,350.00	9,140.64	9,153.08	9,141.14	32.64	28.79	-177.97	275.00	43.00	366.77	306.05	60.71	6.041	
9,400.00	9,157.85	9,170.29	9,158.35	32.75	28.85	-167.76	275.00	43.00	413.66	352.86	60.80	6.803	
9,450.00	9,171.84	9,184.27	9,172.34	32.86	28.90	-155.06	275.00	43.00	461.45	400.57	60.87	7.581	
9,500.00	9,182.50	9,205.06	9,183.00	32.97	28.97	-138.87	275.00	43.00	509.83	448.87	60.96	8.363	
9,550.00	9,189.76	9,202.20	9,190.26	33.08	28.96	-119.56	275.00	43.00	558.54	497.57	60.97	9.161	
9,600.00	9,193.56	9,205.99	9,194.06	33.18	28.97	-100.07	275.00	43.00	607.29	546.29	61.00	9.956	
9,629.41	9,194.16	9,206.60	9,194.66	33.24	28.97	-89.99	275.00	43.00	635.86	574.86	61.01	10.423	
9,700.00	9,194.16	9,206.59	9,194.66	33.39	28.97	-89.99	275.00	43.00	704.52	643.50	61.02	11.545	
9,800.00	9,194.16	9,206.59	9,194.66	33.66	28.97	-89.99	275.00	43.00	802.36	741.31	61.05	13.143	
9,900.00	9,194.15	9,206.59	9,194.65	33.98	28.97	-89.99	275.00	43.00	900.67	839.60	61.07	14.747	
10,000.00	9,194.15	9,206.58	9,194.65	34.37	28.97	-89.99	275.00	43.00	999.32	938.23	61.09	16.357	

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 #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 121H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.00	9,194.14	9,206.58	9,194.64	34.81	28.97	-89.99	275.00	43.00	1,098.21	1,037.10	61.12	17.970	
10,200.00	9,194.14	9,206.58	9,194.64	35.32	28.97	-89.98	275.00	43.00	1,197.29	1,136.16	61.14	19.584	
10,300.00	9,194.14	9,206.57	9,194.64	35.87	28.97	-89.98	275.00	43.00	1,296.51	1,235.35	61.15	21.200	
10,400.00	9,194.13	9,206.57	9,194.63	36.48	28.97	-89.98	275.00	43.00	1,395.84	1,334.67	61.17	22.817	
10,500.00	9,194.13	9,206.57	9,194.63	37.13	28.97	-89.98	275.00	43.00	1,495.26	1,434.06	61.19	24.435	
10,600.00	9,194.13	12,114.64	10,750.00	37.83	37.34	179.99	-1,313.59	-97.23	1,555.37	1,510.64	44.74	34.768	
10,700.00	9,194.12	12,214.64	10,750.00	38.57	38.13	179.99	-1,413.59	-96.25	1,555.38	1,509.77	45.61	34.105	
10,800.00	9,194.12	12,314.64	10,750.00	39.35	38.95	179.99	-1,513.58	-95.27	1,555.38	1,508.87	46.51	33.440	
10,900.00	9,194.11	12,414.64	10,750.00	40.16	39.80	179.99	-1,613.58	-94.29	1,555.39	1,507.93	47.45	32.776	
11,000.00	9,194.11	12,514.64	10,750.00	41.01	40.69	179.99	-1,713.57	-93.32	1,555.39	1,506.96	48.43	32.118	
11,100.00	9,194.11	12,614.64	10,750.00	41.90	41.61	179.99	-1,813.57	-92.34	1,555.39	1,505.96	49.43	31.465	
11,200.00	9,194.10	12,714.64	10,750.00	42.81	42.55	179.99	-1,913.56	-91.36	1,555.40	1,504.93	50.46	30.821	
11,300.00	9,194.10	12,814.64	10,750.00	43.76	43.53	179.99	-2,013.56	-90.38	1,555.40	1,503.88	51.52	30.188	
11,400.00	9,194.10	12,914.64	10,750.00	44.73	44.53	179.99	-2,113.55	-89.41	1,555.40	1,502.80	52.61	29.565	
11,500.00	9,194.09	13,014.64	10,750.00	45.72	45.55	180.00	-2,213.55	-88.43	1,555.41	1,501.69	53.72	28.955	
11,600.00	9,194.09	13,114.64	10,750.00	46.74	46.59	180.00	-2,313.54	-87.45	1,555.41	1,500.56	54.85	28.359	
11,700.00	9,194.09	13,214.64	10,750.00	47.78	47.66	180.00	-2,413.54	-86.48	1,555.42	1,499.42	56.00	27.775	
11,800.00	9,194.08	13,314.64	10,750.00	48.84	48.74	180.00	-2,513.53	-85.50	1,555.42	1,498.25	57.17	27.206	
11,900.00	9,194.08	13,414.64	10,750.00	49.92	49.85	180.00	-2,613.53	-84.52	1,555.42	1,497.06	58.36	26.652	
12,000.00	9,194.07	13,514.64	10,750.00	51.01	50.97	180.00	-2,713.52	-83.54	1,555.43	1,495.86	59.57	26.112	
12,100.00	9,194.07	13,614.64	10,750.00	52.13	52.10	180.00	-2,813.52	-82.57	1,555.43	1,494.64	60.79	25.586	
12,200.00	9,194.07	13,714.64	10,750.00	53.26	53.25	180.00	-2,913.52	-81.59	1,555.43	1,493.40	62.03	25.075	
12,300.00	9,194.06	13,814.64	10,750.00	54.40	54.41	180.00	-3,013.51	-80.61	1,555.44	1,492.15	63.28	24.578	
12,400.00	9,194.06	13,914.64	10,750.00	55.56	55.59	180.00	-3,113.51	-79.63	1,555.44	1,490.89	64.55	24.096	
12,500.00	9,194.06	14,014.64	10,750.00	56.73	56.78	180.00	-3,213.50	-78.66	1,555.44	1,489.61	65.83	23.627	
12,600.00	9,194.05	14,114.64	10,750.00	57.91	57.98	180.00	-3,313.50	-77.68	1,555.45	1,488.32	67.12	23.173	
12,700.00	9,194.05	14,214.64	10,750.00	59.10	59.19	180.00	-3,413.49	-76.70	1,555.45	1,487.02	68.43	22.731	
12,800.00	9,194.04	14,314.64	10,750.00	60.31	60.41	180.00	-3,513.49	-75.72	1,555.46	1,485.71	69.74	22.303	
12,900.00	9,194.04	14,414.64	10,750.00	61.52	61.64	180.00	-3,613.48	-74.75	1,555.46	1,484.39	71.07	21.887	
13,000.00	9,194.04	14,514.64	10,750.00	62.75	62.88	180.00	-3,713.48	-73.77	1,555.46	1,483.06	72.40	21.484	
13,100.00	9,194.03	14,614.64	10,750.00	63.98	64.12	180.00	-3,813.47	-72.79	1,555.47	1,481.72	73.75	21.092	
13,200.00	9,194.03	14,714.64	10,750.00	65.22	65.38	180.00	-3,913.47	-71.81	1,555.47	1,480.37	75.10	20.712	
13,300.00	9,194.03	14,814.64	10,750.00	66.47	66.64	180.00	-4,013.46	-70.84	1,555.47	1,479.01	76.46	20.344	
13,400.00	9,194.02	14,914.64	10,750.00	67.73	67.91	180.00	-4,113.46	-69.86	1,555.48	1,477.65	77.83	19.986	
13,500.00	9,194.02	15,014.64	10,750.00	68.99	69.18	180.00	-4,213.45	-68.88	1,555.48	1,476.28	79.20	19.639	
13,600.00	9,194.01	15,114.64	10,750.00	70.26	70.47	180.00	-4,313.45	-67.91	1,555.49	1,474.90	80.59	19.302	
13,700.00	9,194.01	15,214.64	10,750.00	71.54	71.75	180.00	-4,413.44	-66.93	1,555.49	1,473.51	81.98	18.975	
13,800.00	9,194.01	15,314.64	10,750.00	72.82	73.05	180.00	-4,513.44	-65.95	1,555.49	1,472.12	83.37	18.657	
13,900.00	9,194.00	15,414.64	10,750.00	74.11	74.35	180.00	-4,613.43	-64.97	1,555.50	1,470.72	84.77	18.349	
13,999.57	9,194.00	15,514.21	10,750.00	75.40	75.64	180.00	-4,713.00	-64.00	1,555.50	1,469.32	86.18	18.050	

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 125H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM — **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	0.50	0.50	0.00	0.00	90.00	0.00	30.00	30.00				
100.00	100.00	100.50	100.50	0.13	0.13	90.00	0.00	30.00	30.00	29.74	0.26	116.639	
200.00	200.00	200.50	200.50	0.49	0.49	90.00	0.00	30.00	30.00	29.03	0.97	30.796	
300.00	300.00	300.50	300.50	0.85	0.85	90.00	0.00	30.00	30.00	28.31	1.69	17.740	
400.00	400.00	400.50	400.50	1.20	1.20	90.00	0.00	30.00	30.00	27.59	2.41	12.458	
500.00	500.00	500.50	500.50	1.56	1.56	90.00	0.00	30.00	30.00	26.88	3.12	9.600	
600.00	600.00	600.50	600.50	1.92	1.92	90.00	0.00	30.00	30.00	26.16	3.84	7.809	
700.00	700.00	700.50	700.50	2.28	2.28	90.00	0.00	30.00	30.00	25.44	4.56	6.581	
800.00	800.00	800.50	800.50	2.64	2.64	90.00	0.00	30.00	30.00	24.72	5.28	5.686	
900.00	900.00	900.50	900.50	3.00	3.00	90.00	0.00	30.00	30.00	24.01	5.99	5.006	
1,000.00	1,000.00	1,000.50	1,000.50	3.35	3.36	90.00	0.00	30.00	30.00	23.29	6.71	4.471	
1,100.00	1,100.00	1,100.50	1,100.50	3.71	3.71	90.00	0.00	30.00	30.00	22.57	7.43	4.040	
1,200.00	1,200.00	1,200.50	1,200.50	4.07	4.07	90.00	0.00	30.00	30.00	21.86	8.14	3.684	
1,300.00	1,300.00	1,300.50	1,300.50	4.43	4.25	90.00	0.00	30.00	30.00	21.32	8.68	3.455	
1,400.00	1,400.00	1,400.50	1,400.50	4.79	4.28	90.00	0.00	30.00	30.00	20.93	9.07	3.307	
1,500.00	1,499.99	1,500.49	1,500.49	5.15	4.34	56.39	0.00	30.00	29.51	20.02	9.49	3.110	
1,600.00	1,599.96	1,600.46	1,600.46	5.50	4.43	60.85	0.00	30.00	28.14	18.21	9.93	2.834	
1,700.00	1,699.86	1,700.36	1,700.36	5.86	4.55	69.19	0.00	30.00	26.30	15.89	10.40	2.528	
1,800.00	1,799.68	1,800.18	1,800.18	6.21	4.69	82.48	0.00	30.00	24.79	13.89	10.90	2.275	
1,837.49	1,837.06	1,837.52	1,837.52	6.35	4.74	88.53	0.08	30.10	24.62	13.53	11.09	2.219	CC, ES
1,900.00	1,899.37	1,899.81	1,899.81	6.57	4.84	98.57	0.55	30.68	25.10	13.68	11.42	2.198	SF
2,000.00	1,998.99	1,999.61	1,999.57	6.93	5.02	111.27	2.19	32.70	27.41	15.45	11.96	2.292	
2,100.00	2,098.60	2,099.59	2,099.45	7.29	5.22	118.44	4.93	36.08	30.41	17.89	12.52	2.430	
2,200.00	2,198.22	2,199.67	2,199.34	7.66	5.44	121.39	8.78	40.82	33.29	20.19	13.09	2.542	
2,300.00	2,297.84	2,299.80	2,299.17	8.02	5.67	121.20	13.72	46.92	35.74	22.05	13.69	2.611	
2,400.00	2,397.46	2,400.23	2,398.76	8.38	5.92	119.76	19.21	53.69	37.98	23.67	14.30	2.655	
2,500.00	2,497.08	2,500.26	2,498.35	8.75	6.18	118.48	24.70	60.45	40.23	25.30	14.93	2.695	
2,600.00	2,596.70	2,600.29	2,597.94	9.12	6.45	117.34	30.19	67.22	42.51	26.94	15.57	2.731	
2,700.00	2,696.32	2,699.68	2,697.53	9.48	6.73	116.31	35.68	73.99	44.80	28.58	16.21	2.763	
2,800.00	2,795.94	2,800.35	2,797.12	9.85	7.02	115.38	41.17	80.76	47.10	30.23	16.87	2.791	
2,900.00	2,895.56	2,900.38	2,896.71	10.22	7.32	114.54	46.65	87.52	49.41	31.87	17.54	2.817	
3,000.00	2,995.18	3,000.41	2,996.30	10.59	7.63	113.78	52.14	94.29	51.73	33.52	18.21	2.841	
3,100.00	3,094.80	3,100.43	3,095.89	10.96	7.94	113.08	57.63	101.06	54.07	35.17	18.89	2.862	
3,200.00	3,194.42	3,200.46	3,195.48	11.33	8.26	112.44	63.12	107.82	56.41	36.83	19.58	2.881	
3,300.00	3,294.04	3,300.49	3,295.07	11.70	8.58	111.85	68.61	114.59	58.75	38.48	20.27	2.898	
3,400.00	3,393.66	3,400.52	3,394.66	12.07	8.90	111.30	74.10	121.36	61.10	40.14	20.97	2.914	
3,500.00	3,493.28	3,500.55	3,494.25	12.44	9.23	110.80	79.58	128.13	63.46	41.79	21.67	2.929	
3,600.00	3,592.90	3,600.58	3,593.84	12.81	9.57	110.33	85.07	134.89	65.82	43.45	22.37	2.942	
3,700.00	3,692.52	3,700.61	3,693.43	13.18	9.90	109.89	90.56	141.66	68.18	45.11	23.08	2.955	
3,800.00	3,792.14	3,800.64	3,793.02	13.55	10.24	109.49	96.05	148.43	70.55	46.77	23.78	2.966	
3,900.00	3,891.76	3,900.67	3,892.61	13.92	10.58	109.11	101.54	155.19	72.92	48.43	24.50	2.977	
4,000.00	3,991.37	4,000.70	3,992.20	14.29	10.93	108.75	107.03	161.96	75.30	50.09	25.21	2.987	
4,100.00	4,090.99	4,100.73	4,091.79	14.67	11.27	108.42	112.51	168.73	77.68	51.75	25.93	2.996	
4,200.00	4,190.61	4,200.76	4,191.38	15.04	11.62	108.10	118.00	175.49	80.06	53.41	26.65	3.004	
4,300.00	4,290.23	4,300.79	4,290.97	15.41	11.97	107.81	123.49	182.26	82.44	55.07	27.37	3.012	
4,400.00	4,389.85	4,400.82	4,390.56	15.78	12.32	107.53	128.98	189.03	84.82	56.73	28.09	3.020	
4,500.00	4,489.47	4,500.84	4,490.15	16.16	12.67	107.26	134.47	195.80	87.21	58.39	28.82	3.026	
4,600.00	4,589.09	4,600.87	4,589.74	16.53	13.02	107.01	139.96	202.56	89.60	60.06	29.54	3.033	
4,700.00	4,688.71	4,700.90	4,689.33	16.90	13.38	106.77	145.45	209.33	91.99	61.72	30.27	3.039	
4,800.00	4,788.33	4,800.93	4,788.92	17.27	13.73	106.55	150.93	216.10	94.38	63.38	31.00	3.045	
4,900.00	4,887.95	4,900.96	4,888.51	17.65	14.09	106.33	156.42	222.86	96.77	65.05	31.73	3.050	

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 #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 125H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM — **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	4,987.57	4,999.01	4,988.10	18.02	14.44	106.13	161.91	229.63	99.17	66.72	32.45	3.056	
5,100.00	5,087.19	5,101.02	5,087.69	18.39	14.81	105.94	167.40	236.40	101.56	68.37	33.19	3.060	
5,200.00	5,186.81	5,201.05	5,187.28	18.77	15.17	105.75	172.89	243.17	103.96	70.04	33.92	3.065	
5,300.00	5,286.43	5,301.08	5,286.88	19.14	15.53	105.57	178.38	249.93	106.36	71.70	34.65	3.069	
5,365.00	5,351.18	5,363.90	5,351.61	19.38	15.75	105.46	181.94	254.33	107.91	72.79	35.12	3.073	
5,400.00	5,386.06	5,401.11	5,386.47	19.51	15.89	105.33	183.86	256.70	108.71	73.33	35.39	3.072	
5,500.00	5,485.85	5,498.84	5,486.04	19.88	16.24	104.09	189.35	263.47	110.55	74.44	36.11	3.062	
5,600.00	5,585.77	5,601.29	5,585.52	20.24	16.61	101.57	194.83	270.23	111.89	75.05	36.83	3.038	
5,698.33	5,684.09	5,696.76	5,683.20	20.58	16.96	132.89	200.22	276.86	113.03	75.51	37.52	3.013	
5,700.00	5,685.76	5,701.58	5,684.86	20.59	16.98	132.82	200.31	276.98	113.05	75.51	37.54	3.011	
5,800.00	5,785.76	5,801.96	5,784.10	20.94	17.34	128.52	205.78	283.72	114.62	76.38	38.24	2.997	
5,900.00	5,885.76	5,902.34	5,883.34	21.29	17.71	124.36	211.25	290.46	116.81	77.88	38.93	3.001	
6,000.00	5,985.76	5,997.28	5,982.58	21.63	18.05	120.36	216.72	297.21	119.60	80.01	39.59	3.021	
6,100.00	6,085.76	6,103.10	6,081.82	21.98	18.44	116.57	222.19	303.95	122.95	82.65	40.29	3.051	
6,200.00	6,185.76	6,196.52	6,181.06	22.33	18.78	112.99	227.65	310.69	126.81	85.86	40.95	3.097	
6,300.00	6,285.76	6,303.86	6,280.30	22.68	19.17	109.64	233.12	317.44	131.13	89.48	41.65	3.149	
6,400.00	6,385.76	6,404.24	6,379.54	23.03	19.54	106.50	238.59	324.18	135.88	93.55	42.32	3.210	
6,500.00	6,485.76	6,495.38	6,478.78	23.38	19.87	103.59	244.06	330.92	141.00	98.03	42.97	3.282	
6,600.00	6,585.76	6,605.00	6,578.02	23.73	20.28	100.88	249.53	337.67	146.47	102.79	43.68	3.353	
6,700.00	6,685.76	6,705.38	6,677.26	24.08	20.64	98.38	255.00	344.41	152.24	107.88	44.36	3.432	
6,800.00	6,785.76	6,805.76	6,776.50	24.43	21.01	96.06	260.47	351.15	158.28	113.23	45.04	3.514	
6,900.00	6,885.76	6,906.14	6,875.74	24.78	21.38	93.91	265.94	357.90	164.56	118.83	45.73	3.598	
7,000.00	6,985.76	6,994.48	6,975.99	25.14	21.71	91.93	271.39	364.62	170.96	124.59	46.38	3.686	
7,100.00	7,085.76	7,097.85	7,079.13	25.49	22.08	90.48	275.69	369.91	176.01	128.92	47.09	3.738	
7,200.00	7,185.76	7,201.51	7,182.72	25.84	22.44	89.65	278.23	373.05	179.03	131.24	47.79	3.746	
7,300.00	7,285.76	7,305.07	7,286.26	26.19	22.80	89.41	279.00	374.00	179.95	131.48	48.47	3.713	
7,400.00	7,385.76	7,405.07	7,386.26	26.54	23.13	89.41	279.00	374.00	179.95	130.79	49.16	3.660	
7,500.00	7,485.76	7,505.07	7,486.26	26.89	23.47	89.41	279.00	374.00	179.95	130.10	49.85	3.610	
7,600.00	7,585.76	7,605.07	7,586.26	27.25	23.80	89.41	279.00	374.00	179.95	129.40	50.55	3.560	
7,700.00	7,685.76	7,705.07	7,686.26	27.60	24.14	89.41	279.00	374.00	179.95	128.71	51.24	3.512	
7,800.00	7,785.76	7,805.07	7,786.26	27.95	24.48	89.41	279.00	374.00	179.95	128.02	51.93	3.465	
7,900.00	7,885.76	7,905.07	7,886.26	28.30	24.82	89.41	279.00	374.00	179.95	127.32	52.63	3.419	
8,000.00	7,985.76	8,005.07	7,986.26	28.66	25.16	89.41	279.00	374.00	179.95	126.62	53.33	3.375	
8,100.00	8,085.76	8,105.07	8,086.26	29.01	25.50	89.41	279.00	374.00	179.95	125.93	54.02	3.331	
8,200.00	8,185.76	8,205.07	8,186.26	29.36	25.84	89.41	279.00	374.00	179.95	125.23	54.72	3.289	
8,300.00	8,285.76	8,305.07	8,286.26	29.72	26.18	89.41	279.00	374.00	179.95	124.53	55.42	3.247	
8,400.00	8,385.76	8,405.07	8,386.26	30.07	26.52	89.41	279.00	374.00	179.95	123.84	56.11	3.207	
8,500.00	8,485.76	8,505.07	8,486.26	30.42	26.86	89.41	279.00	374.00	179.95	123.14	56.81	3.167	
8,560.24	8,546.00	8,565.31	8,546.50	30.64	27.06	89.41	279.00	374.00	179.95	122.72	57.23	3.144	
8,600.00	8,585.73	8,605.03	8,586.23	30.77	27.20	-138.51	279.00	374.00	180.98	123.48	57.50	3.147	
8,650.00	8,635.39	8,654.70	8,635.89	30.92	27.37	-139.39	279.00	374.00	185.25	127.43	57.81	3.204	
8,700.00	8,684.38	8,703.68	8,684.88	31.07	27.54	-140.80	279.00	374.00	192.94	134.83	58.11	3.320	
8,750.00	8,732.31	8,751.62	8,732.81	31.21	27.70	-142.58	279.00	374.00	204.25	145.86	58.39	3.498	
8,800.00	8,778.82	8,801.87	8,779.32	31.34	27.87	-144.51	279.00	374.00	219.34	160.67	58.66	3.739	
8,850.00	8,823.56	8,842.87	8,824.06	31.46	28.02	-146.41	279.00	374.00	238.32	179.42	58.90	4.046	
8,900.00	8,866.19	8,885.50	8,866.69	31.58	28.16	-148.12	279.00	374.00	261.21	202.08	59.13	4.417	
8,950.00	8,906.39	8,925.69	8,906.89	31.70	28.30	-149.54	279.00	374.00	287.94	228.59	59.35	4.851	
9,000.00	8,943.84	8,963.14	8,944.34	31.81	28.43	-150.58	279.00	374.00	318.35	258.79	59.56	5.345	
9,010.24	8,951.14	8,970.45	8,951.64	31.84	28.45	-150.73	279.00	374.00	325.01	265.41	59.60	5.453	
9,050.00	8,978.71	9,001.98	8,979.21	31.93	28.56	-146.38	279.00	374.00	351.37	291.62	59.75	5.880	

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 #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 125H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM — **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
9,100.00	9,011.70	9,031.01	9,012.20	32.05	28.66	-141.38	279.00	374.00	385.20	325.29	59.91	6.430	
9,150.00	9,042.59	9,061.90	9,043.09	32.17	28.77	-136.72	279.00	374.00	419.84	359.77	60.07	6.989	
9,200.00	9,071.13	9,109.56	9,071.63	32.29	28.93	-132.26	279.00	374.00	455.32	395.04	60.28	7.553	
9,250.00	9,097.12	9,116.43	9,097.62	32.41	28.96	-127.85	279.00	374.00	491.65	431.30	60.35	8.146	
9,300.00	9,120.35	9,139.66	9,120.85	32.53	29.04	-123.37	279.00	374.00	528.79	468.32	60.47	8.744	
9,350.00	9,140.64	9,159.95	9,141.14	32.64	29.10	-118.74	279.00	374.00	566.68	506.10	60.58	9.354	
9,400.00	9,157.85	9,177.16	9,158.35	32.75	29.16	-113.90	279.00	374.00	605.22	544.54	60.68	9.974	
9,450.00	9,171.84	9,208.85	9,172.34	32.86	29.27	-108.85	279.00	374.00	644.28	583.46	60.82	10.593	
9,500.00	9,182.50	9,201.81	9,183.00	32.97	29.25	-103.63	279.00	374.00	683.70	622.87	60.83	11.240	
9,550.00	9,189.76	9,209.07	9,190.26	33.08	29.27	-98.31	279.00	374.00	723.29	662.41	60.88	11.880	
9,600.00	9,193.56	9,212.87	9,194.06	33.18	29.29	-93.03	279.00	374.00	762.84	701.92	60.92	12.522	
9,629.41	9,194.16	9,213.47	9,194.66	33.24	29.29	-90.00	279.00	374.00	786.00	725.06	60.94	12.899	
9,700.00	9,194.16	9,213.47	9,194.66	33.39	29.29	-90.00	279.00	374.00	842.58	781.60	60.98	13.818	
9,800.00	9,194.16	9,213.46	9,194.66	33.66	29.29	-90.00	279.00	374.00	926.03	864.98	61.04	15.170	
9,900.00	9,194.15	9,213.46	9,194.65	33.98	29.29	-90.00	279.00	374.00	1,012.48	951.37	61.11	16.568	
10,000.00	9,194.15	9,213.46	9,194.65	34.37	29.29	-90.00	279.00	374.00	1,101.23	1,040.05	61.17	18.002	
10,100.00	9,194.14	9,213.45	9,194.64	34.81	29.29	-90.00	279.00	374.00	1,191.76	1,130.52	61.23	19.462	
10,200.00	9,194.14	9,213.45	9,194.64	35.32	29.29	-89.99	279.00	374.00	1,283.70	1,222.41	61.29	20.945	
10,300.00	9,194.14	9,213.45	9,194.64	35.87	29.29	-89.99	279.00	374.00	1,376.76	1,315.41	61.34	22.444	
10,400.00	9,194.13	9,213.44	9,194.63	36.48	29.29	-89.99	279.00	374.00	1,470.73	1,409.34	61.39	23.956	
10,500.00	9,194.13	9,213.44	9,194.63	37.13	29.29	-89.99	279.00	374.00	1,565.45	1,504.01	61.44	25.479	
10,600.00	9,194.13	9,213.43	9,194.63	37.83	29.29	-89.99	279.00	374.00	1,660.79	1,599.31	61.48	27.011	
10,700.00	9,194.12	12,225.12	10,750.00	38.57	38.83	-157.08	-1,407.50	561.47	1,688.67	1,637.56	51.10	33.043	
10,800.00	9,194.12	12,325.12	10,750.00	39.35	39.65	-157.08	-1,507.50	562.39	1,688.65	1,636.50	52.15	32.382	
10,900.00	9,194.11	12,425.12	10,750.00	40.16	40.51	-157.09	-1,607.49	563.32	1,688.64	1,635.40	53.23	31.721	
11,000.00	9,194.11	12,525.12	10,750.00	41.01	41.40	-157.09	-1,707.49	564.24	1,688.62	1,634.26	54.36	31.064	
11,100.00	9,194.11	12,625.12	10,750.00	41.90	42.32	-157.09	-1,807.49	565.17	1,688.61	1,633.09	55.52	30.414	
11,200.00	9,194.10	12,725.12	10,750.00	42.81	43.27	-157.09	-1,907.48	566.09	1,688.59	1,631.87	56.72	29.772	
11,300.00	9,194.10	12,825.12	10,750.00	43.76	44.24	-157.09	-2,007.48	567.02	1,688.58	1,630.63	57.95	29.139	
11,400.00	9,194.10	12,925.12	10,750.00	44.73	45.24	-157.09	-2,107.47	567.94	1,688.56	1,629.35	59.21	28.519	
11,500.00	9,194.09	13,025.12	10,750.00	45.72	46.26	-157.09	-2,207.47	568.87	1,688.55	1,628.05	60.50	27.911	
11,600.00	9,194.09	13,125.12	10,750.00	46.74	47.31	-157.10	-2,307.46	569.79	1,688.53	1,626.72	61.81	27.316	
11,700.00	9,194.09	13,225.12	10,750.00	47.78	48.37	-157.10	-2,407.46	570.72	1,688.52	1,625.36	63.16	26.736	
11,800.00	9,194.08	13,325.12	10,750.00	48.84	49.46	-157.10	-2,507.46	571.64	1,688.50	1,623.98	64.52	26.170	
11,900.00	9,194.08	13,425.12	10,750.00	49.92	50.56	-157.10	-2,607.45	572.57	1,688.49	1,622.58	65.91	25.619	
12,000.00	9,194.07	13,525.12	10,750.00	51.01	51.67	-157.10	-2,707.45	573.49	1,688.47	1,621.16	67.32	25.082	
12,100.00	9,194.07	13,625.12	10,750.00	52.13	52.81	-157.10	-2,807.44	574.42	1,688.46	1,619.71	68.75	24.561	
12,200.00	9,194.07	13,725.12	10,750.00	53.26	53.96	-157.11	-2,907.44	575.34	1,688.44	1,618.25	70.19	24.055	
12,300.00	9,194.06	13,825.12	10,750.00	54.40	55.12	-157.11	-3,007.43	576.27	1,688.43	1,616.77	71.65	23.563	
12,400.00	9,194.06	13,925.12	10,750.00	55.56	56.29	-157.11	-3,107.43	577.19	1,688.41	1,615.28	73.13	23.086	
12,500.00	9,194.06	14,025.12	10,750.00	56.73	57.48	-157.11	-3,207.43	578.12	1,688.40	1,613.77	74.63	22.624	
12,600.00	9,194.05	14,125.12	10,750.00	57.91	58.68	-157.11	-3,307.42	579.04	1,688.38	1,612.25	76.14	22.175	
12,700.00	9,194.05	14,225.12	10,750.00	59.10	59.88	-157.11	-3,407.42	579.97	1,688.37	1,610.71	77.66	21.740	
12,800.00	9,194.04	14,325.12	10,750.00	60.31	61.10	-157.11	-3,507.41	580.89	1,688.35	1,609.16	79.20	21.318	
12,900.00	9,194.04	14,425.12	10,750.00	61.52	62.33	-157.12	-3,607.41	581.82	1,688.34	1,607.59	80.75	20.909	
13,000.00	9,194.04	14,525.12	10,750.00	62.75	63.57	-157.12	-3,707.40	582.74	1,688.32	1,606.02	82.30	20.513	
13,100.00	9,194.03	14,625.12	10,750.00	63.98	64.81	-157.12	-3,807.40	583.67	1,688.31	1,604.44	83.87	20.129	
13,200.00	9,194.03	14,725.12	10,750.00	65.22	66.06	-157.12	-3,907.40	584.59	1,688.30	1,602.84	85.45	19.757	
13,300.00	9,194.03	14,825.12	10,750.00	66.47	67.32	-157.12	-4,007.39	585.52	1,688.28	1,601.24	87.04	19.396	
13,400.00	9,194.02	14,925.12	10,750.00	67.73	68.59	-157.12	-4,107.39	586.44	1,688.27	1,599.62	88.64	19.046	
13,500.00	9,194.02	15,025.12	10,750.00	68.99	69.86	-157.13	-4,207.38	587.37	1,688.25	1,598.00	90.25	18.707	

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 #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 125H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM — **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
13,600.00	9,194.01	15,125.12	10,750.00	70.26	71.14	-157.13	-4,307.38	588.29	1,688.24	1,596.37	91.86	18.378	
13,700.00	9,194.01	15,225.12	10,750.00	71.54	72.43	-157.13	-4,407.37	589.22	1,688.22	1,594.74	93.49	18.059	
13,800.00	9,194.01	15,325.12	10,750.00	72.82	73.72	-157.13	-4,507.37	590.14	1,688.21	1,593.09	95.12	17.749	
13,900.00	9,194.00	15,425.12	10,750.00	74.11	75.02	-157.13	-4,607.37	591.07	1,688.19	1,591.44	96.75	17.449	
13,999.57	9,194.00	15,524.69	10,750.00	75.40	76.29	-157.13	-4,706.93	591.99	1,688.18	1,589.86	98.31	17.171	

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 211H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM — **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	0.50	0.50	0.00	0.00	-90.95	-1.00	-60.00	60.01				
100.00	100.00	100.50	100.50	0.13	0.13	-90.95	-1.00	-60.00	60.01	59.75	0.26	233.311	
200.00	200.00	200.50	200.50	0.49	0.49	-90.95	-1.00	-60.00	60.01	59.03	0.97	61.601	
300.00	300.00	300.50	300.50	0.85	0.85	-90.95	-1.00	-60.00	60.01	58.32	1.69	35.485	
400.00	400.00	400.50	400.50	1.20	1.20	-90.95	-1.00	-60.00	60.01	57.60	2.41	24.920	
500.00	500.00	500.50	500.50	1.56	1.56	-90.95	-1.00	-60.00	60.01	56.88	3.12	19.203	
600.00	600.00	600.50	600.50	1.92	1.92	-90.95	-1.00	-60.00	60.01	56.17	3.84	15.619	
700.00	700.00	700.50	700.50	2.28	2.28	-90.95	-1.00	-60.00	60.01	55.45	4.56	13.163	
800.00	800.00	800.50	800.50	2.64	2.64	-90.95	-1.00	-60.00	60.01	54.73	5.28	11.374	
900.00	900.00	900.50	900.50	3.00	3.00	-90.95	-1.00	-60.00	60.01	54.02	5.99	10.013	
1,000.00	1,000.00	1,000.50	1,000.50	3.35	3.36	-90.95	-1.00	-60.00	60.01	53.30	6.71	8.944	
1,100.00	1,100.00	1,100.50	1,100.50	3.71	3.71	-90.95	-1.00	-60.00	60.01	52.58	7.43	8.080	
1,200.00	1,200.00	1,200.50	1,200.50	4.07	4.07	-90.95	-1.00	-60.00	60.01	51.87	8.14	7.370	
1,300.00	1,300.00	1,300.50	1,300.50	4.43	4.25	-90.95	-1.00	-60.00	60.01	51.32	8.68	6.911	
1,400.00	1,400.00	1,400.50	1,400.50	4.79	4.28	-90.95	-1.00	-60.00	60.01	50.94	9.07	6.615	CC, ES
1,500.00	1,499.99	1,500.31	1,500.31	5.15	4.34	-125.80	-0.14	-60.17	60.67	51.18	9.49	6.394	
1,600.00	1,599.96	1,600.10	1,600.06	5.50	4.43	-125.36	2.43	-60.66	62.66	52.73	9.93	6.310	
1,700.00	1,699.86	1,699.83	1,699.70	5.86	4.55	-124.70	6.70	-61.48	65.99	55.59	10.40	6.345	
1,800.00	1,799.68	1,799.48	1,799.16	6.21	4.69	-123.88	12.67	-62.63	70.65	59.75	10.90	6.484	
1,900.00	1,899.37	1,900.98	1,898.39	6.57	4.85	-122.97	20.33	-64.10	76.66	65.24	11.42	6.713	
2,000.00	1,998.99	2,001.21	1,997.78	6.93	5.04	-122.15	28.87	-65.74	83.35	71.38	11.97	6.966	
2,100.00	2,098.60	2,101.44	2,097.17	7.29	5.25	-121.46	37.41	-67.38	90.05	77.52	12.53	7.186	
2,200.00	2,198.22	2,201.67	2,196.56	7.66	5.48	-120.86	45.95	-69.02	96.77	83.65	13.12	7.377	
2,300.00	2,297.84	2,301.90	2,295.95	8.02	5.72	-120.33	54.49	-70.65	103.50	89.78	13.72	7.543	
2,400.00	2,397.46	2,402.13	2,395.34	8.38	5.98	-119.87	63.02	-72.29	110.23	95.90	14.34	7.688	
2,500.00	2,497.08	2,502.36	2,494.73	8.75	6.25	-119.47	71.56	-73.93	116.98	102.01	14.97	7.815	
2,600.00	2,596.70	2,602.59	2,594.12	9.12	6.53	-119.11	80.10	-75.57	123.72	108.11	15.61	7.926	
2,700.00	2,696.32	2,702.83	2,693.51	9.48	6.81	-118.78	88.64	-77.21	130.47	114.21	16.26	8.023	
2,800.00	2,795.94	2,803.06	2,792.90	9.85	7.11	-118.49	97.18	-78.85	137.23	120.31	16.92	8.110	
2,900.00	2,895.56	2,903.29	2,892.29	10.22	7.41	-118.22	105.72	-80.49	143.98	126.40	17.59	8.186	
3,000.00	2,995.18	3,003.52	2,991.68	10.59	7.72	-117.98	114.26	-82.13	150.75	132.48	18.26	8.254	
3,100.00	3,094.80	3,103.75	3,091.07	10.96	8.04	-117.76	122.80	-83.77	157.51	138.56	18.94	8.315	
3,200.00	3,194.42	3,203.98	3,190.46	11.33	8.36	-117.56	131.34	-85.41	164.27	144.64	19.63	8.369	
3,300.00	3,294.04	3,304.21	3,289.84	11.70	8.68	-117.37	139.88	-87.05	171.04	150.72	20.32	8.417	
3,400.00	3,393.66	3,404.44	3,389.23	12.07	9.01	-117.20	148.42	-88.69	177.81	156.79	21.01	8.461	
3,500.00	3,493.28	3,504.67	3,488.62	12.44	9.35	-117.04	156.96	-90.33	184.58	162.87	21.71	8.501	
3,600.00	3,592.90	3,604.90	3,588.01	12.81	9.68	-116.89	165.50	-91.97	191.35	168.94	22.41	8.537	
3,700.00	3,692.52	3,705.13	3,687.40	13.18	10.02	-116.75	174.04	-93.61	198.12	175.00	23.12	8.570	
3,800.00	3,792.14	3,805.36	3,786.79	13.55	10.36	-116.63	182.58	-95.25	204.90	181.07	23.83	8.599	
3,900.00	3,891.76	3,905.59	3,886.18	13.92	10.70	-116.50	191.12	-96.89	211.67	187.13	24.54	8.627	
4,000.00	3,991.37	4,005.82	3,985.57	14.29	11.05	-116.39	199.66	-98.53	218.45	193.20	25.25	8.652	
4,100.00	4,090.99	4,106.06	4,084.96	14.67	11.40	-116.28	208.20	-100.17	225.22	199.26	25.96	8.674	
4,200.00	4,190.61	4,206.29	4,184.35	15.04	11.75	-116.18	216.73	-101.81	232.00	205.32	26.68	8.696	
4,300.00	4,290.23	4,306.52	4,283.74	15.41	12.10	-116.09	225.27	-103.45	238.78	211.38	27.40	8.715	
4,400.00	4,389.85	4,406.75	4,383.13	15.78	12.45	-116.00	233.81	-105.09	245.56	217.44	28.12	8.733	
4,500.00	4,489.47	4,506.98	4,482.52	16.16	12.80	-115.92	242.35	-106.73	252.33	223.50	28.84	8.750	
4,600.00	4,589.09	4,607.21	4,581.91	16.53	13.16	-115.84	250.89	-108.37	259.11	229.55	29.56	8.765	
4,700.00	4,688.71	4,692.56	4,681.30	16.90	13.46	-115.76	259.43	-110.01	265.89	235.66	30.23	8.795	
4,800.00	4,788.33	4,794.44	4,782.87	17.27	13.82	-115.88	267.19	-111.50	272.35	241.38	30.97	8.795	
4,900.00	4,887.95	4,896.70	4,884.99	17.65	14.17	-116.52	272.32	-112.49	277.92	246.23	31.69	8.769	
5,000.00	4,987.57	4,998.84	4,987.10	18.02	14.52	-117.66	274.77	-112.96	282.68	250.27	32.41	8.722	

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 #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 211H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM — **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
5,100.00	5,087.19	5,100.57	5,087.69	18.39	14.85	-119.17	275.00	-113.00	286.91	253.80	33.11	8.664	
5,200.00	5,186.81	5,200.95	5,187.31	18.77	15.18	-120.66	275.00	-113.00	291.27	257.46	33.81	8.614	
5,300.00	5,286.43	5,301.33	5,286.93	19.14	15.52	-122.11	275.00	-113.00	295.82	261.31	34.51	8.572	
5,365.00	5,351.18	5,363.42	5,351.68	19.38	15.72	-123.03	275.00	-113.00	298.88	263.93	34.96	8.550	
5,400.00	5,386.06	5,401.70	5,386.56	19.51	15.85	-123.51	275.00	-113.00	300.47	265.26	35.21	8.533	
5,500.00	5,485.85	5,501.91	5,486.35	19.88	16.19	-124.57	275.00	-113.00	304.11	268.21	35.91	8.469	
5,600.00	5,585.77	5,601.99	5,586.27	20.24	16.52	-125.20	275.00	-113.00	306.34	269.74	36.60	8.370	
5,698.33	5,684.09	5,703.67	5,684.59	20.58	16.86	-90.40	275.00	-113.00	307.07	269.78	37.29	8.235	
5,700.00	5,685.76	5,702.00	5,686.26	20.59	16.86	-90.40	275.00	-113.00	307.07	269.78	37.29	8.235	
5,800.00	5,785.76	5,802.00	5,786.26	20.94	17.20	-90.40	275.00	-113.00	307.07	269.09	37.97	8.086	
5,900.00	5,885.76	5,902.00	5,886.26	21.29	17.53	-90.40	275.00	-113.00	307.07	268.40	38.66	7.942	
6,000.00	5,985.76	6,002.00	5,986.26	21.63	17.87	-90.40	275.00	-113.00	307.07	267.72	39.35	7.803	
6,100.00	6,085.76	6,102.00	6,086.26	21.98	18.21	-90.40	275.00	-113.00	307.07	267.03	40.04	7.669	
6,200.00	6,185.76	6,202.00	6,186.26	22.33	18.55	-90.40	275.00	-113.00	307.07	266.34	40.73	7.539	
6,300.00	6,285.76	6,302.00	6,286.26	22.68	18.89	-90.40	275.00	-113.00	307.07	265.64	41.42	7.413	
6,400.00	6,385.76	6,402.00	6,386.26	23.03	19.23	-90.40	275.00	-113.00	307.07	264.95	42.12	7.291	
6,500.00	6,485.76	6,502.00	6,486.26	23.38	19.58	-90.40	275.00	-113.00	307.07	264.26	42.81	7.173	
6,600.00	6,585.76	6,602.00	6,586.26	23.73	19.92	-90.40	275.00	-113.00	307.07	263.56	43.50	7.058	
6,700.00	6,685.76	6,702.00	6,686.26	24.08	20.26	-90.40	275.00	-113.00	307.07	262.87	44.20	6.948	
6,800.00	6,785.76	6,802.00	6,786.26	24.43	20.61	-90.40	275.00	-113.00	307.07	262.17	44.89	6.840	
6,900.00	6,885.76	6,902.00	6,886.26	24.78	20.95	-90.40	275.00	-113.00	307.07	261.48	45.59	6.735	
7,000.00	6,985.76	7,002.00	6,986.26	25.14	21.29	-90.40	275.00	-113.00	307.07	260.78	46.29	6.634	
7,100.00	7,085.76	7,102.00	7,086.26	25.49	21.64	-90.40	275.00	-113.00	307.07	260.08	46.98	6.535	
7,200.00	7,185.76	7,202.00	7,186.26	25.84	21.98	-90.40	275.00	-113.00	307.07	259.38	47.68	6.440	
7,300.00	7,285.76	7,302.00	7,286.26	26.19	22.33	-90.40	275.00	-113.00	307.07	258.69	48.38	6.347	
7,400.00	7,385.76	7,402.00	7,386.26	26.54	22.68	-90.40	275.00	-113.00	307.07	257.99	49.08	6.256	
7,500.00	7,485.76	7,502.00	7,486.26	26.89	23.02	-90.40	275.00	-113.00	307.07	257.29	49.78	6.168	
7,600.00	7,585.76	7,602.00	7,586.26	27.25	23.37	-90.40	275.00	-113.00	307.07	256.59	50.48	6.083	
7,700.00	7,685.76	7,702.00	7,686.26	27.60	23.72	-90.40	275.00	-113.00	307.07	255.89	51.18	6.000	
7,800.00	7,785.76	7,802.00	7,786.26	27.95	24.07	-90.40	275.00	-113.00	307.07	255.18	51.88	5.918	
7,900.00	7,885.76	7,902.00	7,886.26	28.30	24.41	-90.40	275.00	-113.00	307.07	254.48	52.58	5.839	
8,000.00	7,985.76	8,002.00	7,986.26	28.66	24.76	-90.40	275.00	-113.00	307.07	253.78	53.29	5.763	
8,100.00	8,085.76	8,102.00	8,086.26	29.01	25.11	-90.40	275.00	-113.00	307.07	253.08	53.99	5.688	
8,200.00	8,185.76	8,202.00	8,186.26	29.36	25.46	-90.40	275.00	-113.00	307.07	252.37	54.69	5.614	
8,300.00	8,285.76	8,302.00	8,286.26	29.72	25.81	-90.40	275.00	-113.00	307.07	251.67	55.40	5.543	
8,400.00	8,385.76	8,402.00	8,386.26	30.07	26.16	-90.40	275.00	-113.00	307.07	250.97	56.10	5.474	
8,500.00	8,485.76	8,502.00	8,486.26	30.42	26.51	-90.40	275.00	-113.00	307.07	250.26	56.80	5.406	
8,560.24	8,546.00	8,558.24	8,546.50	30.64	26.71	-90.40	275.00	-113.00	307.07	249.85	57.21	5.367	
8,600.00	8,585.73	8,602.03	8,586.23	30.77	26.86	42.14	275.00	-113.00	306.04	248.54	57.50	5.322	
8,650.00	8,635.39	8,647.63	8,635.89	30.92	27.02	43.14	275.00	-113.00	301.88	244.07	57.82	5.221	
8,700.00	8,684.38	8,703.38	8,684.88	31.07	27.21	44.96	275.00	-113.00	294.66	236.50	58.16	5.066	
8,750.00	8,732.31	8,744.55	8,732.81	31.21	27.36	47.69	275.00	-113.00	284.65	226.20	58.45	4.870	
8,800.00	8,778.82	8,808.94	8,779.32	31.34	27.58	51.41	275.00	-113.00	272.28	213.47	58.81	4.630	
8,850.00	8,823.56	8,835.80	8,824.06	31.46	27.68	56.22	275.00	-113.00	258.17	199.14	59.03	4.374	
8,900.00	8,866.19	8,878.43	8,866.69	31.58	27.83	62.14	275.00	-113.00	243.20	183.90	59.30	4.101	
8,950.00	8,906.39	8,918.63	8,906.89	31.70	27.97	69.04	275.00	-113.00	228.60	169.05	59.55	3.839	
9,000.00	8,943.84	8,956.08	8,944.34	31.81	28.10	76.59	275.00	-113.00	216.02	156.23	59.79	3.613	
9,010.24	8,951.14	8,963.38	8,951.64	31.84	28.12	78.17	275.00	-113.00	213.87	154.03	59.84	3.574	
9,050.00	8,978.71	9,009.05	8,979.21	31.93	28.28	87.10	275.00	-113.00	208.72	148.63	60.09	3.473	
9,063.67	8,987.93	9,000.17	8,988.43	31.96	28.25	90.00	275.00	-113.00	208.35	148.25	60.09	3.467	SF

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 #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 211H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM — **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
9,100.00	9,011.70	9,023.95	9,012.20	32.05	28.34	97.26	275.00	-113.00	211.06	150.80	60.26	3.503	
9,150.00	9,042.59	9,054.83	9,043.09	32.17	28.45	106.14	275.00	-113.00	223.68	163.21	60.47	3.699	
9,200.00	9,071.13	9,083.37	9,071.63	32.29	28.55	113.73	275.00	-113.00	245.75	185.10	60.65	4.052	
9,250.00	9,097.12	9,109.36	9,097.62	32.41	28.64	120.12	275.00	-113.00	275.62	214.82	60.80	4.533	
9,300.00	9,120.35	9,132.59	9,120.85	32.53	28.72	125.46	275.00	-113.00	311.52	250.60	60.92	5.114	
9,350.00	9,140.64	9,152.88	9,141.14	32.64	28.79	129.88	275.00	-113.00	351.94	290.93	61.02	5.768	
9,400.00	9,157.85	9,170.09	9,158.35	32.75	28.85	133.52	275.00	-113.00	395.71	334.62	61.10	6.477	
9,450.00	9,171.84	9,184.08	9,172.34	32.86	28.90	136.50	275.00	-113.00	441.92	380.76	61.16	7.226	
9,500.00	9,182.50	9,205.26	9,183.00	32.97	28.97	138.88	275.00	-113.00	489.85	428.61	61.24	7.999	
9,550.00	9,189.76	9,202.00	9,190.26	33.08	28.96	140.72	275.00	-113.00	538.94	477.70	61.23	8.802	
9,600.00	9,193.56	9,205.80	9,194.06	33.18	28.98	141.77	275.00	-113.00	588.68	527.43	61.25	9.611	
9,629.41	9,194.16	9,206.40	9,194.66	33.24	28.98	87.47	275.00	-113.00	618.08	556.82	61.25	10.091	
9,700.00	9,194.16	9,206.40	9,194.66	33.39	28.98	87.19	275.00	-113.00	688.67	627.41	61.26	11.242	
9,800.00	9,194.16	9,206.40	9,194.66	33.66	28.98	86.78	275.00	-113.00	788.67	727.41	61.26	12.873	
9,900.00	9,194.15	9,206.39	9,194.65	33.98	28.98	86.37	275.00	-113.00	888.67	827.40	61.27	14.504	
10,000.00	9,194.15	9,206.39	9,194.65	34.37	28.98	85.96	275.00	-113.00	988.67	927.39	61.28	16.134	
10,100.00	9,194.14	9,206.39	9,194.64	34.81	28.98	85.56	275.00	-113.00	1,088.67	1,027.38	61.29	17.763	
10,200.00	9,194.14	9,206.38	9,194.64	35.32	28.98	85.15	275.00	-113.00	1,188.67	1,127.37	61.30	19.391	
10,300.00	9,194.14	9,206.38	9,194.64	35.87	28.98	84.74	275.00	-113.00	1,288.67	1,227.36	61.31	21.019	
10,400.00	9,194.13	9,206.37	9,194.63	36.48	28.98	84.34	275.00	-113.00	1,388.67	1,327.35	61.32	22.645	
10,500.00	9,194.13	9,206.37	9,194.63	37.13	28.98	83.93	275.00	-113.00	1,488.67	1,427.33	61.34	24.270	
10,600.00	9,194.13	9,206.37	9,194.63	37.83	28.98	83.53	275.00	-113.00	1,588.67	1,527.32	61.35	25.895	
10,700.00	9,194.12	9,206.36	9,194.62	38.57	28.98	83.13	275.00	-113.00	1,688.67	1,627.30	61.37	27.518	
10,800.00	9,194.12	9,206.36	9,194.62	39.35	28.98	82.72	275.00	-113.00	1,788.67	1,727.29	61.38	29.139	
10,900.00	9,194.11	9,206.36	9,194.61	40.16	28.98	82.32	275.00	-113.00	1,888.67	1,827.27	61.40	30.760	
11,000.00	9,194.11	9,206.35	9,194.61	41.01	28.98	81.92	275.00	-113.00	1,988.67	1,927.25	61.42	32.379	
11,100.00	9,194.11	9,206.35	9,194.61	41.90	28.98	81.52	275.00	-113.00	2,088.67	2,027.23	61.44	33.996	
11,200.00	9,194.10	9,206.34	9,194.60	42.81	28.98	81.12	275.00	-113.00	2,188.67	2,127.21	61.46	35.612	
11,300.00	9,194.10	9,206.34	9,194.60	43.76	28.98	80.72	275.00	-113.00	2,288.67	2,227.19	61.48	37.226	
11,400.00	9,194.10	9,206.34	9,194.60	44.73	28.98	80.32	275.00	-113.00	2,388.67	2,327.17	61.50	38.839	
11,500.00	9,194.09	9,206.33	9,194.59	45.72	28.98	79.92	275.00	-113.00	2,488.67	2,427.14	61.53	40.449	
11,600.00	9,194.09	9,206.33	9,194.59	46.74	28.98	79.53	275.00	-113.00	2,588.67	2,527.12	61.55	42.058	
11,700.00	9,194.09	9,206.33	9,194.59	47.78	28.98	79.13	275.00	-113.00	2,688.67	2,627.10	61.57	43.665	
11,800.00	9,194.08	9,206.32	9,194.58	48.84	28.98	78.74	275.00	-113.00	2,788.67	2,727.07	61.60	45.270	
11,900.00	9,194.08	9,206.32	9,194.58	49.92	28.98	78.35	275.00	-113.00	2,888.67	2,827.04	61.63	46.873	
12,000.00	9,194.07	14,845.07	12,100.00	51.01	51.59	180.00	-2,713.53	-83.65	2,905.43	2,842.56	62.87	46.214	
12,100.00	9,194.07	14,945.07	12,100.00	52.13	52.72	180.00	-2,813.52	-82.67	2,905.43	2,841.40	64.03	45.373	
12,200.00	9,194.07	15,045.07	12,100.00	53.26	53.86	180.00	-2,913.52	-81.69	2,905.43	2,840.22	65.22	44.551	
12,300.00	9,194.06	15,145.07	12,100.00	54.40	55.02	180.00	-3,013.51	-80.71	2,905.44	2,839.03	66.41	43.748	
12,400.00	9,194.06	15,245.07	12,100.00	55.56	56.19	180.00	-3,113.51	-79.72	2,905.44	2,837.82	67.63	42.964	
12,500.00	9,194.06	15,345.07	12,100.00	56.73	57.37	180.00	-3,213.50	-78.74	2,905.45	2,836.59	68.85	42.199	
12,600.00	9,194.05	15,445.07	12,100.00	57.91	58.57	180.00	-3,313.50	-77.76	2,905.45	2,835.36	70.09	41.453	
12,700.00	9,194.05	15,545.07	12,100.00	59.10	59.77	180.00	-3,413.49	-76.77	2,905.45	2,834.11	71.34	40.725	
12,800.00	9,194.04	15,645.07	12,100.00	60.31	60.98	180.00	-3,513.49	-75.79	2,905.46	2,832.85	72.61	40.017	
12,900.00	9,194.04	15,745.07	12,100.00	61.52	62.21	180.00	-3,613.48	-74.81	2,905.46	2,831.58	73.88	39.326	
13,000.00	9,194.04	15,845.07	12,100.00	62.75	63.44	180.00	-3,713.48	-73.83	2,905.46	2,830.30	75.17	38.653	
13,100.00	9,194.03	15,945.07	12,100.00	63.98	64.68	180.00	-3,813.47	-72.84	2,905.47	2,829.00	76.46	37.998	
13,200.00	9,194.03	16,045.07	12,100.00	65.22	65.93	180.00	-3,913.47	-71.86	2,905.47	2,827.70	77.77	37.360	
13,300.00	9,194.03	16,145.07	12,100.00	66.47	67.19	180.00	-4,013.46	-70.88	2,905.47	2,826.39	79.09	36.738	
13,400.00	9,194.02	16,245.07	12,100.00	67.73	68.45	180.00	-4,113.46	-69.89	2,905.48	2,825.07	80.41	36.133	
13,500.00	9,194.02	16,345.07	12,100.00	68.99	69.73	180.00	-4,213.45	-68.91	2,905.48	2,823.74	81.74	35.544	

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 #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 211H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM — **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
13,600.00	9,194.01	16,445.07	12,100.00	70.26	71.00	180.00	-4,313.45	-67.93	2,905.49	2,822.40	83.08	34.970	
13,700.00	9,194.01	16,545.07	12,100.00	71.54	72.29	180.00	-4,413.45	-66.94	2,905.49	2,821.06	84.43	34.412	
13,800.00	9,194.01	16,645.07	12,100.00	72.82	73.58	180.00	-4,513.44	-65.96	2,905.49	2,819.70	85.79	33.868	
13,900.00	9,194.00	16,745.07	12,100.00	74.11	74.87	180.00	-4,613.44	-64.98	2,905.50	2,818.34	87.15	33.338	
13,999.57	9,194.00	16,844.64	12,100.00	75.40	76.16	-180.00	-4,713.00	-64.00	2,905.50	2,816.99	88.51	32.825	

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 215H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 11000-MWD+HDGM — **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	0.50	0.50	0.00	0.00	90.00	0.00	60.00	60.00				
100.00	100.00	100.50	100.50	0.13	0.13	90.00	0.00	60.00	60.00	59.74	0.26	233.278	
200.00	200.00	200.50	200.50	0.49	0.49	90.00	0.00	60.00	60.00	59.03	0.97	61.592	
300.00	300.00	300.50	300.50	0.85	0.85	90.00	0.00	60.00	60.00	58.31	1.69	35.480	
400.00	400.00	400.50	400.50	1.20	1.20	90.00	0.00	60.00	60.00	57.59	2.41	24.917	
500.00	500.00	500.50	500.50	1.56	1.56	90.00	0.00	60.00	60.00	56.88	3.12	19.200	
600.00	600.00	600.50	600.50	1.92	1.92	90.00	0.00	60.00	60.00	56.16	3.84	15.617	
700.00	700.00	700.50	700.50	2.28	2.28	90.00	0.00	60.00	60.00	55.44	4.56	13.161	
800.00	800.00	800.50	800.50	2.64	2.64	90.00	0.00	60.00	60.00	54.72	5.28	11.373	
900.00	900.00	900.50	900.50	3.00	3.00	90.00	0.00	60.00	60.00	54.01	5.99	10.012	
1,000.00	1,000.00	1,000.50	1,000.50	3.35	3.36	90.00	0.00	60.00	60.00	53.29	6.71	8.942	
1,100.00	1,100.00	1,100.50	1,100.50	3.71	3.71	90.00	0.00	60.00	60.00	52.57	7.43	8.079	
1,200.00	1,200.00	1,200.50	1,200.50	4.07	4.07	90.00	0.00	60.00	60.00	51.86	8.14	7.369	
1,300.00	1,300.00	1,300.50	1,300.50	4.43	4.25	90.00	0.00	60.00	60.00	51.32	8.68	6.910	
1,400.00	1,400.00	1,400.50	1,400.50	4.79	4.28	90.00	0.00	60.00	60.00	50.93	9.07	6.614	CC
1,500.00	1,499.99	1,499.59	1,499.59	5.15	4.34	55.26	0.43	60.75	60.26	50.77	9.49	6.352	ES
1,600.00	1,599.96	1,598.68	1,598.64	5.50	4.43	56.04	1.71	62.99	61.02	51.10	9.92	6.149	
1,700.00	1,699.86	1,697.76	1,697.62	5.86	4.54	57.30	3.85	66.71	62.32	51.93	10.39	6.000	
1,800.00	1,799.68	1,796.81	1,796.49	6.21	4.68	58.98	6.84	71.91	64.18	53.30	10.87	5.902	
1,900.00	1,899.37	1,904.22	1,895.16	6.57	4.86	60.99	10.67	78.59	66.64	55.24	11.40	5.847	
2,000.00	1,998.99	2,004.29	1,994.71	6.93	5.05	63.06	15.01	86.14	69.53	57.58	11.94	5.821	
2,100.00	2,098.60	2,104.36	2,094.26	7.29	5.26	64.97	19.34	93.70	72.50	59.99	12.51	5.795	
2,200.00	2,198.22	2,204.43	2,193.81	7.66	5.48	66.72	23.68	101.25	75.54	62.44	13.09	5.769	
2,300.00	2,297.84	2,304.50	2,293.36	8.02	5.73	68.34	28.02	108.80	78.65	64.95	13.70	5.742	
2,400.00	2,397.46	2,395.42	2,392.90	8.38	5.96	69.83	32.35	116.36	81.81	67.52	14.29	5.725	
2,500.00	2,497.08	2,495.35	2,492.45	8.75	6.23	71.21	36.69	123.91	85.03	70.11	14.92	5.700	
2,600.00	2,596.70	2,604.72	2,592.00	9.12	6.53	72.49	41.02	131.46	88.29	72.71	15.58	5.665	
2,700.00	2,696.32	2,695.21	2,691.55	9.48	6.79	73.68	45.36	139.02	91.60	75.39	16.21	5.651	
2,800.00	2,795.94	2,804.86	2,791.09	9.85	7.12	74.78	49.70	146.57	94.94	78.04	16.90	5.619	
2,900.00	2,895.56	2,904.94	2,890.64	10.22	7.42	75.81	54.03	154.12	98.31	80.75	17.57	5.597	
3,000.00	2,995.18	3,005.01	2,990.19	10.59	7.73	76.77	58.37	161.67	101.71	83.47	18.24	5.576	
3,100.00	3,094.80	3,105.08	3,089.74	10.96	8.05	77.67	62.70	169.23	105.14	86.22	18.92	5.556	
3,200.00	3,194.42	3,205.15	3,189.29	11.33	8.37	78.51	67.04	176.78	108.60	88.99	19.61	5.538	
3,300.00	3,294.04	3,305.22	3,288.83	11.70	8.70	79.30	71.38	184.33	112.07	91.77	20.30	5.520	
3,400.00	3,393.66	3,394.70	3,388.38	12.07	8.99	80.04	75.71	191.89	115.57	94.60	20.97	5.512	
3,500.00	3,493.28	3,505.37	3,487.93	12.44	9.36	80.74	80.05	199.44	119.08	97.38	21.70	5.487	
3,600.00	3,592.90	3,605.44	3,587.48	12.81	9.69	81.40	84.39	206.99	122.61	100.21	22.41	5.472	
3,700.00	3,692.52	3,694.49	3,687.02	13.18	10.00	82.02	88.72	214.55	126.16	103.08	23.08	5.467	
3,800.00	3,792.14	3,805.58	3,786.57	13.55	10.38	82.60	93.06	222.10	129.72	105.89	23.82	5.445	
3,900.00	3,891.76	3,905.66	3,886.12	13.92	10.72	83.16	97.39	229.65	133.29	108.75	24.54	5.432	
4,000.00	3,991.37	4,005.73	3,985.67	14.29	11.07	83.69	101.73	237.21	136.88	111.62	25.25	5.420	
4,100.00	4,090.99	4,105.80	4,085.22	14.67	11.41	84.19	106.07	244.76	140.47	114.50	25.97	5.409	
4,200.00	4,190.61	4,205.87	4,184.76	15.04	11.76	84.66	110.40	252.31	144.08	117.39	26.69	5.398	
4,300.00	4,290.23	4,305.94	4,284.31	15.41	12.12	85.11	114.74	259.87	147.69	120.28	27.41	5.388	
4,400.00	4,389.85	4,406.02	4,383.86	15.78	12.47	85.54	119.07	267.42	151.32	123.18	28.14	5.378	
4,500.00	4,489.47	4,506.09	4,483.41	16.16	12.82	85.95	123.41	274.97	154.95	126.09	28.86	5.369	
4,600.00	4,589.09	4,593.84	4,582.95	16.53	13.13	86.34	127.75	282.53	158.59	129.04	29.54	5.368	
4,700.00	4,688.71	4,693.77	4,682.50	16.90	13.49	86.72	132.08	290.08	162.23	131.96	30.27	5.359	
4,800.00	4,788.33	4,806.30	4,782.05	17.27	13.89	87.07	136.42	297.63	165.89	134.84	31.04	5.344	
4,900.00	4,887.95	4,906.38	4,881.60	17.65	14.25	87.41	140.75	305.18	169.55	137.77	31.77	5.336	
5,000.00	4,987.57	5,006.45	4,981.15	18.02	14.61	87.74	145.09	312.74	173.21	140.71	32.50	5.329	

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 #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 215H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 11000-MWD+HDGM — **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
5,100.00	5,087.19	5,106.52	5,080.69	18.39	14.97	88.05	149.43	320.29	176.88	143.64	33.24	5.322	
5,200.00	5,186.81	5,206.59	5,180.24	18.77	15.33	88.35	153.76	327.84	180.56	146.59	33.97	5.315	
5,300.00	5,286.43	5,306.66	5,279.79	19.14	15.69	88.64	158.10	335.40	184.24	149.53	34.70	5.309	
5,365.00	5,351.18	5,358.29	5,344.50	19.38	15.88	88.83	160.92	340.31	186.63	151.50	35.13	5.312	
5,400.00	5,386.06	5,406.74	5,379.34	19.51	16.06	88.89	162.43	342.95	187.92	152.49	35.44	5.303	
5,500.00	5,485.85	5,506.82	5,478.88	19.88	16.42	88.55	166.77	350.50	191.66	155.50	36.16	5.300	SF
5,600.00	5,585.77	5,593.03	5,578.34	20.24	16.73	87.46	171.10	358.05	195.50	158.68	36.82	5.310	
5,698.33	5,684.09	5,708.92	5,676.02	20.58	17.15	120.70	175.36	365.46	199.53	161.97	37.57	5.312	
5,700.00	5,685.76	5,707.26	5,677.67	20.59	17.15	120.67	175.43	365.59	199.60	162.04	37.56	5.314	
5,800.00	5,785.76	5,807.64	5,776.91	20.94	17.51	118.54	179.75	373.12	204.04	165.79	38.25	5.334	
5,900.00	5,885.76	5,908.02	5,876.15	21.29	17.88	116.51	184.07	380.65	208.76	169.82	38.94	5.361	
6,000.00	5,985.76	6,008.40	5,975.39	21.63	18.25	114.57	188.40	388.18	213.72	174.09	39.63	5.393	
6,100.00	6,085.76	6,108.78	6,074.63	21.98	18.61	112.72	192.72	395.71	218.92	178.60	40.32	5.430	
6,200.00	6,185.76	6,209.16	6,173.88	22.33	18.98	110.95	197.04	403.24	224.33	183.33	41.01	5.471	
6,300.00	6,285.76	6,309.54	6,273.12	22.68	19.35	109.27	201.37	410.77	229.95	188.26	41.69	5.515	
6,400.00	6,385.76	6,390.08	6,372.36	23.03	19.64	107.68	205.69	418.30	235.76	193.44	42.31	5.572	
6,500.00	6,485.76	6,489.70	6,471.60	23.38	20.01	106.15	210.01	425.83	241.74	198.74	43.00	5.622	
6,600.00	6,585.76	6,589.32	6,570.84	23.73	20.38	104.71	214.33	433.36	247.88	204.19	43.69	5.674	
6,700.00	6,685.76	6,688.94	6,670.08	24.08	20.74	103.33	218.66	440.89	254.18	209.80	44.38	5.727	
6,800.00	6,785.76	6,788.55	6,769.32	24.43	21.11	102.02	222.98	448.42	260.61	215.54	45.07	5.782	
6,900.00	6,885.76	6,888.17	6,868.56	24.78	21.48	100.78	227.30	455.95	267.17	221.41	45.76	5.838	
7,000.00	6,985.76	6,987.79	6,967.80	25.14	21.84	99.59	231.62	463.47	273.86	227.40	46.46	5.895	
7,100.00	7,085.76	7,087.41	7,067.04	25.49	22.21	98.46	235.95	471.00	280.65	233.50	47.15	5.952	
7,200.00	7,185.76	7,187.03	7,166.28	25.84	22.58	97.39	240.27	478.53	287.55	239.70	47.85	6.010	
7,300.00	7,285.76	7,286.65	7,265.52	26.19	22.95	96.36	244.59	486.06	294.54	246.00	48.54	6.068	
7,400.00	7,385.76	7,386.27	7,364.76	26.54	23.32	95.38	248.92	493.59	301.63	252.39	49.24	6.126	
7,500.00	7,485.76	7,485.89	7,464.00	26.89	23.68	94.45	253.24	501.12	308.80	258.86	49.94	6.184	
7,600.00	7,585.76	7,585.51	7,563.24	27.25	24.05	93.56	257.56	508.65	316.04	265.41	50.63	6.242	
7,700.00	7,685.76	7,685.13	7,662.48	27.60	24.42	92.71	261.88	516.18	323.36	272.03	51.33	6.299	
7,800.00	7,785.76	7,784.75	7,761.72	27.95	24.79	91.90	266.21	523.71	330.75	278.71	52.03	6.356	
7,900.00	7,885.76	7,884.37	7,860.96	28.30	25.16	91.12	270.53	531.24	338.20	285.46	52.74	6.413	
8,000.00	7,985.76	7,990.02	7,966.27	28.66	25.55	90.40	274.73	538.56	345.08	291.61	53.47	6.453	
8,100.00	8,085.76	8,098.42	8,074.52	29.01	25.94	89.93	277.58	543.52	349.66	295.45	54.21	6.451	
8,200.00	8,185.76	8,207.06	8,183.13	29.36	26.31	89.71	278.90	545.83	351.79	296.87	54.91	6.406	
8,300.00	8,285.76	8,310.20	8,286.26	29.72	26.66	89.70	279.00	546.00	351.95	296.34	55.60	6.330	
8,400.00	8,385.76	8,410.20	8,386.26	30.07	26.99	89.70	279.00	546.00	351.95	295.65	56.29	6.252	
8,500.00	8,485.76	8,510.20	8,486.26	30.42	27.32	89.70	279.00	546.00	351.95	294.96	56.99	6.176	
8,560.24	8,546.00	8,570.44	8,546.50	30.64	27.52	89.70	279.00	546.00	351.95	294.54	57.40	6.131	
8,600.00	8,585.73	8,610.16	8,586.23	30.77	27.65	-138.08	279.00	546.00	352.97	295.30	57.67	6.120	
8,650.00	8,635.39	8,659.83	8,635.89	30.92	27.82	-138.40	279.00	546.00	357.19	299.21	57.99	6.160	
8,700.00	8,684.38	8,708.81	8,684.88	31.07	27.98	-138.93	279.00	546.00	364.73	306.44	58.28	6.258	
8,750.00	8,732.31	8,756.75	8,732.81	31.21	28.14	-139.61	279.00	546.00	375.66	317.09	58.57	6.414	
8,800.00	8,778.82	8,803.26	8,779.32	31.34	28.30	-140.35	279.00	546.00	390.09	331.25	58.84	6.630	
8,850.00	8,823.56	8,848.00	8,824.06	31.46	28.45	-141.07	279.00	546.00	408.08	348.99	59.09	6.906	
8,900.00	8,866.19	8,909.37	8,866.69	31.58	28.66	-141.68	279.00	546.00	429.66	370.27	59.39	7.235	
8,950.00	8,906.39	8,930.82	8,906.89	31.70	28.73	-142.10	279.00	546.00	454.80	395.26	59.54	7.639	
9,000.00	8,943.84	8,968.27	8,944.34	31.81	28.85	-142.22	279.00	546.00	483.43	423.69	59.74	8.092	
9,010.24	8,951.14	8,975.58	8,951.64	31.84	28.88	-142.20	279.00	546.00	489.71	429.93	59.78	8.192	
9,050.00	8,978.71	9,003.15	8,979.21	31.93	28.97	-137.74	279.00	546.00	514.44	454.52	59.92	8.585	
9,100.00	9,011.70	9,036.14	9,012.20	32.05	29.08	-132.67	279.00	546.00	545.84	485.75	60.09	9.084	

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 #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 215H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 11000-MWD+HDGM — **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
9,150.00	9,042.59	9,067.03	9,043.09	32.17	29.19	-128.06	279.00	546.00	577.63	517.38	60.25	9.588	
9,200.00	9,071.13	9,104.43	9,071.63	32.29	29.31	-123.78	279.00	546.00	609.85	549.42	60.43	10.093	
9,250.00	9,097.12	9,121.56	9,097.62	32.41	29.37	-119.72	279.00	546.00	642.54	582.01	60.53	10.615	
9,300.00	9,120.35	9,144.78	9,120.85	32.53	29.45	-115.77	279.00	546.00	675.71	615.05	60.66	11.140	
9,350.00	9,140.64	9,165.08	9,141.14	32.64	29.52	-111.87	279.00	546.00	709.34	648.56	60.77	11.672	
9,400.00	9,157.85	9,182.29	9,158.35	32.75	29.57	-107.96	279.00	546.00	743.36	682.49	60.87	12.212	
9,450.00	9,171.84	9,203.72	9,172.34	32.86	29.65	-104.03	279.00	546.00	777.71	716.72	60.99	12.752	
9,500.00	9,182.50	9,206.94	9,183.00	32.97	29.66	-100.07	279.00	546.00	812.25	751.21	61.03	13.308	
9,550.00	9,189.76	9,214.20	9,190.26	33.08	29.68	-96.12	279.00	546.00	846.84	785.75	61.10	13.861	
9,600.00	9,193.56	9,218.00	9,194.06	33.18	29.69	-92.23	279.00	546.00	881.33	820.18	61.14	14.414	
9,629.41	9,194.16	9,218.60	9,194.66	33.24	29.70	-90.00	279.00	546.00	901.48	840.31	61.16	14.739	
9,700.00	9,194.16	9,218.60	9,194.66	33.39	29.70	-90.00	279.00	546.00	951.09	889.87	61.22	15.535	
9,800.00	9,194.16	9,218.59	9,194.66	33.66	29.70	-90.00	279.00	546.00	1,025.58	964.27	61.31	16.727	
9,900.00	9,194.15	9,218.59	9,194.65	33.98	29.70	-90.00	279.00	546.00	1,104.12	1,042.71	61.41	17.980	
10,000.00	9,194.15	9,218.59	9,194.65	34.37	29.70	-90.00	279.00	546.00	1,185.89	1,124.38	61.50	19.282	
10,100.00	9,194.14	9,218.58	9,194.64	34.81	29.70	-90.00	279.00	546.00	1,270.27	1,208.67	61.59	20.623	
10,200.00	9,194.14	9,218.58	9,194.64	35.32	29.70	-90.00	279.00	546.00	1,356.77	1,295.09	61.68	21.997	
10,300.00	9,194.14	9,218.57	9,194.64	35.87	29.70	-90.00	279.00	546.00	1,445.02	1,383.26	61.76	23.397	
10,400.00	9,194.13	9,218.57	9,194.63	36.48	29.70	-90.00	279.00	546.00	1,534.71	1,472.87	61.84	24.818	
10,500.00	9,194.13	9,218.57	9,194.63	37.13	29.70	-90.00	279.00	546.00	1,625.61	1,563.70	61.91	26.258	
10,600.00	9,194.13	9,218.56	9,194.63	37.83	29.70	-89.99	279.00	546.00	1,717.51	1,655.53	61.98	27.712	
10,700.00	9,194.12	9,218.56	9,194.62	38.57	29.70	-89.99	279.00	546.00	1,810.28	1,748.23	62.04	29.179	
10,800.00	9,194.12	9,218.56	9,194.62	39.35	29.70	-89.99	279.00	546.00	1,903.77	1,841.67	62.10	30.656	
10,900.00	9,194.11	9,218.55	9,194.61	40.16	29.70	-89.99	279.00	546.00	1,997.90	1,935.74	62.16	32.142	
11,000.00	9,194.11	9,218.55	9,194.61	41.01	29.70	-89.99	279.00	546.00	2,092.57	2,030.36	62.21	33.635	
11,100.00	9,194.11	9,218.55	9,194.61	41.90	29.70	-89.99	279.00	546.00	2,187.72	2,125.45	62.27	35.134	
11,200.00	9,194.10	9,218.54	9,194.60	42.81	29.70	-89.99	279.00	546.00	2,283.28	2,220.96	62.32	36.639	
11,300.00	9,194.10	9,218.54	9,194.60	43.76	29.70	-89.99	279.00	546.00	2,379.20	2,316.84	62.37	38.148	
11,400.00	9,194.10	9,218.53	9,194.60	44.73	29.70	-89.99	279.00	546.00	2,475.45	2,413.04	62.42	39.660	
11,500.00	9,194.09	9,218.53	9,194.59	45.72	29.70	-89.99	279.00	546.00	2,571.99	2,509.52	62.46	41.175	
11,600.00	9,194.09	9,218.53	9,194.59	46.74	29.70	-89.99	279.00	546.00	2,668.78	2,606.27	62.51	42.692	
11,700.00	9,194.09	9,218.52	9,194.59	47.78	29.70	-89.99	279.00	546.00	2,765.80	2,703.24	62.56	44.212	
11,800.00	9,194.08	9,218.52	9,194.58	48.84	29.70	-89.99	279.00	546.00	2,863.02	2,800.42	62.60	45.733	
11,900.00	9,194.08	9,218.52	9,194.58	49.92	29.70	-89.99	279.00	546.00	2,960.43	2,897.78	62.65	47.254	
12,000.00	9,194.07	14,855.19	12,100.00	51.01	53.68	-167.26	-2,707.47	573.55	2,978.79	2,913.57	65.22	45.674	
12,100.00	9,194.07	14,955.19	12,100.00	52.13	54.77	-167.26	-2,807.46	574.48	2,978.78	2,912.32	66.46	44.823	
12,200.00	9,194.07	15,055.19	12,100.00	53.26	55.87	-167.26	-2,907.46	575.40	2,978.77	2,911.06	67.71	43.992	
12,300.00	9,194.06	15,155.19	12,100.00	54.40	56.99	-167.26	-3,007.45	576.32	2,978.77	2,909.78	68.98	43.181	
12,400.00	9,194.06	15,255.19	12,100.00	55.56	58.12	-167.26	-3,107.45	577.24	2,978.76	2,908.49	70.27	42.390	
12,500.00	9,194.06	15,355.19	12,100.00	56.73	59.26	-167.26	-3,207.45	578.16	2,978.75	2,907.18	71.57	41.619	
12,600.00	9,194.05	15,455.19	12,100.00	57.91	60.42	-167.26	-3,307.44	579.09	2,978.74	2,905.86	72.89	40.868	
12,700.00	9,194.05	15,555.19	12,100.00	59.10	61.59	-167.26	-3,407.44	580.01	2,978.74	2,904.52	74.22	40.135	
12,800.00	9,194.04	15,655.19	12,100.00	60.31	62.77	-167.27	-3,507.43	580.93	2,978.73	2,903.17	75.56	39.423	
12,900.00	9,194.04	15,755.19	12,100.00	61.52	63.96	-167.27	-3,607.43	581.85	2,978.72	2,901.81	76.91	38.729	
13,000.00	9,194.04	15,855.19	12,100.00	62.75	65.16	-167.27	-3,707.42	582.77	2,978.71	2,900.44	78.28	38.053	
13,100.00	9,194.03	15,955.19	12,100.00	63.98	66.38	-167.27	-3,807.42	583.70	2,978.71	2,899.05	79.65	37.396	
13,200.00	9,194.03	16,055.19	12,100.00	65.22	67.59	-167.27	-3,907.42	584.62	2,978.70	2,897.66	81.04	36.756	
13,300.00	9,194.03	16,155.19	12,100.00	66.47	68.82	-167.27	-4,007.41	585.54	2,978.69	2,896.26	82.44	36.134	
13,400.00	9,194.02	16,255.19	12,100.00	67.73	70.06	-167.27	-4,107.41	586.46	2,978.68	2,894.84	83.84	35.528	
13,500.00	9,194.02	16,355.19	12,100.00	68.99	71.30	-167.27	-4,207.40	587.38	2,978.68	2,893.42	85.25	34.939	
13,600.00	9,194.01	16,455.19	12,100.00	70.26	72.55	-167.27	-4,307.40	588.31	2,978.67	2,891.99	86.68	34.365	

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 #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

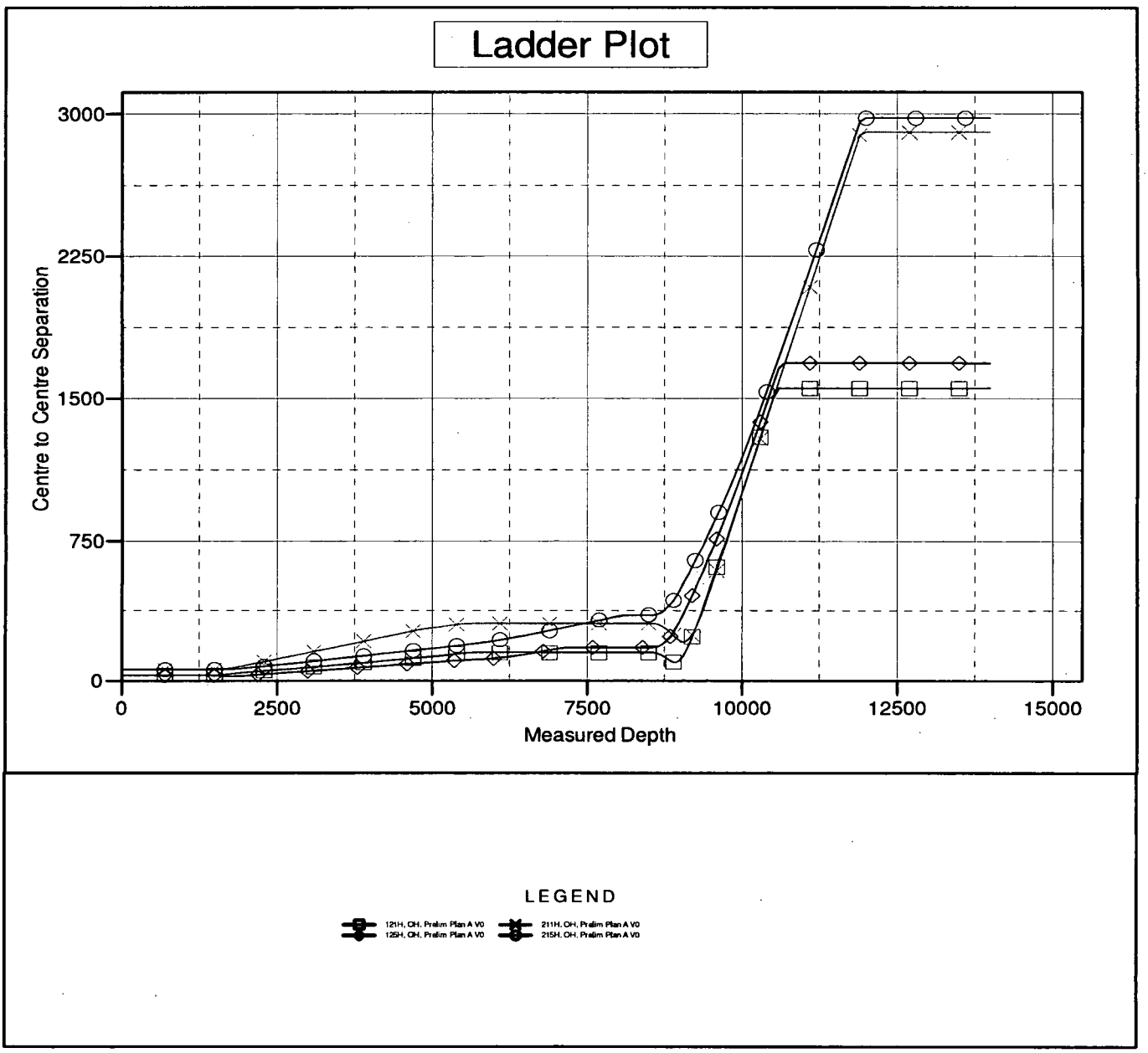
Offset Design Carl Mottek 17-24S-34E AR - 215H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 11000-MWD+HDGM — **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
13,700.00	9,194.01	16,555.19	12,100.00	71.54	73.81	-167.27	-4,407.40	589.23	2,978.66	2,890.55	88.11	33.807	
13,800.00	9,194.01	16,655.19	12,100.00	72.82	75.07	-167.27	-4,507.39	590.15	2,978.65	2,889.11	89.55	33.264	
13,900.00	9,194.00	16,755.19	12,100.00	74.11	76.34	-167.28	-4,607.39	591.07	2,978.65	2,887.66	90.99	32.736	
13,999.57	9,194.00	16,854.76	12,100.00	75.40	77.61	-167.28	-4,706.95	591.99	2,978.64	2,886.20	92.44	32.224	

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to GL:3578' + KB:28.5' @ 3606.50usft (FCoordinates are relative to: #101H
Offset Depths are relative to Offset Datum
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Central Meridian is 104° 19' 60.0000 W
Grid Convergence at Surface is: 0.45°

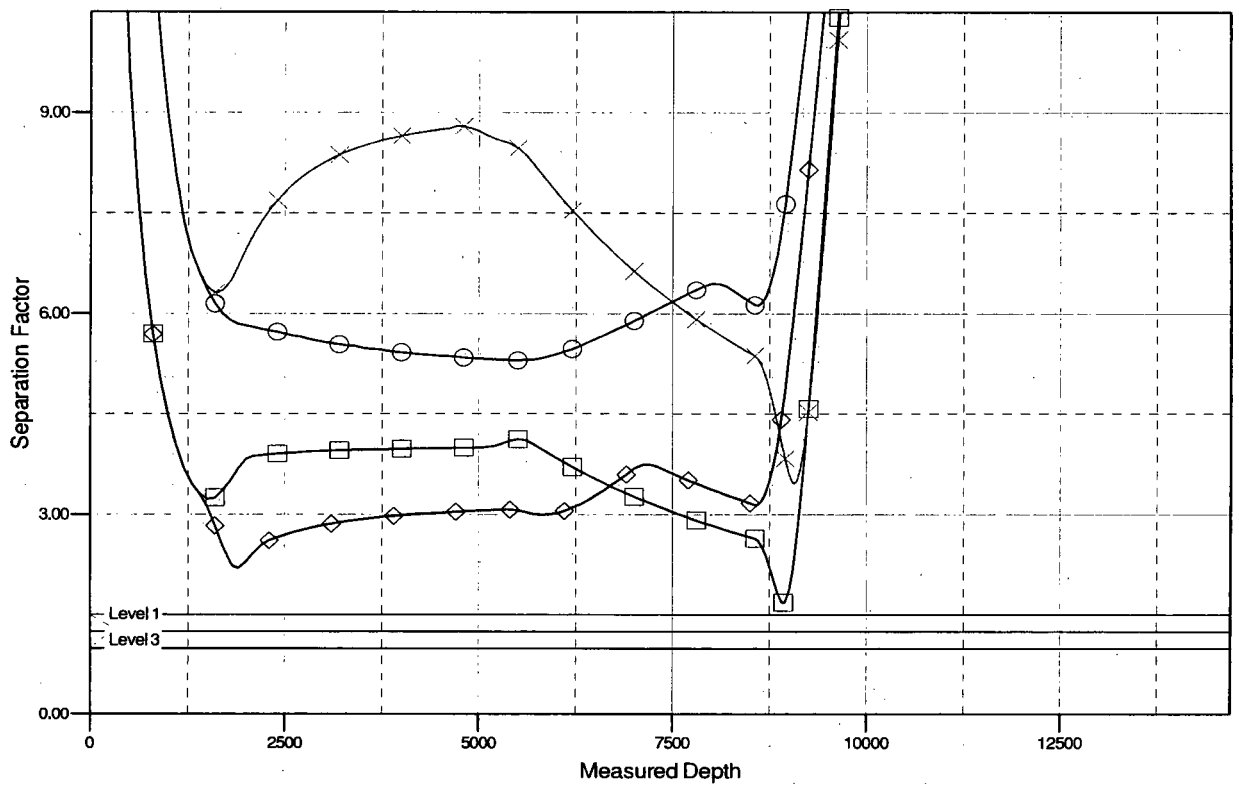


CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well #101H
Project:	Lea County, NM	**TVD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Reference Site:	Carl Mottek 17-24S-34E AR	**MD Reference:**	GL:3578' + KB:28.5' @ 3606.50usft (Patterson 274)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	#101H	**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 A	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to GL:3578' + KB:28.5' @ 3606.50usft (FCoordinates are relative to: #101H
Offset Depths are relative to Offset Datum — Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Central Meridian is 104° 19' 60.0000 W — Grid Convergence at Surface is: 0.45°

Separation Factor Plot



LEGEND

121H, OH, Prelim Plan A V0
125H, OH, Prelim Plan A V0
211H, OH, Prelim Plan A V0
215H, OH, Prelim Plan A V0

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

Drilling Program

1. ESTIMATED TOPS

Formation	TVD	MD	Bearing
Quaternary	000'	000'	water
Rustler anhydrite	1268'	1268'	N/A
Salado (top) salt	1798'	1798'	N/A
Salado (base) salt	5279'	5293'	N/A
Bell Canyon sandstone	5310'	5324'	hydrocarbons
Brushy Canyon sandstone	7522'	7536'	hydrocarbons
KOP	8546'	8560'	hydrocarbons
Bone Spring limestone	8922'	8971'	hydrocarbons
Avalon shale (goal)	9150'	9376'	hydrocarbons
TD	9194'	14000'	hydrocarbons

2. NOTABLE ZONES

Avalon shale is the goal. Hole will extend south of the last perforation point to allow for pump installation. All perforations will be ≥330' from the dedication perimeter. Closest water well (C 03932) is 2004' northwest. No depth to water was reported in this 72' deep well.

3. PRESSURE CONTROL

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

An accumulator complying with Onshore Order 2 requirements for the BOP stack pressure rating will be present. Rotating head will be installed as needed.
Pressure tests will be conducted before drilling out from under all casing strings. BOP will be inspected and operated as required in Onshore Order 2. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.