

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM-113418
WELL NAME & NO.:	Carl Mottek Federal 125H
SURFACE HOLE FOOTAGE:	0326' FNL & 0470' FWL
BOTTOM HOLE FOOTAGE:	0240' FSL & 0986' FWL
LOCATION:	Section 17, T. 24 S., R 34 E., NMPM
COUNTY:	County, New Mexico

HOBBS OCD
JUN 27 2018
RECEIVED

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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- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
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- ☐ **Construction**
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 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
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 - Roads
- ☐ **Road Section Diagram**
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

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

IV. NOXIOUS WEEDS

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

V. SPECIAL REQUIREMENT(S)

- 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

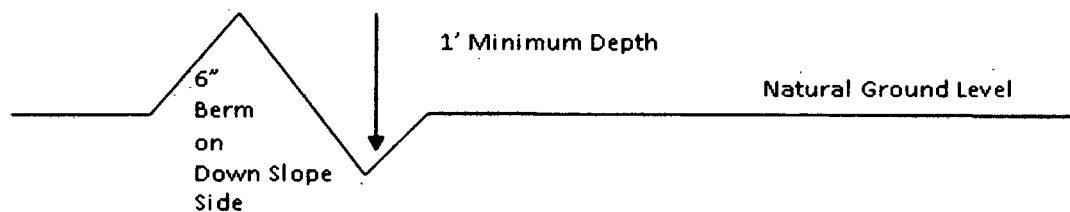
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill out sloping 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:

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

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

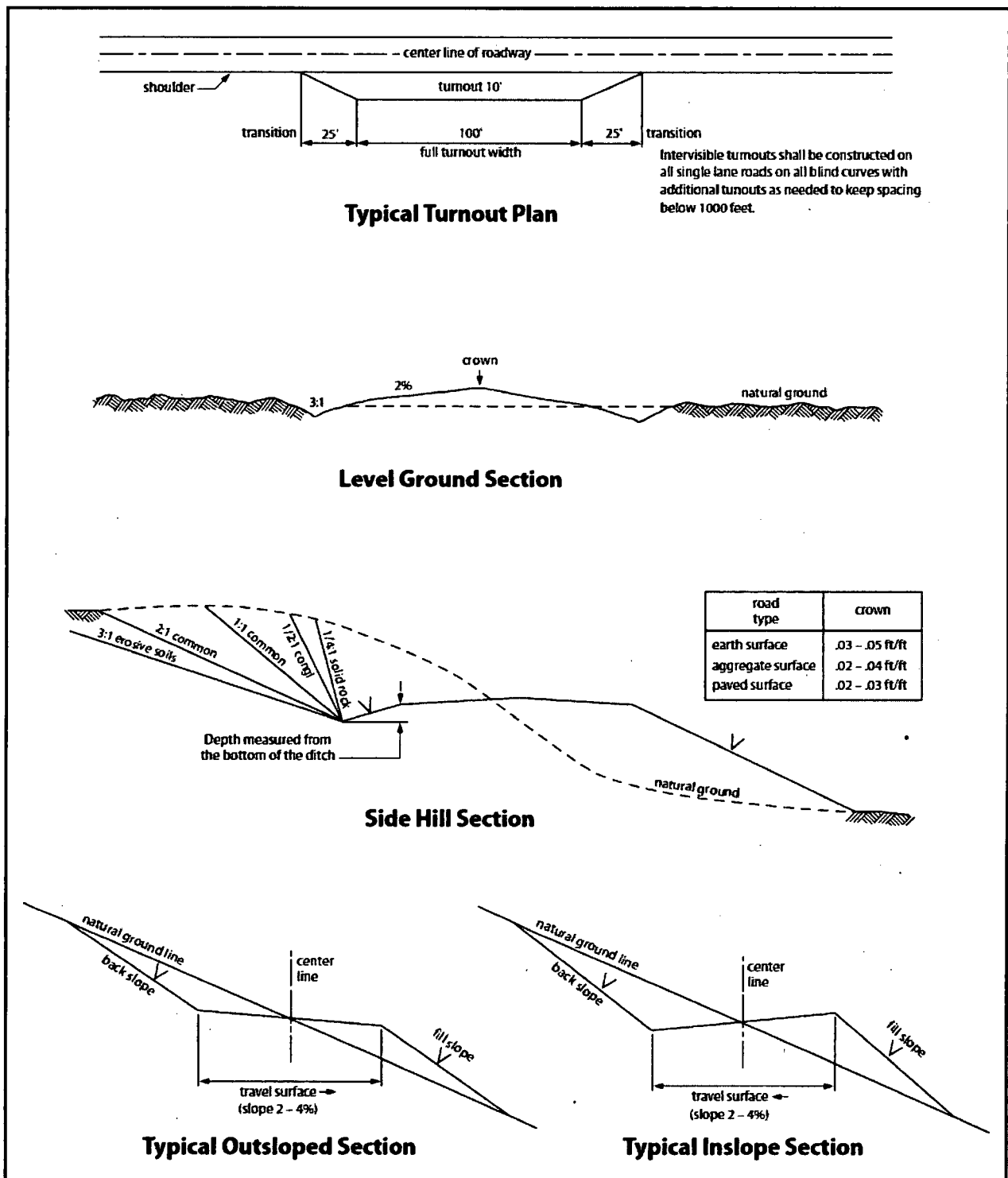


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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

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

*Pounds of pure live seed:

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

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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

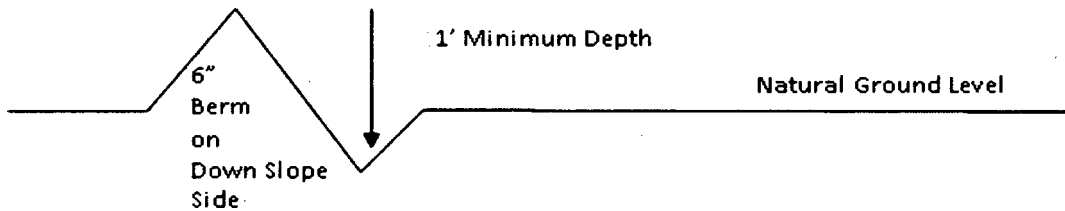
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill out sloping 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:

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

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.

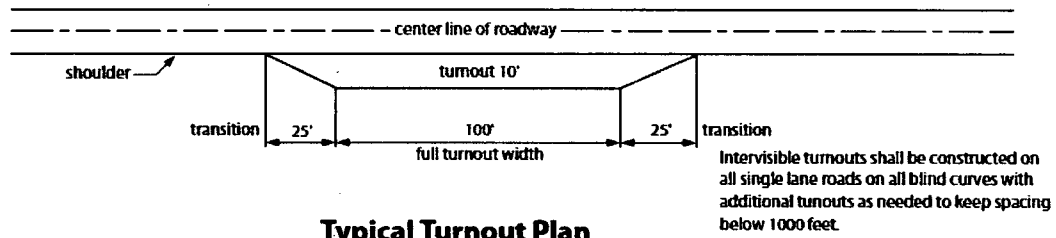
Public Access

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

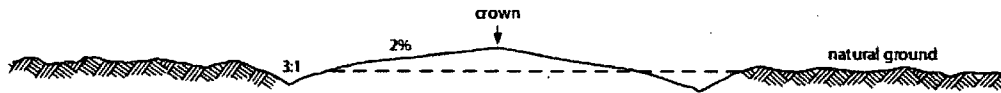
Construction Steps

1. Salvage topsoil
2. Construct road

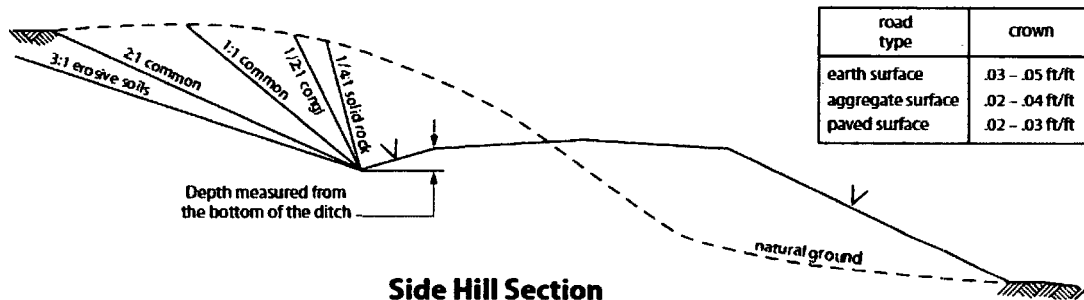
3. Redistribute topsoil
4. Revegetate slopes



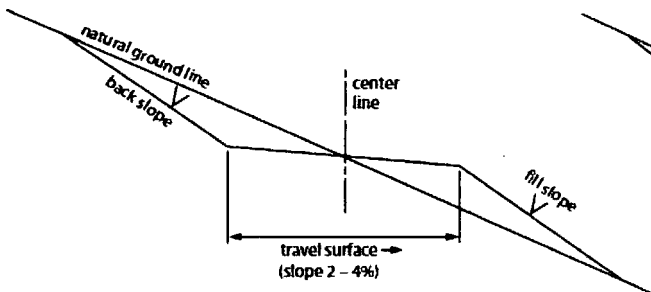
Typical Turnout Plan



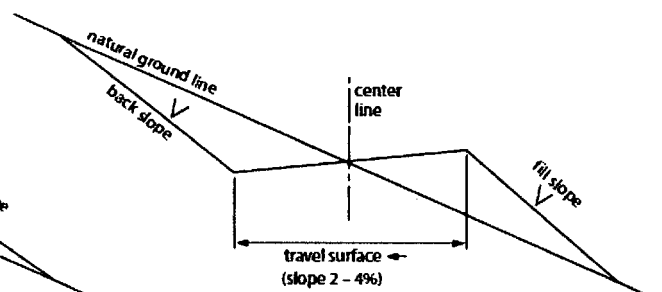
Level Ground Section



Side Hill Section



Typical Outslope Section



Typical Inslope Section

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:

<u>Species</u>	<u>lb/acre</u>
Plains lovegrass (<i>Eragrostis intermedia</i>)	0.5
Sand dropseed (<i>Sporobolus cryptandrus</i>)	1.0
Sideoats grama (<i>Bouteloua curtipendula</i>)	5.0
Plains bristlegrass (<i>Setaria macrostachya</i>)	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 Windssocks and / Wind Streamers:

- Windssocks at mud pit area will be high enough to be visible.
- Windssock 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.

Burst: $DF_b=1.125$

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

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



7 Drilling Stem Testing:

- No 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

<u>Company Office</u>			
Matador Production Company		(972)-371-5200	
<u>Key Personnel</u>			
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
<u>Lea County</u>			
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	
<u>Carlsbad</u>			
BLM		575-234-5972	
<u>Santa Fe</u>			
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	
<u>National</u>			
National Emergency Response Center (Washington, D.C.)		800-424-8802	
<u>Medical</u>			
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	
<u>Other</u>			
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	

Rig Diagram

Wind Direction Indicator

H2S Monitors

Briefing Areas

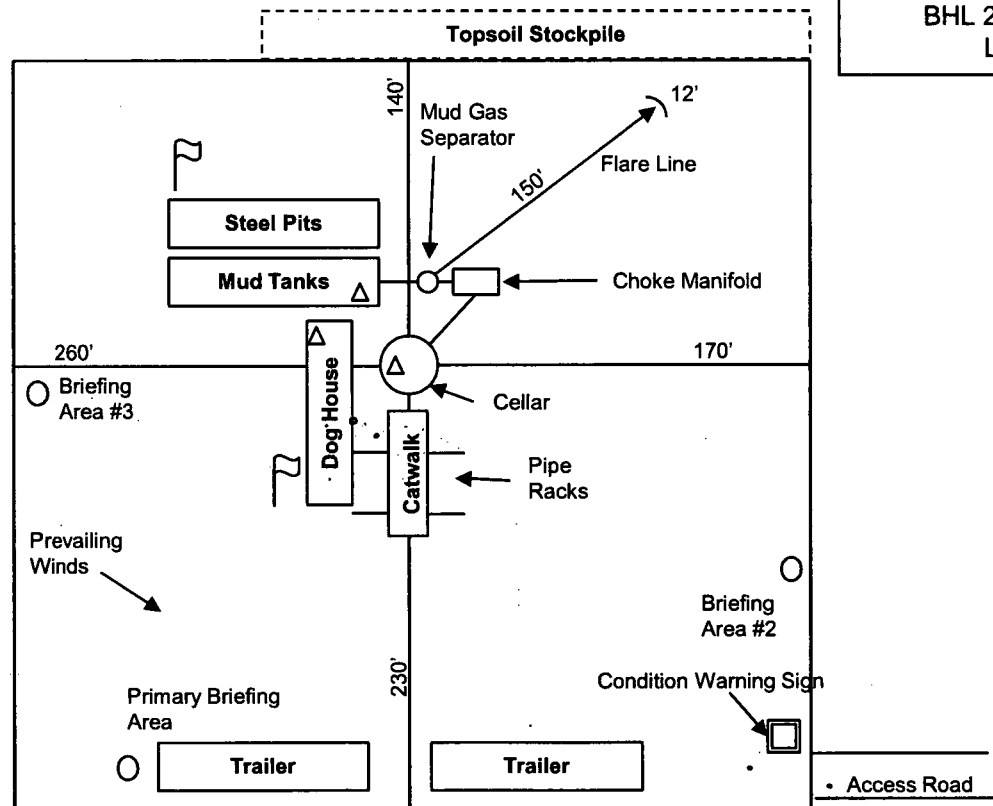


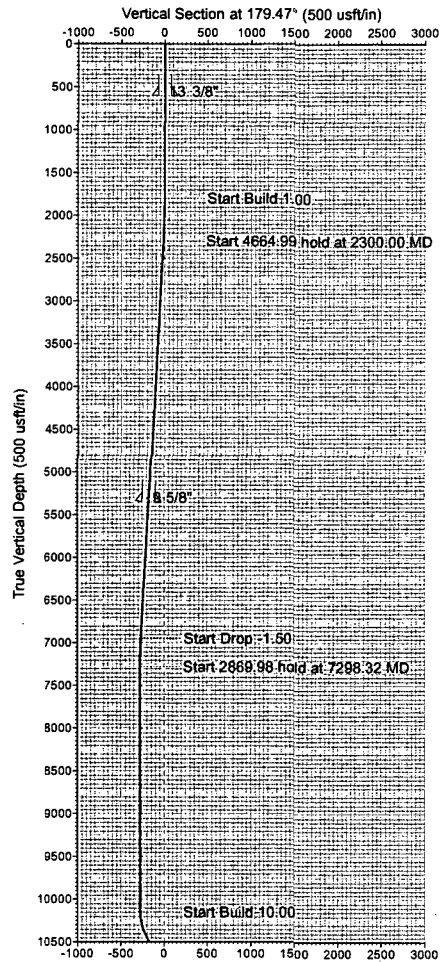
Exhibit E-3: Rig Diagram
 Carl Mottek Federal #125H
 Matador Resources Company
 17-24S-34E
 SHL 326' FNL & 470' FWL
 BHL 240' FSL & 986' FWL
 Lea County, NM





Matador Resources
Lea County, NM
Carl Mottek 17-24S-34E AR
125H
Prelim Plan A
GL:3578' + KB:29'

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

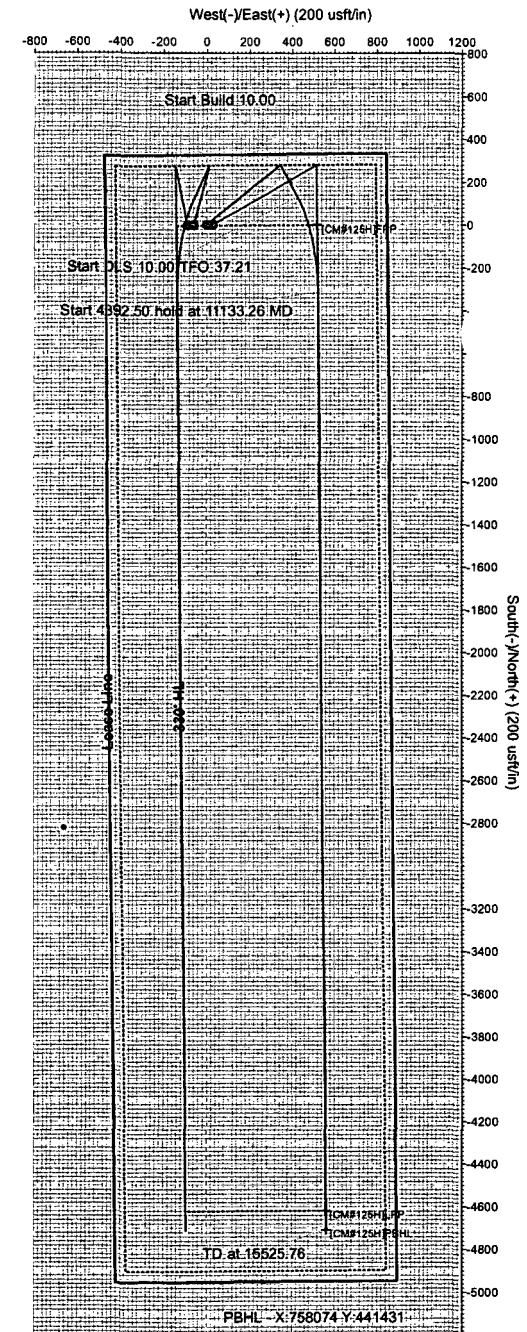
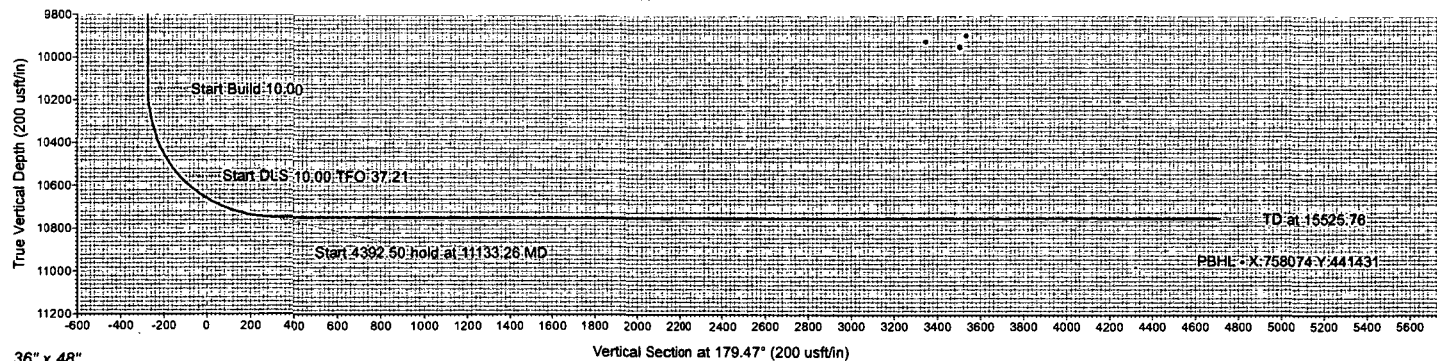
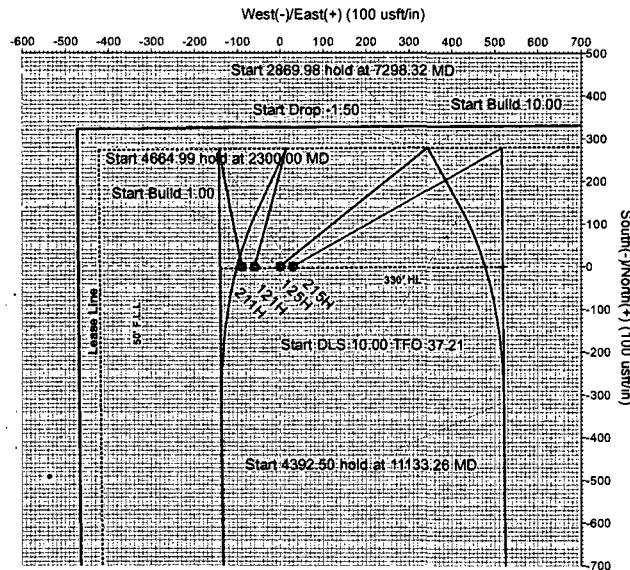


Azimuths to Grid North
True North: -0.44°
Magnetic North: 8.35°

Magnetic Field
Strength: 48087.8nT
Dip Angle: 60.00°
Date: 10/31/2017
Model: HDGM

Azimuth Corrections
Total Magnetic Corr. (M to G): 8.35°
Declination (M to T): 8.80° East

RKB Elevation: Rig @ 3607.00usft (GL:3578' + KB:29')								
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot		
0.00	0.00	446144.00	758168.00	32.2238098	-103.4984977			
SECTION DETAILS- Lateral								
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSecl
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00
3	2300.00	5.00	50.98	2299.37	13.73	16.93	1.00	-13.58
4	6964.99	5.00	-50.98	6948.61	269.84	332.71	0.00	-266.75
5	7298.32	0.00	0.00	7279.52	279.00	344.00	1.50	-275.81
6	10168.31	0.00	0.00	10149.50	279.00	344.00	0.00	-275.81
7	10619.75	45.13	151.30	10555.69	130.95	425.07	10.00	-127.01
8	11133.26	90.00	179.47	10750.00	-315.69	521.37	10.00	320.50
9	15525.76	90.00	179.47	10750.00	-4708.00	562.00	0.00	4713.00



Pro Directional

Survey Report

Company:	Matador Resources	Local Co-ordinate Reference:	Well 125H
Project:	Lea County, NM	TVD Reference:	Rig @ 3607.00usft (GL:3578' + KB:29')
Site:	Carl Mottek 17-24S-34E AR	MD Reference:	Rig @ 3607.00usft (GL:3578' + KB:29')
Well:	125H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan A	Database:	WellPlanner1

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

Site	Carl Mottek 17-24S-34E AR				
Site Position:		Northing:	446,143.00 usft	Latitude:	32.2238084
From:	Map	Easting:	758,108.00 usft	Longitude:	-103.4986917
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.45 °

Well	125H					
Well Position	+N-S	0.00 usft	Northing:	446,144.00 usft	Latitude:	32.2238098
	+E-W	0.00 usft	Easting:	758,168.00 usft	Longitude:	-103.4984977
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	10/31/2017	6.80	60.00	-48,087.80

Design	Prelim Plan A				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)	
	0.00	0.00	0.00	179.47	

Survey Tool Program	Date	11/1/2017			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	1,200.00	Prelim Plan A (OH)	MWD+HDGM	OWSG MWD + HRGM	
1,200.00	10,000.00	Prelim Plan A (OH)	MWD+HDGM	OWSG MWD + HRGM	
10,000.00	15,525.32	Prelim Plan 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
13 3/8"									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00

Pro Directional

Survey Report

Company: Matador Resources
 Project: Lea County, NM
 Site: Carl Mottek 17-24S-34E AR
 Well: 125H
 Wellbore: OH
 Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
 TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
 MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 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)
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
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
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	1.00	50.96	1,899.99	0.55	0.68	-0.54	1.00	1.00	0.00
2,000.00	2.00	50.96	1,999.96	2.20	2.71	-2.17	1.00	1.00	0.00
2,100.00	3.00	50.96	2,099.86	4.95	6.10	-4.89	1.00	1.00	0.00
2,200.00	4.00	50.96	2,199.68	8.79	10.84	-8.69	1.00	1.00	0.00
2,300.00	5.00	50.96	2,299.37	13.73	16.93	-13.58	1.00	1.00	0.00
2,400.00	5.00	50.96	2,398.99	19.22	23.70	-19.00	0.00	0.00	0.00
2,500.00	5.00	50.96	2,498.60	24.71	30.47	-24.43	0.00	0.00	0.00
2,600.00	5.00	50.96	2,598.22	30.20	37.24	-29.86	0.00	0.00	0.00
2,700.00	5.00	50.96	2,697.84	35.69	44.01	-35.29	0.00	0.00	0.00
2,800.00	5.00	50.96	2,797.46	41.18	50.78	-40.71	0.00	0.00	0.00
2,900.00	5.00	50.96	2,897.08	46.67	57.55	-46.14	0.00	0.00	0.00
3,000.00	5.00	50.96	2,996.70	52.16	64.32	-51.57	0.00	0.00	0.00
3,100.00	5.00	50.96	3,096.32	57.65	71.09	-56.99	0.00	0.00	0.00
3,200.00	5.00	50.96	3,195.94	63.14	77.86	-62.42	0.00	0.00	0.00
3,300.00	5.00	50.96	3,295.56	68.63	84.62	-67.85	0.00	0.00	0.00
3,400.00	5.00	50.96	3,395.18	74.12	91.39	-73.28	0.00	0.00	0.00
3,500.00	5.00	50.96	3,494.80	79.61	98.16	-78.70	0.00	0.00	0.00
3,600.00	5.00	50.96	3,594.42	85.10	104.93	-84.13	0.00	0.00	0.00
3,700.00	5.00	50.96	3,694.04	90.59	111.70	-89.56	0.00	0.00	0.00
3,800.00	5.00	50.96	3,793.66	96.08	118.47	-94.98	0.00	0.00	0.00
3,900.00	5.00	50.96	3,893.28	101.57	125.24	-100.41	0.00	0.00	0.00
4,000.00	5.00	50.96	3,992.90	107.06	132.01	-105.84	0.00	0.00	0.00
4,100.00	5.00	50.96	4,092.52	112.55	138.78	-111.27	0.00	0.00	0.00
4,200.00	5.00	50.96	4,192.14	118.04	145.55	-116.69	0.00	0.00	0.00
4,300.00	5.00	50.96	4,291.76	123.53	152.32	-122.12	0.00	0.00	0.00
4,400.00	5.00	50.96	4,391.37	129.02	159.08	-127.55	0.00	0.00	0.00
4,500.00	5.00	50.96	4,490.99	134.51	165.85	-132.97	0.00	0.00	0.00
4,600.00	5.00	50.96	4,590.61	140.00	172.62	-138.40	0.00	0.00	0.00
4,700.00	5.00	50.96	4,690.23	145.50	179.39	-143.83	0.00	0.00	0.00
4,800.00	5.00	50.96	4,789.85	150.99	186.16	-149.26	0.00	0.00	0.00
4,900.00	5.00	50.96	4,889.47	156.48	192.93	-154.68	0.00	0.00	0.00
5,000.00	5.00	50.96	4,989.09	161.97	199.70	-160.11	0.00	0.00	0.00

Pro Directional

Survey Report

Company:	Matador Resources	Local Co-ordinate Reference:	Well 125H
Project:	Lea County, NM	TVD Reference:	Rig @ 3607.00usft (GL:3578' + KB:29')
Site:	Carl Mottek 17-24S-34E AR	MD Reference:	Rig @ 3607.00usft (GL:3578' + KB:29')
Well:	125H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan A	Database:	WellPlanner1

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.00	5.00	50.96	5,088.71	167.46	206.47	-165.54	0.00	0.00	0.00
5,200.00	5.00	50.96	5,188.33	172.95	213.24	-170.97	0.00	0.00	0.00
5,300.00	5.00	50.96	5,287.95	178.44	220.01	-176.39	0.00	0.00	0.00
5,360.00	5.00	50.96	5,347.72	181.73	224.07	-179.65	0.00	0.00	0.00
9 5/8"									
5,400.00	5.00	50.96	5,387.57	183.93	226.78	-181.82	0.00	0.00	0.00
5,500.00	5.00	50.96	5,487.19	189.42	233.54	-187.25	0.00	0.00	0.00
5,600.00	5.00	50.96	5,586.81	194.91	240.31	-192.67	0.00	0.00	0.00
5,700.00	5.00	50.96	5,686.43	200.40	247.08	-198.10	0.00	0.00	0.00
5,800.00	5.00	50.96	5,786.05	205.89	253.85	-203.53	0.00	0.00	0.00
5,900.00	5.00	50.96	5,885.67	211.38	260.62	-208.96	0.00	0.00	0.00
6,000.00	5.00	50.96	5,985.29	216.87	267.39	-214.38	0.00	0.00	0.00
6,100.00	5.00	50.96	6,084.91	222.36	274.16	-219.81	0.00	0.00	0.00
6,200.00	5.00	50.96	6,184.53	227.85	280.93	-225.24	0.00	0.00	0.00
6,300.00	5.00	50.96	6,284.14	233.34	287.70	-230.66	0.00	0.00	0.00
6,400.00	5.00	50.96	6,383.76	238.83	294.47	-236.09	0.00	0.00	0.00
6,500.00	5.00	50.96	6,483.38	244.32	301.24	-241.52	0.00	0.00	0.00
6,600.00	5.00	50.96	6,583.00	249.81	308.00	-246.95	0.00	0.00	0.00
6,700.00	5.00	50.96	6,682.62	255.30	314.77	-252.37	0.00	0.00	0.00
6,800.00	5.00	50.96	6,782.24	260.79	321.54	-257.80	0.00	0.00	0.00
6,900.00	5.00	50.96	6,881.86	266.28	328.31	-263.23	0.00	0.00	0.00
6,964.99	5.00	50.96	6,946.61	269.84	332.71	-266.75	0.00	0.00	0.00
7,000.00	4.47	50.96	6,981.49	271.67	334.96	-268.56	1.50	-1.50	0.00
7,100.00	2.97	50.96	7,081.28	275.76	340.00	-272.60	1.50	-1.50	0.00
7,200.00	1.47	50.96	7,181.20	278.20	343.02	-275.02	1.50	-1.50	0.00
7,298.32	0.00	0.00	7,279.52	279.00	344.00	-275.81	1.50	-1.50	0.00
7,300.00	0.00	0.00	7,281.19	279.00	344.00	-275.81	0.00	0.00	0.00
7,400.00	0.00	0.00	7,381.19	279.00	344.00	-275.81	0.00	0.00	0.00
7,500.00	0.00	0.00	7,481.19	279.00	344.00	-275.81	0.00	0.00	0.00
7,600.00	0.00	0.00	7,581.19	279.00	344.00	-275.81	0.00	0.00	0.00
7,700.00	0.00	0.00	7,681.19	279.00	344.00	-275.81	0.00	0.00	0.00
7,800.00	0.00	0.00	7,781.19	279.00	344.00	-275.81	0.00	0.00	0.00
7,900.00	0.00	0.00	7,881.19	279.00	344.00	-275.81	0.00	0.00	0.00
8,000.00	0.00	0.00	7,981.19	279.00	344.00	-275.81	0.00	0.00	0.00
8,100.00	0.00	0.00	8,081.19	279.00	344.00	-275.81	0.00	0.00	0.00
8,200.00	0.00	0.00	8,181.19	279.00	344.00	-275.81	0.00	0.00	0.00
8,300.00	0.00	0.00	8,281.19	279.00	344.00	-275.81	0.00	0.00	0.00
8,400.00	0.00	0.00	8,381.19	279.00	344.00	-275.81	0.00	0.00	0.00
8,500.00	0.00	0.00	8,481.19	279.00	344.00	-275.81	0.00	0.00	0.00
8,600.00	0.00	0.00	8,581.19	279.00	344.00	-275.81	0.00	0.00	0.00
8,700.00	0.00	0.00	8,681.19	279.00	344.00	-275.81	0.00	0.00	0.00
8,800.00	0.00	0.00	8,781.19	279.00	344.00	-275.81	0.00	0.00	0.00
8,900.00	0.00	0.00	8,881.19	279.00	344.00	-275.81	0.00	0.00	0.00
9,000.00	0.00	0.00	8,981.19	279.00	344.00	-275.81	0.00	0.00	0.00

Pro Directional

Survey Report

Company: Matador Resources

Project: Lea County, NM

Site: Carl Mottek 17-24S-34E AR

Well: 125H

Wellbore: OH

Design: Prelim Plan A

Local Co-ordinate Reference:

Well 125H

TVD Reference:

Rig @ 3607.00usft (GL:3578' + KB:29')

MD Reference:

Rig @ 3607.00usft (GL:3578' + KB:29')

North Reference:

Grid

Survey Calculation Method:

Minimum Curvature

Database:

WellPlanner1

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,100.00	0.00	0.00	9,081.19	279.00	344.00	-275.81	0.00	0.00	0.00
9,200.00	0.00	0.00	9,181.19	279.00	344.00	-275.81	0.00	0.00	0.00
9,300.00	0.00	0.00	9,281.19	279.00	344.00	-275.81	0.00	0.00	0.00
9,400.00	0.00	0.00	9,381.19	279.00	344.00	-275.81	0.00	0.00	0.00
9,500.00	0.00	0.00	9,481.19	279.00	344.00	-275.81	0.00	0.00	0.00
9,600.00	0.00	0.00	9,581.19	279.00	344.00	-275.81	0.00	0.00	0.00
9,700.00	0.00	0.00	9,681.19	279.00	344.00	-275.81	0.00	0.00	0.00
9,800.00	0.00	0.00	9,781.19	279.00	344.00	-275.81	0.00	0.00	0.00
9,900.00	0.00	0.00	9,881.19	279.00	344.00	-275.81	0.00	0.00	0.00
10,000.00	0.00	0.00	9,981.19	279.00	344.00	-275.81	0.00	0.00	0.00
10,100.00	0.00	0.00	10,081.19	279.00	344.00	-275.81	0.00	0.00	0.00
10,168.31	0.00	0.00	10,149.50	279.00	344.00	-275.81	0.00	0.00	0.00
10,200.00	3.17	151.30	10,181.18	278.23	344.42	-275.03	10.00	10.00	0.00
10,250.00	8.17	151.30	10,230.91	273.90	346.79	-270.68	10.00	10.00	0.00
10,300.00	13.17	151.30	10,280.04	265.79	351.23	-262.53	10.00	10.00	0.00
10,350.00	18.16	151.30	10,328.16	253.95	357.72	-250.63	10.00	10.00	0.00
10,400.00	23.16	151.30	10,374.93	238.48	366.19	-235.08	10.00	10.00	0.00
10,450.00	28.16	151.30	10,419.99	219.49	376.58	-216.00	10.00	10.00	0.00
10,500.00	33.16	151.30	10,462.98	197.14	388.83	-193.53	10.00	10.00	0.00
10,550.00	38.16	151.30	10,503.59	171.58	402.82	-167.85	10.00	10.00	0.00
10,600.00	43.16	151.30	10,541.51	143.01	418.46	-139.14	10.00	10.00	0.00
10,619.75	45.13	151.30	10,555.69	130.95	425.07	-127.01	10.00	10.00	0.00
10,650.00	47.57	153.77	10,576.57	111.53	435.15	-107.50	10.00	8.05	8.19
10,700.00	51.70	157.47	10,608.95	76.83	450.83	-72.66	10.00	8.26	7.39
10,750.00	55.93	160.76	10,638.47	39.14	465.18	-34.83	10.00	8.47	6.59
10,800.00	60.25	163.74	10,664.90	-1.28	478.09	5.70	10.00	8.63	5.95
10,850.00	64.62	166.47	10,688.03	-44.10	489.46	48.63	10.00	8.75	5.46
10,900.00	69.04	169.00	10,707.70	-89.01	499.21	93.62	10.00	8.84	5.07
10,950.00	73.50	171.39	10,723.75	-135.66	507.25	140.34	10.00	8.91	4.78
11,000.00	77.98	173.68	10,736.07	-183.69	513.54	188.43	10.00	8.97	4.56
11,050.00	82.48	175.88	10,744.55	-232.75	518.01	237.53	10.00	9.00	4.41
11,100.00	87.00	178.04	10,749.13	-282.45	520.65	287.26	10.00	9.02	4.32
11,133.26	90.00	179.47	10,750.00	-315.69	521.37	320.50	10.00	9.03	4.29
11,200.00	90.00	179.47	10,750.00	-382.42	521.99	387.24	0.00	0.00	0.00
11,300.00	90.00	179.47	10,750.00	-482.42	522.91	487.24	0.00	0.00	0.00
11,400.00	90.00	179.47	10,750.00	-582.42	523.84	587.24	0.00	0.00	0.00
11,500.00	90.00	179.47	10,750.00	-682.41	524.76	687.24	0.00	0.00	0.00
11,600.00	90.00	179.47	10,750.00	-782.41	525.69	787.24	0.00	0.00	0.00
11,700.00	90.00	179.47	10,750.00	-882.40	526.61	887.24	0.00	0.00	0.00
11,800.00	90.00	179.47	10,750.00	-982.40	527.54	987.24	0.00	0.00	0.00
11,900.00	90.00	179.47	10,750.00	-1,082.39	528.46	1,087.24	0.00	0.00	0.00
12,000.00	90.00	179.47	10,750.00	-1,182.39	529.39	1,187.24	0.00	0.00	0.00
12,100.00	90.00	179.47	10,750.00	-1,282.39	530.31	1,287.24	0.00	0.00	0.00

Pro Directional Survey Report

Company: Matador Resources
Project: Lea County, NM
Site: Carl Mottek 17-24S-34E AR
Well: 125H
Wellbore: OH
Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,200.00	90.00	179.47	10,750.00	-1,382.38	531.24	1,387.24	0.00	0.00	0.00
12,300.00	90.00	179.47	10,750.00	-1,482.38	532.16	1,487.24	0.00	0.00	0.00
12,400.00	90.00	179.47	10,750.00	-1,582.37	533.09	1,587.24	0.00	0.00	0.00
12,500.00	90.00	179.47	10,750.00	-1,682.37	534.01	1,687.24	0.00	0.00	0.00
12,600.00	90.00	179.47	10,750.00	-1,782.36	534.94	1,787.24	0.00	0.00	0.00
12,700.00	90.00	179.47	10,750.00	-1,882.36	535.86	1,887.24	0.00	0.00	0.00
12,800.00	90.00	179.47	10,750.00	-1,982.36	536.79	1,987.24	0.00	0.00	0.00
12,900.00	90.00	179.47	10,750.00	-2,082.35	537.71	2,087.24	0.00	0.00	0.00
13,000.00	90.00	179.47	10,750.00	-2,182.35	538.64	2,187.24	0.00	0.00	0.00
13,100.00	90.00	179.47	10,750.00	-2,282.34	539.56	2,287.24	0.00	0.00	0.00
13,200.00	90.00	179.47	10,750.00	-2,382.34	540.49	2,387.24	0.00	0.00	0.00
13,300.00	90.00	179.47	10,750.00	-2,482.33	541.41	2,487.24	0.00	0.00	0.00
13,400.00	90.00	179.47	10,750.00	-2,582.33	542.34	2,587.24	0.00	0.00	0.00
13,500.00	90.00	179.47	10,750.00	-2,682.33	543.26	2,687.24	0.00	0.00	0.00
13,600.00	90.00	179.47	10,750.00	-2,782.32	544.19	2,787.24	0.00	0.00	0.00
13,700.00	90.00	179.47	10,750.00	-2,882.32	545.11	2,887.24	0.00	0.00	0.00
13,800.00	90.00	179.47	10,750.00	-2,982.31	546.04	2,987.24	0.00	0.00	0.00
13,900.00	90.00	179.47	10,750.00	-3,082.31	546.96	3,087.24	0.00	0.00	0.00
14,000.00	90.00	179.47	10,750.00	-3,182.30	547.89	3,187.24	0.00	0.00	0.00
14,100.00	90.00	179.47	10,750.00	-3,282.30	548.81	3,287.24	0.00	0.00	0.00
14,200.00	90.00	179.47	10,750.00	-3,382.30	549.74	3,387.24	0.00	0.00	0.00
14,300.00	90.00	179.47	10,750.00	-3,482.29	550.66	3,487.24	0.00	0.00	0.00
14,400.00	90.00	179.47	10,750.00	-3,582.29	551.59	3,587.24	0.00	0.00	0.00
14,500.00	90.00	179.47	10,750.00	-3,682.28	552.51	3,687.24	0.00	0.00	0.00
14,600.00	90.00	179.47	10,750.00	-3,782.28	553.44	3,787.24	0.00	0.00	0.00
14,700.00	90.00	179.47	10,750.00	-3,882.27	554.36	3,887.24	0.00	0.00	0.00
14,800.00	90.00	179.47	10,750.00	-3,982.27	555.29	3,987.24	0.00	0.00	0.00
14,900.00	90.00	179.47	10,750.00	-4,082.27	556.21	4,087.24	0.00	0.00	0.00
15,000.00	90.00	179.47	10,750.00	-4,182.26	557.14	4,187.24	0.00	0.00	0.00
15,100.00	90.00	179.47	10,750.00	-4,282.26	558.06	4,287.24	0.00	0.00	0.00
15,200.00	90.00	179.47	10,750.00	-4,382.25	558.99	4,387.24	0.00	0.00	0.00
15,300.00	90.00	179.47	10,750.00	-4,482.25	559.91	4,487.24	0.00	0.00	0.00
15,400.00	90.00	179.47	10,750.00	-4,582.24	560.84	4,587.24	0.00	0.00	0.00
15,500.00	90.00	179.47	10,750.00	-4,682.24	561.76	4,687.24	0.00	0.00	0.00
15,525.76	90.00	179.47	10,750.00	-4,708.00	562.00	4,713.00	0.00	0.00	0.00

Pro Directional Survey Report

Company:	Matador Resources	Local Co-ordinate Reference:	Well 125H
Project:	Lea County, NM	TVD Reference:	Rig @ 3607.00usft (GL:3578' + KB:29')
Site:	Carl Mottek 17-24S-34E AR	MD Reference:	Rig @ 3607.00usft (GL:3578' + KB:29')
Well:	125H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan A	Database:	WellPlanner1

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
[CM#125H]LPP - plan misses target center by 4651.95usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	-4,618.00	561.00	441,526.00	758,729.00	32.2111043	-103.4968000
[CM#125H]FPP - plan misses target center by 519.00usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	0.00	519.00	446,144.00	758,687.00	32.2237987	-103.4968195
[CM#125H]PBHL - plan hits target center - Point	0.00	0.00	10,750.0 0	-4,708.00	562.00	441,436.00	758,730.00	32.2108569	-103.4967990

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
600.00	600.00	13 3/8"	13-3/8	17-1/2
5,360.00	5,347.72	9 5/8"	9-5/8	12-1/4

Checked By: _____	Approved By: _____	Date: _____
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Pro Directional Anticollision Report

Company:	Matador Resources	Local Co-ordinate Reference:	Well 125H
Project:	Lea County, NM	TVD Reference:	Rig @ 3607.00usft (GL:3578' + KB:29')
Reference Site:	Carl Mottek 17-24S-34E AR	MD Reference:	Rig @ 3607.00usft (GL:3578' + KB:29')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	125H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	WellPlanner1
Reference Design:	Prelim Plan A	Offset TVD Reference:	Offset Datum

Reference	Prelim Plan A		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,750.59 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	11/1/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	1,200.00	Prelim Plan A (OH)	MWD+HDGM	OWSG MWD + HRGM
1,200.00	10,000.00	Prelim Plan A (OH)	MWD+HDGM	OWSG MWD + HRGM
10,000.00	15,525.32	Prelim Plan A (OH)	MWD+HDGM	OWSG MWD + HRGM

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Carl Mottek 17-24S-34E AR						
121H - OH - Prelim Plan A	1,865.17	1,865.75	58.90	49.32	6.149	CC
121H - OH - Prelim Plan A	1,900.00	1,900.61	58.98	49.29	6.085	ES
121H - OH - Prelim Plan A	15,525.76	15,515.62	656.02	504.32	4.324	SF
211H - OH - Prelim Plan A	1,400.00	1,400.00	90.01	81.44	10.506	CC, ES
211H - OH - Prelim Plan A	10,100.00	10,107.07	487.02	423.91	7.717	SF
215H - OH - Prelim Plan A	1,400.00	1,400.00	30.00	21.43	3.502	CC, ES
215H - OH - Prelim Plan A	10,479.85	10,469.86	150.86	86.12	2.330	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	Offset	Semi Major Axis	Distance	Minimum Separation	Separation Factor	Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.95	-1.00	-60.00	60.01				
100.00	100.00	100.00	100.00	0.13	0.13	-90.95	-1.00	-60.00	60.01	59.75	0.25	235.775	
200.00	200.00	200.00	200.00	0.49	0.49	-90.95	-1.00	-60.00	60.01	59.04	0.97	61.771	
300.00	300.00	300.00	300.00	0.84	0.84	-90.95	-1.00	-60.00	60.01	58.32	1.69	35.542	
400.00	400.00	400.00	400.00	1.20	1.20	-90.95	-1.00	-60.00	60.01	57.60	2.41	24.948	
500.00	500.00	500.00	500.00	1.56	1.56	-90.95	-1.00	-60.00	60.01	56.89	3.12	19.219	
600.00	600.00	600.00	600.00	1.92	1.92	-90.95	-1.00	-60.00	60.01	56.17	3.84	15.630	
700.00	700.00	700.00	700.00	2.28	2.28	-90.95	-1.00	-60.00	60.01	55.45	4.56	13.171	
800.00	800.00	800.00	800.00	2.64	2.64	-90.95	-1.00	-60.00	60.01	54.74	5.27	11.380	
900.00	900.00	900.00	900.00	3.00	3.00	-90.95	-1.00	-60.00	60.01	54.02	5.99	10.018	
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-90.95	-1.00	-60.00	60.01	53.30	6.71	8.947	
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	-90.95	-1.00	-60.00	60.01	52.58	7.42	8.083	
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	-90.95	-1.00	-60.00	60.01	51.87	8.14	7.371	
1,300.00	1,300.00	1,300.00	1,300.00	4.25	4.25	-90.95	-1.00	-60.00	60.01	51.50	8.51	7.054	
1,400.00	1,400.00	1,400.00	1,400.00	4.28	4.28	-90.95	-1.00	-60.00	60.01	51.44	8.57	7.004	
1,500.00	1,500.00	1,500.00	1,500.00	4.34	4.34	-90.95	-1.00	-60.00	60.01	51.32	8.69	6.908	
1,600.00	1,600.00	1,600.00	1,600.00	4.43	4.43	-90.95	-1.00	-60.00	60.01	51.15	8.86	6.771	
1,700.00	1,700.00	1,700.28	1,700.27	4.55	4.55	-90.15	-0.15	-59.78	59.78	50.69	9.09	6.575	

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

Pro Directional Anticollision Report

Company: Matador Resources
Project: Lea County, NM
Reference Site: Carl Mottek 17-24S-34E AR
Site Error: 0.00 usft
Reference Well: 125H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 121H - OH - Prelim Plan A													Offset Site Error:
Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM													Offset Well Error:
Reference	Offset		Semi Major Axis		Highside		Distance		Minimum		Separation		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
1,800.00	1,800.00	1,800.49	1,800.45	4.68	4.69	-87.68	2.39	-59.10	59.15	49.78	9.37	6.313	
1,865.17	1,865.17	1,865.75	1,865.66	4.79	4.79	-136.36	4.96	-58.42	58.90	49.32	9.58	6.149 CC	
1,900.00	1,899.99	1,900.61	1,900.47	4.85	4.85	-135.05	6.62	-57.98	58.98	49.29	9.69	6.085 ES	
2,000.00	1,999.96	2,000.64	2,000.32	5.02	5.03	-131.03	12.54	-56.42	60.03	49.97	10.05	5.970	
2,100.00	2,099.86	2,100.57	2,099.93	5.22	5.23	-126.84	20.13	-54.41	62.39	51.93	10.46	5.967	
2,200.00	2,199.68	2,200.43	2,199.41	5.44	5.46	-123.48	28.54	-52.19	66.05	55.16	10.89	6.064	
2,300.00	2,299.37	2,300.29	2,298.90	5.67	5.69	-121.69	36.95	-49.96	70.81	59.45	11.36	6.233	
2,400.00	2,398.99	2,400.15	2,398.37	5.92	5.94	-120.72	45.37	-47.74	76.07	64.22	11.86	6.416	
2,500.00	2,498.60	2,500.00	2,497.85	6.18	6.21	-119.89	53.78	-45.51	81.36	68.98	12.38	6.572	
2,600.00	2,598.22	2,600.14	2,597.32	6.45	6.48	-119.15	62.20	-43.29	86.65	73.73	12.92	6.705	
2,700.00	2,697.84	2,700.29	2,696.79	6.73	6.77	-118.50	70.61	-41.06	91.96	78.47	13.49	6.818	
2,800.00	2,797.46	2,800.44	2,796.27	7.02	7.06	-117.92	79.02	-38.83	97.28	83.21	14.07	6.915	
2,900.00	2,897.08	2,900.58	2,895.74	7.32	7.36	-117.40	87.44	-36.61	102.61	87.95	14.67	6.997	
3,000.00	2,996.70	3,000.73	2,995.22	7.63	7.67	-116.93	95.85	-34.38	107.95	92.67	15.28	7.067	
3,100.00	3,096.32	3,100.87	3,094.69	7.94	7.98	-116.51	104.26	-32.16	113.29	97.39	15.90	7.127	
3,200.00	3,195.94	3,201.02	3,194.16	8.25	8.30	-116.12	112.68	-29.93	118.64	102.11	16.53	7.178	
3,300.00	3,295.56	3,301.17	3,293.64	8.58	8.63	-115.77	121.09	-27.71	123.99	106.82	17.17	7.222	
3,400.00	3,395.18	3,401.31	3,393.11	8.90	8.95	-115.45	129.50	-25.48	129.35	111.53	17.82	7.259	
3,500.00	3,494.80	3,501.46	3,492.58	9.23	9.28	-115.15	137.92	-23.26	134.71	116.23	18.48	7.291	
3,600.00	3,594.42	3,601.61	3,592.06	9.56	9.62	-114.87	146.33	-21.03	140.08	120.94	19.14	7.319	
3,700.00	3,694.04	3,701.75	3,691.53	9.90	9.95	-114.62	154.74	-18.81	145.44	125.63	19.81	7.342	
3,800.00	3,793.66	3,801.90	3,791.01	10.24	10.29	-114.38	163.16	-16.58	150.81	130.33	20.48	7.362	
3,900.00	3,893.28	3,902.04	3,890.48	10.58	10.64	-114.16	171.57	-14.36	156.19	135.02	21.16	7.380	
4,000.00	3,992.90	4,002.19	3,989.95	10.92	10.98	-113.96	179.98	-12.13	161.56	139.71	21.85	7.395	
4,100.00	4,092.52	4,102.34	4,089.43	11.27	11.33	-113.76	188.40	-9.91	166.94	144.40	22.54	7.407	
4,200.00	4,192.14	4,202.48	4,188.90	11.62	11.67	-113.58	196.81	-7.68	172.32	149.09	23.23	7.418	
4,300.00	4,291.76	4,302.63	4,288.38	11.96	12.02	-113.41	205.22	-5.46	177.70	153.77	23.92	7.427	
4,400.00	4,391.37	4,402.78	4,387.85	12.32	12.38	-113.26	213.64	-3.23	183.08	158.46	24.62	7.435	
4,500.00	4,490.99	4,502.92	4,487.32	12.67	12.73	-113.11	222.05	-1.00	188.46	163.14	25.32	7.442	
4,600.00	4,590.61	4,603.07	4,586.80	13.02	13.08	-112.96	230.47	1.22	193.85	167.82	26.03	7.447	
4,700.00	4,690.23	4,703.21	4,686.27	13.38	13.44	-112.83	238.88	3.45	199.23	172.50	26.73	7.452	
4,800.00	4,789.85	4,803.36	4,785.74	13.73	13.79	-112.70	247.29	5.67	204.62	177.17	27.44	7.456	
4,900.00	4,889.47	4,903.51	4,885.22	14.09	14.15	-112.58	255.71	7.90	210.00	181.85	28.15	7.459	
5,000.00	4,989.09	4,996.85	4,985.21	14.45	14.48	-112.52	263.98	10.08	215.35	186.51	28.84	7.466	
5,100.00	5,088.71	5,098.04	5,086.19	14.80	14.84	-113.00	270.24	11.74	220.20	190.65	29.55	7.451	
5,200.00	5,188.33	5,199.13	5,187.20	15.16	15.18	-114.13	273.91	12.71	224.51	194.25	30.26	7.420	
5,300.00	5,287.95	5,300.11	5,287.95	15.52	15.52	-115.86	275.00	13.00	228.42	197.47	30.95	7.381	
5,400.00	5,387.57	5,400.50	5,387.57	15.88	15.86	-117.79	275.00	13.00	232.37	200.74	31.63	7.346	
5,500.00	5,487.19	5,500.88	5,487.19	16.25	16.19	-119.85	275.00	13.00	236.57	204.25	32.31	7.321	
5,600.00	5,586.81	5,601.26	5,586.81	16.61	16.53	-121.45	275.00	13.00	241.01	208.01	33.00	7.304	
5,700.00	5,686.43	5,701.64	5,686.43	16.97	16.86	-123.18	275.00	13.00	245.68	212.00	33.68	7.294	
5,800.00	5,786.05	5,802.02	5,786.05	17.33	17.20	-124.84	275.00	13.00	250.57	216.20	34.37	7.291	
5,900.00	5,885.67	5,902.40	5,885.67	17.70	17.54	-126.44	275.00	13.00	255.66	220.61	35.05	7.294	
6,000.00	5,985.29	6,002.78	5,985.29	18.06	17.88	-127.98	275.00	13.00	260.95	225.21	35.74	7.301	
6,100.00	6,084.91	6,103.16	6,084.91	18.43	18.22	-129.45	275.00	13.00	266.41	229.99	36.43	7.314	
6,200.00	6,184.53	6,203.54	6,184.53	18.79	18.56	-130.87	275.00	13.00	272.05	234.93	37.11	7.330	
6,300.00	6,284.14	6,303.92	6,284.14	19.16	18.90	-132.22	275.00	13.00	277.84	240.04	37.80	7.350	
6,400.00	6,383.76	6,404.30	6,383.76	19.52	19.25	-133.52	275.00	13.00	283.78	245.29	38.49	7.373	
6,500.00	6,483.38	6,504.68	6,483.38	19.89	19.59	-134.77	275.00	13.00	289.86	250.68	39.18	7.398	
6,600.00	6,583.00	6,605.06	6,583.00	20.26	19.93	-135.97	275.00	13.00	296.08	256.21	39.87	7.426	
6,700.00	6,682.62	6,705.44	6,682.62	20.62	20.28	-137.11	275.00	13.00	302.42	261.85	40.56	7.455	
6,800.00	6,782.24	6,805.82	6,782.24	20.99	20.62	-138.21	275.00	13.00	308.87	267.61	41.26	7.487	

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

Pro Directional Anticollision Report

Company: Matador Resources
Project: Lea County, NM
Reference Site: Carl Mottek 17-24S-34E AR
Site Error: 0.00 usft
Reference Well: 125H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
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		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N-S (usft)	+E-W (usft)						
6,900.00	6,881.86	6,906.20	6,881.86	21.36	20.97	-139.26	275.00	13.00	315.43	273.48	41.95	7.519		
7,000.00	6,981.49	7,006.57	6,981.49	21.73	21.31	-140.28	275.00	13.00	321.97	279.33	42.64	7.550		
7,100.00	7,081.28	7,106.78	7,081.28	22.09	21.66	-141.05	275.00	13.00	327.00	283.67	43.34	7.546		
7,200.00	7,181.20	7,206.86	7,181.20	22.44	22.00	-141.50	275.00	13.00	330.03	286.01	44.03	7.496		
7,300.00	7,281.19	7,306.87	7,281.19	22.78	22.35	-90.69	275.00	13.00	331.02	286.31	44.72	7.403		
7,400.00	7,381.19	7,406.87	7,381.19	23.11	22.69	-90.69	275.00	13.00	331.02	285.62	45.40	7.291		
7,500.00	7,481.19	7,506.87	7,481.19	23.45	23.04	-90.69	275.00	13.00	331.02	284.94	46.09	7.183		
7,600.00	7,581.19	7,606.87	7,581.19	23.79	23.39	-90.69	275.00	13.00	331.02	284.25	46.77	7.077		
7,700.00	7,681.19	7,706.87	7,681.19	24.12	23.73	-90.69	275.00	13.00	331.02	283.56	47.46	6.975		
7,800.00	7,781.19	7,806.87	7,781.19	24.46	24.08	-90.69	275.00	13.00	331.02	282.87	48.15	6.875		
7,900.00	7,881.19	7,906.87	7,881.19	24.80	24.43	-90.69	275.00	13.00	331.02	282.18	48.84	6.778		
8,000.00	7,981.19	8,006.87	7,981.19	25.14	24.78	-90.69	275.00	13.00	331.02	281.49	49.53	6.683		
8,100.00	8,081.19	8,106.87	8,081.19	25.48	25.13	-90.69	275.00	13.00	331.02	280.80	50.22	6.591		
8,200.00	8,181.19	8,206.87	8,181.19	25.82	25.48	-90.69	275.00	13.00	331.02	280.11	50.91	6.502		
8,300.00	8,281.19	8,306.87	8,281.19	26.16	25.82	-90.69	275.00	13.00	331.02	279.42	51.61	6.414		
8,400.00	8,381.19	8,406.87	8,381.19	26.50	26.17	-90.69	275.00	13.00	331.02	278.72	52.30	6.329		
8,500.00	8,481.19	8,506.87	8,481.19	26.84	26.52	-90.69	275.00	13.00	331.02	278.03	52.99	6.247		
8,600.00	8,581.19	8,606.87	8,581.19	27.18	26.87	-90.69	275.00	13.00	331.02	277.34	53.69	6.166		
8,700.00	8,681.19	8,706.87	8,681.19	27.53	27.22	-90.69	275.00	13.00	331.02	276.64	54.38	6.087		
8,800.00	8,781.19	8,806.87	8,781.19	27.87	27.57	-90.69	275.00	13.00	331.02	275.95	55.08	6.010		
8,900.00	8,881.19	8,906.87	8,881.19	28.21	27.92	-90.69	275.00	13.00	331.02	275.25	55.77	5.935		
9,000.00	8,981.19	9,006.87	8,981.19	28.55	28.27	-90.69	275.00	13.00	331.02	274.55	56.47	5.862		
9,100.00	9,081.19	9,106.87	9,081.19	28.90	28.62	-90.69	275.00	13.00	331.02	273.86	57.17	5.790		
9,200.00	9,181.19	9,206.87	9,181.19	29.24	28.98	-90.69	275.00	13.00	331.02	273.16	57.87	5.721		
9,300.00	9,281.19	9,306.87	9,281.19	29.59	29.33	-90.69	275.00	13.00	331.02	272.46	58.56	5.652		
9,400.00	9,381.19	9,406.87	9,381.19	29.93	29.68	-90.69	275.00	13.00	331.02	271.76	59.26	5.586		
9,500.00	9,481.19	9,506.87	9,481.19	30.28	30.03	-90.69	275.00	13.00	331.02	271.06	59.96	5.521		
9,600.00	9,581.19	9,606.87	9,581.19	30.62	30.38	-90.69	275.00	13.00	331.02	270.36	60.66	5.457		
9,700.00	9,681.19	9,706.87	9,681.19	30.97	30.73	-90.69	275.00	13.00	331.02	269.66	61.36	5.395		
9,800.00	9,781.19	9,806.87	9,781.19	31.31	31.09	-90.69	275.00	13.00	331.02	268.96	62.06	5.334		
9,900.00	9,881.19	9,906.87	9,881.19	31.66	31.43	-90.69	275.00	13.00	331.02	268.28	62.75	5.275		
10,000.00	9,981.19	10,006.87	9,981.19	31.83	31.59	-90.69	275.00	13.00	331.02	267.94	63.09	5.247		
10,100.00	10,081.19	10,093.13	10,081.19	31.84	31.59	-90.69	275.00	13.00	331.02	267.93	63.10	5.246		
10,100.00	10,081.19	10,093.13	10,081.19	31.84	31.59	-90.69	275.00	13.00	331.02	267.93	63.10	5.246		
10,200.00	10,181.18	10,187.79	10,175.85	31.85	31.60	118.00	274.64	12.83	331.65	268.56	63.09	5.257		
10,300.00	10,280.04	10,267.15	10,254.69	31.86	31.60	117.40	266.99	9.29	342.89	279.96	62.92	5.449		
10,400.00	10,374.93	10,344.01	10,329.25	31.89	31.59	115.89	250.23	1.52	367.70	305.02	62.68	5.866		
10,500.00	10,462.98	10,416.84	10,397.01	31.93	31.57	113.43	226.14	-9.64	404.93	342.49	62.45	6.484		
10,600.00	10,541.51	10,484.64	10,456.60	31.99	31.55	109.93	196.86	-23.21	452.97	390.67	62.30	7.271		
10,700.00	10,608.95	10,550.00	10,510.05	32.08	31.56	101.84	162.79	-38.99	507.05	444.76	62.29	8.140		
10,800.00	10,664.90	10,612.29	10,566.70	32.18	31.59	94.87	125.38	-56.33	559.78	497.40	62.38	8.974		
10,900.00	10,707.70	10,730.72	10,633.13	32.32	31.65	91.68	41.34	-89.06	607.13	544.23	62.90	9.652		
11,000.00	10,736.07	10,885.42	10,706.40	32.49	31.74	90.44	-90.81	-120.00	641.00	577.58	63.42	10.107		
11,100.00	10,749.13	11,063.41	10,747.38	32.71	32.02	90.04	-262.50	-136.35	657.30	593.25	64.05	10.262		
11,200.00	10,750.00	11,189.86	10,750.00	32.96	32.33	90.00	-388.86	-136.26	658.28	593.60	64.68	10.178		
11,300.00	10,750.00	11,289.86	10,750.00	33.28	32.65	90.00	-488.85	-135.29	658.23	592.89	65.34	10.074		
11,400.00	10,750.00	11,389.86	10,750.00	33.66	33.02	90.00	-588.85	-134.31	658.18	592.06	66.12	9.954		
11,500.00	10,750.00	11,489.86	10,750.00	34.11	33.46	90.00	-688.84	-133.33	658.13	591.11	67.01	9.821		
11,600.00	10,750.00	11,589.86	10,750.00	34.61	33.95	90.00	-788.84	-132.36	658.07	590.05	68.02	9.675		
11,700.00	10,750.00	11,689.86	10,750.00	35.16	34.50	90.00	-888.83	-131.38	658.02	588.89	69.13	9.519		
11,800.00	10,750.00	11,789.86	10,750.00	35.76	35.09	90.00	-988.83	-130.40	657.97	587.63	70.34	9.354		
11,900.00	10,750.00	11,889.86	10,750.00	36.41	35.74	90.00	-1,088.82	-129.42	657.92	586.27	71.64	9.183		

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

Pro Directional Anticollision Report

Company: Matador Resources
Project: Lea County, NM
Reference Site: Carl Mottek 17-24S-34E AR
Site Error: 0.00 usft
Reference Well: 125H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: WellPlanner1
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		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
12,000.00	10,750.00	11,989.86	10,750.00	37.11	36.42	90.00	-1,188.82	-128.45	657.86	584.83	73.04	9.007	
12,100.00	10,750.00	12,089.86	10,750.00	37.84	37.16	90.00	-1,288.82	-127.47	657.81	583.29	74.52	8.828	
12,200.00	10,750.00	12,189.86	10,750.00	38.62	37.93	90.00	-1,388.81	-126.49	657.76	581.68	76.08	8.646	
12,300.00	10,750.00	12,289.86	10,750.00	39.44	38.74	90.00	-1,488.81	-125.51	657.71	579.99	77.71	8.483	
12,400.00	10,750.00	12,389.86	10,750.00	40.29	39.59	90.00	-1,588.80	-124.54	657.65	578.24	79.42	8.281	
12,500.00	10,750.00	12,489.86	10,750.00	41.17	40.46	90.00	-1,688.80	-123.56	657.60	576.41	81.19	8.100	
12,600.00	10,750.00	12,589.86	10,750.00	42.08	41.38	90.00	-1,788.79	-122.58	657.55	574.53	83.02	7.920	
12,700.00	10,750.00	12,689.86	10,750.00	43.02	42.32	90.00	-1,888.79	-121.60	657.50	572.58	84.92	7.743	
12,800.00	10,750.00	12,789.86	10,750.00	43.99	43.28	90.00	-1,988.78	-120.63	657.44	570.58	86.86	7.569	
12,900.00	10,750.00	12,889.86	10,750.00	44.98	44.28	90.00	-2,088.78	-119.65	657.39	568.54	88.86	7.398	
13,000.00	10,750.00	12,989.86	10,750.00	46.00	45.29	90.00	-2,188.77	-118.67	657.34	566.44	90.90	7.231	
13,100.00	10,750.00	13,089.86	10,750.00	47.04	46.33	90.00	-2,288.77	-117.69	657.29	564.30	92.99	7.069	
13,200.00	10,750.00	13,189.86	10,750.00	48.10	47.39	90.00	-2,388.76	-116.72	657.24	562.12	95.12	6.910	
13,300.00	10,750.00	13,289.86	10,750.00	49.18	48.47	90.00	-2,488.76	-115.74	657.18	559.90	97.28	6.755	
13,400.00	10,750.00	13,389.86	10,750.00	50.28	49.57	90.00	-2,588.75	-114.76	657.13	557.64	99.49	6.605	
13,500.00	10,750.00	13,489.86	10,750.00	51.39	50.69	90.00	-2,688.75	-113.79	657.08	555.35	101.72	6.459	
13,600.00	10,750.00	13,589.86	10,750.00	52.52	51.82	90.00	-2,788.74	-112.81	657.03	553.03	103.99	6.318	
13,700.00	10,750.00	13,689.86	10,750.00	53.67	52.96	90.00	-2,888.74	-111.83	656.97	550.68	106.29	6.181	
13,800.00	10,750.00	13,789.86	10,750.00	54.82	54.12	90.00	-2,988.73	-110.85	656.92	548.31	108.62	6.048	
13,900.00	10,750.00	13,889.86	10,750.00	55.99	55.30	90.00	-3,088.73	-109.88	656.87	545.90	110.97	5.920	
14,000.00	10,750.00	13,989.86	10,750.00	57.18	56.48	90.00	-3,188.72	-108.90	656.82	543.47	113.34	5.795	
14,100.00	10,750.00	14,089.86	10,750.00	58.37	57.68	90.00	-3,288.72	-107.92	656.76	541.02	115.74	5.674	
14,200.00	10,750.00	14,189.86	10,750.00	59.58	58.89	90.00	-3,388.71	-106.94	656.71	538.55	118.16	5.558	
14,300.00	10,750.00	14,289.86	10,750.00	60.79	60.10	90.00	-3,488.71	-105.97	656.66	536.06	120.60	5.445	
14,400.00	10,750.00	14,389.86	10,750.00	62.02	61.33	90.00	-3,588.71	-104.99	656.61	533.55	123.06	5.336	
14,500.00	10,750.00	14,489.86	10,750.00	63.25	62.57	90.00	-3,688.70	-104.01	656.55	531.02	125.53	5.230	
14,600.00	10,750.00	14,589.86	10,750.00	64.50	63.81	90.00	-3,788.70	-103.03	656.50	528.48	128.03	5.128	
14,700.00	10,750.00	14,689.86	10,750.00	65.75	65.07	90.00	-3,888.69	-102.06	656.45	525.91	130.54	5.029	
14,800.00	10,750.00	14,789.86	10,750.00	67.01	66.33	90.00	-3,988.69	-101.08	656.40	523.34	133.06	4.933	
14,900.00	10,750.00	14,889.86	10,750.00	68.27	67.59	90.00	-4,088.68	-100.10	656.35	520.75	135.60	4.840	
15,000.00	10,750.00	14,989.86	10,750.00	69.54	68.87	90.00	-4,188.68	-99.12	656.29	518.14	138.15	4.751	
15,100.00	10,750.00	15,089.86	10,750.00	70.82	70.15	90.00	-4,288.67	-98.15	656.24	515.53	140.71	4.664	
15,200.00	10,750.00	15,189.86	10,750.00	72.11	71.43	90.00	-4,388.67	-97.17	656.19	512.90	143.29	4.580	
15,300.00	10,750.00	15,289.86	10,750.00	73.40	72.73	90.00	-4,488.66	-96.19	656.14	510.26	145.87	4.498	
15,400.00	10,750.00	15,389.86	10,750.00	74.69	74.02	90.00	-4,588.66	-95.22	656.08	507.61	148.47	4.419	
15,500.00	10,750.00	15,489.86	10,750.00	75.99	75.33	90.00	-4,688.65	-94.24	656.03	504.95	151.08	4.342	
15,525.76	10,750.00	15,515.62	10,750.00	76.30	75.66	90.00	-4,714.41	-93.99	656.02	504.32	151.70	4.324 SF	

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

Pro Directional Anticollision Report

Company: Matador Resources
Project: Lea County, NM
Reference Site: Carl Mottek 17-24S-34E AR
Site Error: 0.00 usft
Reference Well: 125H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
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		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)						
0.00	0.00	0.00	0.00	0.00	0.00	-90.64	-1.00	-90.00	90.01					
100.00	100.00	100.00	100.00	0.13	0.13	-90.64	-1.00	-90.00	90.01	89.75	0.25	353.635		
200.00	200.00	200.00	200.00	0.49	0.49	-90.64	-1.00	-90.00	90.01	89.03	0.97	92.650		
300.00	300.00	300.00	300.00	0.84	0.84	-90.64	-1.00	-90.00	90.01	88.32	1.69	53.308		
400.00	400.00	400.00	400.00	1.20	1.20	-90.64	-1.00	-90.00	90.01	87.60	2.41	37.419		
500.00	500.00	500.00	500.00	1.56	1.56	-90.64	-1.00	-90.00	90.01	86.88	3.12	28.827		
600.00	600.00	600.00	600.00	1.92	1.92	-90.64	-1.00	-90.00	90.01	86.17	3.84	23.444		
700.00	700.00	700.00	700.00	2.28	2.28	-90.64	-1.00	-90.00	90.01	85.45	4.56	19.755		
800.00	800.00	800.00	800.00	2.64	2.64	-90.64	-1.00	-90.00	90.01	84.73	5.27	17.069		
900.00	900.00	900.00	900.00	3.00	3.00	-90.64	-1.00	-90.00	90.01	84.02	5.99	15.026		
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-90.64	-1.00	-90.00	90.01	83.30	6.71	13.420		
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	-90.64	-1.00	-90.00	90.01	82.58	7.42	12.124		
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	-90.64	-1.00	-90.00	90.01	81.86	8.14	11.056		
1,300.00	1,300.00	1,300.00	1,300.00	4.25	4.25	-90.64	-1.00	-90.00	90.01	81.50	8.51	10.580		
1,400.00	1,400.00	1,400.00	1,400.00	4.28	4.28	-90.64	-1.00	-90.00	90.01	81.44	8.57	10.506 CC, ES		
1,500.00	1,500.00	1,499.71	1,499.71	4.34	4.34	-90.09	-0.15	-90.16	90.16	81.48	8.69	10.380		
1,600.00	1,600.00	1,599.36	1,599.32	4.43	4.43	-88.48	2.41	-90.85	90.69	81.83	8.86	10.234		
1,700.00	1,700.00	1,698.89	1,698.76	4.55	4.55	-85.84	6.65	-91.47	91.72	82.63	9.09	10.091		
1,800.00	1,800.00	1,798.24	1,797.92	4.68	4.69	-82.26	12.59	-92.61	93.48	84.12	9.37	9.980		
1,900.00	1,899.99	1,902.63	1,896.74	4.85	4.86	-129.22	20.19	-94.07	96.81	87.12	9.70	9.983		
2,000.00	1,999.96	2,002.94	1,996.06	5.02	5.05	-125.80	28.72	-95.71	102.00	91.94	10.06	10.135		
2,100.00	2,099.86	2,103.24	2,095.38	5.22	5.26	-123.47	37.25	-97.35	108.46	97.99	10.47	10.360		
2,200.00	2,199.68	2,203.55	2,194.68	5.44	5.48	-122.13	45.79	-98.98	115.99	105.09	10.91	10.633		
2,300.00	2,299.37	2,303.92	2,293.94	5.67	5.73	-121.63	54.31	-100.62	124.48	113.10	11.38	10.938		
2,400.00	2,398.99	2,404.32	2,393.16	5.92	5.98	-121.57	62.84	-102.26	133.43	121.55	11.88	11.231		
2,500.00	2,498.60	2,504.72	2,492.38	6.18	6.25	-121.53	71.36	-103.90	142.37	129.97	12.40	11.478		
2,600.00	2,598.22	2,605.12	2,591.60	6.45	6.53	-121.48	79.89	-105.53	151.32	138.37	12.95	11.686		
2,700.00	2,697.84	2,705.52	2,690.82	6.73	6.82	-121.45	88.41	-107.17	160.26	146.75	13.51	11.860		
2,800.00	2,797.46	2,805.92	2,790.04	7.02	7.12	-121.41	96.94	-108.81	169.21	155.11	14.09	12.006		
2,900.00	2,897.08	2,906.32	2,889.26	7.32	7.42	-121.38	105.46	-110.44	178.15	163.46	14.69	12.128		
3,000.00	2,996.70	3,006.73	2,988.48	7.63	7.73	-121.36	113.99	-112.08	187.10	171.80	15.30	12.231		
3,100.00	3,096.32	3,107.13	3,087.70	7.94	8.05	-121.33	122.51	-113.72	196.04	180.13	15.92	12.317		
3,200.00	3,195.94	3,207.53	3,186.92	8.25	8.37	-121.31	131.04	-115.35	204.99	188.44	16.55	12.388		
3,300.00	3,295.56	3,307.93	3,286.14	8.58	8.70	-121.29	139.56	-116.99	213.94	196.75	17.19	12.448		
3,400.00	3,395.18	3,391.67	3,385.36	8.90	8.97	-121.27	148.09	-118.63	222.88	205.10	17.78	12.536		
3,500.00	3,494.80	3,491.27	3,484.58	9.23	9.30	-121.25	156.61	-120.27	231.83	213.40	18.43	12.579		
3,600.00	3,594.42	3,609.13	3,583.80	9.56	9.70	-121.24	165.14	-121.90	240.77	221.62	19.15	12.574		
3,700.00	3,694.04	3,709.53	3,683.02	9.90	10.04	-121.22	173.66	-123.54	249.72	229.90	19.82	12.602		
3,800.00	3,793.66	3,809.93	3,782.24	10.24	10.38	-121.21	182.19	-125.18	258.67	238.18	20.49	12.626		
3,900.00	3,893.28	3,889.67	3,881.46	10.58	10.65	-121.19	190.71	-126.81	267.61	246.52	21.09	12.687		
4,000.00	3,992.90	3,989.26	3,980.68	10.92	10.99	-121.18	199.24	-128.45	276.56	254.78	21.77	12.702		
4,100.00	4,092.52	4,088.86	4,079.90	11.27	11.34	-121.17	207.76	-130.09	285.50	263.05	22.45	12.715		
4,200.00	4,192.14	4,188.46	4,179.12	11.62	11.68	-121.16	216.29	-131.73	294.45	271.31	23.14	12.725		
4,300.00	4,291.76	4,288.06	4,278.34	11.96	12.03	-121.15	224.81	-133.36	303.39	279.57	23.83	12.732		
4,400.00	4,391.37	4,387.66	4,377.56	12.32	12.38	-121.14	233.34	-135.00	312.34	287.82	24.52	12.738		
4,500.00	4,490.99	4,487.26	4,476.78	12.67	12.73	-121.13	241.86	-136.64	321.29	296.07	25.22	12.742		
4,600.00	4,590.61	4,586.86	4,576.00	13.02	13.09	-121.12	250.38	-138.27	330.23	304.32	25.91	12.744		
4,700.00	4,690.23	4,686.46	4,675.22	13.38	13.44	-121.11	258.91	-139.91	339.18	312.57	26.61	12.745		
4,800.00	4,789.85	4,789.85	4,778.29	13.73	13.80	-121.23	266.89	-141.44	347.70	320.36	27.33	12.721		
4,900.00	4,889.47	4,894.38	4,882.68	14.09	14.16	-121.74	272.24	-142.47	354.88	326.83	28.05	12.651		
5,000.00	4,989.09	4,998.90	4,987.16	14.45	14.52	-122.61	274.77	-142.96	360.75	331.99	28.76	12.543		
5,100.00	5,088.71	5,100.45	5,088.71	14.80	14.85	-123.75	275.00	-143.00	365.64	336.19	29.45	12.415		

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

Pro Directional Anticollision Report

Company: Matador Resources
Project: Lea County, NM
Reference Site: Carl Mottek 17-24S-34E AR
Site Error: 0.00 usft
Reference Well: 125H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Carl Mottek 17-24S-34E AR - 211H - OH - Prelim Plan A													Offset Site Error:
Survey Program: 0-MWD+HDGM, 1200-MWD+HDGM, 10000-MWD+HDGM													Offset Well Error:
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.00	5,188.33	5,200.07	5,188.33	15.16	15.18	-124.87	275.00	-143.00	370.57	340.43	30.13	12.297	
5,300.00	5,287.95	5,300.31	5,287.95	15.52	15.51	-125.96	275.00	-143.00	375.63	344.81	30.82	12.187	
5,400.00	5,387.57	5,400.69	5,387.57	15.88	15.85	-127.01	275.00	-143.00	380.83	349.31	31.51	12.085	
5,500.00	5,487.19	5,501.07	5,487.19	16.25	16.18	-128.05	275.00	-143.00	386.15	353.95	32.20	11.992	
5,600.00	5,586.81	5,601.45	5,586.81	16.61	16.52	-129.05	275.00	-143.00	391.59	358.70	32.89	11.905	
5,700.00	5,686.43	5,701.83	5,686.43	16.97	16.86	-130.02	275.00	-143.00	397.15	363.57	33.58	11.826	
5,800.00	5,786.05	5,802.21	5,786.05	17.33	17.20	-130.97	275.00	-143.00	402.83	368.55	34.28	11.752	
5,900.00	5,885.67	5,902.59	5,885.67	17.70	17.53	-131.89	275.00	-143.00	408.60	373.64	34.97	11.685	
6,000.00	5,985.29	6,002.97	5,985.29	18.06	17.87	-132.78	275.00	-143.00	414.49	378.82	35.66	11.622	
6,100.00	6,084.91	6,103.35	6,084.91	18.43	18.22	-133.65	275.00	-143.00	420.47	384.11	36.36	11.564	
6,200.00	6,184.53	6,203.73	6,184.53	18.79	18.56	-134.50	275.00	-143.00	426.54	389.49	37.05	11.511	
6,300.00	6,284.14	6,304.11	6,284.14	19.16	18.90	-135.32	275.00	-143.00	432.71	394.96	37.75	11.462	
6,400.00	6,383.76	6,404.49	6,383.76	19.52	19.24	-136.12	275.00	-143.00	438.96	400.51	38.45	11.417	
6,500.00	6,483.38	6,504.88	6,483.38	19.89	19.59	-136.90	275.00	-143.00	445.29	406.15	39.15	11.375	
6,600.00	6,583.00	6,605.26	6,583.00	20.26	19.93	-137.65	275.00	-143.00	451.71	411.86	39.84	11.337	
6,700.00	6,682.62	6,705.64	6,682.62	20.62	20.27	-138.38	275.00	-143.00	458.20	417.65	40.54	11.302	
6,800.00	6,782.24	6,806.02	6,782.24	20.99	20.62	-139.10	275.00	-143.00	464.76	423.52	41.24	11.269	
6,900.00	6,881.86	6,906.40	6,881.86	21.36	20.96	-139.79	275.00	-143.00	471.39	429.45	41.94	11.239	
7,000.00	6,981.49	7,006.76	6,981.49	21.73	21.31	-140.47	275.00	-143.00	477.97	435.33	42.64	11.209	
7,100.00	7,081.28	7,106.98	7,081.28	22.09	21.66	-141.01	275.00	-143.00	483.00	439.66	43.34	11.144	
7,200.00	7,181.20	7,207.06	7,181.20	22.44	22.00	-141.32	275.00	-143.00	486.03	441.99	44.04	11.037	
7,300.00	7,281.19	7,307.07	7,281.19	22.78	22.35	-90.47	275.00	-143.00	487.02	442.29	44.72	10.889	
7,400.00	7,381.19	7,407.07	7,381.19	23.11	22.69	-90.47	275.00	-143.00	487.02	441.61	45.41	10.725	
7,500.00	7,481.19	7,507.07	7,481.19	23.45	23.04	-90.47	275.00	-143.00	487.02	440.92	46.10	10.565	
7,600.00	7,581.19	7,607.07	7,581.19	23.79	23.39	-90.47	275.00	-143.00	487.02	440.23	46.78	10.410	
7,700.00	7,681.19	7,707.07	7,681.19	24.12	23.74	-90.47	275.00	-143.00	487.02	439.55	47.47	10.259	
7,800.00	7,781.19	7,807.07	7,781.19	24.46	24.08	-90.47	275.00	-143.00	487.02	438.86	48.16	10.113	
7,900.00	7,881.19	7,907.07	7,881.19	24.80	24.43	-90.47	275.00	-143.00	487.02	438.17	48.85	9.970	
8,000.00	7,981.19	8,007.07	7,981.19	25.14	24.78	-90.47	275.00	-143.00	487.02	437.48	49.54	9.831	
8,100.00	8,081.19	8,107.07	8,081.19	25.48	25.13	-90.47	275.00	-143.00	487.02	436.79	50.23	9.695	
8,200.00	8,181.19	8,207.07	8,181.19	25.82	25.48	-90.47	275.00	-143.00	487.02	436.09	50.92	9.564	
8,300.00	8,281.19	8,307.07	8,281.19	26.16	25.83	-90.47	275.00	-143.00	487.02	435.40	51.62	9.435	
8,400.00	8,381.19	8,407.07	8,381.19	26.50	26.18	-90.47	275.00	-143.00	487.02	434.71	52.31	9.310	
8,500.00	8,481.19	8,507.07	8,481.19	26.84	26.53	-90.47	275.00	-143.00	487.02	434.01	53.00	9.188	
8,600.00	8,581.19	8,607.07	8,581.19	27.18	26.88	-90.47	275.00	-143.00	487.02	433.32	53.70	9.070	
8,700.00	8,681.19	8,707.07	8,681.19	27.53	27.23	-90.47	275.00	-143.00	487.02	432.62	54.39	8.954	
8,800.00	8,781.19	8,807.07	8,781.19	27.87	27.58	-90.47	275.00	-143.00	487.02	431.93	55.09	8.841	
8,900.00	8,881.19	8,907.07	8,881.19	28.21	27.93	-90.47	275.00	-143.00	487.02	431.23	55.78	8.730	
9,000.00	8,981.19	9,007.07	8,981.19	28.55	28.28	-90.47	275.00	-143.00	487.02	430.54	56.48	8.623	
9,100.00	9,081.19	9,107.07	9,081.19	28.90	28.63	-90.47	275.00	-143.00	487.02	429.84	57.18	8.517	
9,200.00	9,181.19	9,207.07	9,181.19	29.24	28.98	-90.47	275.00	-143.00	487.02	429.14	57.88	8.415	
9,300.00	9,281.19	9,307.07	9,281.19	29.59	29.33	-90.47	275.00	-143.00	487.02	428.44	58.57	8.314	
9,400.00	9,381.19	9,407.07	9,381.19	29.93	29.68	-90.47	275.00	-143.00	487.02	427.74	59.27	8.216	
9,500.00	9,481.19	9,507.07	9,481.19	30.28	30.03	-90.47	275.00	-143.00	487.02	427.04	59.97	8.121	
9,600.00	9,581.19	9,607.07	9,581.19	30.62	30.39	-90.47	275.00	-143.00	487.02	426.34	60.67	8.027	
9,700.00	9,681.19	9,707.07	9,681.19	30.97	30.74	-90.47	275.00	-143.00	487.02	425.65	61.37	7.936	
9,800.00	9,781.19	9,807.07	9,781.19	31.31	31.09	-90.47	275.00	-143.00	487.02	424.94	62.07	7.846	
9,900.00	9,881.19	9,907.07	9,881.19	31.66	31.43	-90.47	275.00	-143.00	487.02	424.26	62.76	7.760	
10,000.00	9,981.19	10,007.07	9,981.19	31.83	31.59	-90.47	275.00	-143.00	487.02	423.92	63.10	7.718	
10,100.00	10,081.19	10,107.07	10,081.19	31.84	31.60	-90.47	275.00	-143.00	487.02	423.91	63.11	7.717	
10,100.00	10,081.19	10,107.07	10,081.19	31.84	31.60	-90.47	275.00	-143.00	487.02	423.91	63.11	7.717 SF	
10,200.00	10,181.18	10,207.08	10,181.18	31.85	31.61	118.29	275.00	-143.00	487.43	424.31	63.12	7.722	

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

Pro Directional Anticollision Report

Company: Matador Resources
Project: Lea County, NM
Reference Site: Carl Mottek 17-24S-34E AR
Site Error: 0.00 usft
Reference Well: 125H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
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		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
10,300.00	10,280.04	10,308.22	10,280.04	31.86	31.62	119.12	275.00	-143.00	494.32	431.18	63.14	7.829		
10,400.00	10,374.93	10,386.67	10,374.93	31.89	31.63	120.65	275.00	-143.00	510.50	447.34	63.16	8.083		
10,500.00	10,462.98	10,474.72	10,462.98	31.93	31.65	122.28	275.00	-143.00	537.50	474.32	63.18	8.508		
10,600.00	10,541.51	10,553.26	10,541.51	31.99	31.67	123.24	275.00	-143.00	576.77	513.55	63.21	9.124		
10,700.00	10,608.95	10,620.69	10,608.95	32.08	31.69	118.30	275.00	-143.00	626.02	562.77	63.25	9.898		
10,800.00	10,664.90	10,676.64	10,664.90	32.18	31.70	112.78	275.00	-143.00	679.77	616.48	63.29	10.740		
10,900.00	10,707.70	10,719.44	10,707.70	32.32	31.71	107.01	275.00	-143.00	738.20	674.86	63.34	11.655		
11,000.00	10,736.07	10,747.81	10,736.07	32.49	31.72	100.35	275.00	-143.00	800.90	737.52	63.38	12.637		
11,100.00	10,749.13	10,760.87	10,749.13	32.71	31.73	92.70	275.00	-143.00	866.71	803.30	63.40	13.669		
11,200.00	10,750.00	10,761.74	10,750.00	32.96	31.73	90.00	275.00	-143.00	935.10	871.68	63.42	14.744		
11,300.00	10,750.00	10,761.74	10,750.00	33.28	31.73	90.00	275.00	-143.00	1,008.53	945.08	63.44	15.896		
11,400.00	10,750.00	10,761.74	10,750.00	33.66	31.73	90.00	275.00	-143.00	1,086.20	1,022.73	63.47	17.114		
11,500.00	10,750.00	10,761.74	10,750.00	34.11	31.73	90.00	275.00	-143.00	1,167.28	1,103.79	63.49	18.385		
11,600.00	10,750.00	10,761.74	10,750.00	34.61	31.73	90.00	275.00	-143.00	1,251.10	1,187.59	63.52	19.698		
11,700.00	10,750.00	10,761.74	10,750.00	35.16	31.73	90.00	275.00	-143.00	1,337.15	1,273.61	63.54	21.044		
11,800.00	10,750.00	10,761.74	10,750.00	35.76	31.73	90.00	275.00	-143.00	1,425.02	1,361.45	63.56	22.418		
11,900.00	10,750.00	13,229.75	12,100.00	36.41	36.46	154.01	-1,088.86	-129.60	1,501.86	1,445.52	56.34	26.658		
12,000.00	10,750.00	13,329.75	12,100.00	37.11	37.15	154.01	-1,188.85	-128.62	1,501.84	1,444.68	57.15	26.277		
12,100.00	10,750.00	13,429.75	12,100.00	37.84	37.88	154.02	-1,288.85	-127.64	1,501.81	1,443.79	58.02	25.885		
12,200.00	10,750.00	13,529.75	12,100.00	38.62	38.64	154.02	-1,388.84	-126.66	1,501.79	1,442.85	58.93	25.484		
12,300.00	10,750.00	13,629.75	12,100.00	39.44	39.45	154.02	-1,488.84	-125.67	1,501.76	1,441.87	59.89	25.076		
12,400.00	10,750.00	13,729.75	12,100.00	40.29	40.29	154.02	-1,588.83	-124.69	1,501.74	1,440.84	60.89	24.663		
12,500.00	10,750.00	13,829.75	12,100.00	41.17	41.16	154.02	-1,688.83	-123.71	1,501.71	1,439.78	61.93	24.247		
12,600.00	10,750.00	13,929.75	12,100.00	42.08	42.07	154.03	-1,788.82	-122.73	1,501.68	1,438.67	63.02	23.830		
12,700.00	10,750.00	14,029.75	12,100.00	43.02	43.00	154.03	-1,888.82	-121.74	1,501.66	1,437.52	64.14	23.413		
12,800.00	10,750.00	14,129.75	12,100.00	43.99	43.96	154.03	-1,988.81	-120.76	1,501.63	1,436.34	65.29	22.998		
12,900.00	10,750.00	14,229.75	12,100.00	44.98	44.95	154.03	-2,088.81	-119.78	1,501.61	1,435.13	66.48	22.586		
13,000.00	10,750.00	14,329.75	12,100.00	46.00	45.96	154.03	-2,188.81	-118.80	1,501.58	1,433.88	67.70	22.179		
13,100.00	10,750.00	14,429.75	12,100.00	47.04	46.99	154.04	-2,288.80	-117.81	1,501.56	1,432.60	68.96	21.776		
13,200.00	10,750.00	14,529.75	12,100.00	48.10	48.04	154.04	-2,388.80	-116.83	1,501.53	1,431.30	70.24	21.379		
13,300.00	10,750.00	14,629.75	12,100.00	49.18	49.11	154.04	-2,488.79	-115.85	1,501.51	1,429.97	71.54	20.988		
13,400.00	10,750.00	14,729.75	12,100.00	50.28	50.21	154.04	-2,588.79	-114.87	1,501.48	1,428.61	72.87	20.604		
13,500.00	10,750.00	14,829.75	12,100.00	51.39	51.31	154.04	-2,688.78	-113.89	1,501.46	1,427.23	74.23	20.227		
13,600.00	10,750.00	14,929.75	12,100.00	52.52	52.44	154.05	-2,788.78	-112.90	1,501.43	1,425.82	75.61	19.857		
13,700.00	10,750.00	15,029.75	12,100.00	53.67	53.58	154.05	-2,888.77	-111.92	1,501.41	1,424.40	77.01	19.496		
13,800.00	10,750.00	15,129.75	12,100.00	54.82	54.73	154.05	-2,988.77	-110.94	1,501.38	1,422.95	78.43	19.142		
13,900.00	10,750.00	15,229.75	12,100.00	55.99	55.90	154.05	-3,088.76	-109.96	1,501.36	1,421.48	79.87	18.796		
14,000.00	10,750.00	15,329.75	12,100.00	57.18	57.08	154.05	-3,188.76	-108.97	1,501.33	1,420.00	81.33	18.459		
14,100.00	10,750.00	15,429.75	12,100.00	58.37	58.27	154.06	-3,288.75	-107.99	1,501.31	1,418.50	82.81	18.129		
14,200.00	10,750.00	15,529.75	12,100.00	59.58	59.47	154.06	-3,388.75	-107.01	1,501.28	1,416.98	84.30	17.808		
14,300.00	10,750.00	15,629.75	12,100.00	60.79	60.68	154.06	-3,488.74	-106.03	1,501.26	1,415.45	85.81	17.495		
14,400.00	10,750.00	15,729.75	12,100.00	62.02	61.90	154.06	-3,588.74	-105.04	1,501.23	1,413.90	87.34	17.189		
14,500.00	10,750.00	15,829.75	12,100.00	63.25	63.13	154.06	-3,688.73	-104.06	1,501.21	1,412.34	88.87	16.892		
14,600.00	10,750.00	15,929.75	12,100.00	64.50	64.37	154.06	-3,788.73	-103.08	1,501.18	1,410.76	90.42	16.602		
14,700.00	10,750.00	16,029.75	12,100.00	65.75	65.62	154.07	-3,888.72	-102.10	1,501.16	1,409.17	91.99	16.319		
14,800.00	10,750.00	16,129.75	12,100.00	67.01	66.88	154.07	-3,988.72	-101.12	1,501.13	1,407.57	93.56	16.044		
14,900.00	10,750.00	16,229.75	12,100.00	68.27	68.14	154.07	-4,088.71	-100.13	1,501.11	1,405.96	95.15	15.776		
15,000.00	10,750.00	16,329.75	12,100.00	69.54	69.41	154.07	-4,188.71	-99.15	1,501.08	1,404.34	96.75	15.516		
15,100.00	10,750.00	16,429.75	12,100.00	70.82	70.68	154.07	-4,288.70	-98.17	1,501.06	1,402.70	98.35	15.262		
15,200.00	10,750.00	16,529.75	12,100.00	72.11	71.97	154.08	-4,388.70	-97.19	1,501.03	1,401.06	99.97	15.014		
15,300.00	10,750.00	16,629.75	12,100.00	73.40	73.25	154.08	-4,488.69	-96.20	1,501.01	1,399.41	101.60	14.774		
15,400.00	10,750.00	16,729.75	12,100.00	74.69	74.55	154.08	-4,588.69	-95.22	1,500.98	1,397.75	103.24	14.539		

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

Pro Directional Anticollision Report

Company: Matador Resources
Project: Lea County, NM
Reference Site: Carl Mottek 17-24S-34E AR
Site Error: 0.00 usft
Reference Well: 125H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
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		Offset		Semi Major Axis		Highside Tooface (")	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
15,500.00	10,750.00	16,829.75	12,100.00	75.99	75.84	154.08	-4,688.68	-94.24	1,500.96	1,396.08	104.88	14.311		
15,525.76	10,750.00	16,855.51	12,100.00	76.30	76.18	154.08	-4,714.44	-93.99	1,500.95	1,395.73	105.23	14.264		

Pro Directional Anticollision Report

Company: Matador Resources
Project: Lea County, NM
Reference Site: Carl Mottek 17-24S-34E AR
Site Error: 0.00 usft
Reference Well: 125H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
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	Vertical	Measured	Vertical	Semi Major Axis		Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor		
0.00	0.00	0.00	0.00	0.00	0.00	90.00	0.00	30.00	30.00					
100.00	100.00	100.00	100.00	0.13	0.13	90.00	0.00	30.00	30.00	29.75	0.25	117.871		
200.00	200.00	200.00	200.00	0.49	0.49	90.00	0.00	30.00	30.00	29.03	0.97	30.881		
300.00	300.00	300.00	300.00	0.84	0.84	90.00	0.00	30.00	30.00	28.31	1.69	17.768		
400.00	400.00	400.00	400.00	1.20	1.20	90.00	0.00	30.00	30.00	27.59	2.41	12.472		
500.00	500.00	500.00	500.00	1.56	1.56	90.00	0.00	30.00	30.00	26.88	3.12	9.608		
600.00	600.00	600.00	600.00	1.92	1.92	90.00	0.00	30.00	30.00	26.16	3.84	7.814		
700.00	700.00	700.00	700.00	2.28	2.28	90.00	0.00	30.00	30.00	25.44	4.56	6.584		
800.00	800.00	800.00	800.00	2.64	2.64	90.00	0.00	30.00	30.00	24.73	5.27	5.689		
900.00	900.00	900.00	900.00	3.00	3.00	90.00	0.00	30.00	30.00	24.01	5.99	5.008		
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	90.00	0.00	30.00	30.00	23.29	6.71	4.473		
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	90.00	0.00	30.00	30.00	22.58	7.42	4.041		
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	90.00	0.00	30.00	30.00	21.86	8.14	3.685		
1,300.00	1,300.00	1,300.00	1,300.00	4.25	4.25	90.00	0.00	30.00	30.00	21.49	8.51	3.527		
1,400.00	1,400.00	1,400.00	1,400.00	4.28	4.28	90.00	0.00	30.00	30.00	21.43	8.57	3.502 CC, ES		
1,500.00	1,500.00	1,499.54	1,499.53	4.34	4.34	89.20	0.43	30.75	30.76	22.07	8.68	3.541		
1,600.00	1,600.00	1,599.02	1,598.98	4.43	4.43	87.02	1.72	33.00	33.06	24.20	8.86	3.733		
1,700.00	1,700.00	1,698.37	1,698.24	4.55	4.54	83.99	3.87	36.74	36.98	27.90	9.08	4.073		
1,800.00	1,800.00	1,797.55	1,797.23	4.68	4.68	80.71	6.86	41.96	42.60	33.26	9.35	4.557		
1,900.00	1,899.99	1,903.47	1,895.91	4.85	4.86	27.06	10.70	48.65	49.20	39.53	9.67	5.087		
2,000.00	1,999.96	2,003.66	1,995.34	5.02	5.04	25.49	15.04	56.19	55.19	45.16	10.03	5.501		
2,100.00	2,099.86	2,103.76	2,094.86	5.22	5.25	24.92	19.37	63.74	59.63	49.20	10.43	5.716		
2,200.00	2,199.68	2,196.20	2,194.44	5.44	5.46	25.10	23.71	71.30	62.49	51.64	10.85	5.760		
2,300.00	2,299.37	2,303.81	2,294.04	5.67	5.72	25.93	28.05	78.85	63.78	52.45	11.33	5.629		
2,400.00	2,398.99	2,403.82	2,393.65	5.92	5.98	27.09	32.38	86.41	64.30	52.48	11.82	5.439		
2,500.00	2,498.60	2,503.83	2,493.26	6.18	6.25	28.23	36.72	93.97	64.84	52.51	12.34	5.256		
2,600.00	2,598.22	2,603.84	2,592.87	6.45	6.53	29.35	41.06	101.53	65.42	52.54	12.87	5.081		
2,700.00	2,697.84	2,703.85	2,692.48	6.73	6.82	30.45	45.40	109.09	66.01	52.58	13.43	4.915		
2,800.00	2,797.46	2,803.86	2,792.09	7.02	7.11	31.53	49.74	116.64	66.64	52.63	14.00	4.759		
2,900.00	2,897.08	2,903.87	2,891.70	7.32	7.42	32.59	54.08	124.20	67.28	52.69	14.59	4.612		
3,000.00	2,896.70	3,003.88	2,991.31	7.63	7.73	33.63	58.42	131.76	67.95	52.76	15.19	4.473		
3,100.00	3,096.32	3,103.89	3,090.92	7.94	8.05	34.64	62.76	139.32	68.63	52.83	15.80	4.344		
3,200.00	3,195.94	3,203.90	3,190.53	8.25	8.37	35.64	67.10	146.88	69.34	52.92	16.42	4.222		
3,300.00	3,295.56	3,303.91	3,290.14	8.58	8.69	36.62	71.43	154.43	70.07	53.02	17.06	4.109		
3,400.00	3,395.18	3,403.92	3,389.75	8.90	9.02	37.58	75.77	161.99	70.83	53.13	17.70	4.002		
3,500.00	3,494.80	3,503.93	3,489.36	9.23	9.35	38.51	80.11	169.55	71.60	53.25	18.34	3.903		
3,600.00	3,594.42	3,596.06	3,588.97	9.56	9.66	39.43	84.45	177.11	72.38	53.41	18.97	3.815		
3,700.00	3,694.04	3,703.95	3,688.58	9.90	10.03	40.33	88.79	184.66	73.19	53.53	19.66	3.722		
3,800.00	3,793.66	3,803.96	3,788.19	10.24	10.37	41.20	93.13	192.22	74.01	53.68	20.33	3.641		
3,900.00	3,893.28	3,903.97	3,887.80	10.58	10.71	42.06	97.47	199.78	74.86	53.85	21.00	3.564		
4,000.00	3,992.90	4,003.98	3,987.41	10.92	11.06	42.90	101.81	207.34	75.71	54.03	21.68	3.492		
4,100.00	4,092.52	4,103.99	4,087.02	11.27	11.41	43.72	106.14	214.90	76.59	54.22	22.36	3.425		
4,200.00	4,192.14	4,196.00	4,186.63	11.62	11.73	44.52	110.48	222.45	77.47	54.45	23.02	3.365		
4,300.00	4,291.76	4,304.01	4,286.24	11.96	12.11	45.30	114.82	230.01	78.38	54.64	23.74	3.302		
4,400.00	4,391.37	4,404.02	4,385.85	12.32	12.46	46.06	119.16	237.57	79.30	54.86	24.43	3.245		
4,500.00	4,490.99	4,504.03	4,485.46	12.67	12.81	46.81	123.50	245.13	80.23	55.10	25.13	3.192		
4,600.00	4,590.61	4,604.04	4,585.07	13.02	13.17	47.54	127.84	252.69	81.17	55.34	25.83	3.142		
4,700.00	4,690.23	4,704.05	4,684.68	13.38	13.53	48.25	132.18	260.24	82.13	55.60	26.53	3.095		
4,800.00	4,789.85	4,804.06	4,784.29	13.73	13.88	48.95	136.52	267.80	83.10	55.86	27.24	3.051		
4,900.00	4,889.47	4,904.07	4,883.90	14.09	14.24	49.63	140.85	275.36	84.08	56.13	27.95	3.009		
5,000.00	4,989.09	5,004.08	4,983.51	14.45	14.60	50.29	145.19	282.92	85.07	56.42	28.66	2.969		
5,100.00	5,088.71	5,104.09	5,083.12	14.80	14.96	50.94	149.53	290.48	86.08	56.71	29.37	2.931		

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

Pro Directional Anticollision Report

Company: Matador Resources
Project: Lea County, NM
Reference Site: Carl Mottek 17-24S-34E AR
Site Error: 0.00 usft
Reference Well: 125H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: WellPlanner1
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		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,200.00	5,188.33	5,204.10	5,182.73	15.16	15.32	51.57	153.87	298.03	87.10	57.01	30.08	2.895		
5,300.00	5,287.95	5,304.11	5,282.34	15.52	15.68	52.19	158.21	305.59	88.12	57.32	30.80	2.861		
5,400.00	5,387.57	5,404.12	5,381.95	15.88	16.05	52.80	162.55	313.15	89.16	57.64	31.52	2.829		
5,500.00	5,487.19	5,504.13	5,481.56	16.25	16.41	53.39	166.89	320.71	90.20	57.97	32.24	2.798		
5,600.00	5,586.81	5,604.14	5,581.17	16.61	16.77	53.97	171.23	328.26	91.26	58.30	32.96	2.769		
5,700.00	5,686.43	5,704.15	5,680.78	16.97	17.14	54.53	175.56	335.82	92.32	58.64	33.68	2.741		
5,800.00	5,786.05	5,804.16	5,780.39	17.33	17.50	55.08	179.90	343.38	93.39	58.99	34.40	2.715		
5,900.00	5,885.67	5,904.16	5,880.00	17.70	17.87	55.62	184.24	350.94	94.48	59.35	35.13	2.689		
6,000.00	5,985.29	5,995.83	5,979.61	18.06	18.20	56.14	188.58	358.50	95.56	59.74	35.82	2.668		
6,100.00	6,084.91	6,104.18	6,079.22	18.43	18.60	56.66	192.92	366.05	96.66	60.08	36.58	2.642		
6,200.00	6,184.53	6,204.19	6,178.83	18.79	18.96	57.16	197.26	373.61	97.77	60.46	37.31	2.620		
6,300.00	6,284.14	6,304.20	6,278.43	19.16	19.33	57.65	201.60	381.17	98.88	60.84	38.04	2.599		
6,400.00	6,383.76	6,404.21	6,378.04	19.52	19.70	58.13	205.94	388.73	100.00	61.23	38.77	2.579		
6,500.00	6,483.38	6,504.22	6,477.65	19.89	20.06	58.60	210.27	396.29	101.12	61.62	39.50	2.560		
6,600.00	6,583.00	6,604.23	6,577.26	20.26	20.43	59.06	214.61	403.84	102.26	62.02	40.23	2.542		
6,700.00	6,682.62	6,704.24	6,676.87	20.62	20.80	59.51	218.95	411.40	103.40	62.43	40.97	2.524		
6,800.00	6,782.24	6,804.25	6,776.48	20.99	21.17	59.95	223.29	418.96	104.54	62.84	41.70	2.507		
6,900.00	6,881.86	6,895.74	6,876.09	21.36	21.50	60.38	227.63	426.52	105.69	63.29	42.40	2.493		
7,000.00	6,981.49	7,004.27	6,975.70	21.73	21.90	60.73	231.97	434.07	106.93	63.76	43.17	2.477		
7,100.00	7,081.28	7,104.31	7,075.29	22.09	22.27	60.15	236.31	441.63	109.18	65.31	43.88	2.488		
7,200.00	7,181.20	7,204.43	7,174.78	22.44	22.64	58.47	240.64	449.18	112.79	68.24	44.56	2.532		
7,300.00	7,281.19	7,304.71	7,274.12	22.78	23.01	106.80	244.97	456.72	117.95	72.75	45.21	2.609		
7,400.00	7,381.19	7,405.09	7,373.36	23.11	23.39	103.88	249.29	464.25	124.11	78.26	45.85	2.707		
7,500.00	7,481.19	7,505.48	7,472.60	23.45	23.76	101.24	253.61	471.78	130.56	84.06	46.50	2.808		
7,600.00	7,581.19	7,605.86	7,571.84	23.79	24.13	98.85	257.94	479.31	137.26	90.11	47.15	2.911		
7,700.00	7,681.19	7,706.24	7,671.08	24.12	24.50	96.69	262.26	486.84	144.17	96.36	47.81	3.016		
7,800.00	7,781.19	7,793.38	7,770.32	24.46	24.82	94.72	266.58	494.37	151.27	102.84	48.43	3.124		
7,900.00	7,881.19	7,893.00	7,869.56	24.80	25.19	92.94	270.90	501.90	158.53	109.44	49.09	3.229		
8,000.00	7,981.19	7,995.69	7,971.94	25.14	25.57	91.42	274.91	508.88	165.19	115.41	49.78	3.319		
8,100.00	8,081.19	8,099.47	8,075.57	25.48	25.94	90.47	277.60	513.56	169.66	119.20	50.46	3.362		
8,200.00	8,181.19	8,203.46	8,179.53	25.82	26.30	90.04	278.88	515.79	171.80	120.67	51.13	3.360		
8,300.00	8,281.19	8,305.13	8,281.19	26.16	26.64	90.00	279.00	516.00	172.00	120.20	51.80	3.321		
8,400.00	8,381.19	8,405.13	8,381.19	26.50	26.97	90.00	279.00	516.00	172.00	119.52	52.48	3.278		
8,500.00	8,481.19	8,505.13	8,481.19	26.84	27.30	90.00	279.00	516.00	172.00	118.84	53.16	3.236		
8,600.00	8,581.19	8,605.13	8,581.19	27.18	27.64	90.00	279.00	516.00	172.00	118.16	53.84	3.195		
8,700.00	8,681.19	8,705.13	8,681.19	27.53	27.97	90.00	279.00	516.00	172.00	117.47	54.53	3.154		
8,800.00	8,781.19	8,805.13	8,781.19	27.87	28.31	90.00	279.00	516.00	172.00	116.79	55.21	3.115		
8,900.00	8,881.19	8,905.13	8,881.19	28.21	28.64	90.00	279.00	516.00	172.00	116.10	55.90	3.077		
9,000.00	8,981.19	9,005.13	8,981.19	28.55	28.98	90.00	279.00	516.00	172.00	115.42	56.58	3.040		
9,100.00	9,081.19	9,105.13	9,081.19	28.90	29.31	90.00	279.00	516.00	172.00	114.73	57.27	3.003		
9,200.00	9,181.19	9,205.13	9,181.19	29.24	29.65	90.00	279.00	516.00	172.00	114.04	57.96	2.968		
9,300.00	9,281.19	9,305.13	9,281.19	29.59	29.99	90.00	279.00	516.00	172.00	113.35	58.65	2.933		
9,400.00	9,381.19	9,405.13	9,381.19	29.93	30.33	90.00	279.00	516.00	172.00	112.66	59.34	2.899		
9,500.00	9,481.19	9,505.13	9,481.19	30.28	30.66	90.00	279.00	516.00	172.00	111.97	60.03	2.865		
9,600.00	9,581.19	9,605.13	9,581.19	30.62	31.00	90.00	279.00	516.00	172.00	111.28	60.72	2.833		
9,700.00	9,681.19	9,705.13	9,681.19	30.97	31.34	90.00	279.00	516.00	172.00	110.59	61.41	2.801		
9,800.00	9,781.19	9,805.13	9,781.19	31.31	31.68	90.00	279.00	516.00	172.00	109.90	62.10	2.770		
9,900.00	9,881.19	9,905.13	9,881.19	31.66	32.02	90.00	279.00	516.00	172.00	109.21	62.79	2.739		
10,000.00	9,981.19	10,005.13	9,981.19	31.83	32.36	90.00	279.00	516.00	172.00	108.69	63.31	2.717		
10,100.00	10,081.19	10,105.13	10,081.19	31.84	32.70	90.00	279.00	516.00	172.00	108.34	63.66	2.702		
10,200.00	10,181.18	10,205.11	10,181.18	31.85	33.05	-61.59	279.00	516.00	171.58	107.57	64.01	2.681		
10,300.00	10,280.04	10,303.97	10,280.04	31.86	33.38	-66.45	279.00	516.00	165.29	101.01	64.29	2.571		

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

Pro Directional Anticollision Report

Company: Matador Resources
Project: Lea County, NM
Reference Site: Carl Mottek 17-24S-34E AR
Site Error: 0.00 usft
Reference Well: 125H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
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		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E/W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
10,400.00	10,374.93	10,401.13	10,374.93	31.89	33.71	-77.49	279.00	516.00	155.20	90.68	64.51	2.406					
10,479.85	10,445.92	10,469.86	10,445.92	31.92	33.95	-90.00	279.00	516.00	150.86	86.12	64.75	2.330 SF					
10,500.00	10,462.98	10,486.92	10,462.98	31.93	34.01	-93.41	279.00	516.00	151.24	86.41	64.84	2.333					
10,600.00	10,541.51	10,565.45	10,541.51	31.99	34.28	-109.30	279.00	516.00	167.35	101.86	65.49	2.555					
10,700.00	10,608.95	10,632.89	10,608.95	32.08	34.51	-126.07	279.00	516.00	212.41	146.19	66.22	3.208					
10,800.00	10,664.90	10,688.83	10,664.90	32.18	34.70	-138.15	279.00	516.00	282.83	216.12	66.71	4.240					
10,900.00	10,707.70	10,731.64	10,707.70	32.32	34.85	-145.91	279.00	516.00	368.39	301.38	67.01	5.497					
11,000.00	10,736.07	10,760.00	10,736.07	32.49	34.94	-150.83	279.00	516.00	462.70	395.51	67.19	6.886					
11,100.00	10,749.13	10,773.07	10,749.13	32.71	34.99	-153.73	279.00	516.00	561.47	494.20	67.27	8.347					
11,200.00	10,750.00	10,773.94	10,750.00	32.96	34.99	-90.00	279.00	516.00	661.45	594.17	67.28	9.831					
11,300.00	10,750.00	10,773.94	10,750.00	33.28	34.99	-90.00	279.00	516.00	761.45	694.16	67.29	11.316					
11,400.00	10,750.00	10,773.94	10,750.00	33.66	34.99	-90.00	279.00	516.00	861.45	794.15	67.30	12.800					
11,500.00	10,750.00	10,773.94	10,750.00	34.11	34.99	-90.00	279.00	516.00	961.45	894.14	67.31	14.283					
11,600.00	10,750.00	10,773.94	10,750.00	34.61	34.99	-90.00	279.00	516.00	1,061.45	994.13	67.33	15.766					
11,700.00	10,750.00	10,773.94	10,750.00	35.16	34.99	-90.00	279.00	516.00	1,161.45	1,094.11	67.34	17.248					
11,800.00	10,750.00	10,773.94	10,750.00	35.76	34.99	-90.00	279.00	516.00	1,261.45	1,194.10	67.36	18.728					
11,900.00	10,750.00	13,239.47	12,100.00	36.41	39.33	-180.00	-1,082.39	528.56	1,350.00	1,298.72	51.28	26.327					
12,000.00	10,750.00	13,339.47	12,100.00	37.11	39.97	-180.00	-1,182.39	529.48	1,350.00	1,298.09	51.90	26.009					
12,100.00	10,750.00	13,439.47	12,100.00	37.84	40.64	-180.00	-1,282.38	530.40	1,350.00	1,297.43	52.57	25.680					
12,200.00	10,750.00	13,539.47	12,100.00	38.62	41.36	-180.00	-1,382.38	531.32	1,350.00	1,296.72	53.28	25.340					
12,300.00	10,750.00	13,639.47	12,100.00	39.44	42.11	-180.00	-1,482.38	532.25	1,350.00	1,295.98	54.02	24.992					
12,400.00	10,750.00	13,739.47	12,100.00	40.29	42.90	-180.00	-1,582.37	533.17	1,350.00	1,295.21	54.79	24.639					
12,500.00	10,750.00	13,839.47	12,100.00	41.17	43.73	-180.00	-1,682.37	534.09	1,350.00	1,294.40	55.60	24.280					
12,600.00	10,750.00	13,939.47	12,100.00	42.08	44.58	-180.00	-1,782.36	535.01	1,350.00	1,293.56	56.44	23.918					
12,700.00	10,750.00	14,039.47	12,100.00	43.02	45.46	-180.00	-1,882.36	535.94	1,350.00	1,292.68	57.31	23.554					
12,800.00	10,750.00	14,139.47	12,100.00	43.99	46.37	-180.00	-1,982.35	536.86	1,350.00	1,291.78	58.22	23.190					
12,900.00	10,750.00	14,239.47	12,100.00	44.98	47.31	-180.00	-2,082.35	537.78	1,350.00	1,290.85	59.14	22.825					
13,000.00	10,750.00	14,339.47	12,100.00	46.00	48.27	-180.00	-2,182.35	538.70	1,350.00	1,289.90	60.10	22.463					
13,100.00	10,750.00	14,439.47	12,100.00	47.04	49.26	-180.00	-2,282.34	539.63	1,350.00	1,288.92	61.08	22.102					
13,200.00	10,750.00	14,539.47	12,100.00	48.10	50.27	-180.00	-2,382.34	540.55	1,350.00	1,287.91	62.09	21.744					
13,300.00	10,750.00	14,639.47	12,100.00	49.18	51.29	-180.00	-2,482.33	541.47	1,350.00	1,286.89	63.11	21.390					
13,400.00	10,750.00	14,739.47	12,100.00	50.28	52.34	-180.00	-2,582.33	542.39	1,350.00	1,285.84	64.16	21.040					
13,500.00	10,750.00	14,839.47	12,100.00	51.39	53.41	-180.00	-2,682.32	543.32	1,350.00	1,284.77	65.23	20.695					
13,600.00	10,750.00	14,939.47	12,100.00	52.52	54.49	-180.00	-2,782.32	544.24	1,350.00	1,283.68	66.32	20.355					
13,700.00	10,750.00	15,039.47	12,100.00	53.67	55.59	-180.00	-2,882.32	545.16	1,350.00	1,282.57	67.43	20.020					
13,800.00	10,750.00	15,139.47	12,100.00	54.82	56.70	-180.00	-2,982.31	546.08	1,350.00	1,281.44	68.56	19.691					
13,900.00	10,750.00	15,239.47	12,100.00	55.99	57.83	-180.00	-3,082.31	547.00	1,350.00	1,280.30	69.70	19.368					
14,000.00	10,750.00	15,339.47	12,100.00	57.18	58.97	-180.00	-3,182.30	547.93	1,350.00	1,279.14	70.86	19.051					
14,100.00	10,750.00	15,439.47	12,100.00	58.37	60.13	-180.00	-3,282.30	548.85	1,350.00	1,277.96	72.04	18.740					
14,200.00	10,750.00	15,539.47	12,100.00	59.58	61.29	-180.00	-3,382.30	549.77	1,350.00	1,276.77	73.23	18.435					
14,300.00	10,750.00	15,639.47	12,100.00	60.79	62.47	-180.00	-3,482.29	550.69	1,350.00	1,275.57	74.43	18.137					
14,400.00	10,750.00	15,739.47	12,100.00	62.02	63.66	-180.00	-3,582.29	551.62	1,350.00	1,274.35	75.65	17.845					
14,500.00	10,750.00	15,839.47	12,100.00	63.25	64.86	-180.00	-3,682.28	552.54	1,350.00	1,273.12	76.88	17.560					
14,600.00	10,750.00	15,939.47	12,100.00	64.50	66.06	-180.00	-3,782.28	553.46	1,350.00	1,271.88	78.12	17.280					
14,700.00	10,750.00	16,039.47	12,100.00	65.75	67.28	-180.00	-3,882.27	554.38	1,350.00	1,270.62	79.38	17.007					
14,800.00	10,750.00	16,139.47	12,100.00	67.01	68.51	-180.00	-3,982.27	555.31	1,350.00	1,269.36	80.64	16.741					
14,900.00	10,750.00	16,239.47	12,100.00	68.27	69.74	-180.00	-4,082.27	556.23	1,350.00	1,268.08	81.92	16.480					
15,000.00	10,750.00	16,339.47	12,100.00	69.54	70.98	-180.00	-4,182.26	557.15	1,350.00	1,266.80	83.20	16.225					
15,100.00	10,750.00	16,439.47	12,100.00	70.82	72.23	-180.00	-4,282.26	558.07	1,350.00	1,265.50	84.50	15.977					
15,200.00	10,750.00	16,539.47	12,100.00	72.11	73.49	-180.00	-4,382.25	559.00	1,350.00	1,264.20	85.80	15.734					
15,300.00	10,750.00	16,639.47	12,100.00	73.40	74.75	-180.00	-4,482.25	559.92	1,350.00	1,262.89	87.11	15.497					
15,400.00	10,750.00	16,739.47	12,100.00	74.69	76.02	-180.00	-4,582.24	560.84	1,350.00	1,261.56	88.44	15.265					

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

Pro Directional

Anticollision Report

Company:	Matador Resources	Local Co-ordinate Reference:	Well 125H
Project:	Lea County, NM	TVD Reference:	Rig @ 3607.00usft (GL:3578' + KB:29')
Reference Site:	Carl Mottek 17-24S-34E AR	MD Reference:	Rig @ 3607.00usft (GL:3578' + KB:29')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	125H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	WellPlanner1
Reference Design:	Prelim Plan A	Offset TVD Reference:	Offset Datum

Offset Design 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		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,500.00	10,750.00	16,839.47	12,100.00	75.99	77.29	-180.00	-4,682.24	561.76	1,350.00	1,260.24	89.76	15.039		
15,525.76	10,750.00	16,865.23	12,100.00	76.30	77.62	-180.00	-4,708.00	562.00	1,350.00	1,259.98	90.02	14.997		

Pro Directional Anticollision Report

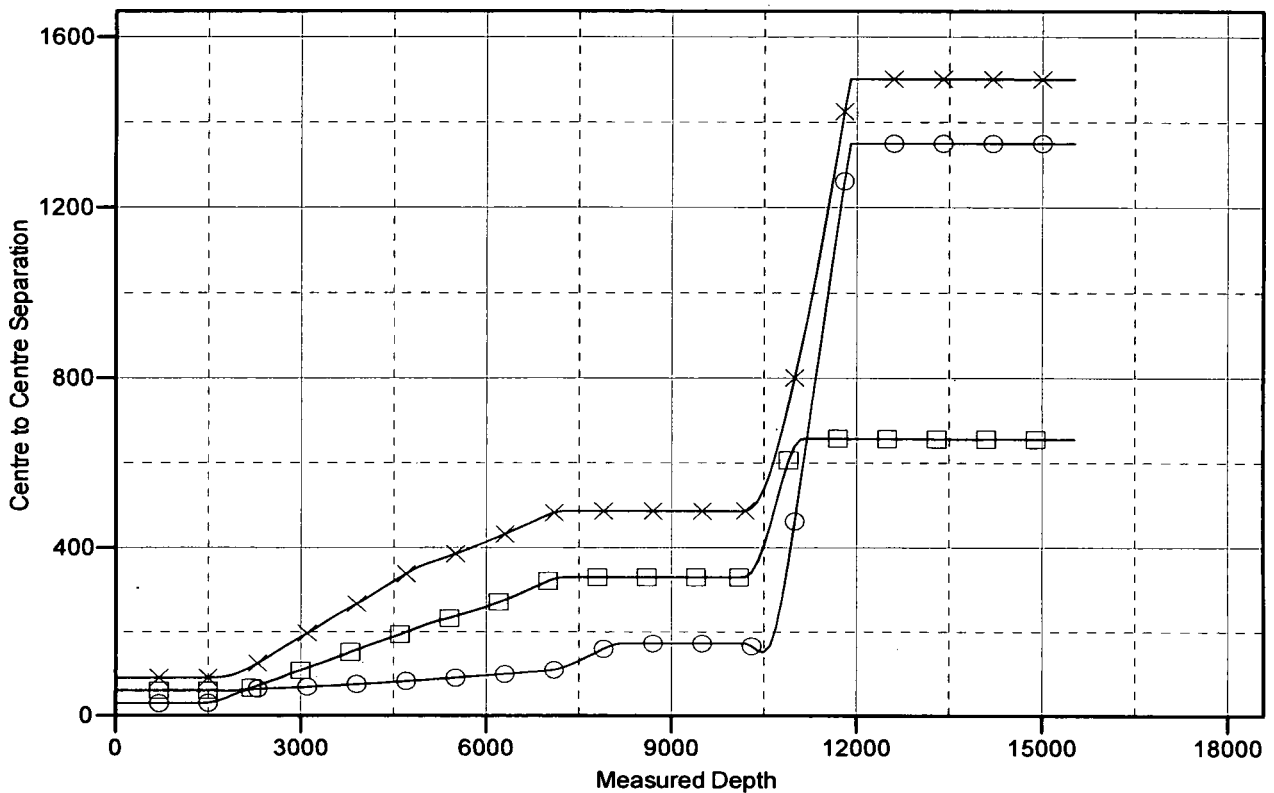
Company: Matador Resources
Project: Lea County, NM
Reference Site: Carl Mottek 17-24S-34E AR
Site Error: 0.00 usft
Reference Well: 125H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Reference Depths are relative to Rig @ 3607.00usft (GL:3578' + KB:29')
Offset Depths are relative to Offset Datum
Central Meridian is -104.3333333

Coordinates are relative to: 125H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.45°

Ladder Plot



LEGEND

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

Pro Directional Anticollision Report

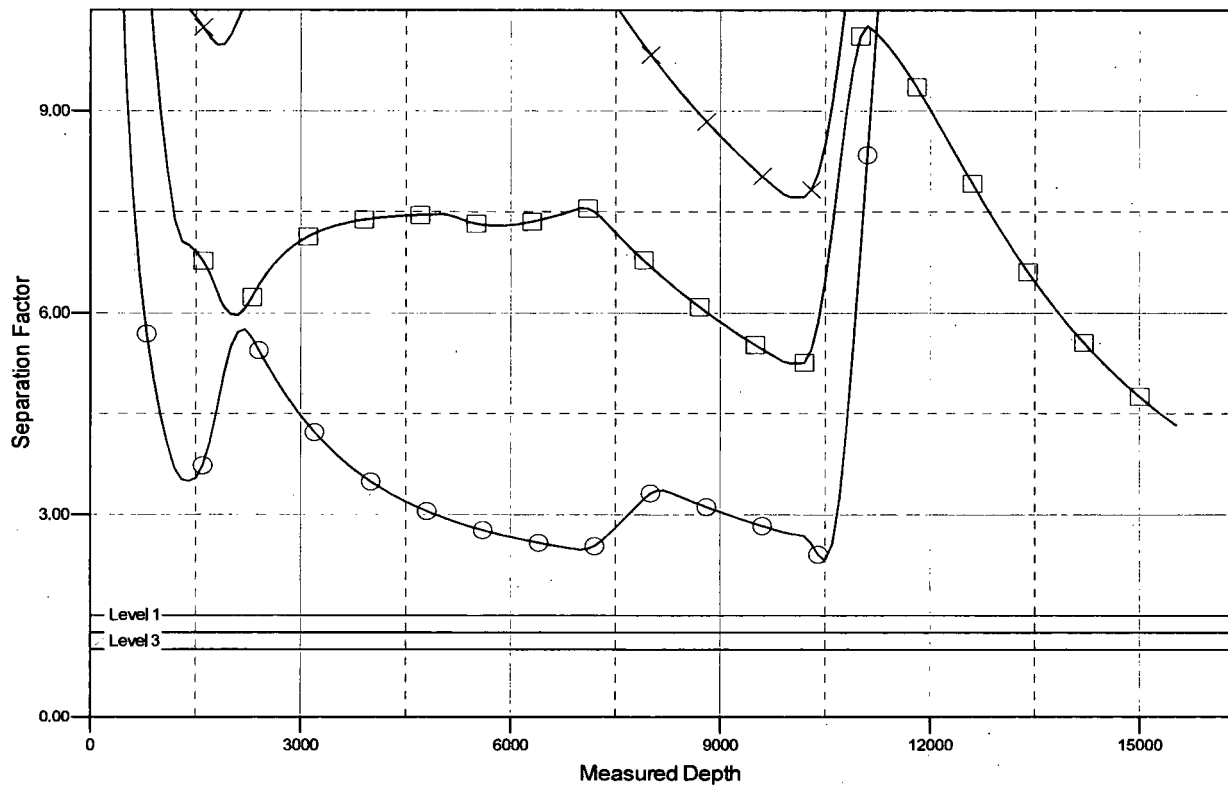
Company: Matador Resources
Project: Lea County, NM
Reference Site: Carl Mottek 17-24S-34E AR
Site Error: 0.00 usft
Reference Well: 125H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim Plan A

Local Co-ordinate Reference: Well 125H
TVD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
MD Reference: Rig @ 3607.00usft (GL:3578' + KB:29')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Reference Depths are relative to Rig @ 3607.00usft (GL:3578' + KB:29')
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.3333333

Coordinates are relative to: 125H
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.45°

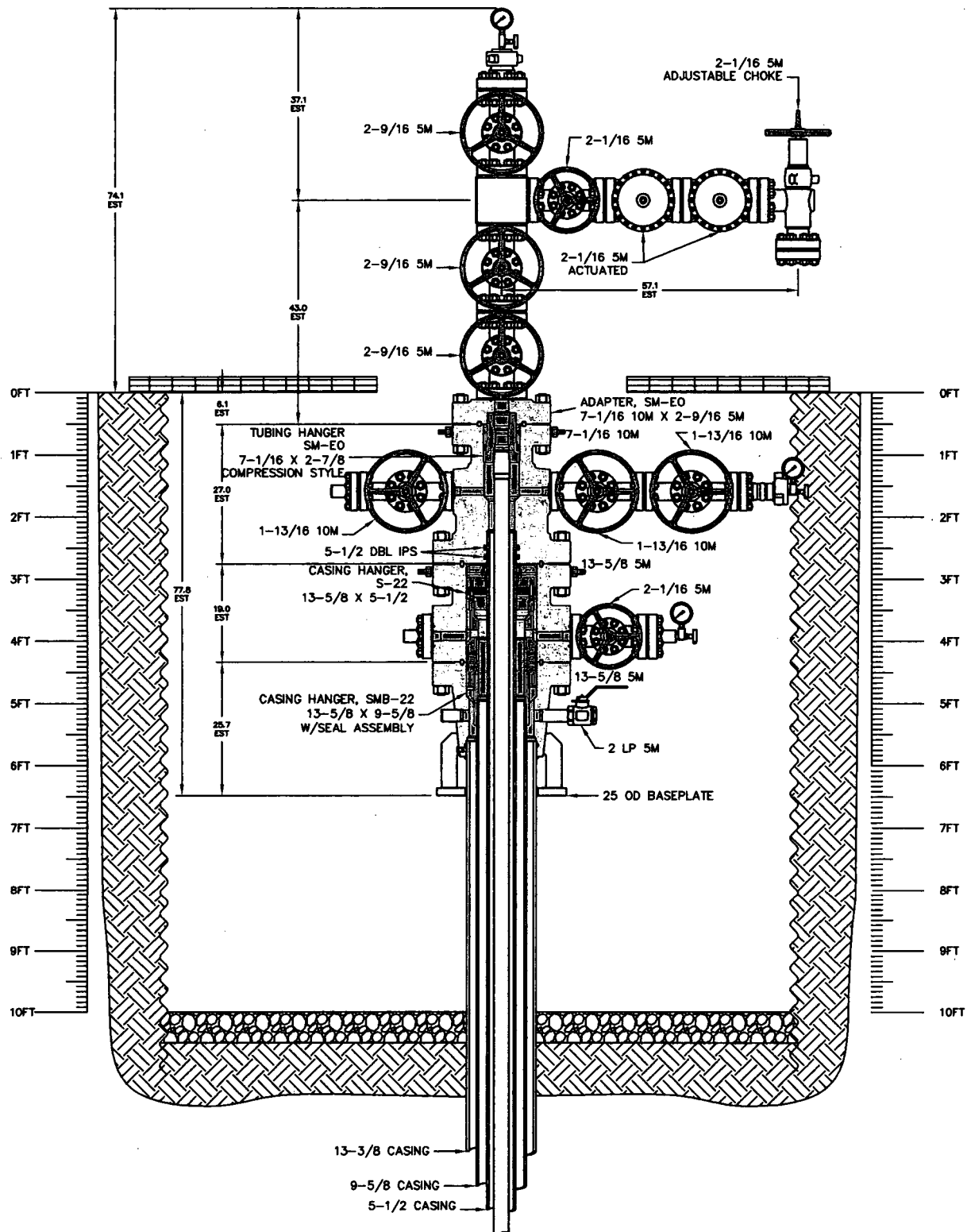
Separation Factor Plot



LEGEND

121H, OH, Prelim Plan A VO 215H, OH, Prelim Plan A VO 211H, OH, Prelim Plan A VO

MATADOR
MQ-436



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CONSENT OF SEABOARD INTERNATIONAL INC.

WEIR

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

DESIGN BY:	RPL	SCALE	1:10	DATE	23SEP16	REV	
CHECKED BY:		DRAWING NO.					
APPROVED BY:		P-21629					

**Matador Production Company
Carl Mottek Federal 125H
SHL 326' FNL & 470' FWL
BHL 240' FSL & 986' FWL
Sec. 17, T. 24 S., R. 34 E., Lea County, NM**

SURFACE PLAN PAGE 1

Surface Use Plan

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

From the junction NM 18 & NM 128 in Jal, NM...
Go NW 19 miles on paved NM 128 the equivalent of Mile Post 31.9
Then turn right and go N 1.0 mile on paved County Road 21, aka Delaware Basin
Then turn right and go E 0.55 mile on a caliche road to far side of COG's 4H pad
(Beware of anchors on COG's Sebastian Fed Com 4H)
Then continue E cross-country 579.49' to the proposed Carl Mottek Federal pad

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

2. ROAD TO BE BUILT OR UPGRADED (See MAPS 4 & 5)

The 579.49' of new resource road will be crowned and ditched, have a 14' wide driving surface, and be surfaced with caliche. Maximum disturbed width = 30'. Maximum grade = 1%. Maximum cut or fill = 1'. No culvert, cattle guard, or vehicle turn out is needed. COG's anchors will be marked. No upgrade is needed.

3. EXISTING WELLS (See MAP 6)

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

4. PROPOSED PRODUCTION FACILITIES (See MAP 7)

Pipeline and power line plans have not been finalized. Production equipment will be on the north side of the pad.

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SHL 326' FNL & 470' FWL
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Sec. 17, T. 24 S., R. 34 E., Lea County, NM**

SURFACE PLAN PAGE 2

5. WATER SUPPLY (See MAP 8)

Water will be trucked via existing roads from the existing Madera water station on private land in NWNE 21-24s-34e.

6. CONSTRUCTION MATERIALS & METHODS (See MAPS 9 & 10)

COG and NM One Call (811) will be notified before construction starts. Top ≈ 6 " of soil and brush will be stockpiled south of the pad. Pipe racks will face north. Closed loop drilling system will be used. Caliche will be hauled from an existing caliche pit on private (Madera) land in SENW 6-25s-35e.

7. WASTE DISPOSAL

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

8. ANCILLARY FACILITIES

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

9. WELL SITE LAYOUT (See MAP 9)

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

10. RECLAMATION (See MAP 11)

Interim reclamation will be completed within 6 months of completing the well. Interim reclamation will consist of shrinking the pad $\approx 23\%$ (0.85 acre) by removing caliche and reclaiming a 100' wide swath on the east side. This will leave 2.80 acres for producing 5 wells and tractor-trailer turn around. Disturbed areas will be contoured to match pre-

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Carl Mottek Federal 125H
SHL 326' FNL & 470' FWL
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Sec. 17, T. 24 S., R. 34 E., Lea County, NM**

SURFACE PLAN PAGE 3

construction grades. Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with the land owner's requirements.

Enough stockpiled topsoil will be retained to cover the remainder of the pad when the well is plugged. Once the last well is plugged, then the rest of the pad and 579.49' of new road will be similarly reclaimed within 6 months of plugging. Noxious weeds will be controlled.

Land use

30' x 579.49' road = 0.40 acre
+ 370' x 430' pad = 3.65 acres
4.05 acres short term
- 0.85 acre interim reclamation pad
3.20 acres long term (0.40 ac. road + 2.80 ac. pad)

11. SURFACE OWNER

Well pad and that portion of the new road in Sec. 17 will be on private surface owned by Billie McKandles Fortner, 1033 Park Center St., Benbrook TX 76126. That portion of the new road in Section 18 will be on private land owned by Rubert Madera, PO Box 2795, Ruidoso NM 88355.

12. OTHER INFORMATION

On-site inspection was held with Vance Wolf (BLM).

CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this 13th day of February, 2018.

**Matador Production Company
Carl Mottek Federal 125H
SHL 326' FNL & 470' FWL
BHL 240' FSL & 986' FWL
Sec. 17, T. 24 S., R. 34 E., Lea County, NM**

SURFACE PLAN PAGE 4



Brian Wood, Consultant
Permits West, Inc.
37 Verano Loop, Santa Fe, NM 87508
(505) 466-8120 FAX: (505) 466-9682 Cellular: (505) 699-2276

Field representative will be:
Sam Pryor, Senior Staff Landman
Matador Production Company
5400 LBJ Freeway, Suite 1500, Dallas TX 75240
Phone: (972) 371-5241 FAX: (214) 866-4841