

Form 3160-3
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of work: ☒ DRILL ☐ REENTER 1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☒ Multiple Zone		5. Lease Serial No. NMNM0003677 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No. LEATHERNECK 3029 FED COM 124H
2. Name of Operator MATADOR PRODUCTION COMPANY		9. API Well No. 3001547026
3a. Address 5400 LBJ Freeway, Suite 1500 Dallas TX 75240	3b. Phone No. (include area code) (972)371-5200	10. Field and Pool, or Exploratory AVALON / BONE SPRING EAST
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface LOT 3 / 1465 FSL / 280 FWL / LAT 32.5412868 / LONG -104.1217313 At proposed prod. zone SESE / 987 FSL / 60 FEL / LAT 32.5398703 / LONG -104.0887996		11. Sec., T. R. M. or Blk. and Survey or Area SEC 30 / T20S / R29E / NMP
14. Distance in miles and direction from nearest town or post office* 8 miles		12. County or Parish EDDY
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 280 feet	16. No of acres in lease 2150.97	17. Spacing Unit dedicated to this well 317.82
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 30 feet	19. Proposed Depth 7815 feet / 17981 feet	20. BLM/BIA Bond No. in file FED: NMB001079
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3236 feet	22. Approximate date work will start* 09/01/2019	23. Estimated duration 65 days

24. Attachments

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

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

25. Signature (Electronic Submission)	Name (Printed/Typed) Brian Wood / Ph: (505)466-8120	Date 07/15/2019
Title President		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 03/30/2020
Title Assistant Field Manager Lands & Minerals		
Office CARLSBAD		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

APPROVED WITH CONDITIONS

Approval Date: 03/30/2020

(Continued on page 2)

*(Instructions on page 2)

Entered 04/14/2020 - KMS NMOCD

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015- 47026		² Pool Code 52805		³ Pool Name AVALON; BONE SPRING EAST	
⁴ Property Code 326053		⁵ Property Name LEATHERNECK 3029 FED COM			⁶ Well Number 124H
⁷ GRID No. 228937		⁸ Operator Name MATADOR PRODUCTION COMPANY			⁹ Elevation 3236'

¹⁰Surface Location

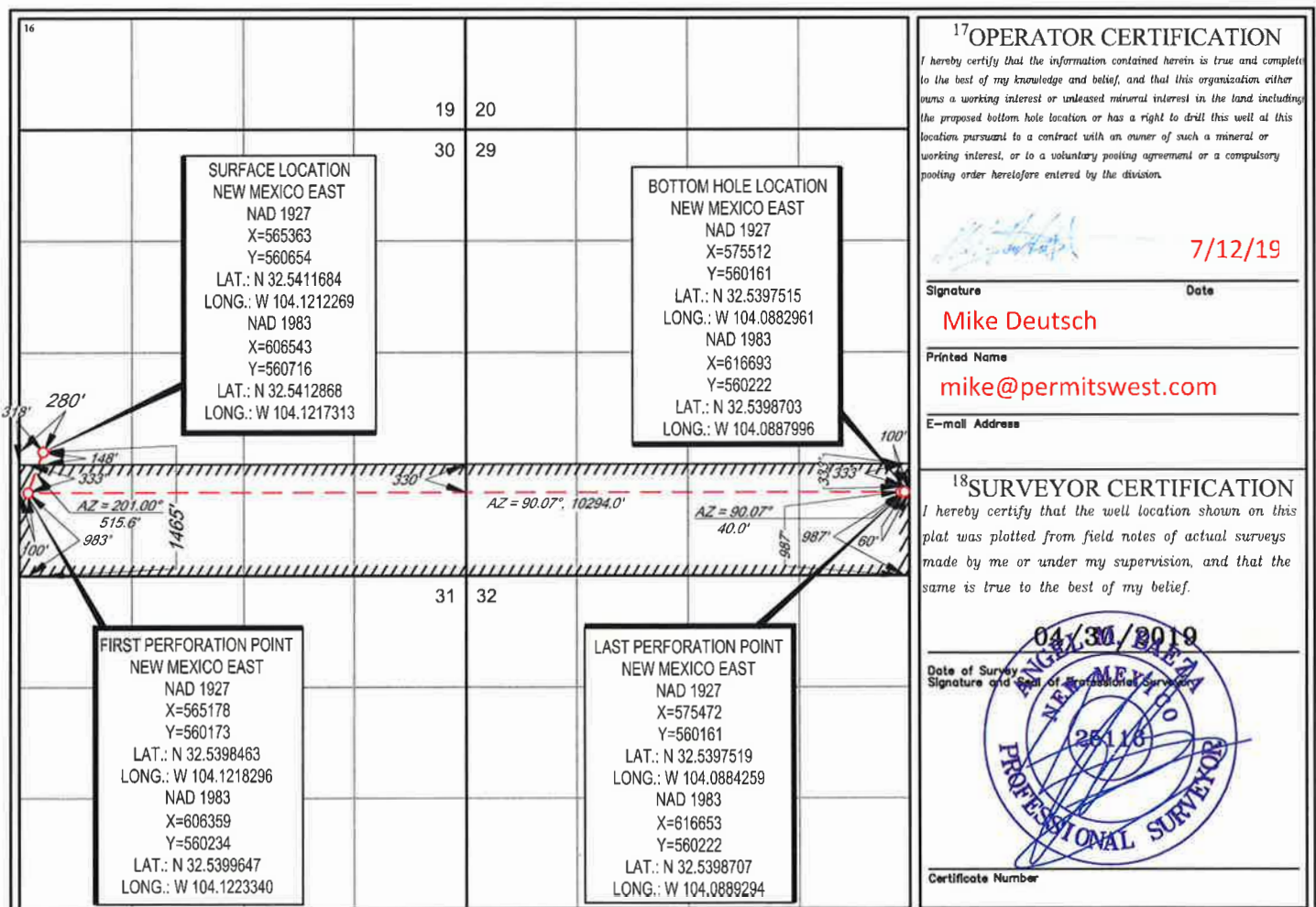
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
3	30	20-S	29-E	-	1465'	SOUTH	280'	WEST	EDDY

¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	29	20-S	29-E	-	987'	SOUTH	60'	EAST	EDDY

¹² Dedicated Acres 317.82	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--	-------------------------------	----------------------------------	-------------------------

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



PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MATADOR PRODUCTION COMPANY
LEASE NO.:	NMNM0003677
WELL NAME & NO.:	LEATHERNECK 3029 FED COM 124H
SURFACE HOLE FOOTAGE:	1465'/S & 280'/W
BOTTOM HOLE FOOTAGE:	987'/S & 60'/E
LOCATION:	Section 30, T.20 S., R.29 E., NMP
COUNTY:	Eddy County, New Mexico

COA

H2S	☒ Yes	☐ No	
Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst Potential	☐ Low	☐ Medium	☒ High
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☐ Conventional	☐ Multibowl	☒ Both
Other	☒ 4 String Area	☒ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☒ COM	☐ Unit

A. HYDROGEN SULFIDE

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

B. CASING

Casing Design:

1. The **20 inch** surface casing shall be set at approximately **400 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after

completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The **13-3/8** inch intermediate casing shall be set at approximately **1200** feet The minimum required fill of cement behind the **13-3/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
- ❖ In **High Cave/Karst Areas** if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- ❖ In **Capitan Reef Areas** if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- ❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:

- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
 - Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.
3. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **50 feet** on top of Capitan Reef top. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- c. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - d. Second stage above DV tool:
 - Cement should tie-back at least **50 feet** on top of Capitan Reef top. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
4. The minimum required fill of cement behind the 5-1/2 inch production casing is:

Option 1 (Single Stage):

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

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2.

Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

1. 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 **5000 (5M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.

- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

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

GENERAL REQUIREMENTS

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

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

☒ Eddy County

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

☒ Lea County

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

NMK03032020

**PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL**

OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 113H 1575'/S & 250'/W 2310'/S & 30'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 114H 1575'/S & 280'/W 987'/S & 60'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 123H 1465'/S & 250'/W 2310'/S & 60'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 124H 1465'/S & 280'/W 987'/S & 60'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 127H 1245'/S & 250'/W 1650'/S & 60'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 128H 1245'/S & 280'/W 330'/S & 60'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 133H 1545'/S & 250'/W 2310'/S & 60'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico

OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 134H 1545'/S & 280'/W 987'/S & 60'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 137H 1355'/S & 280'/W 1650'/S & 60'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 138H 1325'/S & 280'/W 330'/S & 60'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 207H 1356'/S & 250'/W 330'/S & 60'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 208H 1325'/S & 250'/W 330'/S & 60'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 223H 1435'/S & 250'/W 2310'/S & 60'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico
OPERATOR'S NAME: WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: LOCATION: COUNTY:	MATADOR PRODUCTION COMPANY LEATHERNECK 3029 FED COM 224H 1435'/S & 280'/W 987'/S & 60'/E Section 30, T.20 S., R.29 E., NMP Eddy County, New Mexico

TABLE OF CONTENTS

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

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Cave/Karst
 - Hydrology
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Access Roads
 - Electric Lines
- ☐ **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)

Condition of Approval for High Karst:

Construction Mitigation

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

General Construction:

- No blasting
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All linear surface disturbance activities will avoid sinkholes and other karst features to lessen the possibility of encountering near surface voids during construction, minimize changes to runoff, and prevent untimely leaks and spills from entering the karst drainage system.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

Pad Construction:

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

Road Construction:

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

Buried Pipeline/Cable Construction:

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

Powerline Construction:

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

Surface Flowlines Installation:

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

Drilling Mitigation

Federal regulations and standard Conditions of Approval applied to all APDs require that adequate measures are taken to prevent contamination to the environment. Due to the extreme sensitivity of the cave and karst resources in this project area, the following additional Conditions of Approval will be added to this APD.

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

- Closed loop system using steel tanks - all fluids and cuttings will be hauled off-site and disposed of properly at an authorized site
- Rotary drilling with fresh water where cave or karst features are expected to prevent contamination of freshwater aquifers.
- Directional drilling is only allowed at depths greater than 100 feet below the cave occurrence zone to prevent additional impacts resulting from directional drilling.
- Lost circulation zones will be logged and reported in the drilling report so BLM can assess the situation and work with the operator on corrective actions.
- Additional drilling, casing, and cementing procedures to protect cave zones and fresh water aquifers. See drilling COAs.

Production Mitigation

In order to mitigate the impacts from production activities and due to the nature of karst terrane, the following Conditions of Approval will apply to this APD:

- Tank battery locations and facilities will be bermed and lined with a 20 mil thick permanent liner that has a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.
- Development and implementation of a leak detection system to provide an early alert to operators when a leak has occurred.
- Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Residual and Cumulative Mitigation

The operator will perform annual pressure monitoring on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be taken to correct the problem to the BLM's approval.

Plugging and Abandonment Mitigation

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Hydrology:

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility. The berm would be maintained through the life of the wells and after interim reclamation has been completed.

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

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

Grazing Lease Stipulations:

An agreement between Matador Production Company and the active Akali Lake (#77020) allotment (grazing) lease holder must come to an agreement of a new water pipeline location. Matador will move the water pipeline a minimum of 30' away from any oil and gas infrastructure. Matador will also construct the new pipeline prior to disconnecting the old pipeline to ensure cattle will have a source of water through the entire pipeline and oil and gas infrastructure construction.

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

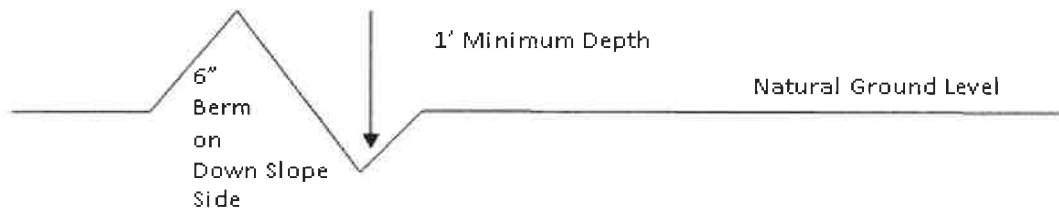
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

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

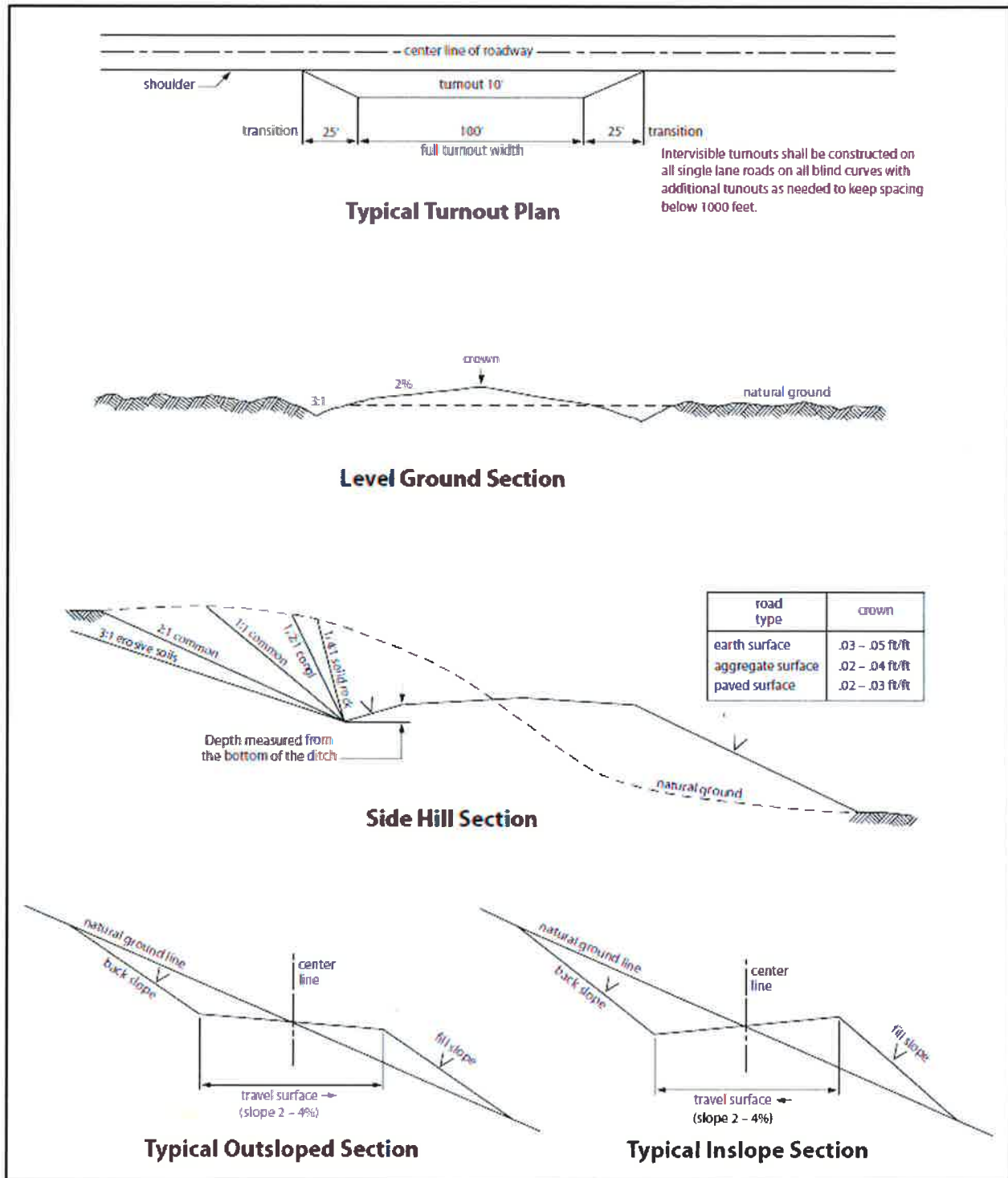


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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).

B. OIL AND GAS RELATED SITES

STANDARD STIPULATIONS FOR OIL AND GAS RELATED SITES

A copy of the application (Grant/Sundry Notice) and attachments, including stipulations and map, will be on location during construction. BLM personnel may request to view a copy of your permit during construction to ensure compliance with all stipulations.

The holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer, BLM.

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant and for all response costs, penalties, damages, claims, and other costs arising from the provisions of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Chap. 82, Section 6901 et. seq., from the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Chap. 109, Section 9601 et. seq., and from other applicable environmental statutes.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42

U.S.C. 9601, et. seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et. seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the site or related pipeline(s), any oil or other pollutant should be discharged from site facilities, the pipeline(s) or from containers or vehicles impacting Federal lands, the control and total removal, disposal, and cleanup of such oil or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

5. Sites shall be maintained in an orderly, sanitary condition at all times. Waste materials, both liquid and solid, shall be disposed of promptly at an appropriate, authorized waste disposal facility in accordance with all applicable State and Federal laws. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, petroleum products, brines, chemicals, oil drums, ashes, and equipment.

6. The operator will notify the Bureau of Land Management (BLM) authorized officer and nearest Fish and Wildlife Service (FWS) Law Enforcement office within 24 hours, if the operator discovers a dead or injured federally protected species (i.e., migratory bird species, bald or golden eagle, or species listed by the FWS as threatened or endangered) in or adjacent to a pit, trench, tank, exhaust stack, or fence. (If the operator is unable to contact the FWS Law Enforcement office, the operator must contact the nearest FWS Ecological Services office.)

7. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for this project is **Shale Green**, Munsell Soil Color Chart Number 5Y 4/2.

8. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of

evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

9. A sales contract for removal of mineral material (caliche, sand, gravel, fill dirt) from an authorized pit, site, or on location must be obtained from the BLM prior to commencing construction. There are several options available for purchasing mineral material: contact the BLM office (575-234-5972).

10. 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.

11. Once the site is no longer in service or use, the site must undergo final abandonment. At final abandonment, the site 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 the abandonment of the site. All pads and 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. 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).

12. The holder shall stockpile an adequate amount of topsoil where blading occurs. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles. The topsoil will be used for final reclamation.

13. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

- | | |
|--|--|
| ☒ seed mixture 1 | ☐ seed mixture 3 |
| ☐ seed mixture 2 | ☒ seed mixture 4 |
| ☐ seed mixture 2/LPC | ☐ Aplomado Falcon Mixture |

14. In those areas where erosion control structures are required to stabilize soil conditions, the holder shall install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound management practices. Any earth work will require prior approval by the Authorized Officer.

15. Open-topped Tanks - 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

16. 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 enclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

17. Open-Vent Exhaust Stack Enclosures – 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 enclosure 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.

18. 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.

19. Special Stipulations:

Hydrology:

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

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

Range:

Cattleguards

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

Fence Requirement

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

Livestock Watering Requirement

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

Karst:

Construction Mitigation

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

General Construction:

- No blasting
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All linear surface disturbance activities will avoid sinkholes and other karst features to lessen the possibility of encountering near surface voids during construction, minimize changes to runoff, and prevent untimely leaks and spills from entering the karst drainage system.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

Pad Construction:

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

Road Construction:

- Turnout ditches and drainage leadoffs will not be constructed in such a manner as to alter the natural flow of water into or out of cave or karst features.

- Special restoration stipulations or realignment may be required if subsurface features are discovered during construction.

Buried Pipeline/Cable Construction:

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

Powerline Construction:

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

Surface Flowlines Installation:

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

Drilling Mitigation

Federal regulations and standard Conditions of Approval applied to all APDs require that adequate measures are taken to prevent contamination to the environment. Due to the extreme sensitivity of the cave and karst resources in this project area, the following additional Conditions of Approval will be added to this APD.

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

- Closed loop system using steel tanks - all fluids and cuttings will be hauled off-site and disposed of properly at an authorized site
- Rotary drilling with fresh water where cave or karst features are expected to prevent contamination of freshwater aquifers.
- Directional drilling is only allowed at depths greater than 100 feet below the cave occurrence zone to prevent additional impacts resulting from directional drilling.
- Lost circulation zones will be logged and reported in the drilling report so BLM can assess the situation and work with the operator on corrective actions.
- Additional drilling, casing, and cementing procedures to protect cave zones and fresh water aquifers. See drilling COAs.

Production Mitigation

In order to mitigate the impacts from production activities and due to the nature of karst terrane, the following Conditions of Approval will apply to this APD:

- Tank battery locations and facilities will be bermed and lined with a 20 mil thick permanent liner that has a 4 oz. felt backing, or equivalent, to prevent tears or

punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

- Development and implementation of a leak detection system to provide an early alert to operators when a leak has occurred.
- Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Residual and Cumulative Mitigation

The operator will perform annual pressure monitoring on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be taken to correct the problem to the BLM's approval.

Plugging and Abandonment Mitigation

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Grazing Lease Stipulations:

An agreement between Matador Production Company and the active Akali Lake (#77020) allotment lease holder must come to an agreement of new water pipeline location. Matador will move the water pipeline a minimum of 30' away from any oil and gas infrastructure. Matador will also construct the new pipeline prior to disconnecting the old pipeline to ensure cattle will have a source of water through the entire pipeline and well pad construction.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

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

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

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 *et seq.* (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on

facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

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

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

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

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

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

7. The BLM serial number assigned to this authorization shall be posted in a permanent,

conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

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

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

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. **Special Stipulations:**

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

Powerline Construction:

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

ELECTRIC LINE(S):

- Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.
- **Grazing Lease Stipulations:**
An agreement between Matador Production Company and the active Akali Lake (#77020) allotment lease holder must come to an agreement of new water pipeline location. Matador will move the water pipeline a minimum of 30' away from any oil and gas infrastructure. Matador will also construct the new pipeline prior to

disconnecting the old pipeline to ensure cattle will have a source of water through the entire pipeline and well pad construction.

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).

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

X Original

Operator & OGRID No.: Matador Production Company (228937)

☐ Amended

Date: 4/24/18

Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: A C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule 19.15.18.12.A

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Leatherneck 30 Fed Com #114H	N/A	UL-M Sec 30 T20S R29E	#### FSL #### FWL	+/-1200	~30 days	Flare ~30 days on flowback before turn into TB. Time est. depends on sales connect and well cleanup.
Leatherneck 30 Fed Com #123H	N/A	UL- L Sec 30 T20S R29E	#### FSL #### FWL	+/-1400	~30 days	Flare ~30 days on flowback before turn into TB. Time est. depends on sales connect and well cleanup
Leatherneck 30 Fed Com #124H	N/A	UL-M Sec 30 T20S R29E	#### FSL #### FWL	+/-1400	~30 days	Flare ~30 days on flowback before turn into TB. Time est. depends on sales connect and well cleanup
Leatherneck 30 Fed Com #133H	N/A	UL-L Sec 30 T20S R29E	#### FSL #### FWL	+/-1400	~30 days	Flare ~30 days on flowback before turn into TB. Time est. depends on sales connect and well cleanup
Leatherneck 30 Fed Com #134H	N/A	UL-M Sec 30 T20S R29E	#### FSL #### FWL	+/-1400	~30 days	Flare ~30 days on flowback before turn into TB. Time est. depends on sales connect and well cleanup
Leatherneck 30 Fed Com #203H	N/A	UL-L Sec 30 T20S R29E	#### FSL #### FWL	+/-1200	~30 days	Flare ~30 days on flowback before turn into TB. Time est. depends on sales connect and well cleanup

Leatherneck 30 Fed Com #204H	N/A	UL-M Sec 30 T20S R29E	### FSL ### FWL	+/-1200	~30 days	Flare ~30 days on flowback before turn into TB. Time est. depends on sales connect and well cleanup
------------------------------	-----	-----------------------	--------------------	---------	----------	---

Gathering System and Pipeline Notification

The well will be connected to a production facility after flowback operations are complete so long as the gas transporter system is in place. The gas produced from the production facility should be connected to a Longwood Midstream Delaware, LLC. It will require ~8000' of pipeline to connect the facility to the Longwood Midstream Delaware, LLC. Matador Production Company periodically provides a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future to Longwood Midstream Delaware, LLC. If changes occur that will affect the drilling and completion schedule, Matador Production Company will notify Longwood Midstream Delaware, LLC. Additionally, the gas produced from the well will be processed at a processing plant further downstream and, although unanticipated, any issues with downstream facilities could cause flaring at the wellhead. The actual flow of the gas will be based on compression operating parameters and gathering system pressures measured when the well starts producing.

Flowback Strategy

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

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

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Operating a generator will only utilize a portion of the produced gas and the remainder of gas would still need to be flared.
 - Power Company has to be willing to purchase gas back and if they are willing they require a 5 year commitment to supply the agreed upon amount of power back to them. With gas decline rates and unpredictability of markets it is impossible to agree to such long term demands. If the demands are not met then operator is burdened with penalty for not delivering.
- Compressed Natural Gas – On lease
 - Compressed Natural Gas is likely to be uneconomic to operate when the gas volume declines.
- NGL Removal – On lease
 - NGL Removal requires a plant and is expensive on such a small scale rendering it uneconomic and still requires residue gas to be flared.



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

Drilling Plan Data Report

03/30/2020

APD ID: 10400043693

Submission Date: 07/15/2019

Highlighted data
reflects the most
recent changes

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LEATHERNECK 3029 FED COM

Well Number: 124H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
497483	RUSTLER	3236	165	165	ANHYDRITE	NONE	N
497482	TOP SALT	2970	265	265	SALT	NONE	N
497484	BASE OF SALT	2444	791	791	SALT	NONE	N
497479	YATES	2370	865	865	OTHER : Cave/Karst	NONE	N
497480	SEVEN RIVERS	1920	1315	1315	OTHER : Cave/Karst	NONE	N
497485	CAPITAN REEF	1845	1390	1390	OTHER : Capitan Aquifer	NONE	N
497481	CHERRY CANYON	250	2985	2985	SANDSTONE	NATURAL GAS, OIL	N
497486	BRUSHY CANYON	-710	3945	3945	SANDSTONE	NATURAL GAS, OIL	N
497487	BONE SPRING LIME	-2390	5625	5625	LIMESTONE	NATURAL GAS, OIL	N
497488	BONE SPRING 1ST	-3508	6743	6743	SANDSTONE	NATURAL GAS, OIL	Y
497489	BONE SPRING 2ND	-3770	7005	7005	OTHER : Carbonate	NATURAL GAS, OIL	N
497490	BONE SPRING 2ND	-4248	7483	7519	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 12000

Equipment: A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below intermediate 1 casing to TD. See attachments for BOP and choke manifold diagrams. An accumulator complying with Onshore Order #2 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

Requesting Variance? YES

Variance request: Matador requests a variance to have the option of running a multi-bowl wellhead assembly. The BOPs will not be tested again unless any flanges are separated or if the time between the setting of the intermediate casing and reaching within 500' from the top of the Wolfcamp formation exceeds 30 days per the CFO Drilling COAs. Matador requests a

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LEATHERNECK 3029 FED COM

Well Number: 124H

variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used. Matador requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, the wellbore will be secured with a blind flange of like pressure. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test. Matador requests a variance for the use of a diverter along with a 2000-psi annular to be installed after running 20" casing. Matador requests the option to cut off 20" SOW wellhead and run 13-3/8" SOW multi-bowl wellhead system once 1st intermediate string is run and cemented.

Testing Procedure: BOP will be inspected and operated as required in Onshore Order #2. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. A third party company will test the BOPs. After setting intermediate casing, a minimum 5M BOPE system will be installed. Test pressures will be 250 psi low and 5000 psi high with the annular preventer being tested to 250 psi low and 2500 psi high before drilling below intermediate shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 5M BOPE system is re-installed.

Choke Diagram Attachment:

LN_124H_5M_Choke_20190714141813.pdf

BOP Diagram Attachment:

LN_124H_5M_BOP_20190714141825.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	26	20.0	NEW	API	N	0	400	0	400	3236		400	J-55	94	BUTT	1.125	1.125	DRY	1.8	DRY	1.8
2	INTERMEDIATE	17.5	13.375	NEW	API	N	0	1200	0	1200	3236		1200	J-55	54.5	BUTT	1.125	1.125	DRY	1.8	DRY	1.8
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	3100	0	3100	3236		3100	J-55	40	BUTT	1.125	1.125	DRY	1.8	DRY	1.8
4	PRODUCTION	8.75	5.5	NEW	API	N	0	17981	0	7815	3236		17981	P-110	20	OTHER - DWG/C-IS HT Plus	1.125	1.125	DRY	1.8	DRY	1.8

Casing Attachments

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LEATHERNECK 3029 FED COM

Well Number: 124H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

LN_124H_casing_design_assumptions_4string_BS_20190714142045.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

LN_124H_casing_design_assumptions_4string_BS_20190714142108.pdf

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

LN_124H_casing_design_assumptions_4string_BS_20190714142122.pdf

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LEATHERNECK 3029 FED COM

Well Number: 124H

Casing Attachments

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

LN_124H_casing_design_assumptions_4string_BS_20190714142208.pdf

LN_Slot34_Casing_Spec_5.5in_20190714142219.PDF

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	400	0	0	0	0	0	None	None
SURFACE	Tail		0	400	1060	1.35	14.8	1424	100	Class C	5% NaCl + LCM
INTERMEDIATE	Lead	1500	0	1200	640	1.78	13.5	1132	50	Class C	5% NaCl + LCM
INTERMEDIATE	Tail		900	1200	260	1.35	14.8	347	50	Class C	5% NaCl + LCM
INTERMEDIATE	Lead	1500	0	3100	700	1.78	13.5	1254	50	Class C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
INTERMEDIATE	Tail		2480	3100	240	1.35	14.8	325	50	Class C	5% NaCl + LCM
PRODUCTION	Lead		1340	1798 1	730	2.22	11.5	1631	25	Class H	Fluid Loss + Dispersant + Retarder + LCM
PRODUCTION	Tail		6770	1798 1	2630	1.35	13.2	3545	25	Class H	Fluid Loss + Dispersant + Retarder + LCM

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LEATHERNECK 3029 FED COM

Well Number: 124H

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

Describe what will be on location to control well or mitigate other conditions: All necessary mud products for weight addition and fluid loss control will be on location at all times. Mud program subject to change due to hole conditions.

Describe the mud monitoring system utilized: An electronic Pason mud monitoring system complying with Onshore Order #2 will be used.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	400	SPUD MUD	8.4	8.8							
1200	3100	OTHER : Fresh water	8.4	8.6							
3100	1798 1	OTHER : Cut brine/OBM	8.6	9.4							
400	1200	OTHER : Brine water	9.5	10.2							

Section 6 - Test, Logging, Coring

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

A 2-person mud logging program will be used from Kick-off point to TD. No electric logs are planned at this time. GR will be collected through the MWD tools from Intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to top of curve.

List of open and cased hole logs run in the well:

CBL,GR

Coring operation description for the well:

No core or drill stem test is planned.

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LEATHERNECK 3029 FED COM

Well Number: 124H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3820

Anticipated Surface Pressure: 2100.69

Anticipated Bottom Hole Temperature(F): 155

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

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

LN_Slot34_H2S_Plan_wMaps_20190714142605.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

LN_124H_horizontal_plan_20190714143532.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

LN_Slot34_full_wellhead_3string_20190714142655.pdf

LN_124H_CoFlex_Certs_20190714142717.pdf

LN_124H_20in_20.75_3M_SOW_20190714143539.pdf

LN_124H_Anti_Collision_Report_20190714143547.pdf

LN_124H_Drill_Plan_Revised_20200103100909.pdf

Other Variance attachment:

LN_124_DVT_Tool_Variance_Request_20190714143557.pdf

HYDROGEN SULFIDE CONTINGENCY PLAN
Drilling, Testing, & Completion

MRC ENERGY CO.

Reviewers

----- Operations Manager
----- Operations Supt.
----- Staff RES
----- Field Supt.
Blake Hermes---Engineering

H2S Contingency Plan # 0165

Revision# 0

This H2S Contingency Plan is subject to updating

Effective date: July 8, 2015

TABLE OF CONTENTS

I.	INTRODUCTION	3
II.	PURPOSE	4
	A. Operating Procedures	5
	B. Procedures to be Initiated Prior to reaching H2S Contingency Plan Compliance	6
	C. Drilling Below Contingency Plan Depth	7
	D. Procedures program	7
III.	CONDITIONS & H₂S EMERGENCY PROCEDURES	10
	A. Definition of Operational "Conditions"	10
	B. H2S Emergency Procedures; In Scope Personnel	12
	C. Instructions for Igniting the Well	16
	D. Coring	17
	E. Normal Operations	18
IV.	SAFETY EQUIPMENT	21
V.	TOXICITY OF VARIOUS GASES	23
VI.	PROPERTIES OF GASES	24
VII.	TREATMENT PROCEDURES FOR H2S POISONING	25
VIII.	BREATHING AIR EQUIPMENT DRILLS ON/OFF DUTY	26
IX.	HYDROGEN SULFIDE TRAINING CURRICULUM	27
X.	FIT TEST	29
XI.	H2S EQUIPMENT LIST	30
XII.	EMERGENCY PHONE NUMBERS	32
XIII.	EVACUATION OF GENERAL PUBLIC	37
XIV.	SEPCO EMERGENCY PHONE NUMBERS AND DIRECTIONS TO WELL SITE	38
XV.	ROE MAP (RADIUS OF EXPOSURE)	39
XVI.	RESIDENCE LIST WITHIN ROE	40

INTRODUCTION

The H2S equipment will be rigged up 2 days prior to reaching a potential H2S containing zone. Drilling into any potential H2S zone shall not commence until the on-site MRC Drilling Supervisor has confirmed this plan in place.

The onsite Drilling Foreman will give Total Safety one week (7 days) notice to prepare for rig up of H2S equipment)

To be effective, the plan requires the cooperation and effort of each person participating in the drilling of an H₂S well. Each person must know his/her responsibilities and all emergency and safety procedures. He/she should thoroughly understand and be able to use with accuracy, all safety equipment while performing his/her normal duties, if the circumstance should arise. He/she should therefore familiarize himself/herself with the location of all safety equipment and check to see that it is properly stored, easily accessible at all times, and routinely maintained.

It is the intention of MRC ENERGY CO. and the Drilling Contractor to make every effort to provide adequate safeguards against harm to persons on the rig and in the immediate vicinity from the effects of hydrogen sulfide, which may be released into the atmosphere under emergency conditions. However, the initiative rests with the individual in utilizing the safeguards provided. The ideas and suggestions of the individuals involved in the drilling of this well are highly welcomed and act as a fundamental tool for providing the safest working conditions possible.

The drilling representative is required to enforce these procedures. They are set up for your safety and the safety of all others.

II. PURPOSE

It is MRC Energy Co.'s intent to provide a safe working place, not only for its employees, but also for other contractors who are aiding in the drilling of this well. The safety of the general public is of utmost concern. All precautions will be taken to keep a safe working environment and protect the public.

MRC ENERGY CO.'S

There is a possibility of encountering toxic hydrogen sulfide gas. Safety procedures must be adhered to in order to protect all personnel connected with the operations as well as people living within the area.

The MRC Energy Co. representative will enforce all aspects of the H₂S Contingency Plan. This job will become easier by a careful study of the following pages and training and informing all personnel that will be working on the well, their duties and responsibilities.

A. OPERATING PROCEDURES

DEFINITIONS:

For purpose of this plan, on-site personnel shall be referred to as “In Scope Personnel” or “Out of Scope Personnel”, per the following definitions:

In Scope Personnel – Personnel who will be working or otherwise present in potential H₂S release areas, including the rig floor, cellar, pits, and shaker areas.

Out of Scope Personnel – Personnel who will not be working or Otherwise present in potential H₂S areas. Such personnel include rig Site visitor, delivery and camp services personnel.

GENERAL:

Before this H₂S contingency plan becomes operational, all regularly assigned In Scope Personnel (primarily the MRC, drilling contractor, and certain service personnel,) shall be thoroughly trained in the use of breathing equipment, emergency procedures, and responsibilities. Total Safety Technician or a designee assigned by the MRC Drilling Foreman shall keep a list of all personnel who have been through the on-site H₂S training program at the drill site.

All In Scope Personnel shall be given H₂S training and the steps to be taken during H₂S conditions under which the well may be drilled. General information will be explained about toxic gases, as well as the physiological effects of H₂S and the various classified operating conditions. In addition, the reader will be informed his/her general responsibility concerning safety equipment and emergency procedures.

The Total Safety H₂S Safety Technician or MRC on-site RSE Technician shall make available the H₂S Contingency Plan for all personnel to review.

Without exception, all personnel that arrive on location must proceed directly to and sign-in with the on-site MRC RSE Technician. In Scope Personnel will be required to complete an on-site H₂S training and respirator fit testing before starting work, or produce evidence that they have received equivalent training. Out of Scope Personnel will be required to complete a site H₂S awareness and general safety briefing. This briefing will consist of a H₂S hazard overview, alarm review and required response to alarms.

B. PROCEDURES TO BE INITIATED PRIOR TO H₂S CONTINGENCY PLAN COMPLIANCE:

A list of emergency phone numbers and contacts will be on location and posted at the following locations:

1. MRC ENERGY CO.'S Representative's Office
2. Drilling Contractor's, Toolpusher Office
3. Living Quarters Area

All safety equipment and H₂S related hardware must be set up as required by MRC Energy Co. with regard to location of briefing areas, breathing equipment, etc. All safety equipment must be inspected periodically (at least weekly) with particular attention to resuscitators and breathing equipment.

In Scope Personnel working in the well site area will be assigned breathing apparatus. Operator and drilling contractor personnel required to work in the following areas will be provided with Self Contained Breathing Apparatus:

1. Rig Floor
2. Mud Pits
3. Derrick
4. Shale Shaker
5. Cellar

The Total Safety H₂S Safety Technician will be responsible for rigging up all H₂S continuous monitoring-type detectors. The Total Safety Technician will monitor and bump test the detector units periodically (at least at least once a week to test alarm function during drilling conditions. In the event H₂S is detected, or when drilling in a zone confirmed to contain H₂S, the units shall be bump tested at least once every 24 hours. A bump test/calibration log will be kept on location. All results will be reported to the MRC on-site Drilling Foreman.

All Total Safety H₂S equipment will be maintained and inspected by a Total Safety Technician on at least a Weekly basis.

C. DRILLING BELOW CONTINGENCY PLAN DEPTH

H₂S response drills will be held at least once per week if possible or as often as necessary to acquaint the crews and service company personnel of their responsibilities and the proper procedures to shut-in a well. Initial drills will be performed until crews demonstrate competency donning and working under mask. After the MRC Energy Co.'s representative is satisfied with initial blowout drill procedures, a drill will be conducted weekly with each crew, as necessary. The H₂S Safety Technician or designee will conduct safety talks and maintain the safety equipment, consult and carry out the instructions of the drilling supervisor. All personnel allowed in the well work area during drilling or testing operations will be instructed in the use of breathing equipment until supervisory personnel are satisfied that they are capable of using it.

After familiarization, each person must perform a drill with breathing equipment. The drill should include getting the breathing equipment, donning the breathing apparatus, and performing expected duties for a short period. A record shall be kept of all personnel drilled and the date of the drill. H₂S training records will be kept on location for all personnel.

Rig crews and service company personnel shall be made aware of the location of spare air bottles, resuscitation equipment, portable fire extinguishers, H₂S monitors and detectors. Knowledge of the location of the H₂S monitors and detectors are vital in determining as our gas location and the severity of the emergency conditions.

After any device has initially detected H₂S, all areas of poor ventilation shall be inspected periodically by means of a portable H₂S detector instrument. The buddy system will be utilized. (When an alarm sounds, personnel will don an SCBA, shut the well in, and proceed to SBA for roll call. The H₂S Technician or designee will mask up, with a buddy and will verify source of H₂S and report back to the on-site MRC Foreman.)

D. PROCEDURES PROGRAM

1. Drill Site
 - a. The drilling rig will be located to allow prevailing winds to blow across the reserve pit.
 - b. A Safe Briefing Area will be provided with a breathing air cascade trailer and or 30-minute SCBA's at the Primary Area. Personnel will assemble at the most up-wind station under alarm conditions, or when so ordered by the MRC Energy Co. representative, the Contractor representative, or

the Total Safety H₂S Safety Technician. Windsocks or streamers will be anchored to various strategic places on a pole about 10 feet high, so it is in easy view from the rig floor at all times.

- c. Warning signs will be posted on the perimeters. "No Smoking" signs will be posted by MRC Energy Co.as well.
- d. One multi-channel automatic H₂S monitor will be provided by Total Safety and the detector heads will be at the shale shaker, bell nipple, mud pits, rig floor, and quarter's area. The monitor will be located inside HSE or Company man trailer. Should the alarm be shut off to silence the sirens, the blinker light must continue to warn of H₂S presence. The Total Safety H₂S Safety Technician or designee will continuously monitor the detectors and will reactivate the alarm if H₂S concentrations increase to a dangerous level.
- e. A method of escape will be open at all times.
- f. If available, land line telephone service will be provided or cell phones provided. (Primary communications provided)
- g. A rig communication system will be provided, as needed.
- h. A gas trap, choke manifold, and degasser will be installed.
- i. A kill line, securely anchored and of ample strength, will be laid to the well-head from a safe location. This line is to be used only in an emergency.

General

- a. The MRC Energy Co. representative and/or the Contractor's Toolpusher will be available at all times. The drilling supervisor, while on duty, will have complete charge of the rig and location operations and will take whatever action is deemed necessary to insure personnel safety, to protect the well, and to prevent damage.
- b. A Mud Engineer will be on location at all times when drilling takes place at the depth H₂S may be expected. The mud engineer will be able to verify the presence or absence of H₂S.

III. CONDITIONS AND EMERGENCY PROCEDURES

A. DEFINITION OF OPERATIONAL "CONDITIONS"

CONDITION I	"POSSIBLE DANGER"
Warning Flags	Green
Alarms	No Alarm. Less than 10 ppm
Characterized By:	Drilling operations in zones that may contain hydrogen sulfide. This condition remains in effect unless H ₂ S is detected and it becomes necessary to go to Condition II.
General Action:	- Be alert for a condition change - Check all safety equipment for availability and proper functioning. - Perform all drills for familiarization and proficiency.
CONDITION II	"MODERATE DANGER"
Warning Flags	Yellow
Alarms:	Actuates at 10 ppm. Continuous flashing light.
Characterized By:	Drilling operations in zones containing hydrogen sulfide. This condition will remain in effect until adding chemicals to the mud system neutralizes the hydrogen sulfide or it becomes necessary to go to Condition III.
General Action:	- Be alert for a condition change WHEN DRILLING AHEAD - Driller and designated crewmember will don 30 min SCBA, shut-in the well and immediately proceed to the Safe Briefing Area. WHEN TRIPPING – Driller and two designated crewmembers will don 30 min SCBA, shut in the well and immediately proceed to the Safe Briefing Area. The Derrickman will

don a 5-minute escape pack, descend to the rig floor, don a 30-min SCBA (if necessary) and immediately proceed to the Safe Briefing Area.

- c. All In Scope Personnel will proceed directly to the appropriate Safe Briefing Area.
- d. Remain in safe briefing area, take roll call and wait for instructions
- e. Contact the Total H2S Technician if not on location.
- f. Personnel shall ensure that their breathing apparatus is properly fitted and operational before entering an H₂S contaminated area to provide assistance to anyone who may be injured or overcome by toxic gases.
- g. All Out of Scope Personnel will report to the appropriate Safe Briefing Area.

CONDITION III "EXTREME DANGER"
Warning Flags Red

Alarms Actuate at 15 ppm. Continuous Sirens and Flashing Lights

Characterized by: Critical well operations which pose an immediate threat of H₂S exposure to on-site personnel and a potential threat to the public.

- General Action:
- a. **WHEN DRILLING AHEAD -**
Driller and designated crewmember will don 30 min SCBA, shut-in the well and immediately proceed to the Safe Briefing Area.
- WHEN TRIPPING –** Driller and two designated crewmembers will don 30

min SCBA, shut in the well and immediately proceed to the Safe Briefing Area. The Derrickman will don a 5-minute escape pack, descend to the rig floor, don a 30-min SCBA (if necessary) and immediately proceed to the Safe Briefing Area.

- b. All In Scope Personnel should don SCBA if nearby and immediately proceed to Safe Briefing Area. If SCBA is not nearby at time of alarm, DO NOT GO TOWARDS RIG AREA, but proceed directly to the Safe Briefing Area
- c. All out of Scope Personnel shall evacuate the location.
- d. Remain in the Safe Briefing Area, take roll call and wait for instructions.
- e. Contact the Total H₂S Technician if not on location.
- f. Personnel shall ensure that their breathing apparatus is properly fitted and operational before entering an H₂S contaminated area to provide assistance to anyone who may be injured or overcome by toxic gases. Use the buddy system.
- g. Remain in safe briefing area, take roll call and wait for instructions.
- h. A cascade breathing air systems shall be mobilized and utilized to conduct any additional on rig work required to correct the H₂S release condition.
- i. If well is ignited do not assume area is safe. SO₂ is hazardous and not all H₂S will burn.

H₂S EMERGENCY PROCEDURES; IN SCOPE PERSONNEL

A. Day To Day Drilling Operations

1. Upon discovering a release of H₂S gas in the ambient air by warning alarms or in any other way **Do Not Panic**.
2. Hold your breath donning the nearest Self Contained Breathing Apparatus and rapidly move up or across-wind away from the areas where H₂S sensing devices are in place, to the closest available safe briefing area. Continue to use breathing apparatus until it has been determined that the exposure of H₂S gas in the ambient air no longer exists. **Do Not Panic!**
3. Utilize the "Buddy System", i.e.; select and pair up each person participating in the drilling of an H₂S well prior to an emergency situation.
4. Help anyone who is overcome or affected by the H₂S gas by taking him/her up-wind out of the contaminated area. (This should be done utilizing an SCBA and with a buddy.)
5. Take necessary steps to confirm the release of the H₂S gas into the ambient air.
 - When an H₂S alarm activates, two designated personnel using the buddy system, while wearing their self contained breathing apparatus, will determine by the read-out on the fixed monitor which sensing device has detected the release of the H₂S gas.
 - They will utilize the hand-held sniffer type device at the particular sensing point disclosed on the fixed monitor to corroborate the fact that H₂S gas has actually been released. This will rule out the possibility of a false alarm. This will be done with a buddy and under mask after reporting to the Safe Briefing Area for roll call and instructions by on-site MRC Foreman.
6. Refer to the Emergency Phone Numbers and call emergency personnel.
7. Take the necessary steps to suppress the release of H₂S gas into the ambient air. Comply with the MRC Energy Co. Representative to physically suppress the release of H₂S gas at the actual release point.

8. Check all of MRC Energy Co.'s monitoring devices and increase gas-monitoring activities with the portable hand-operated H₂S and gas detector units.

Do Not Panic!

The MRC Energy Co. representative will assess the situation and with assistance of the Contractor's Representative and Total Safety's H₂S Safety Technician or on site designee, will assign duties to each person to bring the situation under control.

B. RESPONSIBILITIES OF WELL-SITE PERSONNEL

In the event of a release of potentially hazardous amounts of H₂S, all personnel will immediately don their protective breathing apparatus, the well will be shut in and personnel will proceed upwind to the nearest designated safe briefing area for roll call and instructions by MRC Foreman. Consideration will be given to evacuating Out of Scope Personnel, as situation warrants.

1. MRC ENERGY CO.'S Well-site Representatives

- a. If MRC Energy Co.'s well-site representative is incapacitated or not on location, this responsibility will fall to the Toolpusher/Driller.
- b. Immediately upon assessing the situation, set this plan into Action by initiating the proper procedures to contain the gas and notify the appropriate people and agencies.
- c. Ensure that the alarm area indicated by the fixed H₂S Monitor is checked and verified with a portable H₂S detector. (Safety Technician if on location or MRC assigned designee with a buddy utilizing SCBA's)
- d. Consult Pusher/driller of remedial actions as needed.
- e. Ensure that non-essential personnel proceed to the safe briefing area.
- f. Ensure location entrance barricades are positioned. Keep the number of persons on location to a minimum during hazardous operations.

- g. Consult each contractor, Service Company and all others allowed to enter the site, that H₂S gas may be encountered and the potential hazards that may exist.
- h. Authorize the evacuation of local residents if H₂S threatens Their safety.
- i. Non essential personnel should be evacuated from location if Situation warrants.

2. Toolpusher

- a. Toolpusher/Driller will assume responsibilities of MRC Energy Co.'s well-site representative if that person is incapacitated or not on location.
- b. Ensure that the alarm area indicated by the fixed H₂S monitor is checked and verified with a portable H₂S gas detector. (Alarm area indicated by the monitor will be Checked by the H₂S Technician and a buddy, under mask.) This will be done after checking in and roll call at the Upwind Safe Briefing Area.
- c. Confer with MRC Energy Co.'s well-site representative or superintendent and direct remedial action to suppress the H₂S and control the well.
- d. Ensure that personnel at the safe briefing area are instructed on emergency actions required.
- e. Ensure that personnel at the drill floor area are instructed on emergency actions required.
- f. Ensure that all personnel observe the appropriate safety and emergency procedures.
- g. Ensure that all persons are accounted for and provided emergency assistance as necessary.

3. Mud Engineer

- a. Run a sulfide check on the flowline mud.
- b. Take steps to determine the source of the H₂S and suppress it. Lime and H₂S scavenger shall be added to the mud as necessary.

4. Total H₂S Safety Technician, if on location, or MRC Designee

- a. H₂S Safety Technician or designee don nearest SCBA and report to Safe Briefing Area for roll call, take a buddy masked up and check monitor and verify with a portable H₂S detector the alarm area indicated by the fixed H₂S monitor. Advise the Toolpusher/Driller and MRC Energy Co.'s well-site representative of findings. Record all findings.
- b. If H₂S is flared, check for sulfur dioxide (SO₂) near the flare as necessary. Take hourly readings at different perimeters, log readings and record on location.
- c. Ensure that personnel at the safe briefing area are instructed on emergency actions required.
- d. Ensure that the appropriate warning flags are displayed.
- e. Ensure that all personnel are in S.C.B.A. as necessary.
- f. Ensure that all persons are accounted for and provide emergency assistance as necessary.
- g. Be prepared to evacuate rig if order is issued.

5. General Personnel & Visitors

- a. All In Scope Personnel, if not specifically designated to shut the well in or control the well, shall proceed to the (upwind) safe briefing area. All Out of Scope Personnel shall immediately proceed to the appropriate (upwind) safe briefing area or evacuate the site as conditions warrant.

- b. During any emergency, use the "buddy" system to prevent anyone from entering or being left in a gas area alone, even wearing breathing apparatus.
- c. Provide assistance to anyone who may be injured or overcome by toxic gases. Personnel shall ensure that their breathing apparatus is properly fitted and operational before entering a potentially H₂S contaminated area.
- d. Remain in safe briefing area and wait for instructions.

C. INSTRUCTIONS FOR IGNITING THE WELL

1. The Toolpusher/Driller will confer with MRC Energy Co.'s well-site representative who will secure the approval of the "Texas Wells Delivery Manager, prior to igniting the well, if at all possible.

The Toolpusher/Driller will be responsible for igniting the well in the event of severe well control problems. This decision should be made only as a last resort in situations where it is clear that:

- a. Human life and property are endangered, or
- b. There is no hope of controlling the well under current conditions.

2. Once the decision has been made, the following procedures should be followed:

- a. Two people wearing self-contained breathing apparatus will be needed for the actual lighting of the well. They must first establish the flammable perimeter by using an explosimeter. This should be established at 30% to 40% of the lower flammable limits.
- b. After the flammable perimeter has been established and everyone removed from the area, the ignition team should select a site upwind of the well from which to ignite the well. This site should offer the maximum protection and have a clear path for retreat from the area.

- c. The ignition team should have safety belts and lifeline attached and manned before attempting ignition. If the leak is not ignited on the first attempt, move in 20 to 30 feet and fire again. Continue to monitor with the explosimeter and NEVER fire from an area with over 75% of the Lower Explosive Limit (LEL). If having trouble igniting the well, try firing 40 degrees to 90 degrees on either side of the well.
- d. If ignition is not possible due to the makeup of the gas, the toxic perimeter must be established and evacuation continued until the well is contained.
- e. All personnel must act only as directed by the person in charge of the operations.

NOTE: After the well is ignited, burning hydrogen sulfide (H_2S) will convert to sulfur dioxide (SO_2), which is also a highly toxic gas.

DO NOT ASSUME THE AREA IS SAFE AFTER THE WELL IS IGNITED

D. CORING PROCEDURES

Only essential personnel shall be on the rig floor. Ten (10) stands prior to retrieving core barrel; all personnel on drill floor and in derrick shall confirm self-Contained breathing apparatus available and ready for use.

A Total H₂S Technician will don a SCBA with a buddy assigned from the rig crew, and continuously monitor for H₂S at each connection. Any levels detected will require operations to be shut down and all involved personnel to don SCBAs. Precautions will remain in place until barrel is laid down.

All involved personnel will don SCBAs when removing the inner barrel from the outer barrel. SCBAs can be removed once the absence of H₂S is confirmed by the Total H₂S Technician.

Cores will be appropriately marked and sealed for transportation.

Normal Operations

1. Responsibilities of well-site personnel

a. Well-site Representative

1. Notify H₂S Technician of expected date to reach Contingency Plan implementation depth (Two (2) days prior to reaching suspected H₂S bearing zone) or prior to starting well work.
2. Ensure H₂S Safety Technician completes rig-up procedures prior to reaching Contingency Plan effective depth.
3. Restrict the number of personnel at the drilling rig or well site to a minimum while drilling, starting well work, testing or coring.
4. Ensure weekly H₂S drills/training are performed, if possible.

B. Toolpusher

1. Ensure that necessary H₂S safety equipment is provided on the rig, and that it is properly inspected and maintained.
2. Ensure that all personnel that work in the well area, are thoroughly trained in the use of H₂S safety equipment and periodic drills are held to maintain an adequate level of proficiency.

C. In Scope Personnel

1. Remain clean-shaven. Beards and long sideburns do not allow a proper facepiece seal.
2. Receive H₂S safety training on location, or confirm prior training by certification that is one year within date.
3. Familiarize yourself with the rig's Contingency Plan.
4. Inspect and practice putting on your breathing apparatus.

5. Know the location of the "safe briefing areas".
6. Keep yourself "wind conscious". Be prepared to quickly move upwind and away in the event of any emergency involving release of H₂S.

D. Total Safety H₂S Safety Technician or MRC Designee

1. Conduct training as necessary to ensure all personnel working in well area are familiar with the contingency procedures and the operation of emergency equipment.
2. Check all H₂S safety equipment to ensure that it is ready for emergency use:
 - Check pressure weekly for each shift on breathing apparatus (both 30-minute and hip-packs) to make sure they are charged to full volume.
 - Check pressure on cascade air bottles, if on location, to see that they are capable of recharging breathing apparatus.
 - Check oxygen resuscitator, if on location, to ensure that it is charged to full volume.
 - Check H₂S detectors weekly for each shift (fixed and portable), and explosimeter, to ensure they are working properly.
3. Provide a weekly report to MRC Energy Co.'s well-site representative documenting:
 - Calibrations performed on H₂S detectors.
 - Proper location and working order of H₂S safety equipment.
 - Attendance of all personnel, trained or retrained, and their company.
 - Weekly drills, if held and a list of personnel participating and summary of actions.

OUT OF SCOPE PERSONNEL

MRC Energy Co. policy will not require Out of Scope Personnel to be clean shaven, have processed medical questionnaires, fit testing, or have certified H2S Training.

SAFETY EQUIPMENT

All respirators will be designed, selected, used and maintained in conformance with ANSI Z88.2, American National Standard for respiratory protection.

Personal protective equipment must be provided and used. Those who are expected to use respiratory equipment in case of an emergency will be carefully instructed in the proper use and told why the equipment is being used. Careful attention will be given to the minute details in order to avoid possible misuse of the equipment during periods of extreme stress.

Self-contained breathing apparatus provides complete respiratory and eye protection in any concentration of toxic gases and under any condition of oxygen deficiency. The wearer is independent of the surrounding atmosphere because he/she is breathing with a system admitting no outside air. It consists of a full face mask, breathing tube, pressure demand regulator, air supply cylinder, and harness. Pure breathing air from the supply cylinder flows to the mask automatically through the pressure demand regulator which reduces the pressure to a breathing level. Upon inhalation, air flows into the mask at a rate precisely regulated to the user's demand. Upon exhalation, the flow to the mask stops and the exhaled breath passes through a valve in the face piece to the surrounding atmosphere. The apparatus includes an alarm & gauge which warns the wearer to leave the contaminated area for a new cylinder of air or cylinder refill.

The derrickman is provided with a full face piece unit attached to a 5– minute escape cylinder. He will also have his own self-contained 30-minute unit breathing apparatus located on the drilling floor. He will use the 5-minute unit to exit the derrick to the floor, donning the 30-minute unit located on the floor, if needed.

All respiratory protective equipment, when not in use, should be stored in a clean, cool, dry place, and out of direct sunlight to retard the deterioration of rubber parts. After each use, the mask assembly will be scrubbed with soap and water, rinsed thoroughly, and dried. Air cylinders can be recharged to a full condition from a cascade system.

Personnel in each crew will be trained in the proper techniques of bottle filling.

The primary piece of equipment to be utilized, should anyone be overcome by hydrogen sulfide, is the oxygen resuscitator, if on location.

When asphyxiation occurs, the victim must be moved to fresh air and immediately given artificial respiration. In order to assure readiness, the bottles of oxygen will be checked at regular intervals and an extra tank kept on hand.

Hand-operated pump-type detectors incorporating detector tubes will give more accurate readings of hydrogen sulfide. The pump-type draws air to be tested through the detector tube containing lead acetate-silica gel granules. Presence of hydrogen sulfide in the air sample is shown by the development of a dark brown stain on the granules, which is the

scale reading of the concentration of hydrogen sulfide. By changing the type of detector tube used, this detector may also be used for sulfur dioxide (SO₂) detection when hydrogen sulfide (H₂S) is being burned in the flare area.

Provisions must be made for the storage of all safety equipment as is evident from the foregoing discussion. All equipment must be stored in an available location so that anyone engaged in normal work situations is no more than "one breath away" from a mask.

V – TOXICITY OF VARIOUS GASES

Lethal Common Name ppm⁴	Chemical Formula	Specific Gravity¹	PEL (OSHA)²	STEL³
Hydrogen Cyanide 300	HCN	0.94	10	150
Hydrogen Sulfide 600	H ₂ S	1.18	20	Peak- 50ppm
Note: The ACGIH(7) recommends a TWA(6) value of 10ppm as the TLV(5) for H ₂ S and an STEL of 15ppm.				
Sulfur Dioxide 1000	SO ₂	2.21	2	5 ppm
Chlorine	CL ₂	2.45	1	
Carbon Monoxide 1000	CO	0.97	35	200/1 Hour
Carbon Dioxide 10%	CO ₂	1.52	5000	5%
Methane	CH ₄	0.55	90000	

¹ **Air = 1.0**

² **Permissible** - Concentration at which is believed that all workers may repeatedly be exposed, day after day, without adverse effect.

³ **STEL** - Short Term Exposure Limit. A 15-minute time weighted average.

⁴ **Lethal** - Concentration that will cause death with short-term exposure.

TLV – Threshold Limit Value; a concentration recommended by the American Conference of Governmental Industrial Hygienists (ACGIH)

TWA – Time Weighted Average; the average concentration of contaminant one can be exposed to over a given eight-hour period.

ACGIH – (American Conference of Governmental Industrial Hygienists) is an organization comprised of Occupational Health Professionals believed by many to be the top experts in the field of Industrial Hygiene. They are recognized as an expert resource by OSHA. The ACGIH releases a bi-annual publication "Threshold Limit Values and Biological Indices" that many safety professionals consider to be the authoritative document on airborne contaminants.

Reference: API RP-49, September 1974 - Reissued August 1978

VI. PROPERTIES OF GASES

A. CARBON DIOXIDE

1. Carbon Dioxide (CO₂) is usually considered inert and is commonly used to extinguish fires. It is 1.52 times heavier than air and will concentrate in low areas of still air. Humans cannot breathe air containing more than 10% CO₂ without losing conscience or becoming disorientation in a few minutes. Continued exposure to CO₂ after being affected will cause convulsions, coma, and respiratory failure.
2. The threshold limit of CO₂ is 5000 ppm. Short-term exposure to 50,000 ppm (5%) is reasonable. This gas is colorless, odorless, and can be tolerated in relatively high concentrations.

B. HYDROGEN SULFIDE

1. Hydrogen Sulfide (H₂S) is a colorless, transparent, flammable gas. It is heavier than air and, hence, may accumulate in low places.
2. Although the slightest presence of H₂S in the air is normally detectable by its characteristic "rotten egg" odor, it is dangerous to rely on the odor as a means of detecting excessive concentrations because the sense of smell is rapidly lost, allowing lethal concentrations to be accumulated without warning. The following table indicates the poisonous nature of H₂S.

CONCENTRATION			EFFECTS
% H ₂ S	PPM	GR/100 SCF ¹	
0.001	10	.65	Safe for 8 hours without respirator. Obvious and unpleasant odor.
0.0015	15	0.975	Safe for 15 minutes of exposure without respirator.
0.01	100	6.48	Kills smell in 3-15 minutes; may sting eyes and throat.
0.02	200	12.96	Kills smell quickly; stings eyes and throat.
0.05	500	32.96	Dizziness; breathing ceases in a few minutes; need prompt artificial respiration.
0.07	700	45.92	Rapid Unconsciousness; death will result if not rescued promptly.
0.1	1000	64.80	Instant unconsciousness, followed by death within minutes.

¹ Grains per 100 Cubic Feet

VII. Treatment Procedures for Hydrogen Sulfide Poisoning

- A. Remove the victim to fresh air.
- B. If breathing has ceased or is labored, begin resuscitation immediately.
 Note: This is the quickest and preferred method of clearing victim's lungs of contaminated air; however, under disaster conditions, it may not be practical to move the victim to fresh air. In such instances, where those rendering first aid must continue to wear masks, a resuscitator should be used.
- C. Apply resuscitator to help purge H₂S from the blood stream.
- D. Keep the victim at rest and prevent chilling.
- E. Get victim under physician's care as soon as possible.

C. SULPHUR DIOXIDE

1. Sulfur Dioxide (SO₂) is a colorless, non-flammable, transparent gas.
2. SO₂ is produced during the burning of H₂S. Although SO₂ is heavier than air, it can be picked up by a breeze and carried downwind at elevated temperatures. Since SO₂ is extremely irritating to the eyes and mucous membranes of the upper respiratory tract, it has exceptionally good warning powers in this respect. The following table indicates the toxic nature of SO₂:

CONCENTRATION		EFFECTS
% SO ₂	PPM	
0.0005	3 to 5	Pungent odor, normally a person can detect SO ₂ in this range.
0.0012	12	Throat irritation, coughing, constriction of the chest, tearing and smarting of eyes.
0.015	150	So irritating that it can only be endured for a few minutes.
.05	500	Causes a sense of suffocation, event with the first breath.

VIII. BREATHING AIR EQUIPMENT DRILLS FOR ON & OFF DUTY PERSONNEL

An H₂S Drill and Training Session must be given once a week to ALL on-duty personnel with off duty personnel. On-duty and Off-duty personnel will reverse roles on alternate drills.

An H₂S drill and training session must be given once a week to all off-duty personnel in coincidence with on-duty personnel reversing roles on alternate drills.

The purpose of this drill is to instruct the crews in the operation and use of breathing air and H₂S related emergency equipment and to allow the personnel to become acquainted with using the equipment under working conditions. The crews should be trained to put on the breathing air equipment within one minute when required or requested to do so.

The following procedure should be used for weekly drills. The MRC supervisor must be satisfied that the crews are proficient with the equipment.

1. All personnel should be informed that a drill will be held.
2. The Total H₂S Safety Technician or a designee assigned by the MRC Drilling Foreman should initiate the drill by signaling as he/she would if H₂S was detected.
3. Personnel should don their breathing apparatus.
4. Once the breathing air equipment is on, the H₂S Technician should check all personnel to insure proper operation.

A training and information session will be conducted after each drill to answer any H₂S related questions and to cover any gaps identified from one of the following topics:

- Condition II, and III alerts and steps to be taken by all personnel.
- The importance of wind direction when dealing with H₂S.
- Proper use and storage of all types of breathing equipment.
- Proper use and storage of oxygen resuscitators.
- Proper use and storage of H₂S detectors (Mini Checks or equivalent).
- The "buddy system" and the procedure for rescuing a person overcome by H₂S.
- Responsibilities and duties.
- Location of H₂S safety equipment.
- Other parts of the "H₂S Contingency Plan" that should be reviewed.

NOTE: A record of attendance must be kept for weekly drills and training sessions.

IX. HYDROGEN SULFIDE TRAINING CURRICULUM

(FOR EMPLOYERS, VISITORS, AND CONTRACTORS)

EACH PERSON WILL BE INFORMED ON THE RESTRICTIONS OF HAVING BEARDS AND CONTACT LENS. THEY WILL ALSO BE INFORMED OF THE AVAILABILITY OF SPECTACLE KITS.

AFTER THE H₂S EQUIPMENT IS RIGGED UP, ALL IN SCOPE PERSONNEL WILL BE H₂S TRAINED AND PUT THROUGH A DRILL. ANY DEFICIENCIES WILL BE CORRECTED.

Training Completion cards are good for one year and will indicate date of completion or expiration. Personnel previously trained on another facility and visiting, must attend a "supplemental briefing" on H₂S equipment and procedures before beginning duty. Visitors who remain on the location more than 24 hours must receive full H₂S training given all crew members. A "supplemental briefing" will include but not be limited to: Location of respirators, familiarization with safe briefing areas, alarms with instruction on responsibilities in the event of a release and hazards of H₂S and (SO₂, if applicable). A training and drill log will be kept.

Topics for full H₂S training shall include the following equipment if on location, but not be limited to the following:

1. **Brief Introduction on H₂S**
 - A. Slide or Computer presentation (If Available)
 - B. H₂S material will be distributed
 - C. Re-emphasize the properties, toxicity, and hazards of H₂S
 - D. Source of SO₂ (if applicable)
2. **H₂S Detection**
 - A. Description of H₂S sensors
 - B. Description of warning system (how it works & it's location)
 - C. Actual location of H₂S sensors
 - D. Instruction on use of pump type detector (Gastec)
 - E. Use of card detectors, ampoules, or dosimeters
 - F. Use of combustible gas detector
 - G. Other personnel detectors used
 - H. Alarm conditions I & II,
 - I. SO₂ alarms (if applicable)

3. **H2S Protection**

- A. Types of breathing apparatus provided (30-minute SCBA & 5-minute SCBA (with voice diaphragms for communication if supplied)
- B. Principle of how breathing apparatus works
- C. Demonstration on how to use breathing apparatus
- D. Location of breathing apparatus

4. **Cascade System**

- A. Description of cascade system
- B. How system works
- C. Cascade location of rig with reference to briefing areas
- D. How to use cascade system (with 5-minute hose work line units & refill, if supplied)
- E. Importance of wind direction and actual location of Windsocks
- F. Purpose of compressor/function (if one is on site)

5. **H2S Rescue and First Aid**

- A. Importance of wind direction
- B. Safe briefing area
- C. Buddy system
- D. H2S symptoms
- E. Methods of rescue

6. **Hands on Training**

- A. Donning/familiarization of SCBA 30-minute unit
- B. Donning/familiarization of SKADA 5- MIN. Packs
- C. Familiarization of cascades
- D. Use of O2 resuscitator
- E. Alarm conditions - upwind briefing areas, etc...
- F. Duties and responsibilities of all personnel
- G. Procedures for evacuation
- H. Search and Rescue teams

7. **Certification**

- A. Testing on material covered

TOTAL SAFETY US INC., FIT TEST

X. EMPLOYEE INFORMATION

Employee Name: _____ Date: _____

Date of Employee Medical Evaluation: _____

Medical Status (circle): Unrestricted Limitations on Use Use Not
Authorized

RESPIRATOR INFORMATION

Respirator Type (Dustmask, SCBA, etc): _____

Brand: _____

Size: (circle): XS S M L XL

FIT TEST INFORMATION

Type of Fit Test Performed:

Quantitative

Porta Count
Fittester 3000

Fit Factor: _____

Fit Factor: _____

Qualitative

Irritant Smoke

Passed / Failed

Isoamyl Acetate (Banana Oil)

Passed / Failed

Saccharin

Passed / Failed

Bitrex

Passed / Failed

I hereby certify that this fittest was conducted in accordance with the OSHA Fit Testing Protocols found in Appendix A of 1910.134.

Fit Tester Name (Print): _____

Signature: _____ Date: _____

XI. H₂S SAFETY SERVICES

HYDROGEN SULFIDE SAFETY PACKAGE – Contained on location in Total Safety H₂S Equipment Trailer, unless otherwise noted:

RESPIRATORY SAFETY SYSTEMS

QTY DESCRIPTION

- | | |
|----|---|
| 12 | 30-Minute Pressure Demand SCBA
(4-Primary Safe Briefing Area, 4-Secondary Safe Briefing Area, 4-floor with one of these for derrick man) |
| 9 | Hose Line 5-minute Work Unit w/Escapes Cylinder (1 in derrick, 6 on drill floor, 1 in mud pit wt area, 1 in shaker area) |

The following shall be part of the package if requested by the MRC Foremen (at least one trailer with cascade system is required to be located in the MRC Magnolia asset for use as needed)

- | | |
|-----|---|
| 1 | Breathing air cascade of 10 bottles w/regulator |
| 2 | Refill lines to refill 30-minute units on location |
| 1 | 6-Man manifold that can be rigged up to work area on floor, if needed |
| 6 | 25 foot hose lines |
| 2 | 50 foot hose lines |
| 100 | Feet of hose line to rig cascade up to 12 man manifold on floor |
| 12 | 30-minute Self Contained Breathing apparatus |

DETECTION AND ALARM SAFETY SYSTEM

- | | |
|---|---|
| 1 | H ₂ S Fixed Monitor w/8Channels (Loc determined at rig up) suggested.
(Mud pit area, shaker area, bell nipple area, floor/driller area, & outside quarters) |
| 5 | H ₂ S Sensors |
| 3 | Explosion Proof Alarms (Light and Siren)
(1 on floor, 1 in work area, 1 in trailer area where quarters are located) |
| 2 | Personal H ₂ S monitors |
| 1 | Portable Tri-Gas Hand Held Meter (O ₂ , LEL, H ₂ S) |
| 1 | Sensidyne/Gastech Manual Pump Type Detector |
| 8 | Boxes H ₂ S Tubes Various Ranges |
| 2 | Boxes SO ₂ Tubes Various Ranges |
| 1 | Calibration Gas |
| 1 | Set Paper Work for Records: Training, Cal, Inspection, other |

ADDITIONAL SAFETY RELATED EQUIPMENT

QTY DESCRIPTION

2	Windsocks with Pole and Bracket
1	Set Well Condition Sign w/Green, Yellow, Red Flags
1	Primary Safe Briefing Area Sign
1	Secondary Safe Briefing Area Sign
6	Operating Condition Signs for Work Areas & Living Quarters

**TRAILER WITH BREATHING AIR CASCADE WILL
ALSO INCLUDE THE FOLLOWING:**

This equipment will be part of the H2S equipment stored in the trailer, when on location

1	First aid kit
1	Fire Blanket
1	Eye wash station
2	Safety Harness w/150' safety line

XII. EMERGENCY PHONE NUMBERS (Updated March 18, 2009)

EMERGENCY PHONE NUMBERS

MRC Energy Co. Emergency Phone #

MRC Energy Co. Permian Operations Phone-----

MRC Energy Co. Production

113 Daw Rd

Mansfield LA 71052

Title	Names	Phone	Cell
Operations Manager			
Operation Supt.			
Operations Supervisor			
Operations Supervisor			
Office Supervisor			
HSE			
Scheduler Planner			

Hydrogen Sulfide Safety Consultants

Total Safety W. Bender Blvd. Hobbs, NM	575-392-2973	After Hours 24 Hour Call Center Through Office Number
Tommy Throckmorton Operations Manager	575-392-2973	940-268-9614
Rodney Jourdan Sales Contact	575-392-2973	432-349-3928

MRC Energy Co. MEDICAL RESPONSE PLAN AND IT'S MEDICAL PROTOCOLS WILL BE FOLLOWED

MEDICAL COORDINATOR # -----

[Emergency Numbers & Directions](#)

Hospitals (911)

Artesia General Hospital 702 N. 13th St. Artesia, NM 88210	Main Phone Number	575-748-3333
Nor-Lea General Hospital 1600 N. Main Ave. Lovington, NM 88260	Main Phone Number	575-396-6611
Lea Regional Medical Center 5419 N. Lovington Hwy Hobbs, NM 88240	Main Phone Number	575-492-5260
Carlsbad General Hospital 2430 W. Pierce St. Carlsbad, NM	Main Phone Number	575-887-4100
Lovelace Regional Hospital 117 E. 19th St Roswell, NM 88201	Main Phone Number	575-627-7000
Winkler Co. Memorial Hospital 821 Jeffee Dr. Kermit, Texas 79745	Main Phone Number	432-586-8299
Reeves County Hospital 2323 Texas St. Pecos, Texas 79772	Main Phone Number	432-447-3551

State Police (911)

Texas DPS Loving co. 225 N.Pecos Mentone, Texas 79754	Office Number	432-377-2411
Texas DPS Winkler Co. 100 E Winkler Kermit, Texas 79745	Office Number	432-586-3465
Texas DPS Pecos Co. 148 N I-20 Frontage RD Pecos, Texas 79772	Office Number	432-447-3532
New Mexico State Police 3300 W. Main St Artesia, NM	Office Number	575-748-9718
New Mexico State Police 304 N. Canyon St Carlsbad, NM 88220	Office Number	575-885-3137
New Mexico State Police 5100 Jack Gomez Blvd. Hobbs, NM 88240	Office Number	575-392-5588

Local Law Enforcement (911) (Sheriff)

Reeves Co. Sheriff 500 N. Oak ST Pecos, Texas 79722	Office Number	432-445-4901
Winkler Co. Sheriff 1300 Bellaire St. Kermit, Texas 79745	Office Number	432-586-3461
Loving Co. Sheriff Courthouse Mentone, Texas	Office Number	432-377-2411
Lea Co. Sheriff 1417 S. Commercial St. Lovington, NM 88260	Office Number	
Eddy Co. Sheriff 305 N 7th St. Artesia, NM 88210	Office Number	575-766-9888
Eddy Co. Sheriff 305 N 7th St. Carlsbad, NM 88220	Office Number	575-746-9888

Federal & State Agencies

OSHA Lubbock Area Office 1205 Texas Av. Room 806 Lubbock, Texas 79401	Main Number	806-472-7681 EXT 7685
New Mexico Environment Department 400 N Pennsylvania Roswell, NM 88201	Joe Fresquez	575-623-3935
Texas Railroad Commission Midland, Texas	Main Number	844-773-0305
BLM Carlsbad, NM Field Office 620 E. Green ST Carlsbad, NM 88220	Main Number	575-234-5972
BLM Hobbs Field Station 414 W. Taylor Rd. Hobbs, NM 88240	Main Number	575-393-3612
BLM Roswell District Office 2909 W. Second St. Roswell, NM 88201	Main Number	575-627-0272
TECQ Texas Commission on Environmental Quality	Main Number	800-832-8224
New Mexico OCD		
U.S. Environmental Protection Agency Region 6 Texas/New Mexico	Main Number	214-655-2222
National Response Center Toxic Chemicals & Oil Spills	Main Number	800-424-8802

Rig Company

XIII. EVACUATION OF THE GENERAL PUBLIC

The procedure to be used in alerting nearby persons in the event of any occurrence that could pose a threat to life or property will be arranged and completed with public officials in detail, prior to drilling into the hydrogen sulfide formations.

In the event of an actual emergency, the following steps will be immediately taken:

1. The MRC Energy Co.'s representative will dispatch sufficient personnel to immediately warn each resident and transients down-wind within radius of exposure from the well site. Then warn all residence in the radius of exposure. Additional evacuation zones may be necessary as the situation warrants.
2. The MRC Energy Co.'s representative will immediately notify proper authorities, including the Sheriff's Office, Highway Patrol, and any other public officials as described above and will enlist their assistance in warning residents and transients in the calculated radius of exposure.
3. The MRC Energy Co.'s representative will dispatch sufficient personnel to divert traffic in the vicinity away from the potentially dangerous area. A guard to the entrance of the well site will be posted to monitor essential and non essential traffic.
4. General:
 - A. The area included within the radius of exposure is considered to be the zone of maximum potential hazard from a hydrogen sulfide gas escape. Immediate evacuation of public areas, in accordance with the provisions of this contingency plan, is imperative. When it is determined that conditions exist which create an additional area (beyond the initial zone of maximum potential hazard) vulnerable to possible hazard, public areas in the additional hazardous area will be evacuated in accordance with the contingency plan.
 - B. In the event of a disaster, after the public areas have been evacuated and traffic stopped, it is expected that local civil authorities will have arrived and within a few hours will have assumed direction of and control of the public, including all public areas. MRC Energy Co. will cooperate with these authorities to the fullest extent and will exert every effort by careful advice to such authorities to prevent panic or rumors.
 - C. MRC Energy Co. will dispatch appropriate management personnel at the disaster site as soon as possible. The company's personnel

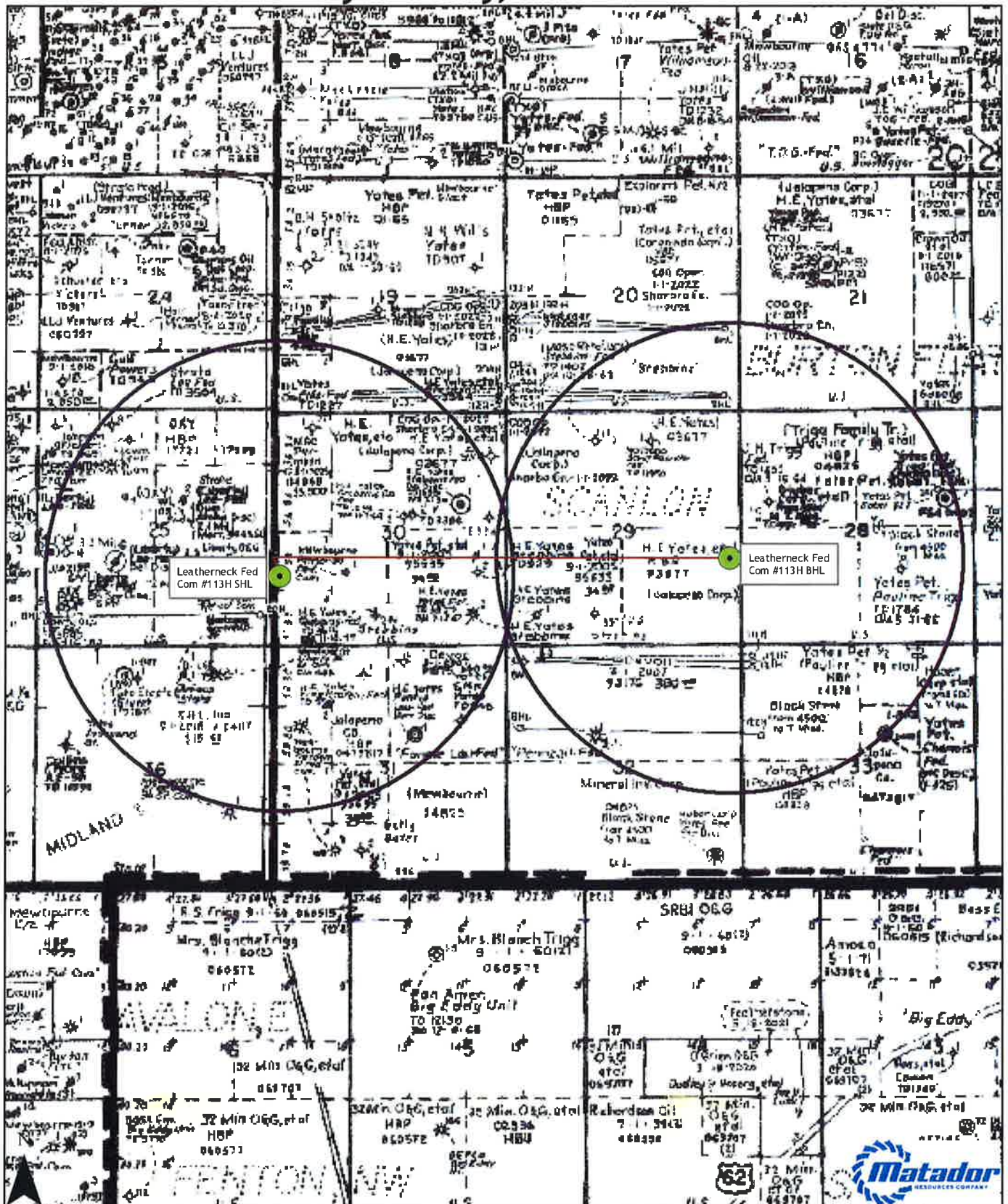
will cooperate with and provide such information to civil authorities as they might require.

- D. One of the products of the combustion of hydrogen sulfide is sulfur dioxide (SO₂). Under certain conditions this gas may be equally as dangerous as H₂S. A pump type detector device, which determines the percent of SO₂ in air through concentrations in ppm, will be available. Although normal air movement is sufficient to dissipate this material to safe levels, the SO₂ detector should be utilized to check concentrations in the proximity of the well once every hour, or as necessary and the situation warrants. Also, if any low areas are suspected of having high concentrations, personnel should be made aware of these areas, and steps should be taken to determine whether or not these low areas are hazardous.

**Exhibit E-6: H2S Contingency Plan Emergency Contacts
Matador Resources Company**

Company Office			
Matador Resources Company		(972)-371-5200	
Key Personnel			
Name	Title	Office	Mobile
Billy Goodwin	Vice President Drilling	972-371-5210	817-522-2928
Gary Martin	Drilling Superintendent		601-669-1774
Dee Smith	Drilling Superintendent	972-371-5447	972-822-1010
Blake Hermes	Drilling Engineer	972-371-5485	713-876-8558
	Construction Superintendent		
	Construction Superintendent		
Artesia			
Ambulance		911	
State Police		575-746-2703	
City Police		575-746-2703	
Sheriff's Office		575-746-9888	
Fire Department		575-746-2701	
Local Emergency Planning Committee		575-746-2122	
New Mexico Oil Conservation Division		575-748-1283	
Carlsbad			
Ambulance		911	
State Police		575-885-3137	
City Police		575-885-2111	
Sheriff's Office		575-887-7551	
Fire Department		575-887-3798	
Local Emergency Planning Committee		575-887-6544	
New Mexico Oil Conservation Division		575-887-6544	
Santa Fe			
New Mexico Emergency Response Comission (Santa Fe)		505-476-9600	
New Mexico Emergency Response Comission (Santa Fe) 24 hrs		505-827-9126	
New Mexico State Emergency Operations Center		505-476-9635	
National			
National Emergency Response Center (Washington, D.C.)		800-424-8802	
Medical			
Flight for Life- 4000 24th St.; Lubbock, TX		806-743-9911	
Aerocare- R3, Box 49F; Lubbock, TX		806-747-8923	
Med Flight Air Amb- 2301 Yale Blvd S.E., D3; Albuquerque, NM		505-842-4433	
SB Air Med Service- 2505 Clark Carr Loop S.E.; Albuquerque, NM		505-842-4949	
Other			
Boots & Coots IWC		800-256-9688	or 281-931-8884
Cudd Pressure Control		432-699-0139	or 432-563-3356
Haliburton		575-746-2757	
B.J. Services		575-746-3569	

Eddy County, New Mexico

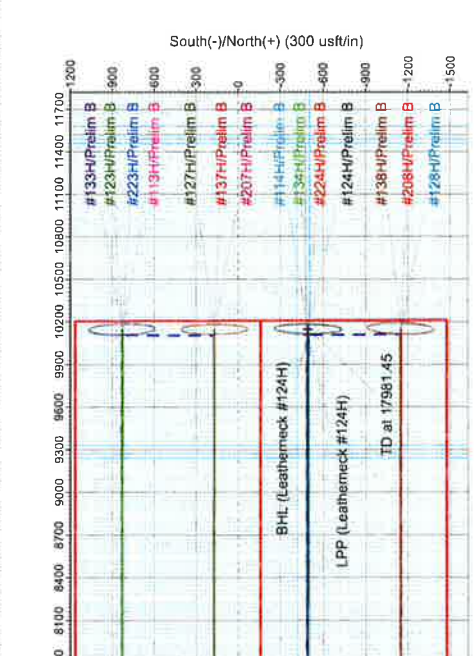
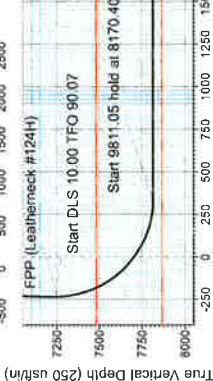
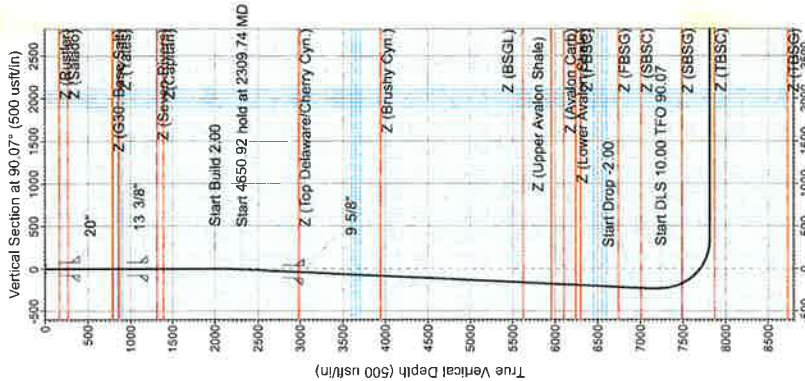
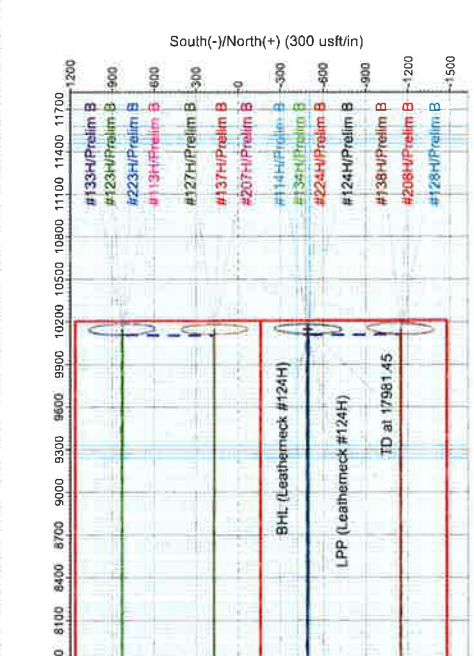
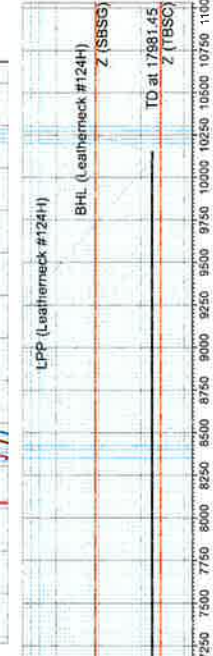
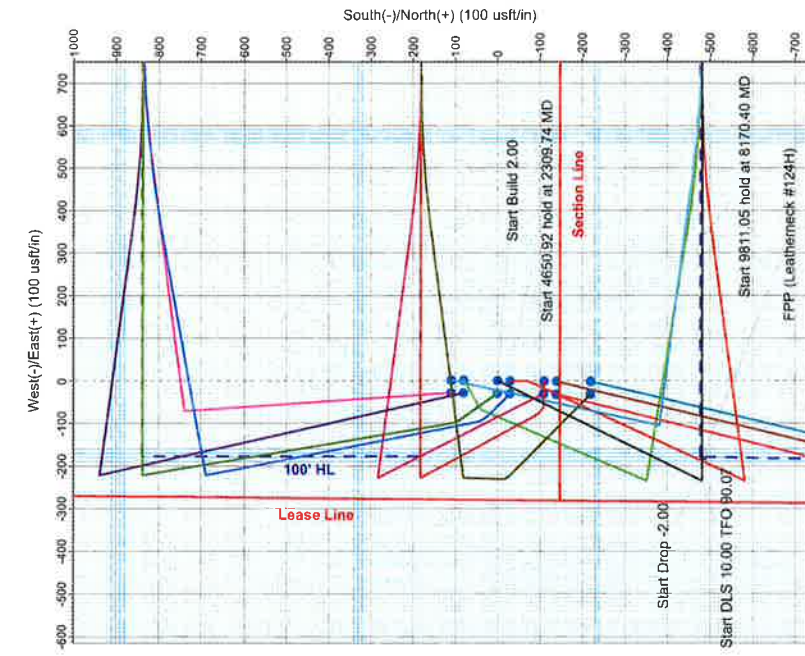
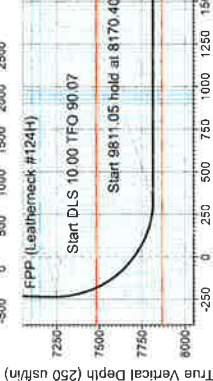
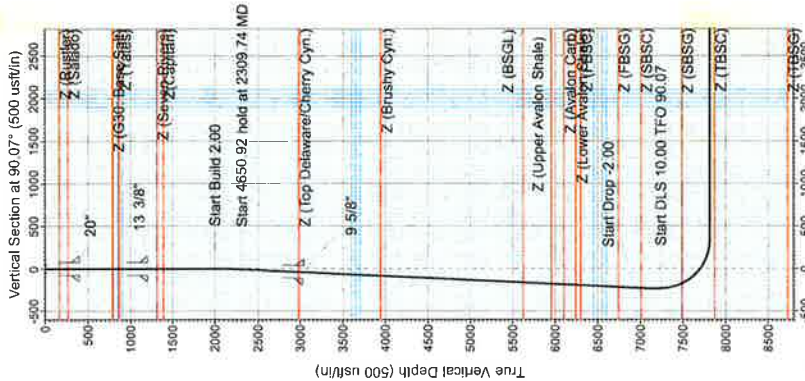


1 inch = 3,000 feet

0 7501,500 3,000 Feet

Map 3-1

Map Prepared by: agreeen
Date: April 18, 2019
Filename: OneMileRadius_Plat
Sources: IHS Energy; Mid and Map Company;
Environmental Systems Research Institute [ESRI];



Matador Resources

Eddy County, NM (NAD27)

Leatherneck Fed

#124H

OH

Plan: Prelim B

Standard Planning Report

03 June, 2019

Pro Directional Planning Report

Database: WellPlanner1
Company: Matador Resources
Project: Eddy County, NM (NAD27)
Site: Leatherneck Fed
Well: #124H
Wellbore: OH
Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Eddy County, NM (NAD27)		
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	Leatherneck Fed				
Site Position:		Northing:	560,625.00 usft	Latitude:	32.541088
From:	Map	Easting:	565,332.00 usft	Longitude:	-104.121327
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.11 °

Well	#124H					
Well Position	+N/-S	29.00 usft	Northing:	560,654.00 usft	Latitude:	32.541168
	+E/-W	31.00 usft	Easting:	565,363.00 usft	Longitude:	-104.121227
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	3,236.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/4/2019	7.22	60.30	47,990.50

Design	Prelim B			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	90.07

Plan Survey Tool Program Date 5/31/2019

Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,981.45 Prelim B (OH)	MWD+HDGM	
			OWSG MWD + HRGM	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,309.74	6.19	206.04	2,309.14	-15.03	-7.34	2.00	2.00	0.00	206.04	
6,960.66	6.19	206.04	6,932.90	-465.97	-227.66	0.00	0.00	0.00	0.00	
7,270.40	0.00	0.00	7,242.04	-481.00	-235.00	2.00	-2.00	0.00	180.00	
8,170.40	90.00	90.07	7,815.00	-481.66	337.96	10.00	10.00	10.01	90.07	
17,981.45	90.00	90.07	7,815.00	-493.00	10,149.00	0.00	0.00	0.00	0.00	BHL (Leatherneck #

Pro Directional Planning Report

Database: WellPlanner1
Company: Matador Resources
Project: Eddy County, NM (NAD27)
Site: Leatherneck Fed
Well: #124H
Wellbore: OH
Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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
163.50	0.00	0.00	163.50	0.00	0.00	0.00	0.00	0.00	0.00
Z (Rustler)									
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
263.50	0.00	0.00	263.50	0.00	0.00	0.00	0.00	0.00	0.00
Z (Salado)									
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
20"									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
789.50	0.00	0.00	789.50	0.00	0.00	0.00	0.00	0.00	0.00
Z (G30: Base Salt)									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
863.50	0.00	0.00	863.50	0.00	0.00	0.00	0.00	0.00	0.00
Z (Yates)									
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
13 3/8"									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,313.50	0.00	0.00	1,313.50	0.00	0.00	0.00	0.00	0.00	0.00
Z (Seven Rivers)									
1,388.50	0.00	0.00	1,388.50	0.00	0.00	0.00	0.00	0.00	0.00
Z(Capitan)									
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	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	2.00	206.04	2,099.98	-1.57	-0.77	-0.76	2.00	2.00	0.00
2,200.00	4.00	206.04	2,199.84	-6.27	-3.06	-3.06	2.00	2.00	0.00
2,309.74	6.19	206.04	2,309.14	-15.03	-7.34	-7.33	2.00	2.00	0.00
2,400.00	6.19	206.04	2,398.87	-23.78	-11.62	-11.59	0.00	0.00	0.00
2,500.00	6.19	206.04	2,498.29	-33.48	-16.36	-16.31	0.00	0.00	0.00
2,600.00	6.19	206.04	2,597.70	-43.17	-21.09	-21.04	0.00	0.00	0.00
2,700.00	6.19	206.04	2,697.12	-52.87	-25.83	-25.77	0.00	0.00	0.00
2,800.00	6.19	206.04	2,796.53	-62.56	-30.57	-30.49	0.00	0.00	0.00
2,900.00	6.19	206.04	2,895.95	-72.26	-35.30	-35.22	0.00	0.00	0.00
2,988.06	6.19	206.04	2,983.50	-80.80	-39.48	-39.38	0.00	0.00	0.00
Z (Top Delaware/Cherry Cyn.)									
3,000.00	6.19	206.04	2,995.37	-81.96	-40.04	-39.94	0.00	0.00	0.00
3,038.86	6.19	206.04	3,034.00	-85.72	-41.88	-41.78	0.00	0.00	0.00
9 5/8"									
3,100.00	6.19	206.04	3,094.78	-91.65	-44.78	-44.67	0.00	0.00	0.00
3,200.00	6.19	206.04	3,194.20	-101.35	-49.51	-49.39	0.00	0.00	0.00
3,300.00	6.19	206.04	3,293.61	-111.04	-54.25	-54.12	0.00	0.00	0.00
3,400.00	6.19	206.04	3,393.03	-120.74	-58.99	-58.84	0.00	0.00	0.00

Pro Directional Planning Report

Database: WellPlanner1
Company: Matador Resources
Project: Eddy County, NM (NAD27)
Site: Leatherneck Fed
Well: #124H
Wellbore: OH
Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
3,500.00	6.19	206.04	3,492.45	-130.43	-63.73	-63.57	0.00	0.00	0.00
3,600.00	6.19	206.04	3,591.86	-140.13	-68.46	-68.29	0.00	0.00	0.00
3,700.00	6.19	206.04	3,691.28	-149.83	-73.20	-73.02	0.00	0.00	0.00
3,800.00	6.19	206.04	3,790.69	-159.52	-77.94	-77.74	0.00	0.00	0.00
3,900.00	6.19	206.04	3,890.11	-169.22	-82.67	-82.47	0.00	0.00	0.00
3,953.70	6.19	206.04	3,943.50	-174.42	-85.22	-85.00	0.00	0.00	0.00
Z (Brushy Cyn.)									
4,000.00	6.19	206.04	3,989.53	-178.91	-87.41	-87.19	0.00	0.00	0.00
4,100.00	6.19	206.04	4,088.94	-188.61	-92.15	-91.92	0.00	0.00	0.00
4,200.00	6.19	206.04	4,188.36	-198.30	-96.88	-96.64	0.00	0.00	0.00
4,300.00	6.19	206.04	4,287.78	-208.00	-101.62	-101.37	0.00	0.00	0.00
4,400.00	6.19	206.04	4,387.19	-217.70	-106.36	-106.09	0.00	0.00	0.00
4,500.00	6.19	206.04	4,486.61	-227.39	-111.10	-110.82	0.00	0.00	0.00
4,600.00	6.19	206.04	4,586.02	-237.09	-115.83	-115.54	0.00	0.00	0.00
4,700.00	6.19	206.04	4,685.44	-246.78	-120.57	-120.27	0.00	0.00	0.00
4,800.00	6.19	206.04	4,784.86	-256.48	-125.31	-124.99	0.00	0.00	0.00
4,900.00	6.19	206.04	4,884.27	-266.17	-130.04	-129.72	0.00	0.00	0.00
5,000.00	6.19	206.04	4,983.69	-275.87	-134.78	-134.44	0.00	0.00	0.00
5,100.00	6.19	206.04	5,083.10	-285.57	-139.52	-139.17	0.00	0.00	0.00
5,200.00	6.19	206.04	5,182.52	-295.26	-144.25	-143.89	0.00	0.00	0.00
5,300.00	6.19	206.04	5,281.94	-304.96	-148.99	-148.62	0.00	0.00	0.00
5,400.00	6.19	206.04	5,381.35	-314.65	-153.73	-153.34	0.00	0.00	0.00
5,500.00	6.19	206.04	5,480.77	-324.35	-158.47	-158.07	0.00	0.00	0.00
5,600.00	6.19	206.04	5,580.18	-334.04	-163.20	-162.79	0.00	0.00	0.00
5,643.57	6.19	206.04	5,623.50	-338.27	-165.27	-164.85	0.00	0.00	0.00
Z (BSGL)									
5,700.00	6.19	206.04	5,679.60	-343.74	-167.94	-167.52	0.00	0.00	0.00
5,800.00	6.19	206.04	5,779.02	-353.44	-172.68	-172.24	0.00	0.00	0.00
5,900.00	6.19	206.04	5,878.43	-363.13	-177.41	-176.97	0.00	0.00	0.00
5,975.51	6.19	206.04	5,953.50	-370.45	-180.99	-180.54	0.00	0.00	0.00
Z (Upper Avalon Shale)									
6,000.00	6.19	206.04	5,977.85	-372.83	-182.15	-181.69	0.00	0.00	0.00
6,100.00	6.19	206.04	6,077.26	-382.52	-186.89	-186.42	0.00	0.00	0.00
6,126.39	6.19	206.04	6,103.50	-385.08	-188.14	-187.67	0.00	0.00	0.00
Z (Avalon Carb)									
6,200.00	6.19	206.04	6,176.68	-392.22	-191.62	-191.14	0.00	0.00	0.00
6,267.21	6.19	206.04	6,243.50	-398.73	-194.81	-194.32	0.00	0.00	0.00
Z (Lower Avalon Shale)									
6,300.00	6.19	206.04	6,276.10	-401.91	-196.36	-195.87	0.00	0.00	0.00
6,322.54	6.19	206.04	6,298.50	-404.10	-197.43	-196.93	0.00	0.00	0.00
Z (FBSC)									
6,400.00	6.19	206.04	6,375.51	-411.61	-201.10	-200.60	0.00	0.00	0.00
6,500.00	6.19	206.04	6,474.93	-421.31	-205.84	-205.32	0.00	0.00	0.00
6,600.00	6.19	206.04	6,574.34	-431.00	-210.57	-210.05	0.00	0.00	0.00
6,700.00	6.19	206.04	6,673.76	-440.70	-215.31	-214.77	0.00	0.00	0.00
6,765.12	6.19	206.04	6,738.50	-447.01	-218.39	-217.85	0.00	0.00	0.00
Z (FBSG)									
6,800.00	6.19	206.04	6,773.18	-450.39	-220.05	-219.50	0.00	0.00	0.00
6,900.00	6.19	206.04	6,872.59	-460.09	-224.78	-224.22	0.00	0.00	0.00
6,960.66	6.19	206.04	6,932.90	-465.97	-227.66	-227.09	0.00	0.00	0.00
7,000.00	5.41	206.04	6,972.04	-469.54	-229.40	-228.83	2.00	-2.00	0.00
7,031.59	4.78	206.04	7,003.50	-472.06	-230.63	-230.06	2.00	-2.00	0.00
Z (SBSC)									

Pro Directional Planning Report

Database: WellPlanner1
Company: Matador Resources
Project: Eddy County, NM (NAD27)
Site: Leatherneck Fed
Well: #124H
Wellbore: OH
Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,100.00	3.41	206.04	7,071.74	-476.45	-232.78	-232.19	2.00	-2.00	0.00
7,200.00	1.41	206.04	7,171.64	-480.22	-234.62	-234.03	2.00	-2.00	0.00
7,270.40	0.00	0.00	7,242.04	-481.00	-235.00	-234.41	2.00	-2.00	0.00
7,300.00	2.96	90.07	7,271.62	-481.00	-234.24	-233.65	10.00	10.00	0.00
7,350.00	7.96	90.07	7,321.38	-481.01	-229.48	-228.89	10.00	10.00	0.00
7,400.00	12.96	90.07	7,370.53	-481.02	-220.41	-219.82	10.00	10.00	0.00
7,450.00	17.96	90.07	7,418.71	-481.03	-207.08	-206.49	10.00	10.00	0.00
7,500.00	22.96	90.07	7,465.54	-481.05	-189.61	-189.02	10.00	10.00	0.00
7,519.65	24.92	90.07	7,483.50	-481.06	-181.64	-181.05	10.00	10.00	0.00
Z (SBSG)									
7,550.00	27.96	90.07	7,510.67	-481.08	-168.12	-167.54	10.00	10.00	0.00
7,600.00	32.96	90.07	7,553.76	-481.11	-142.79	-142.20	10.00	10.00	0.00
7,650.00	37.96	90.07	7,594.47	-481.14	-113.79	-113.20	10.00	10.00	0.00
7,700.00	42.96	90.07	7,632.50	-481.18	-81.35	-80.76	10.00	10.00	0.00
7,750.00	47.96	90.07	7,667.56	-481.22	-45.73	-45.14	10.00	10.00	0.00
7,800.00	52.96	90.07	7,699.38	-481.26	-7.18	-6.59	10.00	10.00	0.00
7,850.00	57.96	90.07	7,727.72	-481.31	33.99	34.58	10.00	10.00	0.00
7,900.00	62.96	90.07	7,752.37	-481.36	77.48	78.07	10.00	10.00	0.00
7,950.00	67.96	90.07	7,773.13	-481.41	122.95	123.54	10.00	10.00	0.00
8,000.00	72.96	90.07	7,789.84	-481.47	170.05	170.64	10.00	10.00	0.00
8,050.00	77.96	90.07	7,802.39	-481.52	218.44	219.03	10.00	10.00	0.00
8,100.00	82.96	90.07	7,810.68	-481.58	267.73	268.32	10.00	10.00	0.00
8,150.00	87.96	90.07	7,814.63	-481.64	317.56	318.15	10.00	10.00	0.00
8,170.40	90.00	90.07	7,815.00	-481.66	337.96	338.55	10.00	10.00	0.00
8,200.00	90.00	90.07	7,815.00	-481.70	367.55	368.14	0.00	0.00	0.00
8,300.00	90.00	90.07	7,815.00	-481.81	467.55	468.14	0.00	0.00	0.00
8,400.00	90.00	90.07	7,815.00	-481.93	567.55	568.14	0.00	0.00	0.00
8,500.00	90.00	90.07	7,815.00	-482.04	667.55	668.14	0.00	0.00	0.00
8,600.00	90.00	90.07	7,815.00	-482.16	767.55	768.14	0.00	0.00	0.00
8,700.00	90.00	90.07	7,815.00	-482.27	867.55	868.14	0.00	0.00	0.00
8,800.00	90.00	90.07	7,815.00	-482.39	967.55	968.14	0.00	0.00	0.00
8,900.00	90.00	90.07	7,815.00	-482.51	1,067.55	1,068.14	0.00	0.00	0.00
9,000.00	90.00	90.07	7,815.00	-482.62	1,167.55	1,168.14	0.00	0.00	0.00
9,100.00	90.00	90.07	7,815.00	-482.74	1,267.55	1,268.14	0.00	0.00	0.00
9,200.00	90.00	90.07	7,815.00	-482.85	1,367.55	1,368.14	0.00	0.00	0.00
9,300.00	90.00	90.07	7,815.00	-482.97	1,467.55	1,468.14	0.00	0.00	0.00
9,400.00	90.00	90.07	7,815.00	-483.08	1,567.55	1,568.14	0.00	0.00	0.00
9,500.00	90.00	90.07	7,815.00	-483.20	1,667.55	1,668.14	0.00	0.00	0.00
9,600.00	90.00	90.07	7,815.00	-483.31	1,767.55	1,768.14	0.00	0.00	0.00
9,700.00	90.00	90.07	7,815.00	-483.43	1,867.55	1,868.14	0.00	0.00	0.00
9,800.00	90.00	90.07	7,815.00	-483.55	1,967.55	1,968.14	0.00	0.00	0.00
9,900.00	90.00	90.07	7,815.00	-483.66	2,067.55	2,068.14	0.00	0.00	0.00
10,000.00	90.00	90.07	7,815.00	-483.78	2,167.55	2,168.14	0.00	0.00	0.00
10,100.00	90.00	90.07	7,815.00	-483.89	2,267.55	2,268.14	0.00	0.00	0.00
10,200.00	90.00	90.07	7,815.00	-484.01	2,367.55	2,368.14	0.00	0.00	0.00
10,300.00	90.00	90.07	7,815.00	-484.12	2,467.55	2,468.14	0.00	0.00	0.00
10,400.00	90.00	90.07	7,815.00	-484.24	2,567.55	2,568.14	0.00	0.00	0.00
10,500.00	90.00	90.07	7,815.00	-484.35	2,667.55	2,668.14	0.00	0.00	0.00
10,600.00	90.00	90.07	7,815.00	-484.47	2,767.55	2,768.14	0.00	0.00	0.00
10,700.00	90.00	90.07	7,815.00	-484.59	2,867.55	2,868.14	0.00	0.00	0.00
10,800.00	90.00	90.07	7,815.00	-484.70	2,967.55	2,968.14	0.00	0.00	0.00
10,900.00	90.00	90.07	7,815.00	-484.82	3,067.55	3,068.14	0.00	0.00	0.00
11,000.00	90.00	90.07	7,815.00	-484.93	3,167.55	3,168.14	0.00	0.00	0.00

Pro Directional Planning Report

Database: WellPlanner1
Company: Matador Resources
Project: Eddy County, NM (NAD27)
Site: Leatherneck Fed
Well: #124H
Wellbore: OH
Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
11,100.00	90.00	90.07	7,815.00	-485.05	3,267.55	3,268.14	0.00	0.00	0.00
11,200.00	90.00	90.07	7,815.00	-485.16	3,367.55	3,368.14	0.00	0.00	0.00
11,300.00	90.00	90.07	7,815.00	-485.28	3,467.55	3,468.14	0.00	0.00	0.00
11,400.00	90.00	90.07	7,815.00	-485.39	3,567.55	3,568.14	0.00	0.00	0.00
11,500.00	90.00	90.07	7,815.00	-485.51	3,667.55	3,668.14	0.00	0.00	0.00
11,600.00	90.00	90.07	7,815.00	-485.63	3,767.55	3,768.14	0.00	0.00	0.00
11,700.00	90.00	90.07	7,815.00	-485.74	3,867.55	3,868.14	0.00	0.00	0.00
11,800.00	90.00	90.07	7,815.00	-485.86	3,967.55	3,968.14	0.00	0.00	0.00
11,900.00	90.00	90.07	7,815.00	-485.97	4,067.55	4,068.14	0.00	0.00	0.00
12,000.00	90.00	90.07	7,815.00	-486.09	4,167.55	4,168.14	0.00	0.00	0.00
12,100.00	90.00	90.07	7,815.00	-486.20	4,267.55	4,268.14	0.00	0.00	0.00
12,200.00	90.00	90.07	7,815.00	-486.32	4,367.55	4,368.14	0.00	0.00	0.00
12,300.00	90.00	90.07	7,815.00	-486.43	4,467.55	4,468.14	0.00	0.00	0.00
12,400.00	90.00	90.07	7,815.00	-486.55	4,567.55	4,568.14	0.00	0.00	0.00
12,500.00	90.00	90.07	7,815.00	-486.67	4,667.55	4,668.14	0.00	0.00	0.00
12,600.00	90.00	90.07	7,815.00	-486.78	4,767.55	4,768.14	0.00	0.00	0.00
12,700.00	90.00	90.07	7,815.00	-486.90	4,867.55	4,868.14	0.00	0.00	0.00
12,800.00	90.00	90.07	7,815.00	-487.01	4,967.55	4,968.14	0.00	0.00	0.00
12,900.00	90.00	90.07	7,815.00	-487.13	5,067.55	5,068.14	0.00	0.00	0.00
13,000.00	90.00	90.07	7,815.00	-487.24	5,167.55	5,168.14	0.00	0.00	0.00
13,100.00	90.00	90.07	7,815.00	-487.36	5,267.55	5,268.14	0.00	0.00	0.00
13,200.00	90.00	90.07	7,815.00	-487.47	5,367.55	5,368.14	0.00	0.00	0.00
13,300.00	90.00	90.07	7,815.00	-487.59	5,467.55	5,468.14	0.00	0.00	0.00
13,400.00	90.00	90.07	7,815.00	-487.71	5,567.55	5,568.14	0.00	0.00	0.00
13,500.00	90.00	90.07	7,815.00	-487.82	5,667.55	5,668.14	0.00	0.00	0.00
13,600.00	90.00	90.07	7,815.00	-487.94	5,767.55	5,768.14	0.00	0.00	0.00
13,700.00	90.00	90.07	7,815.00	-488.05	5,867.55	5,868.14	0.00	0.00	0.00
13,800.00	90.00	90.07	7,815.00	-488.17	5,967.55	5,968.14	0.00	0.00	0.00
13,900.00	90.00	90.07	7,815.00	-488.28	6,067.55	6,068.14	0.00	0.00	0.00
14,000.00	90.00	90.07	7,815.00	-488.40	6,167.55	6,168.14	0.00	0.00	0.00
14,100.00	90.00	90.07	7,815.00	-488.51	6,267.55	6,268.14	0.00	0.00	0.00
14,200.00	90.00	90.07	7,815.00	-488.63	6,367.55	6,368.14	0.00	0.00	0.00
14,300.00	90.00	90.07	7,815.00	-488.75	6,467.55	6,468.14	0.00	0.00	0.00
14,400.00	90.00	90.07	7,815.00	-488.86	6,567.55	6,568.14	0.00	0.00	0.00
14,500.00	90.00	90.07	7,815.00	-488.98	6,667.55	6,668.14	0.00	0.00	0.00
14,600.00	90.00	90.07	7,815.00	-489.09	6,767.55	6,768.14	0.00	0.00	0.00
14,700.00	90.00	90.07	7,815.00	-489.21	6,867.55	6,868.14	0.00	0.00	0.00
14,800.00	90.00	90.07	7,815.00	-489.32	6,967.55	6,968.14	0.00	0.00	0.00
14,900.00	90.00	90.07	7,815.00	-489.44	7,067.55	7,068.14	0.00	0.00	0.00
15,000.00	90.00	90.07	7,815.00	-489.55	7,167.55	7,168.14	0.00	0.00	0.00
15,100.00	90.00	90.07	7,815.00	-489.67	7,267.55	7,268.14	0.00	0.00	0.00
15,200.00	90.00	90.07	7,815.00	-489.79	7,367.55	7,368.14	0.00	0.00	0.00
15,300.00	90.00	90.07	7,815.00	-489.90	7,467.55	7,468.14	0.00	0.00	0.00
15,400.00	90.00	90.07	7,815.00	-490.02	7,567.55	7,568.14	0.00	0.00	0.00
15,500.00	90.00	90.07	7,815.00	-490.13	7,667.55	7,668.14	0.00	0.00	0.00
15,600.00	90.00	90.07	7,815.00	-490.25	7,767.55	7,768.14	0.00	0.00	0.00
15,700.00	90.00	90.07	7,815.00	-490.36	7,867.55	7,868.14	0.00	0.00	0.00
15,800.00	90.00	90.07	7,815.00	-490.48	7,967.55	7,968.14	0.00	0.00	0.00
15,900.00	90.00	90.07	7,815.00	-490.59	8,067.55	8,068.14	0.00	0.00	0.00
16,000.00	90.00	90.07	7,815.00	-490.71	8,167.55	8,168.14	0.00	0.00	0.00
16,100.00	90.00	90.07	7,815.00	-490.83	8,267.55	8,268.14	0.00	0.00	0.00
16,200.00	90.00	90.07	7,815.00	-490.94	8,367.55	8,368.14	0.00	0.00	0.00
16,300.00	90.00	90.07	7,815.00	-491.06	8,467.55	8,468.14	0.00	0.00	0.00
16,400.00	90.00	90.07	7,815.00	-491.17	8,567.55	8,568.14	0.00	0.00	0.00

Pro Directional Planning Report

Database: WellPlanner1
Company: Matador Resources
Project: Eddy County, NM (NAD27)
Site: Leatherneck Fed
Well: #124H
Wellbore: OH
Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
16,500.00	90.00	90.07	7,815.00	-491.29	8,667.55	8,668.14	0.00	0.00	0.00
16,600.00	90.00	90.07	7,815.00	-491.40	8,767.55	8,768.14	0.00	0.00	0.00
16,700.00	90.00	90.07	7,815.00	-491.52	8,867.55	8,868.14	0.00	0.00	0.00
16,800.00	90.00	90.07	7,815.00	-491.63	8,967.55	8,968.14	0.00	0.00	0.00
16,900.00	90.00	90.07	7,815.00	-491.75	9,067.55	9,068.14	0.00	0.00	0.00
17,000.00	90.00	90.07	7,815.00	-491.87	9,167.55	9,168.14	0.00	0.00	0.00
17,100.00	90.00	90.07	7,815.00	-491.98	9,267.55	9,268.14	0.00	0.00	0.00
17,200.00	90.00	90.07	7,815.00	-492.10	9,367.55	9,368.14	0.00	0.00	0.00
17,300.00	90.00	90.07	7,815.00	-492.21	9,467.55	9,468.14	0.00	0.00	0.00
17,400.00	90.00	90.07	7,815.00	-492.33	9,567.55	9,568.14	0.00	0.00	0.00
17,500.00	90.00	90.07	7,815.00	-492.44	9,667.55	9,668.14	0.00	0.00	0.00
17,600.00	90.00	90.07	7,815.00	-492.56	9,767.55	9,768.14	0.00	0.00	0.00
17,700.00	90.00	90.07	7,815.00	-492.67	9,867.55	9,868.14	0.00	0.00	0.00
17,800.00	90.00	90.07	7,815.00	-492.79	9,967.55	9,968.14	0.00	0.00	0.00
17,900.00	90.00	90.07	7,815.00	-492.91	10,067.55	10,068.14	0.00	0.00	0.00
17,981.45	90.00	90.07	7,815.00	-493.00	10,149.00	10,149.59	0.00	0.00	0.00

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FPP (Leatherneck #1: - plan misses target center by 50.02usft at 7271.70usft MD (7243.33 TVD, -481.00 N, -235.00 E) - Point	0.00	0.00	7,242.04	-481.00	-185.00	560,173.00	565,178.00	32.539846	-104.121830
LPP (Leatherneck #1: - plan misses target center by 0.05usft at 17941.45usft MD (7815.00 TVD, -492.95 N, 10109.00 E) - Point	0.00	0.00	7,815.00	-493.00	10,109.00	560,161.00	575,472.00	32.539753	-104.088426
BHL (Leatherneck #1: - plan hits target center - Point	0.00	0.00	7,815.00	-493.00	10,149.00	560,161.00	575,512.00	32.539752	-104.088296

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
400.00	400.00	20"	20	26
1,200.00	1,200.00	13 3/8"	13-3/8	17-1/2
3,038.86	3,034.00	9 5/8"	9-5/8	12-1/4

Pro Directional Planning Report

Database: WellPlanner1
Company: Matador Resources
Project: Eddy County, NM (NAD27)
Site: Leatherneck Fed
Well: #124H
Wellbore: OH
Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
163.50	163.50	Z (Rustler)			
263.50	263.50	Z (Salado)			
789.50	789.50	Z (G30: Base Salt)			
863.50	863.50	Z (Yates)			
1,313.50	1,313.50	Z (Seven Rivers)			
1,388.50	1,388.50	Z (Capitan)			
2,988.06	2,983.50	Z (Top Delaware/Cherry Cyn.)			
3,953.70	3,943.50	Z (Brushy Cyn.)			
5,643.57	5,623.50	Z (BSGL)			
5,975.51	5,953.50	Z (Upper Avalon Shale)			
6,126.39	6,103.50	Z (Avalon Carb)			
6,267.21	6,243.50	Z (Lower Avalon Shale)			
6,322.54	6,298.50	Z (FBSC)			
6,765.12	6,738.50	Z (FBSG)			
7,031.59	7,003.50	Z (SBSC)			
7,519.65	7,483.50	Z (SBSG)			

Matador Resources

Eddy County, NM (NAD27)

Leatherneck Fed

#124H

OH

Prelim B

Anticollision Report

31 May, 2019

Pro Directional

Anticollision Report

Company: Matador Resources
Project: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Reference	Prelim B
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 10,000.00 u
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program **Date** 5/31/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	17,981.45	Prelim B (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						
Leatherneck Fed						
#113H - OH - Prelim B	1,000.00	999.00	114.73	108.02	17.110	CC, ES
#113H - OH - Prelim B	17,981.45	16,912.68	1,613.47	1,214.10	4.040	SF
#114H - OH - Prelim B	5,643.97	5,660.05	79.82	39.69	1.989	CC
#114H - OH - Prelim B	5,900.00	5,915.77	80.81	38.53	1.911	ES
#114H - OH - Prelim B	6,000.00	6,014.83	82.15	39.05	1.906	SF
#123H - OH - Prelim B	1,500.00	1,499.00	30.02	19.73	2.917	CC, ES
#123H - OH - Prelim B	17,981.45	18,010.35	1,322.00	846.86	2.782	SF
#127H - OH - Prelim B	2,729.26	2,727.87	142.03	122.93	7.437	CC, ES
#127H - OH - Prelim B	17,981.45	17,972.06	663.00	187.00	1.393	Level 3, SF
#128H - OH - Prelim B	1,000.00	1,000.00	220.01	213.30	32.794	CC
#128H - OH - Prelim B	17,981.45	18,055.91	657.00	181.20	1.381	Level 3, ES, SF
#133H - OH - Prelim B	2,000.00	2,000.00	86.03	72.16	6.199	CC, ES
#133H - OH - Prelim B	17,981.45	19,325.93	1,850.60	1,492.39	5.166	SF
#134H - OH - Prelim B	2,000.00	2,000.00	80.01	66.13	5.765	CC
#134H - OH - Prelim B	2,100.00	2,101.44	80.68	66.12	5.538	ES
#134H - OH - Prelim B	7,503.24	7,503.65	168.12	115.05	3.168	SF
#137H - OH - Prelim B	2,657.29	2,657.16	77.23	58.88	4.207	CC, ES
#137H - OH - Prelim B	2,700.00	2,701.22	77.83	59.18	4.173	SF
#138H - OH - Prelim B	1,500.00	1,500.00	140.01	129.72	13.602	CC, ES
#138H - OH - Prelim B	17,981.45	19,336.38	1,452.13	1,193.33	5.611	SF
#207H - OH - Prelim B	1,791.40	1,803.40	76.73	64.23	6.140	CC
#207H - OH - Prelim B	1,800.00	1,805.12	76.74	64.21	6.123	ES
#207H - OH - Prelim B	2,000.00	2,003.15	82.10	68.12	5.872	SF
#208H - OH - Prelim B	2,305.86	2,291.34	142.33	126.53	9.012	CC, ES
#208H - OH - Prelim B	17,981.45	19,476.47	1,582.80	1,336.39	6.423	SF
#223H - OH - Prelim B	1,500.00	1,499.00	42.45	32.16	4.125	CC
#223H - OH - Prelim B	1,700.00	1,698.58	43.23	31.52	3.691	ES
#223H - OH - Prelim B	1,800.00	1,797.78	45.69	33.28	3.680	SF
#224H - OH - Prelim B	1,000.00	999.00	30.02	23.31	4.477	CC, ES
#224H - OH - Prelim B	7,295.40	7,300.79	99.70	48.05	1.930	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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #113H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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)						
0.00	0.00	1.00	-1.00	0.00	0.00	-14.64	111.00	-29.00	114.73					
100.00	100.00	101.00	99.00	0.13	0.13	-14.64	111.00	-29.00	114.73	114.47	0.26	441.436		
200.00	200.00	201.00	199.00	0.49	0.49	-14.64	111.00	-29.00	114.73	113.75	0.98	117.446		
300.00	300.00	301.00	299.00	0.85	0.85	-14.64	111.00	-29.00	114.73	113.03	1.69	67.734		
400.00	400.00	401.00	399.00	1.20	1.21	-14.64	111.00	-29.00	114.73	112.32	2.41	47.590		
500.00	500.00	501.00	499.00	1.56	1.57	-14.64	111.00	-29.00	114.73	111.60	3.13	36.681		
600.00	600.00	601.00	599.00	1.92	1.92	-14.64	111.00	-29.00	114.73	110.88	3.84	29.841		
700.00	700.00	701.00	699.00	2.28	2.28	-14.64	111.00	-29.00	114.73	110.16	4.56	25.151		
800.00	800.00	801.00	799.00	2.64	2.64	-14.64	111.00	-29.00	114.73	109.45	5.28	21.735		
900.00	900.00	901.00	899.00	3.00	3.00	-14.64	111.00	-29.00	114.73	108.73	6.00	19.136		
1,000.00	1,000.00	999.00	999.00	3.35	3.35	-14.64	111.00	-29.00	114.73	108.02	6.71	17,110 CC, ES		
1,100.00	1,100.00	1,095.22	1,095.20	3.71	3.70	-14.50	112.58	-29.11	116.34	108.94	7.41	15,709		
1,200.00	1,200.00	1,191.18	1,191.04	4.07	4.04	-14.08	117.36	-29.44	121.26	113.16	8.10	14,971		
1,300.00	1,300.00	1,286.72	1,286.24	4.43	4.39	-13.46	125.30	-29.98	129.47	120.69	8.78	14,740		
1,400.00	1,400.00	1,381.62	1,380.49	4.79	4.73	-12.71	136.32	-30.74	140.96	131.51	9.46	14,908		
1,500.00	1,500.00	1,480.39	1,478.36	5.15	5.09	-11.94	149.62	-31.65	154.32	144.15	10.16	15,182		
1,600.00	1,600.00	1,579.48	1,576.54	5.51	5.46	-11.30	162.97	-32.56	167.70	156.83	10.88	15,420		
1,700.00	1,700.00	1,678.56	1,674.71	5.86	5.83	-10.75	176.32	-33.48	181.10	169.51	11.59	15,625		
1,800.00	1,800.00	1,777.64	1,772.89	6.22	6.20	-10.28	189.67	-34.40	194.52	182.21	12.31	15,807		
1,900.00	1,900.00	1,876.73	1,871.07	6.58	6.58	-9.87	203.02	-35.31	207.95	194.93	13.02	15,968		
2,000.00	2,000.00	1,975.81	1,969.24	6.94	6.96	-9.50	216.37	-36.23	221.39	207.65	13.74	16,113		
2,100.00	2,099.98	2,074.67	2,067.20	7.28	7.34	144.85	229.68	-37.14	236.24	221.80	14.44	16,360		
2,200.00	2,199.84	2,173.00	2,164.63	7.61	7.72	145.60	242.93	-38.05	253.96	238.83	15.13	16,791		
2,300.00	2,299.45	2,270.69	2,261.42	7.94	8.10	146.60	256.09	-38.95	274.60	258.79	15.81	17,369		
2,400.00	2,398.87	2,367.93	2,357.77	8.27	8.47	147.86	269.19	-39.85	297.05	280.56	16.49	18,010		
2,500.00	2,498.29	2,465.18	2,454.12	8.61	8.85	148.96	282.29	-40.75	319.64	302.46	17.18	18,607		
2,600.00	2,597.70	2,562.42	2,550.48	8.95	9.23	149.92	295.39	-41.65	342.33	324.46	17.87	19,160		
2,700.00	2,697.12	2,659.66	2,646.83	9.30	9.61	150.76	308.50	-42.54	365.09	346.54	18.56	19,674		
2,800.00	2,796.53	2,756.90	2,743.18	9.65	9.99	151.50	321.60	-43.44	387.93	368.68	19.25	20,152		
2,900.00	2,895.95	2,854.15	2,839.53	10.00	10.37	152.16	334.70	-44.34	410.81	390.87	19.95	20,597		
3,000.00	2,995.37	2,951.39	2,935.88	10.36	10.75	152.75	347.80	-45.24	433.75	413.10	20.64	21,013		
3,100.00	3,094.78	3,048.63	3,032.24	10.71	11.13	153.28	360.90	-46.14	456.72	435.38	21.34	21,401		
3,200.00	3,194.20	3,145.88	3,128.59	11.07	11.52	153.76	374.00	-47.04	479.72	457.68	22.04	21,765		
3,300.00	3,293.61	3,243.12	3,224.94	11.44	11.90	154.19	387.10	-47.94	502.76	480.02	22.74	22,106		
3,400.00	3,393.03	3,340.36	3,321.29	11.80	12.28	154.59	400.20	-48.83	525.82	502.37	23.45	22,427		
3,500.00	3,492.45	3,437.61	3,417.65	12.17	12.66	154.95	413.30	-49.73	548.90	524.75	24.15	22,729		
3,600.00	3,591.86	3,534.85	3,514.00	12.53	13.05	155.29	426.40	-50.63	572.00	547.15	24.85	23,014		
3,700.00	3,691.28	3,632.09	3,610.35	12.90	13.43	155.59	439.50	-51.53	595.12	569.56	25.56	23,282		
3,800.00	3,790.69	3,729.33	3,706.70	13.27	13.82	155.88	452.61	-52.43	618.25	591.99	26.27	23,536		
3,900.00	3,890.11	3,826.58	3,803.06	13.64	14.20	156.15	465.71	-53.33	641.40	614.42	26.98	23,777		
4,000.00	3,989.53	3,923.82	3,899.41	14.02	14.58	156.39	478.81	-54.22	664.56	636.87	27.68	24,005		
4,100.00	4,088.94	4,021.06	3,995.76	14.39	14.97	156.62	491.91	-55.12	687.73	659.33	28.39	24,221		
4,200.00	4,188.36	4,118.31	4,092.11	14.76	15.35	156.84	505.01	-56.02	710.91	681.80	29.10	24,426		
4,300.00	4,287.78	4,215.55	4,188.46	15.14	15.74	157.04	518.11	-56.92	734.10	704.28	29.82	24,622		
4,400.00	4,387.19	4,312.79	4,284.82	15.51	16.12	157.23	531.21	-57.82	757.29	726.77	30.53	24,808		
4,500.00	4,486.61	4,410.03	4,381.17	15.89	16.51	157.40	544.31	-58.72	780.50	749.26	31.24	24,985		
4,600.00	4,586.02	4,507.28	4,477.52	16.27	16.89	157.57	557.41	-59.62	803.71	771.76	31.95	25,155		
4,700.00	4,685.44	4,604.52	4,573.87	16.64	17.28	157.73	570.51	-60.51	826.92	794.26	32.66	25,316		
4,800.00	4,784.86	4,701.76	4,670.23	17.02	17.66	157.88	583.61	-61.41	850.15	816.77	33.38	25,471		
4,900.00	4,884.27	4,800.99	4,766.58	17.40	18.06	158.02	596.71	-62.31	873.37	839.28	34.10	25,613		
5,000.00	4,983.69	4,903.75	4,862.93	17.78	18.47	158.16	609.82	-63.21	896.61	861.77	34.83	25,740		
5,100.00	5,083.10	4,993.49	4,959.28	18.16	18.82	158.28	622.92	-64.11	919.84	884.32	35.52	25,896		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #113H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		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)	Between Centres (usft)						
5,200.00	5,182.52	5,109.26	5,055.63	18.54	19.28	158.40	636.02	-65.01	943.08	906.78	36.30	25.977		
5,300.00	5,281.94	5,187.98	5,151.99	18.92	19.59	158.52	649.12	-65.90	966.33	929.38	36.95	26.152		
5,400.00	5,381.35	5,285.22	5,248.34	19.30	19.98	158.63	662.22	-66.80	989.58	951.91	37.67	26.272		
5,500.00	5,480.77	5,382.46	5,344.69	19.68	20.37	158.73	675.32	-67.70	1,012.83	974.45	38.38	26.388		
5,600.00	5,580.18	5,479.71	5,441.04	20.07	20.75	158.83	688.42	-68.60	1,036.08	996.98	39.10	26.499		
5,700.00	5,679.60	5,576.95	5,537.40	20.45	21.14	158.93	701.52	-69.50	1,059.34	1,019.52	39.82	26.606		
5,800.00	5,779.02	5,686.56	5,646.03	20.83	21.57	159.03	716.10	-70.50	1,082.48	1,041.86	40.62	26.650		
5,900.00	5,878.43	5,843.76	5,802.48	21.21	22.16	159.23	731.20	-71.53	1,101.99	1,060.31	41.68	26.437		
6,000.00	5,977.85	6,003.85	5,962.41	21.60	22.73	159.49	737.75	-71.98	1,116.12	1,073.48	42.65	26.171		
6,100.00	6,077.26	6,117.71	6,076.26	21.98	23.11	159.71	738.00	-72.00	1,126.40	1,083.00	43.40	25.954		
6,200.00	6,176.68	6,217.12	6,175.68	22.36	23.44	159.90	738.00	-72.00	1,136.53	1,092.42	44.11	25.767		
6,300.00	6,276.10	6,316.54	6,275.10	22.75	23.77	160.08	738.00	-72.00	1,146.68	1,101.86	44.82	25.585		
6,400.00	6,375.51	6,400.00	6,358.52	23.13	24.04	160.31	738.21	-70.44	1,157.33	1,111.85	45.47	25.450		
6,500.00	6,474.93	6,461.87	6,419.86	23.51	24.24	160.80	739.24	-62.60	1,170.60	1,124.57	46.02	25.434		
6,600.00	6,574.34	6,523.51	6,479.76	23.90	24.44	161.59	741.12	-48.32	1,186.99	1,140.46	46.53	25.511		
6,700.00	6,673.76	6,580.69	6,533.64	24.28	24.61	162.57	743.60	-29.44	1,206.84	1,159.89	46.96	25.701		
6,800.00	6,773.18	6,632.85	6,580.93	24.67	24.77	163.66	746.47	-7.65	1,230.52	1,183.23	47.29	26.020		
6,900.00	6,872.59	6,679.89	6,621.70	25.05	24.91	164.79	749.53	15.59	1,258.33	1,210.81	47.52	26.479		
7,000.00	6,972.04	6,722.03	6,666.49	25.44	25.02	165.97	752.63	39.16	1,290.26	1,242.63	47.63	27.089		
7,100.00	7,071.74	6,750.00	6,678.57	25.81	25.10	166.91	754.87	56.17	1,324.17	1,276.66	47.52	27.887		
7,200.00	7,171.64	6,800.00	6,715.86	26.17	25.24	168.50	759.22	89.17	1,359.37	1,311.83	47.54	28.594		
7,300.00	7,271.62	6,826.60	6,734.47	26.50	25.31	-73.51	761.70	108.00	1,396.02	1,348.79	47.23	29.555		
7,400.00	7,370.53	6,850.00	6,750.11	26.81	25.37	-69.15	763.97	125.27	1,432.89	1,386.09	46.80	30.619		
7,500.00	7,465.54	6,900.00	6,781.05	27.08	25.52	-64.70	769.09	164.18	1,468.06	1,421.43	46.63	31.484		
7,600.00	7,553.76	6,927.76	6,796.72	27.31	25.61	-61.29	772.09	186.91	1,500.26	1,454.06	46.20	32.474		
7,700.00	7,632.50	6,950.00	6,808.45	27.50	25.70	-58.50	774.55	205.63	1,528.60	1,482.85	45.75	33.409		
7,800.00	7,699.38	7,000.00	6,832.11	27.64	25.91	-56.19	780.30	249.28	1,551.69	1,505.91	45.77	33.899		
7,900.00	7,752.37	7,050.00	6,851.84	27.75	26.18	-54.65	786.29	294.82	1,569.50	1,523.51	45.99	34.130		
8,000.00	7,789.84	7,072.71	6,859.46	28.10	26.32	-53.77	789.08	316.02	1,580.94	1,534.79	46.15	34.255		
8,100.00	7,810.68	7,100.00	6,867.49	28.74	26.50	-53.47	792.49	341.88	1,586.34	1,539.66	46.68	33.984		
8,200.00	7,815.00	7,150.00	6,878.95	29.51	26.87	-53.86	798.84	390.12	1,585.75	1,537.99	47.76	33.199		
8,221.37	7,815.00	7,150.00	6,878.95	29.71	26.87	-53.86	798.84	390.12	1,585.61	1,537.68	47.93	33.084		
8,300.00	7,815.00	7,182.47	6,884.09	30.43	27.13	-54.10	803.02	421.90	1,586.70	1,537.84	48.86	32.478		
8,400.00	7,815.00	7,220.01	6,887.77	31.49	27.46	-54.32	807.90	458.93	1,591.65	1,541.53	50.11	31.760		
8,500.00	7,815.00	7,259.36	6,889.00	32.67	27.82	-54.46	813.03	497.92	1,600.51	1,549.02	51.48	31.089		
8,600.00	7,815.00	7,442.86	6,889.00	33.97	29.79	-54.84	831.02	680.51	1,608.62	1,554.26	54.36	29.593		
8,700.00	7,815.00	7,627.97	6,889.00	35.37	32.17	-54.97	837.29	865.47	1,611.48	1,553.95	57.53	28.010		
8,800.00	7,815.00	7,731.23	6,889.00	36.86	33.65	-54.97	837.21	968.73	1,611.51	1,551.47	60.04	26.839		
8,900.00	7,815.00	7,831.23	6,889.00	38.43	35.18	-54.97	837.12	1,068.73	1,611.53	1,548.87	62.66	25.720		
9,000.00	7,815.00	7,931.23	6,889.00	40.08	36.79	-54.97	837.03	1,168.73	1,611.55	1,546.15	65.40	24.642		
9,100.00	7,815.00	8,031.23	6,889.00	41.78	38.47	-54.97	836.94	1,268.73	1,611.57	1,543.32	68.25	23.612		
9,200.00	7,815.00	8,131.23	6,889.00	43.54	40.22	-54.97	836.85	1,368.73	1,611.60	1,540.39	71.20	22.633		
9,300.00	7,815.00	8,231.23	6,889.00	45.35	42.02	-54.97	836.76	1,468.73	1,611.62	1,537.37	74.24	21.707		
9,400.00	7,815.00	8,331.23	6,889.00	47.20	43.86	-54.97	836.67	1,568.73	1,611.64	1,534.28	77.36	20.833		
9,500.00	7,815.00	8,431.23	6,889.00	49.10	45.75	-54.97	836.58	1,668.73	1,611.66	1,531.12	80.54	20.010		
9,600.00	7,815.00	8,531.23	6,889.00	51.02	47.68	-54.97	836.49	1,768.73	1,611.68	1,527.90	83.78	19.236		
9,700.00	7,815.00	8,631.23	6,889.00	52.98	49.64	-54.98	836.40	1,868.73	1,611.70	1,524.62	87.08	18.508		
9,800.00	7,815.00	8,731.23	6,889.00	54.96	51.62	-54.98	836.31	1,968.73	1,611.72	1,521.30	90.42	17.824		
9,900.00	7,815.00	8,831.23	6,889.00	56.97	53.64	-54.98	836.22	2,068.73	1,611.74	1,517.93	93.81	17.181		
10,000.00	7,815.00	8,931.23	6,889.00	59.00	55.67	-54.98	836.13	2,168.73	1,611.77	1,514.53	97.24	16.576		
10,100.00	7,815.00	9,031.23	6,889.00	61.05	57.73	-54.98	836.04	2,268.73	1,611.79	1,511.09	100.69	16.007		
10,200.00	7,815.00	9,131.23	6,889.00	63.11	59.80	-54.98	835.96	2,368.73	1,611.81	1,507.63	104.18	15.471		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #113H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)						
10,300.00	7,815.00	9,231.23	6,889.00	65.20	61.90	-54.98	835.87	2,468.73	1,611.83	1,504.13	107.70	14.966		
10,400.00	7,815.00	9,331.23	6,889.00	67.29	64.00	-54.98	835.78	2,568.73	1,611.85	1,500.61	111.24	14.490		
10,500.00	7,815.00	9,431.23	6,889.00	69.41	66.12	-54.98	835.69	2,668.73	1,611.87	1,497.07	114.80	14.040		
10,600.00	7,815.00	9,531.23	6,889.00	71.53	68.25	-54.98	835.60	2,768.73	1,611.89	1,493.50	118.39	13.615		
10,700.00	7,815.00	9,631.23	6,889.00	73.66	70.40	-54.98	835.51	2,868.73	1,611.92	1,489.92	121.99	13.213		
10,800.00	7,815.00	9,731.23	6,889.00	75.81	72.55	-54.98	835.42	2,968.73	1,611.94	1,486.32	125.62	12.832		
10,900.00	7,815.00	9,831.23	6,889.00	77.96	74.71	-54.98	835.33	3,068.73	1,611.96	1,482.71	129.25	12.471		
11,000.00	7,815.00	9,931.23	6,889.00	80.13	76.88	-54.98	835.24	3,168.73	1,611.98	1,479.08	132.90	12.129		
11,100.00	7,815.00	10,031.23	6,889.00	82.30	79.06	-54.98	835.15	3,268.73	1,612.00	1,475.43	136.57	11.804		
11,200.00	7,815.00	10,131.23	6,889.00	84.47	81.25	-54.98	835.06	3,368.73	1,612.02	1,471.78	140.25	11.494		
11,300.00	7,815.00	10,231.23	6,889.00	86.66	83.44	-54.98	834.97	3,468.73	1,612.04	1,468.11	143.94	11.200		
11,400.00	7,815.00	10,331.23	6,889.00	88.85	85.64	-54.98	834.88	3,568.73	1,612.07	1,464.43	147.63	10.919		
11,500.00	7,815.00	10,431.23	6,889.00	91.04	87.84	-54.99	834.79	3,668.73	1,612.09	1,460.74	151.34	10.652		
11,600.00	7,815.00	10,531.23	6,889.00	93.25	90.05	-54.99	834.70	3,768.73	1,612.11	1,457.05	155.06	10.397		
11,700.00	7,815.00	10,631.23	6,889.00	95.45	92.27	-54.99	834.61	3,868.73	1,612.13	1,453.34	158.79	10.153		
11,800.00	7,815.00	10,731.23	6,889.00	97.67	94.48	-54.99	834.52	3,968.73	1,612.15	1,449.63	162.52	9.920		
11,900.00	7,815.00	10,831.23	6,889.00	99.88	96.71	-54.99	834.43	4,068.73	1,612.17	1,445.91	166.26	9.696		
12,000.00	7,815.00	10,931.23	6,889.00	102.10	98.93	-54.99	834.35	4,168.73	1,612.19	1,442.18	170.01	9.483		
12,100.00	7,815.00	11,031.23	6,889.00	104.33	101.16	-54.99	834.26	4,268.73	1,612.22	1,438.45	173.77	9.278		
12,200.00	7,815.00	11,131.23	6,889.00	106.55	103.40	-54.99	834.17	4,368.73	1,612.24	1,434.71	177.53	9.082		
12,300.00	7,815.00	11,231.23	6,889.00	108.78	105.64	-54.99	834.08	4,468.73	1,612.26	1,430.96	181.30	8.893		
12,400.00	7,815.00	11,331.23	6,889.00	111.02	107.88	-54.99	833.99	4,568.73	1,612.28	1,427.21	185.07	8.712		
12,500.00	7,815.00	11,431.23	6,889.00	113.25	110.12	-54.99	833.90	4,668.73	1,612.30	1,423.46	188.84	8.538		
12,600.00	7,815.00	11,531.23	6,889.00	115.49	112.36	-54.99	833.81	4,768.73	1,612.32	1,419.70	192.63	8.370		
12,700.00	7,815.00	11,631.23	6,889.00	117.74	114.61	-54.99	833.72	4,868.73	1,612.34	1,415.93	196.41	8.209		
12,800.00	7,815.00	11,731.23	6,889.00	119.98	116.86	-54.99	833.63	4,968.73	1,612.37	1,412.16	200.20	8.054		
12,900.00	7,815.00	11,831.23	6,889.00	122.23	119.12	-54.99	833.54	5,068.73	1,612.39	1,408.39	204.00	7.904		
13,000.00	7,815.00	11,931.23	6,889.00	124.48	121.37	-54.99	833.45	5,168.73	1,612.41	1,404.62	207.79	7.760		
13,100.00	7,815.00	12,031.23	6,889.00	126.73	123.63	-54.99	833.36	5,268.73	1,612.43	1,400.84	211.59	7.620		
13,200.00	7,815.00	12,131.23	6,889.00	128.98	125.89	-54.99	833.27	5,368.73	1,612.45	1,397.05	215.40	7.486		
13,300.00	7,815.00	12,231.23	6,889.00	131.24	128.15	-54.99	833.18	5,468.73	1,612.47	1,393.27	219.21	7.356		
13,400.00	7,815.00	12,331.23	6,889.00	133.50	130.41	-55.00	833.09	5,568.73	1,612.49	1,389.48	223.02	7.230		
13,500.00	7,815.00	12,431.23	6,889.00	135.76	132.67	-55.00	833.00	5,668.73	1,612.52	1,385.68	226.83	7.109		
13,600.00	7,815.00	12,531.23	6,889.00	138.02	134.94	-55.00	832.91	5,768.73	1,612.54	1,381.89	230.65	6.991		
13,700.00	7,815.00	12,631.23	6,889.00	140.28	137.20	-55.00	832.82	5,868.73	1,612.56	1,378.09	234.47	6.878		
13,800.00	7,815.00	12,731.23	6,889.00	142.54	139.47	-55.00	832.74	5,968.73	1,612.58	1,374.29	238.29	6.767		
13,900.00	7,815.00	12,831.23	6,889.00	144.81	141.74	-55.00	832.65	6,068.73	1,612.60	1,370.49	242.11	6.661		
14,000.00	7,815.00	12,931.23	6,889.00	147.07	144.01	-55.00	832.56	6,168.73	1,612.62	1,366.68	245.94	6.557		
14,100.00	7,815.00	13,031.23	6,889.00	149.34	146.28	-55.00	832.47	6,268.73	1,612.64	1,362.88	249.77	6.457		
14,200.00	7,815.00	13,131.23	6,889.00	151.61	148.55	-55.00	832.38	6,368.73	1,612.66	1,359.07	253.60	6.359		
14,300.00	7,815.00	13,231.23	6,889.00	153.88	150.83	-55.00	832.29	6,468.73	1,612.69	1,355.26	257.43	6.265		
14,400.00	7,815.00	13,331.23	6,889.00	156.15	153.10	-55.00	832.20	6,568.73	1,612.71	1,351.45	261.26	6.173		
14,500.00	7,815.00	13,431.23	6,889.00	158.42	155.38	-55.00	832.11	6,668.73	1,612.73	1,347.63	265.10	6.084		
14,600.00	7,815.00	13,531.23	6,889.00	160.70	157.66	-55.00	832.02	6,768.73	1,612.75	1,343.81	268.94	5.997		
14,700.00	7,815.00	13,631.23	6,889.00	162.97	159.93	-55.00	831.93	6,868.73	1,612.77	1,340.00	272.78	5.912		
14,800.00	7,815.00	13,731.23	6,889.00	165.25	162.21	-55.00	831.84	6,968.73	1,612.79	1,336.18	276.62	5.830		
14,900.00	7,815.00	13,831.23	6,889.00	167.52	164.49	-55.00	831.75	7,068.73	1,612.81	1,332.36	280.46	5.751		
15,000.00	7,815.00	13,931.23	6,889.00	169.80	166.77	-55.00	831.66	7,168.73	1,612.84	1,328.53	284.30	5.673		
15,100.00	7,815.00	14,031.23	6,889.00	172.08	169.05	-55.00	831.57	7,268.73	1,612.86	1,324.71	288.15	5.597		
15,200.00	7,815.00	14,131.23	6,889.00	174.36	171.33	-55.00	831.48	7,368.73	1,612.88	1,320.88	291.99	5.524		
15,300.00	7,815.00	14,231.23	6,889.00	176.64	173.62	-55.01	831.39	7,468.73	1,612.90	1,317.06	295.84	5.452		
15,400.00	7,815.00	14,331.23	6,889.00	178.92	175.90	-55.01	831.30	7,568.73	1,612.92	1,313.23	299.69	5.382		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #113H - OH - Prelim B													Offset Site Error: 0.00 usft
Survey Program: 0-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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,500.00	7,815.00	14,431.23	6,889.00	181.20	178.18	-55.01	831.21	7,668.73	1,612.94	1,309.40	303.54	5.314	
15,600.00	7,815.00	14,531.23	6,889.00	183.48	180.47	-55.01	831.13	7,768.73	1,612.96	1,305.57	307.39	5.247	
15,700.00	7,815.00	14,631.23	6,889.00	185.76	182.75	-55.01	831.04	7,868.73	1,612.99	1,301.74	311.25	5.182	
15,800.00	7,815.00	14,731.23	6,889.00	188.04	185.04	-55.01	830.95	7,968.73	1,613.01	1,297.91	315.10	5.119	
15,900.00	7,815.00	14,831.23	6,889.00	190.33	187.32	-55.01	830.86	8,068.73	1,613.03	1,294.07	318.95	5.057	
16,000.00	7,815.00	14,931.23	6,889.00	192.61	189.61	-55.01	830.77	8,168.73	1,613.05	1,290.24	322.81	4.997	
16,100.00	7,815.00	15,031.23	6,889.00	194.89	191.90	-55.01	830.68	8,268.73	1,613.07	1,286.41	326.67	4.938	
16,200.00	7,815.00	15,131.23	6,889.00	197.18	194.18	-55.01	830.59	8,368.73	1,613.09	1,282.57	330.52	4.880	
16,300.00	7,815.00	15,231.23	6,889.00	199.47	196.47	-55.01	830.50	8,468.73	1,613.11	1,278.73	334.38	4.824	
16,400.00	7,815.00	15,331.23	6,889.00	201.75	198.76	-55.01	830.41	8,568.73	1,613.14	1,274.89	338.24	4.769	
16,500.00	7,815.00	15,431.23	6,889.00	204.04	201.05	-55.01	830.32	8,668.73	1,613.16	1,271.06	342.10	4.715	
16,600.00	7,815.00	15,531.23	6,889.00	206.33	203.34	-55.01	830.23	8,768.73	1,613.18	1,267.22	345.96	4.663	
16,700.00	7,815.00	15,631.23	6,889.00	208.61	205.63	-55.01	830.14	8,868.73	1,613.20	1,263.37	349.82	4.611	
16,800.00	7,815.00	15,731.23	6,889.00	210.90	207.92	-55.01	830.05	8,968.73	1,613.22	1,259.53	353.69	4.561	
16,900.00	7,815.00	15,831.23	6,889.00	213.19	210.21	-55.01	829.96	9,068.73	1,613.24	1,255.69	357.55	4.512	
17,000.00	7,815.00	15,931.23	6,889.00	215.48	212.50	-55.01	829.87	9,168.73	1,613.26	1,251.85	361.41	4.464	
17,100.00	7,815.00	16,031.23	6,889.00	217.77	214.79	-55.01	829.78	9,268.73	1,613.29	1,248.01	365.28	4.417	
17,200.00	7,815.00	16,131.23	6,889.00	220.06	217.08	-55.02	829.69	9,368.73	1,613.31	1,244.16	369.15	4.370	
17,300.00	7,815.00	16,231.23	6,889.00	222.35	219.38	-55.02	829.60	9,468.73	1,613.33	1,240.32	373.01	4.325	
17,400.00	7,815.00	16,331.23	6,889.00	224.64	221.67	-55.02	829.52	9,568.73	1,613.35	1,236.47	376.88	4.281	
17,500.00	7,815.00	16,431.23	6,889.00	226.93	223.96	-55.02	829.43	9,668.73	1,613.37	1,232.63	380.75	4.237	
17,600.00	7,815.00	16,531.23	6,889.00	229.22	226.25	-55.02	829.34	9,768.73	1,613.39	1,228.78	384.61	4.195	
17,700.00	7,815.00	16,631.23	6,889.00	231.51	228.55	-55.02	829.25	9,868.73	1,613.41	1,224.93	388.48	4.153	
17,800.00	7,815.00	16,731.23	6,889.00	233.80	230.84	-55.02	829.16	9,968.73	1,613.44	1,221.08	392.35	4.112	
17,900.00	7,815.00	16,831.23	6,889.00	236.10	233.14	-55.02	829.07	10,068.73	1,613.46	1,217.24	396.22	4.072	
17,981.45	7,815.00	16,912.68	6,889.00	237.96	235.00	-55.02	829.00	10,150.18	1,613.47	1,214.10	399.37	4.040 SF	

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

Pro Directional

Anticollision Report

Company: Matador Resources
 Project: Eddy County, NM (NAD27)
 Reference Site: Leatherneck Fed
 Site Error: 0.00 usft
 Reference Well: #124H
 Well Error: 0.00 usft
 Reference Wellbore OH
 Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
 TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: WellPlanner1
 Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #114H - OH - Prelim B													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	1.00	-1.00	0.00	0.00	0.52	0.52	110.00	1.00	110.00				
100.00	100.00	101.00	99.00	0.13	0.13	0.52	0.52	110.00	1.00	110.00	109.74	0.26	423.270	
200.00	200.00	201.00	199.00	0.49	0.49	0.52	0.52	110.00	1.00	110.00	109.03	0.98	112.613	
300.00	300.00	301.00	299.00	0.85	0.85	0.52	0.52	110.00	1.00	110.00	108.31	1.69	64.946	
400.00	400.00	401.00	399.00	1.20	1.21	0.52	0.52	110.00	1.00	110.00	107.59	2.41	45.631	
500.00	500.00	501.00	499.00	1.56	1.57	0.52	0.52	110.00	1.00	110.00	106.88	3.13	35.171	
600.00	600.00	601.00	599.00	1.92	1.92	0.52	0.52	110.00	1.00	110.00	106.16	3.84	28.613	
700.00	700.00	701.00	699.00	2.28	2.28	0.52	0.52	110.00	1.00	110.00	105.44	4.56	24.116	
800.00	800.00	801.00	799.00	2.64	2.64	0.52	0.52	110.00	1.00	110.00	104.73	5.28	20.840	
900.00	900.00	901.00	899.00	3.00	3.00	0.52	0.52	110.00	1.00	110.00	104.01	6.00	18.348	
1,000.00	1,000.00	1,001.00	999.00	3.35	3.36	0.52	0.52	110.00	1.00	110.00	103.29	6.71	16.388	
1,100.00	1,100.00	1,101.00	1,099.00	3.71	3.72	0.52	0.52	110.00	1.00	110.00	102.58	7.43	14.807	
1,200.00	1,200.00	1,201.00	1,199.00	4.07	4.07	0.52	0.52	110.00	1.00	110.00	101.86	8.15	13.504	
1,300.00	1,300.00	1,301.00	1,299.00	4.43	4.43	0.52	0.52	110.00	1.00	110.00	101.14	8.86	12.411	
1,400.00	1,400.00	1,401.00	1,399.00	4.79	4.79	0.52	0.52	110.00	1.00	110.00	100.42	9.58	11.483	
1,500.00	1,500.00	1,501.00	1,499.00	5.15	5.15	0.52	0.52	110.00	1.00	110.00	99.71	10.30	10.683	
1,600.00	1,600.00	1,601.00	1,599.00	5.51	5.51	0.52	0.52	110.00	1.00	110.00	98.99	11.01	9.988	
1,700.00	1,700.00	1,701.00	1,699.00	5.86	5.87	0.52	0.52	110.00	1.00	110.00	98.27	11.73	9.377	
1,800.00	1,800.00	1,801.00	1,799.00	6.22	6.23	0.52	0.52	110.00	1.00	110.00	97.56	12.45	8.837	
1,900.00	1,900.00	1,901.00	1,899.00	6.58	6.58	0.52	0.52	110.00	1.00	110.00	96.84	13.16	8.356	
2,000.00	2,000.00	2,001.00	1,999.00	6.94	6.94	0.52	0.52	110.00	1.00	110.00	96.12	13.88	7.924	
2,100.00	2,099.98	2,101.02	2,098.98	7.28	7.30	154.85	154.85	110.00	1.00	111.58	97.00	14.58	7.652	
2,200.00	2,199.84	2,201.16	2,198.84	7.61	7.66	155.91	155.91	110.00	1.00	116.34	101.07	15.27	7.620	
2,300.00	2,299.45	2,301.55	2,298.45	7.94	8.02	157.49	157.49	110.00	1.00	124.35	108.39	15.96	7.793	
2,400.00	2,398.87	2,402.13	2,397.87	8.27	8.38	159.24	159.24	110.00	1.00	134.38	117.73	16.65	8.071	
2,500.00	2,498.29	2,497.29	2,497.29	8.61	8.72	160.75	160.75	110.00	1.00	144.52	127.20	17.32	8.342	
2,600.00	2,597.70	2,602.17	2,602.15	8.95	9.08	162.09	162.09	108.22	0.62	153.04	135.03	18.01	8.497	
2,700.00	2,697.12	2,707.73	2,707.55	9.30	9.42	163.22	163.22	102.64	-0.59	157.96	139.30	18.66	8.463	
2,800.00	2,796.53	2,813.54	2,812.92	9.65	9.77	164.23	164.23	93.24	-2.62	159.25	139.95	19.30	8.250	
2,900.00	2,895.95	2,919.32	2,917.83	10.00	10.12	165.20	165.20	80.06	-5.46	156.89	136.97	19.92	7.875	
3,000.00	2,895.37	3,019.29	3,016.72	10.36	10.45	166.14	166.14	65.75	-8.55	152.67	132.08	20.60	7.413	
3,100.00	3,094.78	3,119.17	3,115.52	10.71	10.79	167.13	167.13	51.46	-11.64	148.50	127.22	21.27	6.980	
3,200.00	3,194.20	3,219.05	3,214.32	11.07	11.14	168.18	168.18	37.17	-14.72	144.37	122.41	21.96	6.575	
3,300.00	3,293.61	3,318.92	3,313.12	11.44	11.49	169.29	169.29	22.88	-17.81	140.30	117.65	22.64	6.196	
3,400.00	3,393.03	3,418.80	3,411.93	11.80	11.84	170.47	170.47	8.59	-20.89	136.28	112.94	23.33	5.841	
3,500.00	3,492.45	3,518.68	3,510.73	12.17	12.20	171.72	171.72	-5.71	-23.98	132.32	108.29	24.03	5.507	
3,600.00	3,591.86	3,618.56	3,609.53	12.53	12.56	173.05	173.05	-20.00	-27.06	128.43	103.71	24.72	5.195	
3,700.00	3,691.28	3,718.44	3,708.34	12.90	12.92	174.45	174.45	-34.29	-30.15	124.61	99.19	25.42	4.902	
3,800.00	3,790.69	3,818.32	3,807.14	13.27	13.29	175.95	175.95	-48.58	-33.24	120.87	94.75	26.12	4.627	
3,900.00	3,890.11	3,918.20	3,905.94	13.64	13.66	177.54	177.54	-62.87	-36.32	117.22	90.39	26.83	4.370	
4,000.00	3,989.53	4,018.08	4,004.74	14.02	14.04	179.23	179.23	-77.17	-39.41	113.67	86.13	27.53	4.128	
4,100.00	4,088.94	4,117.95	4,103.55	14.39	14.41	-178.98	-178.98	-91.46	-42.49	110.22	81.97	28.25	3.902	
4,200.00	4,188.36	4,217.83	4,202.35	14.76	14.79	-177.06	-177.06	-105.75	-45.58	106.88	77.92	28.96	3.691	
4,300.00	4,287.78	4,317.71	4,301.15	15.14	15.17	-175.03	-175.03	-120.04	-48.66	103.67	73.99	29.68	3.493	
4,400.00	4,387.19	4,417.59	4,399.95	15.51	15.55	-172.87	-172.87	-134.33	-51.75	100.60	70.20	30.41	3.309	
4,500.00	4,486.61	4,517.47	4,498.76	15.89	15.93	-170.58	-170.58	-148.63	-54.83	97.69	66.55	31.14	3.137	
4,600.00	4,586.02	4,617.35	4,597.56	16.27	16.31	-168.16	-168.16	-162.92	-57.92	94.93	63.06	31.88	2.978	
4,700.00	4,685.44	4,717.23	4,696.36	16.64	16.70	-165.59	-165.59	-177.21	-61.00	92.36	59.74	32.62	2.831	
4,800.00	4,784.86	4,817.11	4,795.17	17.02	17.09	-162.88	-162.88	-191.50	-64.09	89.99	56.61	33.38	2.696	
4,900.00	4,884.27	4,916.99	4,893.97	17.40	17.47	-160.03	-160.03	-205.79	-67.18	87.82	53.68	34.14	2.572	
5,000.00	4,983.69	5,016.86	4,992.77	17.78	17.86	-157.05	-157.05	-220.08	-70.26	85.89	50.97	34.91	2.460	
5,100.00	5,083.10	5,116.74	5,091.57	18.16	18.25	-153.94	-153.94	-234.38	-73.35	84.19	48.50	35.70	2.359	

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #114H - OH - Prelim B														Offset Site Error:	0.00 usft
Survey Program: 0-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)							
5,200.00	5,182.52	5,216.62	5,190.38	18.54	18.64	-150.71	-248.67	-76.43	82.76	46.27	36.49	2.268			
5,300.00	5,281.94	5,316.50	5,289.18	18.92	19.04	-147.38	-262.96	-79.52	81.60	44.30	37.30	2.188			
5,400.00	5,381.35	5,416.38	5,387.98	19.30	19.43	-143.96	-277.25	-82.60	80.72	42.61	38.11	2.118			
5,500.00	5,480.77	5,516.26	5,486.79	19.68	19.82	-140.48	-291.54	-85.69	80.14	41.20	38.93	2.058			
5,600.00	5,580.18	5,616.14	5,585.59	20.07	20.22	-136.97	-305.84	-88.77	79.85	40.09	39.76	2.008			
5,643.97	5,623.89	5,660.05	5,629.03	20.23	20.39	-135.42	-312.12	-90.13	79.82	39.69	40.13	1.989 CC			
5,700.00	5,679.60	5,716.02	5,684.39	20.45	20.61	-133.44	-320.13	-91.86	79.87	39.27	40.60	1.967			
5,800.00	5,779.02	5,815.89	5,783.19	20.83	21.01	-129.93	-334.42	-94.94	80.19	38.75	41.44	1.935			
5,900.00	5,878.43	5,915.77	5,882.00	21.21	21.41	-126.46	-348.71	-98.03	80.81	38.53	42.28	1.911 ES			
6,000.00	5,977.85	6,014.83	5,980.16	21.60	21.80	-123.89	-361.69	-100.83	82.15	39.05	43.10	1.906 SF			
6,100.00	6,077.26	6,113.82	6,078.64	21.98	22.17	-123.60	-371.37	-102.92	84.74	40.88	43.85	1.932			
6,200.00	6,176.68	6,212.66	6,177.26	22.36	22.53	-125.40	-377.71	-104.29	88.54	44.00	44.55	1.988			
6,300.00	6,276.10	6,311.11	6,275.66	22.75	22.88	-128.85	-380.72	-104.94	93.85	48.67	45.17	2.078			
6,400.00	6,375.51	6,401.80	6,366.29	23.13	23.18	-132.65	-381.29	-102.81	103.18	57.69	45.49	2.268			
6,500.00	6,474.93	6,484.55	6,447.91	23.51	23.44	-133.15	-383.03	-89.75	124.97	79.77	45.19	2.765			
6,600.00	6,574.34	6,581.29	6,521.19	23.90	23.68	-131.70	-386.02	-67.35	158.92	114.53	44.39	3.580			
6,700.00	6,673.76	6,630.25	6,583.93	24.28	23.88	-129.67	-389.79	-39.10	203.79	160.62	43.17	4.721			
6,800.00	6,773.18	6,690.87	6,635.93	24.67	24.04	-127.76	-393.91	-8.25	258.10	216.39	41.71	6.188			
6,900.00	6,872.59	6,743.47	6,678.15	25.05	24.17	-126.14	-398.05	22.80	320.26	280.09	40.17	7.972			
7,000.00	6,972.04	6,798.85	6,712.15	25.44	24.27	-125.44	-402.03	52.58	388.71	350.03	38.69	10.048			
7,100.00	7,071.74	6,828.38	6,739.74	25.81	24.36	-125.85	-405.77	80.62	461.27	424.01	37.26	12.378			
7,200.00	7,171.64	6,863.00	6,762.26	26.17	24.44	-126.45	-409.24	106.68	536.94	500.99	35.94	14.939			
7,300.00	7,271.62	6,900.00	6,784.52	26.50	24.53	-9.81	-413.15	135.97	614.77	579.73	35.04	17.545			
7,400.00	7,370.53	6,925.34	6,798.65	26.81	24.59	-7.53	-415.93	156.82	687.34	653.89	33.46	20.542			
7,500.00	7,465.54	6,950.00	6,811.49	27.08	24.66	-6.04	-418.72	177.69	751.84	720.09	31.75	23.680			
7,600.00	7,553.76	7,000.00	6,834.69	27.31	24.85	-4.68	-424.57	221.57	807.20	776.27	30.93	26.098			
7,700.00	7,632.50	7,029.70	6,846.60	27.50	25.00	-3.93	-428.17	248.53	853.05	823.75	29.30	29.114			
7,800.00	7,699.38	7,066.41	6,859.36	27.64	25.22	-3.31	-432.72	282.65	888.99	861.02	27.97	31.785			
7,900.00	7,752.37	7,100.00	6,869.09	27.75	25.44	-2.86	-436.97	314.51	914.64	887.95	26.69	34.273			
8,000.00	7,789.84	7,150.00	6,880.03	28.10	25.82	-2.37	-443.42	362.85	929.82	903.81	26.00	35.761			
8,100.00	7,810.68	7,178.92	6,884.41	28.74	26.07	-2.12	-447.21	391.18	934.10	908.95	25.16	37.132			
8,200.00	7,815.00	7,216.63	6,887.94	29.51	26.40	-1.83	-452.17	428.40	928.53	903.65	24.87	37.328			
8,300.00	7,815.00	7,259.32	6,889.00	30.43	26.80	-1.49	-457.80	470.69	925.32	900.27	25.05	36.938			
8,400.00	7,815.00	7,358.06	6,889.00	31.49	27.85	-0.81	-468.90	568.80	925.09	899.36	25.73	35.953			
8,500.00	7,815.00	7,457.45	6,889.00	32.67	29.02	-0.33	-476.66	667.88	925.02	898.54	26.48	34.937			
8,600.00	7,815.00	7,557.25	6,889.00	33.97	30.32	-0.07	-480.98	767.58	925.00	897.72	27.28	33.913			
8,700.00	7,815.00	7,657.23	6,889.00	35.37	31.72	-0.02	-481.98	867.55	925.00	896.89	28.11	32.905			
8,710.58	7,815.00	7,667.81	6,889.00	35.53	31.87	-0.02	-481.99	878.13	925.00	896.80	28.20	32.796			
8,800.00	7,815.00	7,757.23	6,889.00	36.86	33.22	-0.02	-482.09	967.55	925.00	896.00	29.00	31.892			
8,900.00	7,815.00	7,857.23	6,889.00	38.43	34.81	-0.02	-482.21	1,067.55	925.00	895.05	29.95	30.883			
9,000.00	7,815.00	7,957.23	6,889.00	40.08	36.47	-0.02	-482.33	1,167.55	925.00	894.05	30.95	29.887			
9,100.00	7,815.00	8,057.23	6,889.00	41.78	38.20	-0.02	-482.45	1,267.55	925.00	893.01	31.99	28.912			
9,200.00	7,815.00	8,157.23	6,889.00	43.54	39.99	-0.02	-482.57	1,367.55	925.00	891.92	33.08	27.964			
9,300.00	7,815.00	8,257.23	6,889.00	45.35	41.83	-0.02	-482.69	1,467.55	925.00	890.80	34.20	27.045			
9,400.00	7,815.00	8,357.23	6,889.00	47.20	43.72	-0.02	-482.81	1,567.55	925.00	889.64	35.36	26.160			
9,500.00	7,815.00	8,457.23	6,889.00	49.10	45.64	-0.02	-482.93	1,667.55	925.00	888.45	36.55	25.310			
9,600.00	7,815.00	8,557.23	6,889.00	51.02	47.60	-0.02	-483.04	1,767.55	925.00	887.24	37.76	24.495			
9,700.00	7,815.00	8,657.23	6,889.00	52.98	49.59	-0.02	-483.16	1,867.55	925.00	886.00	39.00	23.716			
9,800.00	7,815.00	8,757.23	6,889.00	54.96	51.60	-0.02	-483.28	1,967.55	925.00	884.73	40.27	22.972			
9,900.00	7,815.00	8,857.23	6,889.00	56.97	53.64	-0.02	-483.40	2,067.55	925.00	883.45	41.55	22.261			
10,000.00	7,815.00	8,957.23	6,889.00	59.00	55.70	-0.02	-483.52	2,167.55	925.00	882.14	42.86	21.584			
10,100.00	7,815.00	9,057.23	6,889.00	61.05	57.78	-0.02	-483.64	2,267.55	925.00	880.82	44.18	20.939			

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #114H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		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)						
10,200.00	7,815.00	9,157.23	6,889.00	63.11	59.87	-0.02	-483.76	2,367.55	925.00	879.49	45.51	20.324		
10,300.00	7,815.00	9,257.23	6,889.00	65.20	61.98	-0.02	-483.88	2,467.55	925.00	878.14	46.86	19.738		
10,400.00	7,815.00	9,357.23	6,889.00	67.29	64.11	-0.02	-483.99	2,567.55	925.00	876.77	48.23	19.180		
10,500.00	7,815.00	9,457.23	6,889.00	69.41	66.24	-0.01	-484.11	2,667.55	925.00	875.40	49.60	18.648		
10,600.00	7,815.00	9,557.23	6,889.00	71.53	68.39	-0.01	-484.23	2,767.55	925.00	874.01	50.99	18.140		
10,700.00	7,815.00	9,657.23	6,889.00	73.66	70.55	-0.01	-484.35	2,867.55	925.00	872.61	52.39	17.656		
10,800.00	7,815.00	9,757.23	6,889.00	75.81	72.72	-0.01	-484.47	2,967.55	925.00	871.20	53.80	17.194		
10,900.00	7,815.00	9,857.23	6,889.00	77.96	74.89	-0.01	-484.59	3,067.55	925.00	869.79	55.21	16.753		
11,000.00	7,815.00	9,957.23	6,889.00	80.13	77.07	-0.01	-484.71	3,167.55	925.00	868.36	56.64	16.332		
11,100.00	7,815.00	10,057.23	6,889.00	82.30	79.26	-0.01	-484.83	3,267.55	925.00	866.93	58.07	15.930		
11,200.00	7,815.00	10,157.23	6,889.00	84.47	81.46	-0.01	-484.95	3,367.55	925.00	865.49	59.51	15.545		
11,300.00	7,815.00	10,257.23	6,889.00	86.66	83.66	-0.01	-485.06	3,467.55	925.00	864.05	60.95	15.176		
11,400.00	7,815.00	10,357.23	6,889.00	88.85	85.87	-0.01	-485.18	3,567.55	925.00	862.60	62.40	14.823		
11,500.00	7,815.00	10,457.23	6,889.00	91.04	88.09	-0.01	-485.30	3,667.55	925.00	861.14	63.86	14.485		
11,600.00	7,815.00	10,557.23	6,889.00	93.25	90.30	-0.01	-485.42	3,767.55	925.00	859.68	65.32	14.161		
11,700.00	7,815.00	10,657.23	6,889.00	95.45	92.53	-0.01	-485.54	3,867.55	925.00	858.21	66.79	13.850		
11,800.00	7,815.00	10,757.23	6,889.00	97.67	94.75	-0.01	-485.66	3,967.55	925.00	856.74	68.26	13.552		
11,900.00	7,815.00	10,857.23	6,889.00	99.88	96.98	-0.01	-485.78	4,067.55	925.00	855.27	69.73	13.265		
12,000.00	7,815.00	10,957.23	6,889.00	102.10	99.22	-0.01	-485.90	4,167.55	925.00	853.79	71.21	12.989		
12,100.00	7,815.00	11,057.23	6,889.00	104.33	101.45	-0.01	-486.01	4,267.55	925.00	852.30	72.70	12.724		
12,200.00	7,815.00	11,157.23	6,889.00	106.55	103.69	-0.01	-486.13	4,367.55	925.00	850.82	74.18	12.469		
12,300.00	7,815.00	11,257.23	6,889.00	108.78	105.94	-0.01	-486.25	4,467.55	925.00	849.33	75.67	12.224		
12,400.00	7,815.00	11,357.23	6,889.00	111.02	108.18	-0.01	-486.37	4,567.55	925.00	847.83	77.17	11.987		
12,500.00	7,815.00	11,457.23	6,889.00	113.25	110.43	-0.01	-486.49	4,667.55	925.00	846.34	78.66	11.759		
12,600.00	7,815.00	11,557.23	6,889.00	115.49	112.68	-0.01	-486.61	4,767.55	925.00	844.84	80.16	11.539		
12,700.00	7,815.00	11,657.23	6,889.00	117.74	114.94	-0.01	-486.73	4,867.55	925.00	843.34	81.66	11.327		
12,800.00	7,815.00	11,757.23	6,889.00	119.98	117.19	-0.01	-486.85	4,967.55	925.00	841.83	83.17	11.122		
12,900.00	7,815.00	11,857.23	6,889.00	122.23	119.45	-0.01	-486.96	5,067.55	925.00	840.33	84.67	10.924		
13,000.00	7,815.00	11,957.23	6,889.00	124.48	121.71	-0.01	-487.08	5,167.55	925.00	838.82	86.18	10.733		
13,100.00	7,815.00	12,057.23	6,889.00	126.73	123.97	-0.01	-487.20	5,267.55	925.00	837.31	87.69	10.548		
13,200.00	7,815.00	12,157.23	6,889.00	128.98	126.23	-0.01	-487.32	5,367.55	925.00	835.79	89.21	10.369		
13,300.00	7,815.00	12,257.23	6,889.00	131.24	128.50	-0.01	-487.44	5,467.55	925.00	834.28	90.72	10.196		
13,400.00	7,815.00	12,357.23	6,889.00	133.50	130.76	-0.01	-487.56	5,567.55	925.00	832.76	92.24	10.028		
13,500.00	7,815.00	12,457.23	6,889.00	135.76	133.03	-0.01	-487.68	5,667.55	925.00	831.24	93.76	9.866		
13,600.00	7,815.00	12,557.23	6,889.00	138.02	135.30	-0.01	-487.80	5,767.55	925.00	829.72	95.28	9.709		
13,700.00	7,815.00	12,657.23	6,889.00	140.28	137.57	-0.01	-487.91	5,867.55	925.00	828.20	96.80	9.556		
13,800.00	7,815.00	12,757.23	6,889.00	142.54	139.84	-0.01	-488.03	5,967.55	925.00	826.68	98.32	9.408		
13,900.00	7,815.00	12,857.23	6,889.00	144.81	142.11	-0.01	-488.15	6,067.55	925.00	825.15	99.85	9.264		
14,000.00	7,815.00	12,957.23	6,889.00	147.07	144.39	-0.01	-488.27	6,167.55	925.00	823.63	101.37	9.125		
14,100.00	7,815.00	13,057.23	6,889.00	149.34	146.66	-0.01	-488.39	6,267.55	925.00	822.10	102.90	8.989		
14,200.00	7,815.00	13,157.23	6,889.00	151.61	148.94	-0.01	-488.51	6,367.55	925.00	820.57	104.43	8.858		
14,300.00	7,815.00	13,257.23	6,889.00	153.88	151.21	-0.01	-488.63	6,467.55	925.00	819.04	105.96	8.730		
14,400.00	7,815.00	13,357.23	6,889.00	156.15	153.49	-0.01	-488.75	6,567.55	925.00	817.51	107.49	8.606		
14,500.00	7,815.00	13,457.23	6,889.00	158.42	155.77	-0.01	-488.86	6,667.55	925.00	815.98	109.02	8.485		
14,600.00	7,815.00	13,557.23	6,889.00	160.70	158.05	-0.01	-488.98	6,767.55	925.00	814.45	110.55	8.367		
14,700.00	7,815.00	13,657.23	6,889.00	162.97	160.33	-0.01	-489.10	6,867.55	925.00	812.91	112.09	8.253		
14,800.00	7,815.00	13,757.23	6,889.00	165.25	162.61	-0.01	-489.22	6,967.55	925.00	811.38	113.62	8.141		
14,900.00	7,815.00	13,857.23	6,889.00	167.52	164.89	-0.01	-489.34	7,067.55	925.00	809.84	115.16	8.032		
15,000.00	7,815.00	13,957.23	6,889.00	169.80	167.18	-0.01	-489.46	7,167.55	925.00	808.31	116.69	7.927		
15,100.00	7,815.00	14,057.23	6,889.00	172.08	169.46	-0.01	-489.58	7,267.55	925.00	806.77	118.23	7.824		
15,200.00	7,815.00	14,157.23	6,889.00	174.36	171.74	-0.01	-489.70	7,367.55	925.00	805.23	119.77	7.723		
15,300.00	7,815.00	14,257.23	6,889.00	176.64	174.03	-0.01	-489.81	7,467.55	925.00	803.69	121.31	7.625		

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: Eddy County, NM (NAD27)
 Reference Site: Leatherneck Fed
 Site Error: 0.00 usft
 Reference Well: #124H
 Well Error: 0.00 usft
 Reference Wellbore OH
 Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
 TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: WellPlanner1
 Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #114H - OH - Prelim B													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		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)					
15,400.00	7,815.00	14,357.23	6,889.00	178.92	176.31	-0.01	-489.93	7,567.55	925.00	802.15	122.85	7.530	
15,500.00	7,815.00	14,457.23	6,889.00	181.20	178.60	0.00	-490.05	7,667.55	925.00	800.61	124.39	7.436	
15,600.00	7,815.00	14,557.23	6,889.00	183.48	180.88	0.00	-490.17	7,767.55	925.00	799.07	125.93	7.345	
15,700.00	7,815.00	14,657.23	6,889.00	185.76	183.17	0.00	-490.29	7,867.55	925.00	797.53	127.47	7.256	
15,800.00	7,815.00	14,757.23	6,889.00	188.04	185.46	0.00	-490.41	7,967.55	925.00	795.98	129.02	7.170	
15,900.00	7,815.00	14,857.23	6,889.00	190.33	187.75	0.00	-490.53	8,067.55	925.00	794.44	130.56	7.085	
16,000.00	7,815.00	14,957.23	6,889.00	192.61	190.04	0.00	-490.65	8,167.55	925.00	792.90	132.10	7.002	
16,100.00	7,815.00	15,057.23	6,889.00	194.89	192.32	0.00	-490.77	8,267.55	925.00	791.35	133.65	6.921	
16,200.00	7,815.00	15,157.23	6,889.00	197.18	194.61	0.00	-490.88	8,367.55	925.00	789.81	135.19	6.842	
16,300.00	7,815.00	15,257.23	6,889.00	199.47	196.90	0.00	-491.00	8,467.55	925.00	788.26	136.74	6.765	
16,400.00	7,815.00	15,357.23	6,889.00	201.75	199.19	0.00	-491.12	8,567.55	925.00	786.71	138.29	6.689	
16,500.00	7,815.00	15,457.23	6,889.00	204.04	201.48	0.00	-491.24	8,667.55	925.00	785.17	139.83	6.615	
16,600.00	7,815.00	15,557.23	6,889.00	206.33	203.78	0.00	-491.36	8,767.55	925.00	783.62	141.38	6.543	
16,700.00	7,815.00	15,657.23	6,889.00	208.61	206.07	0.00	-491.48	8,867.55	925.00	782.07	142.93	6.472	
16,800.00	7,815.00	15,757.23	6,889.00	210.90	208.36	0.00	-491.60	8,967.55	925.00	780.52	144.48	6.402	
16,900.00	7,815.00	15,857.23	6,889.00	213.19	210.65	0.00	-491.72	9,067.55	925.00	778.97	146.03	6.334	
17,000.00	7,815.00	15,957.23	6,889.00	215.48	212.94	0.00	-491.83	9,167.55	925.00	777.42	147.58	6.268	
17,100.00	7,815.00	16,057.23	6,889.00	217.77	215.24	0.00	-491.95	9,267.55	925.00	775.87	149.13	6.203	
17,200.00	7,815.00	16,157.23	6,889.00	220.06	217.53	0.00	-492.07	9,367.55	925.00	774.32	150.68	6.139	
17,300.00	7,815.00	16,257.23	6,889.00	222.35	219.82	0.00	-492.19	9,467.55	925.00	772.77	152.23	6.077	
17,400.00	7,815.00	16,357.23	6,889.00	224.64	222.12	0.00	-492.31	9,567.55	925.00	771.22	153.78	6.015	
17,500.00	7,815.00	16,457.23	6,889.00	226.93	224.41	0.00	-492.43	9,667.55	925.00	769.67	155.33	5.955	
17,600.00	7,815.00	16,557.23	6,889.00	229.22	226.70	0.00	-492.55	9,767.55	925.00	768.12	156.88	5.896	
17,700.00	7,815.00	16,657.23	6,889.00	231.51	229.00	0.00	-492.67	9,867.55	925.00	766.57	158.43	5.838	
17,800.00	7,815.00	16,757.23	6,889.00	233.80	231.29	0.00	-492.78	9,967.55	925.00	765.02	159.98	5.782	
17,900.00	7,815.00	16,857.23	6,889.00	236.10	233.59	0.00	-492.90	10,067.55	925.00	763.46	161.54	5.726	
17,981.45	7,815.00	16,938.68	6,889.00	237.96	235.46	0.00	-493.00	10,149.00	925.00	762.20	162.80	5.682	

Pro Directional Anticollision Report

Company: Matador Resources
Project: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #123H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (°)	Distance		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)						
0.00	0.00	1.00	-1.00	0.00	0.00	-88.09	1.00	-30.00	30.02					
100.00	100.00	101.00	99.00	0.13	0.13	-88.09	1.00	-30.00	30.02	29.76	0.26	115.497		
200.00	200.00	201.00	199.00	0.49	0.49	-88.09	1.00	-30.00	30.02	29.04	0.98	30.728		
300.00	300.00	301.00	299.00	0.85	0.85	-88.09	1.00	-30.00	30.02	28.32	1.69	17.722		
400.00	400.00	401.00	399.00	1.20	1.21	-88.09	1.00	-30.00	30.02	27.61	2.41	12.451		
500.00	500.00	501.00	499.00	1.56	1.57	-88.09	1.00	-30.00	30.02	26.89	3.13	9.597		
600.00	600.00	601.00	599.00	1.92	1.92	-88.09	1.00	-30.00	30.02	26.17	3.84	7.807		
700.00	700.00	701.00	699.00	2.28	2.28	-88.09	1.00	-30.00	30.02	25.46	4.56	6.580		
800.00	800.00	801.00	799.00	2.64	2.64	-88.09	1.00	-30.00	30.02	24.74	5.28	5.687		
900.00	900.00	901.00	899.00	3.00	3.00	-88.09	1.00	-30.00	30.02	24.02	6.00	5.007		
1,000.00	1,000.00	1,001.00	999.00	3.35	3.36	-88.09	1.00	-30.00	30.02	23.30	6.71	4.472		
1,100.00	1,100.00	1,101.00	1,099.00	3.71	3.72	-88.09	1.00	-30.00	30.02	22.59	7.43	4.040		
1,200.00	1,200.00	1,201.00	1,199.00	4.07	4.07	-88.09	1.00	-30.00	30.02	21.87	8.15	3.685		
1,300.00	1,300.00	1,301.00	1,299.00	4.43	4.43	-88.09	1.00	-30.00	30.02	21.15	8.86	3.387		
1,400.00	1,400.00	1,401.00	1,399.00	4.79	4.79	-88.09	1.00	-30.00	30.02	20.44	9.58	3.133		
1,500.00	1,500.00	1,499.00	1,499.00	5.15	5.14	-88.09	1.00	-30.00	30.02	19.73	10.29	2.917 CC, ES		
1,600.00	1,600.00	1,598.34	1,598.32	5.51	5.50	-85.60	2.38	-30.97	31.07	20.07	11.00	2.824		
1,700.00	1,700.00	1,697.44	1,697.29	5.86	5.85	-79.03	6.57	-33.90	34.57	22.87	11.70	2.955		
1,800.00	1,800.00	1,796.07	1,795.54	6.22	6.20	-70.77	13.52	-38.77	41.20	28.82	12.39	3.326		
1,900.00	1,900.00	1,906.09	1,892.67	6.58	6.60	-63.04	23.14	-45.50	51.44	38.35	13.09	3.928		
2,000.00	2,000.00	2,007.07	1,990.73	6.94	6.97	-57.19	34.43	-53.41	64.08	50.28	13.80	4.643		
2,100.00	2,099.98	2,108.18	2,088.66	7.28	7.34	101.68	45.71	-61.30	77.50	63.00	14.50	5.346		
2,200.00	2,199.84	2,190.36	2,186.23	7.61	7.65	107.11	56.94	-69.17	92.33	77.22	15.11	6.109		
2,300.00	2,299.45	2,288.41	2,283.34	7.94	8.02	112.62	68.12	-77.00	109.10	93.31	15.79	6.909		
2,400.00	2,398.87	2,386.14	2,380.11	8.27	8.38	117.67	79.26	-84.80	127.62	111.15	16.47	7.747		
2,500.00	2,498.29	2,483.50	2,476.51	8.61	8.75	121.52	90.49	-92.43	146.93	129.77	17.16	8.563		
2,600.00	2,597.70	2,579.54	2,571.52	8.95	9.12	125.30	103.33	-98.12	167.42	149.59	17.83	9.391		
2,700.00	2,697.12	2,674.87	2,665.62	9.30	9.49	129.15	118.21	-101.49	189.53	171.04	18.49	10.251		
2,800.00	2,796.53	2,771.45	2,760.86	9.65	9.86	132.52	134.02	-104.14	212.74	193.57	19.18	11.094		
2,900.00	2,895.95	2,868.04	2,856.11	10.00	10.23	135.22	149.82	-106.79	236.52	216.65	19.87	11.906		
3,000.00	2,995.37	2,964.62	2,951.35	10.36	10.61	137.44	165.63	-109.43	260.70	240.14	20.56	12.681		
3,100.00	3,094.78	3,061.20	3,046.59	10.71	10.99	139.27	181.44	-112.08	285.19	263.94	21.25	13.419		
3,200.00	3,194.20	3,157.78	3,141.83	11.07	11.37	140.82	197.24	-114.73	309.91	287.96	21.95	14.119		
3,300.00	3,293.61	3,254.36	3,237.07	11.44	11.75	142.14	213.05	-117.37	334.82	312.17	22.65	14.783		
3,400.00	3,393.03	3,350.94	3,332.32	11.80	12.14	143.27	228.86	-120.02	359.87	336.52	23.35	15.412		
3,500.00	3,492.45	3,447.52	3,427.56	12.17	12.52	144.26	244.66	-122.67	385.04	360.98	24.05	16.008		
3,600.00	3,591.86	3,544.10	3,522.80	12.53	12.91	145.13	260.47	-125.31	410.30	385.54	24.76	16.574		
3,700.00	3,691.28	3,640.68	3,618.04	12.90	13.29	145.90	276.28	-127.96	435.64	410.18	25.46	17.110		
3,800.00	3,790.69	3,737.26	3,713.28	13.27	13.68	146.58	292.09	-130.60	461.04	434.87	26.17	17.619		
3,900.00	3,890.11	3,833.84	3,808.52	13.64	14.07	147.19	307.89	-133.25	486.50	459.62	26.88	18.102		
4,000.00	3,989.53	3,930.42	3,903.77	14.02	14.46	147.75	323.70	-135.90	512.01	484.42	27.58	18.562		
4,100.00	4,088.94	4,027.00	3,999.01	14.39	14.85	148.24	339.50	-138.54	537.55	509.26	28.29	19.000		
4,200.00	4,188.36	4,123.59	4,094.25	14.76	15.25	148.70	355.31	-141.19	563.13	534.13	29.00	19.416		
4,300.00	4,287.78	4,220.17	4,189.49	15.14	15.64	149.11	371.11	-143.84	588.74	559.03	29.71	19.813		
4,400.00	4,387.19	4,316.75	4,284.73	15.51	16.03	149.49	386.92	-146.48	614.38	583.96	30.43	20.192		
4,500.00	4,486.61	4,413.33	4,379.97	15.89	16.42	149.84	402.73	-149.13	640.04	608.90	31.14	20.554		
4,600.00	4,586.02	4,509.91	4,475.22	16.27	16.82	150.16	418.53	-151.77	665.72	633.87	31.85	20.900		
4,700.00	4,685.44	4,606.49	4,570.46	16.64	17.21	150.46	434.34	-154.42	691.42	658.86	32.57	21.231		
4,800.00	4,784.86	4,703.07	4,665.70	17.02	17.61	150.74	450.15	-157.07	717.14	683.86	33.28	21.548		
4,900.00	4,884.27	4,800.35	4,760.94	17.40	18.01	151.00	465.95	-159.71	742.87	708.87	34.00	21.850		
5,000.00	4,983.69	4,903.77	4,856.18	17.78	18.43	151.24	481.76	-162.36	768.61	733.87	34.74	22.125		
5,100.00	5,083.10	4,992.81	4,951.43	18.16	18.80	151.46	497.57	-165.01	794.37	758.94	35.43	22.422		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #123H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	5,182.52	5,089.39	5,046.67	18.54	19.19	151.67	513.37	-167.65	820.14	783.99	36.15	22.690		
5,300.00	5,281.94	5,185.97	5,141.91	18.92	19.59	151.87	529.18	-170.30	845.91	809.05	36.86	22.948		
5,400.00	5,381.35	5,282.55	5,237.15	19.30	19.99	152.06	544.99	-172.94	871.70	834.12	37.58	23.196		
5,500.00	5,480.77	5,379.14	5,332.39	19.68	20.39	152.23	560.79	-175.59	897.49	859.19	38.30	23.434		
5,600.00	5,580.18	5,475.72	5,427.63	20.07	20.78	152.40	576.60	-178.24	923.29	884.27	39.02	23.664		
5,700.00	5,679.60	5,572.30	5,522.88	20.45	21.18	152.56	592.41	-180.88	949.10	909.36	39.74	23.885		
5,800.00	5,779.02	5,668.88	5,618.12	20.83	21.58	152.71	608.21	-183.53	974.91	934.46	40.46	24.099		
5,900.00	5,878.43	5,765.46	5,713.36	21.21	21.98	152.85	624.02	-186.18	1,000.73	959.56	41.17	24.304		
6,000.00	5,977.85	5,862.04	5,808.60	21.60	22.38	152.98	639.83	-188.82	1,026.56	984.66	41.89	24.503		
6,100.00	6,077.26	5,958.62	5,903.84	21.98	22.78	153.11	655.63	-191.47	1,052.39	1,009.77	42.62	24.695		
6,200.00	6,176.68	6,055.20	5,999.08	22.36	23.18	153.23	671.44	-194.11	1,078.22	1,034.88	43.34	24.881		
6,300.00	6,276.10	6,151.78	6,094.33	22.75	23.58	153.35	687.25	-196.76	1,104.06	1,060.00	44.06	25.060		
6,400.00	6,375.51	6,248.36	6,189.57	23.13	23.98	153.46	703.05	-199.41	1,129.90	1,085.12	44.78	25.233		
6,500.00	6,474.93	6,344.94	6,284.81	23.51	24.38	153.56	718.86	-202.05	1,155.75	1,110.25	45.50	25.401		
6,600.00	6,574.34	6,441.52	6,380.05	23.90	24.78	153.66	734.67	-204.70	1,181.60	1,135.38	46.22	25.564		
6,700.00	6,673.76	6,538.10	6,475.29	24.28	25.18	153.76	750.47	-207.35	1,207.45	1,160.51	46.94	25.721		
6,800.00	6,773.18	6,634.68	6,570.53	24.67	25.58	153.85	766.28	-209.99	1,233.31	1,185.64	47.67	25.874		
6,900.00	6,872.59	6,731.27	6,665.78	25.05	25.98	153.94	782.08	-212.64	1,259.17	1,210.78	48.39	26.022		
7,000.00	6,972.04	6,827.91	6,761.08	25.44	26.38	154.11	797.90	-215.29	1,284.79	1,235.68	49.11	26.161		
7,100.00	7,071.74	6,999.84	6,931.34	25.81	27.06	154.36	821.33	-219.21	1,305.32	1,254.96	50.36	25.921		
7,200.00	7,171.64	7,180.70	7,111.63	26.17	27.73	154.50	835.07	-221.51	1,316.68	1,265.20	51.49	25.574		
7,300.00	7,271.62	7,339.17	7,270.05	26.50	28.25	-89.50	838.00	-221.32	1,319.06	1,266.70	52.36	25.190		
7,349.11	7,320.49	7,387.30	7,317.96	26.65	28.40	-89.51	838.00	-216.95	1,319.06	1,266.39	52.67	25.043		
7,400.00	7,370.53	7,437.19	7,367.06	26.81	28.54	-89.52	837.99	-208.19	1,319.06	1,266.08	52.99	24.895		
7,500.00	7,465.54	7,535.31	7,460.52	27.08	28.80	-89.56	837.96	-178.71	1,319.07	1,265.50	53.56	24.627		
7,600.00	7,553.76	7,633.58	7,547.72	27.31	29.02	-89.60	837.92	-133.65	1,319.07	1,264.96	54.11	24.376		
7,700.00	7,632.50	7,732.06	7,626.10	27.50	29.20	-89.66	837.87	-74.23	1,319.08	1,264.40	54.68	24.124		
7,800.00	7,699.38	7,830.80	7,693.32	27.64	29.34	-89.73	837.81	-2.07	1,319.09	1,263.77	55.32	23.844		
7,900.00	7,752.37	7,929.83	7,747.31	27.75	29.43	-89.81	837.74	80.80	1,319.11	1,262.99	56.12	23.505		
8,000.00	7,789.84	8,029.18	7,786.34	28.10	29.53	-89.89	837.66	172.02	1,319.13	1,261.99	57.14	23.087		
8,100.00	7,810.68	8,128.88	7,809.10	28.74	29.90	-89.98	837.57	268.96	1,319.16	1,260.75	58.41	22.585		
8,200.00	7,815.00	8,228.90	7,815.00	29.51	30.63	-90.04	837.49	368.70	1,319.18	1,259.27	59.92	22.017		
8,300.00	7,815.00	8,328.90	7,815.00	30.43	31.52	-90.04	837.40	468.70	1,319.21	1,257.51	61.71	21.379		
8,400.00	7,815.00	8,428.90	7,815.00	31.49	32.55	-90.04	837.31	568.70	1,319.24	1,255.47	63.77	20.686		
8,500.00	7,815.00	8,528.90	7,815.00	32.67	33.71	-90.04	837.23	668.70	1,319.27	1,253.17	66.10	19.959		
8,600.00	7,815.00	8,628.90	7,815.00	33.97	34.97	-90.04	837.14	768.70	1,319.30	1,250.64	68.66	19.215		
8,700.00	7,815.00	8,728.90	7,815.00	35.37	36.34	-90.04	837.05	868.70	1,319.33	1,247.90	71.42	18.472		
8,800.00	7,815.00	8,828.90	7,815.00	36.86	37.80	-90.04	836.97	968.70	1,319.36	1,244.98	74.37	17.740		
8,900.00	7,815.00	8,928.90	7,815.00	38.43	39.34	-90.04	836.88	1,068.70	1,319.39	1,241.90	77.49	17.028		
9,000.00	7,815.00	9,028.90	7,815.00	40.08	40.95	-90.04	836.79	1,168.70	1,319.41	1,238.67	80.74	16.341		
9,100.00	7,815.00	9,128.90	7,815.00	41.78	42.63	-90.04	836.71	1,268.70	1,319.44	1,235.32	84.13	15.684		
9,200.00	7,815.00	9,228.90	7,815.00	43.54	44.36	-90.04	836.62	1,368.70	1,319.47	1,231.85	87.62	15.059		
9,300.00	7,815.00	9,328.90	7,815.00	45.35	46.14	-90.04	836.53	1,468.70	1,319.50	1,228.28	91.22	14.465		
9,400.00	7,815.00	9,428.90	7,815.00	47.20	47.97	-90.04	836.45	1,568.70	1,319.53	1,224.63	94.90	13.904		
9,500.00	7,815.00	9,528.90	7,815.00	49.10	49.83	-90.04	836.36	1,668.70	1,319.56	1,220.89	98.67	13.374		
9,600.00	7,815.00	9,628.90	7,815.00	51.02	51.73	-90.04	836.27	1,768.70	1,319.59	1,217.09	102.50	12.874		
9,700.00	7,815.00	9,728.90	7,815.00	52.98	53.67	-90.04	836.19	1,868.70	1,319.62	1,213.22	106.39	12.403		
9,800.00	7,815.00	9,828.90	7,815.00	54.96	55.63	-90.04	836.10	1,968.70	1,319.64	1,209.30	110.34	11.959		
9,900.00	7,815.00	9,928.90	7,815.00	56.97	57.61	-90.04	836.01	2,068.70	1,319.67	1,205.33	114.35	11.541		
10,000.00	7,815.00	10,028.90	7,815.00	59.00	59.63	-90.04	835.92	2,168.70	1,319.70	1,201.31	118.39	11.147		
10,100.00	7,815.00	10,128.90	7,815.00	61.05	61.66	-90.04	835.84	2,268.70	1,319.73	1,197.25	122.48	10.775		
10,200.00	7,815.00	10,228.90	7,815.00	63.11	63.71	-90.04	835.75	2,368.70	1,319.76	1,193.16	126.60	10.425		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #123H - OH - Prelim B													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,300.00	7,815.00	10,328.90	7,815.00	65.20	65.77	-90.04	835.66	2,468.70	1,319.79	1,189.03	130.75	10.094	
10,400.00	7,815.00	10,428.90	7,815.00	67.29	67.85	-90.04	835.58	2,568.70	1,319.82	1,184.88	134.94	9.781	
10,500.00	7,815.00	10,528.90	7,815.00	69.41	69.95	-90.04	835.49	2,668.70	1,319.85	1,180.69	139.15	9.485	
10,600.00	7,815.00	10,628.90	7,815.00	71.53	72.06	-90.04	835.40	2,768.70	1,319.87	1,176.48	143.39	9.205	
10,700.00	7,815.00	10,728.90	7,815.00	73.66	74.18	-90.04	835.32	2,868.70	1,319.90	1,172.25	147.65	8.939	
10,800.00	7,815.00	10,828.90	7,815.00	75.81	76.31	-90.04	835.23	2,968.70	1,319.93	1,168.00	151.93	8.688	
10,900.00	7,815.00	10,928.90	7,815.00	77.96	78.46	-90.04	835.14	3,068.70	1,319.96	1,163.73	156.23	8.449	
11,000.00	7,815.00	11,028.90	7,815.00	80.13	80.61	-90.04	835.06	3,168.70	1,319.99	1,159.44	160.55	8.222	
11,100.00	7,815.00	11,128.90	7,815.00	82.30	82.77	-90.04	834.97	3,268.70	1,320.02	1,155.14	164.88	8.006	
11,200.00	7,815.00	11,228.90	7,815.00	84.47	84.93	-90.04	834.88	3,368.70	1,320.05	1,150.82	169.23	7.800	
11,300.00	7,815.00	11,328.90	7,815.00	86.66	87.11	-90.04	834.80	3,468.70	1,320.08	1,146.48	173.59	7.604	
11,400.00	7,815.00	11,428.90	7,815.00	88.85	89.29	-90.04	834.71	3,568.70	1,320.10	1,142.13	177.97	7.418	
11,500.00	7,815.00	11,528.90	7,815.00	91.04	91.48	-90.04	834.62	3,668.70	1,320.13	1,137.78	182.36	7.239	
11,600.00	7,815.00	11,628.90	7,815.00	93.25	93.67	-90.04	834.54	3,768.70	1,320.16	1,133.41	186.76	7.069	
11,700.00	7,815.00	11,728.90	7,815.00	95.45	95.87	-90.04	834.45	3,868.70	1,320.19	1,129.03	191.16	6.906	
11,800.00	7,815.00	11,828.90	7,815.00	97.67	98.07	-90.04	834.36	3,968.70	1,320.22	1,124.64	195.58	6.750	
11,900.00	7,815.00	11,928.90	7,815.00	99.88	100.28	-90.04	834.28	4,068.70	1,320.25	1,120.24	200.01	6.601	
12,000.00	7,815.00	12,028.90	7,815.00	102.10	102.49	-90.04	834.19	4,168.70	1,320.28	1,115.83	204.45	6.458	
12,100.00	7,815.00	12,128.90	7,815.00	104.33	104.71	-90.04	834.10	4,268.70	1,320.31	1,111.42	208.89	6.321	
12,200.00	7,815.00	12,228.90	7,815.00	106.55	106.93	-90.04	834.01	4,368.70	1,320.33	1,107.00	213.34	6.189	
12,300.00	7,815.00	12,328.90	7,815.00	108.78	109.15	-90.04	833.93	4,468.70	1,320.36	1,102.57	217.80	6.062	
12,400.00	7,815.00	12,428.90	7,815.00	111.02	111.38	-90.04	833.84	4,568.70	1,320.39	1,098.13	222.26	5.941	
12,500.00	7,815.00	12,528.90	7,815.00	113.25	113.61	-90.04	833.75	4,668.70	1,320.42	1,093.69	226.73	5.824	
12,600.00	7,815.00	12,628.90	7,815.00	115.49	115.85	-90.04	833.67	4,768.70	1,320.45	1,089.24	231.21	5.711	
12,700.00	7,815.00	12,728.90	7,815.00	117.74	118.08	-90.04	833.58	4,868.70	1,320.48	1,084.79	235.69	5.603	
12,800.00	7,815.00	12,828.90	7,815.00	119.98	120.32	-90.04	833.49	4,968.70	1,320.51	1,080.33	240.18	5.498	
12,900.00	7,815.00	12,928.90	7,815.00	122.23	122.57	-90.04	833.41	5,068.70	1,320.54	1,075.87	244.67	5.397	
13,000.00	7,815.00	13,028.90	7,815.00	124.48	124.81	-90.04	833.32	5,168.70	1,320.56	1,071.40	249.16	5.300	
13,100.00	7,815.00	13,128.90	7,815.00	126.73	127.06	-90.04	833.23	5,268.70	1,320.59	1,066.93	253.66	5.206	
13,200.00	7,815.00	13,228.90	7,815.00	128.98	129.30	-90.04	833.15	5,368.70	1,320.62	1,062.45	258.17	5.115	
13,300.00	7,815.00	13,328.90	7,815.00	131.24	131.56	-90.04	833.06	5,468.70	1,320.65	1,057.98	262.68	5.028	
13,400.00	7,815.00	13,428.90	7,815.00	133.50	133.81	-90.04	832.97	5,568.70	1,320.68	1,053.49	267.19	4.943	
13,500.00	7,815.00	13,528.90	7,815.00	135.76	136.06	-90.04	832.89	5,668.70	1,320.71	1,049.01	271.70	4.861	
13,600.00	7,815.00	13,628.90	7,815.00	138.02	138.32	-90.04	832.80	5,768.70	1,320.74	1,044.52	276.22	4.781	
13,700.00	7,815.00	13,728.90	7,815.00	140.28	140.58	-90.04	832.71	5,868.70	1,320.77	1,040.02	280.74	4.705	
13,800.00	7,815.00	13,828.90	7,815.00	142.54	142.84	-90.04	832.63	5,968.70	1,320.79	1,035.53	285.27	4.630	
13,900.00	7,815.00	13,928.90	7,815.00	144.81	145.10	-90.04	832.54	6,068.70	1,320.82	1,031.03	289.80	4.558	
14,000.00	7,815.00	14,028.90	7,815.00	147.07	147.36	-90.04	832.45	6,168.70	1,320.85	1,026.52	294.33	4.488	
14,100.00	7,815.00	14,128.90	7,815.00	149.34	149.63	-90.04	832.37	6,268.70	1,320.88	1,022.02	298.86	4.420	
14,200.00	7,815.00	14,228.90	7,815.00	151.61	151.89	-90.04	832.28	6,368.70	1,320.91	1,017.51	303.40	4.354	
14,300.00	7,815.00	14,328.90	7,815.00	153.88	154.16	-90.04	832.19	6,468.70	1,320.94	1,013.00	307.93	4.290	
14,400.00	7,815.00	14,428.90	7,815.00	156.15	156.43	-90.04	832.10	6,568.70	1,320.97	1,008.49	312.48	4.227	
14,500.00	7,815.00	14,528.90	7,815.00	158.42	158.70	-90.04	832.02	6,668.70	1,321.00	1,003.98	317.02	4.167	
14,600.00	7,815.00	14,628.90	7,815.00	160.70	160.97	-90.04	831.93	6,768.70	1,321.02	999.46	321.56	4.108	
14,700.00	7,815.00	14,728.90	7,815.00	162.97	163.24	-90.04	831.84	6,868.70	1,321.05	994.94	326.11	4.051	
14,800.00	7,815.00	14,828.90	7,815.00	165.25	165.51	-90.04	831.76	6,968.70	1,321.08	990.42	330.66	3.995	
14,900.00	7,815.00	14,928.90	7,815.00	167.52	167.78	-90.04	831.67	7,068.70	1,321.11	985.90	335.21	3.941	
15,000.00	7,815.00	15,028.90	7,815.00	169.80	170.06	-90.04	831.58	7,168.70	1,321.14	981.38	339.76	3.888	
15,100.00	7,815.00	15,128.90	7,815.00	172.08	172.33	-90.04	831.50	7,268.70	1,321.17	976.85	344.31	3.837	
15,200.00	7,815.00	15,228.90	7,815.00	174.36	174.61	-90.04	831.41	7,368.70	1,321.20	972.33	348.87	3.787	
15,300.00	7,815.00	15,328.90	7,815.00	176.64	176.88	-90.04	831.32	7,468.70	1,321.23	967.80	353.43	3.738	
15,400.00	7,815.00	15,428.90	7,815.00	178.92	179.16	-90.04	831.24	7,568.70	1,321.25	963.27	357.99	3.691	

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #123H - OH - Prelim B												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0.00 usft
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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,500.00	7,815.00	15,528.90	7,815.00	181.20	181.44	-90.04	831.15	7,668.70	1,321.28	958.74	362.55	3.644	
15,600.00	7,815.00	15,628.90	7,815.00	183.48	183.72	-90.04	831.06	7,768.70	1,321.31	954.20	367.11	3.599	
15,700.00	7,815.00	15,728.90	7,815.00	185.76	186.00	-90.04	830.98	7,868.70	1,321.34	949.67	371.67	3.555	
15,800.00	7,815.00	15,828.90	7,815.00	188.04	188.28	-90.04	830.89	7,968.70	1,321.37	945.13	376.24	3.512	
15,900.00	7,815.00	15,928.90	7,815.00	190.33	190.56	-90.04	830.80	8,068.70	1,321.40	940.60	380.80	3.470	
16,000.00	7,815.00	16,028.90	7,815.00	192.61	192.84	-90.04	830.72	8,168.70	1,321.43	936.06	385.37	3.429	
16,100.00	7,815.00	16,128.90	7,815.00	194.89	195.12	-90.04	830.63	8,268.70	1,321.46	931.52	389.94	3.389	
16,200.00	7,815.00	16,228.90	7,815.00	197.18	197.41	-90.04	830.54	8,368.69	1,321.48	926.98	394.51	3.350	
16,300.00	7,815.00	16,328.90	7,815.00	199.47	199.69	-90.04	830.46	8,468.69	1,321.51	922.44	399.08	3.311	
16,400.00	7,815.00	16,428.90	7,815.00	201.75	201.98	-90.04	830.37	8,568.69	1,321.54	917.90	403.65	3.274	
16,500.00	7,815.00	16,528.90	7,815.00	204.04	204.26	-90.04	830.28	8,668.69	1,321.57	913.35	408.22	3.237	
16,600.00	7,815.00	16,628.90	7,815.00	206.33	206.55	-90.04	830.19	8,768.69	1,321.60	908.81	412.79	3.202	
16,700.00	7,815.00	16,728.90	7,815.00	208.61	208.83	-90.04	830.11	8,868.69	1,321.63	904.26	417.37	3.167	
16,800.00	7,815.00	16,828.90	7,815.00	210.90	211.12	-90.04	830.02	8,968.69	1,321.66	899.72	421.94	3.132	
16,900.00	7,815.00	16,928.90	7,815.00	213.19	213.40	-90.04	829.93	9,068.69	1,321.69	895.17	426.52	3.099	
17,000.00	7,815.00	17,028.90	7,815.00	215.48	215.69	-90.04	829.85	9,168.69	1,321.71	890.62	431.09	3.066	
17,100.00	7,815.00	17,128.90	7,815.00	217.77	217.98	-90.04	829.76	9,268.69	1,321.74	886.07	435.67	3.034	
17,200.00	7,815.00	17,228.90	7,815.00	220.06	220.27	-90.04	829.67	9,368.69	1,321.77	881.52	440.25	3.002	
17,300.00	7,815.00	17,328.90	7,815.00	222.35	222.56	-90.04	829.59	9,468.69	1,321.80	876.97	444.83	2.971	
17,400.00	7,815.00	17,428.90	7,815.00	224.64	224.84	-90.04	829.50	9,568.69	1,321.83	872.42	449.41	2.941	
17,500.00	7,815.00	17,528.90	7,815.00	226.93	227.13	-90.04	829.41	9,668.69	1,321.86	867.87	453.99	2.912	
17,600.00	7,815.00	17,628.90	7,815.00	229.22	229.42	-90.04	829.33	9,768.69	1,321.89	863.31	458.57	2.883	
17,700.00	7,815.00	17,728.90	7,815.00	231.51	231.71	-90.04	829.24	9,868.69	1,321.92	858.76	463.15	2.854	
17,800.00	7,815.00	17,828.90	7,815.00	233.80	234.00	-90.04	829.15	9,968.69	1,321.94	854.21	467.74	2.826	
17,900.00	7,815.00	17,928.90	7,815.00	236.10	236.06	-90.04	829.07	10,068.69	1,321.97	849.89	472.08	2.800	
17,981.45	7,815.00	18,010.35	7,815.00	237.96	237.25	-90.04	829.00	10,150.15	1,322.00	846.86	475.14	2.782 SF	

Pro Directional

Anticollision Report

Company: Matador Resources
 Project: Eddy County, NM (NAD27)
 Reference Site: Leatherneck Fed
 Site Error: 0.00 usft
 Reference Well: #124H
 Well Error: 0.00 usft
 Reference Wellbore OH
 Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
 TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: WellPlanner1
 Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #127H - OH - Prelim B												Offset Site Error:	0.00 usft
Survey Program: 0-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)					
0.00	0.00	0.00	0.00	0.00	0.00	-171.69	-219.00	-32.00	221.33				
100.00	100.00	100.00	100.00	0.13	0.13	-171.69	-219.00	-32.00	221.33	221.07	0.26	863.516	
200.00	200.00	200.00	200.00	0.49	0.49	-171.69	-219.00	-32.00	221.33	220.35	0.97	227.409	
300.00	300.00	300.00	300.00	0.85	0.85	-171.69	-219.00	-32.00	221.33	219.64	1.69	130.947	
400.00	400.00	400.00	400.00	1.20	1.20	-171.69	-219.00	-32.00	221.33	218.92	2.41	91.946	
500.00	500.00	500.00	500.00	1.56	1.56	-171.69	-219.00	-32.00	221.33	218.20	3.12	70.845	
600.00	600.00	600.00	600.00	1.92	1.92	-171.69	-219.00	-32.00	221.33	217.48	3.84	57.622	
700.00	700.00	700.00	700.00	2.28	2.28	-171.69	-219.00	-32.00	221.33	216.77	4.56	48.558	
800.00	800.00	800.00	800.00	2.64	2.64	-171.69	-219.00	-32.00	221.33	216.05	5.27	41.958	
900.00	900.00	900.00	900.00	3.00	3.00	-171.69	-219.00	-32.00	221.33	215.33	5.99	36.938	
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-171.69	-219.00	-32.00	221.33	214.62	6.71	32.990	
1,100.00	1,100.00	1,104.79	1,104.77	3.71	3.73	-171.29	-217.64	-33.36	220.24	212.80	7.44	29.604	
1,200.00	1,200.00	1,209.30	1,209.12	4.07	4.10	-170.07	-213.60	-37.40	217.04	208.87	8.17	26.580	
1,300.00	1,300.00	1,313.26	1,312.64	4.43	4.47	-167.97	-206.90	-44.10	211.93	203.03	8.89	23.836	
1,400.00	1,400.00	1,414.00	1,412.66	4.79	4.84	-165.15	-198.39	-52.61	205.63	196.02	9.61	21.388	
1,500.00	1,500.00	1,513.26	1,511.17	5.15	5.20	-162.14	-189.83	-61.17	199.76	189.42	10.34	19.321	
1,600.00	1,600.00	1,612.51	1,609.69	5.51	5.57	-158.96	-181.28	-69.72	194.47	183.40	11.07	17.571	
1,700.00	1,700.00	1,711.77	1,708.20	5.86	5.94	-155.62	-172.73	-78.27	189.81	178.01	11.80	16.087	
1,800.00	1,800.00	1,811.02	1,806.72	6.22	6.32	-152.13	-164.17	-86.83	185.84	173.31	12.53	14.827	
1,900.00	1,900.00	1,910.28	1,905.23	6.58	6.69	-148.50	-155.62	-95.38	182.60	169.33	13.27	13.760	
2,000.00	2,000.00	2,009.53	2,003.74	6.94	7.07	-144.75	-147.07	-103.93	180.12	166.12	14.01	12.858	
2,100.00	2,099.98	2,108.70	2,102.17	7.28	7.45	13.18	-138.52	-112.48	176.75	162.02	14.73	12.000	
2,200.00	2,199.84	2,207.60	2,200.34	7.61	7.83	17.63	-130.00	-121.00	170.93	155.50	15.43	11.076	
2,300.00	2,299.45	2,306.13	2,298.13	7.94	8.21	22.84	-121.51	-129.49	163.00	146.87	16.14	10.102	
2,400.00	2,398.87	2,404.38	2,395.65	8.27	8.58	28.80	-113.04	-137.96	154.72	137.89	16.83	9.192	
2,500.00	2,498.29	2,502.63	2,493.17	8.61	8.96	35.34	-104.57	-146.43	148.32	130.80	17.53	8.463	
2,600.00	2,597.70	2,600.87	2,590.68	8.95	9.34	42.34	-96.11	-154.89	144.06	125.85	18.22	7.909	
2,700.00	2,697.12	2,699.12	2,688.20	9.30	9.72	49.64	-87.64	-163.36	142.14	123.24	18.90	7.521	
2,729.26	2,726.21	2,727.87	2,716.73	9.40	9.83	51.80	-85.16	-165.84	142.03	122.93	19.10	7.437 CC, ES	
2,800.00	2,796.53	2,797.37	2,785.71	9.65	10.10	57.01	-79.17	-171.83	142.64	123.06	19.58	7.285	
2,900.00	2,895.95	2,904.38	2,883.23	10.00	10.52	64.22	-70.71	-180.29	145.55	125.26	20.29	7.173	
3,000.00	2,995.37	3,006.13	2,980.74	10.36	10.91	71.04	-62.24	-188.76	150.73	129.74	20.99	7.182	
3,100.00	3,094.78	3,107.89	3,078.26	10.71	11.31	77.35	-53.77	-197.23	157.95	136.26	21.69	7.283	
3,200.00	3,194.20	3,190.36	3,175.77	11.07	11.63	83.06	-45.31	-205.69	166.95	144.63	22.32	7.479	
3,300.00	3,293.61	3,288.61	3,273.29	11.44	12.01	88.15	-36.84	-214.16	177.45	154.43	23.02	7.709	
3,400.00	3,393.03	3,389.43	3,373.39	11.80	12.40	92.78	-28.25	-222.60	188.96	165.21	23.75	7.956	
3,500.00	3,492.45	3,494.98	3,478.47	12.17	12.80	97.22	-20.38	-228.54	198.67	174.15	24.52	8.102	
3,600.00	3,591.86	3,600.94	3,584.20	12.53	13.18	101.53	-13.89	-230.87	205.84	180.57	25.27	8.145	
3,700.00	3,691.28	3,701.06	3,684.18	12.90	13.54	105.53	-8.66	-230.77	211.67	185.69	25.99	8.145	
3,800.00	3,790.69	3,800.17	3,782.82	13.27	13.89	109.26	-3.53	-230.61	218.42	191.72	26.70	8.180	
3,900.00	3,890.11	3,901.40	3,881.45	13.64	14.24	112.76	1.61	-230.46	226.04	198.62	27.43	8.242	
4,000.00	3,989.53	4,002.63	3,980.09	14.02	14.60	116.02	6.75	-230.30	234.47	206.32	28.15	8.330	
4,100.00	4,088.94	4,103.86	4,078.72	14.39	14.96	119.05	11.88	-230.14	243.60	214.73	28.87	8.437	
4,200.00	4,188.36	4,205.09	4,177.36	14.76	15.32	121.86	17.02	-229.98	253.38	223.78	29.60	8.561	
4,300.00	4,287.78	4,306.32	4,276.00	15.14	15.68	124.46	22.15	-229.83	263.72	233.40	30.32	8.698	
4,400.00	4,387.19	4,407.55	4,374.63	15.51	16.04	126.85	27.29	-229.67	274.56	243.51	31.04	8.844	
4,500.00	4,486.61	4,508.78	4,473.27	15.89	16.40	129.07	32.42	-229.51	285.84	254.07	31.77	8.998	
4,600.00	4,586.02	4,589.99	4,571.90	16.27	16.69	131.12	37.56	-229.36	297.52	265.10	32.42	9.178	
4,700.00	4,685.44	4,688.76	4,670.54	16.64	17.04	133.01	42.70	-229.20	309.55	276.42	33.13	9.343	
4,800.00	4,784.86	4,787.52	4,769.18	17.02	17.39	134.76	47.83	-229.04	321.89	288.04	33.84	9.511	
4,900.00	4,884.27	4,886.29	4,867.81	17.40	17.74	136.37	52.97	-228.89	334.50	299.95	34.56	9.680	
5,000.00	4,983.69	4,985.06	4,966.45	17.78	18.09	137.88	58.10	-228.73	347.36	312.09	35.27	9.849	

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #127H - OH - Prelim B												Offset Site Error:	0.00 usft
Survey Program: 0-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)					
5,100.00	5,083.10	5,083.83	5,065.08	18.16	18.45	139.27	63.24	-228.57	360.44	324.46	35.98	10.018	
5,200.00	5,182.52	5,182.60	5,163.72	18.54	18.80	140.57	68.37	-228.42	373.72	337.03	36.69	10.185	
5,300.00	5,281.94	5,281.37	5,262.36	18.92	19.15	141.77	73.51	-228.26	387.17	349.77	37.41	10.351	
5,400.00	5,381.35	5,381.73	5,362.58	19.30	19.51	142.92	78.70	-228.10	400.77	362.64	38.13	10.511	
5,500.00	5,480.77	5,496.82	5,477.61	19.68	19.92	144.06	81.91	-228.00	412.18	373.26	38.93	10.589	
5,600.00	5,580.18	5,600.61	5,580.18	20.07	20.28	144.95	82.00	-228.00	421.06	381.40	39.66	10.618	
5,700.00	5,679.60	5,701.20	5,679.60	20.45	20.63	145.78	82.00	-228.00	429.96	389.58	40.37	10.649	
5,800.00	5,779.02	5,801.78	5,779.02	20.83	20.98	146.57	82.00	-228.00	438.94	397.84	41.09	10.682	
5,900.00	5,878.43	5,902.36	5,878.43	21.21	21.33	147.33	82.00	-228.00	448.00	406.19	41.81	10.715	
6,000.00	5,977.85	6,002.95	5,977.85	21.60	21.68	148.05	82.00	-228.00	457.13	414.60	42.53	10.749	
6,100.00	6,077.26	6,103.53	6,077.26	21.98	22.03	148.76	82.00	-228.00	466.34	423.09	43.25	10.783	
6,200.00	6,176.68	6,204.11	6,176.68	22.36	22.38	149.43	82.00	-228.00	475.61	431.65	43.97	10.818	
6,300.00	6,276.10	6,304.70	6,276.10	22.75	22.73	150.08	82.00	-228.00	484.95	440.26	44.68	10.853	
6,400.00	6,375.51	6,405.28	6,375.51	23.13	23.08	150.70	82.00	-228.00	494.34	448.94	45.40	10.888	
6,500.00	6,474.93	6,505.87	6,474.93	23.51	23.43	151.30	82.00	-228.00	503.79	457.67	46.12	10.923	
6,600.00	6,574.34	6,606.45	6,574.34	23.90	23.79	151.88	82.00	-228.00	513.30	466.46	46.84	10.959	
6,700.00	6,673.76	6,707.03	6,673.76	24.28	24.14	152.43	82.00	-228.00	522.85	475.29	47.56	10.994	
6,800.00	6,773.18	6,807.62	6,773.18	24.67	24.49	152.97	82.00	-228.00	532.45	484.17	48.28	11.029	
6,900.00	6,872.59	6,908.20	6,872.59	25.05	24.84	153.49	82.00	-228.00	542.10	493.10	49.00	11.064	
7,000.00	6,972.04	7,008.76	6,972.04	25.44	25.20	154.01	82.00	-228.00	551.54	501.83	49.71	11.094	
7,100.00	7,071.74	7,109.06	7,071.74	25.81	25.55	154.41	82.00	-228.00	558.47	508.04	50.43	11.075	
7,200.00	7,171.64	7,190.85	7,171.64	26.17	25.84	154.63	82.00	-228.00	562.26	511.19	51.07	11.009	
7,300.00	7,271.62	7,287.20	7,271.62	26.50	26.17	-89.35	82.08	-227.42	563.13	511.39	51.75	10.883	
7,400.00	7,370.53	7,374.96	7,355.01	26.81	26.46	-89.36	83.47	-216.85	564.71	512.39	52.32	10.793	
7,500.00	7,465.54	7,462.96	7,439.61	27.08	26.72	-89.37	86.59	-193.16	568.24	515.39	52.85	10.751	
7,600.00	7,553.76	7,551.41	7,519.96	27.31	26.96	-89.38	91.39	-156.70	573.66	520.30	53.36	10.751	
7,700.00	7,632.50	7,640.52	7,594.22	27.50	27.18	-89.40	97.80	-108.02	580.85	526.96	53.89	10.779	
7,800.00	7,699.38	7,730.53	7,660.59	27.64	27.41	-89.41	105.71	-47.88	589.66	535.17	54.50	10.820	
7,900.00	7,752.37	7,821.70	7,717.30	27.75	27.74	-89.42	115.02	22.78	599.91	544.66	55.25	10.858	
8,000.00	7,789.84	7,914.34	7,762.61	28.10	28.17	-89.42	125.55	102.77	611.34	555.13	56.21	10.877	
8,100.00	7,810.68	8,008.74	7,794.82	28.74	28.71	-89.43	137.11	190.64	623.68	566.29	57.39	10.868	
8,200.00	7,815.00	8,105.35	7,812.27	29.51	29.38	-89.75	149.50	284.72	636.61	577.82	58.79	10.828	
8,300.00	7,815.00	8,216.92	7,815.00	30.43	30.29	-90.00	163.52	395.32	649.36	588.79	60.57	10.721	
8,400.00	7,815.00	8,345.98	7,815.00	31.49	31.55	-90.00	174.98	523.86	658.36	595.49	62.87	10.472	
8,500.00	7,815.00	8,475.83	7,815.00	32.67	33.02	-90.00	180.66	653.57	662.85	597.35	65.50	10.120	
8,600.00	7,815.00	8,609.39	7,815.00	33.97	34.73	-90.00	181.23	768.35	663.39	594.91	68.48	9.687	
8,700.00	7,815.00	8,709.39	7,815.00	35.37	36.13	-90.00	181.11	868.35	663.39	592.10	71.28	9.306	
8,800.00	7,815.00	8,809.39	7,815.00	36.86	37.62	-90.00	180.99	968.35	663.38	589.12	74.26	8.933	
8,900.00	7,815.00	8,909.39	7,815.00	38.43	39.19	-90.00	180.87	1,068.35	663.38	585.97	77.41	8.570	
9,000.00	7,815.00	9,009.39	7,815.00	40.08	40.83	-90.00	180.75	1,168.35	663.37	582.68	80.69	8.221	
9,100.00	7,815.00	9,109.39	7,815.00	41.78	42.53	-90.00	180.63	1,268.35	663.37	579.27	84.10	7.888	
9,200.00	7,815.00	9,209.39	7,815.00	43.54	44.28	-90.00	180.51	1,368.35	663.37	575.74	87.62	7.571	
9,300.00	7,815.00	9,309.39	7,815.00	45.35	46.09	-90.00	180.39	1,468.35	663.36	572.12	91.24	7.271	
9,400.00	7,815.00	9,409.39	7,815.00	47.20	47.93	-90.00	180.27	1,568.35	663.36	568.41	94.94	6.987	
9,500.00	7,815.00	9,509.39	7,815.00	49.10	49.82	-90.00	180.15	1,668.35	663.35	564.63	98.73	6.719	
9,600.00	7,815.00	9,609.39	7,815.00	51.02	51.74	-90.00	180.03	1,768.35	663.35	560.77	102.58	6.467	
9,700.00	7,815.00	9,709.39	7,815.00	52.98	53.69	-90.00	179.91	1,868.35	663.34	556.86	106.49	6.229	
9,800.00	7,815.00	9,809.39	7,815.00	54.96	55.67	-90.00	179.79	1,968.35	663.34	552.89	110.45	6.006	
9,900.00	7,815.00	9,909.39	7,815.00	56.97	57.67	-90.00	179.67	2,068.35	663.34	548.87	114.47	5.795	
10,000.00	7,815.00	10,009.39	7,815.00	59.00	59.69	-90.00	179.56	2,168.35	663.33	544.81	118.53	5.597	
10,100.00	7,815.00	10,109.39	7,815.00	61.05	61.74	-90.00	179.44	2,268.35	663.33	540.70	122.62	5.409	
10,200.00	7,815.00	10,209.39	7,815.00	63.11	63.80	-90.00	179.32	2,368.35	663.32	536.57	126.76	5.233	

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #127H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,300.00	7,815.00	10,309.39	7,815.00	65.20	65.88	-90.00	179.20	2,468.35	663.32	532.40	130.92	5.067		
10,400.00	7,815.00	10,409.39	7,815.00	67.29	67.97	-90.00	179.08	2,568.35	663.32	528.20	135.12	4.909		
10,500.00	7,815.00	10,509.39	7,815.00	69.41	70.08	-90.00	178.96	2,668.35	663.31	523.97	139.34	4.760		
10,600.00	7,815.00	10,609.39	7,815.00	71.53	72.19	-90.00	178.84	2,768.35	663.31	519.72	143.59	4.620		
10,700.00	7,815.00	10,709.39	7,815.00	73.66	74.32	-90.00	178.72	2,868.35	663.30	515.45	147.85	4.486		
10,800.00	7,815.00	10,809.39	7,815.00	75.81	76.46	-90.00	178.60	2,968.35	663.30	511.16	152.14	4.360		
10,900.00	7,815.00	10,909.39	7,815.00	77.96	78.61	-90.00	178.48	3,068.35	663.29	506.85	156.45	4.240		
11,000.00	7,815.00	11,009.39	7,815.00	80.13	80.77	-90.00	178.36	3,168.35	663.29	502.52	160.77	4.126		
11,100.00	7,815.00	11,109.39	7,815.00	82.30	82.94	-90.00	178.24	3,268.35	663.29	498.17	165.11	4.017		
11,200.00	7,815.00	11,209.39	7,815.00	84.47	85.11	-90.00	178.12	3,368.35	663.28	493.81	169.47	3.914		
11,300.00	7,815.00	11,309.39	7,815.00	86.66	87.30	-90.00	178.00	3,468.35	663.28	489.44	173.84	3.816		
11,400.00	7,815.00	11,409.39	7,815.00	88.85	89.48	-90.00	177.88	3,568.35	663.27	485.06	178.22	3.722		
11,500.00	7,815.00	11,509.39	7,815.00	91.04	91.68	-90.00	177.76	3,668.35	663.27	480.66	182.61	3.632		
11,600.00	7,815.00	11,609.39	7,815.00	93.25	93.88	-90.00	177.64	3,768.35	663.26	476.25	187.01	3.547		
11,700.00	7,815.00	11,709.39	7,815.00	95.45	96.08	-90.00	177.52	3,868.34	663.26	471.83	191.43	3.465		
11,800.00	7,815.00	11,809.39	7,815.00	97.67	98.29	-90.00	177.40	3,968.34	663.26	467.41	195.85	3.387		
11,900.00	7,815.00	11,909.39	7,815.00	99.88	100.50	-90.00	177.28	4,068.34	663.25	462.97	200.28	3.312		
12,000.00	7,815.00	12,009.39	7,815.00	102.10	102.72	-90.00	177.16	4,168.34	663.25	458.53	204.72	3.240		
12,100.00	7,815.00	12,109.39	7,815.00	104.33	104.94	-90.00	177.04	4,268.34	663.24	454.08	209.17	3.171		
12,200.00	7,815.00	12,209.39	7,815.00	106.55	107.17	-90.00	176.92	4,368.34	663.24	449.62	213.62	3.105		
12,300.00	7,815.00	12,309.39	7,815.00	108.78	109.39	-90.00	176.80	4,468.34	663.24	445.15	218.08	3.041		
12,400.00	7,815.00	12,409.39	7,815.00	111.02	111.63	-90.00	176.68	4,568.34	663.23	440.68	222.55	2.980		
12,500.00	7,815.00	12,509.39	7,815.00	113.25	113.86	-90.00	176.56	4,668.34	663.23	436.20	227.02	2.921		
12,600.00	7,815.00	12,609.39	7,815.00	115.49	116.10	-90.00	176.44	4,768.34	663.22	431.72	231.50	2.865		
12,700.00	7,815.00	12,709.39	7,815.00	117.74	118.34	-90.00	176.32	4,868.34	663.22	427.23	235.99	2.810		
12,800.00	7,815.00	12,809.39	7,815.00	119.98	120.58	-90.00	176.20	4,968.34	663.21	422.74	240.48	2.758		
12,900.00	7,815.00	12,909.39	7,815.00	122.23	122.83	-90.00	176.08	5,068.34	663.21	418.24	244.97	2.707		
13,000.00	7,815.00	13,009.39	7,815.00	124.48	125.07	-90.00	175.96	5,168.34	663.21	413.74	249.47	2.658		
13,100.00	7,815.00	13,109.39	7,815.00	126.73	127.32	-90.00	175.84	5,268.34	663.20	409.23	253.97	2.611		
13,200.00	7,815.00	13,209.39	7,815.00	128.98	129.58	-90.00	175.72	5,368.34	663.20	404.72	258.48	2.566		
13,300.00	7,815.00	13,309.39	7,815.00	131.24	131.83	-90.00	175.60	5,468.34	663.19	400.20	262.99	2.522		
13,400.00	7,815.00	13,409.39	7,815.00	133.50	134.09	-90.00	175.48	5,568.34	663.19	395.69	267.50	2.479		
13,500.00	7,815.00	13,509.39	7,815.00	135.76	136.34	-90.00	175.36	5,668.34	663.19	391.16	272.02	2.438		
13,600.00	7,815.00	13,609.39	7,815.00	138.02	138.60	-90.00	175.24	5,768.34	663.18	386.64	276.54	2.398		
13,700.00	7,815.00	13,690.61	7,815.00	140.28	140.44	-90.00	175.12	5,868.34	663.18	382.54	280.64	2.363		
13,800.00	7,815.00	13,809.39	7,815.00	142.54	143.13	-90.00	175.00	5,968.34	663.17	377.58	285.59	2.322		
13,900.00	7,815.00	13,909.39	7,815.00	144.81	145.39	-90.00	174.88	6,068.34	663.17	373.05	290.12	2.286		
14,000.00	7,815.00	14,009.39	7,815.00	147.07	147.65	-90.00	174.76	6,168.34	663.16	368.51	294.66	2.251		
14,100.00	7,815.00	14,109.39	7,815.00	149.34	149.92	-90.00	174.64	6,268.34	663.16	363.97	299.19	2.217		
14,200.00	7,815.00	14,209.39	7,815.00	151.61	152.19	-90.00	174.53	6,368.34	663.16	359.43	303.73	2.183		
14,300.00	7,815.00	14,309.39	7,815.00	153.88	154.46	-90.00	174.41	6,468.34	663.15	354.88	308.27	2.151		
14,400.00	7,815.00	14,409.39	7,815.00	156.15	156.73	-90.00	174.29	6,568.34	663.15	350.34	312.81	2.120		
14,500.00	7,815.00	14,509.39	7,815.00	158.42	159.00	-90.00	174.17	6,668.34	663.14	345.79	317.35	2.090		
14,600.00	7,815.00	14,609.39	7,815.00	160.70	161.27	-90.00	174.05	6,768.34	663.14	341.24	321.90	2.060		
14,700.00	7,815.00	14,709.39	7,815.00	162.97	163.54	-90.00	173.93	6,868.34	663.13	336.69	326.45	2.031		
14,800.00	7,815.00	14,809.39	7,815.00	165.25	165.82	-90.00	173.81	6,968.34	663.13	332.13	331.00	2.003		
14,900.00	7,815.00	14,909.39	7,815.00	167.52	168.09	-90.00	173.69	7,068.34	663.13	327.58	335.55	1.976		
15,000.00	7,815.00	15,009.39	7,815.00	169.80	170.37	-90.00	173.57	7,168.34	663.12	323.02	340.10	1.950		
15,100.00	7,815.00	15,109.39	7,815.00	172.08	172.64	-90.00	173.45	7,268.34	663.12	318.46	344.66	1.924		
15,200.00	7,815.00	15,209.39	7,815.00	174.36	174.92	-90.00	173.33	7,368.34	663.11	313.90	349.22	1.899		
15,300.00	7,815.00	15,309.39	7,815.00	176.64	177.20	-90.00	173.21	7,468.34	663.11	309.33	353.78	1.874		
15,400.00	7,815.00	15,409.39	7,815.00	178.92	179.48	-90.00	173.09	7,568.34	663.11	304.77	358.34	1.851		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #127H - OH - Prelim B													Offset Site Error: 0.00 usft	
Survey Program: 0-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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,500.00	7,815.00	15,509.39	7,815.00	181.20	181.76	-90.00	172.97	7,668.34	663.10	300.20	362.90	1.827		
15,600.00	7,815.00	15,609.39	7,815.00	183.48	184.04	-90.00	172.85	7,768.34	663.10	295.64	367.46	1.805		
15,700.00	7,815.00	15,709.39	7,815.00	185.76	186.32	-90.00	172.73	7,868.34	663.09	291.07	372.02	1.782		
15,800.00	7,815.00	15,809.39	7,815.00	188.04	188.60	-90.00	172.61	7,968.34	663.09	286.50	376.59	1.761		
15,900.00	7,815.00	15,909.39	7,815.00	190.33	190.89	-90.00	172.49	8,068.34	663.08	281.93	381.16	1.740		
16,000.00	7,815.00	16,009.39	7,815.00	192.61	193.17	-90.00	172.37	8,168.34	663.08	277.36	385.72	1.719		
16,100.00	7,815.00	16,109.39	7,815.00	194.89	195.45	-90.00	172.25	8,268.34	663.08	272.78	390.29	1.699		
16,200.00	7,815.00	16,209.39	7,815.00	197.18	197.74	-90.00	172.13	8,368.34	663.07	268.21	394.86	1.679		
16,300.00	7,815.00	16,309.39	7,815.00	199.47	200.02	-90.00	172.01	8,468.34	663.07	263.63	399.43	1.660		
16,400.00	7,815.00	16,409.39	7,815.00	201.75	202.31	-90.00	171.89	8,568.34	663.06	259.06	404.01	1.641		
16,500.00	7,815.00	16,509.39	7,815.00	204.04	204.59	-90.00	171.77	8,668.34	663.06	254.48	408.58	1.623		
16,600.00	7,815.00	16,609.39	7,815.00	206.33	206.88	-90.00	171.65	8,768.34	663.06	249.90	413.15	1.605		
16,700.00	7,815.00	16,709.39	7,815.00	208.61	209.17	-90.00	171.53	8,868.34	663.05	245.32	417.73	1.587		
16,800.00	7,815.00	16,809.39	7,815.00	210.90	211.45	-90.00	171.41	8,968.34	663.05	240.74	422.31	1.570		
16,900.00	7,815.00	16,909.39	7,815.00	213.19	213.74	-90.00	171.29	9,068.34	663.04	236.16	426.88	1.553		
17,000.00	7,815.00	17,009.39	7,815.00	215.48	216.03	-90.00	171.17	9,168.34	663.04	231.58	431.46	1.537		
17,100.00	7,815.00	17,109.39	7,815.00	217.77	218.32	-90.00	171.05	9,268.34	663.03	227.00	436.04	1.521		
17,200.00	7,815.00	17,209.39	7,815.00	220.06	220.61	-90.00	170.93	9,368.34	663.03	222.41	440.62	1.505		
17,300.00	7,815.00	17,309.39	7,815.00	222.35	222.90	-90.00	170.81	9,468.34	663.03	217.83	445.20	1.489 Level 3		
17,400.00	7,815.00	17,409.39	7,815.00	224.64	225.19	-90.00	170.69	9,568.34	663.02	213.24	449.78	1.474 Level 3		
17,500.00	7,815.00	17,509.39	7,815.00	226.93	227.48	-90.00	170.57	9,668.34	663.02	208.66	454.36	1.459 Level 3		
17,600.00	7,815.00	17,609.39	7,815.00	229.22	229.77	-90.00	170.45	9,768.34	663.01	204.07	458.94	1.445 Level 3		
17,700.00	7,815.00	17,709.39	7,815.00	231.51	232.06	-90.00	170.33	9,868.34	663.01	199.48	463.53	1.430 Level 3		
17,800.00	7,815.00	17,809.39	7,815.00	233.80	234.35	-90.00	170.21	9,968.34	663.00	194.90	468.11	1.416 Level 3		
17,900.00	7,815.00	17,890.61	7,815.00	236.10	236.21	-90.00	170.09	10,068.34	663.00	190.74	472.26	1.404 Level 3		
17,981.45	7,815.00	17,972.06	7,815.00	237.96	238.08	-90.00	170.00	10,149.79	663.00	187.00	476.00	1.393 Level 3, SF		

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

Pro Directional Anticollision Report

Company: Matador Resources
Project: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #128H - OH - Prelim B												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		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)					
0.00	0.00	0.00	0.00	0.00	0.00	-179.48	-220.00	-2.00	220.01				
100.00	100.00	100.00	100.00	0.13	0.13	-179.48	-220.00	-2.00	220.01	219.75	0.26	858.379	
200.00	200.00	200.00	200.00	0.49	0.49	-179.48	-220.00	-2.00	220.01	219.04	0.97	226.056	
300.00	300.00	300.00	300.00	0.85	0.85	-179.48	-220.00	-2.00	220.01	218.32	1.69	130.168	
400.00	400.00	400.00	400.00	1.20	1.20	-179.48	-220.00	-2.00	220.01	217.60	2.41	91.399	
500.00	500.00	500.00	500.00	1.56	1.56	-179.48	-220.00	-2.00	220.01	216.89	3.12	70.424	
600.00	600.00	600.00	600.00	1.92	1.92	-179.48	-220.00	-2.00	220.01	216.17	3.84	57.279	
700.00	700.00	700.00	700.00	2.28	2.28	-179.48	-220.00	-2.00	220.01	215.45	4.56	48.269	
800.00	800.00	800.00	800.00	2.64	2.64	-179.48	-220.00	-2.00	220.01	214.73	5.27	41.709	
900.00	900.00	900.00	900.00	3.00	3.00	-179.48	-220.00	-2.00	220.01	214.02	5.99	36.718	
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-179.48	-220.00	-2.00	220.01	213.30	6.71	32.794 CC	
1,100.00	1,100.00	1,093.00	1,092.98	3.71	3.67	-179.39	-221.47	-2.35	221.59	214.21	7.38	30.017	
1,200.00	1,200.00	1,185.80	1,185.67	4.07	3.98	-179.14	-225.86	-3.38	226.34	218.30	8.04	28.159	
1,300.00	1,300.00	1,278.22	1,277.78	4.43	4.29	-178.75	-233.14	-5.10	234.25	225.56	8.69	26.962	
1,400.00	1,400.00	1,370.05	1,369.03	4.79	4.60	-178.24	-243.23	-7.48	245.31	235.98	9.33	26.289	
1,500.00	1,500.00	1,461.13	1,459.14	5.15	4.92	-177.65	-256.05	-10.50	259.50	249.53	9.97	26.039	
1,600.00	1,600.00	1,554.28	1,550.86	5.51	5.26	-177.01	-271.83	-14.22	276.60	265.98	10.62	26.054	
1,700.00	1,700.00	1,652.64	1,647.61	5.86	5.63	-176.38	-289.10	-18.29	294.38	283.07	11.31	26.030	
1,800.00	1,800.00	1,750.99	1,744.35	6.22	6.00	-175.83	-306.38	-22.36	312.19	300.18	12.01	25.995	
1,900.00	1,900.00	1,849.35	1,841.10	6.58	6.39	-175.33	-323.65	-26.43	330.03	317.32	12.71	25.960	
2,000.00	2,000.00	1,947.71	1,937.84	6.94	6.78	-174.89	-340.93	-30.50	347.89	334.47	13.42	25.926	
2,100.00	2,099.98	2,046.36	2,034.87	7.28	7.17	-20.51	-358.25	-34.59	364.15	350.04	14.11	25.809	
2,200.00	2,199.84	2,145.50	2,132.38	7.61	7.58	-20.32	-375.66	-38.69	377.19	362.40	14.79	25.502	
2,300.00	2,299.45	2,245.01	2,230.26	7.94	7.98	-20.35	-393.14	-42.81	386.97	371.49	15.48	24.998	
2,400.00	2,398.87	2,344.69	2,328.31	8.27	8.40	-20.54	-410.65	-46.94	394.83	378.66	16.18	24.408	
2,500.00	2,498.29	2,444.38	2,426.35	8.61	8.81	-20.73	-428.16	-51.06	402.68	385.80	16.88	23.858	
2,600.00	2,597.70	2,544.06	2,524.40	8.95	9.23	-20.91	-445.66	-55.19	410.53	392.94	17.58	23.346	
2,700.00	2,697.12	2,643.74	2,622.45	9.30	9.64	-21.08	-463.17	-59.32	418.38	400.09	18.29	22.870	
2,800.00	2,796.53	2,743.43	2,720.49	9.65	10.06	-21.25	-480.68	-63.44	426.24	407.23	19.01	22.426	
2,900.00	2,895.95	2,843.11	2,818.54	10.00	10.48	-21.41	-498.18	-67.57	434.10	414.38	19.72	22.011	
3,000.00	2,995.37	2,942.79	2,916.59	10.36	10.91	-21.57	-515.69	-71.69	441.97	421.53	20.44	21.623	
3,100.00	3,094.78	3,042.47	3,014.63	10.71	11.33	-21.72	-533.20	-75.82	449.83	428.67	21.16	21.259	
3,200.00	3,194.20	3,142.16	3,112.68	11.07	11.76	-21.86	-550.71	-79.95	457.71	435.82	21.88	20.916	
3,300.00	3,293.61	3,241.84	3,210.73	11.44	12.18	-22.00	-568.21	-84.07	465.58	442.97	22.61	20.594	
3,400.00	3,393.03	3,341.52	3,308.77	11.80	12.61	-22.14	-585.72	-88.20	473.46	450.12	23.33	20.291	
3,500.00	3,492.45	3,441.21	3,406.82	12.17	13.04	-22.27	-603.23	-92.33	481.33	457.27	24.06	20.005	
3,600.00	3,591.86	3,540.89	3,504.87	12.53	13.47	-22.40	-620.73	-96.45	489.22	464.43	24.79	19.734	
3,700.00	3,691.28	3,640.57	3,602.92	12.90	13.89	-22.52	-638.24	-100.58	497.10	471.58	25.52	19.478	
3,800.00	3,790.69	3,740.26	3,700.96	13.27	14.32	-22.64	-655.75	-104.71	504.98	478.73	26.25	19.235	
3,900.00	3,890.11	3,839.94	3,799.01	13.64	14.75	-22.76	-673.26	-108.83	512.87	485.89	26.99	19.005	
4,000.00	3,989.53	3,939.62	3,897.06	14.02	15.18	-22.87	-690.76	-112.96	520.76	493.04	27.72	18.787	
4,100.00	4,088.94	4,039.31	3,995.10	14.39	15.62	-22.98	-708.27	-117.09	528.65	500.20	28.46	18.579	
4,200.00	4,188.36	4,138.99	4,093.15	14.76	16.05	-23.08	-725.78	-121.21	536.55	507.36	29.19	18.380	
4,300.00	4,287.78	4,238.67	4,191.20	15.14	16.48	-23.18	-743.28	-125.34	544.44	514.52	29.93	18.192	
4,400.00	4,387.19	4,338.36	4,289.24	15.51	16.91	-23.28	-760.79	-129.46	552.34	521.68	30.67	18.012	
4,500.00	4,486.61	4,438.04	4,387.29	15.89	17.34	-23.38	-778.30	-133.59	560.24	528.84	31.40	17.840	
4,600.00	4,586.02	4,537.72	4,485.34	16.27	17.78	-23.47	-795.81	-137.72	568.14	536.00	32.14	17.675	
4,700.00	4,685.44	4,637.41	4,583.39	16.64	18.21	-23.57	-813.31	-141.84	576.04	543.16	32.88	17.518	
4,800.00	4,784.86	4,737.09	4,681.43	17.02	18.64	-23.65	-830.82	-145.97	583.94	550.32	33.62	17.367	
4,900.00	4,884.27	4,836.77	4,779.48	17.40	19.08	-23.74	-848.33	-150.10	591.85	557.48	34.37	17.222	
5,000.00	4,983.69	4,936.45	4,877.53	17.78	19.51	-23.83	-865.83	-154.22	599.76	564.65	35.11	17.084	
5,100.00	5,083.10	5,036.14	4,975.57	18.16	19.94	-23.91	-883.34	-158.35	607.66	571.81	35.85	16.950	

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #128H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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 Tooface (")	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	5,182.52	5,135.82	5,073.62	18.54	20.38	-23.99	-900.85	-162.48	615.57	578.98	36.59	16.823		
5,300.00	5,281.94	5,235.50	5,171.67	18.92	20.81	-24.07	-918.36	-166.60	623.48	586.15	37.34	16,700		
5,400.00	5,381.35	5,335.19	5,269.71	19.30	21.25	-24.14	-935.86	-170.73	631.39	593.31	38.08	16,581		
5,500.00	5,480.77	5,434.87	5,367.76	19.68	21.68	-24.22	-953.37	-174.86	639.30	600.48	38.82	16,467		
5,600.00	5,580.18	5,534.55	5,465.81	20.07	22.12	-24.29	-970.88	-178.98	647.22	607.65	39.57	16,357		
5,700.00	5,679.60	5,634.24	5,563.85	20.45	22.55	-24.36	-988.38	-183.11	655.13	614.82	40.31	16,251		
5,800.00	5,779.02	5,733.92	5,661.90	20.83	22.99	-24.43	-1,005.89	-187.23	663.04	621.99	41.06	16,149		
5,900.00	5,878.43	5,833.60	5,759.95	21.21	23.42	-24.49	-1,023.40	-191.36	670.96	629.16	41.80	16,050		
6,000.00	5,977.85	5,933.29	5,858.00	21.60	23.86	-24.56	-1,040.91	-195.49	678.88	636.33	42.55	15,955		
6,100.00	6,077.26	6,032.97	5,956.04	21.98	24.29	-24.62	-1,058.41	-199.61	686.79	643.50	43.30	15,863		
6,200.00	6,176.68	6,132.65	6,054.09	22.36	24.73	-24.69	-1,075.92	-203.74	694.71	650.67	44.04	15,774		
6,300.00	6,276.10	6,232.34	6,152.14	22.75	25.16	-24.75	-1,093.43	-207.87	702.63	657.84	44.79	15,688		
6,400.00	6,375.51	6,332.02	6,250.18	23.13	25.60	-24.81	-1,110.93	-211.99	710.55	665.01	45.54	15,604		
6,500.00	6,474.93	6,431.70	6,348.23	23.51	26.04	-24.87	-1,128.44	-216.12	718.47	672.19	46.28	15,523		
6,600.00	6,574.34	6,531.39	6,446.28	23.90	26.47	-24.92	-1,145.95	-220.25	726.39	679.36	47.03	15,445		
6,700.00	6,673.76	6,631.07	6,544.32	24.28	26.91	-24.98	-1,163.46	-224.37	734.31	686.53	47.78	15,369		
6,800.00	6,773.18	6,730.75	6,642.37	24.67	27.34	-25.04	-1,180.96	-228.50	742.24	693.71	48.53	15,295		
6,900.00	6,872.59	6,850.44	6,760.28	25.05	27.86	-25.12	-1,200.96	-233.21	749.38	699.97	49.41	15,167		
7,000.00	6,972.04	6,984.76	6,893.44	25.44	28.40	-25.30	-1,217.99	-237.23	752.60	702.29	50.31	14,959		
7,100.00	7,071.74	7,119.24	7,027.44	25.81	28.90	-25.46	-1,228.94	-239.81	753.82	702.71	51.11	14,748		
7,200.00	7,171.64	7,253.76	7,161.86	26.17	29.34	-25.56	-1,233.75	-240.94	753.82	701.83	51.79	14,550		
7,300.00	7,271.62	7,370.12	7,278.19	26.50	29.68	90.39	-1,233.85	-239.87	752.90	700.49	52.41	14,365		
7,400.00	7,370.53	7,491.89	7,397.99	26.81	29.99	90.34	-1,231.18	-219.55	750.66	697.72	52.94	14,179		
7,500.00	7,465.54	7,612.05	7,509.35	27.08	30.24	90.25	-1,225.36	-175.39	745.73	692.32	53.41	13,961		
7,600.00	7,553.76	7,729.57	7,606.96	27.31	30.41	90.11	-1,216.87	-110.88	738.37	684.48	53.89	13,701		
7,700.00	7,632.50	7,843.75	7,687.19	27.50	30.51	89.96	-1,206.30	-30.59	728.95	674.50	54.45	13,388		
7,800.00	7,699.38	7,954.23	7,748.06	27.64	30.55	89.80	-1,194.29	60.61	717.90	662.73	55.17	13,013		
7,900.00	7,752.37	8,060.93	7,789.07	27.75	30.55	89.65	-1,181.46	158.12	705.68	649.56	56.12	12,575		
8,000.00	7,789.84	8,164.02	7,810.74	28.10	30.52	89.50	-1,168.32	257.90	692.76	635.46	57.30	12,089		
8,100.00	7,810.68	8,257.90	7,815.00	28.74	30.50	89.49	-1,156.19	350.81	679.72	621.04	58.67	11,585		
8,200.00	7,815.00	8,338.22	7,815.00	29.51	30.80	90.00	-1,147.49	430.66	668.78	608.68	60.10	11,128		
8,300.00	7,815.00	8,419.12	7,815.00	30.43	31.53	90.00	-1,140.99	511.30	660.63	598.88	61.76	10,698		
8,400.00	7,815.00	8,500.00	7,815.00	31.49	32.37	90.00	-1,136.78	592.07	655.31	591.63	63.67	10,292		
8,500.00	7,815.00	8,581.72	7,815.00	32.67	33.33	90.00	-1,134.83	673.76	652.82	586.97	65.86	9,913		
8,534.63	7,815.00	8,618.09	7,815.00	33.12	33.78	90.00	-1,134.70	701.12	652.62	585.85	66.77	9,775		
8,600.00	7,815.00	8,674.46	7,815.00	33.97	34.51	90.00	-1,134.81	766.50	652.65	584.31	68.34	9,550		
8,700.00	7,815.00	8,774.46	7,815.00	35.37	35.89	90.00	-1,134.97	866.50	652.70	581.59	71.11	9,179		
8,800.00	7,815.00	8,874.46	7,815.00	36.86	37.35	90.00	-1,135.13	966.50	652.74	578.69	74.05	8,815		
8,900.00	7,815.00	8,974.46	7,815.00	38.43	38.90	90.00	-1,135.29	1,066.50	652.79	575.63	77.16	8,460		
9,000.00	7,815.00	9,074.46	7,815.00	40.08	40.51	90.00	-1,135.46	1,166.50	652.84	572.42	80.42	8,118		
9,100.00	7,815.00	9,174.46	7,815.00	41.78	42.19	90.00	-1,135.62	1,266.50	652.88	569.08	83.80	7,791		
9,200.00	7,815.00	9,274.46	7,815.00	43.54	43.93	90.00	-1,135.78	1,366.50	652.93	565.63	87.30	7,479		
9,300.00	7,815.00	9,374.46	7,815.00	45.35	45.71	90.00	-1,135.94	1,466.50	652.97	562.08	90.89	7,184		
9,400.00	7,815.00	9,474.46	7,815.00	47.20	47.55	90.00	-1,136.10	1,566.49	653.02	558.44	94.58	6,904		
9,500.00	7,815.00	9,574.46	7,815.00	49.10	49.42	90.00	-1,136.26	1,666.49	653.07	554.72	98.34	6,641		
9,600.00	7,815.00	9,674.46	7,815.00	51.02	51.32	90.00	-1,136.43	1,766.49	653.11	550.94	102.18	6,392		
9,700.00	7,815.00	9,774.46	7,815.00	52.98	53.26	90.00	-1,136.59	1,866.49	653.16	547.09	106.07	6,158		
9,800.00	7,815.00	9,874.46	7,815.00	54.96	55.23	90.00	-1,136.75	1,966.49	653.21	543.18	110.03	5,937		
9,900.00	7,815.00	9,974.46	7,815.00	56.97	57.22	90.00	-1,136.91	2,066.49	653.25	539.22	114.03	5,729		
10,000.00	7,815.00	10,074.46	7,815.00	59.00	59.23	90.00	-1,137.07	2,166.49	653.30	535.22	118.07	5,533		
10,100.00	7,815.00	10,174.46	7,815.00	61.05	61.27	90.00	-1,137.24	2,266.49	653.34	531.18	122.16	5,348		
10,200.00	7,815.00	10,274.46	7,815.00	63.11	63.32	90.00	-1,137.40	2,366.49	653.39	527.11	126.29	5,174		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #128H - OH - Prelim B														Offset Site Error:	0.00 usft
Survey Program: 0-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 +N/-S (usft)	Centre +E/-W (usft)							
10,300.00	7,815.00	10,374.46	7,815.00	65.20	65.39	90.00	-1,137.56	2,466.49	653.44	523.00	130.44	5.009			
10,400.00	7,815.00	10,474.46	7,815.00	67.29	67.48	90.00	-1,137.72	2,566.49	653.48	518.85	134.63	4.854			
10,500.00	7,815.00	10,574.46	7,815.00	69.41	69.58	90.00	-1,137.88	2,666.49	653.53	514.69	138.84	4.707			
10,600.00	7,815.00	10,674.46	7,815.00	71.53	71.69	90.00	-1,138.05	2,766.49	653.58	510.49	143.08	4.568			
10,700.00	7,815.00	10,774.46	7,815.00	73.66	73.81	90.00	-1,138.21	2,866.49	653.62	506.28	147.34	4.436			
10,800.00	7,815.00	10,874.46	7,815.00	75.81	75.95	90.00	-1,138.37	2,966.49	653.67	502.04	151.63	4.311			
10,900.00	7,815.00	10,974.46	7,815.00	77.96	78.09	90.00	-1,138.53	3,066.49	653.72	497.79	155.93	4.192			
11,000.00	7,815.00	11,074.46	7,815.00	80.13	80.25	90.00	-1,138.69	3,166.49	653.76	493.52	160.25	4.080			
11,100.00	7,815.00	11,174.46	7,815.00	82.30	82.41	90.00	-1,138.85	3,266.49	653.81	489.23	164.58	3.973			
11,200.00	7,815.00	11,274.46	7,815.00	84.47	84.58	90.00	-1,139.02	3,366.49	653.85	484.92	168.93	3.871			
11,300.00	7,815.00	11,374.46	7,815.00	86.66	86.76	90.00	-1,139.18	3,466.49	653.90	480.61	173.30	3.773			
11,400.00	7,815.00	11,474.46	7,815.00	88.85	88.94	90.00	-1,139.34	3,566.49	653.95	476.28	177.67	3.681			
11,500.00	7,815.00	11,574.46	7,815.00	91.04	91.13	90.00	-1,139.50	3,666.49	653.99	471.93	182.06	3.592			
11,600.00	7,815.00	11,674.46	7,815.00	93.25	93.33	90.00	-1,139.66	3,766.49	654.04	467.58	186.46	3.508			
11,700.00	7,815.00	11,774.46	7,815.00	95.45	95.53	90.00	-1,139.83	3,866.49	654.09	463.22	190.87	3.427			
11,800.00	7,815.00	11,874.46	7,815.00	97.67	97.73	90.00	-1,139.99	3,966.49	654.13	458.84	195.29	3.350			
11,900.00	7,815.00	11,974.46	7,815.00	99.88	99.94	90.00	-1,140.15	4,066.49	654.18	454.46	199.72	3.276			
12,000.00	7,815.00	12,074.46	7,815.00	102.10	102.16	90.00	-1,140.31	4,166.49	654.22	450.07	204.15	3.205			
12,100.00	7,815.00	12,174.46	7,815.00	104.33	104.38	90.00	-1,140.47	4,266.49	654.27	445.67	208.60	3.137			
12,200.00	7,815.00	12,274.46	7,815.00	106.55	106.60	90.00	-1,140.64	4,366.49	654.32	441.27	213.05	3.071			
12,300.00	7,815.00	12,374.46	7,815.00	108.78	108.83	90.00	-1,140.80	4,466.49	654.36	436.86	217.51	3.008			
12,400.00	7,815.00	12,474.46	7,815.00	111.02	111.05	90.00	-1,140.96	4,566.49	654.41	432.44	221.97	2.948			
12,500.00	7,815.00	12,574.46	7,815.00	113.25	113.29	90.00	-1,141.12	4,666.49	654.46	428.01	226.44	2.890			
12,600.00	7,815.00	12,674.46	7,815.00	115.49	115.52	90.00	-1,141.28	4,766.49	654.50	423.58	230.92	2.834			
12,700.00	7,815.00	12,774.46	7,815.00	117.74	117.76	90.00	-1,141.45	4,866.49	654.55	419.15	235.40	2.781			
12,800.00	7,815.00	12,874.46	7,815.00	119.98	120.00	90.00	-1,141.61	4,966.49	654.60	414.70	239.89	2.729			
12,900.00	7,815.00	12,974.46	7,815.00	122.23	122.25	90.00	-1,141.77	5,066.49	654.64	410.26	244.38	2.679			
13,000.00	7,815.00	13,074.46	7,815.00	124.48	124.49	90.00	-1,141.93	5,166.49	654.69	405.81	248.88	2.631			
13,100.00	7,815.00	13,174.46	7,815.00	126.73	126.74	90.00	-1,142.09	5,266.49	654.73	401.35	253.38	2.584			
13,200.00	7,815.00	13,274.46	7,815.00	128.98	128.99	90.00	-1,142.25	5,366.49	654.78	396.90	257.89	2.539			
13,300.00	7,815.00	13,374.46	7,815.00	131.24	131.24	90.00	-1,142.42	5,466.49	654.83	392.43	262.39	2.496			
13,400.00	7,815.00	13,474.46	7,815.00	133.50	133.50	90.00	-1,142.58	5,566.49	654.87	387.97	266.91	2.454			
13,500.00	7,815.00	13,574.46	7,815.00	135.76	135.75	90.00	-1,142.74	5,666.49	654.92	383.50	271.42	2.413			
13,600.00	7,815.00	13,674.46	7,815.00	138.02	138.01	90.00	-1,142.90	5,766.49	654.97	379.02	275.94	2.374			
13,700.00	7,815.00	13,774.46	7,815.00	140.28	140.27	90.00	-1,143.06	5,866.49	655.01	374.55	280.47	2.335			
13,800.00	7,815.00	13,874.46	7,815.00	142.54	142.53	90.00	-1,143.23	5,966.49	655.06	370.07	284.99	2.299			
13,900.00	7,815.00	13,974.46	7,815.00	144.81	144.79	90.00	-1,143.39	6,066.49	655.11	365.59	289.52	2.263			
14,000.00	7,815.00	14,074.46	7,815.00	147.07	147.06	90.00	-1,143.55	6,166.49	655.15	361.10	294.05	2.228			
14,100.00	7,815.00	14,174.46	7,815.00	149.34	149.32	90.00	-1,143.71	6,266.49	655.20	356.61	298.59	2.194			
14,200.00	7,815.00	14,274.46	7,815.00	151.61	151.59	90.00	-1,143.87	6,366.49	655.24	352.12	303.12	2.162			
14,300.00	7,815.00	14,374.46	7,815.00	153.88	153.85	90.00	-1,144.04	6,466.49	655.29	347.63	307.66	2.130			
14,400.00	7,815.00	14,474.46	7,815.00	156.15	156.12	90.00	-1,144.20	6,566.49	655.34	343.14	312.20	2.099			
14,500.00	7,815.00	14,574.46	7,815.00	158.42	158.39	90.00	-1,144.36	6,666.49	655.38	338.64	316.74	2.069			
14,600.00	7,815.00	14,674.46	7,815.00	160.70	160.66	90.00	-1,144.52	6,766.49	655.43	334.14	321.29	2.040			
14,700.00	7,815.00	14,774.46	7,815.00	162.97	162.94	90.00	-1,144.68	6,866.49	655.48	329.64	325.84	2.012			
14,800.00	7,815.00	14,874.46	7,815.00	165.25	165.21	90.00	-1,144.84	6,966.49	655.52	325.14	330.39	1.984			
14,900.00	7,815.00	14,974.46	7,815.00	167.52	167.48	90.00	-1,145.01	7,066.49	655.57	320.63	334.94	1.957			
15,000.00	7,815.00	15,074.46	7,815.00	169.80	169.76	90.00	-1,145.17	7,166.49	655.61	316.12	339.49	1.931			
15,100.00	7,815.00	15,174.46	7,815.00	172.08	172.04	90.00	-1,145.33	7,266.49	655.66	311.62	344.04	1.906			
15,200.00	7,815.00	15,274.46	7,815.00	174.36	174.31	90.00	-1,145.49	7,366.49	655.71	307.11	348.60	1.881			
15,300.00	7,815.00	15,374.46	7,815.00	176.64	176.59	90.00	-1,145.65	7,466.49	655.75	302.59	353.16	1.857			
15,400.00	7,815.00	15,474.46	7,815.00	178.92	178.87	90.00	-1,145.82	7,566.49	655.80	298.08	357.72	1.833			

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #128H - OH - Prelim B													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft
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	
15,500.00	7,815.00	15,574.46	7,815.00	181.20	181.15	90.00	-1,145.98	7,666.49	655.85	293.57	362.28	1.810	
15,600.00	7,815.00	15,674.46	7,815.00	183.48	183.43	90.00	-1,146.14	7,766.49	655.89	289.05	366.84	1.788	
15,700.00	7,815.00	15,774.46	7,815.00	185.76	185.71	90.00	-1,146.30	7,866.49	655.94	284.53	371.40	1.766	
15,800.00	7,815.00	15,874.46	7,815.00	188.04	187.99	90.00	-1,146.46	7,966.49	655.99	280.02	375.97	1.745	
15,900.00	7,815.00	15,974.46	7,815.00	190.33	190.27	90.00	-1,146.63	8,066.49	656.03	275.50	380.53	1.724	
16,000.00	7,815.00	16,074.46	7,815.00	192.61	192.55	90.00	-1,146.79	8,166.49	656.08	270.98	385.10	1.704	
16,100.00	7,815.00	16,174.46	7,815.00	194.89	194.84	90.00	-1,146.95	8,266.49	656.12	266.45	389.67	1.684	
16,200.00	7,815.00	16,274.46	7,815.00	197.18	197.12	90.00	-1,147.11	8,366.49	656.17	261.93	394.24	1.664	
16,300.00	7,815.00	16,374.46	7,815.00	199.47	199.40	90.00	-1,147.27	8,466.49	656.22	257.41	398.81	1.645	
16,400.00	7,815.00	16,474.46	7,815.00	201.75	201.69	90.00	-1,147.43	8,566.49	656.26	252.88	403.38	1.627	
16,500.00	7,815.00	16,574.46	7,815.00	204.04	203.97	90.00	-1,147.60	8,666.49	656.31	248.35	407.95	1.609	
16,600.00	7,815.00	16,674.46	7,815.00	206.33	206.26	90.00	-1,147.76	8,766.48	656.36	243.83	412.53	1.591	
16,700.00	7,815.00	16,774.46	7,815.00	208.61	208.55	90.00	-1,147.92	8,866.48	656.40	239.30	417.10	1.574	
16,800.00	7,815.00	16,874.46	7,815.00	210.90	210.83	90.00	-1,148.08	8,966.48	656.45	234.77	421.68	1.557	
16,900.00	7,815.00	16,974.46	7,815.00	213.19	213.12	90.00	-1,148.24	9,066.48	656.49	230.24	426.25	1.540	
17,000.00	7,815.00	17,074.46	7,815.00	215.48	215.41	90.00	-1,148.41	9,166.48	656.54	225.71	430.83	1.524	
17,100.00	7,815.00	17,174.46	7,815.00	217.77	217.70	90.00	-1,148.57	9,266.48	656.59	221.18	435.41	1.508	
17,200.00	7,815.00	17,274.46	7,815.00	220.06	219.98	90.00	-1,148.73	9,366.48	656.63	216.64	439.99	1.492 Level 3	
17,300.00	7,815.00	17,374.46	7,815.00	222.35	222.27	90.00	-1,148.89	9,466.48	656.68	212.11	444.57	1.477 Level 3	
17,400.00	7,815.00	17,474.46	7,815.00	224.64	224.56	90.00	-1,149.05	9,566.48	656.73	207.58	449.15	1.462 Level 3	
17,500.00	7,815.00	17,574.46	7,815.00	226.93	226.85	90.00	-1,149.22	9,666.48	656.77	203.04	453.73	1.447 Level 3	
17,600.00	7,815.00	17,674.46	7,815.00	229.22	229.14	90.00	-1,149.38	9,766.48	656.82	198.51	458.31	1.433 Level 3	
17,700.00	7,815.00	17,774.46	7,815.00	231.51	231.43	90.00	-1,149.54	9,866.48	656.87	193.97	462.89	1.419 Level 3	
17,800.00	7,815.00	17,874.46	7,815.00	233.80	233.72	90.00	-1,149.70	9,966.48	656.91	189.43	467.48	1.405 Level 3	
17,900.00	7,815.00	17,974.46	7,815.00	236.10	236.02	90.00	-1,149.86	10,066.48	656.96	184.90	472.06	1.392 Level 3	
17,981.45	7,815.00	18,055.91	7,815.00	237.96	237.88	90.00	-1,150.00	10,147.94	657.00	181.20	475.80	1.381 Level 3, ES, SF	

Pro Directional

Anticollision Report

Company: Matador Resources
 Project: Eddy County, NM (NAD27)
 Reference Site: Leatherneck Fed
 Site Error: 0.00 usft
 Reference Well: #124H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
 TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: WellPlanner1
 Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #133H - OH - Prelim B												Offset Site Error:	0.00 usft
Survey Program: 0-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 Tooface (")	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	-19.70	81.00	-29.00	86.03				
100.00	100.00	100.00	100.00	0.13	0.13	-19.70	81.00	-29.00	86.03	85.78	0.26	335.671	
200.00	200.00	200.00	200.00	0.49	0.49	-19.70	81.00	-29.00	86.03	85.06	0.97	88.400	
300.00	300.00	300.00	300.00	0.85	0.85	-19.70	81.00	-29.00	86.03	84.34	1.69	50.902	
400.00	400.00	400.00	400.00	1.20	1.20	-19.70	81.00	-29.00	86.03	83.63	2.41	35.742	
500.00	500.00	500.00	500.00	1.56	1.56	-19.70	81.00	-29.00	86.03	82.91	3.12	27.539	
600.00	600.00	600.00	600.00	1.92	1.92	-19.70	81.00	-29.00	86.03	82.19	3.84	22.399	
700.00	700.00	700.00	700.00	2.28	2.28	-19.70	81.00	-29.00	86.03	81.48	4.56	18.876	
800.00	800.00	800.00	800.00	2.64	2.64	-19.70	81.00	-29.00	86.03	80.76	5.27	16.310	
900.00	900.00	900.00	900.00	3.00	3.00	-19.70	81.00	-29.00	86.03	80.04	5.99	14.359	
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-19.70	81.00	-29.00	86.03	79.33	6.71	12.824	
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	-19.70	81.00	-29.00	86.03	78.61	7.43	11.586	
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	-19.70	81.00	-29.00	86.03	77.89	8.14	10.586	
1,300.00	1,300.00	1,300.00	1,300.00	4.43	4.43	-19.70	81.00	-29.00	86.03	77.18	8.86	9.711	
1,400.00	1,400.00	1,400.00	1,400.00	4.79	4.79	-19.70	81.00	-29.00	86.03	76.46	9.58	8.984	
1,500.00	1,500.00	1,500.00	1,500.00	5.15	5.15	-19.70	81.00	-29.00	86.03	75.74	10.29	8.358	
1,600.00	1,600.00	1,600.00	1,600.00	5.51	5.51	-19.70	81.00	-29.00	86.03	75.02	11.01	7.814	
1,700.00	1,700.00	1,700.00	1,700.00	5.86	5.86	-19.70	81.00	-29.00	86.03	74.31	11.73	7.336	
1,800.00	1,800.00	1,800.00	1,800.00	6.22	6.22	-19.70	81.00	-29.00	86.03	73.59	12.44	6.914	
1,900.00	1,900.00	1,900.00	1,900.00	6.58	6.58	-19.70	81.00	-29.00	86.03	72.87	13.16	6.537	
2,000.00	2,000.00	2,000.00	2,000.00	6.94	6.94	-19.70	81.00	-29.00	86.03	72.16	13.88	6.199 CC, ES	
2,100.00	2,099.98	2,097.00	2,096.99	7.28	7.29	135.13	82.60	-29.36	88.95	74.38	14.56	6.109	
2,200.00	2,199.84	2,193.40	2,193.25	7.61	7.63	137.42	87.37	-30.43	97.78	82.56	15.21	6.428	
2,300.00	2,299.45	2,288.60	2,288.11	7.94	7.97	140.38	95.17	-32.19	112.73	96.89	15.85	7.114	
2,400.00	2,398.87	2,382.35	2,381.21	8.27	8.31	143.25	105.85	-34.60	132.84	116.38	16.46	8.071	
2,500.00	2,498.29	2,474.75	2,472.58	8.61	8.64	145.29	119.29	-37.62	156.37	139.31	17.05	9.170	
2,600.00	2,597.70	2,565.65	2,561.98	8.95	8.97	146.69	135.30	-41.23	183.13	165.50	17.62	10.390	
2,700.00	2,697.12	2,658.53	2,652.86	9.30	9.32	147.69	154.05	-45.45	212.51	194.27	18.25	11.647	
2,800.00	2,796.53	2,753.97	2,746.16	9.65	9.68	148.45	173.60	-49.85	242.24	223.32	18.92	12.803	
2,900.00	2,895.95	2,849.40	2,839.47	10.00	10.05	149.05	193.14	-54.25	272.00	252.40	19.60	13.878	
3,000.00	2,995.37	2,944.84	2,932.78	10.36	10.42	149.53	212.68	-58.66	301.78	281.50	20.28	14.879	
3,100.00	3,094.78	3,040.27	3,026.09	10.71	10.80	149.93	232.22	-63.06	331.58	310.62	20.97	15.814	
3,200.00	3,194.20	3,135.71	3,119.40	11.07	11.18	150.26	251.77	-67.46	361.39	339.74	21.66	16.688	
3,300.00	3,293.61	3,231.14	3,212.71	11.44	11.56	150.54	271.31	-71.86	391.21	368.87	22.35	17.506	
3,400.00	3,393.03	3,326.58	3,306.01	11.80	11.95	150.78	290.85	-76.26	421.04	398.00	23.04	18.273	
3,500.00	3,492.45	3,422.01	3,399.32	12.17	12.34	150.99	310.39	-80.66	450.87	427.14	23.74	18.994	
3,600.00	3,591.86	3,517.44	3,492.63	12.53	12.74	151.17	329.93	-85.06	480.71	456.27	24.44	19.672	
3,700.00	3,691.28	3,612.88	3,585.94	12.90	13.13	151.33	349.48	-89.46	510.55	485.42	25.14	20.312	
3,800.00	3,790.69	3,708.31	3,679.25	13.27	13.53	151.47	369.02	-93.86	540.40	514.56	25.84	20.915	
3,900.00	3,890.11	3,803.75	3,772.56	13.64	13.93	151.60	388.56	-98.26	570.24	543.70	26.54	21.485	
4,000.00	3,989.53	3,900.82	3,865.86	14.02	14.34	151.72	408.10	-102.67	600.09	572.84	27.25	22.020	
4,100.00	4,088.94	4,005.38	3,959.17	14.39	14.78	151.82	427.65	-107.07	629.95	601.95	27.99	22.503	
4,200.00	4,188.36	4,109.95	4,052.48	14.76	15.23	151.91	447.19	-111.47	659.80	631.06	28.74	22.961	
4,300.00	4,287.78	4,185.49	4,145.79	15.14	15.55	152.00	466.73	-115.87	689.65	660.29	29.37	23.482	
4,400.00	4,387.19	4,280.92	4,239.10	15.51	15.96	152.08	486.27	-120.27	719.51	689.43	30.08	23.920	
4,500.00	4,486.61	4,376.35	4,332.41	15.89	16.37	152.15	505.82	-124.67	749.37	718.58	30.79	24.338	
4,600.00	4,586.02	4,471.79	4,425.71	16.27	16.78	152.22	525.36	-129.07	779.23	747.72	31.50	24.735	
4,700.00	4,685.44	4,567.22	4,519.02	16.64	17.19	152.28	544.90	-133.47	809.09	776.87	32.22	25.115	
4,800.00	4,784.86	4,662.66	4,612.33	17.02	17.60	152.34	564.44	-137.87	838.95	806.02	32.93	25.477	
4,900.00	4,884.27	4,758.09	4,705.64	17.40	18.02	152.40	583.98	-142.27	868.81	835.16	33.64	25.823	
5,000.00	4,983.69	4,853.53	4,798.95	17.78	18.43	152.45	603.53	-146.68	898.67	864.31	34.36	26.154	
5,100.00	5,083.10	4,948.96	4,892.26	18.16	18.85	152.49	623.07	-151.08	928.53	893.46	35.08	26.471	

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: Eddy County, NM (NAD27)
 Reference Site: Leatherneck Fed
 Site Error: 0.00 usft
 Reference Well: #124H
 Well Error: 0.00 usft
 Reference Wellbore OH
 Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
 TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: WellPlanner1
 Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #133H - OH - Prelim B													Offset Site Error: 0.00 usft
Survey Program: 0-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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.00	5,182.52	5,044.39	4,985.56	18.54	19.27	152.54	642.61	-155.48	958.40	922.60	35.79	26.775	
5,300.00	5,281.94	5,139.83	5,078.87	18.92	19.68	152.58	662.15	-159.88	988.26	951.75	36.51	27.067	
5,400.00	5,381.35	5,235.26	5,172.18	19.30	20.10	152.62	681.70	-164.28	1,018.12	980.89	37.23	27.347	
5,500.00	5,480.77	5,330.70	5,265.49	19.68	20.52	152.66	701.24	-168.68	1,047.99	1,010.04	37.95	27.615	
5,600.00	5,580.18	5,426.13	5,358.80	20.07	20.94	152.69	720.78	-173.08	1,077.85	1,039.18	38.67	27.874	
5,700.00	5,679.60	5,521.57	5,452.11	20.45	21.36	152.73	740.32	-177.48	1,107.72	1,068.33	39.39	28.122	
5,800.00	5,779.02	5,617.00	5,545.41	20.83	21.78	152.76	759.87	-181.88	1,137.58	1,097.47	40.11	28.361	
5,900.00	5,878.43	5,712.44	5,638.72	21.21	22.20	152.79	779.41	-186.28	1,167.45	1,126.62	40.83	28.592	
6,000.00	5,977.85	5,807.87	5,732.03	21.60	22.62	152.81	798.95	-190.69	1,197.31	1,155.76	41.55	28.814	
6,100.00	6,077.26	5,903.30	5,825.34	21.98	23.04	152.84	818.49	-195.09	1,227.18	1,184.90	42.28	29.028	
6,200.00	6,176.68	6,001.26	5,918.65	22.36	23.47	152.87	838.03	-199.49	1,257.05	1,214.04	43.01	29.228	
6,300.00	6,276.10	6,105.83	6,011.96	22.75	23.94	152.89	857.58	-203.89	1,286.91	1,243.14	43.77	29.404	
6,400.00	6,375.51	6,195.11	6,110.65	23.13	24.33	152.92	878.22	-208.54	1,316.76	1,272.27	44.49	29.595	
6,500.00	6,474.93	6,371.66	6,284.43	23.51	25.08	153.01	908.44	-215.34	1,343.35	1,297.53	45.82	29.315	
6,600.00	6,574.34	6,553.45	6,465.01	23.90	25.78	153.21	928.58	-219.88	1,364.00	1,316.98	47.03	29.004	
6,700.00	6,673.76	6,739.19	6,650.50	24.28	26.42	153.51	937.58	-221.91	1,378.49	1,330.41	48.08	28.672	
6,800.00	6,773.18	6,861.87	6,773.18	24.67	26.82	153.75	938.00	-222.00	1,388.39	1,339.55	48.85	28.422	
6,900.00	6,872.59	6,961.29	6,872.59	25.05	27.13	153.94	938.00	-222.00	1,398.09	1,348.53	49.56	28.212	
7,000.00	6,972.04	7,060.73	6,972.04	25.44	27.45	154.16	938.00	-222.00	1,407.56	1,357.30	50.26	28.004	
7,100.00	7,071.74	7,160.43	7,071.74	25.81	27.77	154.36	938.00	-222.00	1,414.49	1,363.52	50.97	27.753	
7,200.00	7,171.64	7,260.34	7,171.64	26.17	28.09	154.46	938.00	-222.00	1,418.28	1,366.61	51.67	27.451	
7,300.00	7,271.62	7,360.32	7,271.62	26.50	28.41	-89.57	938.00	-222.00	1,419.05	1,366.70	52.35	27.107	
7,384.69	7,355.57	7,444.27	7,355.57	26.76	28.68	-90.00	938.00	-222.00	1,419.01	1,366.11	52.90	26.824	
7,400.00	7,370.53	7,459.23	7,370.53	26.81	28.73	-90.13	938.00	-222.00	1,419.02	1,366.02	53.00	26.774	
7,500.00	7,465.54	7,554.24	7,465.54	27.08	29.04	-91.26	938.00	-222.00	1,419.42	1,365.82	53.61	26.479	
7,600.00	7,553.76	7,642.45	7,553.76	27.31	29.33	-92.74	938.00	-222.00	1,421.32	1,367.15	54.17	26.238	
7,700.00	7,632.50	7,721.20	7,632.50	27.50	29.58	-94.20	938.00	-222.00	1,426.13	1,371.43	54.70	26.070	
7,800.00	7,699.38	7,788.08	7,699.38	27.64	29.80	-95.25	938.00	-222.00	1,435.43	1,380.20	55.23	25.990	
7,900.00	7,752.37	7,841.06	7,752.37	27.75	29.97	-95.51	938.00	-222.00	1,450.61	1,394.84	55.77	26.009	
8,000.00	7,789.84	7,878.54	7,789.84	28.10	30.10	-94.65	938.00	-222.00	1,472.62	1,416.27	56.35	26.136	
8,100.00	7,810.68	7,900.62	7,810.68	28.74	30.17	-92.43	938.00	-222.00	1,501.68	1,444.75	56.93	26.375	
8,200.00	7,815.00	7,903.70	7,815.00	29.51	30.18	-90.00	938.00	-222.00	1,537.24	1,479.74	57.50	26.735	
8,300.00	7,815.00	7,903.70	7,815.00	30.43	30.18	-90.00	938.00	-222.00	1,578.40	1,520.30	58.10	27.165	
8,400.00	7,815.00	7,903.70	7,815.00	31.49	30.18	-90.00	938.00	-222.00	1,624.68	1,565.93	58.75	27.655	
8,500.00	7,815.00	7,903.70	7,815.00	32.67	30.18	-90.00	938.00	-222.00	1,675.66	1,616.25	59.41	28.207	
8,600.00	7,815.00	7,903.70	7,815.00	33.97	30.18	-90.00	938.00	-222.00	1,730.91	1,670.85	60.06	28.818	
8,700.00	7,815.00	7,903.70	7,815.00	35.37	30.18	-90.00	938.00	-222.00	1,790.06	1,729.35	60.71	29.487	
8,800.00	7,815.00	10,149.61	9,110.00	36.86	41.09	-134.47	836.85	968.68	1,848.62	1,789.01	59.61	31.009	
8,900.00	7,815.00	10,249.61	9,110.00	38.43	42.52	-134.47	836.76	1,068.68	1,848.65	1,786.84	61.81	29.910	
9,000.00	7,815.00	10,349.61	9,110.00	40.08	44.01	-134.47	836.68	1,168.68	1,848.67	1,784.56	64.11	28.835	
9,100.00	7,815.00	10,449.61	9,110.00	41.78	45.58	-134.47	836.59	1,268.68	1,848.69	1,782.17	66.52	27.793	
9,200.00	7,815.00	10,549.61	9,110.00	43.54	47.20	-134.47	836.51	1,368.68	1,848.71	1,779.70	69.01	26.788	
9,300.00	7,815.00	10,649.61	9,110.00	45.35	48.89	-134.47	836.42	1,468.68	1,848.73	1,777.14	71.59	25.824	
9,400.00	7,815.00	10,749.61	9,110.00	47.20	50.62	-134.46	836.33	1,568.68	1,848.75	1,774.51	74.24	24.903	
9,500.00	7,815.00	10,849.61	9,110.00	49.10	52.39	-134.46	836.25	1,668.68	1,848.77	1,771.82	76.95	24.025	
9,600.00	7,815.00	10,949.61	9,110.00	51.02	54.20	-134.46	836.16	1,768.68	1,848.80	1,769.07	79.73	23.190	
9,700.00	7,815.00	11,049.61	9,110.00	52.98	56.06	-134.46	836.08	1,868.68	1,848.82	1,766.27	82.55	22.396	
9,800.00	7,815.00	11,149.61	9,110.00	54.96	57.94	-134.46	835.99	1,968.68	1,848.84	1,763.42	85.42	21.643	
9,900.00	7,815.00	11,249.61	9,110.00	56.97	59.85	-134.46	835.91	2,068.68	1,848.86	1,760.52	88.34	20.929	
10,000.00	7,815.00	11,349.61	9,110.00	59.00	61.79	-134.46	835.82	2,168.68	1,848.88	1,757.59	91.29	20.252	
10,100.00	7,815.00	11,449.61	9,110.00	61.05	63.76	-134.46	835.74	2,268.68	1,848.90	1,754.62	94.28	19.611	
10,200.00	7,815.00	11,549.61	9,110.00	63.11	65.74	-134.46	835.65	2,368.68	1,848.92	1,751.62	97.30	19.002	

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: Eddy County, NM (NAD27)
 Reference Site: Leatherneck Fed
 Site Error: 0.00 usft
 Reference Well: #124H
 Well Error: 0.00 usft
 Reference Wellbore OH
 Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
 TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: WellPlanner1
 Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #133H - OH - Prelim B														Offset Site Error: 0.00 usft
Survey Program: 0-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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,300.00	7,815.00	11,649.61	9,110.00	65.20	67.75	-134.46	835.56	2,468.68	1,848.95	1,748.60	100.35	18.425		
10,400.00	7,815.00	11,749.61	9,110.00	67.29	69.78	-134.46	835.48	2,568.68	1,848.97	1,745.54	103.43	17.877		
10,500.00	7,815.00	11,849.61	9,110.00	69.41	71.82	-134.46	835.39	2,668.68	1,848.99	1,742.46	106.53	17.357		
10,600.00	7,815.00	11,949.61	9,110.00	71.53	73.88	-134.46	835.31	2,768.68	1,849.01	1,739.36	109.65	16.863		
10,700.00	7,815.00	12,049.61	9,110.00	73.66	75.95	-134.46	835.22	2,868.68	1,849.03	1,736.24	112.79	16.393		
10,800.00	7,815.00	12,149.61	9,110.00	75.81	78.04	-134.46	835.14	2,968.68	1,849.05	1,733.10	115.95	15.947		
10,900.00	7,815.00	12,249.61	9,110.00	77.96	80.13	-134.46	835.05	3,068.68	1,849.07	1,729.94	119.13	15.521		
11,000.00	7,815.00	12,349.61	9,110.00	80.13	82.24	-134.45	834.97	3,168.68	1,849.10	1,726.77	122.33	15.116		
11,100.00	7,815.00	12,449.61	9,110.00	82.30	84.36	-134.45	834.88	3,268.68	1,849.12	1,723.58	125.53	14.730		
11,200.00	7,815.00	12,549.61	9,110.00	84.47	86.49	-134.45	834.80	3,368.68	1,849.14	1,720.38	128.76	14.361		
11,300.00	7,815.00	12,649.61	9,110.00	86.66	88.63	-134.45	834.71	3,468.68	1,849.16	1,717.17	131.99	14.010		
11,400.00	7,815.00	12,749.61	9,110.00	88.85	90.78	-134.45	834.62	3,568.68	1,849.18	1,713.94	135.24	13.674		
11,500.00	7,815.00	12,849.61	9,110.00	91.04	92.93	-134.45	834.54	3,668.68	1,849.20	1,710.71	138.50	13.352		
11,600.00	7,815.00	12,949.61	9,110.00	93.25	95.09	-134.45	834.45	3,768.68	1,849.23	1,707.46	141.76	13.045		
11,700.00	7,815.00	13,049.61	9,110.00	95.45	97.26	-134.45	834.37	3,868.68	1,849.25	1,704.21	145.04	12.750		
11,800.00	7,815.00	13,149.61	9,110.00	97.67	99.44	-134.45	834.28	3,968.68	1,849.27	1,700.94	148.32	12.468		
11,900.00	7,815.00	13,249.61	9,110.00	99.88	101.62	-134.45	834.20	4,068.68	1,849.29	1,697.67	151.62	12.197		
12,000.00	7,815.00	13,349.61	9,110.00	102.10	103.80	-134.45	834.11	4,168.68	1,849.31	1,694.39	154.92	11.937		
12,100.00	7,815.00	13,449.61	9,110.00	104.33	105.99	-134.45	834.03	4,268.68	1,849.33	1,691.10	158.23	11.688		
12,200.00	7,815.00	13,549.61	9,110.00	106.55	108.19	-134.45	833.94	4,368.68	1,849.35	1,687.81	161.54	11.448		
12,300.00	7,815.00	13,649.61	9,110.00	108.78	110.39	-134.45	833.85	4,468.68	1,849.38	1,684.51	164.87	11.217		
12,400.00	7,815.00	13,749.61	9,110.00	111.02	112.60	-134.45	833.77	4,568.68	1,849.40	1,681.20	168.19	10.996		
12,500.00	7,815.00	13,849.61	9,110.00	113.25	114.81	-134.44	833.68	4,668.68	1,849.42	1,677.89	171.53	10.782		
12,600.00	7,815.00	13,949.61	9,110.00	115.49	117.02	-134.44	833.60	4,768.68	1,849.44	1,674.57	174.87	10.576		
12,700.00	7,815.00	14,049.61	9,110.00	117.74	119.23	-134.44	833.51	4,868.68	1,849.46	1,671.25	178.21	10.378		
12,800.00	7,815.00	14,149.61	9,110.00	119.98	121.45	-134.44	833.43	4,968.68	1,849.48	1,667.92	181.56	10.187		
12,900.00	7,815.00	14,249.61	9,110.00	122.23	123.68	-134.44	833.34	5,068.68	1,849.50	1,664.59	184.91	10.002		
13,000.00	7,815.00	14,349.61	9,110.00	124.48	125.90	-134.44	833.26	5,168.68	1,849.53	1,661.26	188.27	9.824		
13,100.00	7,815.00	14,449.61	9,110.00	126.73	128.13	-134.44	833.17	5,268.68	1,849.55	1,657.92	191.63	9.652		
13,200.00	7,815.00	14,549.61	9,110.00	128.98	130.36	-134.44	833.08	5,368.68	1,849.57	1,654.57	195.00	9.485		
13,300.00	7,815.00	14,649.61	9,110.00	131.24	132.60	-134.44	833.00	5,468.68	1,849.59	1,651.23	198.36	9.324		
13,400.00	7,815.00	14,749.61	9,110.00	133.50	134.84	-134.44	832.91	5,568.68	1,849.61	1,647.87	201.74	9.168		
13,500.00	7,815.00	14,849.61	9,110.00	135.76	137.07	-134.44	832.83	5,668.68	1,849.63	1,644.52	205.11	9.018		
13,600.00	7,815.00	14,949.61	9,110.00	138.02	139.32	-134.44	832.74	5,768.68	1,849.65	1,641.16	208.49	8.872		
13,700.00	7,815.00	15,049.61	9,110.00	140.28	141.56	-134.44	832.66	5,868.68	1,849.68	1,637.80	211.87	8.730		
13,800.00	7,815.00	15,149.61	9,110.00	142.54	143.81	-134.44	832.57	5,968.68	1,849.70	1,634.44	215.26	8.593		
13,900.00	7,815.00	15,249.61	9,110.00	144.81	146.05	-134.44	832.49	6,068.68	1,849.72	1,631.07	218.65	8.460		
14,000.00	7,815.00	15,349.61	9,110.00	147.07	148.30	-134.43	832.40	6,168.68	1,849.74	1,627.70	222.04	8.331		
14,100.00	7,815.00	15,449.61	9,110.00	149.34	150.55	-134.43	832.31	6,268.68	1,849.76	1,624.33	225.43	8.206		
14,200.00	7,815.00	15,549.61	9,110.00	151.61	152.81	-134.43	832.23	6,368.68	1,849.78	1,620.96	228.82	8.084		
14,300.00	7,815.00	15,649.61	9,110.00	153.88	155.06	-134.43	832.14	6,468.68	1,849.80	1,617.58	232.22	7.966		
14,400.00	7,815.00	15,749.61	9,110.00	156.15	157.32	-134.43	832.06	6,568.68	1,849.83	1,614.21	235.62	7.851		
14,500.00	7,815.00	15,849.61	9,110.00	158.42	159.57	-134.43	831.97	6,668.68	1,849.85	1,610.83	239.02	7.739		
14,600.00	7,815.00	15,949.61	9,110.00	160.70	161.83	-134.43	831.89	6,768.68	1,849.87	1,607.44	242.42	7.631		
14,700.00	7,815.00	16,049.61	9,110.00	162.97	164.09	-134.43	831.80	6,868.68	1,849.89	1,604.06	245.83	7.525		
14,800.00	7,815.00	16,149.61	9,110.00	165.25	166.36	-134.43	831.72	6,968.68	1,849.91	1,600.67	249.24	7.422		
14,900.00	7,815.00	16,249.61	9,110.00	167.52	168.62	-134.43	831.63	7,068.68	1,849.93	1,597.29	252.65	7.322		
15,000.00	7,815.00	16,349.61	9,110.00	169.80	170.88	-134.43	831.55	7,168.68	1,849.95	1,593.90	256.06	7.225		
15,100.00	7,815.00	16,449.61	9,110.00	172.08	173.15	-134.43	831.46	7,268.68	1,849.98	1,590.51	259.47	7.130		
15,200.00	7,815.00	16,549.61	9,110.00	174.36	175.41	-134.43	831.37	7,368.68	1,850.00	1,587.11	262.88	7.037		
15,300.00	7,815.00	16,649.61	9,110.00	176.64	177.68	-134.43	831.29	7,468.68	1,850.02	1,583.72	266.30	6.947		
15,400.00	7,815.00	16,749.61	9,110.00	178.92	179.95	-134.43	831.20	7,568.68	1,850.04	1,580.32	269.72	6.859		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #133H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,500.00	7,815.00	16,849.61	9,110.00	181.20	182.22	-134.43	831.12	7,668.68	1,850.06	1,576.93	273.13	6.773		
15,600.00	7,815.00	16,949.61	9,110.00	183.48	184.49	-134.42	831.03	7,768.68	1,850.08	1,573.53	276.55	6.690		
15,700.00	7,815.00	17,049.61	9,110.00	185.76	186.76	-134.42	830.95	7,868.68	1,850.10	1,570.13	279.98	6.608		
15,800.00	7,815.00	17,149.61	9,110.00	188.04	189.03	-134.42	830.86	7,968.68	1,850.13	1,566.73	283.40	6.528		
15,900.00	7,815.00	17,249.61	9,110.00	190.33	191.31	-134.42	830.78	8,068.68	1,850.15	1,563.33	286.82	6.451		
16,000.00	7,815.00	17,349.61	9,110.00	192.61	193.58	-134.42	830.69	8,168.68	1,850.17	1,559.92	290.25	6.374		
16,100.00	7,815.00	17,449.61	9,110.00	194.89	195.86	-134.42	830.60	8,268.68	1,850.19	1,556.52	293.67	6.300		
16,200.00	7,815.00	17,549.61	9,110.00	197.18	198.13	-134.42	830.52	8,368.68	1,850.21	1,553.11	297.10	6.228		
16,300.00	7,815.00	17,649.61	9,110.00	199.47	200.41	-134.42	830.43	8,468.68	1,850.23	1,549.71	300.53	6.157		
16,400.00	7,815.00	17,749.61	9,110.00	201.75	202.69	-134.42	830.35	8,568.68	1,850.25	1,546.30	303.96	6.087		
16,500.00	7,815.00	17,849.61	9,110.00	204.04	204.96	-134.42	830.26	8,668.68	1,850.28	1,542.89	307.39	6.019		
16,600.00	7,815.00	17,949.61	9,110.00	206.33	207.24	-134.42	830.18	8,768.68	1,850.30	1,539.48	310.82	5.953		
16,700.00	7,815.00	18,049.61	9,110.00	208.61	209.52	-134.42	830.09	8,868.68	1,850.32	1,536.07	314.25	5.888		
16,800.00	7,815.00	18,149.61	9,110.00	210.90	211.80	-134.42	830.01	8,968.68	1,850.34	1,532.66	317.68	5.824		
16,900.00	7,815.00	18,249.61	9,110.00	213.19	214.08	-134.42	829.92	9,068.68	1,850.36	1,529.25	321.12	5.762		
17,000.00	7,815.00	18,349.61	9,110.00	215.48	216.36	-134.42	829.83	9,168.68	1,850.38	1,525.83	324.55	5.701		
17,100.00	7,815.00	18,449.61	9,110.00	217.77	218.64	-134.41	829.75	9,268.68	1,850.41	1,522.42	327.99	5.642		
17,200.00	7,815.00	18,549.61	9,110.00	220.06	220.93	-134.41	829.66	9,368.68	1,850.43	1,519.00	331.42	5.583		
17,300.00	7,815.00	18,649.61	9,110.00	222.35	223.21	-134.41	829.58	9,468.68	1,850.45	1,515.59	334.86	5.526		
17,400.00	7,815.00	18,749.61	9,110.00	224.64	225.49	-134.41	829.49	9,568.68	1,850.47	1,512.17	338.30	5.470		
17,500.00	7,815.00	18,849.61	9,110.00	226.93	227.77	-134.41	829.41	9,668.68	1,850.49	1,508.75	341.74	5.415		
17,600.00	7,815.00	18,949.61	9,110.00	229.22	230.06	-134.41	829.32	9,768.68	1,850.51	1,505.34	345.18	5.361		
17,700.00	7,815.00	19,049.61	9,110.00	231.51	232.34	-134.41	829.24	9,868.68	1,850.53	1,501.92	348.62	5.308		
17,800.00	7,815.00	19,149.61	9,110.00	233.80	234.63	-134.41	829.15	9,968.68	1,850.56	1,498.50	352.06	5.256		
17,900.00	7,815.00	19,249.61	9,110.00	236.10	236.91	-134.41	829.07	10,068.68	1,850.58	1,495.08	355.50	5.206		
17,903.48	7,815.00	19,253.08	9,110.00	236.18	236.99	-134.41	829.06	10,072.15	1,850.58	1,494.96	355.62	5.204		
17,981.45	7,815.00	19,325.93	9,110.00	237.96	238.66	-134.41	829.00	10,145.00	1,850.60	1,492.39	358.21	5.166 SF		

Pro Directional

Anticollision Report

Company: Matador Resources
 Project: Eddy County, NM (NAD27)
 Reference Site: Leatherneck Fed
 Site Error: 0.00 usft
 Reference Well: #124H
 Well Error: 0.00 usft
 Reference Wellbore OH
 Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
 TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: WellPlanner1
 Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #134H - OH - Prelim B													Offset Site Error: 0.00 usft
Survey Program: 0-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 Tooface (")	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	0.72	80.00	1.00	80.01				
100.00	100.00	100.00	100.00	0.13	0.13	0.72	80.00	1.00	80.01	79.75	0.26	312.149	
200.00	200.00	200.00	200.00	0.49	0.49	0.72	80.00	1.00	80.01	79.03	0.97	82.205	
300.00	300.00	300.00	300.00	0.85	0.85	0.72	80.00	1.00	80.01	78.32	1.69	47.336	
400.00	400.00	400.00	400.00	1.20	1.20	0.72	80.00	1.00	80.01	77.60	2.41	33.237	
500.00	500.00	500.00	500.00	1.56	1.56	0.72	80.00	1.00	80.01	76.88	3.12	25.610	
600.00	600.00	600.00	600.00	1.92	1.92	0.72	80.00	1.00	80.01	76.17	3.84	20.829	
700.00	700.00	700.00	700.00	2.28	2.28	0.72	80.00	1.00	80.01	75.45	4.56	17.553	
800.00	800.00	800.00	800.00	2.64	2.64	0.72	80.00	1.00	80.01	74.73	5.27	15.167	
900.00	900.00	900.00	900.00	3.00	3.00	0.72	80.00	1.00	80.01	74.01	5.99	13.353	
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	0.72	80.00	1.00	80.01	73.30	6.71	11.926	
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	0.72	80.00	1.00	80.01	72.58	7.43	10.774	
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	0.72	80.00	1.00	80.01	71.86	8.14	9.826	
1,300.00	1,300.00	1,300.00	1,300.00	4.43	4.43	0.72	80.00	1.00	80.01	71.15	8.86	9.030	
1,400.00	1,400.00	1,400.00	1,400.00	4.79	4.79	0.72	80.00	1.00	80.01	70.43	9.58	8.354	
1,500.00	1,500.00	1,500.00	1,500.00	5.15	5.15	0.72	80.00	1.00	80.01	69.71	10.29	7.772	
1,600.00	1,600.00	1,600.00	1,600.00	5.51	5.51	0.72	80.00	1.00	80.01	69.00	11.01	7.266	
1,700.00	1,700.00	1,700.00	1,700.00	5.86	5.86	0.72	80.00	1.00	80.01	68.28	11.73	6.822	
1,800.00	1,800.00	1,800.00	1,800.00	6.22	6.22	0.72	80.00	1.00	80.01	67.56	12.44	6.429	
1,900.00	1,900.00	1,900.00	1,900.00	6.58	6.58	0.72	80.00	1.00	80.01	66.84	13.16	6.079	
2,000.00	2,000.00	2,000.00	2,000.00	6.94	6.94	0.72	80.00	1.00	80.01	66.13	13.88	5.765 CC	
2,100.00	2,099.98	2,101.44	2,101.41	7.28	7.29	154.11	79.10	-0.56	80.68	66.12	14.57	5.538 ES	
2,200.00	2,199.84	2,202.07	2,201.93	7.61	7.63	152.78	76.87	-4.76	82.99	67.76	15.23	5.449	
2,300.00	2,299.45	2,301.93	2,301.65	7.94	7.96	152.34	74.06	-9.29	88.22	72.33	15.90	5.550	
2,400.00	2,398.87	2,401.68	2,401.27	8.27	8.30	152.58	71.45	-13.81	95.29	78.72	16.57	5.752	
2,500.00	2,498.29	2,501.43	2,500.88	8.61	8.64	152.79	68.84	-18.33	102.37	85.13	17.24	5.936	
2,600.00	2,597.70	2,601.18	2,600.49	8.95	8.98	152.98	66.23	-22.85	109.45	91.53	17.92	6.108	
2,700.00	2,697.12	2,700.92	2,700.10	9.30	9.33	153.14	63.62	-27.37	116.54	97.93	18.60	6.264	
2,800.00	2,796.53	2,800.67	2,799.71	9.65	9.67	153.28	61.01	-31.89	123.62	104.33	19.29	6.408	
2,900.00	2,895.95	2,900.42	2,899.32	10.00	10.02	153.41	58.40	-36.41	130.71	110.73	19.98	6.541	
3,000.00	2,995.37	3,000.17	2,998.94	10.36	10.37	153.53	55.79	-40.93	137.79	117.12	20.68	6.664	
3,100.00	3,094.78	3,100.08	3,098.55	10.71	10.72	153.63	53.18	-45.45	144.88	123.51	21.37	6.779	
3,200.00	3,194.20	3,200.33	3,198.16	11.07	11.07	153.73	50.57	-49.98	151.97	129.89	22.07	6.885	
3,300.00	3,293.61	3,300.59	3,297.77	11.44	11.43	153.81	47.96	-54.50	159.06	136.28	22.78	6.983	
3,400.00	3,393.03	3,400.84	3,397.38	11.80	11.78	153.89	45.35	-59.02	166.14	142.66	23.48	7.076	
3,500.00	3,492.45	3,498.91	3,496.99	12.17	12.13	153.96	42.74	-63.54	173.23	149.05	24.18	7.164	
3,600.00	3,591.86	3,605.08	3,602.95	12.53	12.50	154.09	38.11	-68.17	178.59	153.70	24.89	7.175	
3,700.00	3,691.28	3,710.33	3,707.79	12.90	12.87	154.33	29.74	-72.40	180.33	154.75	25.58	7.050	
3,800.00	3,790.69	3,810.33	3,807.29	13.27	13.23	154.60	20.61	-76.30	180.90	154.62	26.28	6.883	
3,900.00	3,890.11	3,910.32	3,906.79	13.64	13.58	154.86	11.48	-80.20	181.49	154.50	26.99	6.725	
4,000.00	3,989.53	4,010.32	4,006.29	14.02	13.94	155.12	2.35	-84.10	182.07	154.38	27.69	6.574	
4,100.00	4,088.94	4,110.31	4,105.79	14.39	14.30	155.38	-6.77	-87.99	182.66	154.26	28.40	6.431	
4,200.00	4,188.36	4,210.31	4,205.29	14.76	14.65	155.64	-15.90	-91.89	183.25	154.14	29.11	6.295	
4,300.00	4,287.78	4,310.30	4,304.79	15.14	15.02	155.90	-25.03	-95.79	183.85	154.03	29.82	6.165	
4,400.00	4,387.19	4,410.30	4,404.29	15.51	15.38	156.15	-34.16	-99.69	184.45	153.92	30.53	6.041	
4,500.00	4,486.61	4,510.29	4,503.79	15.89	15.74	156.40	-43.29	-103.59	185.05	153.81	31.24	5.923	
4,600.00	4,586.02	4,610.29	4,603.29	16.27	16.10	156.66	-52.42	-107.49	185.66	153.70	31.96	5.809	
4,700.00	4,685.44	4,710.28	4,702.79	16.64	16.47	156.91	-61.55	-111.39	186.27	153.60	32.67	5.701	
4,800.00	4,784.86	4,810.28	4,802.30	17.02	16.84	157.15	-70.68	-115.29	186.88	153.50	33.39	5.597	
4,900.00	4,884.27	4,910.27	4,901.80	17.40	17.20	157.40	-79.81	-119.19	187.50	153.40	34.10	5.498	
5,000.00	4,983.69	5,010.27	5,001.30	17.78	17.57	157.65	-88.94	-123.08	188.12	153.30	34.82	5.403	
5,100.00	5,083.10	5,110.26	5,100.80	18.16	17.94	157.89	-98.07	-126.98	188.75	153.21	35.54	5.311	

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #134H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	5,182.52	5,210.26	5,200.30	18.54	18.31	158.13	-107.20	-130.88	189.37	153.12	36.25	5.224		
5,300.00	5,281.94	5,310.25	5,299.80	18.92	18.68	158.37	-116.33	-134.78	190.00	153.03	36.97	5.139		
5,400.00	5,381.35	5,410.25	5,399.30	19.30	19.05	158.61	-125.46	-138.68	190.64	152.95	37.69	5.058		
5,500.00	5,480.77	5,510.24	5,498.80	19.68	19.42	158.85	-134.59	-142.58	191.28	152.87	38.41	4.980		
5,600.00	5,580.18	5,610.24	5,598.30	20.07	19.79	159.08	-143.72	-146.48	191.92	152.79	39.13	4.905		
5,700.00	5,679.60	5,710.23	5,697.80	20.45	20.16	159.32	-152.85	-150.38	192.56	152.72	39.85	4.833		
5,800.00	5,779.02	5,810.23	5,797.30	20.83	20.54	159.55	-161.98	-154.27	193.21	152.64	40.57	4.763		
5,900.00	5,878.43	5,910.22	5,896.81	21.21	20.91	159.78	-171.11	-158.17	193.86	152.57	41.29	4.696		
6,000.00	5,977.85	6,010.22	5,996.31	21.60	21.28	160.01	-180.24	-162.07	194.51	152.51	42.01	4.631		
6,100.00	6,077.26	6,110.21	6,095.81	21.98	21.66	160.23	-189.36	-165.97	195.17	152.44	42.73	4.568		
6,200.00	6,176.68	6,210.21	6,195.31	22.36	22.03	160.46	-198.49	-169.87	195.83	152.38	43.45	4.507		
6,300.00	6,276.10	6,310.20	6,294.81	22.75	22.41	160.69	-207.62	-173.77	196.49	152.32	44.17	4.449		
6,400.00	6,375.51	6,410.20	6,394.31	23.13	22.78	160.91	-216.75	-177.67	197.16	152.27	44.89	4.392		
6,500.00	6,474.93	6,510.19	6,493.81	23.51	23.16	161.13	-225.88	-181.57	197.83	152.21	45.61	4.337		
6,600.00	6,574.34	6,610.19	6,593.31	23.90	23.54	161.35	-235.01	-185.47	198.50	152.16	46.34	4.284		
6,700.00	6,673.76	6,710.18	6,692.81	24.28	23.91	161.57	-244.14	-189.36	199.17	152.12	47.06	4.233		
6,800.00	6,773.18	6,810.18	6,792.31	24.67	24.29	161.79	-253.27	-193.26	199.85	152.07	47.78	4.183		
6,900.00	6,872.59	6,910.17	6,891.81	25.05	24.67	162.00	-262.40	-197.16	200.53	152.03	48.50	4.134		
7,000.00	6,972.04	7,010.17	6,991.32	25.44	25.04	162.19	-271.53	-201.06	200.96	151.73	49.22	4.082		
7,100.00	7,071.74	7,110.13	7,090.79	25.81	25.42	162.12	-280.66	-204.96	198.67	148.72	49.95	3.978		
7,200.00	7,171.64	7,209.96	7,190.13	26.17	25.80	161.70	-289.77	-208.85	193.07	142.40	50.67	3.810		
7,300.00	7,271.62	7,309.51	7,289.18	26.50	26.17	-83.62	-298.86	-212.73	184.24	132.86	51.39	3.586		
7,400.00	7,370.53	7,407.39	7,386.58	26.81	26.54	-90.01	-307.80	-216.55	174.00	121.85	52.15	3.336		
7,500.00	7,469.54	7,506.73	7,479.46	27.08	26.90	-101.58	-316.32	-220.19	168.12	115.09	53.04	3.170		
7,503.24	7,468.52	7,503.65	7,482.36	27.09	26.91	-102.02	-316.59	-220.30	168.12	115.05	53.07	3.168 SF		
7,600.00	7,553.76	7,586.69	7,564.99	27.31	27.22	-115.26	-324.17	-223.54	176.86	122.85	54.01	3.274		
7,700.00	7,632.50	7,662.66	7,640.58	27.50	27.51	-126.73	-331.10	-226.50	208.94	154.10	54.84	3.810		
7,800.00	7,699.38	7,726.32	7,703.93	27.64	27.75	-133.63	-336.91	-228.98	264.68	209.31	55.37	4.780		
7,900.00	7,752.37	7,775.65	7,753.04	27.75	27.94	-135.21	-341.19	-230.81	338.66	282.99	55.67	6.083		
8,000.00	7,789.84	7,810.24	7,787.52	28.10	28.07	-130.11	-343.74	-231.90	424.90	369.07	55.83	7.610		
8,100.00	7,810.68	7,828.64	7,805.87	28.74	28.13	-112.57	-344.94	-232.41	518.49	462.61	55.88	9.278		
8,200.00	7,815.00	7,830.36	7,807.59	29.51	28.14	-86.88	-345.05	-232.46	615.42	559.56	55.86	11.017		
8,300.00	7,815.00	7,827.59	7,804.83	30.43	28.13	-85.73	-344.88	-232.39	713.28	657.46	55.82	12.777		
8,400.00	7,815.00	7,824.73	7,801.98	31.49	28.12	-84.54	-344.70	-232.31	811.65	755.86	55.80	14.547		
8,500.00	7,815.00	7,821.79	7,799.04	32.67	28.11	-83.33	-344.51	-232.23	910.37	854.60	55.77	16.323		
8,600.00	7,815.00	7,818.76	7,796.02	33.97	28.10	-82.10	-344.31	-232.14	1,009.33	953.58	55.76	18.103		
8,700.00	7,815.00	7,815.64	7,792.91	35.37	28.09	-80.83	-344.11	-232.06	1,108.48	1,052.73	55.74	19.886		
8,800.00	7,815.00	7,812.42	7,789.70	36.86	28.08	-79.54	-343.89	-231.96	1,207.75	1,152.02	55.73	21.672		
8,900.00	7,815.00	10,200.88	9,110.00	38.43	42.02	-179.96	-481.59	1,067.55	1,295.00	1,260.01	34.99	37.014		
9,000.00	7,815.00	10,300.88	9,110.00	40.08	43.53	-179.96	-481.72	1,167.55	1,295.00	1,259.11	35.89	36.086		
9,100.00	7,815.00	10,400.88	9,110.00	41.78	45.11	-179.96	-481.85	1,267.55	1,295.00	1,258.17	36.83	35.160		
9,200.00	7,815.00	10,500.88	9,110.00	43.54	46.75	-179.96	-481.97	1,367.55	1,295.00	1,257.18	37.82	34.243		
9,300.00	7,815.00	10,600.88	9,110.00	45.35	48.45	-179.96	-482.10	1,467.55	1,295.00	1,256.16	38.84	33.340		
9,400.00	7,815.00	10,700.88	9,110.00	47.20	50.19	-179.96	-482.22	1,567.55	1,295.00	1,255.10	39.90	32.455		
9,500.00	7,815.00	10,800.88	9,110.00	49.10	51.98	-179.96	-482.35	1,667.55	1,295.00	1,254.01	40.99	31.590		
9,600.00	7,815.00	10,900.88	9,110.00	51.02	53.81	-179.96	-482.47	1,767.55	1,295.00	1,252.88	42.12	30.748		
9,700.00	7,815.00	11,000.88	9,110.00	52.98	55.67	-179.96	-482.60	1,867.55	1,295.00	1,251.73	43.27	29.931		
9,800.00	7,815.00	11,100.88	9,110.00	54.96	57.56	-179.96	-482.72	1,967.55	1,295.00	1,250.56	44.44	29.139		
9,900.00	7,815.00	11,200.88	9,110.00	56.97	59.49	-179.96	-482.85	2,067.55	1,295.00	1,249.36	45.64	28.374		
10,000.00	7,815.00	11,300.88	9,110.00	59.00	61.44	-179.96	-482.98	2,167.55	1,295.00	1,248.14	46.86	27.635		
10,100.00	7,815.00	11,400.88	9,110.00	61.05	63.41	-179.97	-483.10	2,267.55	1,295.00	1,246.90	48.10	26.922		
10,200.00	7,815.00	11,500.88	9,110.00	63.11	65.41	-179.97	-483.23	2,367.55	1,295.00	1,245.64	49.36	26.235		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #134H - OH - Prelim B												Offset Site Error:	0.00 usft
Survey Program: 0-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 Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,300.00	7,815.00	11,600.88	9,110.00	65.20	67.42	-179.97	-483.35	2,467.55	1,295.00	1,244.36	50.64	25.574	
10,400.00	7,815.00	11,700.88	9,110.00	67.29	69.46	-179.97	-483.48	2,567.55	1,295.00	1,243.07	51.93	24.938	
10,500.00	7,815.00	11,800.88	9,110.00	69.41	71.51	-179.97	-483.60	2,667.55	1,295.00	1,241.76	53.24	24.325	
10,600.00	7,815.00	11,900.88	9,110.00	71.53	73.57	-179.97	-483.73	2,767.55	1,295.00	1,240.44	54.56	23.736	
10,700.00	7,815.00	12,000.88	9,110.00	73.66	75.65	-179.97	-483.86	2,867.55	1,295.00	1,239.11	55.89	23.170	
10,800.00	7,815.00	12,100.88	9,110.00	75.81	77.75	-179.97	-483.98	2,967.55	1,295.00	1,237.76	57.24	22.625	
10,900.00	7,815.00	12,200.88	9,110.00	77.96	79.85	-179.97	-484.11	3,067.55	1,295.00	1,236.41	58.59	22.101	
11,000.00	7,815.00	12,300.88	9,110.00	80.13	81.97	-179.97	-484.23	3,167.55	1,295.00	1,235.04	59.96	21.597	
11,100.00	7,815.00	12,400.88	9,110.00	82.30	84.09	-179.97	-484.36	3,267.55	1,295.00	1,233.66	61.34	21.113	
11,200.00	7,815.00	12,500.88	9,110.00	84.47	86.23	-179.97	-484.48	3,367.55	1,295.00	1,232.28	62.72	20.646	
11,300.00	7,815.00	12,600.88	9,110.00	86.66	88.37	-179.97	-484.61	3,467.55	1,295.00	1,230.88	64.12	20.197	
11,400.00	7,815.00	12,700.88	9,110.00	88.85	90.52	-179.97	-484.73	3,567.55	1,295.00	1,229.48	65.52	19.765	
11,500.00	7,815.00	12,800.88	9,110.00	91.04	92.68	-179.97	-484.86	3,667.55	1,295.00	1,228.07	66.93	19.349	
11,600.00	7,815.00	12,900.88	9,110.00	93.25	94.85	-179.97	-484.99	3,767.55	1,295.00	1,226.66	68.34	18.948	
11,700.00	7,815.00	13,000.88	9,110.00	95.45	97.02	-179.97	-485.11	3,867.55	1,295.00	1,225.23	69.77	18.562	
11,800.00	7,815.00	13,100.88	9,110.00	97.67	99.20	-179.97	-485.24	3,967.55	1,295.00	1,223.80	71.20	18.189	
11,900.00	7,815.00	13,200.88	9,110.00	99.88	101.39	-179.97	-485.36	4,067.55	1,295.00	1,222.37	72.63	17.830	
12,000.00	7,815.00	13,300.88	9,110.00	102.10	103.58	-179.97	-485.49	4,167.55	1,295.00	1,220.93	74.07	17.483	
12,100.00	7,815.00	13,400.88	9,110.00	104.33	105.77	-179.97	-485.61	4,267.55	1,295.00	1,219.48	75.52	17.149	
12,200.00	7,815.00	13,500.88	9,110.00	106.55	107.97	-179.97	-485.74	4,367.55	1,295.00	1,218.03	76.97	16.825	
12,300.00	7,815.00	13,600.88	9,110.00	108.78	110.16	-179.97	-485.86	4,467.55	1,295.00	1,216.58	78.42	16.513	
12,400.00	7,815.00	13,700.88	9,110.00	111.02	112.38	-179.98	-485.99	4,567.55	1,295.00	1,215.12	79.88	16.212	
12,500.00	7,815.00	13,800.88	9,110.00	113.25	114.60	-179.98	-486.12	4,667.55	1,295.00	1,213.66	81.34	15.920	
12,600.00	7,815.00	13,900.88	9,110.00	115.49	116.81	-179.98	-486.24	4,767.55	1,295.00	1,212.19	82.81	15.638	
12,700.00	7,815.00	14,000.88	9,110.00	117.74	119.03	-179.98	-486.37	4,867.55	1,295.00	1,210.72	84.28	15.365	
12,800.00	7,815.00	14,100.88	9,110.00	119.98	121.25	-179.98	-486.49	4,967.55	1,295.00	1,209.24	85.76	15.101	
12,900.00	7,815.00	14,200.88	9,110.00	122.23	123.48	-179.98	-486.62	5,067.55	1,295.00	1,207.77	87.23	14.845	
13,000.00	7,815.00	14,300.88	9,110.00	124.48	125.71	-179.98	-486.74	5,167.55	1,295.00	1,206.29	88.71	14.598	
13,100.00	7,815.00	14,400.88	9,110.00	126.73	127.94	-179.98	-486.87	5,267.55	1,295.00	1,204.80	90.20	14.357	
13,200.00	7,815.00	14,500.88	9,110.00	128.98	130.18	-179.98	-486.99	5,367.55	1,295.00	1,203.32	91.68	14.125	
13,300.00	7,815.00	14,600.88	9,110.00	131.24	132.41	-179.98	-487.12	5,467.55	1,295.00	1,201.83	93.17	13.899	
13,400.00	7,815.00	14,700.88	9,110.00	133.50	134.65	-179.98	-487.25	5,567.55	1,295.00	1,200.34	94.66	13.680	
13,500.00	7,815.00	14,800.88	9,110.00	135.76	136.89	-179.98	-487.37	5,667.55	1,295.00	1,198.84	96.16	13.467	
13,600.00	7,815.00	14,900.88	9,110.00	138.02	139.14	-179.98	-487.50	5,767.55	1,295.00	1,197.34	97.66	13.261	
13,700.00	7,815.00	15,000.88	9,110.00	140.28	141.38	-179.98	-487.62	5,867.55	1,295.00	1,195.85	99.15	13.060	
13,800.00	7,815.00	15,100.88	9,110.00	142.54	143.63	-179.98	-487.75	5,967.55	1,295.00	1,194.34	100.66	12.866	
13,900.00	7,815.00	15,200.88	9,110.00	144.81	145.88	-179.98	-487.87	6,067.55	1,295.00	1,192.84	102.16	12.676	
14,000.00	7,815.00	15,300.88	9,110.00	147.07	148.13	-179.98	-488.00	6,167.55	1,295.00	1,191.34	103.66	12.492	
14,100.00	7,815.00	15,400.88	9,110.00	149.34	150.39	-179.98	-488.13	6,267.55	1,295.00	1,189.83	105.17	12.313	
14,200.00	7,815.00	15,500.88	9,110.00	151.61	152.64	-179.98	-488.25	6,367.55	1,295.00	1,188.32	106.68	12.139	
14,300.00	7,815.00	15,600.88	9,110.00	153.88	154.90	-179.98	-488.38	6,467.55	1,295.00	1,186.81	108.19	11.970	
14,400.00	7,815.00	15,700.88	9,110.00	156.15	157.16	-179.98	-488.50	6,567.55	1,295.00	1,185.30	109.70	11.805	
14,500.00	7,815.00	15,800.88	9,110.00	158.42	159.41	-179.98	-488.63	6,667.55	1,295.00	1,183.79	111.21	11.644	
14,600.00	7,815.00	15,900.88	9,110.00	160.70	161.68	-179.98	-488.75	6,767.55	1,295.00	1,182.27	112.73	11.488	
14,700.00	7,815.00	16,000.88	9,110.00	162.97	163.94	-179.99	-488.88	6,867.55	1,295.00	1,180.75	114.25	11.335	
14,800.00	7,815.00	16,100.88	9,110.00	165.25	166.20	-179.99	-489.00	6,967.55	1,295.00	1,179.24	115.76	11.186	
14,900.00	7,815.00	16,200.88	9,110.00	167.52	168.47	-179.99	-489.13	7,067.55	1,295.00	1,177.72	117.28	11.042	
15,000.00	7,815.00	16,300.88	9,110.00	169.80	170.73	-179.99	-489.26	7,167.55	1,295.00	1,176.20	118.80	10.900	
15,100.00	7,815.00	16,400.88	9,110.00	172.08	173.00	-179.99	-489.38	7,267.55	1,295.00	1,174.67	120.33	10.762	
15,200.00	7,815.00	16,500.88	9,110.00	174.36	175.27	-179.99	-489.51	7,367.55	1,295.00	1,173.15	121.85	10.628	
15,300.00	7,815.00	16,600.88	9,110.00	176.64	177.54	-179.99	-489.63	7,467.55	1,295.00	1,171.63	123.37	10.497	
15,400.00	7,815.00	16,700.88	9,110.00	178.92	179.81	-179.99	-489.76	7,567.55	1,295.00	1,170.10	124.90	10.368	

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #134H - OH - Prelim B													Offset Site Error: 0.00 usft	
Survey Program: 0-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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,500.00	7,815.00	16,800.88	9,110.00	181.20	182.08	-179.99	-489.88	7,667.55	1,295.00	1,168.57	126.43	10.243		
15,600.00	7,815.00	16,900.88	9,110.00	183.48	184.35	-179.99	-490.01	7,767.55	1,295.00	1,167.05	127.95	10.121		
15,700.00	7,815.00	17,000.88	9,110.00	185.76	186.62	-179.99	-490.13	7,867.55	1,295.00	1,165.52	129.48	10.001		
15,800.00	7,815.00	17,100.88	9,110.00	188.04	188.89	-179.99	-490.26	7,967.55	1,295.00	1,163.99	131.01	9.885		
15,900.00	7,815.00	17,200.88	9,110.00	190.33	191.17	-179.99	-490.39	8,067.55	1,295.00	1,162.46	132.54	9.770		
16,000.00	7,815.00	17,300.88	9,110.00	192.61	193.44	-179.99	-490.51	8,167.55	1,295.00	1,160.93	134.07	9.659		
16,100.00	7,815.00	17,400.88	9,110.00	194.89	195.72	-179.99	-490.64	8,267.55	1,295.00	1,159.39	135.61	9.550		
16,200.00	7,815.00	17,500.88	9,110.00	197.18	198.00	-179.99	-490.76	8,367.55	1,295.00	1,157.86	137.14	9.443		
16,300.00	7,815.00	17,600.88	9,110.00	199.47	200.27	-179.99	-490.89	8,467.55	1,295.00	1,156.33	138.67	9.339		
16,400.00	7,815.00	17,700.88	9,110.00	201.75	202.55	-179.99	-491.01	8,567.55	1,295.00	1,154.79	140.21	9.236		
16,500.00	7,815.00	17,800.88	9,110.00	204.04	204.83	-179.99	-491.14	8,667.55	1,295.00	1,153.26	141.74	9.136		
16,600.00	7,815.00	17,900.88	9,110.00	206.33	207.11	-179.99	-491.27	8,767.55	1,295.00	1,151.72	143.28	9.038		
16,700.00	7,815.00	18,000.88	9,110.00	208.61	209.39	-179.99	-491.39	8,867.55	1,295.00	1,150.18	144.82	8.942		
16,800.00	7,815.00	18,100.88	9,110.00	210.90	211.67	-179.99	-491.52	8,967.55	1,295.00	1,148.65	146.35	8.848		
16,900.00	7,815.00	18,200.88	9,110.00	213.19	213.95	-180.00	-491.64	9,067.55	1,295.00	1,147.11	147.89	8.756		
17,000.00	7,815.00	18,300.88	9,110.00	215.48	216.24	-180.00	-491.77	9,167.55	1,295.00	1,145.57	149.43	8.666		
17,100.00	7,815.00	18,400.88	9,110.00	217.77	218.52	-180.00	-491.89	9,267.55	1,295.00	1,144.03	150.97	8.578		
17,200.00	7,815.00	18,500.88	9,110.00	220.06	220.80	-180.00	-492.02	9,367.55	1,295.00	1,142.49	152.51	8.491		
17,295.46	7,815.00	18,605.42	9,110.00	222.24	223.19	-180.00	-492.14	9,463.01	1,295.00	1,140.95	154.05	8.406		
17,300.00	7,815.00	18,600.88	9,110.00	222.35	223.08	-180.00	-492.14	9,467.55	1,295.00	1,140.95	154.05	8.406		
17,400.00	7,815.00	18,700.88	9,110.00	224.64	225.37	-180.00	-492.27	9,567.55	1,295.00	1,139.41	155.59	8.323		
17,500.00	7,815.00	18,800.88	9,110.00	226.93	227.65	-180.00	-492.40	9,667.55	1,295.00	1,137.87	157.13	8.241		
17,600.00	7,815.00	18,900.88	9,110.00	229.22	229.94	-180.00	-492.52	9,767.55	1,295.00	1,136.32	158.68	8.161		
17,700.00	7,815.00	19,000.88	9,110.00	231.51	232.22	-180.00	-492.65	9,867.55	1,295.00	1,134.78	160.22	8.083		
17,800.00	7,815.00	19,100.88	9,110.00	233.80	234.51	-180.00	-492.77	9,967.55	1,295.00	1,133.24	161.76	8.006		
17,900.00	7,815.00	19,199.12	9,110.00	236.10	236.76	-180.00	-492.90	10,067.55	1,295.00	1,131.71	163.29	7.930		
17,981.45	7,815.00	19,280.58	9,110.00	237.96	238.62	-180.00	-493.00	10,149.00	1,295.00	1,130.45	164.55	7.870		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #137H - OH - Prelim B													Offset Site Error: 0.00 usft
Survey Program: 0-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 +N/-S (usft)	Centre +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	-179.48	-110.00	-1.00	110.00				
100.00	100.00	100.00	100.00	0.13	0.13	-179.48	-110.00	-1.00	110.00	109.75	0.26	429.190	
200.00	200.00	200.00	200.00	0.49	0.49	-179.48	-110.00	-1.00	110.00	109.03	0.97	113.028	
300.00	300.00	300.00	300.00	0.85	0.85	-179.48	-110.00	-1.00	110.00	108.31	1.69	65.084	
400.00	400.00	400.00	400.00	1.20	1.20	-179.48	-110.00	-1.00	110.00	107.60	2.41	45.699	
500.00	500.00	500.00	500.00	1.56	1.56	-179.48	-110.00	-1.00	110.00	106.88	3.12	35.212	
600.00	600.00	600.00	600.00	1.92	1.92	-179.48	-110.00	-1.00	110.00	106.16	3.84	28.639	
700.00	700.00	700.00	700.00	2.28	2.28	-179.48	-110.00	-1.00	110.00	105.45	4.56	24.135	
800.00	800.00	800.00	800.00	2.64	2.64	-179.48	-110.00	-1.00	110.00	104.73	5.27	20.854	
900.00	900.00	900.00	900.00	3.00	3.00	-179.48	-110.00	-1.00	110.00	104.01	5.99	18.359	
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-179.48	-110.00	-1.00	110.00	103.30	6.71	16.397	
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	-179.48	-110.00	-1.00	110.00	102.58	7.43	14.814	
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	-179.48	-110.00	-1.00	110.00	101.86	8.14	13.510	
1,300.00	1,300.00	1,300.00	1,300.00	4.43	4.43	-179.48	-110.00	-1.00	110.00	101.14	8.86	12.416	
1,400.00	1,400.00	1,399.92	1,399.90	4.79	4.78	-178.57	-110.00	-2.74	110.03	100.47	9.57	11.500	
1,500.00	1,500.00	1,499.61	1,499.45	5.15	5.12	-175.87	-110.00	-7.95	110.29	100.02	10.27	10.739	
1,600.00	1,600.00	1,600.91	1,598.58	5.51	5.48	-171.63	-110.00	-16.18	111.19	100.21	10.98	10.126	
1,700.00	1,700.00	1,701.29	1,697.82	5.86	5.83	-167.26	-110.00	-24.86	112.80	101.10	11.69	9.648	
1,800.00	1,800.00	1,801.67	1,797.07	6.22	6.19	-163.04	-110.00	-33.54	115.04	102.63	12.40	9.274	
1,900.00	1,900.00	1,902.05	1,896.31	6.58	6.55	-159.00	-110.00	-42.23	117.88	104.77	13.12	8.986	
2,000.00	2,000.00	2,002.43	1,995.55	6.94	6.91	-155.16	-110.00	-50.91	121.29	107.46	13.83	8.768	
2,100.00	2,099.98	2,099.21	2,096.81	7.28	7.26	2.58	-109.58	-59.71	123.09	108.57	14.52	8.475	
2,200.00	2,199.84	2,202.73	2,199.91	7.61	7.64	7.14	-105.97	-68.22	119.10	103.88	15.23	7.822	
2,300.00	2,299.45	2,305.16	2,301.77	7.94	8.02	13.33	-98.76	-76.11	109.38	93.46	15.92	6.871	
2,400.00	2,398.87	2,406.05	2,401.83	8.27	8.39	22.27	-88.12	-83.36	96.41	79.81	16.60	5.806	
2,500.00	2,498.29	2,503.88	2,498.63	8.61	8.75	34.36	-75.64	-90.07	84.92	67.63	17.29	4.911	
2,600.00	2,597.70	2,601.33	2,595.05	8.95	9.11	49.16	-63.17	-96.75	78.30	60.32	17.97	4.357	
2,657.29	2,654.65	2,657.16	2,650.28	9.15	9.31	58.38	-56.03	-100.57	77.23	58.88	18.36	4.207 CC, ES	
2,700.00	2,697.12	2,701.22	2,691.47	9.30	9.48	65.28	-50.70	-103.42	77.83	59.18	18.65	4.173 SF	
2,800.00	2,796.53	2,803.77	2,787.88	9.65	9.86	80.39	-38.24	-110.10	83.62	64.28	19.33	4.325	
2,900.00	2,895.95	2,906.32	2,884.30	10.00	10.25	92.89	-25.77	-116.77	94.52	74.49	20.03	4.720	
3,000.00	2,995.37	3,008.88	2,980.71	10.36	10.64	102.53	-13.30	-123.45	109.02	88.29	20.73	5.259	
3,100.00	3,094.78	3,088.57	3,077.13	10.71	10.94	109.81	-0.83	-130.12	125.87	104.51	21.36	5.893	
3,200.00	3,194.20	3,186.02	3,173.55	11.07	11.32	115.33	11.63	-136.79	144.25	122.20	22.06	6.540	
3,300.00	3,293.61	3,283.47	3,269.96	11.44	11.69	119.60	24.10	-143.47	163.66	140.89	22.76	7.190	
3,400.00	3,393.03	3,380.91	3,366.38	11.80	12.07	122.95	36.57	-150.14	183.75	160.28	23.47	7.829	
3,500.00	3,492.45	3,478.36	3,462.79	12.17	12.45	125.65	49.04	-156.82	204.34	180.16	24.18	8.451	
3,600.00	3,591.86	3,575.81	3,559.21	12.53	12.83	127.85	61.51	-163.49	225.29	200.40	24.89	9.051	
3,700.00	3,691.28	3,673.26	3,655.63	12.90	13.21	129.67	73.97	-170.17	246.50	220.89	25.60	9.628	
3,800.00	3,790.69	3,770.70	3,752.04	13.27	13.59	131.21	86.44	-176.84	267.91	241.59	26.32	10.180	
3,900.00	3,890.11	3,868.15	3,848.46	13.64	13.97	132.52	98.91	-183.52	289.48	262.44	27.03	10.709	
4,000.00	3,989.53	3,965.60	3,944.87	14.02	14.35	133.65	111.38	-190.19	311.17	283.42	27.75	11.214	
4,100.00	4,088.94	4,063.05	4,041.29	14.39	14.74	134.63	123.84	-196.87	332.96	304.50	28.47	11.697	
4,200.00	4,188.36	4,160.49	4,137.71	14.76	15.12	135.49	136.31	-203.54	354.84	325.65	29.18	12.159	
4,300.00	4,287.78	4,257.94	4,234.12	15.14	15.50	136.25	148.78	-210.22	376.78	346.88	29.90	12.600	
4,400.00	4,387.19	4,362.76	4,337.90	15.51	15.92	136.99	161.74	-217.16	398.35	367.64	30.70	12.974	
4,500.00	4,486.61	4,476.80	4,451.29	15.89	16.35	137.82	172.46	-222.89	416.69	385.12	31.57	13.199	
4,600.00	4,586.02	4,592.24	4,566.46	16.27	16.78	138.72	179.25	-226.53	431.25	398.85	32.40	13.310	
4,700.00	4,685.44	4,708.71	4,682.88	16.64	17.19	139.71	181.95	-227.98	441.99	408.81	33.19	13.318	
4,800.00	4,784.86	4,810.68	4,784.86	17.02	17.53	140.62	182.00	-228.00	450.34	416.44	33.91	13.281	
4,900.00	4,884.27	4,910.10	4,884.27	17.40	17.87	141.47	182.00	-228.00	458.75	424.13	34.62	13.251	
5,000.00	4,983.69	5,009.52	4,983.69	17.78	18.21	142.29	182.00	-228.00	467.26	431.93	35.33	13.224	

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #137H - OH - Prelim B													Offset Site Error: 0.00 usft
Survey Program: 0-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
5,100.00	5,083.10	5,108.93	5,083.10	18.16	18.55	143.08	182.00	-228.00	475.86	439.82	36.05	13.201	
5,200.00	5,182.52	5,208.35	5,182.52	18.54	18.90	143.85	182.00	-228.00	484.55	447.79	36.76	13.181	
5,300.00	5,281.94	5,307.77	5,281.94	18.92	19.24	144.59	182.00	-228.00	493.32	455.85	37.47	13.164	
5,400.00	5,381.35	5,407.18	5,381.35	19.30	19.58	145.30	182.00	-228.00	502.18	463.99	38.19	13.150	
5,500.00	5,480.77	5,506.60	5,480.77	19.68	19.92	145.99	182.00	-228.00	511.10	472.20	38.90	13.138	
5,600.00	5,580.18	5,606.01	5,580.18	20.07	20.27	146.65	182.00	-228.00	520.10	480.48	39.62	13.129	
5,700.00	5,679.60	5,705.43	5,679.60	20.45	20.61	147.29	182.00	-228.00	529.16	488.83	40.33	13.121	
5,800.00	5,779.02	5,804.85	5,779.02	20.83	20.95	147.91	182.00	-228.00	538.29	497.24	41.04	13.115	
5,900.00	5,878.43	5,904.26	5,878.43	21.21	21.30	148.51	182.00	-228.00	547.47	505.72	41.76	13.111	
6,000.00	5,977.85	6,003.68	5,977.85	21.60	21.64	149.09	182.00	-228.00	556.72	514.25	42.47	13.108	
6,100.00	6,077.26	6,103.09	6,077.26	21.98	21.99	149.65	182.00	-228.00	566.02	522.83	43.18	13.107	
6,200.00	6,176.68	6,202.51	6,176.68	22.36	22.34	150.19	182.00	-228.00	575.37	531.47	43.90	13.107	
6,300.00	6,276.10	6,301.93	6,276.10	22.75	22.68	150.72	182.00	-228.00	584.77	540.16	44.61	13.108	
6,400.00	6,375.51	6,401.34	6,375.51	23.13	23.03	151.23	182.00	-228.00	594.22	548.89	45.33	13.110	
6,500.00	6,474.93	6,500.76	6,474.93	23.51	23.37	151.72	182.00	-228.00	603.71	557.67	46.04	13.113	
6,600.00	6,574.34	6,600.17	6,574.34	23.90	23.72	152.19	182.00	-228.00	613.25	566.49	46.75	13.116	
6,700.00	6,673.76	6,700.41	6,673.76	24.28	24.07	152.66	182.00	-228.00	622.83	575.35	47.47	13.120	
6,800.00	6,773.18	6,800.99	6,773.18	24.67	24.42	153.11	182.00	-228.00	632.44	584.25	48.19	13.124	
6,900.00	6,872.59	6,901.58	6,872.59	25.05	24.78	153.54	182.00	-228.00	642.10	593.19	48.91	13.129	
7,000.00	6,972.04	7,002.13	6,972.04	25.44	25.13	153.98	182.00	-228.00	651.54	601.92	49.63	13.129	
7,100.00	7,071.74	7,102.43	7,071.74	25.81	25.48	154.34	182.00	-228.00	658.47	608.12	50.34	13.080	
7,200.00	7,171.64	7,202.53	7,171.64	26.17	25.83	154.53	182.00	-228.00	662.26	611.21	51.05	12.973	
7,300.00	7,271.62	7,302.55	7,271.62	26.50	26.18	-89.53	182.00	-228.00	663.03	611.29	51.74	12.814	
7,355.00	7,326.33	7,352.16	7,326.33	26.67	26.35	-90.00	182.00	-228.00	663.01	610.92	52.09	12.728	
7,400.00	7,370.53	7,403.64	7,370.53	26.81	26.54	-90.70	182.00	-228.00	663.06	610.64	52.42	12.650	
7,500.00	7,465.54	7,508.63	7,465.54	27.08	26.90	-93.11	182.00	-228.00	664.16	611.07	53.09	12.510	
7,600.00	7,553.76	7,579.59	7,553.76	27.31	27.15	-96.21	182.00	-228.00	668.56	614.93	53.62	12.467	
7,700.00	7,632.50	7,658.33	7,632.50	27.50	27.43	-99.24	182.00	-228.00	679.20	625.01	54.19	12.534	
7,800.00	7,699.38	7,725.21	7,699.38	27.64	27.67	-101.38	182.00	-228.00	699.06	644.33	54.72	12.774	
7,900.00	7,752.37	7,778.19	7,752.37	27.75	27.85	-101.86	182.00	-228.00	730.32	675.09	55.23	13.224	
8,000.00	7,789.84	7,815.67	7,789.84	28.10	27.98	-100.00	182.00	-228.00	773.72	718.05	55.67	13.898	
8,100.00	7,810.68	7,836.51	7,810.68	28.74	28.06	-95.24	182.00	-228.00	828.30	772.28	56.02	14.785	
8,200.00	7,815.00	7,840.83	7,815.00	29.51	28.07	-90.00	182.00	-228.00	891.73	835.46	56.27	15.848	
8,300.00	7,815.00	7,840.83	7,815.00	30.43	28.07	-90.00	182.00	-228.00	961.48	905.01	56.47	17.027	
8,400.00	7,815.00	7,840.83	7,815.00	31.49	28.07	-90.00	182.00	-228.00	1,036.20	979.54	56.65	18.291	
8,500.00	7,815.00	7,840.83	7,815.00	32.67	28.07	-90.00	182.00	-228.00	1,114.88	1,058.07	56.81	19.623	
8,600.00	7,815.00	7,840.83	7,815.00	33.97	28.07	-90.00	182.00	-228.00	1,196.76	1,139.80	56.96	21.011	
8,700.00	7,815.00	7,840.83	7,815.00	35.37	28.07	-90.00	182.00	-228.00	1,281.21	1,224.12	57.08	22.444	
8,800.00	7,815.00	7,840.83	7,815.00	36.86	28.07	-90.00	182.00	-228.00	1,367.76	1,310.56	57.20	23.913	
8,900.00	7,815.00	10,186.23	9,110.00	38.43	42.11	-152.89	180.50	1,068.32	1,454.85	1,406.41	48.44	30.032	
9,000.00	7,815.00	10,286.23	9,110.00	40.08	43.61	-152.89	180.38	1,168.32	1,454.85	1,404.81	50.05	29.069	
9,100.00	7,815.00	10,386.23	9,110.00	41.78	45.18	-152.89	180.27	1,268.32	1,454.85	1,403.13	51.73	28.126	
9,200.00	7,815.00	10,486.23	9,110.00	43.54	46.82	-152.89	180.15	1,368.32	1,454.85	1,401.38	53.47	27.209	
9,300.00	7,815.00	10,586.23	9,110.00	45.35	48.51	-152.89	180.04	1,468.32	1,454.85	1,399.58	55.27	26.321	
9,400.00	7,815.00	10,686.23	9,110.00	47.20	50.24	-152.89	179.92	1,568.32	1,454.85	1,397.72	57.13	25.466	
9,500.00	7,815.00	10,786.23	9,110.00	49.10	52.02	-152.89	179.81	1,668.32	1,454.85	1,395.82	59.04	24.644	
9,600.00	7,815.00	10,886.23	9,110.00	51.02	53.85	-152.89	179.69	1,768.32	1,454.85	1,393.87	60.99	23.856	
9,700.00	7,815.00	10,986.23	9,110.00	52.98	55.70	-152.89	179.58	1,868.32	1,454.85	1,391.88	62.98	23.102	
9,800.00	7,815.00	11,086.23	9,110.00	54.96	57.59	-152.89	179.46	1,968.32	1,454.85	1,389.85	65.00	22.381	
9,900.00	7,815.00	11,186.23	9,110.00	56.97	59.51	-152.89	179.34	2,068.32	1,454.85	1,387.79	67.06	21.694	
10,000.00	7,815.00	11,286.23	9,110.00	59.00	61.46	-152.89	179.23	2,168.32	1,454.85	1,385.70	69.15	21.038	
10,100.00	7,815.00	11,386.23	9,110.00	61.05	63.43	-152.89	179.11	2,268.32	1,454.85	1,383.58	71.27	20.413	

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #137H - OH - Prelim B														Offset Site Error:	0.00 usft
Survey Program: 0-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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
10,200.00	7,815.00	11,486.23	9,110.00	63.11	65.43	-152.89	179.00	2,368.32	1,454.85	1,381.44	73.41	19.817			
10,300.00	7,815.00	11,586.23	9,110.00	65.20	67.44	-152.89	178.88	2,468.32	1,454.85	1,379.27	75.58	19.249			
10,400.00	7,815.00	11,686.23	9,110.00	67.29	69.47	-152.89	178.77	2,568.32	1,454.85	1,377.09	77.77	18.707			
10,500.00	7,815.00	11,786.23	9,110.00	69.41	71.52	-152.89	178.65	2,668.32	1,454.85	1,374.88	79.98	18.191			
10,600.00	7,815.00	11,886.23	9,110.00	71.53	73.58	-152.89	178.53	2,768.32	1,454.85	1,372.65	82.20	17.699			
10,700.00	7,815.00	11,986.23	9,110.00	73.66	75.66	-152.89	178.42	2,868.32	1,454.85	1,370.41	84.44	17.229			
10,800.00	7,815.00	12,086.23	9,110.00	75.81	77.75	-152.89	178.30	2,968.32	1,454.85	1,368.16	86.70	16.781			
10,900.00	7,815.00	12,186.23	9,110.00	77.96	79.85	-152.89	178.19	3,068.32	1,454.85	1,365.89	88.97	16.352			
11,000.00	7,815.00	12,286.23	9,110.00	80.13	81.97	-152.89	178.07	3,168.32	1,454.85	1,363.60	91.25	15.943			
11,100.00	7,815.00	12,386.23	9,110.00	82.30	84.09	-152.89	177.96	3,268.32	1,454.85	1,361.31	93.55	15.552			
11,200.00	7,815.00	12,486.23	9,110.00	84.47	86.22	-152.89	177.84	3,368.32	1,454.85	1,359.00	95.85	15.178			
11,300.00	7,815.00	12,586.23	9,110.00	86.66	88.37	-152.89	177.72	3,468.32	1,454.85	1,356.68	98.17	14.820			
11,400.00	7,815.00	12,686.23	9,110.00	88.85	90.52	-152.89	177.61	3,568.32	1,454.85	1,354.36	100.50	14.476			
11,500.00	7,815.00	12,786.23	9,110.00	91.04	92.67	-152.89	177.49	3,668.32	1,454.85	1,352.02	102.83	14.148			
11,600.00	7,815.00	12,886.23	9,110.00	93.25	94.84	-152.89	177.38	3,768.32	1,454.85	1,349.68	105.18	13.832			
11,700.00	7,815.00	12,986.23	9,110.00	95.45	97.01	-152.89	177.26	3,868.32	1,454.85	1,347.32	107.53	13.530			
11,800.00	7,815.00	13,086.23	9,110.00	97.67	99.19	-152.89	177.15	3,968.32	1,454.85	1,344.96	109.89	13.239			
11,900.00	7,815.00	13,186.23	9,110.00	99.88	101.37	-152.89	177.03	4,068.32	1,454.85	1,342.60	112.26	12.960			
12,000.00	7,815.00	13,286.23	9,110.00	102.10	103.56	-152.89	176.92	4,168.32	1,454.85	1,340.22	114.63	12.692			
12,100.00	7,815.00	13,386.23	9,110.00	104.33	105.76	-152.89	176.80	4,268.32	1,454.85	1,337.85	117.01	12.434			
12,200.00	7,815.00	13,486.23	9,110.00	106.55	107.95	-152.89	176.68	4,368.32	1,454.85	1,335.46	119.39	12.186			
12,300.00	7,815.00	13,586.23	9,110.00	108.78	110.16	-152.89	176.57	4,468.32	1,454.85	1,333.07	121.78	11.946			
12,400.00	7,815.00	13,686.23	9,110.00	111.02	112.37	-152.89	176.45	4,568.32	1,454.85	1,330.68	124.18	11.716			
12,500.00	7,815.00	13,786.23	9,110.00	113.25	114.58	-152.89	176.34	4,668.32	1,454.85	1,328.28	126.58	11.494			
12,600.00	7,815.00	13,886.23	9,110.00	115.49	116.79	-152.89	176.22	4,768.32	1,454.85	1,325.87	128.98	11.280			
12,700.00	7,815.00	13,986.23	9,110.00	117.74	119.01	-152.89	176.11	4,868.32	1,454.85	1,323.46	131.39	11.073			
12,800.00	7,815.00	14,086.23	9,110.00	119.98	121.23	-152.89	175.99	4,968.32	1,454.85	1,321.05	133.80	10.873			
12,900.00	7,815.00	14,186.23	9,110.00	122.23	123.46	-152.89	175.87	5,068.32	1,454.85	1,318.63	136.22	10.680			
13,000.00	7,815.00	14,286.23	9,110.00	124.48	125.69	-152.89	175.76	5,168.32	1,454.85	1,316.21	138.64	10.494			
13,100.00	7,815.00	14,386.23	9,110.00	126.73	127.92	-152.89	175.64	5,268.32	1,454.85	1,313.79	141.06	10.314			
13,200.00	7,815.00	14,486.23	9,110.00	128.98	130.15	-152.89	175.53	5,368.32	1,454.85	1,311.36	143.49	10.139			
13,300.00	7,815.00	14,586.23	9,110.00	131.24	132.39	-152.89	175.41	5,468.32	1,454.85	1,308.93	145.92	9.970			
13,400.00	7,815.00	14,686.23	9,110.00	133.50	134.63	-152.89	175.30	5,568.32	1,454.85	1,306.50	148.35	9.807			
13,500.00	7,815.00	14,786.23	9,110.00	135.76	136.87	-152.89	175.18	5,668.32	1,454.85	1,304.07	150.79	9.648			
13,600.00	7,815.00	14,886.23	9,110.00	138.02	139.11	-152.89	175.06	5,768.32	1,454.85	1,301.63	153.22	9.495			
13,700.00	7,815.00	14,986.23	9,110.00	140.28	141.36	-152.89	174.95	5,868.32	1,454.85	1,299.19	155.67	9.346			
13,800.00	7,815.00	15,086.23	9,110.00	142.54	143.60	-152.89	174.83	5,968.32	1,454.85	1,296.74	158.11	9.202			
13,900.00	7,815.00	15,186.23	9,110.00	144.81	145.85	-152.89	174.72	6,068.32	1,454.85	1,294.30	160.55	9.061			
14,000.00	7,815.00	15,286.23	9,110.00	147.07	148.10	-152.89	174.60	6,168.32	1,454.85	1,291.85	163.00	8.925			
14,100.00	7,815.00	15,386.23	9,110.00	149.34	150.36	-152.89	174.49	6,268.32	1,454.85	1,289.40	165.45	8.793			
14,200.00	7,815.00	15,486.23	9,110.00	151.61	152.61	-152.89	174.37	6,368.32	1,454.85	1,286.95	167.90	8.665			
14,300.00	7,815.00	15,586.23	9,110.00	153.88	154.87	-152.89	174.25	6,468.32	1,454.85	1,284.50	170.36	8.540			
14,400.00	7,815.00	15,686.23	9,110.00	156.15	157.12	-152.89	174.14	6,568.32	1,454.85	1,282.04	172.81	8.419			
14,500.00	7,815.00	15,786.23	9,110.00	158.42	159.38	-152.89	174.02	6,668.32	1,454.85	1,279.58	175.27	8.301			
14,600.00	7,815.00	15,886.23	9,110.00	160.70	161.64	-152.89	173.91	6,768.32	1,454.85	1,277.12	177.73	8.186			
14,700.00	7,815.00	15,986.23	9,110.00	162.97	163.91	-152.89	173.79	6,868.32	1,454.85	1,274.66	180.19	8.074			
14,800.00	7,815.00	16,086.23	9,110.00	165.25	166.17	-152.89	173.68	6,968.32	1,454.85	1,272.20	182.65	7.965			
14,900.00	7,815.00	16,186.23	9,110.00	167.52	168.43	-152.89	173.56	7,068.32	1,454.85	1,269.74	185.12	7.859			
15,000.00	7,815.00	16,286.23	9,110.00	169.80	170.70	-152.89	173.45	7,168.32	1,454.85	1,267.27	187.58	7.756			
15,100.00	7,815.00	16,386.23	9,110.00	172.08	172.97	-152.89	173.33	7,268.32	1,454.85	1,264.80	190.05	7.655			
15,200.00	7,815.00	16,486.23	9,110.00	174.36	175.23	-152.89	173.21	7,368.31	1,454.85	1,262.34	192.52	7.557			
15,300.00	7,815.00	16,586.23	9,110.00	176.64	177.50	-152.89	173.10	7,468.31	1,454.85	1,259.87	194.98	7.461			

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #137H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,400.00	7,815.00	16,686.23	9,110.00	178.92	179.77	-152.89	172.98	7,568.31	1,454.85	1,257.40	197.46	7.368		
15,500.00	7,815.00	16,786.23	9,110.00	181.20	182.04	-152.89	172.87	7,668.31	1,454.85	1,254.92	199.93	7.277		
15,600.00	7,815.00	16,886.23	9,110.00	183.48	184.31	-152.89	172.75	7,768.31	1,454.85	1,252.45	202.40	7.188		
15,700.00	7,815.00	16,986.23	9,110.00	185.76	186.59	-152.89	172.64	7,868.31	1,454.85	1,249.98	204.87	7.101		
15,800.00	7,815.00	17,086.23	9,110.00	188.04	188.86	-152.89	172.52	7,968.31	1,454.85	1,247.50	207.35	7.016		
15,900.00	7,815.00	17,186.23	9,110.00	190.33	191.13	-152.89	172.40	8,068.31	1,454.85	1,245.03	209.82	6.934		
16,000.00	7,815.00	17,286.23	9,110.00	192.61	193.41	-152.89	172.29	8,168.31	1,454.85	1,242.55	212.30	6.853		
16,100.00	7,815.00	17,386.23	9,110.00	194.89	195.68	-152.89	172.17	8,268.31	1,454.85	1,240.07	214.78	6.774		
16,200.00	7,815.00	17,486.23	9,110.00	197.18	197.96	-152.89	172.06	8,368.31	1,454.85	1,237.59	217.26	6.696		
16,300.00	7,815.00	17,586.23	9,110.00	199.47	200.24	-152.89	171.94	8,468.31	1,454.85	1,235.11	219.74	6.621		
16,400.00	7,815.00	17,686.23	9,110.00	201.75	202.52	-152.89	171.83	8,568.31	1,454.85	1,232.63	222.22	6.547		
16,500.00	7,815.00	17,786.23	9,110.00	204.04	204.79	-152.89	171.71	8,668.31	1,454.85	1,230.15	224.70	6.475		
16,600.00	7,815.00	17,886.23	9,110.00	206.33	207.07	-152.89	171.59	8,768.31	1,454.85	1,227.67	227.18	6.404		
16,700.00	7,815.00	17,986.23	9,110.00	208.61	209.35	-152.89	171.48	8,868.31	1,454.85	1,225.19	229.66	6.335		
16,800.00	7,815.00	18,086.23	9,110.00	210.90	211.63	-152.89	171.36	8,968.31	1,454.85	1,222.70	232.15	6.267		
16,900.00	7,815.00	18,186.23	9,110.00	213.19	213.92	-152.89	171.25	9,068.31	1,454.85	1,220.22	234.63	6.201		
17,000.00	7,815.00	18,286.23	9,110.00	215.48	216.20	-152.89	171.13	9,168.31	1,454.85	1,217.73	237.12	6.136		
17,100.00	7,815.00	18,386.23	9,110.00	217.77	218.48	-152.89	171.02	9,268.31	1,454.85	1,215.25	239.60	6.072		
17,200.00	7,815.00	18,486.23	9,110.00	220.06	220.76	-152.89	170.90	9,368.31	1,454.85	1,212.76	242.09	6.010		
17,300.00	7,815.00	18,586.23	9,110.00	222.35	223.05	-152.89	170.78	9,468.31	1,454.85	1,210.27	244.58	5.948		
17,400.00	7,815.00	18,686.23	9,110.00	224.64	225.33	-152.89	170.67	9,568.31	1,454.85	1,207.79	247.07	5.889		
17,500.00	7,815.00	18,786.23	9,110.00	226.93	227.61	-152.89	170.55	9,668.31	1,454.85	1,205.30	249.55	5.830		
17,600.00	7,815.00	18,886.23	9,110.00	229.22	229.90	-152.89	170.44	9,768.31	1,454.85	1,202.81	252.04	5.772		
17,700.00	7,815.00	18,986.23	9,110.00	231.51	232.18	-152.89	170.32	9,868.31	1,454.85	1,200.32	254.53	5.716		
17,800.00	7,815.00	19,086.23	9,110.00	233.80	234.47	-152.89	170.21	9,968.31	1,454.85	1,197.83	257.02	5.660		
17,900.00	7,815.00	19,186.23	9,110.00	236.10	236.76	-152.89	170.09	10,068.31	1,454.85	1,195.34	259.51	5.606		
17,981.45	7,815.00	19,267.69	9,110.00	237.96	238.62	-152.89	170.00	10,149.77	1,454.85	1,193.31	261.54	5.563		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #138H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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		
0.00	0.00	0.00	0.00	0.00	0.00	-179.18	-140.00	-2.00	140.01					
100.00	100.00	100.00	100.00	0.13	0.13	-179.18	-140.00	-2.00	140.01	139.76	0.26	546.275		
200.00	200.00	200.00	200.00	0.49	0.49	-179.18	-140.00	-2.00	140.01	139.04	0.97	143.863		
300.00	300.00	300.00	300.00	0.85	0.85	-179.18	-140.00	-2.00	140.01	138.32	1.69	82.839		
400.00	400.00	400.00	400.00	1.20	1.20	-179.18	-140.00	-2.00	140.01	137.61	2.41	58.166		
500.00	500.00	500.00	500.00	1.56	1.56	-179.18	-140.00	-2.00	140.01	136.89	3.12	44.818		
600.00	600.00	600.00	600.00	1.92	1.92	-179.18	-140.00	-2.00	140.01	136.17	3.84	36.452		
700.00	700.00	700.00	700.00	2.28	2.28	-179.18	-140.00	-2.00	140.01	135.46	4.56	30.719		
800.00	800.00	800.00	800.00	2.64	2.64	-179.18	-140.00	-2.00	140.01	134.74	5.27	26.543		
900.00	900.00	900.00	900.00	3.00	3.00	-179.18	-140.00	-2.00	140.01	134.02	5.99	23.367		
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-179.18	-140.00	-2.00	140.01	133.31	6.71	20.870		
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	-179.18	-140.00	-2.00	140.01	132.59	7.43	18.855		
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	-179.18	-140.00	-2.00	140.01	131.87	8.14	17.195		
1,300.00	1,300.00	1,300.00	1,300.00	4.43	4.43	-179.18	-140.00	-2.00	140.01	131.15	8.86	15.804		
1,400.00	1,400.00	1,400.00	1,400.00	4.79	4.79	-179.18	-140.00	-2.00	140.01	130.44	9.58	14.621		
1,500.00	1,500.00	1,500.00	1,500.00	5.15	5.15	-179.18	-140.00	-2.00	140.01	129.72	10.29	13.602 CC, ES		
1,600.00	1,600.00	1,594.66	1,594.63	5.51	5.47	-179.02	-141.78	-2.43	141.90	130.94	10.97	12.937		
1,700.00	1,700.00	1,689.03	1,688.84	5.86	5.78	-178.56	-147.11	-3.71	147.58	135.96	11.62	12.704		
1,800.00	1,800.00	1,782.85	1,782.21	6.22	6.09	-177.86	-155.90	-5.82	157.02	144.77	12.25	12.820		
1,900.00	1,900.00	1,875.83	1,874.35	6.58	6.40	-177.02	-168.05	-8.74	170.22	157.36	12.86	13.232		
2,000.00	2,000.00	1,972.37	1,969.59	6.94	6.73	-176.12	-183.40	-12.44	186.32	172.80	13.52	13.780		
2,100.00	2,099.98	2,071.26	2,067.11	7.28	7.08	-21.45	-199.31	-16.26	201.06	186.86	14.19	14.167		
2,200.00	2,199.84	2,170.58	2,165.07	7.61	7.44	-21.19	-215.29	-20.10	212.58	197.72	14.86	14.310		
2,300.00	2,299.45	2,270.23	2,263.34	7.94	7.81	-21.29	-231.33	-23.96	220.87	205.34	15.53	14.224		
2,400.00	2,398.87	2,370.02	2,361.76	8.27	8.19	-21.63	-247.38	-27.82	227.24	211.03	16.21	14.021		
2,500.00	2,498.29	2,469.81	2,460.17	8.61	8.56	-21.96	-263.44	-31.68	233.60	216.71	16.89	13.827		
2,600.00	2,597.70	2,569.60	2,558.58	8.95	8.95	-22.27	-279.49	-35.54	239.97	222.38	17.59	13.646		
2,700.00	2,697.12	2,669.39	2,657.00	9.30	9.34	-22.56	-295.55	-39.40	246.35	228.06	18.28	13.475		
2,800.00	2,796.53	2,769.17	2,755.41	9.65	9.73	-22.84	-311.60	-43.26	252.73	233.75	18.98	13.314		
2,900.00	2,895.95	2,868.96	2,853.82	10.00	10.12	-23.11	-327.66	-47.12	259.12	239.43	19.69	13.162		
3,000.00	2,895.37	2,868.75	2,852.23	10.36	10.52	-23.36	-343.71	-50.98	265.51	245.12	20.39	13.019		
3,100.00	3,094.78	3,068.54	3,050.65	10.71	10.91	-23.60	-359.77	-54.84	271.91	250.81	21.10	12.884		
3,200.00	3,194.20	3,168.33	3,149.06	11.07	11.31	-23.83	-375.82	-58.70	278.31	256.50	21.82	12.756		
3,300.00	3,293.61	3,268.12	3,247.47	11.44	11.72	-24.05	-391.88	-62.56	284.72	262.19	22.53	12.636		
3,400.00	3,393.03	3,367.91	3,345.89	11.80	12.12	-24.26	-407.93	-66.42	291.13	267.88	23.25	12.521		
3,500.00	3,492.45	3,467.70	3,444.30	12.17	12.53	-24.46	-423.99	-70.28	297.55	273.58	23.97	12.413		
3,600.00	3,591.86	3,567.48	3,542.71	12.53	12.93	-24.66	-440.04	-74.14	303.97	279.27	24.69	12.310		
3,700.00	3,691.28	3,667.27	3,641.13	12.90	13.34	-24.84	-456.10	-78.00	310.39	284.97	25.42	12.212		
3,800.00	3,790.69	3,767.06	3,739.54	13.27	13.75	-25.02	-472.15	-81.86	316.81	290.67	26.14	12.119		
3,900.00	3,890.11	3,866.85	3,837.95	13.64	14.16	-25.19	-488.21	-85.72	323.24	296.37	26.87	12.030		
4,000.00	3,989.53	3,966.64	3,936.36	14.02	14.58	-25.35	-504.26	-89.58	329.67	302.08	27.60	11.946		
4,100.00	4,088.94	4,066.43	4,034.78	14.39	14.99	-25.51	-520.32	-93.44	336.11	307.78	28.33	11.865		
4,200.00	4,188.36	4,166.22	4,133.19	14.76	15.40	-25.66	-536.37	-97.31	342.54	313.48	29.06	11.788		
4,300.00	4,287.78	4,266.00	4,231.60	15.14	15.82	-25.81	-552.43	-101.17	348.98	319.19	29.79	11.715		
4,400.00	4,387.19	4,365.79	4,330.02	15.51	16.23	-25.95	-568.48	-105.03	355.42	324.90	30.52	11.645		
4,500.00	4,486.61	4,465.58	4,428.43	15.89	16.65	-26.08	-584.54	-108.89	361.86	330.61	31.26	11.577		
4,600.00	4,586.02	4,565.37	4,526.84	16.27	17.06	-26.21	-600.59	-112.75	368.31	336.31	31.99	11.513		
4,700.00	4,685.44	4,665.16	4,625.25	16.64	17.48	-26.34	-616.65	-116.61	374.75	342.02	32.73	11.451		
4,800.00	4,784.86	4,764.95	4,723.67	17.02	17.89	-26.46	-632.70	-120.47	381.20	347.74	33.46	11.391		
4,900.00	4,884.27	4,864.74	4,822.08	17.40	18.31	-26.58	-648.76	-124.33	387.65	353.45	34.20	11.334		
5,000.00	4,983.69	4,964.53	4,920.49	17.78	18.73	-26.69	-664.81	-128.19	394.10	359.16	34.94	11.280		
5,100.00	5,083.10	5,064.31	5,018.91	18.16	19.15	-26.80	-680.87	-132.05	400.55	364.87	35.68	11.227		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #138H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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)						
5,200.00	5,182.52	5,164.10	5,117.32	18.54	19.57	-26.91	-696.92	-135.91	407.01	370.59	36.42	11.176		
5,300.00	5,281.94	5,263.89	5,215.73	18.92	19.99	-27.01	-712.98	-139.77	413.46	376.30	37.16	11.127		
5,400.00	5,381.35	5,363.68	5,314.15	19.30	20.41	-27.11	-729.03	-143.63	419.92	382.02	37.90	11.080		
5,500.00	5,480.77	5,463.47	5,412.56	19.68	20.83	-27.21	-745.09	-147.49	426.38	387.74	38.64	11.035		
5,600.00	5,580.18	5,563.26	5,510.97	20.07	21.25	-27.30	-761.15	-151.35	432.84	393.45	39.38	10.991		
5,700.00	5,679.60	5,663.05	5,609.38	20.45	21.67	-27.40	-777.20	-155.21	439.30	399.17	40.12	10.949		
5,800.00	5,779.02	5,762.84	5,707.80	20.83	22.09	-27.49	-793.26	-159.07	445.76	404.89	40.87	10.908		
5,900.00	5,878.43	5,862.62	5,806.21	21.21	22.51	-27.57	-809.31	-162.93	452.22	410.61	41.61	10.868		
6,000.00	5,977.85	5,962.41	5,904.62	21.60	22.93	-27.66	-825.37	-166.79	458.68	416.33	42.35	10.830		
6,100.00	6,077.26	6,062.20	6,003.04	21.98	23.35	-27.74	-841.42	-170.65	465.15	422.05	43.10	10.793		
6,200.00	6,176.68	6,161.99	6,101.45	22.36	23.77	-27.82	-857.48	-174.51	471.61	427.77	43.84	10.758		
6,300.00	6,276.10	6,261.78	6,199.86	22.75	24.19	-27.89	-873.53	-178.37	478.08	433.49	44.58	10.723		
6,400.00	6,375.51	6,361.57	6,298.28	23.13	24.62	-27.97	-889.59	-182.23	484.54	439.21	45.33	10.689		
6,500.00	6,474.93	6,461.36	6,396.69	23.51	25.04	-28.04	-905.64	-186.09	491.01	444.94	46.08	10.657		
6,600.00	6,574.34	6,561.14	6,495.10	23.90	25.46	-28.11	-921.70	-189.95	497.48	450.66	46.82	10.625		
6,700.00	6,673.76	6,660.93	6,593.51	24.28	25.88	-28.18	-937.75	-193.81	503.95	456.38	47.57	10.595		
6,800.00	6,773.18	6,760.72	6,691.93	24.67	26.31	-28.25	-953.81	-197.67	510.42	462.11	48.31	10.565		
6,900.00	6,872.59	6,860.51	6,790.34	25.05	26.73	-28.32	-969.86	-201.53	516.89	467.83	49.06	10.536		
7,000.00	6,972.04	6,960.28	6,898.74	25.44	27.15	-28.39	-985.91	-205.39	523.60	473.79	49.81	10.513		
7,100.00	7,071.74	7,059.85	6,996.93	25.81	27.57	-28.38	-1,001.93	-209.25	532.81	482.26	50.54	10.542		
7,200.00	7,171.64	7,159.06	7,084.77	26.17	28.00	-28.23	-1,017.90	-213.08	545.07	493.81	51.26	10.633		
7,300.00	7,271.62	7,257.77	7,182.12	26.50	28.41	87.66	-1,033.78	-216.90	560.24	508.29	51.96	10.783		
7,400.00	7,370.53	7,354.78	7,277.80	26.81	28.83	87.86	-1,049.39	-220.66	575.89	523.31	52.57	10.954		
7,500.00	7,465.54	7,447.30	7,369.04	27.08	29.22	89.37	-1,064.27	-224.23	592.16	539.05	53.11	11.149		
7,600.00	7,553.76	7,532.49	7,453.06	27.31	29.58	91.51	-1,077.98	-227.53	611.21	557.59	53.62	11.399		
7,700.00	7,632.50	7,607.79	7,527.31	27.50	29.90	93.47	-1,090.09	-230.44	635.66	581.53	54.14	11.742		
7,800.00	7,699.38	7,670.89	7,589.55	27.64	30.17	94.42	-1,100.24	-232.88	667.94	613.21	54.73	12.205		
7,900.00	7,752.37	7,736.76	7,654.62	27.75	30.44	94.98	-1,110.14	-235.26	709.04	653.52	55.52	12.772		
8,000.00	7,789.84	7,784.99	7,702.43	28.10	30.64	93.19	-1,116.31	-236.75	759.05	702.73	56.32	13.477		
8,100.00	7,810.68	7,810.72	7,727.99	28.74	30.74	88.18	-1,119.23	-237.45	817.70	760.63	57.07	14.328		
8,200.00	7,815.00	7,813.21	7,730.46	29.51	30.75	82.46	-1,119.50	-237.51	883.20	825.49	57.71	15.303		
8,300.00	7,815.00	7,809.42	7,726.69	30.43	30.74	82.12	-1,119.09	-237.41	954.41	896.12	58.29	16.374		
8,400.00	7,815.00	7,805.52	7,722.82	31.49	30.72	81.77	-1,118.66	-237.31	1,030.41	971.60	58.80	17.523		
8,500.00	7,815.00	7,801.51	7,718.83	32.67	30.70	81.42	-1,118.22	-237.21	1,110.20	1,050.95	59.26	18.736		
8,600.00	7,815.00	7,797.38	7,714.73	33.97	30.69	81.05	-1,117.75	-237.09	1,193.04	1,133.39	59.65	20.002		
8,700.00	7,815.00	7,793.13	7,710.51	35.37	30.67	80.67	-1,117.27	-236.98	1,278.33	1,218.34	59.98	21.312		
8,800.00	7,815.00	7,788.75	7,706.16	36.86	30.65	80.29	-1,116.76	-236.85	1,365.60	1,305.33	60.27	22.657		
8,900.00	7,815.00	10,254.93	9,110.00	38.43	42.48	153.22	-1,136.01	1,066.55	1,450.55	1,406.17	44.38	32.683		
9,000.00	7,815.00	10,354.93	9,110.00	40.08	43.98	153.22	-1,136.17	1,166.55	1,450.57	1,404.59	45.98	31.548		
9,100.00	7,815.00	10,454.93	9,110.00	41.78	45.54	153.22	-1,136.32	1,266.55	1,450.59	1,402.93	47.65	30.440		
9,200.00	7,815.00	10,554.93	9,110.00	43.54	47.16	153.22	-1,136.48	1,366.55	1,450.60	1,401.20	49.40	29.364		
9,300.00	7,815.00	10,654.93	9,110.00	45.35	48.84	153.22	-1,136.63	1,466.55	1,450.62	1,399.41	51.21	28.326		
9,400.00	7,815.00	10,754.93	9,110.00	47.20	50.57	153.22	-1,136.78	1,566.55	1,450.64	1,397.56	53.08	27.330		
9,500.00	7,815.00	10,854.93	9,110.00	49.10	52.34	153.21	-1,136.94	1,666.55	1,450.65	1,395.66	55.00	26.376		
9,600.00	7,815.00	10,954.93	9,110.00	51.02	54.15	153.21	-1,137.09	1,766.55	1,450.67	1,393.71	56.96	25.466		
9,700.00	7,815.00	11,054.93	9,110.00	52.98	56.00	153.21	-1,137.24	1,866.55	1,450.69	1,391.72	58.97	24.599		
9,800.00	7,815.00	11,154.93	9,110.00	54.96	57.88	153.21	-1,137.40	1,966.54	1,450.71	1,389.69	61.02	23.775		
9,900.00	7,815.00	11,254.93	9,110.00	56.97	59.79	153.21	-1,137.55	2,066.54	1,450.72	1,387.63	63.10	22.992		
10,000.00	7,815.00	11,354.93	9,110.00	59.00	61.73	153.21	-1,137.71	2,166.54	1,450.74	1,385.53	65.21	22.248		
10,100.00	7,815.00	11,454.93	9,110.00	61.05	63.69	153.21	-1,137.86	2,266.54	1,450.76	1,383.41	67.35	21.542		
10,200.00	7,815.00	11,554.93	9,110.00	63.11	65.68	153.21	-1,138.01	2,366.54	1,450.78	1,381.27	69.51	20.871		
10,300.00	7,815.00	11,654.93	9,110.00	65.20	67.68	153.20	-1,138.17	2,466.54	1,450.79	1,379.10	71.70	20.235		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #138H - OH - Prelim B													Offset Site Error: 0.00 usft	
Survey Program: 0-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 Tooface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.00	7,815.00	11,754.93	9,110.00	67.29	69.71	153.20	-1,138.32	2,566.54	1,450.81	1,376.90	73.91	19.630		
10,500.00	7,815.00	11,854.93	9,110.00	69.41	71.75	153.20	-1,138.48	2,666.54	1,450.83	1,374.69	76.13	19.056		
10,600.00	7,815.00	11,954.93	9,110.00	71.53	73.81	153.20	-1,138.63	2,766.54	1,450.85	1,372.47	78.38	18.511		
10,700.00	7,815.00	12,054.93	9,110.00	73.66	75.88	153.20	-1,138.78	2,866.54	1,450.86	1,370.22	80.64	17.992		
10,800.00	7,815.00	12,154.93	9,110.00	75.81	77.96	153.20	-1,138.94	2,966.54	1,450.88	1,367.96	82.92	17.498		
10,900.00	7,815.00	12,254.93	9,110.00	77.96	80.06	153.20	-1,139.09	3,066.54	1,450.90	1,365.69	85.21	17.028		
11,000.00	7,815.00	12,354.93	9,110.00	80.13	82.17	153.19	-1,139.25	3,166.54	1,450.91	1,363.41	87.51	16.580		
11,100.00	7,815.00	12,454.93	9,110.00	82.30	84.29	153.19	-1,139.40	3,266.54	1,450.93	1,361.11	89.82	16.153		
11,200.00	7,815.00	12,554.93	9,110.00	84.47	86.41	153.19	-1,139.55	3,366.54	1,450.95	1,358.80	92.15	15.746		
11,300.00	7,815.00	12,654.93	9,110.00	86.66	88.55	153.19	-1,139.71	3,466.54	1,450.97	1,356.48	94.48	15.357		
11,400.00	7,815.00	12,754.93	9,110.00	88.85	90.70	153.19	-1,139.86	3,566.54	1,450.98	1,354.15	96.83	14.985		
11,500.00	7,815.00	12,854.93	9,110.00	91.04	92.85	153.19	-1,140.02	3,666.54	1,451.00	1,351.82	99.18	14.630		
11,600.00	7,815.00	12,954.93	9,110.00	93.25	95.01	153.19	-1,140.17	3,766.54	1,451.02	1,349.47	101.54	14.289		
11,700.00	7,815.00	13,054.93	9,110.00	95.45	97.18	153.18	-1,140.32	3,866.54	1,451.04	1,347.12	103.91	13.964		
11,800.00	7,815.00	13,154.93	9,110.00	97.67	99.35	153.18	-1,140.48	3,966.54	1,451.05	1,344.76	106.29	13.652		
11,900.00	7,815.00	13,254.93	9,110.00	99.88	101.53	153.18	-1,140.63	4,066.54	1,451.07	1,342.40	108.67	13.353		
12,000.00	7,815.00	13,354.93	9,110.00	102.10	103.72	153.18	-1,140.79	4,166.54	1,451.09	1,340.03	111.06	13.066		
12,100.00	7,815.00	13,454.93	9,110.00	104.33	105.91	153.18	-1,140.94	4,266.54	1,451.11	1,337.65	113.46	12.790		
12,200.00	7,815.00	13,554.93	9,110.00	106.55	108.10	153.18	-1,141.09	4,366.54	1,451.12	1,335.27	115.86	12.525		
12,300.00	7,815.00	13,654.93	9,110.00	108.78	110.30	153.18	-1,141.25	4,466.54	1,451.14	1,332.88	118.26	12.271		
12,400.00	7,815.00	13,754.93	9,110.00	111.02	112.51	153.18	-1,141.40	4,566.54	1,451.16	1,330.48	120.67	12.026		
12,500.00	7,815.00	13,854.93	9,110.00	113.25	114.72	153.17	-1,141.56	4,666.54	1,451.17	1,328.09	123.09	11.790		
12,600.00	7,815.00	13,954.93	9,110.00	115.49	116.93	153.17	-1,141.71	4,766.54	1,451.19	1,325.69	125.51	11.563		
12,700.00	7,815.00	14,054.93	9,110.00	117.74	119.15	153.17	-1,141.86	4,866.54	1,451.21	1,323.28	127.93	11.344		
12,800.00	7,815.00	14,154.93	9,110.00	119.98	121.36	153.17	-1,142.02	4,966.54	1,451.23	1,320.87	130.36	11.133		
12,900.00	7,815.00	14,254.93	9,110.00	122.23	123.59	153.17	-1,142.17	5,066.54	1,451.24	1,318.46	132.79	10.929		
13,000.00	7,815.00	14,354.93	9,110.00	124.48	125.81	153.17	-1,142.33	5,166.54	1,451.26	1,316.04	135.22	10.732		
13,100.00	7,815.00	14,454.93	9,110.00	126.73	128.04	153.17	-1,142.48	5,266.54	1,451.28	1,313.62	137.66	10.543		
13,200.00	7,815.00	14,554.93	9,110.00	128.98	130.27	153.16	-1,142.63	5,366.54	1,451.30	1,311.20	140.10	10.359		
13,300.00	7,815.00	14,654.93	9,110.00	131.24	132.51	153.16	-1,142.79	5,466.54	1,451.31	1,308.77	142.54	10.182		
13,400.00	7,815.00	14,754.93	9,110.00	133.50	134.74	153.16	-1,142.94	5,566.54	1,451.33	1,306.34	144.99	10.010		
13,500.00	7,815.00	14,854.93	9,110.00	135.76	136.98	153.16	-1,143.10	5,666.54	1,451.35	1,303.91	147.44	9.844		
13,600.00	7,815.00	14,954.93	9,110.00	138.02	139.22	153.16	-1,143.25	5,766.54	1,451.37	1,301.47	149.89	9.683		
13,700.00	7,815.00	15,054.93	9,110.00	140.28	141.47	153.16	-1,143.40	5,866.54	1,451.38	1,299.04	152.34	9.527		
13,800.00	7,815.00	15,154.93	9,110.00	142.54	143.71	153.16	-1,143.56	5,966.54	1,451.40	1,296.60	154.80	9.376		
13,900.00	7,815.00	15,254.93	9,110.00	144.81	145.96	153.16	-1,143.71	6,066.54	1,451.42	1,294.16	157.26	9.229		
14,000.00	7,815.00	15,354.93	9,110.00	147.07	148.21	153.15	-1,143.87	6,166.54	1,451.43	1,291.71	159.72	9.087		
14,100.00	7,815.00	15,454.93	9,110.00	149.34	150.46	153.15	-1,144.02	6,266.54	1,451.45	1,289.27	162.18	8.949		
14,200.00	7,815.00	15,554.93	9,110.00	151.61	152.71	153.15	-1,144.17	6,366.54	1,451.47	1,286.82	164.65	8.816		
14,300.00	7,815.00	15,654.93	9,110.00	153.88	154.97	153.15	-1,144.33	6,466.54	1,451.49	1,284.37	167.12	8.686		
14,400.00	7,815.00	15,754.93	9,110.00	156.15	157.22	153.15	-1,144.48	6,566.54	1,451.50	1,281.92	169.58	8.559		
14,500.00	7,815.00	15,854.93	9,110.00	158.42	159.48	153.15	-1,144.64	6,666.54	1,451.52	1,279.47	172.05	8.436		
14,600.00	7,815.00	15,954.93	9,110.00	160.70	161.74	153.15	-1,144.79	6,766.54	1,451.54	1,277.01	174.53	8.317		
14,700.00	7,815.00	16,054.93	9,110.00	162.97	164.00	153.14	-1,144.94	6,866.54	1,451.56	1,274.56	177.00	8.201		
14,800.00	7,815.00	16,154.93	9,110.00	165.25	166.26	153.14	-1,145.10	6,966.54	1,451.57	1,272.10	179.48	8.088		
14,900.00	7,815.00	16,254.93	9,110.00	167.52	168.52	153.14	-1,145.25	7,066.54	1,451.59	1,269.64	181.95	7.978		
15,000.00	7,815.00	16,354.93	9,110.00	169.80	170.79	153.14	-1,145.41	7,166.54	1,451.61	1,267.18	184.43	7.871		
15,100.00	7,815.00	16,454.93	9,110.00	172.08	173.05	153.14	-1,145.56	7,266.54	1,451.63	1,264.72	186.91	7.766		
15,200.00	7,815.00	16,554.93	9,110.00	174.36	175.32	153.14	-1,145.71	7,366.54	1,451.64	1,262.25	189.39	7.665		
15,300.00	7,815.00	16,654.93	9,110.00	176.64	177.58	153.14	-1,145.87	7,466.54	1,451.66	1,259.79	191.87	7.566		
15,400.00	7,815.00	16,754.93	9,110.00	178.92	179.85	153.13	-1,146.02	7,566.54	1,451.68	1,257.32	194.36	7.469		
15,500.00	7,815.00	16,854.93	9,110.00	181.20	182.12	153.13	-1,146.17	7,666.54	1,451.69	1,254.85	196.84	7.375		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #138H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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		
15,600.00	7,815.00	16,954.93	9,110.00	183.48	184.39	153.13	-1,146.33	7,766.54	1,451.71	1,252.39	199.33	7.283		
15,700.00	7,815.00	17,054.93	9,110.00	185.76	186.66	153.13	-1,146.48	7,866.54	1,451.73	1,249.92	201.81	7.193		
15,800.00	7,815.00	17,154.93	9,110.00	188.04	188.94	153.13	-1,146.64	7,966.54	1,451.75	1,247.45	204.30	7.106		
15,900.00	7,815.00	17,254.93	9,110.00	190.33	191.21	153.13	-1,146.79	8,066.54	1,451.76	1,244.97	206.79	7.020		
16,000.00	7,815.00	17,354.93	9,110.00	192.61	193.48	153.13	-1,146.94	8,166.54	1,451.78	1,242.50	209.28	6.937		
16,100.00	7,815.00	17,454.93	9,110.00	194.89	195.76	153.13	-1,147.10	8,266.54	1,451.80	1,240.03	211.77	6.856		
16,200.00	7,815.00	17,554.93	9,110.00	197.18	198.03	153.12	-1,147.25	8,366.54	1,451.82	1,237.55	214.26	6.776		
16,300.00	7,815.00	17,654.93	9,110.00	199.47	200.31	153.12	-1,147.41	8,466.54	1,451.83	1,235.08	216.76	6.698		
16,400.00	7,815.00	17,754.93	9,110.00	201.75	202.59	153.12	-1,147.56	8,566.54	1,451.85	1,232.60	219.25	6.622		
16,500.00	7,815.00	17,854.93	9,110.00	204.04	204.86	153.12	-1,147.71	8,666.54	1,451.87	1,230.12	221.74	6.547		
16,600.00	7,815.00	17,954.93	9,110.00	206.33	207.14	153.12	-1,147.87	8,766.54	1,451.89	1,227.65	224.24	6.475		
16,700.00	7,815.00	18,054.93	9,110.00	208.61	209.42	153.12	-1,148.02	8,866.54	1,451.90	1,225.17	226.74	6.403		
16,800.00	7,815.00	18,154.93	9,110.00	210.90	211.70	153.12	-1,148.18	8,966.54	1,451.92	1,222.69	229.23	6.334		
16,900.00	7,815.00	18,254.93	9,110.00	213.19	213.98	153.11	-1,148.33	9,066.54	1,451.94	1,220.21	231.73	6.266		
17,000.00	7,815.00	18,354.93	9,110.00	215.48	216.26	153.11	-1,148.48	9,166.54	1,451.96	1,217.72	234.23	6.199		
17,100.00	7,815.00	18,454.93	9,110.00	217.77	218.54	153.11	-1,148.64	9,266.54	1,451.97	1,215.24	236.73	6.133		
17,200.00	7,815.00	18,554.93	9,110.00	220.06	220.83	153.11	-1,148.79	9,366.54	1,451.99	1,212.76	239.23	6.069		
17,300.00	7,815.00	18,654.93	9,110.00	222.35	223.11	153.11	-1,148.95	9,466.54	1,452.01	1,210.28	241.73	6.007		
17,400.00	7,815.00	18,754.93	9,110.00	224.64	225.39	153.11	-1,149.10	9,566.54	1,452.02	1,207.79	244.23	5.945		
17,500.00	7,815.00	18,854.93	9,110.00	226.93	227.67	153.11	-1,149.25	9,666.54	1,452.04	1,205.31	246.74	5.885		
17,600.00	7,815.00	18,954.93	9,110.00	229.22	229.96	153.10	-1,149.41	9,766.54	1,452.06	1,202.82	249.24	5.826		
17,700.00	7,815.00	19,054.93	9,110.00	231.51	232.24	153.10	-1,149.56	9,866.54	1,452.08	1,200.33	251.74	5.768		
17,800.00	7,815.00	19,154.93	9,110.00	233.80	234.53	153.10	-1,149.72	9,966.53	1,452.09	1,197.85	254.25	5.711		
17,900.00	7,815.00	19,254.93	9,110.00	236.10	236.81	153.10	-1,149.87	10,066.53	1,452.11	1,195.36	256.75	5.656		
17,981.45	7,815.00	19,336.38	9,110.00	237.96	238.68	153.10	-1,150.00	10,147.99	1,452.13	1,193.33	258.79	5.611 SF		

Pro Directional Anticollision Report

Company: Matador Resources
Project: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #207H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-164.12	-109.00	-31.00	113.32					
100.00	100.00	100.00	100.00	0.13	0.13	-164.12	-109.00	-31.00	113.32	113.07	0.26	442.135		
200.00	200.00	200.00	200.00	0.49	0.49	-164.12	-109.00	-31.00	113.32	112.35	0.97	116.437		
300.00	300.00	300.00	300.00	0.85	0.85	-164.12	-109.00	-31.00	113.32	111.63	1.69	67.047		
400.00	400.00	400.00	400.00	1.20	1.20	-164.12	-109.00	-31.00	113.32	110.92	2.41	47.078		
500.00	500.00	500.00	500.00	1.56	1.56	-164.12	-109.00	-31.00	113.32	110.20	3.12	36.274		
600.00	600.00	600.00	600.00	1.92	1.92	-164.12	-109.00	-31.00	113.32	109.48	3.84	29.503		
700.00	700.00	700.00	700.00	2.28	2.28	-164.12	-109.00	-31.00	113.32	108.76	4.56	24.863		
800.00	800.00	800.00	800.00	2.64	2.64	-164.12	-109.00	-31.00	113.32	108.05	5.27	21.483		
900.00	900.00	900.00	900.00	3.00	3.00	-164.12	-109.00	-31.00	113.32	107.33	5.99	18.913		
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-164.12	-109.00	-31.00	113.32	106.61	6.71	16.892		
1,100.00	1,100.00	1,102.95	1,102.93	3.71	3.72	-163.48	-107.35	-31.83	112.01	104.57	7.43	15.067		
1,200.00	1,200.00	1,205.64	1,205.47	4.07	4.09	-161.47	-102.41	-34.32	108.15	99.99	8.15	13.262		
1,300.00	1,300.00	1,307.80	1,307.21	4.43	4.46	-157.81	-94.25	-38.43	102.04	93.17	8.87	11.501		
1,400.00	1,400.00	1,409.19	1,407.80	4.79	4.83	-151.99	-82.95	-44.13	94.28	84.69	9.59	9.830		
1,500.00	1,500.00	1,508.07	1,505.71	5.15	5.19	-144.50	-70.59	-50.35	86.90	76.58	10.32	8.418		
1,600.00	1,600.00	1,607.09	1,603.75	5.51	5.56	-135.81	-58.22	-56.59	81.27	70.21	11.06	7.349		
1,700.00	1,700.00	1,706.10	1,701.79	5.86	5.94	-126.12	-45.84	-62.82	77.79	65.99	11.80	6.594		
1,791.40	1,791.40	1,803.40	1,791.40	6.19	6.31	-116.74	-34.52	-68.52	76.73	64.23	12.50	6.140 CC		
1,800.00	1,800.00	1,805.12	1,799.83	6.22	6.31	-115.85	-33.46	-69.06	76.74	64.21	12.53	6.123 ES		
1,900.00	1,900.00	1,904.13	1,897.87	6.58	6.69	-105.64	-21.08	-75.30	78.22	64.96	13.26	5.898		
2,000.00	2,000.00	2,003.15	1,995.91	6.94	7.07	-96.09	-8.70	-81.53	82.10	68.12	13.98	5.872 SF		
2,100.00	2,099.98	2,102.00	2,093.79	7.28	7.46	67.28	3.65	-87.76	87.37	72.70	14.67	5.956		
2,200.00	2,199.84	2,200.43	2,191.25	7.61	7.84	77.37	15.96	-93.96	93.97	78.64	15.33	6.130		
2,300.00	2,299.45	2,301.68	2,288.18	7.94	8.24	87.71	28.20	-100.12	103.00	87.01	15.99	6.441		
2,400.00	2,398.87	2,404.15	2,384.75	8.27	8.64	97.29	40.39	-106.27	115.22	98.55	16.67	6.914		
2,500.00	2,498.29	2,506.63	2,481.31	8.61	9.04	104.94	52.58	-112.41	130.08	112.72	17.35	7.496		
2,600.00	2,597.70	2,609.10	2,577.87	8.95	9.44	110.98	64.77	-118.55	146.77	128.72	18.05	8.131		
2,700.00	2,697.12	2,688.42	2,674.44	9.30	9.76	115.76	76.96	-124.69	164.75	146.08	18.67	8.823		
2,800.00	2,796.53	2,785.95	2,771.00	9.65	10.14	119.60	89.15	-130.84	183.64	164.27	19.37	9.481		
2,900.00	2,895.95	2,883.47	2,867.57	10.00	10.53	122.72	101.34	-136.98	203.18	183.11	20.07	10.124		
3,000.00	2,995.37	2,980.99	2,964.13	10.36	10.91	125.28	113.53	-143.12	223.20	202.43	20.77	10.745		
3,100.00	3,094.78	3,078.52	3,060.69	10.71	11.30	127.43	125.73	-149.26	243.58	222.10	21.48	11.341		
3,200.00	3,194.20	3,176.04	3,157.26	11.07	11.69	129.25	137.92	-155.41	264.24	242.06	22.19	11.910		
3,300.00	3,293.61	3,273.56	3,253.82	11.44	12.07	130.80	150.11	-161.55	285.12	262.23	22.90	12.452		
3,400.00	3,393.03	3,371.09	3,350.38	11.80	12.46	132.14	162.30	-167.69	306.18	282.57	23.61	12.968		
3,500.00	3,492.45	3,468.61	3,446.95	12.17	12.85	133.31	174.49	-173.83	327.37	303.05	24.32	13.459		
3,600.00	3,591.86	3,566.13	3,543.51	12.53	13.24	134.33	186.68	-179.97	348.68	323.64	25.04	13.926		
3,700.00	3,691.28	3,663.66	3,640.07	12.90	13.63	135.24	198.87	-186.12	370.08	344.33	25.75	14.370		
3,800.00	3,790.69	3,761.18	3,736.64	13.27	14.02	136.05	211.06	-192.26	391.57	365.10	26.47	14.792		
3,900.00	3,890.11	3,858.70	3,833.20	13.64	14.41	136.77	223.25	-198.40	413.12	385.93	27.19	15.195		
4,000.00	3,989.53	3,956.23	3,929.76	14.02	14.79	137.43	235.45	-204.54	434.72	406.82	27.91	15.577		
4,100.00	4,088.94	4,053.75	4,026.33	14.39	15.18	138.02	247.64	-210.69	456.38	427.75	28.63	15.942		
4,200.00	4,188.36	4,155.98	4,127.57	14.76	15.59	138.58	260.29	-217.06	477.96	448.57	29.39	16.263		
4,300.00	4,287.78	4,273.66	4,244.53	15.14	16.04	139.26	271.81	-222.86	496.77	466.52	30.26	16.418		
4,400.00	4,387.19	4,392.86	4,363.44	15.51	16.48	140.01	279.09	-226.53	511.67	480.58	31.09	16.459		
4,500.00	4,486.61	4,513.19	4,483.72	15.89	16.90	140.85	281.96	-227.98	522.60	490.72	31.87	16.397		
4,600.00	4,586.02	4,615.49	4,586.02	16.27	17.24	141.60	282.00	-228.00	531.07	498.48	32.59	16.296		
4,700.00	4,685.44	4,714.91	4,685.44	16.64	17.57	142.32	282.00	-228.00	539.59	506.28	33.30	16.203		
4,800.00	4,784.86	4,814.32	4,784.86	17.02	17.91	143.00	282.00	-228.00	548.18	514.17	34.01	16.117		
4,900.00	4,884.27	4,913.74	4,884.27	17.40	18.24	143.67	282.00	-228.00	556.86	522.13	34.73	16.036		
5,000.00	4,983.69	5,013.16	4,983.69	17.78	18.58	144.32	282.00	-228.00	565.60	530.17	35.44	15.960		

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: Eddy County, NM (NAD27)
 Reference Site: Leatherneck Fed
 Site Error: 0.00 usft
 Reference Well: #124H
 Well Error: 0.00 usft
 Reference Wellbore OH
 Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
 TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: WellPlanner1
 Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #207H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	5,083.10	5,112.57	5,083.10	18.16	18.91	144.94	282.00	-228.00	574.42	538.27	36.15	15.889		
5,200.00	5,182.52	5,211.99	5,182.52	18.54	19.25	145.55	282.00	-228.00	583.30	546.44	36.87	15.823		
5,300.00	5,281.94	5,311.41	5,281.94	18.92	19.59	146.14	282.00	-228.00	592.25	554.67	37.58	15.760		
5,400.00	5,381.35	5,410.82	5,381.35	19.30	19.92	146.71	282.00	-228.00	601.26	562.97	38.29	15.702		
5,500.00	5,480.77	5,510.24	5,480.77	19.68	20.26	147.27	282.00	-228.00	610.32	571.32	39.01	15.647		
5,600.00	5,580.18	5,609.65	5,580.18	20.07	20.60	147.81	282.00	-228.00	619.44	579.72	39.72	15.595		
5,700.00	5,679.60	5,709.07	5,679.60	20.45	20.94	148.33	282.00	-228.00	628.62	588.18	40.43	15.547		
5,800.00	5,779.02	5,808.49	5,779.02	20.83	21.28	148.84	282.00	-228.00	637.84	596.69	41.15	15.501		
5,900.00	5,878.43	5,907.90	5,878.43	21.21	21.62	149.33	282.00	-228.00	647.11	605.25	41.86	15.458		
6,000.00	5,977.85	6,007.32	5,977.85	21.60	21.97	149.81	282.00	-228.00	656.43	613.85	42.58	15.418		
6,100.00	6,077.26	6,106.73	6,077.26	21.98	22.31	150.28	282.00	-228.00	665.79	622.50	43.29	15.379		
6,200.00	6,176.68	6,206.15	6,176.68	22.36	22.65	150.73	282.00	-228.00	675.20	631.19	44.01	15.343		
6,300.00	6,276.10	6,305.57	6,276.10	22.75	22.99	151.17	282.00	-228.00	684.65	639.92	44.72	15.309		
6,400.00	6,375.51	6,404.98	6,375.51	23.13	23.34	151.60	282.00	-228.00	694.13	648.70	45.44	15.277		
6,500.00	6,474.93	6,504.40	6,474.93	23.51	23.68	152.02	282.00	-228.00	703.65	657.50	46.15	15.247		
6,600.00	6,574.34	6,603.81	6,574.34	23.90	24.02	152.42	282.00	-228.00	713.21	666.35	46.87	15.218		
6,700.00	6,673.76	6,703.23	6,673.76	24.28	24.37	152.82	282.00	-228.00	722.81	675.23	47.58	15.191		
6,800.00	6,773.18	6,802.65	6,773.18	24.67	24.71	153.20	282.00	-228.00	732.44	684.14	48.30	15.166		
6,900.00	6,872.59	6,902.06	6,872.59	25.05	25.06	153.58	282.00	-228.00	742.09	693.08	49.01	15.142		
7,000.00	6,972.04	7,001.51	6,972.04	25.44	25.40	153.97	282.00	-228.00	751.54	701.82	49.73	15.114		
7,100.00	7,071.74	7,101.21	7,071.74	25.81	25.75	154.28	282.00	-228.00	758.46	708.03	50.44	15.038		
7,200.00	7,171.64	7,201.11	7,171.64	26.17	26.10	154.45	282.00	-228.00	762.25	711.11	51.15	14.904		
7,300.00	7,271.62	7,301.09	7,271.62	26.50	26.45	-89.60	282.00	-228.00	763.03	711.19	51.84	14.719		
7,354.21	7,325.55	7,355.02	7,325.55	26.67	26.64	-90.00	282.00	-228.00	763.01	710.81	52.20	14.617		
7,400.00	7,370.53	7,400.00	7,370.53	26.81	26.79	-90.62	282.00	-228.00	763.05	710.55	52.50	14.533		
7,500.00	7,465.54	7,504.99	7,465.54	27.08	27.16	-92.71	282.00	-228.00	764.02	710.85	53.17	14.370		
7,600.00	7,553.76	7,583.23	7,553.76	27.31	27.43	-95.41	282.00	-228.00	767.85	714.12	53.72	14.292		
7,700.00	7,632.50	7,661.97	7,632.50	27.50	27.71	-98.05	282.00	-228.00	777.14	722.66	54.28	14.316		
7,800.00	7,699.38	7,728.85	7,699.38	27.64	27.94	-99.93	282.00	-228.00	794.56	739.74	54.82	14.494		
7,900.00	7,752.37	7,781.83	7,752.37	27.75	28.13	-100.34	282.00	-228.00	822.22	766.88	55.34	14.858		
8,000.00	7,789.84	7,819.31	7,789.84	28.10	28.26	-98.71	282.00	-228.00	861.01	805.19	55.82	15.426		
8,100.00	7,810.68	7,840.15	7,810.68	28.74	28.33	-94.56	282.00	-228.00	910.39	854.16	56.23	16.192		
8,200.00	7,815.00	7,844.47	7,815.00	29.51	28.34	-90.00	282.00	-228.00	968.46	911.92	56.54	17.130		
8,300.00	7,815.00	7,844.47	7,815.00	30.43	28.34	-90.00	282.00	-228.00	1,033.05	976.24	56.81	18.184		
8,400.00	7,815.00	7,844.47	7,815.00	31.49	28.34	-90.00	282.00	-228.00	1,102.95	1,045.88	57.07	19.326		
8,500.00	7,815.00	7,844.47	7,815.00	32.67	28.34	-90.00	282.00	-228.00	1,177.19	1,119.88	57.31	20.542		
8,600.00	7,815.00	7,844.47	7,815.00	33.97	28.34	-90.00	282.00	-228.00	1,255.02	1,197.50	57.52	21.820		
8,700.00	7,815.00	7,844.47	7,815.00	35.37	28.34	-90.00	282.00	-228.00	1,335.80	1,278.09	57.71	23.148		
8,800.00	7,815.00	7,844.47	7,815.00	36.86	28.34	-90.00	282.00	-228.00	1,419.03	1,361.15	57.88	24.519		
8,900.00	7,815.00	7,844.47	7,815.00	38.43	28.34	-90.00	282.00	-228.00	1,504.30	1,446.28	58.02	25.925		
9,000.00	7,815.00	10,441.03	9,255.00	40.08	44.19	-155.27	180.53	1,168.33	1,585.36	1,537.01	48.35	32.786		
9,100.00	7,815.00	10,541.03	9,255.00	41.78	45.75	-155.27	180.41	1,268.33	1,585.36	1,535.43	49.93	31.752		
9,200.00	7,815.00	10,641.03	9,255.00	43.54	47.37	-155.27	180.29	1,368.33	1,585.36	1,533.79	51.57	30.744		
9,300.00	7,815.00	10,741.03	9,255.00	45.35	49.05	-155.27	180.18	1,468.33	1,585.36	1,532.10	53.26	29.766		
9,400.00	7,815.00	10,841.03	9,255.00	47.20	50.78	-155.27	180.06	1,568.33	1,585.36	1,530.35	55.01	28.821		
9,500.00	7,815.00	10,941.03	9,255.00	49.10	52.55	-155.27	179.94	1,668.33	1,585.36	1,528.56	56.80	27.911		
9,600.00	7,815.00	11,041.03	9,255.00	51.02	54.36	-155.27	179.82	1,768.33	1,585.36	1,526.72	58.64	27.038		
9,700.00	7,815.00	11,141.03	9,255.00	52.98	56.21	-155.27	179.71	1,868.33	1,585.36	1,524.85	60.51	26.200		
9,800.00	7,815.00	11,241.03	9,255.00	54.96	58.10	-155.27	179.59	1,968.33	1,585.35	1,522.94	62.42	25.398		
9,900.00	7,815.00	11,341.03	9,255.00	56.97	60.01	-155.27	179.47	2,068.33	1,585.35	1,520.99	64.36	24.632		
10,000.00	7,815.00	11,441.03	9,255.00	59.00	61.95	-155.27	179.36	2,168.33	1,585.35	1,519.02	66.33	23.900		
10,100.00	7,815.00	11,541.03	9,255.00	61.05	63.91	-155.27	179.24	2,268.33	1,585.35	1,517.02	68.33	23.201		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #207H - OH - Prelim B														Offset Site Error: 0.00 usft	
Survey Program: 0-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			
10,200.00	7,815.00	11,641.03	9,255.00	63.11	65.89	-155.27	179.12	2,368.33	1,585.35	1,515.00	70.35	22.534			
10,300.00	7,815.00	11,741.03	9,255.00	65.20	67.90	-155.27	179.00	2,468.33	1,585.35	1,512.95	72.40	21.897			
10,400.00	7,815.00	11,841.03	9,255.00	67.29	69.93	-155.27	178.89	2,568.33	1,585.35	1,510.88	74.47	21.290			
10,500.00	7,815.00	11,941.03	9,255.00	69.41	71.97	-155.27	178.77	2,668.33	1,585.35	1,508.80	76.55	20.710			
10,600.00	7,815.00	12,041.03	9,255.00	71.53	74.02	-155.27	178.65	2,768.33	1,585.35	1,506.70	78.65	20.156			
10,700.00	7,815.00	12,141.03	9,255.00	73.66	76.10	-155.27	178.53	2,868.33	1,585.35	1,504.58	80.77	19.627			
10,800.00	7,815.00	12,241.03	9,255.00	75.81	78.18	-155.27	178.42	2,968.33	1,585.35	1,502.44	82.91	19.122			
10,900.00	7,815.00	12,341.03	9,255.00	77.96	80.28	-155.27	178.30	3,068.33	1,585.35	1,500.29	85.05	18.639			
11,000.00	7,815.00	12,441.03	9,255.00	80.13	82.39	-155.27	178.18	3,168.33	1,585.35	1,498.13	87.21	18.178			
11,100.00	7,815.00	12,541.03	9,255.00	82.30	84.51	-155.27	178.07	3,268.33	1,585.35	1,495.96	89.39	17.736			
11,200.00	7,815.00	12,641.03	9,255.00	84.47	86.64	-155.27	177.95	3,368.33	1,585.34	1,493.78	91.57	17.313			
11,300.00	7,815.00	12,741.03	9,255.00	86.66	88.77	-155.27	177.83	3,468.33	1,585.34	1,491.58	93.76	16.908			
11,400.00	7,815.00	12,841.03	9,255.00	88.85	90.92	-155.27	177.71	3,568.33	1,585.34	1,489.38	95.96	16.520			
11,500.00	7,815.00	12,941.03	9,255.00	91.04	93.07	-155.27	177.60	3,668.33	1,585.34	1,487.17	98.18	16.148			
11,600.00	7,815.00	13,041.03	9,255.00	93.25	95.23	-155.27	177.48	3,768.33	1,585.34	1,484.95	100.40	15.791			
11,700.00	7,815.00	13,141.03	9,255.00	95.45	97.40	-155.27	177.36	3,868.33	1,585.34	1,482.72	102.62	15.448			
11,800.00	7,815.00	13,241.03	9,255.00	97.67	99.58	-155.27	177.24	3,968.33	1,585.34	1,480.48	104.86	15.119			
11,900.00	7,815.00	13,341.03	9,255.00	99.88	101.76	-155.27	177.13	4,068.33	1,585.34	1,478.24	107.10	14.802			
12,000.00	7,815.00	13,441.03	9,255.00	102.10	103.94	-155.27	177.01	4,168.33	1,585.34	1,475.99	109.35	14.498			
12,100.00	7,815.00	13,541.03	9,255.00	104.33	106.13	-155.27	176.89	4,268.33	1,585.34	1,473.73	111.60	14.205			
12,200.00	7,815.00	13,641.03	9,255.00	106.55	108.33	-155.27	176.78	4,368.33	1,585.34	1,471.47	113.86	13.923			
12,300.00	7,815.00	13,741.03	9,255.00	108.78	110.53	-155.27	176.66	4,468.33	1,585.34	1,469.21	116.13	13.652			
12,400.00	7,815.00	13,841.03	9,255.00	111.02	112.73	-155.27	176.54	4,568.33	1,585.34	1,466.94	118.40	13.390			
12,500.00	7,815.00	13,941.03	9,255.00	113.25	114.94	-155.27	176.42	4,668.33	1,585.34	1,464.66	120.67	13.137			
12,600.00	7,815.00	14,041.03	9,255.00	115.49	117.15	-155.27	176.31	4,768.33	1,585.33	1,462.38	122.95	12.894			
12,700.00	7,815.00	14,141.03	9,255.00	117.74	119.37	-155.28	176.19	4,868.33	1,585.33	1,460.10	125.24	12.659			
12,800.00	7,815.00	14,241.03	9,255.00	119.98	121.59	-155.28	176.07	4,968.33	1,585.33	1,457.81	127.52	12.432			
12,900.00	7,815.00	14,341.03	9,255.00	122.23	123.81	-155.28	175.96	5,068.33	1,585.33	1,455.52	129.82	12.212			
13,000.00	7,815.00	14,441.03	9,255.00	124.48	126.04	-155.28	175.84	5,168.33	1,585.33	1,453.22	132.11	12.000			
13,100.00	7,815.00	14,541.03	9,255.00	126.73	128.27	-155.28	175.72	5,268.33	1,585.33	1,450.92	134.41	11.795			
13,200.00	7,815.00	14,641.03	9,255.00	128.98	130.50	-155.28	175.60	5,368.33	1,585.33	1,448.62	136.71	11.596			
13,300.00	7,815.00	14,741.03	9,255.00	131.24	132.73	-155.28	175.49	5,468.33	1,585.33	1,446.31	139.02	11.404			
13,400.00	7,815.00	14,841.03	9,255.00	133.50	134.97	-155.28	175.37	5,568.33	1,585.33	1,444.01	141.32	11.218			
13,500.00	7,815.00	14,941.03	9,255.00	135.76	137.21	-155.28	175.25	5,668.33	1,585.33	1,441.69	143.63	11.037			
13,600.00	7,815.00	15,041.03	9,255.00	138.02	139.45	-155.28	175.13	5,768.33	1,585.33	1,439.38	145.95	10.862			
13,700.00	7,815.00	15,141.03	9,255.00	140.28	141.69	-155.28	175.02	5,868.33	1,585.33	1,437.06	148.26	10.693			
13,800.00	7,815.00	15,241.03	9,255.00	142.54	143.94	-155.28	174.90	5,968.33	1,585.33	1,434.75	150.58	10.528			
13,900.00	7,815.00	15,341.03	9,255.00	144.81	146.19	-155.28	174.78	6,068.33	1,585.33	1,432.42	152.90	10.368			
14,000.00	7,815.00	15,441.03	9,255.00	147.07	148.44	-155.28	174.67	6,168.33	1,585.32	1,430.10	155.22	10.213			
14,100.00	7,815.00	15,541.03	9,255.00	149.34	150.69	-155.28	174.55	6,268.33	1,585.32	1,427.78	157.55	10.063			
14,200.00	7,815.00	15,641.03	9,255.00	151.61	152.94	-155.28	174.43	6,368.33	1,585.32	1,425.45	159.87	9.916			
14,300.00	7,815.00	15,741.03	9,255.00	153.88	155.19	-155.28	174.31	6,468.33	1,585.32	1,423.12	162.20	9.774			
14,400.00	7,815.00	15,841.03	9,255.00	156.15	157.45	-155.28	174.20	6,568.33	1,585.32	1,420.79	164.53	9.635			
14,500.00	7,815.00	15,941.03	9,255.00	158.42	159.71	-155.28	174.08	6,668.33	1,585.32	1,418.46	166.87	9.501			
14,600.00	7,815.00	16,041.03	9,255.00	160.70	161.97	-155.28	173.96	6,768.33	1,585.32	1,416.12	169.20	9.370			
14,700.00	7,815.00	16,141.03	9,255.00	162.97	164.23	-155.28	173.84	6,868.33	1,585.32	1,413.79	171.53	9.242			
14,800.00	7,815.00	16,241.03	9,255.00	165.25	166.49	-155.28	173.73	6,968.33	1,585.32	1,411.45	173.87	9.118			
14,900.00	7,815.00	16,341.03	9,255.00	167.52	168.75	-155.28	173.61	7,068.33	1,585.32	1,409.11	176.21	8.997			
15,000.00	7,815.00	16,441.03	9,255.00	169.80	171.01	-155.28	173.49	7,168.33	1,585.32	1,406.77	178.55	8.879			
15,100.00	7,815.00	16,541.03	9,255.00	172.08	173.28	-155.28	173.38	7,268.33	1,585.32	1,404.43	180.89	8.764			
15,200.00	7,815.00	16,641.03	9,255.00	174.36	175.55	-155.28	173.26	7,368.33	1,585.32	1,402.08	183.23	8.652			
15,300.00	7,815.00	16,741.03	9,255.00	176.64	177.81	-155.28	173.14	7,468.33	1,585.32	1,399.74	185.58	8.543			

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #207H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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		
15,400.00	7,815.00	16,841.03	9,255.00	178.92	180.08	-155.28	173.02	7,568.33	1,585.31	1,397.39	187.92	8.436		
15,500.00	7,815.00	16,941.03	9,255.00	181.20	182.35	-155.28	172.91	7,668.33	1,585.31	1,395.05	190.27	8.332		
15,600.00	7,815.00	17,041.03	9,255.00	183.48	184.62	-155.28	172.79	7,768.33	1,585.31	1,392.70	192.62	8.230		
15,700.00	7,815.00	17,141.03	9,255.00	185.76	186.89	-155.28	172.67	7,868.33	1,585.31	1,390.35	194.96	8.131		
15,800.00	7,815.00	17,241.03	9,255.00	188.04	189.17	-155.28	172.55	7,968.33	1,585.31	1,388.00	197.31	8.034		
15,900.00	7,815.00	17,341.03	9,255.00	190.33	191.44	-155.28	172.44	8,068.33	1,585.31	1,385.65	199.66	7.940		
16,000.00	7,815.00	17,441.03	9,255.00	192.61	193.71	-155.28	172.32	8,168.32	1,585.31	1,383.29	202.02	7.847		
16,100.00	7,815.00	17,541.03	9,255.00	194.89	195.99	-155.28	172.20	8,268.32	1,585.31	1,380.94	204.37	7.757		
16,200.00	7,815.00	17,641.03	9,255.00	197.18	198.26	-155.28	172.09	8,368.32	1,585.31	1,378.59	206.72	7.669		
16,300.00	7,815.00	17,741.03	9,255.00	199.47	200.54	-155.28	171.97	8,468.32	1,585.31	1,376.23	209.08	7.582		
16,400.00	7,815.00	17,841.03	9,255.00	201.75	202.82	-155.28	171.85	8,568.32	1,585.31	1,373.88	211.43	7.498		
16,500.00	7,815.00	17,941.03	9,255.00	204.04	205.09	-155.28	171.73	8,668.32	1,585.31	1,371.52	213.79	7.415		
16,600.00	7,815.00	18,041.03	9,255.00	206.33	207.37	-155.28	171.62	8,768.32	1,585.31	1,369.16	216.14	7.334		
16,700.00	7,815.00	18,141.03	9,255.00	208.61	209.65	-155.28	171.50	8,868.32	1,585.31	1,366.80	218.50	7.255		
16,800.00	7,815.00	18,241.03	9,255.00	210.90	211.93	-155.28	171.38	8,968.32	1,585.30	1,364.45	220.86	7.178		
16,900.00	7,815.00	18,341.03	9,255.00	213.19	214.21	-155.28	171.26	9,068.32	1,585.30	1,362.09	223.22	7.102		
17,000.00	7,815.00	18,441.03	9,255.00	215.48	216.49	-155.28	171.15	9,168.32	1,585.30	1,359.73	225.58	7.028		
17,100.00	7,815.00	18,541.03	9,255.00	217.77	218.77	-155.28	171.03	9,268.32	1,585.30	1,357.36	227.94	6.955		
17,200.00	7,815.00	18,641.03	9,255.00	220.06	221.06	-155.28	170.91	9,368.32	1,585.30	1,355.00	230.30	6.884		
17,300.00	7,815.00	18,741.03	9,255.00	222.35	223.34	-155.28	170.80	9,468.32	1,585.30	1,352.64	232.66	6.814		
17,400.00	7,815.00	18,841.03	9,255.00	224.64	225.62	-155.28	170.68	9,568.32	1,585.30	1,350.28	235.02	6.745		
17,500.00	7,815.00	18,941.03	9,255.00	226.93	227.90	-155.28	170.56	9,668.32	1,585.30	1,347.91	237.39	6.678		
17,600.00	7,815.00	19,041.03	9,255.00	229.22	230.19	-155.28	170.44	9,768.32	1,585.30	1,345.55	239.75	6.612		
17,700.00	7,815.00	19,141.03	9,255.00	231.51	232.47	-155.28	170.33	9,868.32	1,585.30	1,343.18	242.11	6.548		
17,800.00	7,815.00	19,241.03	9,255.00	233.80	234.76	-155.28	170.21	9,968.32	1,585.30	1,340.82	244.48	6.484		
17,900.00	7,815.00	19,341.03	9,255.00	236.10	237.04	-155.28	170.09	10,068.32	1,585.30	1,338.45	246.84	6.422		
17,978.36	7,815.00	19,419.39	9,255.00	237.89	238.83	-155.28	170.00	10,146.68	1,585.30	1,336.60	248.70	6.374		
17,981.45	7,815.00	19,419.70	9,255.00	237.96	238.84	-155.28	170.00	10,147.00	1,585.30	1,336.57	248.73	6.374		

Pro Directional Anticollision Report

Company: Matador Resources
Project: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #208H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-167.04	-139.00	-32.00	142.64					
100.00	100.00	100.00	100.00	0.13	0.13	-167.04	-139.00	-32.00	142.64	142.38	0.26	556.503		
200.00	200.00	200.00	200.00	0.49	0.49	-167.04	-139.00	-32.00	142.64	141.66	0.97	146.556		
300.00	300.00	300.00	300.00	0.85	0.85	-167.04	-139.00	-32.00	142.64	140.95	1.69	84.390		
400.00	400.00	400.00	400.00	1.20	1.20	-167.04	-139.00	-32.00	142.64	140.23	2.41	59.255		
500.00	500.00	500.00	500.00	1.56	1.56	-167.04	-139.00	-32.00	142.64	139.51	3.12	45.657		
600.00	600.00	600.00	600.00	1.92	1.92	-167.04	-139.00	-32.00	142.64	138.79	3.84	37.135		
700.00	700.00	700.00	700.00	2.28	2.28	-167.04	-139.00	-32.00	142.64	138.08	4.56	31.294		
800.00	800.00	800.00	800.00	2.64	2.64	-167.04	-139.00	-32.00	142.64	137.36	5.27	27.040		
900.00	900.00	900.00	900.00	3.00	3.00	-167.04	-139.00	-32.00	142.64	136.64	5.99	23.805		
1,000.00	1,000.00	1,000.00	1,000.00	3.35	3.35	-167.04	-139.00	-32.00	142.64	135.93	6.71	21.261		
1,100.00	1,100.00	1,100.00	1,100.00	3.71	3.71	-167.04	-139.00	-32.00	142.64	135.21	7.43	19.208		
1,200.00	1,200.00	1,200.00	1,200.00	4.07	4.07	-167.04	-139.00	-32.00	142.64	134.49	8.14	17.517		
1,300.00	1,300.00	1,300.00	1,300.00	4.43	4.43	-167.04	-139.00	-32.00	142.64	133.78	8.86	16.100		
1,400.00	1,400.00	1,400.00	1,400.00	4.79	4.79	-167.04	-139.00	-32.00	142.64	133.06	9.58	14.894		
1,500.00	1,500.00	1,500.00	1,500.00	5.15	5.15	-167.04	-139.00	-32.00	142.64	132.34	10.29	13.857		
1,600.00	1,600.00	1,600.00	1,600.00	5.51	5.51	-167.04	-139.00	-32.00	142.64	131.63	11.01	12.955		
1,700.00	1,700.00	1,700.00	1,700.00	5.86	5.86	-167.04	-139.00	-32.00	142.64	130.91	11.73	12.163		
1,800.00	1,800.00	1,800.00	1,800.00	6.22	6.22	-167.04	-139.00	-32.00	142.64	130.19	12.44	11.462		
1,900.00	1,900.00	1,900.00	1,900.00	6.58	6.58	-167.04	-139.00	-32.00	142.64	129.47	13.16	10.838		
2,000.00	2,000.00	2,000.00	2,000.00	6.94	6.94	-167.04	-139.00	-32.00	142.64	128.76	13.88	10.278		
2,100.00	2,099.98	2,095.26	2,095.24	7.28	7.26	-13.21	-140.54	-32.38	142.60	128.06	14.54	9.809		
2,200.00	2,199.84	2,190.51	2,190.37	7.61	7.57	-13.64	-145.15	-33.52	142.49	127.34	15.15	9.403		
2,300.00	2,299.45	2,285.76	2,285.29	7.94	7.89	-14.34	-152.82	-35.42	142.33	126.57	15.76	9.032		
2,305.86	2,305.28	2,291.34	2,290.84	7.96	7.91	-14.39	-153.37	-35.55	142.33	126.53	15.79	9.012 CC, ES		
2,400.00	2,398.87	2,380.99	2,379.87	8.27	8.20	-15.19	-163.56	-38.07	143.52	127.17	16.35	8.776		
2,500.00	2,498.29	2,477.62	2,475.44	8.61	8.53	-15.95	-177.39	-41.49	147.86	130.90	16.97	8.715		
2,600.00	2,597.70	2,577.48	2,574.09	8.95	8.87	-16.67	-192.40	-45.21	152.99	135.35	17.64	8.674		
2,700.00	2,697.12	2,677.33	2,672.74	9.30	9.22	-17.35	-207.41	-48.92	158.14	139.83	18.32	8.634		
2,800.00	2,796.53	2,777.18	2,771.38	9.65	9.58	-17.98	-222.41	-52.63	163.31	144.31	19.00	8.596		
2,900.00	2,895.95	2,877.03	2,870.03	10.00	9.94	-18.57	-237.42	-56.34	168.50	148.82	19.69	8.559		
3,000.00	2,995.37	2,976.88	2,968.67	10.36	10.30	-19.13	-252.43	-60.06	173.71	153.33	20.38	8.524		
3,100.00	3,094.78	3,076.73	3,067.32	10.71	10.67	-19.66	-267.44	-63.77	178.93	157.86	21.07	8.491		
3,200.00	3,194.20	3,176.58	3,165.97	11.07	11.04	-20.15	-282.45	-67.48	184.17	162.40	21.77	8.458		
3,300.00	3,293.61	3,276.43	3,264.61	11.44	11.42	-20.62	-297.46	-71.19	189.42	166.94	22.48	8.428		
3,400.00	3,393.03	3,376.28	3,363.26	11.80	11.80	-21.06	-312.47	-74.91	194.68	171.50	23.18	8.398		
3,500.00	3,492.45	3,476.13	3,461.91	12.17	12.18	-21.48	-327.48	-78.62	199.95	176.06	23.89	8.370		
3,600.00	3,591.86	3,575.98	3,560.55	12.53	12.57	-21.88	-342.49	-82.33	205.23	180.63	24.60	8.343		
3,700.00	3,691.28	3,675.83	3,659.20	12.90	12.95	-22.26	-357.50	-86.04	210.53	185.21	25.31	8.317		
3,800.00	3,790.69	3,775.68	3,757.84	13.27	13.34	-22.61	-372.51	-89.75	215.83	189.80	26.03	8.292		
3,900.00	3,890.11	3,875.53	3,856.49	13.64	13.73	-22.96	-387.51	-93.47	221.13	194.39	26.74	8.269		
4,000.00	3,989.53	3,975.38	3,955.14	14.02	14.12	-23.28	-402.52	-97.18	226.45	198.99	27.46	8.246		
4,100.00	4,088.94	4,075.23	4,053.78	14.39	14.52	-23.59	-417.53	-100.89	231.77	203.59	28.18	8.224		
4,200.00	4,188.36	4,175.08	4,152.43	14.76	14.91	-23.89	-432.54	-104.60	237.10	208.20	28.91	8.203		
4,300.00	4,287.78	4,274.93	4,251.08	15.14	15.31	-24.17	-447.55	-108.32	242.44	212.81	29.63	8.182		
4,400.00	4,387.19	4,374.78	4,349.72	15.51	15.71	-24.45	-462.56	-112.03	247.78	217.43	30.35	8.163		
4,500.00	4,486.61	4,474.64	4,448.37	15.89	16.10	-24.71	-477.57	-115.74	253.13	222.05	31.08	8.144		
4,600.00	4,586.02	4,574.49	4,547.01	16.27	16.50	-24.96	-492.58	-119.45	258.48	226.67	31.81	8.126		
4,700.00	4,685.44	4,674.34	4,645.66	16.64	16.91	-25.20	-507.59	-123.17	263.83	231.30	32.54	8.109		
4,800.00	4,784.86	4,774.19	4,744.31	17.02	17.31	-25.43	-522.60	-126.88	269.19	235.93	33.27	8.092		
4,900.00	4,884.27	4,874.04	4,842.95	17.40	17.71	-25.65	-537.61	-130.59	274.56	240.56	34.00	8.076		
5,000.00	4,983.89	4,973.89	4,941.60	17.78	18.11	-25.86	-552.61	-134.30	279.93	245.20	34.73	8.060		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #208H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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)						
5,100.00	5,083.10	5,073.74	5,040.25	18.16	18.52	-26.06	-567.62	-138.01	285.30	249.84	35.46	8.045		
5,200.00	5,182.52	5,173.59	5,138.89	18.54	18.92	-26.26	-582.63	-141.73	290.68	254.48	36.20	8.030		
5,300.00	5,281.94	5,273.44	5,237.54	18.92	19.33	-26.45	-597.64	-145.44	296.05	259.12	36.93	8.016		
5,400.00	5,381.35	5,373.29	5,336.18	19.30	19.73	-26.63	-612.65	-149.15	301.44	263.77	37.67	8.003		
5,500.00	5,480.77	5,473.14	5,434.83	19.68	20.14	-26.81	-627.66	-152.86	306.82	268.42	38.40	7.990		
5,600.00	5,580.18	5,572.99	5,533.48	20.07	20.55	-26.98	-642.67	-156.58	312.21	273.07	39.14	7.977		
5,700.00	5,679.60	5,672.84	5,632.12	20.45	20.95	-27.14	-657.68	-160.29	317.60	277.72	39.88	7.964		
5,800.00	5,779.02	5,772.69	5,730.77	20.83	21.36	-27.30	-672.69	-164.00	322.99	282.38	40.62	7.953		
5,900.00	5,878.43	5,872.54	5,829.41	21.21	21.77	-27.46	-687.70	-167.71	328.39	287.03	41.35	7.941		
6,000.00	5,977.85	5,972.39	5,928.06	21.60	22.18	-27.61	-702.70	-171.43	333.79	291.69	42.09	7.930		
6,100.00	6,077.26	6,072.24	6,026.71	21.98	22.59	-27.75	-717.71	-175.14	339.19	296.35	42.83	7.919		
6,200.00	6,176.68	6,172.09	6,125.35	22.36	23.00	-27.89	-732.72	-178.85	344.59	301.01	43.57	7.908		
6,300.00	6,276.10	6,271.94	6,224.00	22.75	23.41	-28.02	-747.73	-182.56	349.99	305.68	44.31	7.898		
6,400.00	6,375.51	6,371.79	6,322.65	23.13	23.82	-28.16	-762.74	-186.27	355.40	310.34	45.06	7.888		
6,500.00	6,474.93	6,471.65	6,421.29	23.51	24.23	-28.28	-777.75	-189.99	360.81	315.01	45.80	7.878		
6,600.00	6,574.34	6,571.50	6,519.94	23.90	24.64	-28.41	-792.76	-193.70	366.22	319.68	46.54	7.869		
6,700.00	6,673.76	6,671.35	6,618.58	24.28	25.05	-28.53	-807.77	-197.41	371.63	324.34	47.28	7.860		
6,800.00	6,773.18	6,771.20	6,717.23	24.67	25.46	-28.64	-822.78	-201.12	377.04	329.01	48.03	7.851		
6,900.00	6,872.59	6,871.05	6,815.88	25.05	25.88	-28.76	-837.79	-204.84	382.45	333.68	48.77	7.842		
7,000.00	6,972.04	6,970.88	6,914.51	25.44	26.29	-28.87	-852.79	-208.55	388.11	338.59	49.51	7.839		
7,100.00	7,071.74	7,070.55	7,012.97	25.81	26.70	-28.84	-867.77	-212.25	393.25	343.00	50.24	7.886		
7,200.00	7,171.64	7,169.88	7,111.11	26.17	27.11	-28.60	-882.71	-215.95	407.44	356.48	50.96	7.995		
7,300.00	7,271.62	7,268.76	7,208.79	26.50	27.52	87.48	-897.57	-219.62	421.53	369.88	51.65	8.161		
7,400.00	7,370.53	7,365.97	7,304.83	26.81	27.92	88.34	-912.18	-223.24	436.15	383.89	52.26	8.346		
7,500.00	7,469.54	7,468.69	7,396.43	27.08	28.30	90.86	-926.12	-226.68	451.92	399.13	52.79	8.561		
7,600.00	7,568.76	7,564.11	7,480.82	27.31	28.66	94.11	-938.96	-229.86	471.73	418.43	53.30	8.850		
7,700.00	7,668.20	7,664.63	7,555.43	27.50	28.97	97.02	-950.31	-232.67	498.92	445.07	53.85	9.265		
7,800.00	7,767.93	7,764.95	7,631.96	27.64	29.29	99.84	-960.96	-235.30	535.43	480.85	54.59	9.809		
7,900.00	7,867.37	7,864.79	7,693.38	27.75	29.53	100.49	-968.03	-237.05	582.45	527.10	55.35	10.524		
8,000.00	7,966.84	7,964.49	7,736.86	28.10	29.70	97.97	-972.24	-238.09	640.51	584.42	56.09	11.420		
8,100.00	8,066.68	8,064.04	7,760.32	28.74	29.78	91.39	-974.25	-238.59	708.25	651.52	56.73	12.484		
8,200.00	8,166.00	8,163.99	7,783.26	29.51	29.80	84.02	-974.49	-238.65	782.94	725.70	57.24	13.678		
8,300.00	8,265.44	8,263.44	7,760.72	30.43	29.79	83.72	-974.28	-238.60	862.62	804.96	57.66	14.959		
8,400.00	8,364.88	8,362.83	7,758.12	31.49	29.78	83.42	-974.07	-238.54	946.17	888.14	58.02	16.307		
8,500.00	8,464.32	8,462.16	7,755.46	32.67	29.77	83.11	-973.85	-238.49	1,032.63	974.31	58.32	17.705		
8,600.00	8,563.76	8,561.44	7,752.74	33.97	29.76	82.80	-973.62	-238.43	1,121.35	1,062.77	58.58	19.143		
8,700.00	8,663.20	8,660.88	7,749.96	35.37	29.75	82.48	-973.39	-238.38	1,211.82	1,153.03	58.79	20.612		
8,800.00	8,762.64	8,760.20	7,747.12	36.86	29.74	82.15	-973.14	-238.32	1,303.67	1,244.70	58.97	22.108		
8,900.00	8,862.08	8,859.68	7,744.22	38.43	29.73	81.81	-972.89	-238.25	1,396.65	1,337.52	59.12	23.622		
9,000.00	8,961.52	8,959.08	7,741.25	40.08	29.71	81.47	-972.63	-238.19	1,490.52	1,431.27	59.26	25.153		
9,100.00	9,060.96	9,058.49	9,255.00	41.78	29.64	81.13	-1,136.11	1,266.53	1,581.29	1,534.84	46.46	34.037		
9,200.00	9,160.40	9,157.92	9,255.00	43.54	29.59	80.79	-1,136.26	1,366.53	1,581.31	1,533.21	48.10	32.877		
9,300.00	9,259.84	9,257.36	9,255.00	45.35	29.52	80.45	-1,136.42	1,466.53	1,581.33	1,531.53	49.80	31.755		
9,400.00	9,359.28	9,356.79	9,255.00	47.20	29.44	80.11	-1,136.57	1,566.53	1,581.35	1,529.79	51.55	30.674		
9,500.00	9,458.72	9,456.23	9,255.00	49.10	29.36	79.77	-1,136.73	1,666.53	1,581.36	1,528.00	53.36	29.637		
9,600.00	9,558.16	9,555.73	9,255.00	51.02	29.28	79.43	-1,136.89	1,766.53	1,581.38	1,526.17	55.21	28.645		
9,700.00	9,657.60	9,655.24	9,255.00	52.98	29.20	79.09	-1,137.04	1,866.53	1,581.40	1,524.30	57.10	27.698		
9,800.00	9,757.04	9,754.76	9,255.00	54.96	29.12	78.75	-1,137.20	1,966.53	1,581.41	1,522.39	59.02	26.794		
9,900.00	9,856.48	9,854.27	9,255.00	56.97	29.04	78.41	-1,137.36	2,066.53	1,581.43	1,520.45	60.98	25.934		
10,000.00	9,955.92	9,953.78	9,255.00	59.00	28.96	78.07	-1,137.51	2,166.53	1,581.45	1,518.48	62.97	25.115		
10,100.00	10,055.36	10,053.31	9,255.00	61.05	28.88	77.73	-1,137.67	2,266.53	1,581.46	1,516.48	64.98	24.336		
10,200.00	10,154.80	10,152.84	9,255.00	63.11	28.80	77.39	-1,137.83	2,366.53	1,581.48	1,514.46	67.02	23.596		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #208H - OH - Prelim B													Offset Site Error: 0.00 usft	
Survey Program: 0-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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,300.00	7,815.00	11,804.99	9,255.00	65.20	68.48	155.58	-1,137.98	2,466.53	1,581.50	1,512.41	69.09	22.891		
10,400.00	7,815.00	11,904.99	9,255.00	67.29	70.50	155.58	-1,138.14	2,566.53	1,581.51	1,510.34	71.17	22.221		
10,500.00	7,815.00	12,004.99	9,255.00	69.41	72.53	155.58	-1,138.30	2,666.53	1,581.53	1,508.26	73.27	21.584		
10,600.00	7,815.00	12,104.99	9,255.00	71.53	74.58	155.57	-1,138.45	2,766.53	1,581.55	1,506.15	75.39	20.977		
10,700.00	7,815.00	12,204.99	9,255.00	73.66	76.65	155.57	-1,138.61	2,866.53	1,581.56	1,504.03	77.53	20.399		
10,800.00	7,815.00	12,304.99	9,255.00	75.81	78.73	155.57	-1,138.76	2,966.53	1,581.58	1,501.90	79.68	19.849		
10,900.00	7,815.00	12,404.99	9,255.00	77.96	80.82	155.57	-1,138.92	3,066.53	1,581.60	1,499.75	81.85	19.324		
11,000.00	7,815.00	12,504.99	9,255.00	80.13	82.92	155.57	-1,139.08	3,166.53	1,581.62	1,497.59	84.02	18.824		
11,100.00	7,815.00	12,595.01	9,255.00	82.30	84.82	155.57	-1,139.23	3,266.53	1,581.63	1,495.53	86.10	18.369		
11,200.00	7,815.00	12,704.99	9,255.00	84.47	87.16	155.57	-1,139.39	3,366.53	1,581.65	1,493.24	88.41	17.890		
11,300.00	7,815.00	12,804.99	9,255.00	86.66	89.29	155.57	-1,139.55	3,466.53	1,581.67	1,491.05	90.62	17.454		
11,400.00	7,815.00	12,904.99	9,255.00	88.85	91.43	155.56	-1,139.70	3,566.53	1,581.68	1,488.84	92.84	17.037		
11,500.00	7,815.00	13,004.99	9,255.00	91.04	93.58	155.56	-1,139.86	3,666.53	1,581.70	1,486.63	95.07	16.638		
11,600.00	7,815.00	13,104.99	9,255.00	93.25	95.73	155.56	-1,140.02	3,766.53	1,581.72	1,484.41	97.30	16.256		
11,700.00	7,815.00	13,204.99	9,255.00	95.45	97.90	155.56	-1,140.17	3,866.53	1,581.73	1,482.19	99.54	15.890		
11,800.00	7,815.00	13,304.99	9,255.00	97.67	100.07	155.56	-1,140.33	3,966.53	1,581.75	1,479.96	101.79	15.539		
11,900.00	7,815.00	13,404.99	9,255.00	99.88	102.24	155.56	-1,140.48	4,066.53	1,581.77	1,477.72	104.05	15.202		
12,000.00	7,815.00	13,504.99	9,255.00	102.10	104.42	155.56	-1,140.64	4,166.53	1,581.78	1,475.47	106.31	14.878		
12,100.00	7,815.00	13,604.99	9,255.00	104.33	106.61	155.55	-1,140.80	4,266.53	1,581.80	1,473.22	108.58	14.568		
12,200.00	7,815.00	13,704.99	9,255.00	106.55	108.80	155.55	-1,140.95	4,366.53	1,581.82	1,470.96	110.86	14.269		
12,300.00	7,815.00	13,804.99	9,255.00	108.78	111.00	155.55	-1,141.11	4,466.53	1,581.83	1,468.70	113.14	13.982		
12,400.00	7,815.00	13,904.99	9,255.00	111.02	113.20	155.55	-1,141.27	4,566.53	1,581.85	1,466.43	115.42	13.705		
12,500.00	7,815.00	14,004.99	9,255.00	113.25	115.41	155.55	-1,141.42	4,666.53	1,581.87	1,464.16	117.71	13.439		
12,600.00	7,815.00	14,104.99	9,255.00	115.49	117.61	155.55	-1,141.58	4,766.53	1,581.89	1,461.88	120.00	13.182		
12,700.00	7,815.00	14,204.99	9,255.00	117.74	119.83	155.55	-1,141.74	4,866.53	1,581.90	1,459.60	122.30	12.935		
12,800.00	7,815.00	14,304.99	9,255.00	119.98	122.04	155.54	-1,141.89	4,966.53	1,581.92	1,457.32	124.60	12.696		
12,900.00	7,815.00	14,395.01	9,255.00	122.23	124.04	155.54	-1,142.05	5,066.53	1,581.94	1,455.15	126.79	12.477		
13,000.00	7,815.00	14,504.99	9,255.00	124.48	126.49	155.54	-1,142.20	5,166.53	1,581.95	1,452.74	129.21	12.243		
13,100.00	7,815.00	14,604.99	9,255.00	126.73	128.71	155.54	-1,142.36	5,266.53	1,581.97	1,450.45	131.52	12.028		
13,200.00	7,815.00	14,704.99	9,255.00	128.98	130.94	155.54	-1,142.52	5,366.52	1,581.99	1,448.15	133.84	11.820		
13,300.00	7,815.00	14,804.99	9,255.00	131.24	133.17	155.54	-1,142.67	5,466.52	1,582.00	1,445.85	136.16	11.619		
13,400.00	7,815.00	14,895.01	9,255.00	133.50	135.18	155.54	-1,142.83	5,566.52	1,582.02	1,443.66	138.36	11.434		
13,500.00	7,815.00	15,004.99	9,255.00	135.76	137.64	155.54	-1,142.99	5,666.52	1,582.04	1,441.24	140.80	11.236		
13,600.00	7,815.00	15,104.99	9,255.00	138.02	139.88	155.53	-1,143.14	5,766.52	1,582.05	1,438.93	143.13	11.054		
13,700.00	7,815.00	15,204.99	9,255.00	140.28	142.12	155.53	-1,143.30	5,866.52	1,582.07	1,436.62	145.45	10.877		
13,800.00	7,815.00	15,295.01	9,255.00	142.54	144.14	155.53	-1,143.46	5,966.52	1,582.09	1,434.42	147.67	10.714		
13,900.00	7,815.00	15,404.99	9,255.00	144.81	146.61	155.53	-1,143.61	6,066.52	1,582.11	1,431.99	150.12	10.539		
14,000.00	7,815.00	15,504.99	9,255.00	147.07	148.86	155.53	-1,143.77	6,166.52	1,582.12	1,429.67	152.45	10.378		
14,100.00	7,815.00	15,604.99	9,255.00	149.34	151.11	155.53	-1,143.93	6,266.52	1,582.14	1,427.35	154.79	10.221		
14,200.00	7,815.00	15,704.99	9,255.00	151.61	153.36	155.53	-1,144.08	6,366.52	1,582.16	1,425.03	157.13	10.069		
14,300.00	7,815.00	15,804.99	9,255.00	153.88	155.61	155.52	-1,144.24	6,466.52	1,582.17	1,422.70	159.47	9.921		
14,400.00	7,815.00	15,904.99	9,255.00	156.15	157.86	155.52	-1,144.39	6,566.52	1,582.19	1,420.38	161.81	9.778		
14,500.00	7,815.00	16,004.99	9,255.00	158.42	160.12	155.52	-1,144.55	6,666.52	1,582.21	1,418.05	164.16	9.638		
14,600.00	7,815.00	16,104.99	9,255.00	160.70	162.38	155.52	-1,144.71	6,766.52	1,582.22	1,415.72	166.50	9.503		
14,700.00	7,815.00	16,204.99	9,255.00	162.97	164.63	155.52	-1,144.86	6,866.52	1,582.24	1,413.39	168.85	9.371		
14,800.00	7,815.00	16,304.99	9,255.00	165.25	166.89	155.52	-1,145.02	6,966.52	1,582.26	1,411.06	171.20	9.242		
14,900.00	7,815.00	16,395.01	9,255.00	167.52	168.93	155.52	-1,145.16	7,066.52	1,582.27	1,408.84	173.44	9.123		
15,000.00	7,815.00	16,504.99	9,255.00	169.80	171.42	155.52	-1,145.33	7,166.52	1,582.29	1,406.39	175.91	8.995		
15,100.00	7,815.00	16,604.99	9,255.00	172.08	173.68	155.51	-1,145.49	7,266.52	1,582.31	1,404.05	178.26	8.876		
15,200.00	7,815.00	16,695.01	9,255.00	174.36	175.72	155.51	-1,145.65	7,366.52	1,582.33	1,401.83	180.50	8.766		
15,300.00	7,815.00	16,804.99	9,255.00	176.64	178.21	155.51	-1,145.80	7,466.52	1,582.34	1,399.37	182.97	8.648		
15,400.00	7,815.00	16,904.99	9,255.00	178.92	180.48	155.51	-1,145.96	7,566.52	1,582.36	1,397.03	185.33	8.538		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #208H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,500.00	7,815.00	17,004.99	9,255.00	181.20	182.75	155.51	-1,146.11	7,666.52	1,582.38	1,394.69	187.69	8.431		
15,600.00	7,815.00	17,104.99	9,255.00	183.48	185.01	155.51	-1,146.27	7,766.52	1,582.39	1,392.34	190.05	8.326		
15,700.00	7,815.00	17,204.99	9,255.00	185.76	187.28	155.51	-1,146.43	7,866.52	1,582.41	1,390.00	192.41	8.224		
15,800.00	7,815.00	17,304.99	9,255.00	188.04	189.56	155.50	-1,146.58	7,966.52	1,582.43	1,387.65	194.77	8.124		
15,900.00	7,815.00	17,404.99	9,255.00	190.33	191.83	155.50	-1,146.74	8,066.52	1,582.44	1,385.31	197.14	8.027		
16,000.00	7,815.00	17,504.99	9,255.00	192.61	194.10	155.50	-1,146.90	8,166.52	1,582.46	1,382.96	199.50	7.932		
16,100.00	7,815.00	17,604.99	9,255.00	194.89	196.37	155.50	-1,147.05	8,266.52	1,582.48	1,380.61	201.87	7.839		
16,200.00	7,815.00	17,695.01	9,255.00	197.18	198.42	155.50	-1,147.21	8,366.52	1,582.49	1,378.38	204.12	7.753		
16,300.00	7,815.00	17,804.99	9,255.00	199.47	200.92	155.50	-1,147.37	8,466.52	1,582.51	1,375.91	206.60	7.660		
16,400.00	7,815.00	17,904.99	9,255.00	201.75	203.20	155.50	-1,147.52	8,566.52	1,582.53	1,373.56	208.97	7.573		
16,500.00	7,815.00	18,004.99	9,255.00	204.04	205.47	155.50	-1,147.68	8,666.52	1,582.55	1,371.21	211.34	7.488		
16,600.00	7,815.00	18,104.99	9,255.00	206.33	207.75	155.49	-1,147.83	8,766.52	1,582.56	1,368.85	213.71	7.405		
16,700.00	7,815.00	18,204.99	9,255.00	208.61	210.03	155.49	-1,147.99	8,866.52	1,582.58	1,366.50	216.08	7.324		
16,800.00	7,815.00	18,304.99	9,255.00	210.90	212.31	155.49	-1,148.15	8,966.52	1,582.60	1,364.15	218.45	7.245		
16,900.00	7,815.00	18,404.99	9,255.00	213.19	214.59	155.49	-1,148.30	9,066.52	1,582.61	1,361.79	220.82	7.167		
17,000.00	7,815.00	18,495.01	9,255.00	215.48	216.64	155.49	-1,148.46	9,166.52	1,582.63	1,359.55	223.08	7.094		
17,100.00	7,815.00	18,604.99	9,255.00	217.77	219.15	155.49	-1,148.62	9,266.52	1,582.65	1,357.08	225.57	7.016		
17,200.00	7,815.00	18,704.99	9,255.00	220.06	221.43	155.49	-1,148.77	9,366.52	1,582.66	1,354.72	227.95	6.943		
17,300.00	7,815.00	18,804.99	9,255.00	222.35	223.71	155.48	-1,148.93	9,466.52	1,582.68	1,352.36	230.32	6.872		
17,400.00	7,815.00	18,904.99	9,255.00	224.64	225.99	155.48	-1,149.09	9,566.52	1,582.70	1,350.00	232.70	6.802		
17,500.00	7,815.00	19,004.99	9,255.00	226.93	228.27	155.48	-1,149.24	9,666.52	1,582.71	1,347.64	235.08	6.733		
17,600.00	7,815.00	19,104.99	9,255.00	229.22	230.56	155.48	-1,149.40	9,766.52	1,582.73	1,345.28	237.45	6.665		
17,700.00	7,815.00	19,204.99	9,255.00	231.51	232.84	155.48	-1,149.56	9,866.52	1,582.75	1,342.92	239.83	6.599		
17,800.00	7,815.00	19,304.99	9,255.00	233.80	235.12	155.48	-1,149.71	9,966.52	1,582.77	1,340.56	242.21	6.535		
17,900.00	7,815.00	19,404.99	9,255.00	236.10	237.41	155.48	-1,149.87	10,066.52	1,582.78	1,338.19	244.59	6.471		
17,981.45	7,815.00	19,476.47	9,255.00	237.96	239.04	155.48	-1,150.00	10,147.97	1,582.80	1,336.39	246.41	6.423 SF		

Pro Directional Anticollision Report

Company: Matador Resources
Project: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #223H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	1.00	-1.00	0.00	0.00	-133.09	-29.00	-31.00	42.45					
100.00	100.00	101.00	99.00	0.13	0.13	-133.09	-29.00	-31.00	42.45	42.19	0.26	163.337		
200.00	200.00	201.00	199.00	0.49	0.49	-133.09	-29.00	-31.00	42.45	41.47	0.98	43.457		
300.00	300.00	301.00	299.00	0.85	0.85	-133.09	-29.00	-31.00	42.45	40.76	1.69	25.062		
400.00	400.00	401.00	399.00	1.20	1.21	-133.09	-29.00	-31.00	42.45	40.04	2.41	17.609		
500.00	500.00	501.00	499.00	1.56	1.57	-133.09	-29.00	-31.00	42.45	39.32	3.13	13.572		
600.00	600.00	601.00	599.00	1.92	1.92	-133.09	-29.00	-31.00	42.45	38.61	3.84	11.041		
700.00	700.00	701.00	699.00	2.28	2.28	-133.09	-29.00	-31.00	42.45	37.89	4.56	9.306		
800.00	800.00	801.00	799.00	2.64	2.64	-133.09	-29.00	-31.00	42.45	37.17	5.28	8.042		
900.00	900.00	901.00	899.00	3.00	3.00	-133.09	-29.00	-31.00	42.45	36.45	6.00	7.080		
1,000.00	1,000.00	1,001.00	999.00	3.35	3.36	-133.09	-29.00	-31.00	42.45	35.74	6.71	6.324		
1,100.00	1,100.00	1,101.00	1,099.00	3.71	3.72	-133.09	-29.00	-31.00	42.45	35.02	7.43	5.714		
1,200.00	1,200.00	1,201.00	1,199.00	4.07	4.07	-133.09	-29.00	-31.00	42.45	34.30	8.15	5.211		
1,300.00	1,300.00	1,301.00	1,299.00	4.43	4.43	-133.09	-29.00	-31.00	42.45	33.59	8.86	4.789		
1,400.00	1,400.00	1,401.00	1,399.00	4.79	4.79	-133.09	-29.00	-31.00	42.45	32.87	9.58	4.431		
1,500.00	1,500.00	1,499.00	1,499.00	5.15	5.14	-133.09	-29.00	-31.00	42.45	32.16	10.29	4.125 CC		
1,600.00	1,600.00	1,598.91	1,598.89	5.51	5.50	-130.79	-27.79	-32.21	42.54	31.54	11.00	3.866		
1,700.00	1,700.00	1,698.58	1,698.42	5.86	5.85	-123.94	-24.14	-35.86	43.23	31.52	11.71	3.691 ES		
1,800.00	1,800.00	1,797.78	1,797.24	6.22	6.21	-113.31	-18.07	-41.93	45.69	33.28	12.42	3.680 SF		
1,900.00	1,900.00	1,902.88	1,896.00	6.58	6.58	-101.97	-10.50	-49.50	50.69	37.55	13.14	3.858		
2,000.00	2,000.00	2,003.47	1,994.84	6.94	6.95	-92.91	-2.91	-57.09	57.32	43.47	13.85	4.139		
2,100.00	2,099.98	2,104.13	2,093.59	7.28	7.32	69.40	4.68	-64.68	64.44	49.91	14.54	4.433		
2,200.00	2,199.84	2,194.96	2,192.10	7.61	7.65	78.60	12.25	-72.25	71.93	56.76	15.17	4.741		
2,300.00	2,299.45	2,293.68	2,290.25	7.94	8.01	88.29	19.79	-79.79	80.81	64.96	15.85	5.099		
2,400.00	2,398.87	2,392.77	2,388.77	8.27	8.38	97.66	27.63	-86.82	91.55	75.01	16.54	5.536		
2,500.00	2,498.29	2,491.75	2,487.22	8.61	8.75	105.82	36.25	-92.36	103.63	86.40	17.23	6.013		
2,600.00	2,597.70	2,590.43	2,585.37	8.95	9.11	113.00	45.62	-96.37	116.96	99.03	17.93	6.522		
2,700.00	2,697.12	2,688.71	2,683.09	9.30	9.47	119.35	55.73	-98.88	131.53	112.90	18.63	7.061		
2,800.00	2,796.53	2,786.62	2,780.44	9.65	9.84	124.61	66.05	-100.89	147.36	128.04	19.32	7.627		
2,900.00	2,895.95	2,884.54	2,877.79	10.00	10.20	128.83	76.37	-102.90	164.18	144.16	20.02	8.202		
3,000.00	2,895.37	2,982.46	2,975.14	10.36	10.56	132.27	86.70	-104.91	181.72	161.00	20.72	8.772		
3,100.00	3,094.78	3,080.37	3,072.49	10.71	10.93	135.09	97.02	-106.92	199.78	178.36	21.42	9.329		
3,200.00	3,194.20	3,178.29	3,169.84	11.07	11.29	137.45	107.34	-108.93	218.24	196.12	22.12	9.868		
3,300.00	3,293.61	3,276.20	3,267.19	11.44	11.66	139.44	117.66	-110.94	237.00	214.18	22.82	10.386		
3,400.00	3,393.03	3,374.12	3,364.54	11.80	12.02	141.14	127.99	-112.95	255.99	232.47	23.52	10.883		
3,500.00	3,492.45	3,472.04	3,461.89	12.17	12.39	142.60	138.31	-114.96	275.18	250.95	24.23	11.358		
3,600.00	3,591.86	3,569.95	3,559.24	12.53	12.76	143.87	148.63	-116.97	294.51	269.58	24.93	11.812		
3,700.00	3,691.28	3,667.87	3,656.59	12.90	13.13	144.99	158.96	-118.98	313.97	288.33	25.64	12.246		
3,800.00	3,790.69	3,765.78	3,753.94	13.27	13.50	145.97	169.28	-120.99	333.53	307.18	26.35	12.659		
3,900.00	3,890.11	3,863.70	3,851.29	13.64	13.86	146.85	179.60	-123.00	353.17	326.12	27.06	13.054		
4,000.00	3,989.53	3,961.62	3,948.64	14.02	14.23	147.63	189.93	-125.01	372.89	345.12	27.76	13.430		
4,100.00	4,088.94	4,059.53	4,045.99	14.39	14.60	148.34	200.25	-127.02	392.67	364.19	28.47	13.790		
4,200.00	4,188.36	4,157.45	4,143.34	14.76	14.97	148.97	210.57	-129.03	412.49	383.31	29.19	14.134		
4,300.00	4,287.78	4,255.36	4,240.69	15.14	15.34	149.55	220.89	-131.04	432.37	402.47	29.90	14.462		
4,400.00	4,387.19	4,353.28	4,338.04	15.51	15.71	150.08	231.22	-133.05	452.28	421.67	30.61	14.776		
4,500.00	4,486.61	4,451.20	4,435.39	15.89	16.09	150.57	241.54	-135.06	472.22	440.90	31.32	15.077		
4,600.00	4,586.02	4,549.11	4,532.74	16.27	16.46	151.01	251.86	-137.07	492.20	460.16	32.03	15.365		
4,700.00	4,685.44	4,647.03	4,630.09	16.64	16.83	151.42	262.19	-139.08	512.20	479.45	32.75	15.641		
4,800.00	4,784.86	4,744.94	4,727.44	17.02	17.20	151.80	272.51	-141.10	532.22	498.76	33.46	15.906		
4,900.00	4,884.27	4,842.86	4,824.79	17.40	17.57	152.15	282.83	-143.11	552.27	518.09	34.18	16.160		
5,000.00	4,983.69	4,940.78	4,922.14	17.78	17.94	152.48	293.15	-145.12	572.33	537.44	34.89	16.404		
5,100.00	5,083.10	5,038.69	5,019.48	18.16	18.31	152.78	303.48	-147.13	592.41	556.81	35.60	16.638		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #223H - OH - Prelim B													Offset Site Error:
Survey Program: 0-MWD+HDGM													0.00 usft
Reference		Offset		Semi Major Axis		Distance		Minimum		Separation		Warning	Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)		
5,200.00	5,182.52	5,136.61	5,116.83	18.54	18.69	153.07	313.80	-149.14	612.51	576.19	36.32	16.864	
5,300.00	5,281.94	5,234.52	5,214.18	18.92	19.06	153.34	324.12	-151.15	632.62	595.58	37.04	17.081	
5,400.00	5,381.35	5,332.44	5,311.53	19.30	19.43	153.59	334.45	-153.16	652.74	614.98	37.75	17.290	
5,500.00	5,480.77	5,430.36	5,408.88	19.68	19.80	153.82	344.77	-155.17	672.87	634.40	38.47	17.491	
5,600.00	5,580.18	5,528.27	5,506.23	20.07	20.18	154.04	355.09	-157.18	693.01	653.83	39.19	17.685	
5,700.00	5,679.60	5,626.19	5,603.58	20.45	20.55	154.25	365.41	-159.19	713.16	673.26	39.90	17.872	
5,800.00	5,779.02	5,724.10	5,700.93	20.83	20.92	154.45	375.74	-161.20	733.33	692.71	40.62	18.053	
5,900.00	5,878.43	5,822.02	5,798.28	21.21	21.30	154.64	386.06	-163.21	753.49	712.16	41.34	18.228	
6,000.00	5,977.85	5,919.94	5,895.63	21.60	21.67	154.82	396.38	-165.22	773.67	731.62	42.06	18.396	
6,100.00	6,077.26	6,017.85	5,992.98	21.98	22.04	154.98	406.71	-167.23	793.85	751.08	42.77	18.559	
6,200.00	6,176.68	6,115.77	6,090.33	22.36	22.42	155.14	417.03	-169.24	814.04	770.55	43.49	18.717	
6,300.00	6,276.10	6,213.68	6,187.68	22.75	22.79	155.30	427.35	-171.25	834.24	790.03	44.21	18.869	
6,400.00	6,375.51	6,311.60	6,285.03	23.13	23.16	155.44	437.67	-173.26	854.44	809.51	44.93	19.017	
6,500.00	6,474.93	6,409.52	6,382.38	23.51	23.54	155.58	448.00	-175.27	874.64	829.00	45.65	19.160	
6,600.00	6,574.34	6,507.43	6,479.73	23.90	23.91	155.71	458.32	-177.28	894.86	848.49	46.37	19.299	
6,700.00	6,673.76	6,605.35	6,577.08	24.28	24.28	155.84	468.64	-179.29	915.07	867.98	47.09	19.433	
6,800.00	6,773.18	6,703.26	6,674.43	24.67	24.66	155.96	478.97	-181.30	935.29	887.48	47.81	19.563	
6,900.00	6,872.59	6,801.18	6,771.78	25.05	25.03	156.08	489.29	-183.31	955.51	906.98	48.53	19.690	
7,000.00	6,972.04	6,900.85	6,869.18	25.44	25.41	156.24	499.62	-185.32	975.49	926.24	49.25	19.805	
7,100.00	7,071.74	7,002.39	6,967.07	25.81	25.80	156.42	510.00	-187.34	992.92	942.93	49.98	19.865	
7,200.00	7,171.64	7,103.42	7,065.47	26.17	26.19	156.49	520.43	-189.37	1,007.18	956.48	50.71	19.862	
7,300.00	7,271.62	7,204.11	7,164.21	26.50	26.57	-87.34	530.90	-191.41	1,018.38	966.97	51.42	19.807	
7,400.00	7,370.53	7,306.06	7,261.69	26.81	26.96	-87.24	541.24	-193.42	1,028.28	976.18	52.10	19.735	
7,500.00	7,466.54	7,387.77	7,354.97	27.08	27.27	-87.98	551.13	-195.35	1,038.00	985.31	52.69	19.699	
7,600.00	7,553.76	7,474.50	7,441.21	27.31	27.61	-89.23	560.28	-197.13	1,048.75	995.47	53.28	19.683	
7,700.00	7,632.50	7,551.52	7,517.78	27.50	27.90	-90.51	568.40	-198.71	1,062.22	1,008.38	53.84	19.730	
7,800.00	7,699.38	7,616.49	7,582.37	27.64	28.15	-91.32	575.24	-200.04	1,080.21	1,025.84	54.38	19.865	
7,900.00	7,752.37	7,667.42	7,633.00	27.75	28.34	-91.18	580.61	-201.09	1,104.26	1,049.34	54.92	20.107	
8,000.00	7,789.84	7,702.77	7,668.15	28.10	28.48	-89.67	584.34	-201.82	1,135.25	1,079.79	55.47	20.468	
8,100.00	7,810.68	7,721.46	7,686.74	28.74	28.55	-86.55	586.31	-202.20	1,173.18	1,117.18	55.99	20.952	
8,200.00	7,815.00	7,723.70	7,686.96	29.51	28.56	-83.32	586.55	-202.24	1,217.15	1,160.68	56.47	21.556	
8,300.00	7,815.00	7,721.63	7,686.90	30.43	28.55	-83.21	586.33	-202.20	1,267.14	1,210.20	56.94	22.254	
8,400.00	7,815.00	7,719.57	7,684.85	31.49	28.54	-83.10	586.11	-202.16	1,322.82	1,265.40	57.42	23.037	
8,500.00	7,815.00	7,717.50	7,682.80	32.67	28.53	-82.99	585.89	-202.12	1,383.48	1,325.60	57.89	23.899	
8,600.00	7,815.00	7,715.44	7,680.74	33.97	28.53	-82.88	585.68	-202.08	1,448.52	1,390.19	58.33	24.832	
8,700.00	7,815.00	7,713.37	7,678.69	35.37	28.52	-82.77	585.46	-202.03	1,517.36	1,458.61	58.75	25.829	
8,800.00	7,815.00	7,711.31	7,676.64	36.86	28.51	-82.66	585.24	-201.99	1,589.51	1,530.38	59.13	26.883	
8,900.00	7,815.00	7,709.24	7,674.59	38.43	28.50	-82.55	585.02	-201.95	1,664.54	1,605.06	59.48	27.987	
9,000.00	7,815.00	7,707.18	7,672.53	40.08	28.49	-82.44	584.81	-201.91	1,742.08	1,682.28	59.79	29.135	
9,100.00	7,815.00	7,705.11	7,670.48	41.78	28.49	-82.33	584.59	-201.86	1,821.80	1,761.72	60.08	30.322	
9,200.00	7,815.00	7,703.05	7,668.43	43.54	28.48	-82.22	584.37	-201.82	1,903.44	1,843.10	60.34	31.544	
9,300.00	7,815.00	7,700.98	7,666.37	45.35	28.47	-82.11	584.15	-201.78	1,986.76	1,926.18	60.58	32.796	
9,400.00	7,815.00	7,701.08	7,664.32	47.20	28.47	-82.00	583.93	-201.74	2,071.55	2,010.75	60.80	34.070	
9,500.00	7,815.00	11,202.73	9,506.00	49.10	53.43	-142.06	835.95	1,668.63	2,145.46	2,075.39	70.07	30.619	
9,600.00	7,815.00	11,302.73	9,506.00	51.02	55.20	-142.06	835.86	1,768.63	2,145.48	2,073.00	72.48	29.601	
9,700.00	7,815.00	11,402.73	9,506.00	52.98	57.00	-142.06	835.78	1,868.63	2,145.50	2,070.57	74.94	28.630	
9,800.00	7,815.00	11,502.73	9,506.00	54.96	58.83	-142.06	835.70	1,968.63	2,145.52	2,068.08	77.44	27.705	
9,900.00	7,815.00	11,602.73	9,506.00	56.97	60.70	-142.06	835.62	2,068.63	2,145.54	2,065.56	79.99	26.824	
10,000.00	7,815.00	11,702.73	9,506.00	59.00	62.60	-142.06	835.54	2,168.63	2,145.57	2,063.00	82.57	25.985	
10,100.00	7,815.00	11,802.73	9,506.00	61.05	64.52	-142.05	835.45	2,268.63	2,145.59	2,060.40	85.19	25.187	
10,200.00	7,815.00	11,902.73	9,506.00	63.11	66.47	-142.05	835.37	2,368.63	2,145.61	2,057.77	87.83	24.429	
10,300.00	7,815.00	12,002.73	9,506.00	65.20	68.44	-142.05	835.29	2,468.63	2,145.63	2,055.12	90.51	23.707	

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #223H - OH - Prelim B													Offset Site Error: 0.00 usft	
Survey Program: 0-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 Tooface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,400.00	7,815.00	12,102.73	9,506.00	67.29	70.43	-142.05	835.21	2,568.63	2,145.65	2,052.44	93.21	23.020		
10,500.00	7,815.00	12,202.73	9,506.00	69.41	72.44	-142.05	835.13	2,668.63	2,145.67	2,049.74	95.93	22.367		
10,600.00	7,815.00	12,302.73	9,506.00	71.53	74.47	-142.05	835.04	2,768.63	2,145.69	2,047.01	98.68	21.744		
10,700.00	7,815.00	12,402.73	9,506.00	73.66	76.51	-142.05	834.96	2,868.63	2,145.71	2,044.27	101.44	21.152		
10,800.00	7,815.00	12,502.73	9,506.00	75.81	78.57	-142.05	834.88	2,968.63	2,145.73	2,041.50	104.23	20.587		
10,900.00	7,815.00	12,602.73	9,506.00	77.96	80.64	-142.05	834.80	3,068.63	2,145.75	2,038.72	107.03	20.048		
11,000.00	7,815.00	12,702.73	9,506.00	80.13	82.72	-142.05	834.72	3,168.63	2,145.77	2,035.93	109.85	19.534		
11,100.00	7,815.00	12,802.73	9,506.00	82.30	84.82	-142.05	834.63	3,268.63	2,145.79	2,033.12	112.68	19.044		
11,200.00	7,815.00	12,902.73	9,506.00	84.47	86.92	-142.05	834.55	3,368.63	2,145.81	2,030.29	115.52	18.575		
11,300.00	7,815.00	13,002.73	9,506.00	86.66	89.04	-142.05	834.47	3,468.63	2,145.83	2,027.46	118.38	18.127		
11,400.00	7,815.00	13,102.73	9,506.00	88.85	91.16	-142.05	834.39	3,568.63	2,145.85	2,024.61	121.25	17.698		
11,500.00	7,815.00	13,202.73	9,506.00	91.04	93.30	-142.04	834.31	3,668.63	2,145.88	2,021.75	124.13	17.288		
11,600.00	7,815.00	13,302.73	9,506.00	93.25	95.44	-142.04	834.22	3,768.63	2,145.90	2,018.88	127.02	16.895		
11,700.00	7,815.00	13,402.73	9,506.00	95.45	97.59	-142.04	834.14	3,868.63	2,145.92	2,016.00	129.91	16.518		
11,800.00	7,815.00	13,502.73	9,506.00	97.67	99.75	-142.04	834.06	3,968.63	2,145.94	2,013.12	132.82	16.156		
11,900.00	7,815.00	13,602.73	9,506.00	99.88	101.91	-142.04	833.98	4,068.63	2,145.96	2,010.22	135.74	15.810		
12,000.00	7,815.00	13,702.73	9,506.00	102.10	104.08	-142.04	833.90	4,168.63	2,145.98	2,007.32	138.66	15.476		
12,100.00	7,815.00	13,802.73	9,506.00	104.33	106.26	-142.04	833.82	4,268.63	2,146.00	2,004.41	141.59	15.156		
12,200.00	7,815.00	13,902.73	9,506.00	106.55	108.44	-142.04	833.73	4,368.63	2,146.02	2,001.49	144.53	14.848		
12,300.00	7,815.00	14,002.73	9,506.00	108.78	110.62	-142.04	833.65	4,468.63	2,146.04	1,998.57	147.47	14.552		
12,400.00	7,815.00	14,102.73	9,506.00	111.02	112.81	-142.04	833.57	4,568.63	2,146.06	1,995.64	150.42	14.267		
12,500.00	7,815.00	14,202.73	9,506.00	113.25	115.01	-142.04	833.49	4,668.63	2,146.08	1,992.70	153.38	13.992		
12,600.00	7,815.00	14,302.73	9,506.00	115.49	117.21	-142.04	833.41	4,768.63	2,146.10	1,989.76	156.34	13.727		
12,700.00	7,815.00	14,402.73	9,506.00	117.74	119.41	-142.04	833.32	4,868.63	2,146.12	1,986.82	159.31	13.472		
12,800.00	7,815.00	14,502.73	9,506.00	119.98	121.62	-142.04	833.24	4,968.63	2,146.14	1,983.87	162.28	13.225		
12,900.00	7,815.00	14,602.73	9,506.00	122.23	123.83	-142.03	833.16	5,068.63	2,146.16	1,980.91	165.25	12.987		
13,000.00	7,815.00	14,702.73	9,506.00	124.48	126.05	-142.03	833.08	5,168.63	2,146.19	1,977.95	168.23	12.757		
13,100.00	7,815.00	14,802.73	9,506.00	126.73	128.27	-142.03	833.00	5,268.63	2,146.21	1,974.99	171.22	12.535		
13,200.00	7,815.00	14,902.73	9,506.00	128.98	130.49	-142.03	832.91	5,368.63	2,146.23	1,972.02	174.20	12.320		
13,300.00	7,815.00	15,002.73	9,506.00	131.24	132.71	-142.03	832.83	5,468.63	2,146.25	1,969.05	177.19	12.112		
13,400.00	7,815.00	15,102.73	9,506.00	133.50	134.94	-142.03	832.75	5,568.63	2,146.27	1,966.08	180.19	11.911		
13,500.00	7,815.00	15,202.73	9,506.00	135.76	137.17	-142.03	832.67	5,668.63	2,146.29	1,963.10	183.19	11.716		
13,600.00	7,815.00	15,302.73	9,506.00	138.02	139.40	-142.03	832.59	5,768.63	2,146.31	1,960.12	186.19	11.528		
13,700.00	7,815.00	15,402.73	9,506.00	140.28	141.64	-142.03	832.50	5,868.63	2,146.33	1,957.14	189.19	11.345		
13,800.00	7,815.00	15,502.73	9,506.00	142.54	143.87	-142.03	832.42	5,968.63	2,146.35	1,954.15	192.20	11.167		
13,900.00	7,815.00	15,602.73	9,506.00	144.81	146.11	-142.03	832.34	6,068.63	2,146.37	1,951.16	195.21	10.995		
14,000.00	7,815.00	15,702.73	9,506.00	147.07	148.35	-142.03	832.26	6,168.63	2,146.39	1,948.17	198.22	10.828		
14,100.00	7,815.00	15,802.73	9,506.00	149.34	150.60	-142.03	832.18	6,268.63	2,146.41	1,945.18	201.24	10.666		
14,200.00	7,815.00	15,902.73	9,506.00	151.61	152.84	-142.03	832.09	6,368.63	2,146.43	1,942.18	204.25	10.509		
14,300.00	7,815.00	16,002.73	9,506.00	153.88	155.09	-142.02	832.01	6,468.63	2,146.45	1,939.18	207.27	10.356		
14,400.00	7,815.00	16,102.73	9,506.00	156.15	157.34	-142.02	831.93	6,568.63	2,146.48	1,936.18	210.30	10.207		
14,500.00	7,815.00	16,202.73	9,506.00	158.42	159.59	-142.02	831.85	6,668.63	2,146.50	1,933.18	213.32	10.062		
14,600.00	7,815.00	16,302.73	9,506.00	160.70	161.84	-142.02	831.77	6,768.63	2,146.52	1,930.17	216.35	9.922		
14,700.00	7,815.00	16,402.73	9,506.00	162.97	164.09	-142.02	831.68	6,868.63	2,146.54	1,927.16	219.37	9.785		
14,800.00	7,815.00	16,502.73	9,506.00	165.25	166.35	-142.02	831.60	6,968.63	2,146.56	1,924.15	222.40	9.652		
14,900.00	7,815.00	16,602.73	9,506.00	167.52	168.61	-142.02	831.52	7,068.63	2,146.58	1,921.14	225.44	9.522		
15,000.00	7,815.00	16,702.73	9,506.00	169.80	170.86	-142.02	831.44	7,168.63	2,146.60	1,918.13	228.47	9.396		
15,100.00	7,815.00	16,802.73	9,506.00	172.08	173.12	-142.02	831.36	7,268.63	2,146.62	1,915.12	231.51	9.272		
15,200.00	7,815.00	16,902.73	9,506.00	174.36	175.38	-142.02	831.27	7,368.63	2,146.64	1,912.10	234.54	9.152		
15,300.00	7,815.00	17,002.73	9,506.00	176.64	177.65	-142.02	831.19	7,468.63	2,146.66	1,909.08	237.58	9.036		
15,400.00	7,815.00	17,102.73	9,506.00	178.92	179.91	-142.02	831.11	7,568.63	2,146.68	1,906.06	240.62	8.921		
15,500.00	7,815.00	17,202.73	9,506.00	181.20	182.17	-142.02	831.03	7,668.63	2,146.70	1,903.04	243.66	8.810		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #223H - OH - Prelim B														Offset Site Error: 0.00 usft	
Survey Program: 0-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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
15,600.00	7,815.00	17,302.73	9,506.00	183.48	184.44	-142.02	830.95	7,768.63	2,146.72	1,900.02	246.70	8.702			
15,700.00	7,815.00	17,402.73	9,506.00	185.76	186.71	-142.01	830.87	7,868.63	2,146.74	1,897.00	249.75	8.596			
15,800.00	7,815.00	17,502.73	9,506.00	188.04	188.97	-142.01	830.78	7,968.63	2,146.76	1,893.97	252.79	8.492			
15,900.00	7,815.00	17,602.73	9,506.00	190.33	191.24	-142.01	830.70	8,068.63	2,146.79	1,890.95	255.84	8.391			
16,000.00	7,815.00	17,702.73	9,506.00	192.61	193.51	-142.01	830.62	8,168.63	2,146.81	1,887.92	258.89	8.292			
16,100.00	7,815.00	17,802.73	9,506.00	194.89	195.78	-142.01	830.54	8,268.63	2,146.83	1,884.89	261.94	8.196			
16,200.00	7,815.00	17,902.73	9,506.00	197.18	198.05	-142.01	830.46	8,368.63	2,146.85	1,881.86	264.99	8.102			
16,300.00	7,815.00	18,002.73	9,506.00	199.47	200.32	-142.01	830.37	8,468.63	2,146.87	1,878.83	268.04	8.010			
16,400.00	7,815.00	18,102.73	9,506.00	201.75	202.60	-142.01	830.29	8,568.63	2,146.89	1,875.80	271.09	7.919			
16,500.00	7,815.00	18,202.73	9,506.00	204.04	204.87	-142.01	830.21	8,668.63	2,146.91	1,872.77	274.14	7.831			
16,600.00	7,815.00	18,302.73	9,506.00	206.33	207.14	-142.01	830.13	8,768.63	2,146.93	1,869.73	277.20	7.745			
16,700.00	7,815.00	18,402.73	9,506.00	208.61	209.42	-142.01	830.05	8,868.63	2,146.95	1,866.70	280.25	7.661			
16,800.00	7,815.00	18,502.73	9,506.00	210.90	211.70	-142.01	829.96	8,968.63	2,146.97	1,863.66	283.31	7.578			
16,900.00	7,815.00	18,602.73	9,506.00	213.19	213.97	-142.01	829.88	9,068.63	2,146.99	1,860.63	286.37	7.497			
17,000.00	7,815.00	18,702.73	9,506.00	215.48	216.25	-142.01	829.80	9,168.63	2,147.01	1,857.59	289.42	7.418			
17,100.00	7,815.00	18,802.73	9,506.00	217.77	218.53	-142.00	829.72	9,268.63	2,147.03	1,854.55	292.48	7.341			
17,200.00	7,815.00	18,902.73	9,506.00	220.06	220.81	-142.00	829.64	9,368.63	2,147.05	1,851.51	295.54	7.265			
17,300.00	7,815.00	19,002.73	9,506.00	222.35	223.08	-142.00	829.55	9,468.63	2,147.08	1,848.47	298.60	7.190			
17,400.00	7,815.00	19,102.73	9,506.00	224.64	225.36	-142.00	829.47	9,568.63	2,147.10	1,845.43	301.67	7.117			
17,500.00	7,815.00	19,202.73	9,506.00	226.93	227.64	-142.00	829.39	9,668.63	2,147.12	1,842.39	304.73	7.046			
17,600.00	7,815.00	19,302.73	9,506.00	229.22	229.92	-142.00	829.31	9,768.63	2,147.14	1,839.35	307.79	6.976			
17,700.00	7,815.00	19,402.73	9,506.00	231.51	232.21	-142.00	829.23	9,868.63	2,147.16	1,836.30	310.85	6.907			
17,800.00	7,815.00	19,502.73	9,506.00	233.80	234.49	-142.00	829.14	9,968.63	2,147.18	1,833.26	313.92	6.840			
17,900.00	7,815.00	19,602.73	9,506.00	236.10	236.77	-142.00	829.06	10,068.63	2,147.20	1,830.22	316.98	6.774			
17,981.45	7,815.00	19,684.18	9,506.00	237.96	238.63	-142.00	829.00	10,150.08	2,147.22	1,827.74	319.48	6.721			

Pro Directional Anticollision Report

Company: Matador Resources
Project: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #224H - OH - Prelim B													Offset Site Error:	0.00 usft
Survey Program: 0-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		
0.00	0.00	1.00	-1.00	0.00	0.00	-178.09	-30.00	-1.00	30.02					
100.00	100.00	101.00	99.00	0.13	0.13	-178.09	-30.00	-1.00	30.02	29.76	0.26	115.497		
200.00	200.00	201.00	199.00	0.49	0.49	-178.09	-30.00	-1.00	30.02	29.04	0.98	30.728		
300.00	300.00	301.00	299.00	0.85	0.85	-178.09	-30.00	-1.00	30.02	28.32	1.69	17.722		
400.00	400.00	401.00	399.00	1.20	1.21	-178.09	-30.00	-1.00	30.02	27.61	2.41	12.451		
500.00	500.00	501.00	499.00	1.56	1.57	-178.09	-30.00	-1.00	30.02	26.89	3.13	9.597		
600.00	600.00	601.00	599.00	1.92	1.92	-178.09	-30.00	-1.00	30.02	26.17	3.84	7.807		
700.00	700.00	701.00	699.00	2.28	2.28	-178.09	-30.00	-1.00	30.02	25.46	4.56	6.580		
800.00	800.00	801.00	799.00	2.64	2.64	-178.09	-30.00	-1.00	30.02	24.74	5.28	5.687		
900.00	900.00	901.00	899.00	3.00	3.00	-178.09	-30.00	-1.00	30.02	24.02	6.00	5.007		
1,000.00	1,000.00	999.00	999.00	3.35	3.35	-178.09	-30.00	-1.00	30.02	23.31	6.71	4.477 CC, ES		
1,100.00	1,100.00	1,098.47	1,098.47	3.71	3.69	-178.14	-30.85	-1.00	30.87	23.46	7.40	4.170		
1,200.00	1,200.00	1,202.13	1,197.83	4.07	4.03	-178.29	-33.42	-1.00	33.45	25.35	8.10	4.131		
1,300.00	1,300.00	1,302.19	1,297.71	4.43	4.36	-178.45	-36.90	-1.00	36.94	28.15	8.79	4.203		
1,400.00	1,400.00	1,402.25	1,397.59	4.79	4.70	-178.58	-40.39	-1.00	40.43	30.94	9.48	4.263		
1,500.00	1,500.00	1,502.31	1,497.47	5.15	5.04	-178.69	-43.88	-1.00	43.92	33.74	10.18	4.313		
1,600.00	1,600.00	1,602.37	1,597.35	5.51	5.38	-178.79	-47.37	-1.00	47.41	36.52	10.88	4.356		
1,700.00	1,700.00	1,702.43	1,697.22	5.86	5.73	-178.87	-50.86	-1.00	50.90	39.31	11.59	4.393		
1,800.00	1,800.00	1,802.49	1,797.10	6.22	6.08	-178.95	-54.34	-1.00	54.39	42.10	12.29	4.425		
1,900.00	1,900.00	1,902.55	1,896.98	6.58	6.43	-179.01	-57.83	-1.00	57.87	44.88	13.00	4.453		
2,000.00	2,000.00	2,002.61	1,996.86	6.94	6.78	-179.07	-61.32	-1.00	61.36	47.66	13.70	4.478		
2,100.00	2,099.98	2,102.64	2,096.77	7.28	7.13	-25.81	-64.81	-1.00	63.28	48.88	14.39	4.396		
2,200.00	2,199.84	2,197.32	2,196.67	7.61	7.47	-27.94	-68.30	-1.00	62.10	47.05	15.05	4.125		
2,300.00	2,299.45	2,295.62	2,294.84	7.94	7.81	-30.84	-73.05	-1.89	59.27	43.56	15.71	3.772		
2,400.00	2,398.87	2,394.04	2,392.93	8.27	8.17	-32.90	-80.62	-4.64	57.48	41.10	16.37	3.510		
2,417.89	2,416.66	2,411.66	2,410.46	8.33	8.23	-33.05	-82.27	-5.34	57.43	40.94	16.49	3.483		
2,500.00	2,498.29	2,507.09	2,491.15	8.61	8.58	-32.90	-90.94	-9.24	58.23	41.14	17.09	3.407		
2,600.00	2,597.70	2,607.10	2,590.38	8.95	8.95	-32.30	-102.17	-14.41	59.71	41.93	17.78	3.358		
2,700.00	2,697.12	2,707.11	2,689.60	9.30	9.32	-31.73	-113.40	-19.58	61.20	42.72	18.48	3.311		
2,800.00	2,796.53	2,807.13	2,788.82	9.65	9.69	-31.19	-124.62	-24.75	62.69	43.51	19.18	3.268		
2,900.00	2,895.95	2,907.14	2,888.04	10.00	10.06	-30.68	-135.85	-29.93	64.19	44.30	19.89	3.227		
3,000.00	2,995.37	3,007.15	2,987.26	10.36	10.44	-30.19	-147.08	-35.10	65.69	45.10	20.60	3.189		
3,100.00	3,094.78	3,092.84	3,086.48	10.71	10.77	-29.72	-158.30	-40.27	67.20	45.95	21.26	3.162		
3,200.00	3,194.20	3,207.18	3,185.70	11.07	11.20	-29.27	-169.53	-45.44	68.71	46.69	22.02	3.121		
3,300.00	3,293.61	3,307.19	3,284.92	11.44	11.58	-28.84	-180.76	-50.61	70.23	47.50	22.73	3.089		
3,400.00	3,393.03	3,407.20	3,384.14	11.80	11.96	-28.43	-191.98	-55.79	71.75	48.30	23.45	3.060		
3,500.00	3,492.45	3,507.22	3,483.36	12.17	12.35	-28.03	-203.21	-60.96	73.28	49.11	24.17	3.032		
3,600.00	3,591.86	3,607.23	3,582.58	12.53	12.73	-27.65	-214.44	-66.13	74.80	49.92	24.88	3.006		
3,700.00	3,691.28	3,707.24	3,681.80	12.90	13.12	-27.29	-225.66	-71.30	76.33	50.73	25.60	2.981		
3,800.00	3,790.69	3,807.25	3,781.02	13.27	13.50	-26.94	-236.89	-76.47	77.87	51.54	26.33	2.958		
3,900.00	3,890.11	3,907.27	3,880.24	13.64	13.89	-26.61	-248.12	-81.64	79.40	52.36	27.05	2.936		
4,000.00	3,989.53	4,007.28	3,979.46	14.02	14.28	-26.29	-259.34	-86.82	80.94	53.17	27.77	2.915		
4,100.00	4,088.94	4,107.29	4,078.68	14.39	14.67	-25.97	-270.57	-91.99	82.48	53.99	28.49	2.895		
4,200.00	4,188.36	4,207.31	4,177.90	14.76	15.06	-25.68	-281.80	-97.16	84.03	54.81	29.22	2.876		
4,300.00	4,287.78	4,307.32	4,277.12	15.14	15.45	-25.39	-293.02	-102.33	85.57	55.63	29.94	2.858		
4,400.00	4,387.19	4,407.33	4,376.34	15.51	15.84	-25.11	-304.25	-107.50	87.12	56.45	30.67	2.841		
4,500.00	4,486.61	4,507.34	4,475.56	15.89	16.23	-24.84	-315.48	-112.68	88.67	57.28	31.39	2.824		
4,600.00	4,586.02	4,592.64	4,574.78	16.27	16.56	-24.58	-326.70	-117.85	90.22	58.16	32.07	2.814		
4,700.00	4,685.44	4,707.37	4,674.00	16.64	17.01	-24.33	-337.93	-123.02	91.77	58.93	32.85	2.794		
4,800.00	4,784.86	4,807.38	4,773.22	17.02	17.40	-24.09	-349.16	-128.19	93.33	59.76	33.57	2.780		
4,900.00	4,884.27	4,892.60	4,872.44	17.40	17.73	-23.86	-360.38	-133.36	94.89	60.64	34.25	2.771		
5,000.00	4,983.69	5,007.41	4,971.66	17.78	18.18	-23.63	-371.61	-138.54	96.45	61.41	35.03	2.753		

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design													Leatherneck Fed - #224H - OH - Prelim B		Offset Site Error: 0.00 usft	
Survey Program: 0-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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
5,100.00	5,083.10	5,107.42	5,070.88	18.16	18.58	-23.41	-382.84	-143.71	98.01	62.25	35.76	2.741				
5,200.00	5,182.52	5,207.43	5,170.10	18.54	18.97	-23.20	-394.06	-148.88	99.57	63.08	36.49	2.729				
5,300.00	5,281.94	5,307.45	5,269.32	18.92	19.36	-22.99	-405.29	-154.05	101.13	63.91	37.22	2.717				
5,400.00	5,381.35	5,392.54	5,368.54	19.30	19.70	-22.79	-416.52	-159.22	102.69	64.80	37.89	2.710				
5,500.00	5,480.77	5,492.53	5,467.76	19.68	20.09	-22.60	-427.74	-164.40	104.26	65.64	38.62	2.699				
5,600.00	5,580.18	5,592.51	5,566.98	20.07	20.49	-22.41	-438.97	-169.57	105.82	66.47	39.35	2.689				
5,700.00	5,679.60	5,692.50	5,666.20	20.45	20.88	-22.23	-450.20	-174.74	107.39	67.31	40.08	2.679				
5,800.00	5,779.02	5,792.49	5,765.42	20.83	21.27	-22.05	-461.42	-179.91	108.96	68.15	40.81	2.670				
5,900.00	5,878.43	5,907.52	5,864.64	21.21	21.73	-21.88	-472.65	-185.08	110.53	68.93	41.60	2.657				
6,000.00	5,977.85	5,992.46	5,963.86	21.60	22.06	-21.71	-483.88	-190.26	112.10	69.82	42.28	2.652				
6,100.00	6,077.26	6,107.55	6,063.08	21.98	22.52	-21.55	-495.10	-195.43	113.67	70.61	43.06	2.640				
6,200.00	6,176.68	6,192.44	6,162.30	22.36	22.85	-21.39	-506.33	-200.60	115.24	71.50	43.74	2.635				
6,300.00	6,276.10	6,307.58	6,261.52	22.75	23.31	-21.24	-517.56	-205.77	116.82	72.29	44.53	2.624				
6,400.00	6,375.51	6,407.59	6,360.74	23.13	23.70	-21.09	-528.78	-210.94	118.39	73.13	45.26	2.616				
6,500.00	6,474.93	6,492.40	6,459.96	23.51	24.04	-20.94	-540.01	-216.12	119.96	74.03	45.93	2.612				
6,600.00	6,574.34	6,592.39	6,559.18	23.90	24.44	-20.80	-551.24	-221.29	121.54	74.87	46.66	2.605				
6,700.00	6,673.76	6,692.91	6,658.94	24.28	24.83	-20.66	-562.49	-226.47	123.09	75.68	47.41	2.596				
6,800.00	6,773.18	6,797.12	6,762.61	24.67	25.24	-20.89	-572.05	-230.88	122.51	74.33	48.18	2.543				
6,900.00	6,872.59	6,901.15	6,866.41	25.05	25.62	-21.74	-578.17	-233.70	118.53	69.61	48.92	2.423				
7,000.00	6,972.04	7,004.73	6,969.95	25.44	25.98	-23.27	-580.86	-234.93	111.46	61.84	49.62	2.246				
7,100.00	7,071.74	7,105.52	7,070.74	25.81	26.30	-24.86	-581.00	-235.00	104.58	54.25	50.33	2.078				
7,200.00	7,171.64	7,205.43	7,170.64	26.17	26.61	-25.83	-581.00	-235.00	100.78	49.74	51.04	1.975				
7,295.40	7,267.01	7,300.79	7,266.01	26.49	26.91	90.00	-581.00	-235.00	99.70	48.05	51.64	1.930 SF				
7,300.00	7,271.62	7,305.41	7,270.62	26.50	26.93	90.37	-581.00	-235.00	100.00	48.31	51.70	1.934				
7,400.00	7,370.53	7,404.32	7,369.53	26.81	27.24	98.03	-581.00	-235.00	101.04	48.89	52.16	1.937				
7,500.00	7,465.54	7,500.68	7,464.54	27.08	27.54	112.63	-581.00	-235.00	109.77	57.14	52.63	2.086				
7,600.00	7,553.76	7,587.54	7,552.76	27.31	27.82	127.70	-581.00	-235.00	135.95	82.51	53.44	2.544				
7,700.00	7,632.50	7,666.28	7,631.50	27.50	28.07	138.33	-581.00	-235.00	183.23	128.88	54.35	3.371				
7,800.00	7,699.38	7,733.16	7,698.38	27.64	28.28	143.91	-581.00	-235.00	248.70	193.62	55.08	4.515				
7,900.00	7,752.37	7,786.15	7,751.37	27.75	28.45	144.85	-581.00	-235.00	327.98	272.39	55.59	5.900				
8,000.00	7,789.84	7,823.63	7,788.84	28.10	28.57	139.88	-581.00	-235.00	417.10	361.18	55.93	7.458				
8,100.00	7,810.68	7,844.46	7,809.68	28.74	28.63	121.64	-581.00	-235.00	512.47	456.34	56.13	9.131				
8,200.00	7,815.00	7,848.78	7,814.00	29.51	28.65	90.00	-581.00	-235.00	610.68	554.46	56.22	10.862				
8,300.00	7,815.00	7,848.78	7,814.00	30.43	28.65	90.00	-581.00	-235.00	709.52	653.24	56.28	12.607				
8,400.00	7,815.00	7,848.78	7,814.00	31.49	28.65	90.00	-581.00	-235.00	808.64	752.32	56.33	14.356				
8,500.00	7,815.00	7,848.78	7,814.00	32.67	28.65	90.00	-581.00	-235.00	907.96	851.60	56.36	16.109				
8,600.00	7,815.00	7,848.78	7,814.00	33.97	28.65	90.00	-581.00	-235.00	1,007.41	951.02	56.40	17.863				
8,700.00	7,815.00	7,848.78	7,814.00	35.37	28.65	90.00	-581.00	-235.00	1,106.96	1,050.54	56.43	19.618				
8,800.00	7,815.00	7,848.78	7,814.00	36.86	28.65	90.00	-581.00	-235.00	1,206.59	1,150.14	56.45	21.373				
8,900.00	7,815.00	7,848.78	7,814.00	38.43	28.65	90.00	-581.00	-235.00	1,306.27	1,249.79	56.48	23.129				
9,000.00	7,815.00	7,848.78	7,814.00	40.08	28.65	90.00	-581.00	-235.00	1,406.00	1,349.50	56.50	24.884				
9,100.00	7,815.00	7,848.78	7,814.00	41.78	28.65	90.00	-581.00	-235.00	1,505.76	1,449.24	56.52	26.639				
9,200.00	7,815.00	7,848.78	7,814.00	43.54	28.65	90.00	-581.00	-235.00	1,605.55	1,549.01	56.55	28.393				
9,300.00	7,815.00	11,003.39	9,506.00	45.35	48.91	-179.99	-482.61	1,467.55	1,692.00	1,652.15	39.85	42.461				
9,400.00	7,815.00	11,103.39	9,506.00	47.20	50.63	-179.99	-482.73	1,567.55	1,692.00	1,651.11	40.89	41.379				
9,500.00	7,815.00	11,203.39	9,506.00	49.10	52.38	-179.99	-482.85	1,667.55	1,692.00	1,650.03	41.97	40.319				
9,600.00	7,815.00	11,303.39	9,506.00	51.02	54.18	-179.99	-482.97	1,767.55	1,692.00	1,648.93	43.07	39.285				
9,700.00	7,815.00	11,403.39	9,506.00	52.98	56.02	-179.99	-483.09	1,867.55	1,692.00	1,647.80	44.20	38.278				
9,800.00	7,815.00	11,503.39	9,506.00	54.96	57.89	-179.99	-483.21	1,967.55	1,692.00	1,646.64	45.36	37.301				
9,900.00	7,815.00	11,603.39	9,506.00	56.97	59.79	-179.99	-483.33	2,067.55	1,692.00	1,645.46	46.54	36.353				
10,000.00	7,815.00	11,703.39	9,506.00	59.00	61.72	-179.99	-483.45	2,167.55	1,692.00	1,644.25	47.75	35.436				
10,100.00	7,815.00	11,803.39	9,506.00	61.05	63.68	-179.99	-483.57	2,267.55	1,692.00	1,643.03	48.97	34.550				

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #224H - OH - Prelim B														Offset Site Error:	0.00 usft
Survey Program: 0-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			
10,200.00	7,815.00	11,903.39	9,506.00	63.11	65.65	-179.99	-483.69	2,367.55	1,692.00	1,641.78	50.22	33.694			
10,300.00	7,815.00	12,003.39	9,506.00	65.20	67.65	-179.99	-483.81	2,467.55	1,692.00	1,640.52	51.48	32.869			
10,400.00	7,815.00	12,103.39	9,506.00	67.29	69.67	-179.99	-483.93	2,567.55	1,692.00	1,639.24	52.76	32.073			
10,500.00	7,815.00	12,203.39	9,506.00	69.41	71.70	-179.99	-484.05	2,667.55	1,692.00	1,637.95	54.05	31.306			
10,600.00	7,815.00	12,303.39	9,506.00	71.53	73.76	-179.99	-484.17	2,767.55	1,692.00	1,636.65	55.35	30.566			
10,700.00	7,815.00	12,403.39	9,506.00	73.66	75.82	-179.99	-484.29	2,867.55	1,692.00	1,635.33	56.67	29.854			
10,800.00	7,815.00	12,503.39	9,506.00	75.81	77.90	-179.99	-484.41	2,967.55	1,692.00	1,633.99	58.01	29.169			
10,900.00	7,815.00	12,603.39	9,506.00	77.96	79.99	-179.99	-484.53	3,067.55	1,692.00	1,632.65	59.35	28.508			
11,000.00	7,815.00	12,703.39	9,506.00	80.13	82.10	-179.99	-484.65	3,167.55	1,692.00	1,631.29	60.71	27.872			
11,100.00	7,815.00	12,803.39	9,506.00	82.30	84.21	-179.99	-484.77	3,267.55	1,692.00	1,629.93	62.07	27.259			
11,200.00	7,815.00	12,903.39	9,506.00	84.47	86.33	-179.99	-484.89	3,367.55	1,692.00	1,628.56	63.44	26.669			
11,300.00	7,815.00	13,003.39	9,506.00	86.66	88.47	-179.99	-485.01	3,467.55	1,692.00	1,627.17	64.83	26.100			
11,400.00	7,815.00	13,103.39	9,506.00	88.85	90.61	-179.99	-485.13	3,567.55	1,692.00	1,625.78	66.22	25.552			
11,500.00	7,815.00	13,203.39	9,506.00	91.04	92.76	-179.99	-485.25	3,667.55	1,692.00	1,624.38	67.62	25.023			
11,600.00	7,815.00	13,303.39	9,506.00	93.25	94.92	-179.99	-485.37	3,767.55	1,692.00	1,622.98	69.02	24.514			
11,700.00	7,815.00	13,403.39	9,506.00	95.45	97.08	-179.99	-485.48	3,867.55	1,692.00	1,621.56	70.44	24.022			
11,800.00	7,815.00	13,503.39	9,506.00	97.67	99.25	-179.99	-485.60	3,967.55	1,692.00	1,620.14	71.86	23.547			
11,900.00	7,815.00	13,603.39	9,506.00	99.88	101.43	-179.99	-485.72	4,067.55	1,692.00	1,618.72	73.28	23.089			
12,000.00	7,815.00	13,703.39	9,506.00	102.10	103.61	-179.99	-485.84	4,167.55	1,692.00	1,617.29	74.71	22.647			
12,100.00	7,815.00	13,803.39	9,506.00	104.33	105.80	-179.99	-485.96	4,267.55	1,692.00	1,615.85	76.15	22.220			
12,200.00	7,815.00	13,903.39	9,506.00	106.55	107.99	-179.99	-486.08	4,367.55	1,692.00	1,614.41	77.59	21.807			
12,300.00	7,815.00	14,003.39	9,506.00	108.78	110.19	-179.99	-486.20	4,467.55	1,692.00	1,612.96	79.04	21.408			
12,400.00	7,815.00	14,103.39	9,506.00	111.02	112.39	-179.99	-486.32	4,567.55	1,692.00	1,611.51	80.49	21.022			
12,500.00	7,815.00	14,203.39	9,506.00	113.25	114.60	-179.99	-486.44	4,667.55	1,692.00	1,610.06	81.94	20.649			
12,600.00	7,815.00	14,303.39	9,506.00	115.49	116.81	-179.99	-486.56	4,767.55	1,692.00	1,608.60	83.40	20.287			
12,700.00	7,815.00	14,403.39	9,506.00	117.74	119.02	-179.99	-486.68	4,867.55	1,692.00	1,607.13	84.87	19.937			
12,800.00	7,815.00	14,503.39	9,506.00	119.98	121.24	-179.99	-486.80	4,967.55	1,692.00	1,605.67	86.33	19.599			
12,900.00	7,815.00	14,603.39	9,506.00	122.23	123.46	-179.99	-486.92	5,067.55	1,692.00	1,604.20	87.80	19.270			
13,000.00	7,815.00	14,703.39	9,506.00	124.48	125.68	-179.99	-487.04	5,167.55	1,692.00	1,602.72	89.28	18.952			
13,100.00	7,815.00	14,803.39	9,506.00	126.73	127.91	-179.99	-487.16	5,267.55	1,692.00	1,601.25	90.75	18.644			
13,200.00	7,815.00	14,903.39	9,506.00	128.98	130.14	-179.99	-487.28	5,367.55	1,692.00	1,599.77	92.23	18.345			
13,300.00	7,815.00	15,003.39	9,506.00	131.24	132.37	-179.99	-487.40	5,467.55	1,692.00	1,598.28	93.72	18.054			
13,400.00	7,815.00	15,103.39	9,506.00	133.50	134.61	-179.99	-487.52	5,567.55	1,692.00	1,596.80	95.20	17.772			
13,479.93	7,815.00	15,183.32	9,506.00	135.30	136.40	-179.99	-487.61	5,647.48	1,692.00	1,595.61	96.39	17.553			
13,500.00	7,815.00	15,203.39	9,506.00	135.76	136.85	-179.99	-487.64	5,667.55	1,692.00	1,595.31	96.69	17.499			
13,600.00	7,815.00	15,303.39	9,506.00	138.02	139.09	-179.99	-487.76	5,767.55	1,692.00	1,593.82	98.18	17.233			
13,700.00	7,815.00	15,403.39	9,506.00	140.28	141.33	-179.99	-487.88	5,867.55	1,692.00	1,592.32	99.68	16.975			
13,800.00	7,815.00	15,503.39	9,506.00	142.54	143.57	-179.99	-488.00	5,967.55	1,692.00	1,590.83	101.17	16.724			
13,900.00	7,815.00	15,603.39	9,506.00	144.81	145.82	-179.99	-488.12	6,067.55	1,692.00	1,589.33	102.67	16.480			
14,000.00	7,815.00	15,703.39	9,506.00	147.07	148.07	-179.99	-488.24	6,167.55	1,692.00	1,587.83	104.17	16.243			
14,100.00	7,815.00	15,803.39	9,506.00	149.34	150.32	-179.99	-488.36	6,267.55	1,692.00	1,586.33	105.67	16.012			
14,200.00	7,815.00	15,903.39	9,506.00	151.61	152.57	-179.99	-488.48	6,367.55	1,692.00	1,584.82	107.18	15.787			
14,300.00	7,815.00	16,003.39	9,506.00	153.88	154.82	-179.99	-488.60	6,467.55	1,692.00	1,583.32	108.68	15.568			
14,400.00	7,815.00	16,103.39	9,506.00	156.15	157.07	-180.00	-488.72	6,567.55	1,692.00	1,581.81	110.19	15.355			
14,500.00	7,815.00	16,203.39	9,506.00	158.42	159.33	-180.00	-488.83	6,667.55	1,692.00	1,580.30	111.70	15.148			
14,600.00	7,815.00	16,303.39	9,506.00	160.70	161.59	-180.00	-488.95	6,767.55	1,692.00	1,578.79	113.21	14.946			
14,700.00	7,815.00	16,403.39	9,506.00	162.97	163.85	-180.00	-489.07	6,867.55	1,692.00	1,577.28	114.72	14.749			
14,800.00	7,815.00	16,503.39	9,506.00	165.25	166.11	-180.00	-489.19	6,967.55	1,692.00	1,575.77	116.23	14.557			
14,900.00	7,815.00	16,603.39	9,506.00	167.52	168.37	-180.00	-489.31	7,067.55	1,692.00	1,574.25	117.75	14.369			
15,000.00	7,815.00	16,703.39	9,506.00	169.80	170.63	-180.00	-489.43	7,167.55	1,692.00	1,572.73	119.27	14.187			
15,100.00	7,815.00	16,803.39	9,506.00	172.08	172.90	-180.00	-489.55	7,267.55	1,692.00	1,571.21	120.79	14.008			
15,200.00	7,815.00	16,903.39	9,506.00	174.36	175.16	-180.00	-489.67	7,367.55	1,692.00	1,569.70	122.30	13.834			

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: WellPlanner1
Offset TVD Reference: Offset Datum

Offset Design Leatherneck Fed - #224H - OH - Prelim B													Offset Site Error: 0.00 usft	
Survey Program: 0-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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,300.00	7,815.00	17,003.39	9,506.00	176.64	177.43	-180.00	-489.79	7,467.55	1,692.00	1,568.17	123.83	13.664		
15,400.00	7,815.00	17,103.39	9,506.00	178.92	179.70	-180.00	-489.91	7,567.55	1,692.00	1,566.65	125.35	13.499		
15,500.00	7,815.00	17,203.39	9,506.00	181.20	181.97	-180.00	-490.03	7,667.55	1,692.00	1,565.13	126.87	13.336		
15,600.00	7,815.00	17,303.39	9,506.00	183.48	184.24	-180.00	-490.15	7,767.55	1,692.00	1,563.61	128.39	13.178		
15,700.00	7,815.00	17,403.39	9,506.00	185.76	186.51	-180.00	-490.27	7,867.55	1,692.00	1,562.08	129.92	13.023		
15,800.00	7,815.00	17,503.39	9,506.00	188.04	188.78	-180.00	-490.39	7,967.55	1,692.00	1,560.55	131.45	12.872		
15,900.00	7,815.00	17,603.39	9,506.00	190.33	191.05	-180.00	-490.51	8,067.55	1,692.00	1,559.03	132.97	12.724		
16,000.00	7,815.00	17,703.39	9,506.00	192.61	193.32	-180.00	-490.63	8,167.55	1,692.00	1,557.50	134.50	12.580		
16,100.00	7,815.00	17,803.39	9,506.00	194.89	195.60	-180.00	-490.75	8,267.55	1,692.00	1,555.97	136.03	12.438		
16,200.00	7,815.00	17,903.39	9,506.00	197.18	197.87	-180.00	-490.87	8,367.55	1,692.00	1,554.44	137.56	12.300		
16,300.00	7,815.00	18,003.39	9,506.00	199.47	200.15	-180.00	-490.99	8,467.55	1,692.00	1,552.91	139.09	12.165		
16,400.00	7,815.00	18,103.39	9,506.00	201.75	202.42	-180.00	-491.11	8,567.55	1,692.00	1,551.38	140.62	12.032		
16,500.00	7,815.00	18,203.39	9,506.00	204.04	204.70	-180.00	-491.23	8,667.55	1,692.00	1,549.84	142.16	11.902		
16,600.00	7,815.00	18,303.39	9,506.00	206.33	206.98	-180.00	-491.35	8,767.55	1,692.00	1,548.31	143.69	11.775		
16,700.00	7,815.00	18,403.39	9,506.00	208.61	209.26	-180.00	-491.47	8,867.55	1,692.00	1,546.78	145.22	11.651		
16,800.00	7,815.00	18,503.39	9,506.00	210.90	211.54	-180.00	-491.59	8,967.55	1,692.00	1,545.24	146.76	11.529		
16,900.00	7,815.00	18,603.39	9,506.00	213.19	213.82	-180.00	-491.71	9,067.55	1,692.00	1,543.71	148.29	11.410		
17,000.00	7,815.00	18,703.39	9,506.00	215.48	216.10	-180.00	-491.83	9,167.55	1,692.00	1,542.17	149.83	11.293		
17,100.00	7,815.00	18,803.39	9,506.00	217.77	218.38	-180.00	-491.95	9,267.55	1,692.00	1,540.63	151.37	11.178		
17,200.00	7,815.00	18,903.39	9,506.00	220.06	220.66	-180.00	-492.07	9,367.55	1,692.00	1,539.10	152.90	11.066		
17,300.00	7,815.00	19,003.39	9,506.00	222.35	222.94	-180.00	-492.18	9,467.55	1,692.00	1,537.56	154.44	10.955		
17,400.00	7,815.00	19,103.39	9,506.00	224.64	225.22	-180.00	-492.30	9,567.55	1,692.00	1,536.02	155.98	10.847		
17,500.00	7,815.00	19,203.39	9,506.00	226.93	227.51	-180.00	-492.42	9,667.55	1,692.00	1,534.48	157.52	10.741		
17,600.00	7,815.00	19,303.39	9,506.00	229.22	229.79	-180.00	-492.54	9,767.55	1,692.00	1,532.94	159.06	10.637		
17,700.00	7,815.00	19,403.39	9,506.00	231.51	232.07	-180.00	-492.66	9,867.55	1,692.00	1,531.40	160.60	10.535		
17,800.00	7,815.00	19,503.39	9,506.00	233.80	234.36	-180.00	-492.78	9,967.55	1,692.00	1,529.86	162.14	10.435		
17,900.00	7,815.00	19,603.39	9,506.00	236.10	236.64	-180.00	-492.90	10,067.55	1,692.00	1,528.31	163.69	10.337		
17,981.45	7,815.00	19,684.84	9,506.00	237.96	238.50	-180.00	-493.00	10,149.00	1,692.00	1,527.06	164.94	10.258		

Pro Directional

Anticollision Report

Company: Matador Resources
Project: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
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 3236 + 28.5 = KB @ 3264.50usft (Pat Coordinates are relative to: #124H)

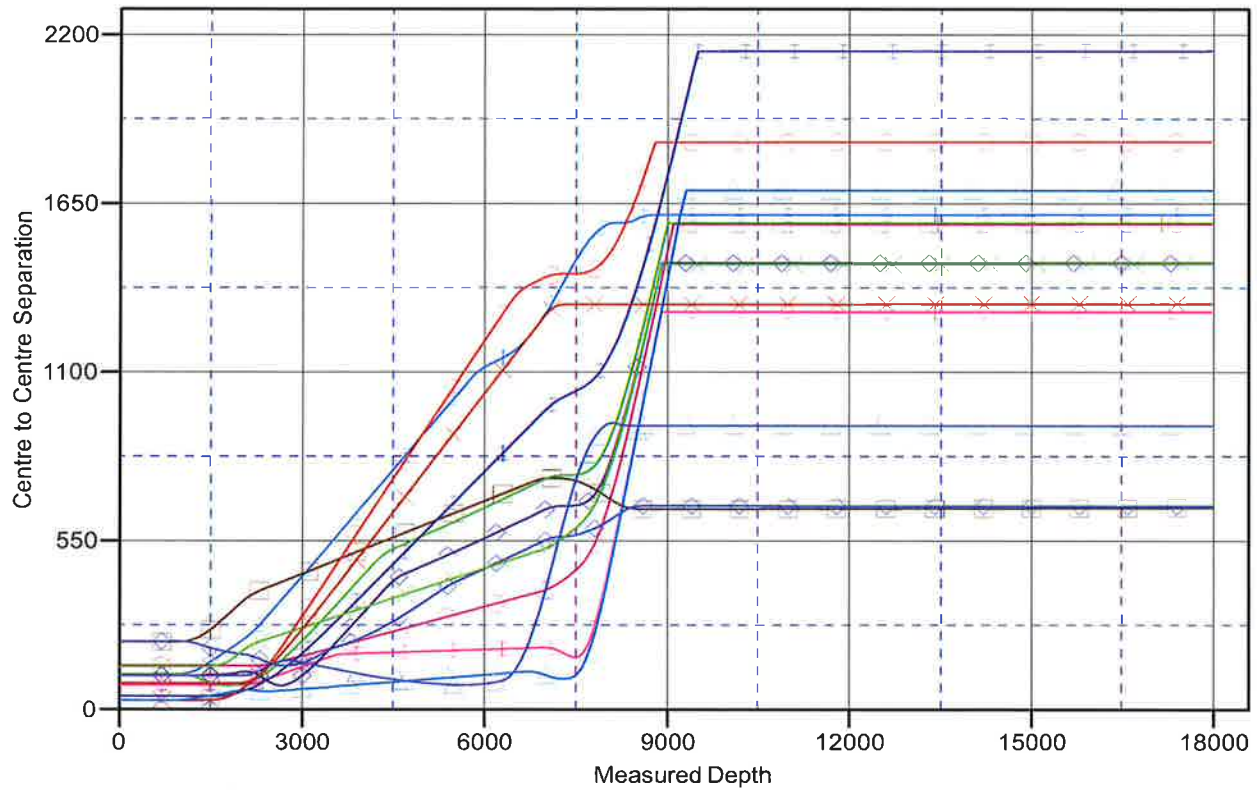
Offset Depths are relative to Offset Datum

Central Meridian is -104.333334

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

Grid Convergence at Surface is: 0.11°

Ladder Plot



LEGEND

#1131H, OH, P, B, V, D	#1132H, OH, P, B, V, D	#1133H, OH, P, B, V, D
#1134H, OH, P, B, V, D	#1135H, OH, P, B, V, D	#1136H, OH, P, B, V, D
#1137H, OH, P, B, V, D	#1138H, OH, P, B, V, D	#1139H, OH, P, B, V, D
#1140H, OH, P, B, V, D	#1141H, OH, P, B, V, D	#1142H, OH, P, B, V, D
#1143H, OH, P, B, V, D	#1144H, OH, P, B, V, D	#1145H, OH, P, B, V, D
#1146H, OH, P, B, V, D	#1147H, OH, P, B, V, D	#1148H, OH, P, B, V, D
#1149H, OH, P, B, V, D	#1150H, OH, P, B, V, D	#1151H, OH, P, B, V, D
#1152H, OH, P, B, V, D	#1153H, OH, P, B, V, D	#1154H, OH, P, B, V, D
#1155H, OH, P, B, V, D	#1156H, OH, P, B, V, D	#1157H, OH, P, B, V, D
#1158H, OH, P, B, V, D	#1159H, OH, P, B, V, D	#1160H, OH, P, B, V, D
#1161H, OH, P, B, V, D	#1162H, OH, P, B, V, D	#1163H, OH, P, B, V, D
#1164H, OH, P, B, V, D	#1165H, OH, P, B, V, D	#1166H, OH, P, B, V, D
#1167H, OH, P, B, V, D	#1168H, OH, P, B, V, D	#1169H, OH, P, B, V, D
#1170H, OH, P, B, V, D	#1171H, OH, P, B, V, D	#1172H, OH, P, B, V, D
#1173H, OH, P, B, V, D	#1174H, OH, P, B, V, D	#1175H, OH, P, B, V, D
#1176H, OH, P, B, V, D	#1177H, OH, P, B, V, D	#1178H, OH, P, B, V, D
#1179H, OH, P, B, V, D	#1180H, OH, P, B, V, D	#1181H, OH, P, B, V, D
#1182H, OH, P, B, V, D	#1183H, OH, P, B, V, D	#1184H, OH, P, B, V, D
#1185H, OH, P, B, V, D	#1186H, OH, P, B, V, D	#1187H, OH, P, B, V, D
#1188H, OH, P, B, V, D	#1189H, OH, P, B, V, D	#1190H, OH, P, B, V, D
#1191H, OH, P, B, V, D	#1192H, OH, P, B, V, D	#1193H, OH, P, B, V, D
#1194H, OH, P, B, V, D	#1195H, OH, P, B, V, D	#1196H, OH, P, B, V, D
#1197H, OH, P, B, V, D	#1198H, OH, P, B, V, D	#1199H, OH, P, B, V, D
#1200H, OH, P, B, V, D	#1201H, OH, P, B, V, D	#1202H, OH, P, B, V, D
#1203H, OH, P, B, V, D	#1204H, OH, P, B, V, D	#1205H, OH, P, B, V, D
#1206H, OH, P, B, V, D	#1207H, OH, P, B, V, D	#1208H, OH, P, B, V, D
#1209H, OH, P, B, V, D	#1210H, OH, P, B, V, D	#1211H, OH, P, B, V, D
#1212H, OH, P, B, V, D	#1213H, OH, P, B, V, D	#1214H, OH, P, B, V, D
#1215H, OH, P, B, V, D	#1216H, OH, P, B, V, D	#1217H, OH, P, B, V, D
#1218H, OH, P, B, V, D	#1219H, OH, P, B, V, D	#1220H, OH, P, B, V, D
#1221H, OH, P, B, V, D	#1222H, OH, P, B, V, D	#1223H, OH, P, B, V, D
#1224H, OH, P, B, V, D	#1225H, OH, P, B, V, D	#1226H, OH, P, B, V, D
#1227H, OH, P, B, V, D	#1228H, OH, P, B, V, D	#1229H, OH, P, B, V, D
#1230H, OH, P, B, V, D	#1231H, OH, P, B, V, D	#1232H, OH, P, B, V, D
#1233H, OH, P, B, V, D	#1234H, OH, P, B, V, D	#1235H, OH, P, B, V, D
#1236H, OH, P, B, V, D	#1237H, OH, P, B, V, D	#1238H, OH, P, B, V, D
#1239H, OH, P, B, V, D	#1240H, OH, P, B, V, D	#1241H, OH, P, B, V, D
#1242H, OH, P, B, V, D	#1243H, OH, P, B, V, D	#1244H, OH, P, B, V, D
#1245H, OH, P, B, V, D	#1246H, OH, P, B, V, D	#1247H, OH, P, B, V, D
#1248H, OH, P, B, V, D	#1249H, OH, P, B, V, D	#1250H, OH, P, B, V, D
#1251H, OH, P, B, V, D	#1252H, OH, P, B, V, D	#1253H, OH, P, B, V, D
#1254H, OH, P, B, V, D	#1255H, OH, P, B, V, D	#1256H, OH, P, B, V, D
#1257H, OH, P, B, V, D	#1258H, OH, P, B, V, D	#1259H, OH, P, B, V, D
#1260H, OH, P, B, V, D	#1261H, OH, P, B, V, D	#1262H, OH, P, B, V, D
#1263H, OH, P, B, V, D	#1264H, OH, P, B, V, D	#1265H, OH, P, B, V, D
#1266H, OH, P, B, V, D	#1267H, OH, P, B, V, D	#1268H, OH, P, B, V, D
#1269H, OH, P, B, V, D	#1270H, OH, P, B, V, D	#1271H, OH, P, B, V, D
#1272H, OH, P, B, V, D	#1273H, OH, P, B, V, D	#1274H, OH, P, B, V, D
#1275H, OH, P, B, V, D	#1276H, OH, P, B, V, D	#1277H, OH, P, B, V, D
#1278H, OH, P, B, V, D	#1279H, OH, P, B, V, D	#1280H, OH, P, B, V, D
#1281H, OH, P, B, V, D	#1282H, OH, P, B, V, D	#1283H, OH, P, B, V, D
#1284H, OH, P, B, V, D	#1285H, OH, P, B, V, D	#1286H, OH, P, B, V, D
#1287H, OH, P, B, V, D	#1288H, OH, P, B, V, D	#1289H, OH, P, B, V, D
#1290H, OH, P, B, V, D	#1291H, OH, P, B, V, D	#1292H, OH, P, B, V, D
#1293H, OH, P, B, V, D	#1294H, OH, P, B, V, D	#1295H, OH, P, B, V, D
#1296H, OH, P, B, V, D	#1297H, OH, P, B, V, D	#1298H, OH, P, B, V, D
#1299H, OH, P, B, V, D	#1300H, OH, P, B, V, D	#1301H, OH, P, B, V, D
#1302H, OH, P, B, V, D	#1303H, OH, P, B, V, D	#1304H, OH, P, B, V, D
#1305H, OH, P, B, V, D	#1306H, OH, P, B, V, D	#1307H, OH, P, B, V, D
#1308H, OH, P, B, V, D	#1309H, OH, P, B, V, D	#1310H, OH, P, B, V, D
#1311H, OH, P, B, V, D	#1312H, OH, P, B, V, D	#1313H, OH, P, B, V, D
#1314H, OH, P, B, V, D	#1315H, OH, P, B, V, D	#1316H, OH, P, B, V, D
#1317H, OH, P, B, V, D	#1318H, OH, P, B, V, D	#1319H, OH, P, B, V, D
#1320H, OH, P, B, V, D	#1321H, OH, P, B, V, D	#1322H, OH, P, B, V, D
#1323H, OH, P, B, V, D	#1324H, OH, P, B, V, D	#1325H, OH, P, B, V, D
#1326H, OH, P, B, V, D	#1327H, OH, P, B, V, D	#1328H, OH, P, B, V, D
#1329H, OH, P, B, V, D	#1330H, OH, P, B, V, D	#1331H, OH, P, B, V, D
#1332H, OH, P, B, V, D	#1333H, OH, P, B, V, D	#1334H, OH, P, B, V, D
#1335H, OH, P, B, V, D	#1336H, OH, P, B, V, D	#1337H, OH, P, B, V, D
#1338H, OH, P, B, V, D	#1339H, OH, P, B, V, D	#1340H, OH, P, B, V, D
#1341H, OH, P, B, V, D	#1342H, OH, P, B, V, D	#1343H, OH, P, B, V, D
#1344H, OH, P, B, V, D	#1345H, OH, P, B, V, D	#1346H, OH, P, B, V, D
#1347H, OH, P, B, V, D	#1348H, OH, P, B, V, D	#1349H, OH, P, B, V, D
#1350H, OH, P, B, V, D	#1351H, OH, P, B, V, D	#1352H, OH, P, B, V, D
#1353H, OH, P, B, V, D	#1354H, OH, P, B, V, D	#1355H, OH, P, B, V, D
#1356H, OH, P, B, V, D	#1357H, OH, P, B, V, D	#1358H, OH, P, B, V, D
#1359H, OH, P, B, V, D	#1360H, OH, P, B, V, D	#1361H, OH, P, B, V, D
#1362H, OH, P, B, V, D	#1363H, OH, P, B, V, D	#1364H, OH, P, B, V, D
#1365H, OH, P, B, V, D	#1366H, OH, P, B, V, D	#1367H, OH, P, B, V, D
#1368H, OH, P, B, V, D	#1369H, OH, P, B, V, D	#1370H, OH, P, B, V, D
#1371H, OH, P, B, V, D	#1372H, OH, P, B, V, D	#1373H, OH, P, B, V, D
#1374H, OH, P, B, V, D	#1375H, OH, P, B, V, D	#1376H, OH, P, B, V, D
#1377H, OH, P, B, V, D	#1378H, OH, P, B, V, D	#1379H, OH, P, B, V, D
#1380H, OH, P, B, V, D	#1381H, OH, P, B, V, D	#1382H, OH, P, B, V, D
#1383H, OH, P, B, V, D	#1384H, OH, P, B, V, D	#1385H, OH, P, B, V, D
#1386H, OH, P, B, V, D	#1387H, OH, P, B, V, D	#1388H, OH, P, B, V, D
#1389H, OH, P, B, V, D	#1390H, OH, P, B, V, D	#1391H, OH, P, B, V, D
#1392H, OH, P, B, V, D	#1393H, OH, P, B, V, D	#1394H, OH, P, B, V, D
#1395H, OH, P, B, V, D	#1396H, OH, P, B, V, D	#1397H, OH, P, B, V, D
#1398H, OH, P, B, V, D	#1399H, OH, P, B, V, D	#1400H, OH, P, B, V, D

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: Eddy County, NM (NAD27)
Reference Site: Leatherneck Fed
Site Error: 0.00 usft
Reference Well: #124H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Prelim B

Local Co-ordinate Reference: Well #124H
TVD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
MD Reference: 3236 + 28.5 = KB @ 3264.50usft (Patt 809)
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 3236 + 28.5 = KB @ 3264.50usft (Pat Coordinates are relative to: #124H)

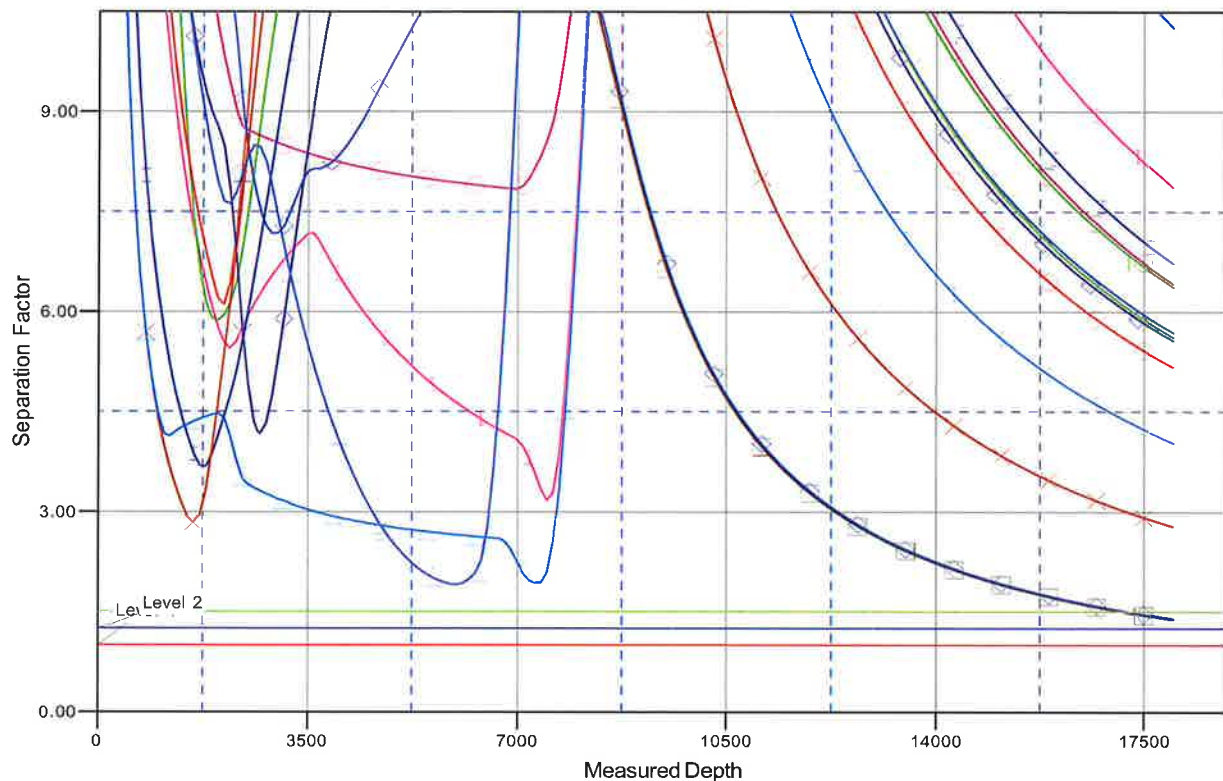
Offset Depths are relative to Offset Datum

Central Meridian is -104.333334

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

Grid Convergence at Surface is: 0.11°

Separation Factor Plot



LEGEND

#113H, OH, Prelim BVO	#133H, OH, Prelim BVO	#123H, OH, Prelim BVO
#134H, OH, Prelim BVO	#223H, OH, Prelim BVO	#203H, OH, Prelim BVO
#124H, OH, Prelim BVO	#120H, OH, Prelim BVO	#114H, OH, Prelim BVO
#207H, OH, Prelim BVO	#127H, OH, Prelim BVO	
#209H, OH, Prelim BVO	#135H, OH, Prelim BVO	

Leatherneck 3029 Fed Com #124H
SHL: 1465' FSL & 280' FWL Section 30
BHL: 987' FSL & 60' FEL Section 29
Township/Range: 20S 29E
Elevation Above Sea Level: 3236'

Drilling Operation Plan

Proposed Drilling Depth: 17981' MD / 7815' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation: Quaternary Deposits

KOP Lat/Long (NAD83): 32.5399649057 N / -104.1223365005 W

TD Lat/Long (NAD83): 32.5398714393 N / -104.0888020695 W

1. Estimated Tops

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	165	165	100	Anhydrite	Barren
Top of Salt	265	265	526	Salt	Barren
Base of Salt	791	791	74	Salt	Barren
Yates	865	865	450	Cave/Karst	Barren
Seven Rivers	1,315	1,315	75	Cave/Karst	Barren
Capitan	1,390	1,390	1,595	Capitan Aquifer	Barren
Cherry Canyon	2,985	2,985	960	Sandstone	Oil/Natural Gas
Brushy Canyon	3,945	3,945	1,680	Sandstone	Oil/Natural Gas
Bone Spring Lime	5,625	5,625	1,118	Limestone	Oil/Natural Gas
1st Bone Spring Sand	6,743	6,743	262	Sandstone	Oil/Natural Gas
2nd Bone Spring Carbonate	7,005	7,005	477	Carbonate	Oil/Natural Gas
KOP	7,270	7,242	-	Carbonate	Oil/Natural Gas
2nd Bone Spring Sand	7,550	7,482	-	Sandstone	Oil/Natural Gas
TD	17,981	7,815		Sandstone	Oil/Natural Gas

2. Notable Zones

2nd Bone Spring is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 68'.

3. Pressure Control

Equipment

Matador requests a variance for a 2M annular to be installed after running 20" casing.

A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below intermediate 1 casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator complying with Onshore Order #2 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

Testing Procedure

BOP will be inspected and operated as required in Onshore Order #2. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs.

After setting intermediate casing, a minimum 5M BOPE system will be installed. Test pressures will be 250 psi low and 5000 psi high with the annular preventer being tested to 250 psi low and 2500 psi high before drilling below intermediate shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 5M BOPE system is re-installed.

Variance Request

Matador requests a variance to have the option of running a multi-bowl wellhead assembly. The BOPs will not be tested again unless any flanges are separated or if the time between the setting of the intermediate casing and reaching within 500' from the top of the Wolfcamp formation exceeds 30 days per the CFO Drilling COAs.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Matador requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, the wellbore will be secured with a blind flange of like pressure. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test.

Matador requests a variance for the use of a diverter along with a 2000-psi annular to be installed after running 20" casing.

Matador requests the option to cut off 20" SOW wellhead and run 13-3/8" SOW multi-bowl wellhead system once 1st intermediate string is run and cemented.

4. Casing & Cement

All casing will be API and new. See attached casing assumption worksheet.

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	26	0 - 400	0 - 400	20	94	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	17.5	0 - 1200	0 - 1200	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 2	12.25	0 - 3100	0 - 3100	9.625	40	J-55	BUTT	1.125	1.125	1.8
Production	8.75	0 - 17981	0 - 7815	5.5	20	P-110	DWC/C-IS HT Plus	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h

- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Tail	1060	1.35	1424	14.8	100%	0	C	5% NaCl + LCM
Intermediate 1	Lead	640	1.78	1132	13.5	50%	0	C	5% NaCl + LCM
	Tail	260	1.35	347	14.8	50%	900	C	5% NaCl + LCM

Intermediate 2	Lead	700	1.78	1254	13.5	50%	0	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	240	1.35	325	14.8	50%	2480	C	5% NaCl + LCM
Production	Lead	730	2.22	1618	11.5	25%	1340	H	Fluid Loss + Dispersant + Retarder + LCM
	Tail	2630	1.35	3550	13.2	25%	6770	H	Fluid Loss + Dispersant + Retarder + LCM

Matador requests the option to run a DV tool with annular packer as contingency in the intermediate 1 or 2 section on 13-3/8" or 9-5/8" casing if lost circulation is encountered. If losses occur, the DV tool with packer will be placed at least 100' above the loss zone to give the option to pump cement as either a single stage or two stage.

Example:

Assuming DV tool is set at 1500' MD but if the setting depth changes, cement volumes will be adjusted proportionately.

Stage 1:

Type	Sacks	Yield	Weight	Percent	Top of	Class	Blend
Lead	695	1.78	13.5	100	0	C	Bentonite + 2% CaCL2 + 3% NaCl + LCM
Tail	288	1.35	14.8	100	1200	C	5% NaCl + LCM

Stage 2:

Type	Sacks	Yield	Weight	Percent	Top of	Class	Blend
Lead	350	1.78	13.5	10	0	C	Bentonite + 2% CaCL2 + 3% NaCl + LCM

5. Mud Program

An electronic Pason mud monitoring system complying with Onshore Order #2 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	26	Spud Mud	0 - 400	8.4 - 8.8	28-30	NC
Intermediate 1	17.5	Brine Water	400 - 1200	9.5 - 10.2	28-32	NC
Intermediate 2	12.25	Fresh Water	1200 - 3100	8.4 - 8.6	28-30	NC
Production	8.75	Cut Brine/OBM	3100 - 17981	8.6 - 9.4	28-30	NC

6. Cores, Test, & Logs

No core or drill stem test is planned.

A 2-person mud logging program will be used from Kick-off point to TD.

No electric logs are planned at this time. GR will be collected through the MWD tools from Intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to top of curve.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Bottom Hole pressure is 3820 psi. Maximum anticipated surface pressure is 2101 psi. Expected bottom hole temperature is 155° F.

In accordance with Onshore Order 6, Matador does not anticipate that there will be enough H₂S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of a "H₂S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have a H₂S safety package on all wells, attached is a "H₂S Drilling Operations Plan." Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of the equipment being used.

DVT Tool Variance Request

Matador requests the option to run a DV tool with annular packer as contingency in the intermediate 2 section on 9-5/8" casing if lost circulation is encountered. If losses occur the DV tool with packer will be placed at least 100' above the loss zone to give the option to pump cement as either a single stage or two stage.

Example:

Assuming DV tool is set at 1500' MD but if the setting depth changes, cement volumes will be adjusted proportionately.

Stage 1:

Type	Sacks	Yield	Weight	Percent	Top of	Class	Blend
Lead	695	1.78	13.5	100	0	C	Bentonite + 2% CaCL ₂ + 3% NaCl + LCM
Tail	288	1.35	14.8	100	1200	C	5% NaCl + LCM

Stage 2:

Type	Sacks	Yield	Weight	Percent	Top of	Class	Blend
Lead	350	1.78	13.5	10	0	C	Bentonite + 2% CaCL ₂ + 3% NaCl + LCM