

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.5. Lease Serial No.
NMNM0405444

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
MALDIVES 15-27 FED COM 231H9. API Well No.
30-015-45385-00-X110. Field and Pool or Exploratory Area
JAMES RANCH11. County or Parish, State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

DEVON ENERGY PRODUCTION COMPANY

Contact: JENNIFER HARMS

E-Mail: jennifer.harms@dvn.com

3a. Address

333 WEST SHERIDAN AVENUE
OKLAHOMA, OK 73102

3b. Phone No. (include area code)

Ph: 405-552-6560

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 15 T23S R31E NWNW 400FNL 510FWL
32.310638 N Lat, 103.772385 W Lon**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Devon Energy Production Co., L. P. (Devon) respectfully requests to change the plans for the above referenced well as originally approved on 10-25-2018.

The SHL is currently permitted as 400 FNL, 510 FWL 15-23S-31E, and will change to 400 FNL, 780 FWL, 15-23S-31E.

The BHL is currently permitted as 2350 FNL, 350 FWL, 22-23S-31E and will change to 20 FSL, 480 FWL, 27-23S-31E. The last take point will be 315 FSL, 480 FWL, 27-23S-31E.

The federal lease numbers the lateral will be passing through are as follows:

NMNM0405444, NMNM0405444A, NMNM0418220A.

The permitted well name is MALDIVES 15-22 FED COM 521H and will change to MALDIVES 15-27 FED COM 231H.

Please find attached the revised plats, drilling plan, directional plan. Thank you.

RECEIVED

JUL 03 2019

DISTRICT II-ARTESIA O.C.D.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #458273 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION COM LP, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 03/19/2019 (19PP1396SE)

Name (Printed/Typed) JENNIFER HARMS

Title REGULATORY COMPLIANCE ANALYST

Signature (Electronic Submission)

Date 03/18/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By CODY LAYTON

Title ASSIST FIELD MANAGER LANDS MINERALS

Date 03/26/2019

Conditions of approval, if any, are attached. Approval of this notice 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.

Office Carlsbad

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.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Revisions to Operator-Submitted EC Data for Sundry Notice #458273

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM0405444	NMNM0405444
Agreement:		
Operator:	DEVON ENERGY PRODUCTION COMPAN 333 WEST SHERIDAN AVENUE OKLAHOMA CITY, OK 73102-5015 Ph: 405-552-6560	DEVON ENERGY PRODUCTION COM LP 333 WEST SHERIDAN AVENUE OKLAHOMA, OK 73102 Ph: 405 552 6571
Admin Contact:	JENNIFER HARMS REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dvn.com Ph: 405-552-6560	JENNIFER HARMS REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dvn.com Ph: 405-552-6560
Tech Contact:	JENNIFER HARMS REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dvn.com Ph: 405-552-6560	JENNIFER HARMS REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dvn.com Ph: 405-552-6560
Location:		
State:	NM	NM
County:	EDDY	EDDY
Field/Pool:	JAMES RANCH; BONESPRING	JAMES RANCH
Well/Facility:	MALDIVES 15-22 FED COM 521H Sec 15 T23S R31E NWNW 400FNL 510FWL	MALDIVES 15-27 FED COM 231H Sec 15 T23S R31E NWNW 400FNL 510FWL 32.310638 N Lat, 103.772385 W Lon

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	DEVON ENERGY PRODUCTION COMPANY LP
LEASE NO.:	NMNM0405444
WELL NAME & NO.:	231H- MALDIVES 15-27 FED COM
SURFACE HOLE FOOTAGE:	400'/N & 510'/W
BOTTOM HOLE FOOTAGE:	2350'/N & 350'/W
LOCATION:	Section.15., T23S., R.31E., NMP
COUNTY:	EDDY County, New Mexico

COA

H2S	☐ Yes	☒ No	
Potash	☐ None	☒ Secretary	☐ R-111-P
Cave/Karst Potential	☒ Low	☐ Medium	☐ High
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

All Previous COAs Still Apply

A. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **604 feet** (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing shall be set at approximately **6000 feet** 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.

Operator has proposed to pump down 13-3/8" X 9-5/8" annulus. Operator must run a CBL from TD of the 9-5/8" casing to surface. Submit results to BLM.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.
Cement excess is less than 25%, more cement might be required.

B. 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 **5000 (5M)** 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.

GENERAL REQUIREMENTS

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

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

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

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

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

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

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

A. CASING

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

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

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. 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

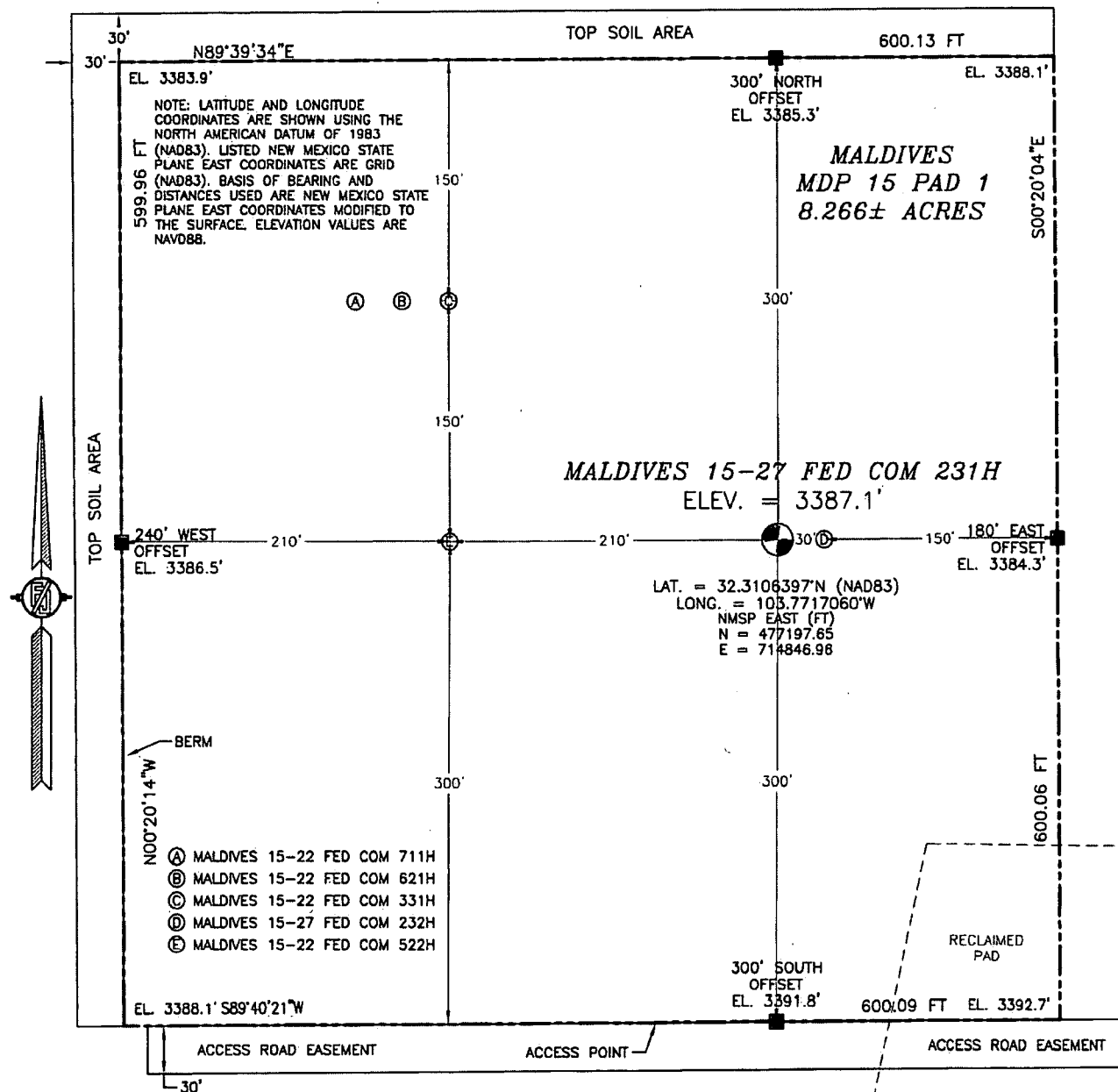
plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not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

**SECTION 15, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SITE MAP**



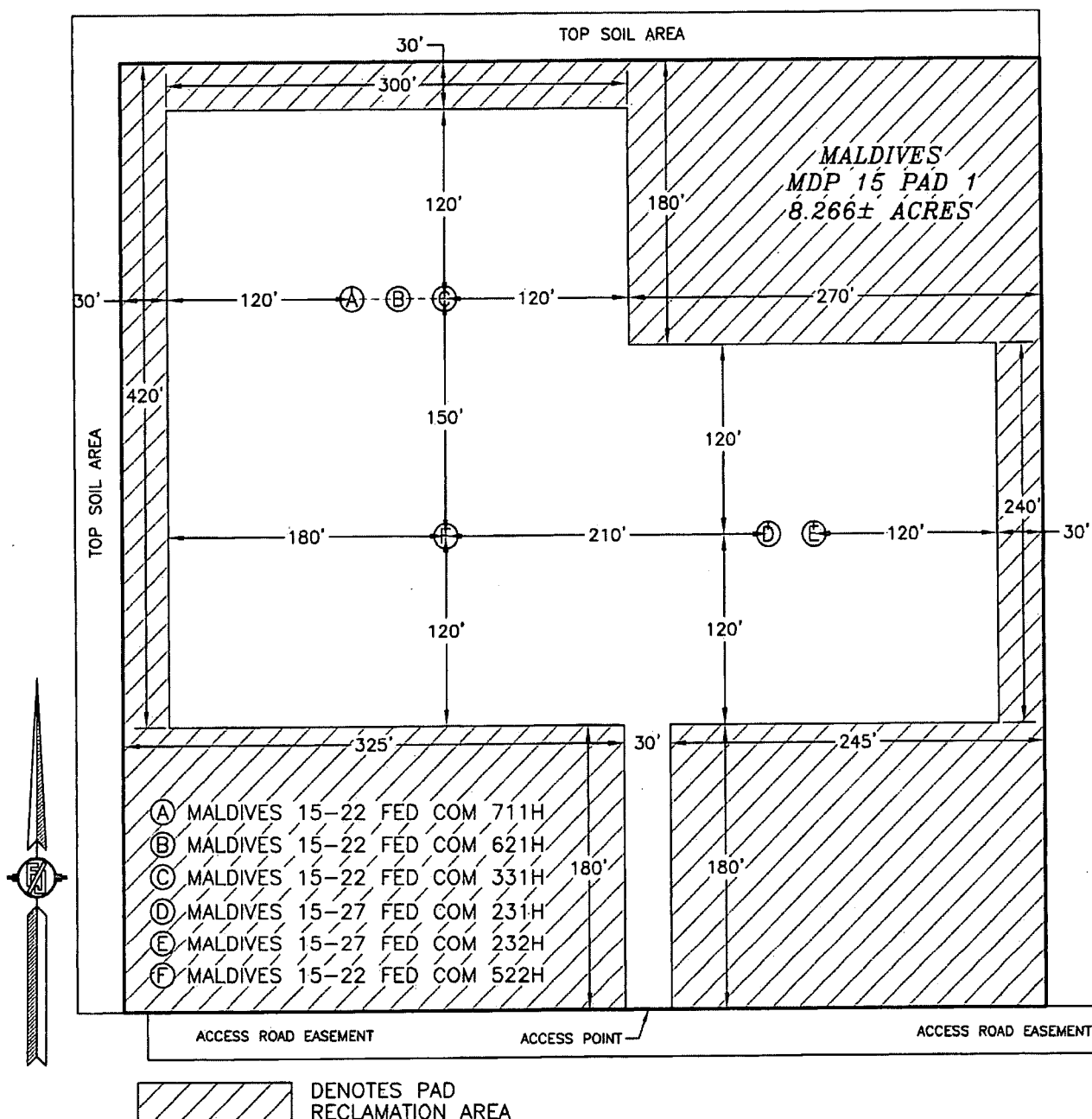
DEVON ENERGY PRODUCTION COMPANY, L.P.
MALDIVES 15-27 FED COM 231H
LOCATED 400 FT. FROM THE NORTH LINE
AND 780 FT. FROM THE WEST LINE OF
SECTION 15, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MARCH 14, 2019

SURVEY NO. 5294B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 **CARLSBAD, NEW MEXICO**

SECTION 15, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
INTERIM SITE RECLAMATION



010 50 100 200
SCALE 1" = 100'

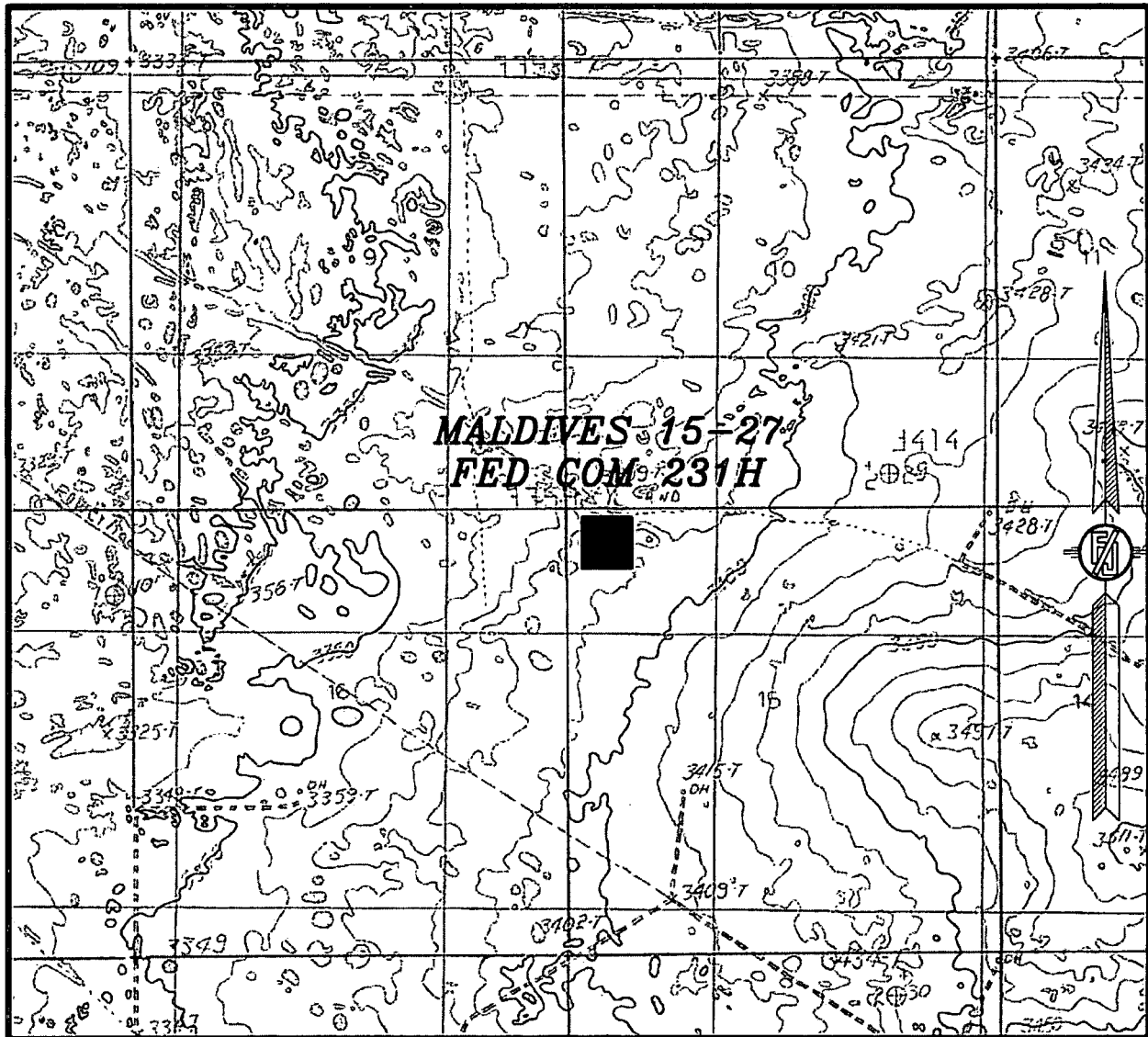
4.134± ACRES SITE RECLAMATION AREA
4.132± ACRES NON-RECLAIMED AREA
8.266± ACRES MALDIVES MDP 15 PAD 1

DEVON ENERGY PRODUCTION COMPANY, L.P.
MALDIVES 15-27 FED COM 231H
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SECTION 15, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MARCH 14, 2019 SURVEY NO. 5294B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 15, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 LOCATION VERIFICATION MAP



USGS QUAD MAP:
 LOS MEDANOS

NOT TO SCALE

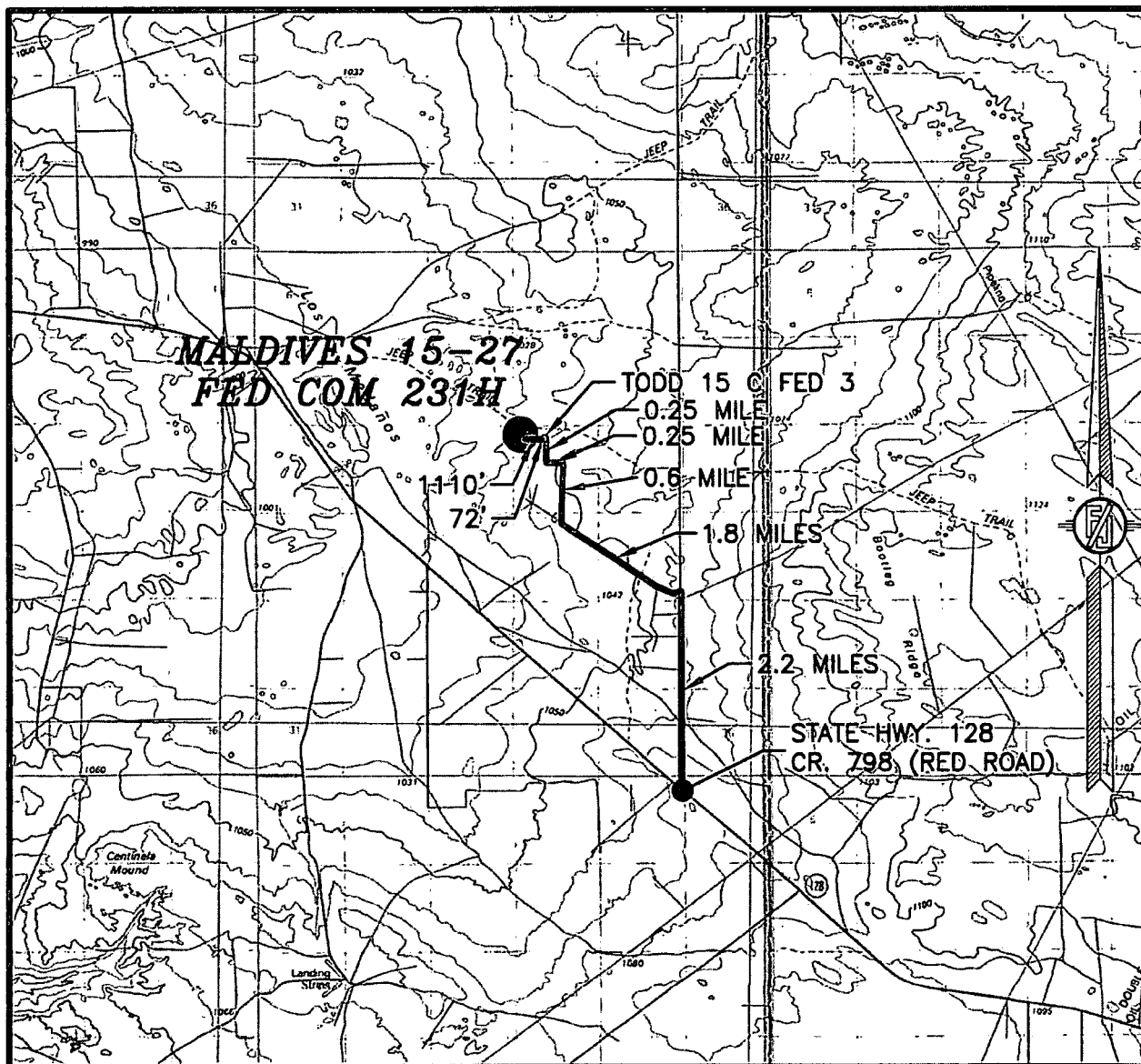
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MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 15, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION

FROM STATE HWY. 128 & CR. 798 (RED ROAD) GO NORTH ON RED ROAD 2.2 MILES, TURN LEFT ON CALICHE ROAD AND GO NORTHWEST 1.8 MILES, TURN RIGHT AND GO NORTH 0.6 MILE, TURN LEFT AND GO WEST 0.25 MILE, TURN RIGHT AND GO NORTH 0.25 MILE, TO THE TODD 15C FED 3 WELL. FROM SOUTHWEST EDGE OF PAD FOLLOW FLAGS WEST-SOUTHWEST 72' TO THE SOUTHEAST CORNER OF PAD 2, THEN FOLLOW FLAGS WEST 1110' TO THE SOUTHEAST CORNER OF PAD FOR THIS LOCATION.

DEVON ENERGY PRODUCTION COMPANY, L.P.

MALDIVES 15-27 FED COM 231H

LOCATED 400 FT. FROM THE NORTH LINE
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SECTION 15, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MARCH 14, 2019

SURVEY NO. 5294B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 15, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
FEB. 2017

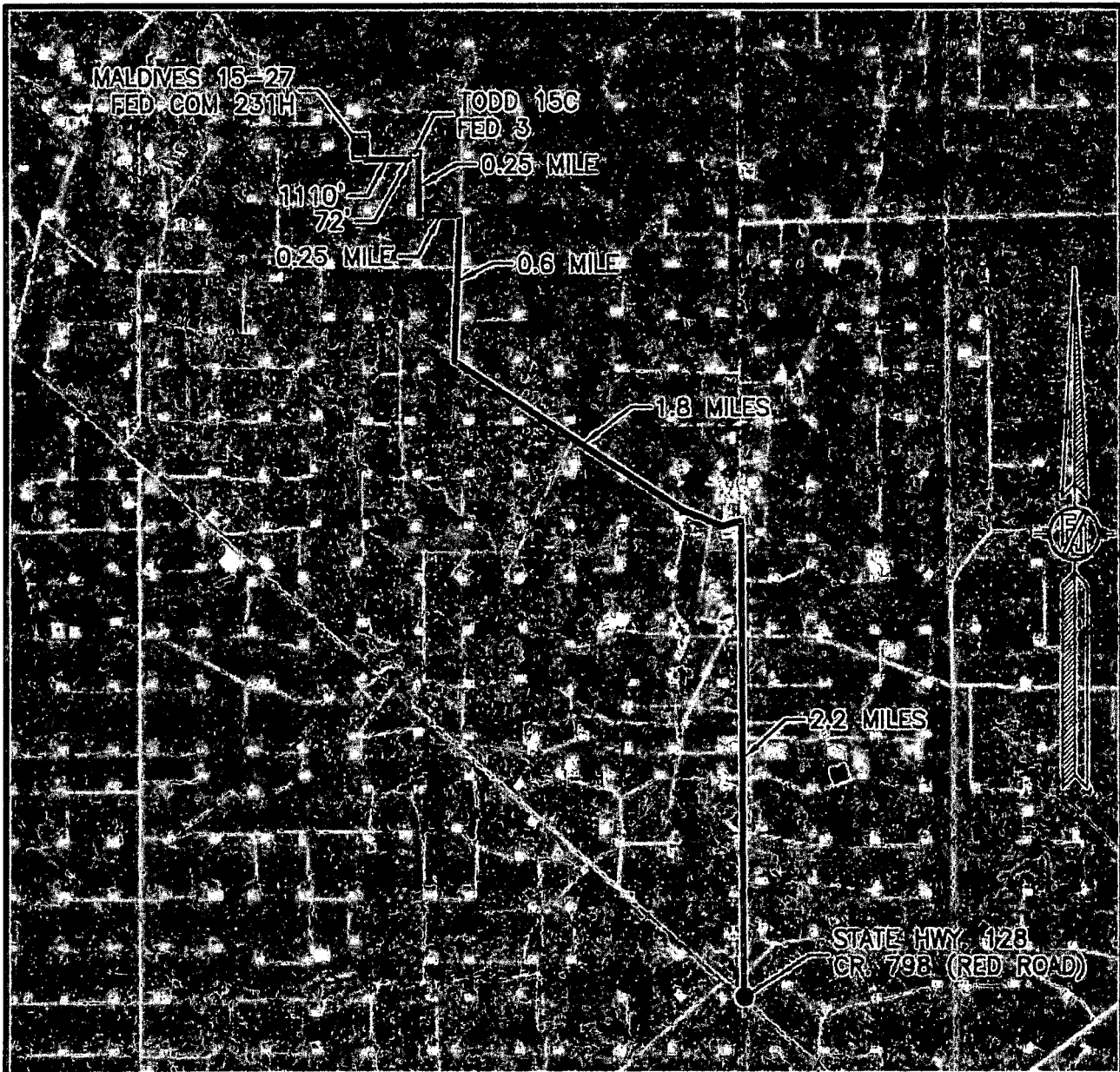
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RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MARCH 14, 2019

SURVEY NO. 5294B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 15, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 AERIAL ACCESS ROUTE MAP



NOT TO SCALE
 AERIAL PHOTO:
 GOOGLE EARTH
 FEB. 2017

DEVON ENERGY PRODUCTION COMPANY, L.P.
MALDIVES 15-27 FED COM 231H
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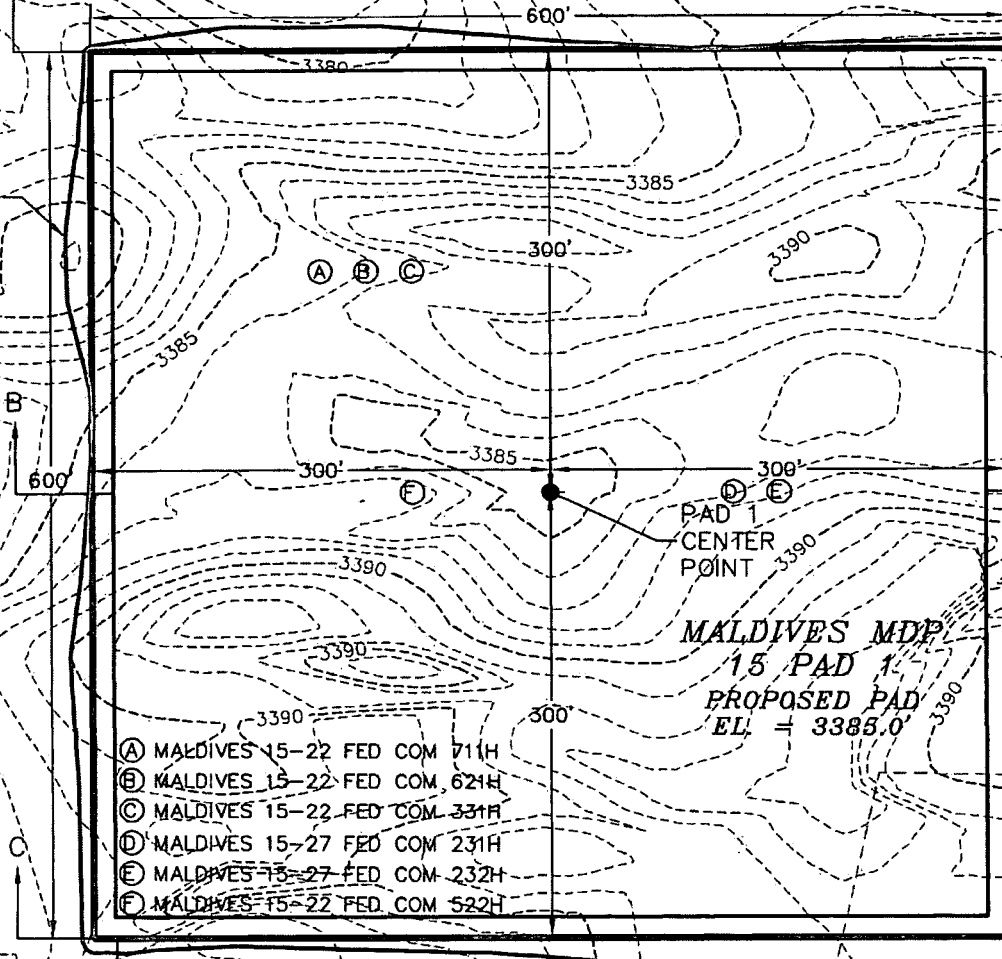
MARCH 14, 2019

SURVEY NO. 5294B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

PLAN VIEW

LIMITS OF
EARTHWORK
3:1 SLOPE (TYP.)



PROPOSED 30' ACCESS ROAD

LIMITS OF
EARTHWORK
3:1 SLOPE (TYP.)

RECLAIMED
PAD

PROPOSED 30' ACCESS ROAD

0 12 60 120 240
SCALE 1" = 120'

DEVON ENERGY PRODUCTION COMPANY, L.P.
GRADING PLAN AND CROSS SECTIONS
FOR MALDIVES 15-27 FED COM 231H
SECTION 15, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MALDIVES MDP 15 PAD 1
EARTHWORK QUANTITIES

CUT	FILL	NET
46724 CU. YD	4816 CU. YD	41908 CU. YD (CUT)

EARTHWORK QUANTITIES ARE ESTIMATED

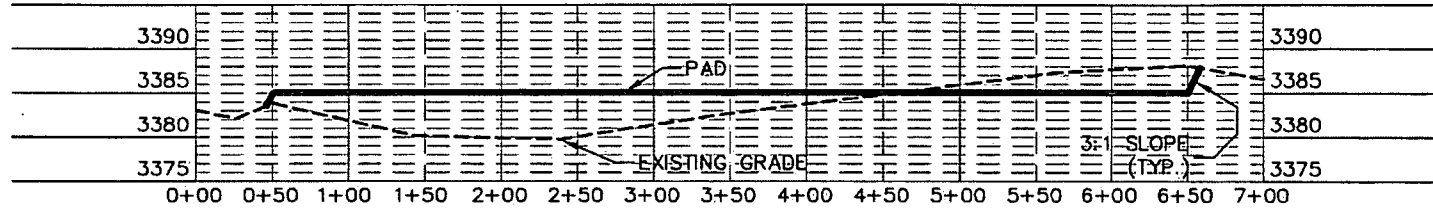
MARCH 14, 2019

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

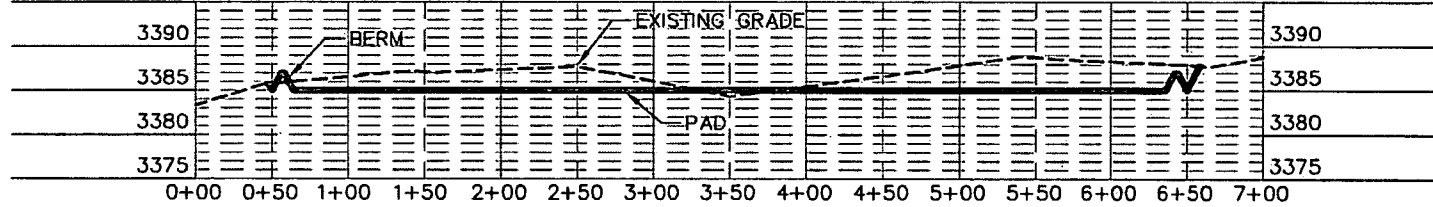
SHEET 1-2
SURVEY NO. 5294B

CROSS-SECTIONS

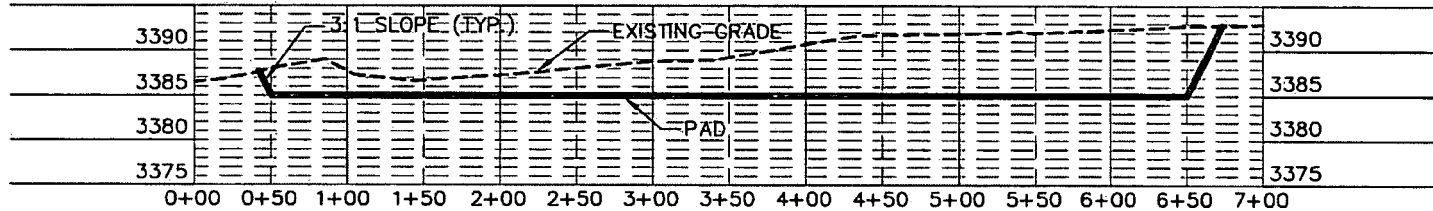
SECTION A-A'



SECTION B-B'



SECTION C-C'



0 12 60 120 240
SCALE 1" = 120' - 1" = 20' VER

DEVON ENERGY PRODUCTION COMPANY, L.P.
GRADING PLAN AND CROSS SECTIONS
FOR MALDIVES 15-27 FED COM 231H
SECTION 15, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MALDIVES MDP 15 PAD 1
EARTHWORK QUANTITIES

CUT	FILL	NET
46724 CU. YD	4816 CU. YD	41908 CU. YD (CUT)

EARTHWORK QUANTITIES ARE ESTIMATED

MARCH 14, 2019

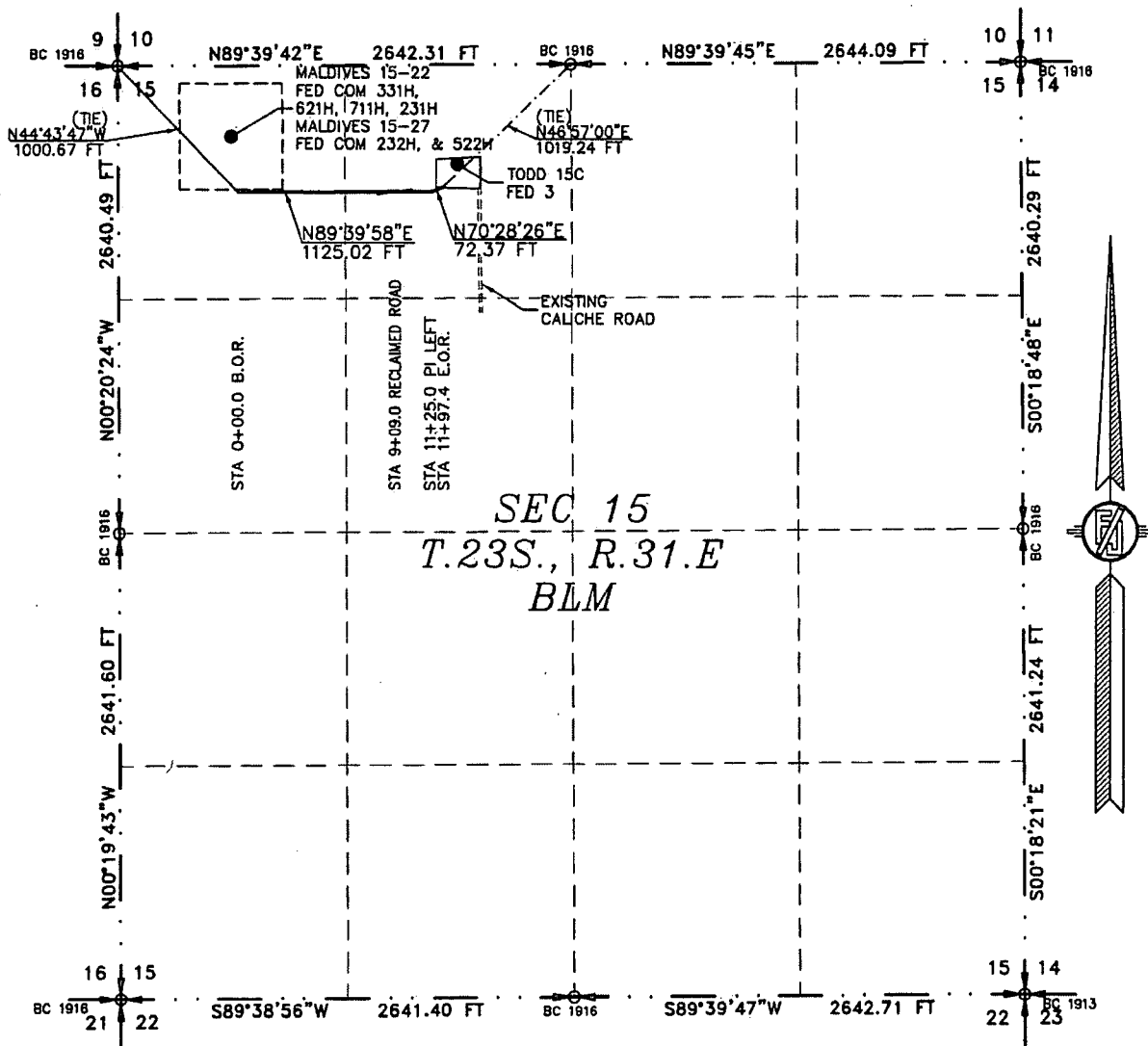
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SHEET 2-2
SURVEY NO. 5294B

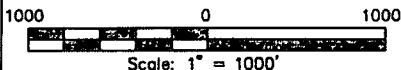
ACCESS ROAD PLAT

ACCESS ROAD FOR MALDIVES 15-22 FED COM 331H, 621H, 711H, & 522H
AND MALDIVES 15-27 FED COM 231H & 232H

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 15, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 14, 2019



SEE NEXT SHEET (2-2) FOR DESCRIPTION



GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-2

MADRON SURVEYING, INC.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 14 DAY OF MARCH 2019.

FILIMON F. JARAMILLO PLS 12797
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 5294B

301 SOUTH CANAL
(575) 234-3341
CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR MALDIVES 15-22 FED COM 331H, 621H, 711H, & 522H
AND MALDIVES 15-27 FED COM 231H & 232H

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 15, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 14, 2019

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 15, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NW/4 NW/4 OF SAID SECTION 15, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE NORTHWEST CORNER OF SAID SECTION 15, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N44°43'47"W, A DISTANCE OF 1000.67 FEET;
THENCE N89°39'58"E A DISTANCE OF 1125.02 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N70°28'26"E A DISTANCE OF 72.37 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTH QUARTER CORNER OF SAID SECTION 15, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N46°57'00"E, A DISTANCE OF 1019.24 FEET;

SAID STRIP OF LAND BEING 1197.39 FEET OR 72.57 RODS IN LENGTH, CONTAINING 0.825 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NW/4 NW/4	621.02 L.F.	37.64 RODS	0.428 ACRES
NE/4 NW/4	576.37 L.F.	34.93 RODS	0.397 ACRES

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,
NEW MEXICO, THIS 14 DAY OF MARCH 2019

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 2-2

MADRON SURVEYING, INC.

FILIMON F. JARAMILLO PLS. 12797
301 SOUTH CANAL
(575) 234-3341

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 5294B

CARLSBAD, NEW MEXICO

WCDSC Permian NM

Eddy County (NAD 83 NM Eastern)

Sec 15-T23S-R31E

Maldives 15-27 Fed Com 231H

Wellbore #1

Plan: Permit Plan 2

Standard Planning Report - Geographic

14 March, 2019

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3411.40ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3411.40ft
Site:	Sec 15-T23S-R31E	North Reference:	Grid
Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 2		

Project	Eddy County (NAD 83 NM Eastern)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sec 15-T23S-R31E		
Site Position:		Northing:	477,592.96 usft
From:	Map	Easting:	714,064.76 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	32.311738
		Longitude:	-103.774231
		Grid Convergence:	0.30 °

Well	Maldives 15-27 Fed Com 231H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.50 ft	Wellhead Elevation:	Ground Level:
			3,387.10 ft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	4/5/2018	6.97
			Dip Angle
			(°)
			60.10
			Field Strength
			(nT)
			47,886.37417499

Design	Permit Plan 2		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction
			(°)
			183.08

Plan Survey Tool Program	Date 3/14/2019		
Depth From	Depth To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
1	0.00	25,666.37 Permit Plan 2 (Wellbore #1)	MWD+IFR1+MS
			OWSG MWD + IFR1 + Multi-S

Plan Sections										
Measured										
Depth	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
(ft)	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
			(ft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,419.56	5.24	319.40	4,418.97	14.57	-12.49	1.25	1.25	0.00	319.40	
9,077.95	5.24	319.40	9,057.86	337.86	-289.59	0.00	0.00	0.00	0.00	
9,427.57	0.00	0.00	9,407.00	350.00	-300.00	1.50	-1.50	0.00	180.00	
9,777.61	0.00	0.00	9,757.04	350.00	-300.00	0.00	0.00	0.00	0.00	
10,677.62	90.00	179.68	10,330.00	-222.95	-296.82	10.00	10.00	0.00	179.68	PBHL - Maldives 15-2
25,666.80	90.00	179.68	10,330.00	-15,211.90	-213.57	0.00	0.00	0.00	0.00	PBHL - Maldives 15-2

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3411.40ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3411.40ft
Site:	Sec 15-T23S-R31E	North Reference:	Grid
Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
100.00	0.00	0.00	100.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
200.00	0.00	0.00	200.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
300.00	0.00	0.00	300.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
400.00	0.00	0.00	400.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
500.00	0.00	0.00	500.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
600.00	0.00	0.00	600.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
700.00	0.00	0.00	700.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
800.00	0.00	0.00	800.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
900.00	0.00	0.00	900.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
1,000.00	0.00	0.00	1,000.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
1,100.00	0.00	0.00	1,100.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
1,200.00	0.00	0.00	1,200.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
1,300.00	0.00	0.00	1,300.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
1,400.00	0.00	0.00	1,400.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
1,500.00	0.00	0.00	1,500.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
1,600.00	0.00	0.00	1,600.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
1,700.00	0.00	0.00	1,700.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
1,800.00	0.00	0.00	1,800.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
1,900.00	0.00	0.00	1,900.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
2,000.00	0.00	0.00	2,000.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
2,100.00	0.00	0.00	2,100.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
2,200.00	0.00	0.00	2,200.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
2,300.00	0.00	0.00	2,300.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
2,400.00	0.00	0.00	2,400.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
2,500.00	0.00	0.00	2,500.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
2,600.00	0.00	0.00	2,600.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
2,700.00	0.00	0.00	2,700.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
2,800.00	0.00	0.00	2,800.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
2,900.00	0.00	0.00	2,900.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
3,000.00	0.00	0.00	3,000.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
3,100.00	0.00	0.00	3,100.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
3,200.00	0.00	0.00	3,200.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
3,300.00	0.00	0.00	3,300.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
3,400.00	0.00	0.00	3,400.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
3,500.00	0.00	0.00	3,500.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
3,600.00	0.00	0.00	3,600.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
3,700.00	0.00	0.00	3,700.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
3,800.00	0.00	0.00	3,800.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
3,900.00	0.00	0.00	3,900.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
4,000.00	0.00	0.00	4,000.00	0.00	0.00	477,197.65	714,846.96	32.310640	-103.771706
4,100.00	1.25	319.40	4,099.99	0.83	-0.71	477,198.48	714,846.25	32.310642	-103.771708
4,200.00	2.50	319.40	4,199.94	3.31	-2.84	477,200.96	714,844.12	32.310649	-103.771715
4,300.00	3.75	319.40	4,299.79	7.45	-6.39	477,205.10	714,840.57	32.310660	-103.771727
4,400.00	5.00	319.40	4,399.49	13.24	-11.35	477,210.89	714,835.60	32.310676	-103.771743
4,419.56	5.24	319.40	4,418.97	14.57	-12.49	477,212.22	714,834.47	32.310680	-103.771746
4,500.00	5.24	319.40	4,499.08	20.15	-17.27	477,217.80	714,829.68	32.310695	-103.771762
4,600.00	5.24	319.40	4,598.66	27.09	-23.22	477,224.74	714,823.73	32.310715	-103.771781
4,700.00	5.24	319.40	4,698.24	34.03	-29.17	477,231.68	714,817.79	32.310734	-103.771800
4,800.00	5.24	319.40	4,797.82	40.97	-35.12	477,238.62	714,811.84	32.310753	-103.771819
4,900.00	5.24	319.40	4,897.40	47.91	-41.07	477,245.56	714,805.89	32.310772	-103.771838
5,000.00	5.24	319.40	4,996.98	54.85	-47.02	477,252.50	714,799.94	32.310791	-103.771857
5,100.00	5.24	319.40	5,096.57	61.79	-52.96	477,259.44	714,793.99	32.310810	-103.771877
5,200.00	5.24	319.40	5,196.15	68.73	-58.91	477,266.38	714,788.04	32.310830	-103.771896
5,300.00	5.24	319.40	5,295.73	75.67	-64.86	477,273.32	714,782.10	32.310849	-103.771915

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3411.40ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3411.40ft
Site:	Sec 15-T23S-R31E	North Reference:	Grid
Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,400.00	5.24	319.40	5,395.31	82.61	-70.81	477,280.26	714,776.15	32.310868	-103.771934
5,500.00	5.24	319.40	5,494.89	89.55	-76.76	477,287.20	714,770.20	32.310887	-103.771953
5,600.00	5.24	319.40	5,594.47	96.49	-82.71	477,294.14	714,764.25	32.310906	-103.771972
5,700.00	5.24	319.40	5,694.05	103.43	-88.66	477,301.08	714,758.30	32.310925	-103.771991
5,800.00	5.24	319.40	5,793.64	110.37	-94.60	477,308.02	714,752.35	32.310944	-103.772011
5,900.00	5.24	319.40	5,893.22	117.31	-100.55	477,314.96	714,746.40	32.310964	-103.772030
6,000.00	5.24	319.40	5,992.80	124.25	-106.50	477,321.90	714,740.46	32.310983	-103.772049
6,100.00	5.24	319.40	6,092.38	131.19	-112.45	477,328.84	714,734.51	32.311002	-103.772068
6,200.00	5.24	319.40	6,191.96	138.13	-118.40	477,335.78	714,728.56	32.311021	-103.772087
6,300.00	5.24	319.40	6,291.54	145.07	-124.35	477,342.72	714,722.61	32.311040	-103.772106
6,400.00	5.24	319.40	6,391.12	152.01	-130.30	477,349.66	714,716.66	32.311059	-103.772125
6,500.00	5.24	319.40	6,490.71	158.95	-136.24	477,356.60	714,710.71	32.311079	-103.772144
6,600.00	5.24	319.40	6,590.29	165.89	-142.19	477,363.54	714,704.76	32.311098	-103.772164
6,700.00	5.24	319.40	6,689.87	172.83	-148.14	477,370.48	714,698.82	32.311117	-103.772183
6,800.00	5.24	319.40	6,789.45	179.77	-154.09	477,377.42	714,692.87	32.311136	-103.772202
6,900.00	5.24	319.40	6,889.03	186.71	-160.04	477,384.36	714,686.92	32.311155	-103.772221
7,000.00	5.24	319.40	6,988.61	193.65	-165.99	477,391.30	714,680.97	32.311174	-103.772240
7,100.00	5.24	319.40	7,088.19	200.59	-171.93	477,398.24	714,675.02	32.311194	-103.772259
7,200.00	5.24	319.40	7,187.78	207.53	-177.88	477,405.18	714,669.07	32.311213	-103.772278
7,300.00	5.24	319.40	7,287.36	214.47	-183.83	477,412.12	714,663.12	32.311232	-103.772298
7,400.00	5.24	319.40	7,386.94	221.41	-189.78	477,419.06	714,657.18	32.311251	-103.772317
7,500.00	5.24	319.40	7,486.52	228.35	-195.73	477,426.00	714,651.23	32.311270	-103.772336
7,600.00	5.24	319.40	7,586.10	235.29	-201.68	477,432.94	714,645.28	32.311289	-103.772355
7,700.00	5.24	319.40	7,685.68	242.23	-207.63	477,439.88	714,639.33	32.311309	-103.772374
7,800.00	5.24	319.40	7,785.26	249.17	-213.57	477,446.82	714,633.38	32.311328	-103.772393
7,900.00	5.24	319.40	7,884.84	256.11	-219.52	477,453.76	714,627.43	32.311347	-103.772412
8,000.00	5.24	319.40	7,984.43	263.05	-225.47	477,460.70	714,621.48	32.311366	-103.772432
8,100.00	5.24	319.40	8,084.01	269.99	-231.42	477,467.64	714,615.54	32.311385	-103.772451
8,200.00	5.24	319.40	8,183.59	276.93	-237.37	477,474.58	714,609.59	32.311404	-103.772470
8,300.00	5.24	319.40	8,283.17	283.87	-243.32	477,481.52	714,603.64	32.311424	-103.772489
8,400.00	5.24	319.40	8,382.75	290.81	-249.27	477,488.46	714,597.69	32.311443	-103.772508
8,500.00	5.24	319.40	8,482.33	297.75	-255.21	477,495.40	714,591.74	32.311462	-103.772527
8,600.00	5.24	319.40	8,581.91	304.69	-261.16	477,502.34	714,585.79	32.311481	-103.772546
8,700.00	5.24	319.40	8,681.50	311.63	-267.11	477,509.28	714,579.84	32.311500	-103.772565
8,800.00	5.24	319.40	8,781.08	318.57	-273.06	477,516.22	714,573.90	32.311519	-103.772585
8,900.00	5.24	319.40	8,880.66	325.51	-279.01	477,523.16	714,567.95	32.311539	-103.772604
9,000.00	5.24	319.40	8,980.24	332.45	-284.96	477,530.10	714,562.00	32.311558	-103.772623
9,077.95	5.24	319.40	9,057.86	337.86	-289.59	477,535.51	714,557.36	32.311573	-103.772638
9,100.00	4.91	319.40	9,079.83	339.34	-290.86	477,536.99	714,556.09	32.311577	-103.772642
9,200.00	3.41	319.40	9,179.56	344.85	-295.59	477,542.50	714,551.37	32.311592	-103.772657
9,300.00	1.91	319.40	9,279.45	348.38	-298.61	477,546.03	714,548.34	32.311602	-103.772667
9,400.00	0.41	319.40	9,379.43	349.92	-299.94	477,547.57	714,547.02	32.311606	-103.772671
9,427.57	0.00	0.00	9,407.00	350.00	-300.00	477,547.65	714,546.96	32.311606	-103.772671
9,500.00	0.00	0.00	9,479.43	350.00	-300.00	477,547.65	714,546.96	32.311606	-103.772671
9,600.00	0.00	0.00	9,579.43	350.00	-300.00	477,547.65	714,546.96	32.311606	-103.772671
9,700.00	0.00	0.00	9,679.43	350.00	-300.00	477,547.65	714,546.96	32.311606	-103.772671
9,777.61	0.00	0.00	9,757.04	350.00	-300.00	477,547.65	714,546.96	32.311606	-103.772671
KOP @ 9778' MD, 50' FNL, 480' FWL									
9,800.00	2.24	179.68	9,779.42	349.56	-300.00	477,547.21	714,546.96	32.311605	-103.772671
9,900.00	12.24	179.68	9,878.50	336.98	-299.93	477,534.63	714,547.03	32.311570	-103.772671
10,000.00	22.24	179.68	9,973.88	307.38	-299.76	477,505.03	714,547.19	32.311489	-103.772671
10,019.00	24.14	179.68	9,991.35	299.90	-299.72	477,497.55	714,547.23	32.311468	-103.772671
FTP @ 10019' MD, 100' FNL, 480' FWL									
10,100.00	32.24	179.68	10,062.68	261.67	-299.51	477,459.32	714,547.45	32.311363	-103.772671

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Company:	WCDC Permian NM	TVD Reference:	RKB @ 3411.40ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3411.40ft
Site:	Sec 15-T23S-R31E	North Reference:	Grid
Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,200.00	42.24	179.68	10,142.19	201.24	-299.17	477,398.89	714,547.78	32.311197	-103.772671
10,300.00	52.24	179.68	10,210.00	127.91	-298.77	477,325.56	714,548.19	32.310996	-103.772671
10,400.00	62.24	179.68	10,264.05	43.93	-298.30	477,241.58	714,548.66	32.310765	-103.772671
10,500.00	72.24	179.68	10,302.69	-48.17	-297.79	477,149.48	714,549.17	32.310512	-103.772671
10,600.00	82.24	179.68	10,324.75	-145.57	-297.25	477,052.08	714,549.71	32.310244	-103.772671
10,677.62	90.00	179.68	10,330.00	-222.95	-296.82	476,974.70	714,550.14	32.310031	-103.772671
10,700.00	90.00	179.68	10,330.00	-245.33	-296.69	476,952.32	714,550.26	32.309970	-103.772671
10,800.00	90.00	179.68	10,330.00	-345.33	-296.14	476,852.32	714,550.82	32.309695	-103.772671
10,900.00	90.00	179.68	10,330.00	-445.33	-295.58	476,752.32	714,551.37	32.309420	-103.772670
11,000.00	90.00	179.68	10,330.00	-545.33	-295.03	476,652.32	714,551.93	32.309145	-103.772670
11,100.00	90.00	179.68	10,330.00	-645.33	-294.47	476,552.32	714,552.48	32.308870	-103.772670
11,200.00	90.00	179.68	10,330.00	-745.33	-293.92	476,452.33	714,553.04	32.308595	-103.772670
11,300.00	90.00	179.68	10,330.00	-845.32	-293.36	476,352.33	714,553.60	32.308320	-103.772670
11,400.00	90.00	179.68	10,330.00	-945.32	-292.81	476,252.33	714,554.15	32.308046	-103.772670
11,500.00	90.00	179.68	10,330.00	-1,045.32	-292.25	476,152.33	714,554.71	32.307771	-103.772670
11,600.00	90.00	179.68	10,330.00	-1,145.32	-291.70	476,052.33	714,555.26	32.307496	-103.772670
11,700.00	90.00	179.68	10,330.00	-1,245.32	-291.14	475,952.34	714,555.82	32.307221	-103.772670
11,800.00	90.00	179.68	10,330.00	-1,345.32	-290.58	475,852.34	714,556.37	32.306946	-103.772670
11,900.00	90.00	179.68	10,330.00	-1,445.31	-290.03	475,752.34	714,556.93	32.306671	-103.772669
12,000.00	90.00	179.68	10,330.00	-1,545.31	-289.47	475,652.34	714,557.48	32.306396	-103.772669
12,100.00	90.00	179.68	10,330.00	-1,645.31	-288.92	475,552.34	714,558.04	32.306121	-103.772669
12,200.00	90.00	179.68	10,330.00	-1,745.31	-288.36	475,452.34	714,558.59	32.305847	-103.772669
12,300.00	90.00	179.68	10,330.00	-1,845.31	-287.81	475,352.35	714,559.15	32.305572	-103.772669
12,400.00	90.00	179.68	10,330.00	-1,945.31	-287.25	475,252.35	714,559.70	32.305297	-103.772669
12,500.00	90.00	179.68	10,330.00	-2,045.31	-286.70	475,152.35	714,560.26	32.305022	-103.772669
12,600.00	90.00	179.68	10,330.00	-2,145.30	-286.14	475,052.35	714,560.82	32.304747	-103.772669
12,700.00	90.00	179.68	10,330.00	-2,245.30	-285.59	474,952.35	714,561.37	32.304472	-103.772669
12,800.00	90.00	179.68	10,330.00	-2,345.30	-285.03	474,852.35	714,561.93	32.304197	-103.772668
12,900.00	90.00	179.68	10,330.00	-2,445.30	-284.48	474,752.36	714,562.48	32.303922	-103.772668
13,000.00	90.00	179.68	10,330.00	-2,545.30	-283.92	474,652.36	714,563.04	32.303647	-103.772668
13,100.00	90.00	179.68	10,330.00	-2,645.30	-283.36	474,552.36	714,563.59	32.303373	-103.772668
13,200.00	90.00	179.68	10,330.00	-2,745.29	-282.81	474,452.36	714,564.15	32.303098	-103.772668
13,300.00	90.00	179.68	10,330.00	-2,845.29	-282.25	474,352.36	714,564.70	32.302823	-103.772668
13,400.00	90.00	179.68	10,330.00	-2,945.29	-281.70	474,252.36	714,565.26	32.302548	-103.772668
13,500.00	90.00	179.68	10,330.00	-3,045.29	-281.14	474,152.37	714,565.81	32.302273	-103.772668
13,600.00	90.00	179.68	10,330.00	-3,145.29	-280.59	474,052.37	714,566.37	32.301998	-103.772668
13,700.00	90.00	179.68	10,330.00	-3,245.29	-280.03	473,952.37	714,566.92	32.301723	-103.772668
13,800.00	90.00	179.68	10,330.00	-3,345.29	-279.48	473,852.37	714,567.48	32.301448	-103.772667
13,900.00	90.00	179.68	10,330.00	-3,445.28	-278.92	473,752.37	714,568.04	32.301174	-103.772667
14,000.00	90.00	179.68	10,330.00	-3,545.28	-278.37	473,652.38	714,568.59	32.300899	-103.772667
14,100.00	90.00	179.68	10,330.00	-3,645.28	-277.81	473,552.38	714,569.15	32.300624	-103.772667
14,200.00	90.00	179.68	10,330.00	-3,745.28	-277.26	473,452.38	714,569.70	32.300349	-103.772667
14,300.00	90.00	179.68	10,330.00	-3,845.28	-276.70	473,352.38	714,570.26	32.300074	-103.772667
14,400.00	90.00	179.68	10,330.00	-3,945.28	-276.14	473,252.38	714,570.81	32.299799	-103.772667
14,500.00	90.00	179.68	10,330.00	-4,045.27	-275.59	473,152.38	714,571.37	32.299524	-103.772667
14,600.00	90.00	179.68	10,330.00	-4,145.27	-275.03	473,052.39	714,571.92	32.299249	-103.772667
14,700.00	90.00	179.68	10,330.00	-4,245.27	-274.48	472,952.39	714,572.48	32.298975	-103.772666
14,800.00	90.00	179.68	10,330.00	-4,345.27	-273.92	472,852.39	714,573.03	32.298700	-103.772666
14,900.00	90.00	179.68	10,330.00	-4,445.27	-273.37	472,752.39	714,573.59	32.298425	-103.772666
15,000.00	90.00	179.68	10,330.00	-4,545.27	-272.81	472,652.39	714,574.14	32.298150	-103.772666
15,100.00	90.00	179.68	10,330.00	-4,645.27	-272.26	472,552.39	714,574.70	32.297875	-103.772666
15,200.00	90.00	179.68	10,330.00	-4,745.26	-271.70	472,452.40	714,575.26	32.297600	-103.772666
15,300.00	90.00	179.68	10,330.00	-4,845.26	-271.15	472,352.40	714,575.81	32.297325	-103.772666

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Company:	WCDCS Permian NM	TVD Reference:	RKB @ 3411.40ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3411.40ft
Site:	Sec 15-T23S-R31E	North Reference:	Grid
Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
15,335.00	90.00	179.68	10,330.00	-4,880.26	-270.95	472,317.40	714,576.00	32.297229	-103.772666	
Cross Section @ 15335' MD, 0' FNL, 480' FWL										
15,400.00	90.00	179.68	10,330.00	-4,945.26	-270.59	472,252.40	714,576.37	32.297050	-103.772666	
15,500.00	90.00	179.68	10,330.00	-5,045.26	-270.04	472,152.40	714,576.92	32.296776	-103.772666	
15,600.00	90.00	179.68	10,330.00	-5,145.26	-269.48	472,052.40	714,577.48	32.296501	-103.772666	
15,700.00	90.00	179.68	10,330.00	-5,245.26	-268.92	471,952.40	714,578.03	32.296226	-103.772665	
15,800.00	90.00	179.68	10,330.00	-5,345.25	-268.37	471,852.41	714,578.59	32.295951	-103.772665	
15,900.00	90.00	179.68	10,330.00	-5,445.25	-267.81	471,752.41	714,579.14	32.295676	-103.772665	
16,000.00	90.00	179.68	10,330.00	-5,545.25	-267.26	471,652.41	714,579.70	32.295401	-103.772665	
16,100.00	90.00	179.68	10,330.00	-5,645.25	-266.70	471,552.41	714,580.25	32.295126	-103.772665	
16,200.00	90.00	179.68	10,330.00	-5,745.25	-266.15	471,452.41	714,580.81	32.294851	-103.772665	
16,300.00	90.00	179.68	10,330.00	-5,845.25	-265.59	471,352.42	714,581.36	32.294577	-103.772665	
16,400.00	90.00	179.68	10,330.00	-5,945.25	-265.04	471,252.42	714,581.92	32.294302	-103.772665	
16,500.00	90.00	179.68	10,330.00	-6,045.24	-264.48	471,152.42	714,582.48	32.294027	-103.772665	
16,600.00	90.00	179.68	10,330.00	-6,145.24	-263.93	471,052.42	714,583.03	32.293752	-103.772664	
16,700.00	90.00	179.68	10,330.00	-6,245.24	-263.37	470,952.42	714,583.59	32.293477	-103.772664	
16,800.00	90.00	179.68	10,330.00	-6,345.24	-262.82	470,852.42	714,584.14	32.293202	-103.772664	
16,900.00	90.00	179.68	10,330.00	-6,445.24	-262.26	470,752.43	714,584.70	32.292927	-103.772664	
17,000.00	90.00	179.68	10,330.00	-6,545.24	-261.70	470,652.43	714,585.25	32.292652	-103.772664	
17,100.00	90.00	179.68	10,330.00	-6,645.23	-261.15	470,552.43	714,585.81	32.292378	-103.772664	
17,200.00	90.00	179.68	10,330.00	-6,745.23	-260.59	470,452.43	714,586.36	32.292103	-103.772664	
17,300.00	90.00	179.68	10,330.00	-6,845.23	-260.04	470,352.43	714,586.92	32.291828	-103.772664	
17,400.00	90.00	179.68	10,330.00	-6,945.23	-259.48	470,252.43	714,587.47	32.291553	-103.772664	
17,500.00	90.00	179.68	10,330.00	-7,045.23	-258.93	470,152.44	714,588.03	32.291278	-103.772664	
17,600.00	90.00	179.68	10,330.00	-7,145.23	-258.37	470,052.44	714,588.58	32.291003	-103.772663	
17,700.00	90.00	179.68	10,330.00	-7,245.23	-257.82	469,952.44	714,589.14	32.290728	-103.772663	
17,800.00	90.00	179.68	10,330.00	-7,345.22	-257.26	469,852.44	714,589.70	32.290453	-103.772663	
17,900.00	90.00	179.68	10,330.00	-7,445.22	-256.71	469,752.44	714,590.25	32.290178	-103.772663	
18,000.00	90.00	179.68	10,330.00	-7,545.22	-256.15	469,652.44	714,590.81	32.289904	-103.772663	
18,100.00	90.00	179.68	10,330.00	-7,645.22	-255.60	469,552.45	714,591.36	32.289629	-103.772663	
18,200.00	90.00	179.68	10,330.00	-7,745.22	-255.04	469,452.45	714,591.92	32.289354	-103.772663	
18,300.00	90.00	179.68	10,330.00	-7,845.22	-254.48	469,352.45	714,592.47	32.289079	-103.772663	
18,400.00	90.00	179.68	10,330.00	-7,945.21	-253.93	469,252.45	714,593.03	32.288804	-103.772663	
18,500.00	90.00	179.68	10,330.00	-8,045.21	-253.37	469,152.45	714,593.58	32.288529	-103.772662	
18,600.00	90.00	179.68	10,330.00	-8,145.21	-252.82	469,052.46	714,594.14	32.288254	-103.772662	
18,700.00	90.00	179.68	10,330.00	-8,245.21	-252.26	468,952.46	714,594.69	32.287979	-103.772662	
18,800.00	90.00	179.68	10,330.00	-8,345.21	-251.71	468,852.46	714,595.25	32.287705	-103.772662	
18,900.00	90.00	179.68	10,330.00	-8,445.21	-251.15	468,752.46	714,595.80	32.287430	-103.772662	
19,000.00	90.00	179.68	10,330.00	-8,545.21	-250.60	468,652.46	714,596.36	32.287155	-103.772662	
19,100.00	90.00	179.68	10,330.00	-8,645.20	-250.04	468,552.46	714,596.92	32.286880	-103.772662	
19,200.00	90.00	179.68	10,330.00	-8,745.20	-249.49	468,452.47	714,597.47	32.286605	-103.772662	
19,300.00	90.00	179.68	10,330.00	-8,845.20	-248.93	468,352.47	714,598.03	32.286330	-103.772662	
19,400.00	90.00	179.68	10,330.00	-8,945.20	-248.38	468,252.47	714,598.58	32.286055	-103.772662	
19,500.00	90.00	179.68	10,330.00	-9,045.20	-247.82	468,152.47	714,599.14	32.285780	-103.772661	
19,600.00	90.00	179.68	10,330.00	-9,145.20	-247.26	468,052.47	714,599.69	32.285506	-103.772661	
19,700.00	90.00	179.68	10,330.00	-9,245.19	-246.71	467,952.47	714,600.25	32.285231	-103.772661	
19,800.00	90.00	179.68	10,330.00	-9,345.19	-246.15	467,852.48	714,600.80	32.284956	-103.772661	
19,900.00	90.00	179.68	10,330.00	-9,445.19	-245.60	467,752.48	714,601.36	32.284681	-103.772661	
20,000.00	90.00	179.68	10,330.00	-9,545.19	-245.04	467,652.48	714,601.91	32.284406	-103.772661	
20,100.00	90.00	179.68	10,330.00	-9,645.19	-244.49	467,552.48	714,602.47	32.284131	-103.772661	
20,200.00	90.00	179.68	10,330.00	-9,745.19	-243.93	467,452.48	714,603.02	32.283856	-103.772661	
20,300.00	90.00	179.68	10,330.00	-9,845.19	-243.38	467,352.48	714,603.58	32.283581	-103.772661	
20,400.00	90.00	179.68	10,330.00	-9,945.18	-242.82	467,252.49	714,604.14	32.283307	-103.772660	
20,500.00	90.00	179.68	10,330.00	-10,045.18	-242.27	467,152.49	714,604.69	32.283032	-103.772660	

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3411.40ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3411.40ft
Site:	Sec 15-T23S-R31E	North Reference:	Grid
Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
20,600.00	90.00	179.68	10,330.00	-10,145.18	-241.71	467,052.49	714,605.25	32.282757	-103.772660
20,615.00	90.00	179.68	10,330.00	-10,160.18	-241.63	467,037.49	714,605.33	32.282716	-103.772660
Cross Section @ 20615' MD, 0' FNL, 480' FWL									
20,700.00	90.00	179.68	10,330.00	-10,245.18	-241.16	466,952.49	714,605.80	32.282482	-103.772660
20,800.00	90.00	179.68	10,330.00	-10,345.18	-240.60	466,852.49	714,606.36	32.282207	-103.772660
20,900.00	90.00	179.68	10,330.00	-10,445.18	-240.04	466,752.50	714,606.91	32.281932	-103.772660
21,000.00	90.00	179.68	10,330.00	-10,545.17	-239.49	466,652.50	714,607.47	32.281657	-103.772660
21,100.00	90.00	179.68	10,330.00	-10,645.17	-238.93	466,552.50	714,608.02	32.281382	-103.772660
21,200.00	90.00	179.68	10,330.00	-10,745.17	-238.38	466,452.50	714,608.58	32.281108	-103.772660
21,300.00	90.00	179.68	10,330.00	-10,845.17	-237.82	466,352.50	714,609.13	32.280833	-103.772660
21,400.00	90.00	179.68	10,330.00	-10,945.17	-237.27	466,252.50	714,609.69	32.280558	-103.772659
21,500.00	90.00	179.68	10,330.00	-11,045.17	-236.71	466,152.51	714,610.24	32.280283	-103.772659
21,600.00	90.00	179.68	10,330.00	-11,145.17	-236.16	466,052.51	714,610.80	32.280008	-103.772659
21,700.00	90.00	179.68	10,330.00	-11,245.16	-235.60	465,952.51	714,611.36	32.279733	-103.772659
21,800.00	90.00	179.68	10,330.00	-11,345.16	-235.05	465,852.51	714,611.91	32.279458	-103.772659
21,900.00	90.00	179.68	10,330.00	-11,445.16	-234.49	465,752.51	714,612.47	32.279183	-103.772659
22,000.00	90.00	179.68	10,330.00	-11,545.16	-233.94	465,652.51	714,613.02	32.278908	-103.772659
22,100.00	90.00	179.68	10,330.00	-11,645.16	-233.38	465,552.52	714,613.58	32.278634	-103.772659
22,200.00	90.00	179.68	10,330.00	-11,745.16	-232.82	465,452.52	714,614.13	32.278359	-103.772659
22,300.00	90.00	179.68	10,330.00	-11,845.15	-232.27	465,352.52	714,614.69	32.278084	-103.772658
22,400.00	90.00	179.68	10,330.00	-11,945.15	-231.71	465,252.52	714,615.24	32.277809	-103.772658
22,500.00	90.00	179.68	10,330.00	-12,045.15	-231.16	465,152.52	714,615.80	32.277534	-103.772658
22,600.00	90.00	179.68	10,330.00	-12,145.15	-230.60	465,052.52	714,616.35	32.277259	-103.772658
22,700.00	90.00	179.68	10,330.00	-12,245.15	-230.05	464,952.53	714,616.91	32.276984	-103.772658
22,800.00	90.00	179.68	10,330.00	-12,345.15	-229.49	464,852.53	714,617.46	32.276709	-103.772658
22,900.00	90.00	179.68	10,330.00	-12,445.15	-228.94	464,752.53	714,618.02	32.276435	-103.772658
23,000.00	90.00	179.68	10,330.00	-12,545.14	-228.38	464,652.53	714,618.58	32.276160	-103.772658
23,100.00	90.00	179.68	10,330.00	-12,645.14	-227.83	464,552.53	714,619.13	32.275885	-103.772658
23,200.00	90.00	179.68	10,330.00	-12,745.14	-227.27	464,452.54	714,619.69	32.275610	-103.772657
23,300.00	90.00	179.68	10,330.00	-12,845.14	-226.72	464,352.54	714,620.24	32.275335	-103.772657
23,400.00	90.00	179.68	10,330.00	-12,945.14	-226.16	464,252.54	714,620.80	32.275060	-103.772657
23,500.00	90.00	179.68	10,330.00	-13,045.14	-225.60	464,152.54	714,621.35	32.274785	-103.772657
23,600.00	90.00	179.68	10,330.00	-13,145.13	-225.05	464,052.54	714,621.91	32.274510	-103.772657
23,700.00	90.00	179.68	10,330.00	-13,245.13	-224.49	463,952.54	714,622.46	32.274236	-103.772657
23,800.00	90.00	179.68	10,330.00	-13,345.13	-223.94	463,852.55	714,623.02	32.273961	-103.772657
23,900.00	90.00	179.68	10,330.00	-13,445.13	-223.38	463,752.55	714,623.57	32.273686	-103.772657
24,000.00	90.00	179.68	10,330.00	-13,545.13	-222.83	463,652.55	714,624.13	32.273411	-103.772657
24,100.00	90.00	179.68	10,330.00	-13,645.13	-222.27	463,552.55	714,624.68	32.273136	-103.772657
24,200.00	90.00	179.68	10,330.00	-13,745.13	-221.72	463,452.55	714,625.24	32.272861	-103.772656
24,300.00	90.00	179.68	10,330.00	-13,845.12	-221.16	463,352.55	714,625.80	32.272586	-103.772656
24,400.00	90.00	179.68	10,330.00	-13,945.12	-220.61	463,252.56	714,626.35	32.272311	-103.772656
24,500.00	90.00	179.68	10,330.00	-14,045.12	-220.05	463,152.56	714,626.91	32.272037	-103.772656
24,600.00	90.00	179.68	10,330.00	-14,145.12	-219.50	463,052.56	714,627.46	32.271762	-103.772656
24,700.00	90.00	179.68	10,330.00	-14,245.12	-218.94	462,952.56	714,628.02	32.271487	-103.772656
24,800.00	90.00	179.68	10,330.00	-14,345.12	-218.38	462,852.56	714,628.57	32.271212	-103.772656
24,900.00	90.00	179.68	10,330.00	-14,445.11	-217.83	462,752.56	714,629.13	32.270937	-103.772656
25,000.00	90.00	179.68	10,330.00	-14,545.11	-217.27	462,652.57	714,629.68	32.270662	-103.772656
25,100.00	90.00	179.68	10,330.00	-14,645.11	-216.72	462,552.57	714,630.24	32.270387	-103.772655
25,200.00	90.00	179.68	10,330.00	-14,745.11	-216.16	462,452.57	714,630.79	32.270112	-103.772655
25,300.00	90.00	179.68	10,330.00	-14,845.11	-215.61	462,352.57	714,631.35	32.269838	-103.772655
25,400.00	90.00	179.68	10,330.00	-14,945.11	-215.05	462,252.57	714,631.90	32.269563	-103.772655
25,500.00	90.00	179.68	10,330.00	-15,045.11	-214.50	462,152.58	714,632.46	32.269288	-103.772655
25,586.80	90.00	179.68	10,330.00	-15,131.90	-214.01	462,065.78	714,632.94	32.269049	-103.772655
LTP @ 25587' MD, 315' FSL, 480' FWL									

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3411.40ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3411.40ft
Site:	Sec 15-T23S-R31E	North Reference:	Grid
Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
25,600.00	90.00	179.68	10,330.00	-15,145.10	-213.94	462,052.58	714,633.01	32.269013	-103.772655
25,666.79	90.00	179.68	10,330.00	-15,211.89	-213.57	461,985.79	714,633.39	32.268829	-103.772655
PBHL; 235' FSL, 480' FWL									
25,666.80	90.00	179.68	10,330.00	-15,211.90	-213.57	461,985.78	714,633.39	32.268829	-103.772655

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target.									
- Shape									
PBHL - Maldives 521H	0.00	0.01	0.00	-7,232.88	-388.99	469,964.78	714,457.97	32.290764	-103.773088
- plan misses target center by 7243.34ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
PBHL - Maldives 15-27 F	0.00	0.00	0.00	-15,211.90	-213.57	461,985.78	714,633.39	32.268829	-103.772655
- plan misses target center by 10330.00ft at 25666.80ft MD (10330.00 TVD, -15211.90 N, -213.57 E)									
- Point									
Vertical Point - Maldives	0.00	0.00	7,854.00	347.38	-431.92	477,545.03	714,415.04	32.311601	-103.773098
- plan misses target center by 232.92ft at 7888.25ft MD (7873.15 TVD, 255.30 N, -218.82 E)									
- Point									

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
9,777.61	9,757.04	350.00	-300.00	KOP @ 9778' MD, 50' FNL, 480' FWL
10,019.00	9,991.35	299.90	-299.72	FTP @ 10019' MD, 100' FNL, 480' FWL
15,335.00	10,330.00	-4,880.26	-270.95	Cross Section @ 15335' MD, 0' FNL, 480' FWL
20,615.00	10,330.00	-10,160.18	-241.63	Cross Section @ 20615' MD, 0' FNL, 480' FWL
25,586.80	10,330.00	-15,131.90	-214.01	LTP @ 25587' MD, 315' FSL, 480' FWL
25,666.79	10,330.00	-15,211.89	-213.57	PBHL; 235' FSL, 480' FWL

Devon Energy

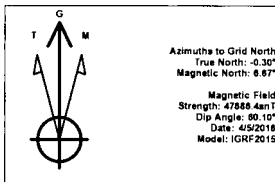
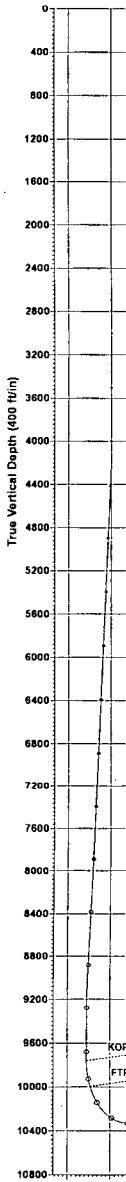
WELL DETAILS: Maldives 15-27 Fed Com 231H

RKB @ 3411.40ft
3387.10

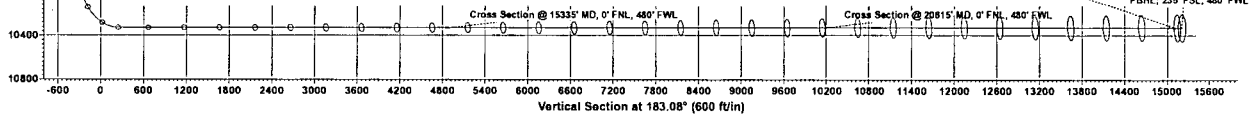
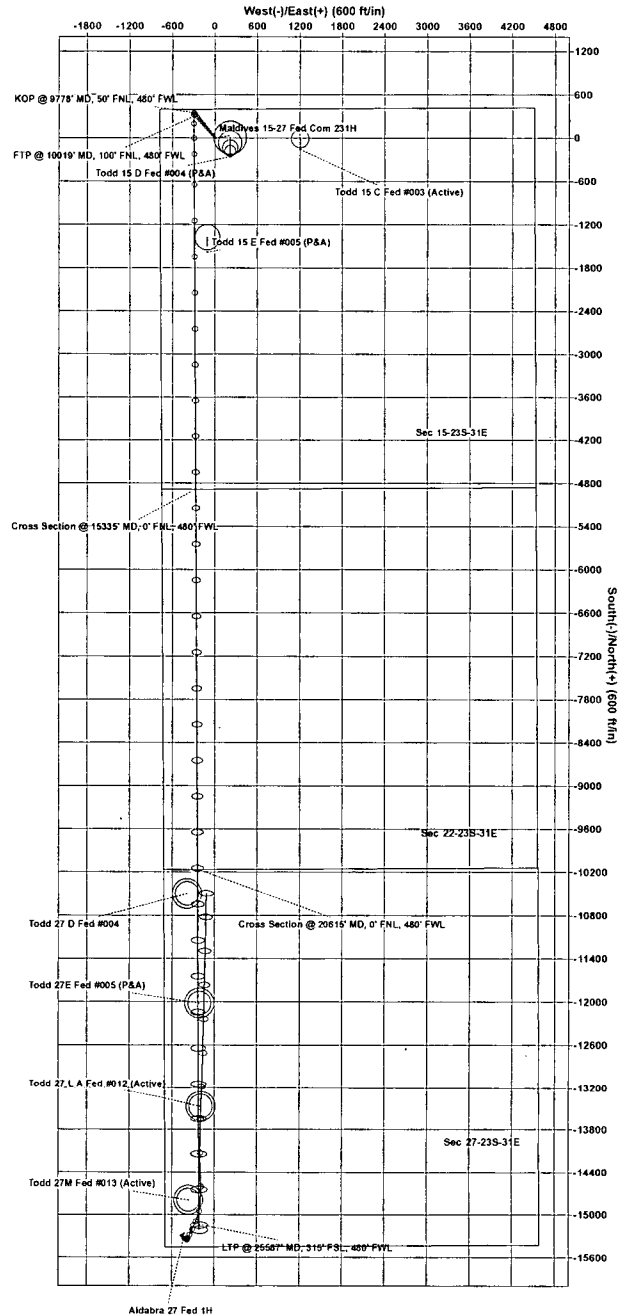
Northing 477197.65 Easting 714846.96 Latitude 32.310640 Longitude -103.771705

SECTION DETAILS Permit Plan 2

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	V/Sect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	
4419.56	5.24	319.40	4418.97	14.57	-12.49	1.25	-13.88	
9077.95	5.24	319.40	9057.86	337.86	-289.59	0.00	-321.82	
5 9427.57	0.00	0.00	9407.00	350.00	-300.00	1.50	-333.38	
6 9777.61	0.00	0.00	9757.04	350.00	-300.00	0.00	-333.38	KOP @ 9778' MD, 50' FNL, 480' FWL
7 10677.62	90.00	179.68	10330.00	-222.95	-296.82	10.00	238.57	
8 25666.80	90.00	179.68	10330.00	-15211.90	-213.57	0.00	15201.41	PBHL: 235' FSL, 480' FWL



devon



WCDSC Permian NM

Eddy County (NAD 83 NM Eastern)

Sec 15-T23S-R31E

Maldives 15-27 Fed Com 231H

Wellbore #1

Permit Plan 2

Anticollision Report

14 March, 2019

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at:	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Reference	Permit Plan 2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 50.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,500.00 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 3/14/2019			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	25,666.37	Permit Plan 2 (Wellbore #1)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec 15-T23S-R31E						
Maldives 15-27 Fed Com 232H - Wellbore #1 - Permit PI	2,700.00	2,701.10	29.99	11.05	1.583	Minor Risk, CC
Maldives 15-27 Fed Com 232H - Wellbore #1 - Permit PI	2,750.00	2,750.87	30.18	10.89	1.564	Minor Risk, ES, SF
Todd 15 C Fed #003 (Active) - Wellbore #1 - No Surveys	4,010.56	4,011.36	1,206.96	1,132.03	16.109	CC
Todd 15 C Fed #003 (Active) - Wellbore #1 - No Surveys	4,150.00	4,150.85	1,208.49	1,131.00	15.597	ES
Todd 15 C Fed #003 (Active) - Wellbore #1 - No Surveys	8,700.00	8,693.22	1,499.72	1,338.41	9.297	SF
Todd 15 D Fed #004 (P&A) - Wellbore #1 - Inc Only Surv	4,110.80	4,110.59	251.20	124.45	1.982	Minor Risk, CC
Todd 15 D Fed #004 (P&A) - Wellbore #1 - Inc Only Surv	4,250.00	4,248.64	253.60	121.80	1.924	Minor Risk, ES
Todd 15 D Fed #004 (P&A) - Wellbore #1 - Inc Only Surv	4,400.00	4,398.62	260.92	123.93	1.905	Minor Risk, SF
Todd 15 E Fed #005 (P&A) - Wellbore #1 - No Surveys						Out of range
Sec 27-T23S-R31E						
Aldabra 27 Fed 1H - Wellbore #1 - Wellbore #1	25,666.80	10,350.10	215.48	75.84	1.543	Minor Risk, CC, ES, SF
Todd 27 D Fed #004 - Wellbore #1 - Wellbore #1						Out of range
Todd 27 LA Fed #012 (Active) - Wellbore #1 - Wellbore #1						Out of range
Todd 27E Fed #005 (P&A) - Wellbore #1 - Wellbore #1						Out of range
Todd 27M Fed #013 (Active) - Wellbore #1 - Wellbore #1						Out of range

Sec 15-T23S-R31E - Maldives 15-27 Fed Com 232H - Wellbore #1 - Permit Plan 2												Offset Site Error: 0.00 ft	
Survey Program: 0-MWD+IFR1												Offset Well Error: 0.50 ft	
Reference		Offset		Semi Major Axis		Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
0.00	0.00	1.10	1.10	0.50	0.50	89.66	0.18	29.99	29.99				
50.00	50.00	51.10	51.10	0.50	0.50	89.66	0.18	29.99	29.99	28.98	1.01	29.787	
100.00	100.00	101.10	101.10	0.52	0.52	89.66	0.18	29.99	29.99	28.95	1.04	28.920	
150.00	150.00	151.10	151.10	0.59	0.59	89.66	0.18	29.99	29.99	28.81	1.18	25.340	
200.00	200.00	201.10	201.10	0.70	0.71	89.66	0.18	29.99	29.99	28.58	1.41	21.296	
250.00	250.00	251.10	251.10	0.84	0.84	89.66	0.18	29.99	29.99	28.31	1.68	17.851	
300.00	300.00	301.10	301.10	0.99	0.99	89.66	0.18	29.99	29.99	28.01	1.98	15.150	
350.00	350.00	351.10	351.10	1.15	1.15	89.66	0.18	29.99	29.99	27.69	2.30	13.061	
400.00	400.00	401.10	401.10	1.31	1.31	89.66	0.18	29.99	29.99	27.37	2.62	11.432	
450.00	450.00	451.10	451.10	1.48	1.48	89.66	0.18	29.99	29.99	27.03	2.96	10.139	
500.00	500.00	501.10	501.10	1.65	1.65	89.66	0.18	29.99	29.99	26.69	3.30	9.095	
550.00	550.00	551.10	551.10	1.82	1.82	89.66	0.18	29.99	29.99	26.35	3.64	8.237	

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design: Sec 15-T23S-R31E - Maldives 15-27 Fed Com 232H - Wellbore #1 - Permit Plan 2													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.50 ft
Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre: +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
600.00	600.00	601.10	601.10	1.99	1.99	89.66	0.18	29.99	29.99	26.00	3.99	7.523		
650.00	650.00	651.10	651.10	2.17	2.17	89.66	0.18	29.99	29.99	25.66	4.33	6.919		
700.00	700.00	701.10	701.10	2.34	2.34	89.66	0.18	29.99	29.99	25.31	4.68	6.402		
750.00	750.00	751.10	751.10	2.52	2.52	89.66	0.18	29.99	29.99	24.96	5.04	5.956		
800.00	800.00	801.10	801.10	2.69	2.69	89.66	0.18	29.99	29.99	24.60	5.39	5.567		
850.00	850.00	851.10	851.10	2.87	2.87	89.66	0.18	29.99	29.99	24.25	5.74	5.225		
900.00	900.00	901.10	901.10	3.04	3.05	89.66	0.18	29.99	29.99	23.90	6.09	4.922 Alert		
950.00	950.00	951.10	951.10	3.22	3.22	89.66	0.18	29.99	29.99	23.54	6.45	4.652 Alert		
1,000.00	1,000.00	1,001.10	1,001.10	3.40	3.40	89.66	0.18	29.99	29.99	23.19	6.80	4.410 Alert		
1,050.00	1,050.00	1,051.10	1,051.10	3.58	3.58	89.66	0.18	29.99	29.99	22.83	7.16	4.191 Alert		
1,100.00	1,100.00	1,101.10	1,101.10	3.75	3.76	89.66	0.18	29.99	29.99	22.48	7.51	3.993 Alert		
1,150.00	1,150.00	1,151.10	1,151.10	3.93	3.93	89.66	0.18	29.99	29.99	22.12	7.87	3.813 Alert		
1,200.00	1,200.00	1,201.10	1,201.10	4.11	4.11	89.66	0.18	29.99	29.99	21.77	8.22	3.648 Alert		
1,250.00	1,250.00	1,251.10	1,251.10	4.29	4.29	89.66	0.18	29.99	29.99	21.41	8.58	3.496 Alert		
1,300.00	1,300.00	1,301.10	1,301.10	4.47	4.47	89.66	0.18	29.99	29.99	21.06	8.93	3.357 Alert		
1,350.00	1,350.00	1,351.10	1,351.10	4.64	4.65	89.66	0.18	29.99	29.99	20.70	9.29	3.228 Alert		
1,400.00	1,400.00	1,401.10	1,401.10	4.82	4.83	89.66	0.18	29.99	29.99	20.34	9.65	3.109 Alert		
1,450.00	1,450.00	1,451.10	1,451.10	5.00	5.00	89.66	0.18	29.99	29.99	19.99	10.00	2.998 Alert		
1,500.00	1,500.00	1,501.10	1,501.10	5.18	5.18	89.66	0.18	29.99	29.99	19.63	10.36	2.895 Alert		
1,550.00	1,550.00	1,551.10	1,551.10	5.36	5.36	89.66	0.18	29.99	29.99	19.27	10.72	2.798 Alert		
1,600.00	1,600.00	1,601.10	1,601.10	5.54	5.54	89.66	0.18	29.99	29.99	18.92	11.07	2.708 Alert		
1,650.00	1,650.00	1,651.10	1,651.10	5.71	5.72	89.66	0.18	29.99	29.99	18.56	11.43	2.624 Alert		
1,700.00	1,700.00	1,701.10	1,701.10	5.89	5.90	89.66	0.18	29.99	29.99	18.20	11.79	2.544 Alert		
1,750.00	1,750.00	1,751.10	1,751.10	6.07	6.07	89.66	0.18	29.99	29.99	17.85	12.15	2.469 Minor Risk		
1,800.00	1,800.00	1,801.10	1,801.10	6.25	6.25	89.66	0.18	29.99	29.99	17.49	12.50	2.399 Minor Risk		
1,850.00	1,850.00	1,851.10	1,851.10	6.43	6.43	89.66	0.18	29.99	29.99	17.13	12.86	2.332 Minor Risk		
1,900.00	1,900.00	1,901.10	1,901.10	6.61	6.61	89.66	0.18	29.99	29.99	16.77	13.22	2.269 Minor Risk		
1,950.00	1,950.00	1,951.10	1,951.10	6.79	6.79	89.66	0.18	29.99	29.99	16.42	13.57	2.209 Minor Risk		
2,000.00	2,000.00	2,001.10	2,001.10	6.96	6.97	89.66	0.18	29.99	29.99	16.06	13.93	2.153 Minor Risk		
2,050.00	2,050.00	2,051.10	2,051.10	7.14	7.15	89.66	0.18	29.99	29.99	15.70	14.29	2.099 Minor Risk		
2,100.00	2,100.00	2,101.10	2,101.10	7.32	7.33	89.66	0.18	29.99	29.99	15.34	14.65	2.047 Minor Risk		
2,150.00	2,150.00	2,151.10	2,151.10	7.50	7.50	89.66	0.18	29.99	29.99	14.99	15.01	1.999 Minor Risk		
2,200.00	2,200.00	2,201.10	2,201.10	7.68	7.68	89.66	0.18	29.99	29.99	14.63	15.36	1.952 Minor Risk		
2,250.00	2,250.00	2,251.10	2,251.10	7.86	7.86	89.66	0.18	29.99	29.99	14.27	15.72	1.908 Minor Risk		
2,300.00	2,300.00	2,301.10	2,301.10	8.04	8.04	89.66	0.18	29.99	29.99	13.91	16.08	1.865 Minor Risk		
2,350.00	2,350.00	2,351.10	2,351.10	8.22	8.22	89.66	0.18	29.99	29.99	13.55	16.44	1.825 Minor Risk		
2,400.00	2,400.00	2,401.10	2,401.10	8.40	8.40	89.66	0.18	29.99	29.99	13.20	16.79	1.786 Minor Risk		
2,450.00	2,450.00	2,451.10	2,451.10	8.57	8.58	89.66	0.18	29.99	29.99	12.84	17.15	1.749 Minor Risk		
2,500.00	2,500.00	2,501.10	2,501.10	8.75	8.76	89.66	0.18	29.99	29.99	12.48	17.51	1.713 Minor Risk		
2,550.00	2,550.00	2,551.10	2,551.10	8.93	8.94	89.66	0.18	29.99	29.99	12.12	17.87	1.678 Minor Risk		
2,600.00	2,600.00	2,601.10	2,601.10	9.11	9.11	89.66	0.18	29.99	29.99	11.76	18.23	1.646 Minor Risk		
2,650.00	2,650.00	2,651.10	2,651.10	9.29	9.29	89.66	0.18	29.99	29.99	11.41	18.58	1.614 Minor Risk		
2,700.00	2,700.00	2,701.10	2,701.10	9.47	9.47	89.66	0.18	29.99	29.99	11.05	18.94	1.583 Minor Risk, CC		
2,750.00	2,750.00	2,750.87	2,750.87	9.65	9.65	89.43	0.30	30.18	30.18	10.89	19.30	1.564 Minor Risk, ES, SF		
2,800.00	2,800.00	2,800.64	2,800.64	9.83	9.82	88.78	0.65	30.74	30.75	11.10	19.65	1.565 Minor Risk		
2,850.00	2,850.00	2,850.40	2,850.38	10.01	10.00	87.76	1.24	31.66	31.69	11.69	20.00	1.584 Minor Risk		
2,900.00	2,900.00	2,900.13	2,900.09	10.19	10.17	86.43	2.06	32.94	33.02	12.67	20.35	1.623 Minor Risk		
2,950.00	2,950.00	2,949.83	2,949.75	10.36	10.35	84.87	3.10	34.58	34.75	14.05	20.70	1.679 Minor Risk		
3,000.00	3,000.00	2,999.50	2,999.36	10.54	10.52	83.17	4.38	36.59	36.89	15.85	21.04	1.753 Minor Risk		
3,050.00	3,050.00	3,049.12	3,048.90	10.72	10.70	81.41	5.89	38.96	39.46	18.08	21.39	1.845 Minor Risk		
3,100.00	3,100.00	3,098.69	3,098.36	10.90	10.87	79.64	7.62	41.69	42.47	20.74	21.73	1.954 Minor Risk		
3,150.00	3,150.00	3,148.19	3,147.74	11.08	11.05	77.91	9.59	44.77	45.91	23.84	22.07	2.080 Minor Risk		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1														Offset Well Error:	0.50 ft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
3,200.00	3,200.00	3,197.63	3,197.01	11.26	11.22	76.27	11.77	48.21	49.80	27.38	22.41	2.222	Minor Risk		
3,250.00	3,250.00	3,247.00	3,246.17	11.44	11.39	74.74	14.19	52.00	54.13	31.38	22.75	2.379	Minor Risk		
3,300.00	3,300.00	3,302.93	3,295.18	11.62	11.59	73.32	16.82	56.14	58.90	35.80	23.11	2.549	Alert		
3,350.00	3,350.00	3,345.98	3,344.63	11.80	11.74	72.05	19.61	60.52	63.95	40.51	23.44	2.729	Alert		
3,400.00	3,400.00	3,404.29	3,394.09	11.98	11.95	70.96	22.40	64.90	69.02	45.20	23.82	2.898	Alert		
3,450.00	3,450.00	3,445.43	3,443.54	12.15	12.10	70.02	25.19	69.29	74.11	49.97	24.14	3.070	Alert		
3,500.00	3,500.00	3,504.84	3,492.99	12.33	12.31	69.21	27.98	73.67	79.22	54.69	24.53	3.230	Alert		
3,550.00	3,550.00	3,544.88	3,542.45	12.51	12.45	68.49	30.76	78.05	84.34	59.49	24.85	3.394	Alert		
3,600.00	3,600.00	3,605.39	3,591.90	12.69	12.67	67.85	33.55	82.43	89.47	64.23	25.24	3.545	Alert		
3,650.00	3,650.00	3,644.34	3,641.36	12.87	12.80	67.29	36.34	86.82	94.62	69.06	25.56	3.702	Alert		
3,700.00	3,700.00	3,705.94	3,690.81	13.05	13.02	66.78	39.13	91.20	99.77	73.82	25.95	3.844	Alert		
3,750.00	3,750.00	3,743.79	3,740.27	13.23	13.16	66.32	41.92	95.58	104.93	78.67	26.26	3.995	Alert		
3,800.00	3,800.00	3,806.48	3,789.72	13.41	13.38	65.90	44.71	99.96	110.09	83.43	26.66	4.129	Alert		
3,850.00	3,850.00	3,843.24	3,839.18	13.59	13.51	65.53	47.50	104.34	115.26	88.29	26.97	4.273	Alert		
3,900.00	3,900.00	3,907.03	3,888.63	13.77	13.74	65.18	50.29	108.73	120.44	93.06	27.38	4.399	Alert		
3,950.00	3,950.00	3,942.70	3,938.08	13.95	13.87	64.86	53.07	113.11	125.62	97.93	27.68	4.538	Alert		
4,000.00	4,000.00	4,007.58	3,987.54	14.12	14.10	64.57	55.86	117.49	130.80	102.71	28.09	4.656	Alert		
4,050.00	4,050.00	4,042.14	4,036.99	14.30	14.23	104.95	58.65	121.87	136.06	107.66	28.39	4.792	Alert		
4,100.00	4,099.99	4,108.15	4,086.42	14.48	14.46	104.95	61.44	126.25	141.45	112.65	28.81	4.911	Alert		
4,150.00	4,149.97	4,141.54	4,135.84	14.66	14.58	105.16	64.22	130.63	146.99	117.89	29.10	5.051			
4,200.00	4,199.94	4,208.80	4,185.23	14.84	14.82	105.54	67.01	135.01	152.67	123.16	29.52	5.172			
4,250.00	4,249.88	4,240.83	4,234.59	15.01	14.94	106.07	69.79	139.38	158.52	128.71	29.81	5.318			
4,300.00	4,299.79	4,290.42	4,283.91	15.19	15.12	106.75	72.57	143.75	164.53	134.37	30.16	5.455			
4,350.00	4,349.66	4,339.97	4,333.19	15.37	15.30	107.54	75.35	148.12	170.74	140.23	30.51	5.596			
4,400.00	4,399.49	4,389.47	4,382.42	15.54	15.47	108.44	78.13	152.48	177.15	146.28	30.86	5.740			
4,450.00	4,449.29	4,438.93	4,431.60	15.72	15.65	109.45	80.90	156.84	183.75	152.54	31.22	5.886			
4,500.00	4,499.08	4,488.38	4,480.78	15.90	15.83	110.43	83.68	161.20	190.43	158.86	31.57	6.032			
4,550.00	4,548.87	4,537.83	4,529.96	16.08	16.01	111.34	86.45	165.56	197.16	165.23	31.92	6.176			
4,600.00	4,598.66	4,587.28	4,579.14	16.25	16.19	112.19	89.22	169.91	203.93	171.65	32.27	6.319			
4,650.00	4,648.45	4,636.73	4,628.32	16.43	16.36	112.99	92.00	174.27	210.74	178.11	32.63	6.459			
4,700.00	4,698.24	4,686.18	4,677.50	16.61	16.54	113.73	94.77	178.63	217.59	184.61	32.98	6.598			
4,750.00	4,748.03	4,735.63	4,726.68	16.79	16.72	114.44	97.54	182.99	224.48	191.15	33.33	6.735			
4,800.00	4,797.82	4,785.08	4,775.86	16.96	16.90	115.10	100.32	187.35	231.39	197.71	33.68	6.869			
4,850.00	4,847.61	4,834.53	4,825.04	17.14	17.08	115.72	103.09	191.70	238.34	204.30	34.04	7.002			
4,900.00	4,897.40	4,883.98	4,874.22	17.32	17.26	116.30	105.86	196.06	245.31	210.92	34.39	7.133			
4,950.00	4,947.19	4,933.44	4,923.40	17.50	17.44	116.86	108.63	200.42	252.31	217.56	34.74	7.262			
5,000.00	4,996.98	4,982.89	4,972.58	17.68	17.62	117.38	111.41	204.78	259.32	224.22	35.10	7.389			
5,050.00	5,046.78	5,032.34	5,021.76	17.85	17.79	117.88	114.18	209.14	266.36	230.91	35.45	7.513			
5,100.00	5,096.57	5,081.79	5,070.94	18.03	17.97	118.35	116.95	213.49	273.42	237.61	35.81	7.636			
5,150.00	5,146.36	5,131.24	5,120.12	18.21	18.15	118.80	119.73	217.85	280.49	244.33	36.16	7.757			
5,200.00	5,196.15	5,180.69	5,169.30	18.39	18.33	119.22	122.50	222.21	287.58	251.06	36.51	7.876			
5,250.00	5,245.94	5,230.14	5,218.49	18.57	18.51	119.63	125.27	226.57	294.68	257.81	36.87	7.993			
5,300.00	5,295.73	5,279.59	5,267.67	18.75	18.69	120.01	128.05	230.92	301.80	264.58	37.22	8.108			
5,350.00	5,345.52	5,329.04	5,316.85	18.93	18.87	120.38	130.82	235.28	308.93	271.35	37.58	8.222			
5,400.00	5,395.31	5,378.49	5,366.03	19.10	19.05	120.73	133.59	239.64	316.07	278.14	37.93	8.333			
5,450.00	5,445.10	5,427.94	5,415.21	19.28	19.23	121.07	136.37	244.00	323.23	284.94	38.28	8.443			
5,500.00	5,494.89	5,477.39	5,464.39	19.46	19.41	121.39	139.14	248.36	330.39	291.75	38.64	8.551			
5,550.00	5,544.68	5,526.84	5,513.57	19.64	19.59	121.70	141.91	252.71	337.56	298.57	38.99	8.657			
5,600.00	5,594.47	5,576.30	5,562.75	19.82	19.77	121.99	144.69	257.07	344.75	305.40	39.35	8.761			
5,650.00	5,644.26	5,625.75	5,611.93	20.00	19.95	122.28	147.46	261.43	351.94	312.23	39.70	8.864			
5,700.00	5,694.05	5,675.20	5,661.11	20.18	20.13	122.55	150.23	265.79	359.14	319.08	40.06	8.965			
5,750.00	5,743.85	5,724.65	5,710.29	20.36	20.30	122.81	153.01	270.15	366.34	325.93	40.41	9.065			

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Sec 15-T23S-R31E - Maldives 15-27 Fed Com 232H - Wellbore #1 - Permit Plan 2													Offset Well Error:	0.50 ft
Survey Program: 0-MWD+IFR1														
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,800.00	5,793.64	5,774.10	5,759.47	20.53	20.48	123.06	155.78	274.50	373.56	332.79	40.77	9.163		
5,850.00	5,843.43	5,823.55	5,808.65	20.71	20.66	123.30	158.55	278.86	380.78	339.66	41.12	9.259		
5,900.00	5,893.22	5,873.00	5,857.83	20.89	20.84	123.53	161.33	283.22	388.01	346.53	41.48	9.354		
5,950.00	5,943.01	5,922.45	5,907.01	21.07	21.02	123.76	164.10	287.58	395.24	353.41	41.83	9.448		
6,000.00	5,992.80	5,971.90	5,956.19	21.25	21.20	123.97	166.87	291.94	402.48	360.29	42.19	9.540		
6,050.00	6,042.59	6,021.35	6,005.37	21.43	21.38	124.18	169.65	296.29	409.72	367.18	42.55	9.630		
6,100.00	6,092.38	6,070.80	6,054.55	21.61	21.56	124.38	172.42	300.65	416.97	374.07	42.90	9.719		
6,150.00	6,142.17	6,120.25	6,103.73	21.79	21.74	124.58	175.19	305.01	424.23	380.97	43.26	9.807		
6,200.00	6,191.96	6,169.71	6,152.91	21.97	21.92	124.77	177.97	309.37	431.49	387.88	43.61	9.894		
6,250.00	6,241.75	6,219.16	6,202.09	22.15	22.10	124.95	180.74	313.73	438.75	394.78	43.97	9.979		
6,300.00	6,291.54	6,268.61	6,251.27	22.33	22.28	125.12	183.51	318.08	446.02	401.70	44.32	10.063		
6,350.00	6,341.33	6,318.06	6,300.45	22.51	22.46	125.29	186.29	322.44	453.29	408.61	44.68	10.145		
6,400.00	6,391.12	6,367.51	6,349.63	22.69	22.64	125.46	189.06	326.80	460.57	415.53	45.04	10.227		
6,450.00	6,440.91	6,416.96	6,398.81	22.87	22.82	125.62	191.83	331.16	467.85	422.45	45.39	10.307		
6,500.00	6,490.71	6,466.41	6,447.99	23.05	23.00	125.77	194.60	335.51	475.13	429.38	45.75	10.386		
6,550.00	6,540.50	6,515.86	6,497.17	23.23	23.18	125.92	197.38	339.87	482.41	436.31	46.10	10.463		
6,600.00	6,590.29	6,565.31	6,546.35	23.41	23.36	126.07	200.15	344.23	489.70	443.24	46.46	10.540		
6,650.00	6,640.08	6,614.76	6,595.53	23.59	23.54	126.21	202.92	348.59	497.00	450.18	46.82	10.616		
6,700.00	6,689.87	6,664.21	6,644.71	23.76	23.72	126.34	205.70	352.95	504.29	457.12	47.17	10.690		
6,750.00	6,739.66	6,713.66	6,693.89	23.94	23.90	126.48	208.47	357.30	511.59	464.06	47.53	10.763		
6,800.00	6,789.45	6,763.11	6,743.07	24.12	24.08	126.61	211.24	361.66	518.89	471.00	47.89	10.836		
6,850.00	6,839.24	6,812.57	6,792.25	24.30	24.27	126.73	214.02	366.02	526.19	477.95	48.24	10.907		
6,900.00	6,889.03	6,862.02	6,841.43	24.48	24.45	126.85	216.79	370.38	533.50	484.90	48.60	10.977		
6,950.00	6,938.82	6,911.47	6,890.61	24.66	24.63	126.97	219.56	374.74	540.80	491.85	48.96	11.046		
7,000.00	6,988.61	6,960.92	6,939.79	24.84	24.81	127.09	222.34	379.09	548.11	498.80	49.31	11.115		
7,050.00	7,038.40	7,010.37	6,988.97	25.02	24.99	127.20	225.11	383.45	555.42	505.75	49.67	11.182		
7,100.00	7,088.19	7,059.82	7,038.15	25.20	25.17	127.31	227.88	387.81	562.74	512.71	50.03	11.249		
7,150.00	7,137.98	7,109.27	7,087.34	25.38	25.35	127.42	230.66	392.17	570.05	519.67	50.38	11.314		
7,200.00	7,187.78	7,158.72	7,136.52	25.56	25.53	127.52	233.43	396.53	577.37	526.63	50.74	11.379		
7,250.00	7,237.57	7,208.17	7,185.70	25.74	25.71	127.63	236.20	400.88	584.69	533.59	51.10	11.442		
7,300.00	7,287.36	7,257.62	7,234.88	25.92	25.89	127.73	238.98	405.24	592.01	540.56	51.46	11.505		
7,350.00	7,337.15	7,307.07	7,284.06	26.10	26.07	127.82	241.75	409.60	599.34	547.52	51.81	11.567		
7,400.00	7,386.94	7,356.52	7,333.24	26.28	26.25	127.92	244.52	413.96	606.66	554.49	52.17	11.629		
7,450.00	7,436.73	7,405.98	7,382.42	26.46	26.43	128.01	247.30	418.32	613.99	561.46	52.53	11.689		
7,500.00	7,486.52	7,455.43	7,431.60	26.64	26.61	128.10	250.07	422.67	621.31	568.43	52.88	11.749		
7,550.00	7,536.31	7,504.88	7,480.78	26.82	26.79	128.19	252.84	427.03	628.64	575.40	53.24	11.807		
7,600.00	7,586.10	7,554.33	7,529.96	27.01	26.97	128.27	255.62	431.39	635.97	582.38	53.60	11.865		
7,650.00	7,635.89	7,603.78	7,579.14	27.19	27.15	128.36	258.39	435.75	643.31	589.35	53.96	11.923		
7,700.00	7,685.68	7,653.23	7,628.32	27.37	27.33	128.44	261.16	440.11	650.64	596.33	54.31	11.979		
7,750.00	7,735.47	7,702.68	7,677.50	27.55	27.51	128.52	263.94	444.46	657.97	603.30	54.67	12.035		
7,800.00	7,785.26	7,752.13	7,726.68	27.73	27.70	128.60	266.71	448.82	665.31	610.28	55.03	12.090		
7,850.00	7,835.05	7,801.58	7,775.86	27.91	27.88	128.67	269.48	453.18	672.65	617.26	55.39	12.145		
7,900.00	7,884.84	7,851.03	7,825.04	28.09	28.06	128.75	272.26	457.54	679.99	624.24	55.74	12.198		
7,950.00	7,934.64	7,900.48	7,874.22	28.27	28.24	128.82	275.03	461.89	687.32	631.22	56.10	12.251		
8,000.00	7,984.43	7,949.93	7,923.40	28.45	28.42	128.90	277.80	466.25	694.67	638.21	56.46	12.304		
8,050.00	8,034.22	7,999.38	7,972.58	28.63	28.60	128.97	280.57	470.61	702.01	645.19	56.82	12.355		
8,100.00	8,084.01	8,048.84	8,021.76	28.81	28.78	129.03	283.35	474.97	709.35	652.17	57.18	12.407		
8,150.00	8,133.80	8,101.71	8,070.94	28.99	28.97	129.10	286.12	479.33	716.69	659.15	57.55	12.454		
8,200.00	8,183.59	8,147.74	8,120.12	29.17	29.14	129.17	288.89	483.68	724.04	666.15	57.89	12.507		
8,250.00	8,233.38	8,202.81	8,169.30	29.35	29.34	129.23	291.67	488.04	731.38	673.11	58.27	12.552		
8,300.00	8,283.17	8,246.64	8,218.48	29.53	29.50	129.30	294.44	492.40	738.73	680.12	58.61	12.605		
8,350.00	8,332.96	8,303.91	8,287.66	29.71	29.71	129.36	297.21	496.76	746.08	687.08	58.99	12.647		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore:	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Sec 15-T23S-R31E - Maldives 15-27 Fed Com 232H - Wellbore #1 - Permit Plan 2													Offset Well Error:	0.50 ft
Survey Program: 0-MWD+IFR1														
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,400.00	8,382.75	8,345.54	8,316.84	29.89	29.86	129.42	299.99	501.12	753.42	694.10	59.32	12.700		
8,450.00	8,432.54	8,394.99	8,366.02	30.07	30.05	129.48	302.76	505.47	760.77	701.09	59.68	12.747		
8,500.00	8,482.33	8,444.44	8,415.20	30.25	30.23	129.54	305.53	509.83	768.12	708.08	60.04	12.794		
8,550.00	8,532.12	8,506.11	8,464.38	30.43	30.45	129.60	308.31	514.19	775.47	715.03	60.44	12.830		
8,600.00	8,581.91	8,543.34	8,513.56	30.61	30.59	129.65	311.08	518.55	782.82	722.07	60.78	12.865		
8,650.00	8,631.71	8,607.21	8,562.74	30.79	30.82	129.71	313.85	522.91	790.18	729.01	61.17	12.918		
8,700.00	8,681.50	8,642.24	8,611.92	30.98	30.95	129.76	316.63	527.26	797.53	736.06	61.47	12.974		
8,750.00	8,731.29	8,708.30	8,661.10	31.16	31.19	129.82	319.40	531.62	804.88	742.99	61.89	13.005		
8,800.00	8,781.08	8,741.15	8,710.28	31.34	31.31	129.87	322.17	535.98	812.24	750.05	62.19	13.061		
8,850.00	8,830.87	8,809.40	8,759.46	31.52	31.56	129.92	324.95	540.34	819.59	756.97	62.62	13.089		
8,900.00	8,880.66	8,840.05	8,808.64	31.70	31.67	129.97	327.72	544.70	826.95	764.04	62.91	13.146		
8,950.00	8,930.45	8,889.50	8,857.82	31.88	31.86	130.02	330.49	549.05	834.30	771.04	63.26	13.188		
9,000.00	8,980.24	8,938.95	8,907.01	32.06	32.04	130.07	333.27	553.41	841.66	778.04	63.62	13.229		
9,050.00	9,030.03	8,988.40	8,956.19	32.24	32.22	130.12	336.04	557.77	849.01	785.03	63.98	13.270		
9,100.00	9,079.83	9,037.86	9,005.37	32.42	32.40	130.20	338.81	562.13	856.33	791.99	64.34	13.310		
9,150.00	9,129.67	9,098.42	9,065.65	32.60	32.62	130.31	341.97	567.10	863.00	798.22	64.78	13.322		
9,200.00	9,179.56	9,159.87	9,126.89	32.78	32.84	130.40	344.66	571.31	868.57	803.35	65.22	13.318		
9,250.00	9,229.49	9,221.53	9,188.42	32.96	33.07	130.48	346.82	574.71	873.04	807.40	65.64	13.300		
9,300.00	9,279.45	9,283.37	9,250.19	33.14	33.29	130.53	348.45	577.27	876.41	810.35	66.06	13.266		
9,350.00	9,329.43	9,345.33	9,312.11	33.32	33.51	130.57	349.55	579.00	878.68	812.20	66.47	13.219		
9,400.00	9,379.43	9,407.37	9,374.14	33.50	33.73	130.59	350.10	579.87	879.83	812.96	66.87	13.157		
9,450.00	9,429.43	9,463.75	9,430.53	33.68	33.93	89.99	350.18	579.99	879.99	812.75	67.24	13.087		
9,500.00	9,479.43	9,513.75	9,480.53	33.85	34.10	89.99	350.18	579.99	879.99	812.40	67.59	13.019		
9,550.00	9,529.43	9,563.75	9,530.53	34.03	34.28	89.99	350.18	579.99	879.99	812.04	67.95	12.951		
9,600.00	9,579.43	9,613.75	9,580.53	34.21	34.45	89.99	350.18	579.99	879.99	811.69	68.30	12.884		
9,650.00	9,629.43	9,663.75	9,630.53	34.39	34.63	89.99	350.18	579.99	879.99	811.34	68.65	12.818		
9,700.00	9,679.43	9,713.75	9,680.53	34.56	34.80	89.99	350.18	579.99	879.99	810.99	69.00	12.753		
9,750.00	9,729.43	9,763.75	9,730.53	34.74	34.98	89.99	350.18	579.99	879.99	810.63	69.36	12.688		
9,800.00	9,779.42	9,813.56	9,780.33	34.91	35.15	-89.69	349.71	579.99	879.99	810.29	69.70	12.625		
9,850.00	9,829.23	9,863.15	9,829.72	35.07	35.30	-89.69	345.55	580.02	879.99	809.97	70.02	12.568		
9,900.00	9,878.50	9,912.73	9,878.57	35.23	35.45	-89.69	337.14	580.06	879.99	809.66	70.33	12.512		
9,950.00	9,926.84	9,962.32	9,926.51	35.37	35.60	-89.69	324.54	580.13	879.99	809.36	70.63	12.459		
10,000.00	9,973.88	10,011.90	9,973.19	35.51	35.74	-89.69	307.85	580.22	879.99	809.07	70.92	12.408		
10,050.00	10,019.28	10,061.49	10,018.25	35.64	35.87	-89.69	287.18	580.34	879.99	808.79	71.20	12.359		
10,100.00	10,062.68	10,111.09	10,061.36	35.75	35.99	-89.70	262.68	580.48	879.99	808.52	71.47	12.313		
10,150.00	10,103.76	10,160.70	10,102.20	35.86	36.10	-89.71	234.55	580.63	879.99	808.27	71.72	12.270		
10,200.00	10,142.19	10,210.33	10,140.47	35.95	36.19	-89.72	202.98	580.81	879.99	808.03	71.96	12.229		
10,250.00	10,177.70	10,259.97	10,175.87	36.03	36.28	-89.74	168.20	581.00	879.98	807.81	72.18	12.192		
10,300.00	10,210.00	10,309.63	10,208.15	36.10	36.37	-89.76	130.47	581.21	879.98	807.60	72.39	12.157		
10,350.00	10,238.86	10,359.32	10,237.05	36.18	36.45	-89.77	90.08	581.43	879.98	807.41	72.58	12.125		
10,400.00	10,264.05	10,409.03	10,262.35	36.26	36.53	-89.79	47.31	581.67	879.98	807.23	72.75	12.096		
10,450.00	10,285.38	10,458.77	10,283.86	36.33	36.60	-89.81	2.48	581.92	879.98	807.07	72.91	12.070		
10,500.00	10,302.69	10,508.53	10,301.42	36.38	36.68	-89.84	-44.07	582.18	879.98	806.93	73.05	12.046		
10,550.00	10,315.85	10,558.33	10,314.87	36.43	36.75	-89.86	-92.00	582.44	879.98	806.80	73.18	12.026		
10,600.00	10,324.75	10,608.16	10,324.13	36.47	36.82	-89.89	-140.94	582.71	879.97	806.69	73.28	12.008		
10,650.00	10,329.33	10,658.03	10,329.09	36.50	36.88	-89.91	-190.54	582.99	879.97	806.60	73.37	11.993		
10,700.00	10,330.00	10,707.96	10,330.00	36.52	36.93	-89.93	-240.46	583.26	879.97	806.52	73.45	11.981		
10,750.00	10,330.00	10,757.96	10,330.00	36.55	36.99	-89.93	-290.45	583.54	879.97	806.44	73.53	11.967		
10,800.00	10,330.00	10,807.96	10,330.00	36.57	37.06	-89.93	-340.45	583.82	879.97	806.35	73.62	11.953		
10,850.00	10,330.00	10,857.96	10,330.00	36.61	37.13	-89.93	-390.45	584.10	879.97	806.24	73.73	11.936		
10,900.00	10,330.00	10,907.96	10,330.00	36.64	37.21	-89.93	-440.45	584.37	879.97	806.14	73.83	11.918		
10,950.00	10,330.00	10,957.96	10,330.00	36.68	37.30	-89.93	-490.45	584.65	879.97	806.01	73.96	11.898		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:
Sec 15-T23S-R31E - Maldives 15-27 Fed Com 232H - Wellbore #1 - Permit Plan 2													0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error: 0.50 ft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (")	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
11,000.00	10,330.00	11,007.96	10,330.00	36.72	37.39	-89.93	-540.45	584.93	879.97	805.88	74.09	11.877	
11,050.00	10,330.00	11,057.96	10,330.00	36.77	37.49	-89.93	-590.45	585.20	879.97	805.73	74.24	11.854	
11,100.00	10,330.00	11,107.96	10,330.00	36.82	37.59	-89.93	-640.45	585.48	879.97	805.58	74.38	11.830	
11,150.00	10,330.00	11,157.96	10,330.00	36.88	37.70	-89.93	-690.45	585.76	879.97	805.42	74.55	11.804	
11,200.00	10,330.00	11,207.96	10,330.00	36.94	37.81	-89.93	-740.45	586.04	879.97	805.25	74.72	11.777	
11,250.00	10,330.00	11,257.96	10,330.00	37.00	37.94	-89.93	-790.45	586.31	879.97	805.06	74.91	11.748	
11,300.00	10,330.00	11,307.96	10,330.00	37.06	38.06	-89.93	-840.45	586.59	879.97	804.87	75.09	11.718	
11,350.00	10,330.00	11,357.96	10,330.00	37.14	38.20	-89.93	-890.45	586.87	879.97	804.67	75.30	11.686	
11,400.00	10,330.00	11,407.96	10,330.00	37.21	38.33	-89.93	-940.44	587.14	879.96	804.46	75.51	11.654	
11,450.00	10,330.00	11,457.96	10,330.00	37.29	38.48	-89.93	-990.44	587.42	879.96	804.23	75.73	11.620	
11,500.00	10,330.00	11,507.96	10,330.00	37.37	38.63	-89.93	-1,040.44	587.70	879.96	804.01	75.96	11.585	
11,550.00	10,330.00	11,557.96	10,330.00	37.45	38.79	-89.93	-1,090.44	587.98	879.96	803.77	76.20	11.548	
11,600.00	10,330.00	11,607.96	10,330.00	37.54	38.95	-89.93	-1,140.44	588.25	879.96	803.52	76.44	11.511	
11,650.00	10,330.00	11,657.96	10,330.00	37.63	39.11	-89.93	-1,190.44	588.53	879.96	803.26	76.70	11.472	
11,700.00	10,330.00	11,707.96	10,330.00	37.73	39.28	-89.93	-1,240.44	588.81	879.96	803.00	76.97	11.433	
11,750.00	10,330.00	11,757.96	10,330.00	37.83	39.46	-89.93	-1,290.44	589.08	879.96	802.72	77.24	11.392	
11,800.00	10,330.00	11,807.96	10,330.00	37.93	39.64	-89.93	-1,340.44	589.36	879.96	802.44	77.52	11.351	
11,850.00	10,330.00	11,857.96	10,330.00	38.04	39.83	-89.93	-1,390.44	589.64	879.96	802.14	77.82	11.308	
11,900.00	10,330.00	11,907.96	10,330.00	38.15	40.02	-89.93	-1,440.44	589.92	879.96	801.84	78.12	11.264	
11,950.00	10,330.00	11,957.96	10,330.00	38.26	40.22	-89.93	-1,490.44	590.19	879.96	801.53	78.43	11.220	
12,000.00	10,330.00	12,007.96	10,330.00	38.38	40.42	-89.93	-1,540.44	590.47	879.96	801.21	78.75	11.175	
12,050.00	10,330.00	12,057.96	10,330.00	38.50	40.63	-89.93	-1,590.43	590.75	879.96	800.88	79.08	11.128	
12,100.00	10,330.00	12,107.96	10,330.00	38.62	40.84	-89.93	-1,640.43	591.02	879.96	800.55	79.41	11.082	
12,150.00	10,330.00	12,157.96	10,330.00	38.75	41.06	-89.93	-1,690.43	591.30	879.96	800.20	79.75	11.034	
12,200.00	10,330.00	12,207.96	10,330.00	38.88	41.27	-89.93	-1,740.43	591.58	879.96	799.86	80.10	10.986	
12,250.00	10,330.00	12,257.96	10,330.00	39.02	41.50	-89.93	-1,790.43	591.86	879.96	799.49	80.46	10.936	
12,300.00	10,330.00	12,307.96	10,330.00	39.15	41.73	-89.93	-1,840.43	592.13	879.96	799.13	80.82	10.887	
12,350.00	10,330.00	12,357.96	10,330.00	39.29	41.96	-89.93	-1,890.43	592.41	879.95	798.75	81.20	10.837	
12,400.00	10,330.00	12,407.96	10,330.00	39.43	42.20	-89.93	-1,940.43	592.69	879.95	798.37	81.58	10.786	
12,450.00	10,330.00	12,457.96	10,330.00	39.58	42.44	-89.93	-1,990.43	592.97	879.95	797.98	81.97	10.735	
12,500.00	10,330.00	12,507.96	10,330.00	39.73	42.69	-89.93	-2,040.43	593.24	879.95	797.59	82.36	10.684	
12,550.00	10,330.00	12,557.96	10,330.00	39.89	42.94	-89.93	-2,090.43	593.52	879.95	797.18	82.77	10.631	
12,600.00	10,330.00	12,607.96	10,330.00	40.04	43.19	-89.93	-2,140.43	593.80	879.95	796.77	83.18	10.579	
12,650.00	10,330.00	12,657.96	10,330.00	40.20	43.45	-89.93	-2,190.43	594.07	879.95	796.35	83.60	10.526	
12,700.00	10,330.00	12,707.96	10,330.00	40.36	43.71	-89.93	-2,240.42	594.35	879.95	795.93	84.02	10.473	
12,750.00	10,330.00	12,757.96	10,330.00	40.53	43.98	-89.93	-2,290.42	594.63	879.95	795.50	84.45	10.419	
12,800.00	10,330.00	12,807.96	10,330.00	40.69	44.25	-89.93	-2,340.42	594.91	879.95	795.06	84.89	10.366	
12,850.00	10,330.00	12,857.96	10,330.00	40.87	44.53	-89.93	-2,390.42	595.18	879.95	794.61	85.34	10.312	
12,900.00	10,330.00	12,907.96	10,330.00	41.04	44.80	-89.93	-2,440.42	595.46	879.95	794.17	85.78	10.258	
12,950.00	10,330.00	12,957.96	10,330.00	41.22	45.08	-89.93	-2,490.42	595.74	879.95	793.70	86.24	10.203	
13,000.00	10,330.00	13,007.96	10,330.00	41.40	45.37	-89.93	-2,540.42	596.01	879.95	793.24	86.70	10.149	
13,050.00	10,330.00	13,057.96	10,330.00	41.58	45.65	-89.93	-2,590.42	596.29	879.95	792.77	87.18	10.094	
13,100.00	10,330.00	13,107.96	10,330.00	41.76	45.94	-89.93	-2,640.42	596.57	879.95	792.30	87.65	10.039	
13,150.00	10,330.00	13,157.96	10,330.00	41.95	46.24	-89.93	-2,690.42	596.85	879.95	791.81	88.13	9.984	
13,200.00	10,330.00	13,207.96	10,330.00	42.14	46.54	-89.93	-2,740.42	597.12	879.95	791.33	88.62	9.930	
13,250.00	10,330.00	13,257.96	10,330.00	42.33	46.84	-89.93	-2,790.42	597.40	879.95	790.83	89.11	9.874	
13,300.00	10,330.00	13,307.96	10,330.00	42.53	47.14	-89.93	-2,840.42	597.68	879.94	790.33	89.61	9.820	
13,350.00	10,330.00	13,357.96	10,330.00	42.73	47.45	-89.93	-2,890.41	597.95	879.94	789.83	90.12	9.764	
13,400.00	10,330.00	13,407.96	10,330.00	42.93	47.76	-89.93	-2,940.41	598.23	879.94	789.32	90.63	9.710	
13,450.00	10,330.00	13,457.96	10,330.00	43.13	48.07	-89.93	-2,990.41	598.51	879.94	788.80	91.14	9.654	
13,500.00	10,330.00	13,507.96	10,330.00	43.34	48.38	-89.93	-3,040.41	598.79	879.94	788.28	91.66	9.600	
13,550.00	10,330.00	13,557.96	10,330.00	43.54	48.70	-89.93	-3,090.41	599.06	879.94	787.75	92.19	9.545	

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error: 0.00 ft	
Survey Program: 0-MWD+IFR1														Offset Well Error: 0.50 ft	
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
13,600.00	10,330.00	13,607.96	10,330.00	43.75	49.02	-89.93	-3,140.41	599.34	879.94	787.22	92.72	9.490			
13,650.00	10,330.00	13,657.96	10,330.00	43.97	49.35	-89.93	-3,190.41	599.62	879.94	786.68	93.26	9.436			
13,700.00	10,330.00	13,707.96	10,330.00	44.18	49.67	-89.93	-3,240.41	599.89	879.94	786.14	93.80	9.381			
13,750.00	10,330.00	13,757.96	10,330.00	44.40	50.00	-89.93	-3,290.41	600.17	879.94	785.60	94.34	9.327			
13,800.00	10,330.00	13,807.96	10,330.00	44.62	50.33	-89.93	-3,340.41	600.45	879.94	785.05	94.89	9.273			
13,850.00	10,330.00	13,857.96	10,330.00	44.84	50.67	-89.93	-3,390.41	600.73	879.94	784.49	95.45	9.219			
13,900.00	10,330.00	13,907.96	10,330.00	45.06	51.00	-89.93	-3,440.41	601.00	879.94	783.93	96.01	9.165			
13,950.00	10,330.00	13,957.96	10,330.00	45.29	51.34	-89.93	-3,490.41	601.28	879.94	783.36	96.58	9.111			
14,000.00	10,330.00	14,007.96	10,330.00	45.52	51.68	-89.93	-3,540.41	601.56	879.94	782.79	97.14	9.058			
14,050.00	10,330.00	14,057.96	10,330.00	45.75	52.03	-89.93	-3,590.40	601.83	879.94	782.22	97.72	9.005			
14,100.00	10,330.00	14,107.96	10,330.00	45.98	52.37	-89.93	-3,640.40	602.11	879.94	781.64	98.29	8.952			
14,150.00	10,330.00	14,157.96	10,330.00	46.21	52.72	-89.93	-3,690.40	602.39	879.94	781.06	98.88	8.899			
14,200.00	10,330.00	14,207.96	10,330.00	46.45	53.07	-89.93	-3,740.40	602.67	879.94	780.47	99.46	8.847			
14,250.00	10,330.00	14,257.96	10,330.00	46.69	53.42	-89.93	-3,790.40	602.94	879.93	779.88	100.05	8.795			
14,300.00	10,330.00	14,307.96	10,330.00	46.93	53.78	-89.93	-3,840.40	603.22	879.93	779.29	100.65	8.743			
14,350.00	10,330.00	14,357.96	10,330.00	47.17	54.13	-89.93	-3,890.40	603.50	879.93	778.69	101.25	8.691			
14,400.00	10,330.00	14,407.96	10,330.00	47.41	54.49	-89.93	-3,940.40	603.77	879.93	778.09	101.85	8.640			
14,450.00	10,330.00	14,457.96	10,330.00	47.66	54.85	-89.93	-3,990.40	604.05	879.93	777.48	102.45	8.588			
14,500.00	10,330.00	14,507.96	10,330.00	47.90	55.21	-89.93	-4,040.40	604.33	879.93	776.87	103.06	8.538			
14,550.00	10,330.00	14,557.96	10,330.00	48.15	55.58	-89.93	-4,090.40	604.61	879.93	776.25	103.68	8.487			
14,600.00	10,330.00	14,607.96	10,330.00	48.40	55.94	-89.93	-4,140.40	604.88	879.93	775.64	104.29	8.437			
14,650.00	10,330.00	14,657.96	10,330.00	48.66	56.31	-89.93	-4,190.39	605.16	879.93	775.02	104.92	8.387			
14,700.00	10,330.00	14,707.96	10,330.00	48.91	56.68	-89.93	-4,240.39	605.44	879.93	774.39	105.54	8.338			
14,750.00	10,330.00	14,757.96	10,330.00	49.17	57.05	-89.93	-4,290.39	605.71	879.93	773.76	106.17	8.288			
14,800.00	10,330.00	14,807.96	10,330.00	49.42	57.42	-89.93	-4,340.39	605.99	879.93	773.13	106.80	8.239			
14,850.00	10,330.00	14,857.96	10,330.00	49.68	57.80	-89.93	-4,390.39	606.27	879.93	772.50	107.43	8.191			
14,900.00	10,330.00	14,907.96	10,330.00	49.94	58.17	-89.93	-4,440.39	606.55	879.93	771.86	108.07	8.142			
14,950.00	10,330.00	14,957.96	10,330.00	50.21	58.55	-89.93	-4,490.39	606.82	879.93	771.22	108.71	8.094			
15,000.00	10,330.00	15,007.96	10,330.00	50.47	58.93	-89.93	-4,540.39	607.10	879.93	770.58	109.35	8.047			
15,050.00	10,330.00	15,057.96	10,330.00	50.74	59.31	-89.93	-4,590.39	607.38	879.93	769.93	110.00	7.999			
15,100.00	10,330.00	15,107.96	10,330.00	51.00	59.70	-89.93	-4,640.39	607.66	879.93	769.28	110.65	7.953			
15,150.00	10,330.00	15,157.96	10,330.00	51.27	60.08	-89.93	-4,690.39	607.93	879.93	768.62	111.30	7.906			
15,200.00	10,330.00	15,207.96	10,330.00	51.54	60.47	-89.93	-4,740.39	608.21	879.92	767.97	111.96	7.860			
15,250.00	10,330.00	15,257.96	10,330.00	51.81	60.85	-89.93	-4,790.39	608.49	879.92	767.31	112.62	7.814			
15,300.00	10,330.00	15,307.96	10,330.00	52.09	61.24	-89.93	-4,840.38	608.76	879.92	766.65	113.28	7.768			
15,350.00	10,330.00	15,357.96	10,330.00	52.36	61.63	-89.93	-4,890.38	609.04	879.92	765.98	113.94	7.723			
15,400.00	10,330.00	15,407.96	10,330.00	52.63	62.02	-89.93	-4,940.38	609.32	879.92	765.32	114.61	7.678			
15,450.00	10,330.00	15,457.96	10,330.00	52.91	62.41	-89.93	-4,990.38	609.60	879.92	764.65	115.28	7.633			
15,500.00	10,330.00	15,507.96	10,330.00	53.19	62.81	-89.93	-5,040.38	609.87	879.92	763.97	115.95	7.589			
15,550.00	10,330.00	15,557.96	10,330.00	53.47	63.20	-89.93	-5,090.38	610.15	879.92	763.30	116.62	7.545			
15,600.00	10,330.00	15,607.96	10,330.00	53.75	63.60	-89.93	-5,140.38	610.43	879.92	762.62	117.30	7.501			
15,650.00	10,330.00	15,657.96	10,330.00	54.03	64.00	-89.93	-5,190.38	610.70	879.92	761.94	117.98	7.458			
15,700.00	10,330.00	15,707.96	10,330.00	54.31	64.39	-89.93	-5,240.38	610.98	879.92	761.26	118.66	7.415			
15,750.00	10,330.00	15,757.96	10,330.00	54.60	64.80	-89.93	-5,290.38	611.26	879.92	760.57	119.35	7.373			
15,800.00	10,330.00	15,807.96	10,330.00	54.89	65.20	-89.93	-5,340.38	611.54	879.92	759.89	120.03	7.331			
15,850.00	10,330.00	15,857.96	10,330.00	55.17	65.60	-89.93	-5,390.38	611.81	879.92	759.19	120.72	7.289			
15,900.00	10,330.00	15,907.96	10,330.00	55.46	66.00	-89.93	-5,440.38	612.09	879.92	758.50	121.41	7.247			
15,950.00	10,330.00	15,957.96	10,330.00	55.75	66.41	-89.93	-5,490.37	612.37	879.92	757.81	122.11	7.206			
16,000.00	10,330.00	16,007.96	10,330.00	56.04	66.81	-89.93	-5,540.37	612.64	879.92	757.11	122.80	7.165			
16,050.00	10,330.00	16,057.96	10,330.00	56.33	67.22	-89.93	-5,590.37	612.92	879.92	756.41	123.50	7.125			
16,100.00	10,330.00	16,107.96	10,330.00	56.62	67.63	-89.93	-5,640.37	613.20	879.92	755.71	124.20	7.085			
16,150.00	10,330.00	16,157.96	10,330.00	56.92	68.03	-89.93	-5,690.37	613.48	879.91	755.01	124.91	7.045			

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error: 0.00 ft	
Sec 15-T23S-R31E - Maldives 15-27 Fed Com 232H - Wellbore #1 - Permit Plan 2													Offset Well Error: 0.50 ft	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (ft)	Offset Wellbore Centre +E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
16,200.00	10,330.00	16,207.96	10,330.00	57.21	68.44	-89.93	-5,740.37	613.75	879.91	754.31	125.61	7.005		
16,250.00	10,330.00	16,257.96	10,330.00	57.51	68.86	-89.93	-5,790.37	614.03	879.91	753.60	126.32	6.966		
16,300.00	10,330.00	16,307.96	10,330.00	57.80	69.27	-89.93	-5,840.37	614.31	879.91	752.89	127.02	6.927		
16,350.00	10,330.00	16,357.96	10,330.00	58.10	69.68	-89.93	-5,890.37	614.58	879.91	752.18	127.74	6.889		
16,400.00	10,330.00	16,407.96	10,330.00	58.40	70.09	-89.93	-5,940.37	614.86	879.91	751.47	128.45	6.850		
16,450.00	10,330.00	16,457.96	10,330.00	58.70	70.51	-89.93	-5,990.37	615.14	879.91	750.75	129.16	6.812		
16,500.00	10,330.00	16,507.96	10,330.00	59.00	70.92	-89.93	-6,040.37	615.42	879.91	750.03	129.88	6.775		
16,550.00	10,330.00	16,557.96	10,330.00	59.30	71.34	-89.93	-6,090.37	615.69	879.91	749.31	130.60	6.738		
16,600.00	10,330.00	16,607.96	10,330.00	59.60	71.76	-89.93	-6,140.36	615.97	879.91	748.59	131.32	6.701		
16,650.00	10,330.00	16,657.96	10,330.00	59.91	72.17	-89.93	-6,190.36	616.25	879.91	747.87	132.04	6.664		
16,700.00	10,330.00	16,707.96	10,330.00	60.21	72.59	-89.93	-6,240.36	616.52	879.91	747.15	132.76	6.628		
16,750.00	10,330.00	16,757.96	10,330.00	60.52	73.01	-89.93	-6,290.36	616.80	879.91	746.42	133.49	6.592		
16,800.00	10,330.00	16,807.96	10,330.00	60.82	73.43	-89.93	-6,340.36	617.08	879.91	745.69	134.21	6.556		
16,850.00	10,330.00	16,857.96	10,330.00	61.13	73.85	-89.93	-6,390.36	617.36	879.91	744.97	134.94	6.521		
16,900.00	10,330.00	16,907.96	10,330.00	61.44	74.28	-89.93	-6,440.36	617.63	879.91	744.24	135.67	6.486		
16,950.00	10,330.00	16,957.96	10,330.00	61.75	74.70	-89.93	-6,490.36	617.91	879.91	743.50	136.40	6.451		
17,000.00	10,330.00	17,007.96	10,330.00	62.06	75.12	-89.93	-6,540.36	618.19	879.91	742.77	137.14	6.416		
17,050.00	10,330.00	17,057.96	10,330.00	62.37	75.55	-89.93	-6,590.36	618.46	879.91	742.03	137.87	6.382		
17,100.00	10,330.00	17,107.96	10,330.00	62.68	75.97	-89.93	-6,640.36	618.74	879.91	741.30	138.61	6.348		
17,150.00	10,330.00	17,157.96	10,330.00	62.99	76.40	-89.93	-6,690.36	619.02	879.90	740.56	139.35	6.314		
17,200.00	10,330.00	17,207.96	10,330.00	63.30	76.83	-89.93	-6,740.36	619.30	879.90	739.82	140.09	6.281		
17,250.00	10,330.00	17,257.96	10,330.00	63.62	77.25	-89.93	-6,790.35	619.57	879.90	739.08	140.83	6.248		
17,300.00	10,330.00	17,307.96	10,330.00	63.93	77.68	-89.93	-6,840.35	619.85	879.90	738.33	141.57	6.215		
17,350.00	10,330.00	17,357.96	10,330.00	64.25	78.11	-89.93	-6,890.35	620.13	879.90	737.59	142.31	6.183		
17,400.00	10,330.00	17,407.96	10,330.00	64.56	78.54	-89.93	-6,940.35	620.40	879.90	736.84	143.06	6.151		
17,450.00	10,330.00	17,457.96	10,330.00	64.88	78.97	-89.93	-6,990.35	620.68	879.90	736.10	143.81	6.119		
17,500.00	10,330.00	17,507.96	10,330.00	65.20	79.40	-89.93	-7,040.35	620.96	879.90	735.35	144.55	6.087		
17,550.00	10,330.00	17,557.96	10,330.00	65.51	79.83	-89.93	-7,090.35	621.24	879.90	734.60	145.30	6.056		
17,600.00	10,330.00	17,607.96	10,330.00	65.83	80.26	-89.93	-7,140.35	621.51	879.90	733.85	146.05	6.024		
17,650.00	10,330.00	17,657.96	10,330.00	66.15	80.69	-89.93	-7,190.35	621.79	879.90	733.09	146.81	5.994		
17,700.00	10,330.00	17,707.96	10,330.00	66.47	81.13	-89.93	-7,240.35	622.07	879.90	732.34	147.56	5.963		
17,750.00	10,330.00	17,757.96	10,330.00	66.79	81.56	-89.93	-7,290.35	622.34	879.90	731.58	148.31	5.933		
17,800.00	10,330.00	17,807.96	10,330.00	67.11	82.00	-89.93	-7,340.35	622.62	879.90	730.83	149.07	5.903		
17,850.00	10,330.00	17,857.96	10,330.00	67.44	82.43	-89.93	-7,390.35	622.90	879.90	730.07	149.83	5.873		
17,900.00	10,330.00	17,907.96	10,330.00	67.76	82.87	-89.93	-7,440.34	623.18	879.90	729.31	150.58	5.843		
17,950.00	10,330.00	17,957.96	10,330.00	68.08	83.30	-89.93	-7,490.34	623.45	879.90	728.55	151.34	5.814		
18,000.00	10,330.00	18,007.96	10,330.00	68.41	83.74	-89.93	-7,540.34	623.73	879.90	727.79	152.10	5.785		
18,050.00	10,330.00	18,057.96	10,330.00	68.73	84.18	-89.93	-7,590.34	624.01	879.90	727.03	152.87	5.756		
18,100.00	10,330.00	18,107.96	10,330.00	69.05	84.61	-89.93	-7,640.34	624.29	879.89	726.27	153.63	5.727		
18,150.00	10,330.00	18,157.96	10,330.00	69.38	85.05	-89.93	-7,690.34	624.56	879.89	725.50	154.39	5.699		
18,200.00	10,330.00	18,207.96	10,330.00	69.71	85.49	-89.93	-7,740.34	624.84	879.89	724.74	155.16	5.671		
18,250.00	10,330.00	18,257.96	10,330.00	70.03	85.93	-89.93	-7,790.34	625.12	879.89	723.97	155.92	5.643		
18,300.00	10,330.00	18,307.96	10,330.00	70.36	86.37	-89.93	-7,840.34	625.39	879.89	723.20	156.69	5.615		
18,350.00	10,330.00	18,357.96	10,330.00	70.69	86.81	-89.93	-7,890.34	625.67	879.89	722.43	157.46	5.588		
18,400.00	10,330.00	18,407.96	10,330.00	71.02	87.25	-89.93	-7,940.34	625.95	879.89	721.66	158.23	5.561		
18,450.00	10,330.00	18,457.96	10,330.00	71.35	87.69	-89.93	-7,990.34	626.23	879.89	720.89	159.00	5.534		
18,500.00	10,330.00	18,507.96	10,330.00	71.68	88.13	-89.93	-8,040.34	626.50	879.89	720.12	159.77	5.507		
18,550.00	10,330.00	18,557.96	10,330.00	72.01	88.57	-89.93	-8,090.33	626.78	879.89	719.35	160.54	5.481		
18,600.00	10,330.00	18,607.96	10,330.00	72.34	89.02	-89.93	-8,140.33	627.06	879.89	718.57	161.32	5.454		
18,650.00	10,330.00	18,657.96	10,330.00	72.67	89.46	-89.93	-8,190.33	627.33	879.89	717.80	162.09	5.428		
18,700.00	10,330.00	18,707.96	10,330.00	73.00	89.90	-89.93	-8,240.33	627.61	879.89	717.02	162.87	5.403		
18,750.00	10,330.00	18,757.96	10,330.00	73.33	90.35	-89.93	-8,290.33	627.89	879.89	716.24	163.64	5.377		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore:	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:
Sec 15-T23S-R31E - Maldives 15-27 Fed Com 232H - Wellbore #1 - Permit Plan 2													0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error: 0.50 ft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
18,800.00	10,330.00	18,807.96	10,330.00	73.66	90.79	-89.93	-8,340.33	628.17	879.89	715.47	164.42	5.351	
18,850.00	10,330.00	18,857.96	10,330.00	74.00	91.24	-89.93	-8,390.33	628.44	879.89	714.69	165.20	5.326	
18,900.00	10,330.00	18,907.96	10,330.00	74.33	91.68	-89.93	-8,440.33	628.72	879.89	713.91	165.98	5.301	
18,950.00	10,330.00	18,957.96	10,330.00	74.67	92.13	-89.93	-8,490.33	629.00	879.89	713.13	166.76	5.276	
19,000.00	10,330.00	19,007.96	10,330.00	75.00	92.57	-89.93	-8,540.33	629.27	879.89	712.35	167.54	5.252	
19,050.00	10,330.00	19,057.96	10,330.00	75.34	93.02	-89.93	-8,590.33	629.55	879.88	711.57	168.32	5.227	
19,100.00	10,330.00	19,107.96	10,330.00	75.67	93.47	-89.93	-8,640.33	629.83	879.88	710.78	169.10	5.203	
19,150.00	10,330.00	19,157.96	10,330.00	76.01	93.91	-89.93	-8,690.33	630.11	879.88	710.00	169.89	5.179	
19,200.00	10,330.00	19,207.96	10,330.00	76.34	94.36	-89.93	-8,740.33	630.38	879.88	709.21	170.67	5.155	
19,250.00	10,330.00	19,257.96	10,330.00	76.68	94.81	-89.93	-8,790.32	630.66	879.88	708.43	171.45	5.132	
19,300.00	10,330.00	19,307.96	10,330.00	77.02	95.26	-89.93	-8,840.32	630.94	879.88	707.64	172.24	5.108	
19,350.00	10,330.00	19,357.96	10,330.00	77.36	95.71	-89.93	-8,890.32	631.21	879.88	706.86	173.03	5.085	
19,400.00	10,330.00	19,407.96	10,330.00	77.69	96.15	-89.93	-8,940.32	631.49	879.88	706.07	173.81	5.062	
19,450.00	10,330.00	19,457.96	10,330.00	78.03	96.60	-89.93	-8,990.32	631.77	879.88	705.28	174.60	5.039	
19,500.00	10,330.00	19,507.96	10,330.00	78.37	97.05	-89.93	-9,040.32	632.05	879.88	704.49	175.39	5.017	
19,550.00	10,330.00	19,557.96	10,330.00	78.71	97.50	-89.93	-9,090.32	632.32	879.88	703.70	176.18	4.994	Alert
19,600.00	10,330.00	19,607.96	10,330.00	79.05	97.95	-89.93	-9,140.32	632.60	879.88	702.91	176.97	4.972	Alert
19,650.00	10,330.00	19,657.96	10,330.00	79.39	98.40	-89.93	-9,190.32	632.88	879.88	702.12	177.76	4.950	Alert
19,700.00	10,330.00	19,707.96	10,330.00	79.73	98.86	-89.93	-9,240.32	633.15	879.88	701.32	178.55	4.928	Alert
19,750.00	10,330.00	19,757.96	10,330.00	80.07	99.31	-89.93	-9,290.32	633.43	879.88	700.53	179.35	4.906	Alert
19,800.00	10,330.00	19,807.96	10,330.00	80.41	99.76	-89.93	-9,340.32	633.71	879.88	699.74	180.14	4.884	Alert
19,850.00	10,330.00	19,857.96	10,330.00	80.76	100.21	-89.93	-9,390.32	633.99	879.88	698.94	180.93	4.863	Alert
19,900.00	10,330.00	19,907.96	10,330.00	81.10	100.66	-89.93	-9,440.31	634.26	879.88	698.15	181.73	4.842	Alert
19,950.00	10,330.00	19,957.96	10,330.00	81.44	101.12	-89.93	-9,490.31	634.54	879.88	697.35	182.52	4.821	Alert
20,000.00	10,330.00	20,007.96	10,330.00	81.78	101.57	-89.93	-9,540.31	634.82	879.87	696.56	183.32	4.800	Alert
20,050.00	10,330.00	20,057.96	10,330.00	82.13	102.02	-89.93	-9,590.31	635.09	879.87	695.76	184.12	4.779	Alert
20,100.00	10,330.00	20,107.96	10,330.00	82.47	102.48	-89.93	-9,640.31	635.37	879.87	694.96	184.91	4.758	Alert
20,150.00	10,330.00	20,157.96	10,330.00	82.81	102.93	-89.93	-9,690.31	635.65	879.87	694.16	185.71	4.738	Alert
20,200.00	10,330.00	20,207.96	10,330.00	83.16	103.38	-89.93	-9,740.31	635.93	879.87	693.36	186.51	4.718	Alert
20,250.00	10,330.00	20,257.96	10,330.00	83.50	103.84	-89.93	-9,790.31	636.20	879.87	692.56	187.31	4.697	Alert
20,300.00	10,330.00	20,307.96	10,330.00	83.85	104.29	-89.93	-9,840.31	636.48	879.87	691.76	188.11	4.677	Alert
20,350.00	10,330.00	20,357.96	10,330.00	84.19	104.75	-89.93	-9,890.31	636.76	879.87	690.96	188.91	4.658	Alert
20,400.00	10,330.00	20,407.96	10,330.00	84.54	105.20	-89.93	-9,940.31	637.03	879.87	690.16	189.71	4.638	Alert
20,450.00	10,330.00	20,457.96	10,330.00	84.88	105.66	-89.93	-9,990.31	637.31	879.87	689.36	190.51	4.618	Alert
20,500.00	10,330.00	20,507.96	10,330.00	85.23	106.11	-89.93	-10,040.31	637.59	879.87	688.56	191.31	4.599	Alert
20,550.00	10,330.00	20,557.96	10,330.00	85.58	106.57	-89.93	-10,090.30	637.87	879.87	687.75	192.12	4.580	Alert
20,600.00	10,330.00	20,607.96	10,330.00	85.92	107.03	-89.93	-10,140.30	638.14	879.87	686.95	192.92	4.561	Alert
20,650.00	10,330.00	20,657.96	10,330.00	86.27	107.48	-89.93	-10,190.30	638.42	879.87	686.14	193.72	4.542	Alert
20,700.00	10,330.00	20,707.96	10,330.00	86.62	107.94	-89.93	-10,240.30	638.70	879.87	685.34	194.53	4.523	Alert
20,750.00	10,330.00	20,757.96	10,330.00	86.97	108.40	-89.93	-10,290.30	638.98	879.87	684.53	195.33	4.504	Alert
20,800.00	10,330.00	20,807.96	10,330.00	87.31	108.86	-89.93	-10,340.30	639.25	879.87	683.73	196.14	4.486	Alert
20,850.00	10,330.00	20,857.96	10,330.00	87.66	109.31	-89.93	-10,390.30	639.53	879.87	682.92	196.95	4.468	Alert
20,900.00	10,330.00	20,907.96	10,330.00	88.01	109.77	-89.93	-10,440.30	639.81	879.87	682.11	197.75	4.449	Alert
20,950.00	10,330.00	20,957.96	10,330.00	88.36	110.23	-89.93	-10,490.30	640.08	879.86	681.31	198.56	4.431	Alert
21,000.00	10,330.00	21,007.96	10,330.00	88.71	110.69	-89.93	-10,540.30	640.36	879.86	680.50	199.37	4.413	Alert
21,050.00	10,330.00	21,057.96	10,330.00	89.06	111.15	-89.93	-10,590.30	640.64	879.86	679.69	200.17	4.395	Alert
21,100.00	10,330.00	21,107.96	10,330.00	89.41	111.61	-89.93	-10,640.30	640.92	879.86	678.88	200.98	4.378	Alert
21,150.00	10,330.00	21,157.96	10,330.00	89.76	112.06	-89.93	-10,690.30	641.19	879.86	678.07	201.79	4.360	Alert
21,200.00	10,330.00	21,207.96	10,330.00	90.11	112.52	-89.93	-10,740.29	641.47	879.86	677.26	202.60	4.343	Alert
21,250.00	10,330.00	21,257.96	10,330.00	90.46	112.98	-89.93	-10,790.29	641.75	879.86	676.45	203.41	4.325	Alert
21,300.00	10,330.00	21,307.96	10,330.00	90.81	113.44	-89.93	-10,840.29	642.02	879.86	675.64	204.22	4.308	Alert
21,350.00	10,330.00	21,357.96	10,330.00	91.16	113.90	-89.93	-10,890.29	642.30	879.86	674.83	205.03	4.291	Alert

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore:	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Sec 15-T23S-R31E - Maldives 15-27 Fed Com 232H - Wellbore #1 - Permit Plan 2													Offset Well Error:	0.50 ft
Survey Program: 0-MWD+IFR1														
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre N-S (ft)	Offset Wellbore Centre E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
21,400.00	10,330.00	21,407.96	10,330.00	91.51	114.36	-89.93	-10,940.29	642.58	879.86	674.01	205.85	4.274	Alert	
21,450.00	10,330.00	21,457.96	10,330.00	91.86	114.82	-89.93	-10,990.29	642.86	879.86	673.20	206.66	4.258	Alert	
21,500.00	10,330.00	21,507.96	10,330.00	92.22	115.28	-89.93	-11,040.29	643.13	879.86	672.39	207.47	4.241	Alert	
21,550.00	10,330.00	21,557.96	10,330.00	92.57	115.74	-89.93	-11,090.29	643.41	879.86	671.57	208.28	4.224	Alert	
21,600.00	10,330.00	21,607.96	10,330.00	92.92	116.21	-89.93	-11,140.29	643.69	879.86	670.76	209.10	4.208	Alert	
21,650.00	10,330.00	21,657.96	10,330.00	93.27	116.67	-89.93	-11,190.29	643.96	879.86	669.95	209.91	4.192	Alert	
21,700.00	10,330.00	21,707.96	10,330.00	93.63	117.13	-89.93	-11,240.29	644.24	879.86	669.13	210.73	4.175	Alert	
21,750.00	10,330.00	21,757.96	10,330.00	93.98	117.59	-89.93	-11,290.29	644.52	879.86	668.32	211.54	4.159	Alert	
21,800.00	10,330.00	21,807.96	10,330.00	94.33	118.05	-89.93	-11,340.29	644.80	879.86	667.50	212.36	4.143	Alert	
21,850.00	10,330.00	21,857.96	10,330.00	94.69	118.51	-89.93	-11,390.28	645.07	879.86	666.68	213.17	4.127	Alert	
21,900.00	10,330.00	21,907.96	10,330.00	95.04	118.98	-89.93	-11,440.28	645.35	879.85	665.87	213.99	4.112	Alert	
21,950.00	10,330.00	21,957.96	10,330.00	95.39	119.44	-89.93	-11,490.28	645.63	879.85	665.05	214.80	4.096	Alert	
22,000.00	10,330.00	22,007.96	10,330.00	95.75	119.90	-89.93	-11,540.28	645.90	879.85	664.23	215.62	4.081	Alert	
22,050.00	10,330.00	22,057.96	10,330.00	96.10	120.36	-89.93	-11,590.28	646.18	879.85	663.41	216.44	4.065	Alert	
22,100.00	10,330.00	22,107.96	10,330.00	96.46	120.83	-89.93	-11,640.28	646.46	879.85	662.60	217.26	4.050	Alert	
22,150.00	10,330.00	22,157.96	10,330.00	96.81	121.29	-89.93	-11,690.28	646.74	879.85	661.78	218.07	4.035	Alert	
22,200.00	10,330.00	22,207.96	10,330.00	97.17	121.75	-89.93	-11,740.28	647.01	879.85	660.96	218.89	4.020	Alert	
22,250.00	10,330.00	22,257.96	10,330.00	97.52	122.22	-89.93	-11,790.28	647.29	879.85	660.14	219.71	4.005	Alert	
22,300.00	10,330.00	22,307.96	10,330.00	97.88	122.68	-89.93	-11,840.28	647.57	879.85	659.32	220.53	3.990	Alert	
22,350.00	10,330.00	22,357.96	10,330.00	98.23	123.14	-89.93	-11,890.28	647.84	879.85	658.50	221.35	3.975	Alert	
22,400.00	10,330.00	22,407.96	10,330.00	98.59	123.61	-89.93	-11,940.28	648.12	879.85	657.68	222.17	3.960	Alert	
22,450.00	10,330.00	22,457.96	10,330.00	98.95	124.07	-89.93	-11,990.28	648.40	879.85	656.86	222.99	3.946	Alert	
22,500.00	10,330.00	22,507.96	10,330.00	99.30	124.54	-89.93	-12,040.27	648.68	879.85	656.04	223.81	3.931	Alert	
22,550.00	10,330.00	22,557.96	10,330.00	99.66	125.00	-89.93	-12,090.27	648.95	879.85	655.21	224.63	3.917	Alert	
22,600.00	10,330.00	22,607.96	10,330.00	100.02	125.47	-89.93	-12,140.27	649.23	879.85	654.39	225.45	3.903	Alert	
22,650.00	10,330.00	22,657.96	10,330.00	100.37	125.93	-89.93	-12,190.27	649.51	879.85	653.57	226.28	3.888	Alert	
22,700.00	10,330.00	22,707.96	10,330.00	100.73	126.40	-89.93	-12,240.27	649.78	879.85	652.75	227.10	3.874	Alert	
22,750.00	10,330.00	22,757.96	10,330.00	101.09	126.86	-89.93	-12,290.27	650.06	879.85	651.92	227.92	3.860	Alert	
22,800.00	10,330.00	22,807.96	10,330.00	101.45	127.33	-89.93	-12,340.27	650.34	879.85	651.10	228.74	3.846	Alert	
22,850.00	10,330.00	22,857.96	10,330.00	101.80	127.79	-89.93	-12,390.27	650.62	879.84	650.28	229.57	3.833	Alert	
22,900.00	10,330.00	22,907.96	10,330.00	102.16	128.26	-89.93	-12,440.27	650.89	879.84	649.45	230.39	3.819	Alert	
22,950.00	10,330.00	22,957.96	10,330.00	102.52	128.72	-89.93	-12,490.27	651.17	879.84	648.63	231.22	3.805	Alert	
23,000.00	10,330.00	23,007.96	10,330.00	102.88	129.19	-89.93	-12,540.27	651.45	879.84	647.80	232.04	3.792	Alert	
23,050.00	10,330.00	23,057.96	10,330.00	103.24	129.65	-89.93	-12,590.27	651.72	879.84	646.98	232.86	3.778	Alert	
23,100.00	10,330.00	23,107.96	10,330.00	103.59	130.12	-89.93	-12,640.27	652.00	879.84	646.15	233.69	3.765	Alert	
23,150.00	10,330.00	23,157.96	10,330.00	103.95	130.59	-89.93	-12,690.26	652.28	879.84	645.33	234.51	3.752	Alert	
23,200.00	10,330.00	23,207.96	10,330.00	104.31	131.05	-89.93	-12,740.26	652.56	879.84	644.50	235.34	3.739	Alert	
23,250.00	10,330.00	23,257.96	10,330.00	104.67	131.52	-89.93	-12,790.26	652.83	879.84	643.67	236.17	3.726	Alert	
23,300.00	10,330.00	23,307.96	10,330.00	105.03	131.99	-89.93	-12,840.26	653.11	879.84	642.85	236.99	3.713	Alert	
23,350.00	10,330.00	23,357.96	10,330.00	105.39	132.45	-89.93	-12,890.26	653.39	879.84	642.02	237.82	3.700	Alert	
23,400.00	10,330.00	23,407.96	10,330.00	105.75	132.92	-89.93	-12,940.26	653.67	879.84	641.19	238.65	3.687	Alert	
23,450.00	10,330.00	23,457.96	10,330.00	106.11	133.39	-89.93	-12,990.26	653.94	879.84	640.37	239.47	3.674	Alert	
23,500.00	10,330.00	23,507.96	10,330.00	106.47	133.86	-89.93	-13,040.26	654.22	879.84	639.54	240.30	3.661	Alert	
23,550.00	10,330.00	23,557.96	10,330.00	106.83	134.32	-89.93	-13,090.26	654.50	879.84	638.71	241.13	3.649	Alert	
23,600.00	10,330.00	23,607.96	10,330.00	107.19	134.79	-89.93	-13,140.26	654.77	879.84	637.88	241.96	3.636	Alert	
23,650.00	10,330.00	23,657.96	10,330.00	107.55	135.26	-89.93	-13,190.26	655.05	879.84	637.05	242.78	3.624	Alert	
23,700.00	10,330.00	23,707.96	10,330.00	107.91	135.73	-89.93	-13,240.26	655.33	879.84	636.22	243.61	3.612	Alert	
23,750.00	10,330.00	23,757.96	10,330.00	108.27	136.19	-89.93	-13,290.26	655.61	879.84	635.39	244.44	3.599	Alert	
23,800.00	10,330.00	23,807.96	10,330.00	108.63	136.66	-89.93	-13,340.25	655.88	879.83	634.56	245.27	3.587	Alert	
23,850.00	10,330.00	23,857.96	10,330.00	108.99	137.13	-89.93	-13,390.25	656.16	879.83	633.73	246.10	3.575	Alert	
23,900.00	10,330.00	23,907.96	10,330.00	109.36	137.60	-89.93	-13,440.25	656.44	879.83	632.90	246.93	3.563	Alert	
23,950.00	10,330.00	23,957.96	10,330.00	109.72	138.07	-89.93	-13,490.25	656.71	879.83	632.07	247.76	3.551	Alert	

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.50 ft
Sec 15-T23S-R31E - Maldives 15-27 Fed Com 232H - Wellbore #1 - Permit Plan 2														
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
24,000.00	10,330.00	24,007.96	10,330.00	110.08	138.54	-89.93	-13,540.25	656.99	879.83	631.24	248.59	3.539	Alert	
24,050.00	10,330.00	24,057.96	10,330.00	110.44	139.00	-89.93	-13,590.25	657.27	879.83	630.41	249.42	3.528	Alert	
24,100.00	10,330.00	24,107.96	10,330.00	110.80	139.47	-89.93	-13,640.25	657.55	879.83	629.58	250.25	3.516	Alert	
24,150.00	10,330.00	24,157.96	10,330.00	111.16	139.94	-89.93	-13,690.25	657.82	879.83	628.75	251.08	3.504	Alert	
24,200.00	10,330.00	24,207.96	10,330.00	111.53	140.41	-89.93	-13,740.25	658.10	879.83	627.92	251.91	3.493	Alert	
24,250.00	10,330.00	24,257.96	10,330.00	111.89	140.88	-89.93	-13,790.25	658.38	879.83	627.09	252.74	3.481	Alert	
24,300.00	10,330.00	24,307.96	10,330.00	112.25	141.35	-89.93	-13,840.25	658.65	879.83	626.25	253.58	3.470	Alert	
24,350.00	10,330.00	24,357.96	10,330.00	112.61	141.82	-89.93	-13,890.25	658.93	879.83	625.42	254.41	3.458	Alert	
24,400.00	10,330.00	24,407.96	10,330.00	112.98	142.29	-89.93	-13,940.25	659.21	879.83	624.59	255.24	3.447	Alert	
24,450.00	10,330.00	24,457.96	10,330.00	113.34	142.76	-89.93	-13,990.24	659.49	879.83	623.75	256.07	3.436	Alert	
24,500.00	10,330.00	24,507.96	10,330.00	113.70	143.23	-89.93	-14,040.24	659.76	879.83	622.92	256.91	3.425	Alert	
24,550.00	10,330.00	24,557.96	10,330.00	114.07	143.70	-89.93	-14,090.24	660.04	879.83	622.09	257.74	3.414	Alert	
24,600.00	10,330.00	24,607.96	10,330.00	114.43	144.17	-89.93	-14,140.24	660.32	879.83	621.25	258.57	3.403	Alert	
24,650.00	10,330.00	24,657.96	10,330.00	114.79	144.64	-89.93	-14,190.24	660.59	879.83	620.42	259.41	3.392	Alert	
24,700.00	10,330.00	24,707.96	10,330.00	115.16	145.11	-89.93	-14,240.24	660.87	879.83	619.59	260.24	3.381	Alert	
24,750.00	10,330.00	24,757.96	10,330.00	115.52	145.58	-89.93	-14,290.24	661.15	879.82	618.75	261.07	3.370	Alert	
24,800.00	10,330.00	24,807.96	10,330.00	115.88	146.05	-89.93	-14,340.24	661.43	879.82	617.92	261.91	3.359	Alert	
24,850.00	10,330.00	24,857.96	10,330.00	116.25	146.52	-89.93	-14,390.24	661.70	879.82	617.08	262.74	3.349	Alert	
24,900.00	10,330.00	24,907.96	10,330.00	116.61	146.99	-89.93	-14,440.24	661.98	879.82	616.25	263.58	3.338	Alert	
24,950.00	10,330.00	24,957.96	10,330.00	116.97	147.46	-89.93	-14,490.24	662.26	879.82	615.41	264.41	3.327	Alert	
25,000.00	10,330.00	25,007.96	10,330.00	117.34	147.93	-89.93	-14,540.24	662.53	879.82	614.58	265.25	3.317	Alert	
25,050.00	10,330.00	25,057.96	10,330.00	117.70	148.40	-89.93	-14,590.24	662.81	879.82	613.74	266.08	3.307	Alert	
25,100.00	10,330.00	25,107.96	10,330.00	118.07	148.87	-89.93	-14,640.23	663.09	879.82	612.90	266.92	3.296	Alert	
25,150.00	10,330.00	25,157.96	10,330.00	118.43	149.34	-89.93	-14,690.23	663.37	879.82	612.07	267.75	3.286	Alert	
25,200.00	10,330.00	25,207.96	10,330.00	118.80	149.81	-89.93	-14,740.23	663.64	879.82	611.23	268.59	3.276	Alert	
25,250.00	10,330.00	25,257.96	10,330.00	119.16	150.29	-89.93	-14,790.23	663.92	879.82	610.39	269.42	3.266	Alert	
25,300.00	10,330.00	25,307.96	10,330.00	119.53	150.76	-89.93	-14,840.23	664.20	879.82	609.56	270.26	3.255	Alert	
25,350.00	10,330.00	25,357.96	10,330.00	119.89	151.23	-89.93	-14,890.23	664.47	879.82	608.72	271.10	3.245	Alert	
25,400.00	10,330.00	25,407.96	10,330.00	120.26	151.70	-89.93	-14,940.23	664.75	879.82	607.88	271.93	3.235	Alert	
25,450.00	10,330.00	25,457.96	10,330.00	120.62	152.17	-89.93	-14,990.23	665.03	879.82	607.05	272.77	3.225	Alert	
25,500.00	10,330.00	25,507.96	10,330.00	120.99	152.64	-89.93	-15,040.23	665.31	879.82	606.21	273.61	3.216	Alert	
25,550.00	10,330.00	25,557.96	10,330.00	121.35	153.11	-89.93	-15,090.23	665.58	879.82	605.37	274.45	3.206	Alert	
25,600.00	10,330.00	25,607.96	10,330.00	121.72	153.59	-89.93	-15,140.23	665.86	879.82	604.53	275.28	3.196	Alert	
25,650.00	10,330.00	25,657.96	10,330.00	122.12	154.06	-89.93	-15,190.23	666.14	879.82	603.67	276.15	3.186	Alert	
25,666.80	10,330.00	25,674.76	10,330.00	122.25	154.22	-89.93	-15,207.02	666.23	879.82	603.37	276.44	3.183	Alert	

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design													Sec 15-T23S-R31E - Todd 15 C Fed #003 (Active) - Wellbore #1 - No Surveys		Offset Site Error: 0.00 ft	
Survey Program: 10-INC-ONLY													Offset Well Error: 10.00 ft			
Reference		Offset		Semi Major Axis			Distance									
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N-S	+E-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)					
0.00	0.00	0.00	0.00	0.50	10.00	97.26	-153.00	1,201.04	1,210.74							
50.00	50.00	48.62	48.62	0.50	10.02	97.26	-153.00	1,201.04	1,210.74	1,200.22	10.52	115.102				
100.00	100.00	98.66	98.66	0.52	10.09	97.26	-152.99	1,201.04	1,210.74	1,200.13	10.61	114.158				
150.00	150.00	148.69	148.69	0.59	10.21	97.26	-152.96	1,201.04	1,210.74	1,199.93	10.80	112.060				
200.00	200.00	198.72	198.72	0.70	10.39	97.26	-152.93	1,201.04	1,210.73	1,199.64	11.09	109.126				
250.00	250.00	248.75	248.75	0.84	10.62	97.25	-152.88	1,201.04	1,210.73	1,199.27	11.46	105.658				
300.00	300.00	298.79	298.79	0.99	10.90	97.25	-152.83	1,201.04	1,210.72	1,198.84	11.88	101.879				
350.00	350.00	348.82	348.82	1.15	11.21	97.25	-152.76	1,201.04	1,210.71	1,198.35	12.36	97.948				
400.00	400.00	398.85	398.85	1.31	11.57	97.25	-152.69	1,201.04	1,210.70	1,197.82	12.88	93.978				
450.00	450.00	448.88	448.88	1.48	11.97	97.24	-152.60	1,201.04	1,210.69	1,197.25	13.44	90.049				
500.00	500.00	498.91	498.91	1.65	12.39	97.24	-152.50	1,201.04	1,210.68	1,196.64	14.04	86.218				
550.00	550.00	548.95	548.95	1.82	12.85	97.23	-152.39	1,201.04	1,210.67	1,196.00	14.67	82.523				
600.00	600.00	598.98	598.98	1.99	13.34	97.23	-152.27	1,201.04	1,210.65	1,195.32	15.33	78.988				
650.00	650.00	649.01	649.01	2.17	13.84	97.22	-152.14	1,201.04	1,210.63	1,194.63	16.01	75.626				
700.00	700.00	699.04	699.04	2.34	14.37	97.21	-152.00	1,201.04	1,210.62	1,193.91	16.71	72.443				
750.00	750.00	749.07	749.07	2.52	14.92	97.21	-151.85	1,201.04	1,210.60	1,193.16	17.43	69.438				
800.00	800.00	799.11	799.10	2.69	15.48	97.20	-151.69	1,201.04	1,210.58	1,192.40	18.17	66.809				
850.00	850.00	849.14	849.14	2.87	16.06	97.19	-151.52	1,201.04	1,210.56	1,191.63	18.93	63.949				
900.00	900.00	899.17	899.17	3.04	16.66	97.18	-151.34	1,201.04	1,210.53	1,190.83	19.70	61.450				
950.00	950.00	949.20	949.20	3.22	17.26	97.17	-151.15	1,201.04	1,210.51	1,190.03	20.48	59.102				
1,000.00	1,000.00	999.23	999.23	3.40	17.88	97.16	-150.94	1,201.04	1,210.48	1,189.21	21.27	56.897				
1,050.00	1,050.00	1,049.26	1,049.26	3.58	18.50	97.15	-150.73	1,201.04	1,210.46	1,188.38	22.08	54.826				
1,100.00	1,100.00	1,099.29	1,099.29	3.75	19.14	97.14	-150.51	1,201.04	1,210.43	1,187.54	22.89	52.879				
1,150.00	1,150.00	1,149.33	1,149.32	3.93	19.78	97.13	-150.27	1,201.04	1,210.40	1,186.69	23.71	51.048				
1,200.00	1,200.00	1,199.36	1,199.35	4.11	20.43	97.12	-150.03	1,201.04	1,210.37	1,185.83	24.54	49.324				
1,250.00	1,250.00	1,249.39	1,249.38	4.29	21.09	97.11	-149.77	1,201.04	1,210.34	1,184.96	25.37	47.700				
1,300.00	1,300.00	1,299.42	1,299.41	4.47	21.75	97.10	-149.50	1,201.04	1,210.31	1,184.09	26.21	46.169				
1,350.00	1,350.00	1,349.45	1,349.44	4.64	22.42	97.08	-149.23	1,201.04	1,210.27	1,183.21	27.06	44.724				
1,400.00	1,400.00	1,399.48	1,399.47	4.82	23.09	97.07	-148.94	1,201.04	1,210.24	1,182.32	27.91	43.359				
1,450.00	1,450.00	1,449.51	1,449.50	5.00	23.77	97.06	-148.64	1,201.04	1,210.20	1,181.43	28.77	42.067				
1,500.00	1,500.00	1,499.54	1,499.53	5.18	24.45	97.04	-148.33	1,201.04	1,210.16	1,180.53	29.63	40.845				
1,550.00	1,550.00	1,549.57	1,549.56	5.36	25.14	97.03	-148.01	1,201.04	1,210.12	1,179.63	30.49	39.686				
1,600.00	1,600.00	1,599.60	1,599.59	5.54	25.83	97.01	-147.68	1,201.04	1,210.08	1,178.72	31.36	38.587				
1,650.00	1,650.00	1,649.63	1,649.62	5.71	26.52	96.99	-147.34	1,201.04	1,210.04	1,177.81	32.23	37.543				
1,700.00	1,700.00	1,699.66	1,699.65	5.89	27.21	96.98	-146.99	1,201.04	1,210.00	1,176.89	33.11	36.550				
1,750.00	1,750.00	1,749.69	1,749.67	6.07	27.91	96.96	-146.63	1,201.04	1,209.95	1,175.97	33.98	35.606				
1,800.00	1,800.00	1,799.72	1,799.70	6.25	28.61	96.94	-146.26	1,201.04	1,209.91	1,175.05	34.86	34.706				
1,850.00	1,850.00	1,849.75	1,849.73	6.43	29.32	96.93	-145.88	1,201.04	1,209.86	1,174.12	35.74	33.848				
1,900.00	1,900.00	1,899.78	1,899.76	6.61	30.02	96.91	-145.48	1,201.04	1,209.82	1,173.19	36.63	33.030				
1,950.00	1,950.00	1,949.81	1,949.79	6.79	30.73	96.89	-145.08	1,201.04	1,209.77	1,172.25	37.51	32.248				
2,000.00	2,000.00	1,999.84	1,999.81	6.96	31.44	96.87	-144.67	1,201.04	1,209.72	1,171.32	38.40	31.501				
2,050.00	2,050.00	2,049.86	2,049.84	7.14	32.15	96.85	-144.24	1,201.04	1,209.67	1,170.37	39.29	30.786				
2,100.00	2,100.00	2,099.89	2,099.87	7.32	32.86	96.83	-143.81	1,201.04	1,209.62	1,169.43	40.18	30.102				
2,150.00	2,150.00	2,149.92	2,149.89	7.50	33.58	96.81	-143.36	1,201.04	1,209.56	1,168.49	41.08	29.446				
2,200.00	2,200.00	2,199.95	2,199.92	7.68	34.29	96.79	-142.91	1,201.04	1,209.51	1,167.54	41.97	28.817				
2,250.00	2,250.00	2,249.98	2,249.94	7.86	35.01	96.76	-142.44	1,201.04	1,209.45	1,166.58	42.87	28.213				
2,300.00	2,300.00	2,300.00	2,299.97	8.04	35.73	96.74	-141.96	1,201.04	1,209.40	1,165.63	43.77	27.633				
2,350.00	2,350.00	2,350.03	2,349.99	8.22	36.45	96.72	-141.48	1,201.04	1,209.34	1,164.68	44.67	27.075				
2,400.00	2,400.00	2,400.06	2,400.02	8.40	37.17	96.69	-140.98	1,201.04	1,209.28	1,163.72	45.57	26.539				
2,450.00	2,450.00	2,450.09	2,450.04	8.57	37.89	96.67	-140.47	1,201.04	1,209.22	1,162.76	46.47	26.023				
2,500.00	2,500.00	2,500.11	2,500.07	8.75	38.62	96.65	-139.95	1,201.04	1,209.16	1,161.79	47.37	25.526				
2,550.00	2,550.00	2,550.14	2,550.09	8.93	39.34	96.62	-139.42	1,201.04	1,209.10	1,160.83	48.27	25.048				

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 10-INC-ONLY													Offset Well Error:	10.00 ft
Reference													Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,600.00	2,600.00	2,600.17	2,600.11	9.11	40.07	96.60	-138.88	1,201.04	1,209.04	1,159.86	49.18	24.586		
2,650.00	2,650.00	2,650.19	2,650.14	9.29	40.79	96.57	-138.33	1,201.04	1,208.98	1,158.90	50.08	24.140		
2,700.00	2,700.00	2,700.22	2,700.16	9.47	41.52	96.54	-137.77	1,201.04	1,208.91	1,157.93	50.99	23.710		
2,750.00	2,750.00	2,750.24	2,750.18	9.65	42.25	96.52	-137.19	1,201.04	1,208.85	1,156.95	51.89	23.295		
2,800.00	2,800.00	2,800.27	2,800.21	9.83	42.98	96.49	-136.61	1,201.04	1,208.78	1,155.98	52.80	22.893		
2,850.00	2,850.00	2,850.29	2,850.23	10.01	43.70	96.46	-136.02	1,201.04	1,208.72	1,155.01	53.71	22.505		
2,900.00	2,900.00	2,900.32	2,900.25	10.19	44.43	96.43	-135.42	1,201.04	1,208.65	1,154.03	54.62	22.129		
2,950.00	2,950.00	2,950.34	2,950.27	10.36	45.16	96.40	-134.80	1,201.04	1,208.58	1,153.05	55.53	21.765		
3,000.00	3,000.00	3,000.37	3,000.29	10.54	45.90	96.37	-134.18	1,201.04	1,208.51	1,152.07	56.44	21.413		
3,050.00	3,050.00	3,050.39	3,050.31	10.72	46.63	96.34	-133.54	1,201.04	1,208.44	1,151.09	57.35	21.072		
3,100.00	3,100.00	3,100.42	3,100.33	10.90	47.36	96.31	-132.90	1,201.04	1,208.37	1,150.11	58.26	20.741		
3,150.00	3,150.00	3,150.44	3,150.35	11.08	48.09	96.28	-132.24	1,201.04	1,208.30	1,149.12	59.17	20.420		
3,200.00	3,200.00	3,200.46	3,200.37	11.26	48.83	96.25	-131.57	1,201.04	1,208.22	1,148.14	60.08	20.109		
3,250.00	3,250.00	3,250.49	3,250.39	11.44	49.56	96.22	-130.90	1,201.04	1,208.15	1,147.15	61.00	19.807		
3,300.00	3,300.00	3,300.51	3,300.40	11.62	50.29	96.19	-130.21	1,201.04	1,208.08	1,146.17	61.91	19.514		
3,350.00	3,350.00	3,350.53	3,350.42	11.80	51.03	96.15	-129.51	1,201.04	1,208.00	1,145.18	62.82	19.229		
3,400.00	3,400.00	3,400.55	3,400.44	11.98	51.76	96.12	-128.80	1,201.04	1,207.92	1,144.19	63.74	18.952		
3,450.00	3,450.00	3,450.58	3,450.46	12.15	52.50	96.09	-128.08	1,201.04	1,207.85	1,143.20	64.65	18.683		
3,500.00	3,500.00	3,500.60	3,500.47	12.33	53.23	96.05	-127.35	1,201.04	1,207.77	1,142.20	65.57	18.421		
3,550.00	3,550.00	3,550.62	3,550.49	12.51	53.97	96.02	-126.61	1,201.04	1,207.69	1,141.21	66.48	18.166		
3,600.00	3,600.00	3,600.64	3,600.50	12.69	54.71	95.98	-125.86	1,201.04	1,207.61	1,140.22	67.40	17.918		
3,650.00	3,650.00	3,650.66	3,650.52	12.87	55.44	95.95	-125.10	1,201.04	1,207.54	1,139.22	68.31	17.677		
3,700.00	3,700.00	3,700.68	3,700.53	13.05	56.18	95.91	-124.33	1,201.04	1,207.46	1,138.23	69.23	17.442		
3,750.00	3,750.00	3,750.70	3,750.55	13.23	56.92	95.87	-123.54	1,201.04	1,207.38	1,137.23	70.15	17.212		
3,800.00	3,800.00	3,800.72	3,800.56	13.41	57.66	95.84	-122.75	1,201.04	1,207.29	1,136.23	71.06	16.989		
3,850.00	3,850.00	3,850.74	3,850.57	13.59	58.39	95.80	-121.95	1,201.04	1,207.21	1,135.23	71.98	16.772		
3,900.00	3,900.00	3,900.76	3,900.58	13.77	59.13	95.76	-121.13	1,201.04	1,207.13	1,134.23	72.90	16.559		
3,950.00	3,950.00	3,950.78	3,950.60	13.95	59.87	95.72	-120.31	1,201.04	1,207.05	1,133.23	73.81	16.353		
4,000.00	4,000.00	4,000.80	4,000.61	14.12	60.61	95.68	-119.47	1,201.04	1,206.97	1,132.23	74.73	16.151		
4,010.56	4,010.56	4,011.36	4,011.17	14.16	60.77	136.27	-119.30	1,201.04	1,206.96	1,132.03	74.93	16.109 CC		
4,050.00	4,050.00	4,050.82	4,050.62	14.30	61.35	136.25	-118.63	1,201.04	1,207.08	1,131.43	75.65	15.956		
4,100.00	4,099.99	4,100.84	4,100.64	14.48	62.09	136.23	-117.77	1,201.04	1,207.59	1,131.02	76.57	15.772		
4,150.00	4,149.97	4,150.85	4,150.64	14.66	62.83	136.23	-116.90	1,201.04	1,208.49	1,131.00	77.48	15.597 ES		
4,200.00	4,199.94	4,200.86	4,200.64	14.84	63.57	136.24	-116.03	1,201.04	1,209.78	1,131.38	78.40	15.431		
4,250.00	4,249.88	4,250.85	4,250.62	15.01	64.31	136.26	-115.14	1,201.04	1,211.46	1,132.15	79.31	15.274		
4,300.00	4,299.79	4,300.82	4,300.58	15.19	65.05	136.30	-114.24	1,201.04	1,213.54	1,133.31	80.23	15.126		
4,350.00	4,349.66	4,350.76	4,350.52	15.37	65.79	136.35	-113.34	1,201.04	1,216.02	1,134.87	81.15	14.986		
4,400.00	4,399.49	4,400.67	4,400.42	15.54	66.52	136.42	-112.42	1,201.04	1,218.88	1,136.82	82.06	14.853		
4,450.00	4,449.29	4,450.54	4,450.28	15.72	67.26	136.51	-111.49	1,201.04	1,222.08	1,139.10	82.98	14.728		
4,500.00	4,499.08	4,500.42	4,500.15	15.90	68.00	136.61	-110.55	1,201.04	1,225.30	1,141.41	83.89	14.606		
4,550.00	4,548.87	4,550.29	4,550.02	16.08	68.74	136.71	-109.60	1,201.04	1,228.53	1,143.73	84.81	14.486		
4,600.00	4,598.66	4,600.17	4,599.88	16.25	69.48	136.82	-108.65	1,201.04	1,231.76	1,146.04	85.72	14.369		
4,650.00	4,648.45	4,650.05	4,649.75	16.43	70.22	136.92	-107.68	1,201.04	1,235.00	1,148.36	86.64	14.255		
4,700.00	4,698.24	4,699.92	4,699.62	16.61	70.96	137.02	-106.70	1,201.04	1,238.23	1,150.68	87.55	14.143		
4,750.00	4,748.03	4,749.80	4,749.49	16.79	71.70	137.11	-105.71	1,201.04	1,241.47	1,153.00	88.47	14.033		
4,800.00	4,797.82	4,799.68	4,799.36	16.96	72.44	137.21	-104.71	1,201.04	1,244.71	1,155.33	89.38	13.925		
4,850.00	4,847.61	4,849.57	4,849.23	17.14	73.18	137.31	-103.70	1,201.04	1,247.96	1,157.65	90.30	13.820		
4,900.00	4,897.40	4,899.45	4,899.10	17.32	73.92	137.40	-102.67	1,201.04	1,251.20	1,159.98	91.22	13.717		
4,950.00	4,947.19	4,949.33	4,948.98	17.50	74.66	137.50	-101.64	1,201.04	1,254.45	1,162.31	92.14	13.615		
5,000.00	4,996.98	4,999.22	4,998.85	17.68	75.40	137.59	-100.60	1,201.04	1,257.70	1,164.65	93.05	13.516		
5,050.00	5,046.78	5,049.10	5,048.73	17.85	76.14	137.68	-99.55	1,201.04	1,260.95	1,166.98	93.97	13.419		
5,100.00	5,096.57	5,098.99	5,098.60	18.03	76.88	137.77	-98.48	1,201.04	1,264.21	1,169.32	94.89	13.323		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore:	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 10-INC-ONLY													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,150.00	5,146.36	5,148.88	5,148.48	18.21	77.62	137.87	-97.41	1,201.04	1,267.46	1,171.66	95.81	13.230		
5,200.00	5,196.15	5,198.77	5,198.35	18.39	78.36	137.96	-96.32	1,201.04	1,270.72	1,174.00	96.72	13.138		
5,250.00	5,245.94	5,248.66	5,248.23	18.57	79.10	138.04	-95.23	1,201.04	1,273.98	1,176.34	97.64	13.047		
5,300.00	5,295.73	5,298.55	5,298.11	18.75	79.85	138.13	-94.12	1,201.04	1,277.24	1,178.68	98.56	12.959		
5,350.00	5,345.52	5,348.44	5,347.99	18.93	80.59	138.22	-93.01	1,201.04	1,280.50	1,181.02	99.48	12.872		
5,400.00	5,395.31	5,398.33	5,397.87	19.10	81.33	138.30	-91.88	1,201.04	1,283.77	1,183.37	100.40	12.787		
5,450.00	5,445.10	5,448.23	5,447.75	19.28	82.07	138.39	-90.74	1,201.04	1,287.03	1,185.71	101.32	12.703		
5,500.00	5,494.89	5,498.12	5,497.63	19.46	82.81	138.47	-89.59	1,201.04	1,290.30	1,188.06	102.24	12.621		
5,550.00	5,544.68	5,548.02	5,547.51	19.64	83.55	138.56	-88.44	1,201.04	1,293.57	1,190.41	103.16	12.540		
5,600.00	5,594.47	5,597.91	5,597.40	19.82	84.30	138.64	-87.27	1,201.04	1,296.84	1,192.76	104.08	12.460		
5,650.00	5,644.26	5,647.81	5,647.28	20.00	85.04	138.72	-86.09	1,201.04	1,300.11	1,195.11	105.00	12.382		
5,700.00	5,694.05	5,697.71	5,697.17	20.18	85.78	138.80	-84.90	1,201.04	1,303.38	1,197.46	105.92	12.306		
5,750.00	5,743.85	5,747.61	5,747.05	20.36	86.52	138.88	-83.70	1,201.04	1,306.65	1,199.81	106.84	12.230		
5,800.00	5,793.64	5,797.51	5,796.94	20.53	87.27	138.96	-82.49	1,201.04	1,309.92	1,202.17	107.76	12.156		
5,850.00	5,843.43	5,847.41	5,846.82	20.71	88.01	139.04	-81.27	1,201.04	1,313.20	1,204.52	108.68	12.084		
5,900.00	5,893.22	5,897.31	5,896.71	20.89	88.75	139.12	-80.04	1,201.04	1,316.47	1,206.88	109.60	12.012		
5,950.00	5,943.01	5,947.22	5,946.60	21.07	89.49	139.19	-78.79	1,201.04	1,319.75	1,209.23	110.52	11.942		
6,000.00	5,992.80	5,997.12	5,996.49	21.25	90.24	139.27	-77.54	1,201.04	1,323.03	1,211.59	111.44	11.872		
6,050.00	6,042.59	6,047.03	6,046.38	21.43	90.98	139.34	-76.28	1,201.04	1,326.30	1,213.94	112.36	11.804		
6,100.00	6,092.38	6,096.93	6,096.27	21.61	91.72	139.42	-75.00	1,201.04	1,329.58	1,216.30	113.28	11.737		
6,150.00	6,142.17	6,146.84	6,146.16	21.79	92.47	139.49	-73.72	1,201.04	1,332.86	1,218.66	114.20	11.671		
6,200.00	6,191.96	6,196.75	6,196.05	21.97	93.21	139.56	-72.42	1,201.04	1,336.14	1,221.02	115.12	11.606		
6,250.00	6,241.75	6,246.66	6,245.94	22.15	93.95	139.64	-71.12	1,201.04	1,339.42	1,223.37	116.05	11.542		
6,300.00	6,291.54	6,296.57	6,295.83	22.33	94.70	139.71	-69.80	1,201.04	1,342.70	1,225.73	116.97	11.479		
6,350.00	6,341.33	6,346.48	6,345.72	22.51	95.44	139.78	-68.48	1,201.04	1,345.98	1,228.09	117.89	11.417		
6,400.00	6,391.12	6,396.39	6,395.62	22.69	96.18	139.85	-67.14	1,201.04	1,349.26	1,230.45	118.81	11.356		
6,450.00	6,440.91	6,446.30	6,445.51	22.87	96.93	139.91	-65.79	1,201.04	1,352.54	1,232.81	119.73	11.296		
6,500.00	6,490.71	6,496.21	6,495.41	23.05	97.67	139.98	-64.44	1,201.04	1,355.82	1,235.17	120.65	11.237		
6,550.00	6,540.50	6,546.13	6,545.30	23.23	98.41	140.05	-63.07	1,201.04	1,359.10	1,237.53	121.58	11.179		
6,600.00	6,590.29	6,596.04	6,595.20	23.41	99.16	140.11	-61.69	1,201.04	1,362.39	1,239.89	122.50	11.122		
6,650.00	6,640.08	6,645.96	6,645.10	23.59	99.90	140.18	-60.30	1,201.04	1,365.67	1,242.25	123.42	11.065		
6,700.00	6,689.87	6,695.88	6,694.99	23.76	100.65	140.24	-58.90	1,201.04	1,368.95	1,244.60	124.34	11.009		
6,750.00	6,739.66	6,745.79	6,744.89	23.94	101.39	140.31	-57.49	1,201.04	1,372.23	1,246.96	125.27	10.954		
6,800.00	6,789.45	6,795.71	6,794.79	24.12	102.13	140.37	-56.07	1,201.04	1,375.51	1,249.32	126.19	10.900		
6,850.00	6,839.24	6,845.63	6,844.69	24.30	102.88	140.43	-54.64	1,201.04	1,378.79	1,251.68	127.11	10.847		
6,900.00	6,889.03	6,895.55	6,894.59	24.48	103.62	140.50	-53.19	1,201.04	1,382.07	1,254.04	128.04	10.794		
6,950.00	6,938.82	6,945.47	6,944.49	24.66	104.37	140.56	-51.74	1,201.04	1,385.35	1,256.40	128.96	10.743		
7,000.00	6,988.61	6,995.40	6,994.39	24.84	105.11	140.62	-50.28	1,201.04	1,388.63	1,258.75	129.88	10.692		
7,050.00	7,038.40	7,045.32	7,044.29	25.02	105.86	140.68	-48.81	1,201.04	1,391.91	1,261.11	130.80	10.641		
7,100.00	7,088.19	7,095.24	7,094.19	25.20	106.60	140.74	-47.32	1,201.04	1,395.19	1,263.47	131.73	10.591		
7,150.00	7,137.98	7,145.17	7,144.09	25.38	107.35	140.79	-45.83	1,201.04	1,398.47	1,265.82	132.65	10.542		
7,200.00	7,187.78	7,195.09	7,194.00	25.56	108.09	140.85	-44.32	1,201.04	1,401.75	1,268.18	133.57	10.494		
7,250.00	7,237.57	7,245.02	7,243.90	25.74	108.83	140.91	-42.81	1,201.04	1,405.03	1,270.53	134.50	10.446		
7,300.00	7,287.36	7,294.95	7,293.80	25.92	109.58	140.97	-41.28	1,201.04	1,408.31	1,272.89	135.42	10.399		
7,350.00	7,337.15	7,344.87	7,343.71	26.10	110.32	141.02	-39.74	1,201.04	1,411.58	1,275.24	136.35	10.353		
7,400.00	7,386.94	7,394.80	7,393.61	26.28	111.07	141.08	-38.20	1,201.04	1,414.86	1,277.59	137.27	10.307		
7,450.00	7,436.73	7,444.73	7,443.52	26.46	111.81	141.13	-36.64	1,201.04	1,418.14	1,279.94	138.19	10.262		
7,500.00	7,486.52	7,494.66	7,493.42	26.64	112.56	141.18	-35.07	1,201.04	1,421.41	1,282.29	139.12	10.217		
7,550.00	7,536.31	7,544.59	7,543.33	26.82	113.30	141.24	-33.49	1,201.04	1,424.69	1,284.65	140.04	10.173		
7,600.00	7,586.10	7,594.53	7,593.24	27.01	114.05	141.29	-31.90	1,201.04	1,427.96	1,286.99	140.97	10.130		
7,650.00	7,635.89	7,644.46	7,643.14	27.19	114.79	141.34	-30.30	1,201.04	1,431.23	1,289.34	141.89	10.087		
7,700.00	7,685.68	7,694.39	7,693.05	27.37	115.54	141.39	-28.69	1,201.04	1,434.51	1,291.69	142.81	10.045		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
Sec 15-T23S-R31E - Todd 15 C Fed #003 (Active) - Wellbore #1 - No Surveys														Offset Well Error:	10.00 ft
Survey Program: 10-INC-ONLY															
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
7,750.00	7,735.47	7,744.33	7,742.96	27.55	116.28	141.44	-27.07	1,201.04	1,437.78	1,294.04	143.74	10.003			
7,800.00	7,785.26	7,794.26	7,792.87	27.73	117.03	141.49	-25.44	1,201.04	1,441.05	1,296.38	144.66	9.961			
7,850.00	7,835.05	7,844.20	7,842.78	27.91	117.77	141.54	-23.80	1,201.04	1,444.32	1,298.73	145.59	9.921			
7,900.00	7,884.84	7,894.13	7,892.69	28.09	118.52	141.59	-22.15	1,201.04	1,447.59	1,301.07	146.51	9.880			
7,950.00	7,934.64	7,944.07	7,942.60	28.27	119.27	141.64	-20.49	1,201.04	1,450.85	1,303.42	147.44	9.840			
8,000.00	7,984.43	7,994.01	7,992.51	28.45	120.01	141.68	-18.81	1,201.04	1,454.12	1,305.76	148.36	9.801			
8,050.00	8,034.22	8,043.95	8,042.42	28.63	120.76	141.73	-17.13	1,201.04	1,457.38	1,308.10	149.29	9.762			
8,100.00	8,084.01	8,093.89	8,092.33	28.81	121.50	141.78	-15.43	1,201.04	1,460.65	1,310.44	150.21	9.724			
8,150.00	8,133.80	8,143.83	8,142.24	28.99	122.25	141.82	-13.73	1,201.04	1,463.91	1,312.78	151.14	9.686			
8,200.00	8,183.59	8,193.77	8,192.15	29.17	122.99	141.86	-12.01	1,201.04	1,467.17	1,315.11	152.06	9.649			
8,250.00	8,233.38	8,243.71	8,242.06	29.35	123.74	141.91	-10.29	1,201.04	1,470.43	1,317.45	152.99	9.612			
8,300.00	8,283.17	8,293.65	8,291.97	29.53	124.48	141.95	-8.55	1,201.04	1,473.69	1,319.78	153.91	9.575			
8,350.00	8,332.96	8,343.60	8,341.89	29.71	125.23	142.00	-6.80	1,201.04	1,476.95	1,322.12	154.84	9.539			
8,400.00	8,382.75	8,393.54	8,391.80	29.89	125.98	142.04	-5.05	1,201.04	1,480.21	1,324.45	155.76	9.503			
8,450.00	8,432.54	8,443.49	8,441.71	30.07	126.72	142.08	-3.28	1,201.04	1,483.46	1,326.78	156.69	9.468			
8,500.00	8,482.33	8,493.43	8,491.63	30.25	127.47	142.12	-1.50	1,201.04	1,486.72	1,329.11	157.61	9.433			
8,550.00	8,532.12	8,543.38	8,541.54	30.43	128.21	142.16	0.29	1,201.04	1,489.97	1,331.43	158.54	9.398			
8,600.00	8,581.91	8,593.32	8,591.46	30.61	128.96	142.20	2.09	1,201.04	1,493.22	1,333.76	159.46	9.364			
8,650.00	8,631.71	8,643.27	8,641.37	30.79	129.70	142.24	3.90	1,201.04	1,496.47	1,336.08	160.39	9.330			
8,700.00	8,681.50	8,693.22	8,691.29	30.98	130.45	142.28	5.72	1,201.04	1,499.72	1,338.41	161.31	9.297 SF			

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore:	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Sec 15-T23S-R31E - Todd 15 D Fed #004 (P&A) - Wellbore #1 - Inc Only Surveys													Offset Well Error:	10.00 ft
Survey Program: 262-INC-ONLY														
Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.50	10.00	140.73	-258.84	211.64	334.45					
50.00	50.00	42.14	42.14	0.50	10.01	140.72	-258.80	211.64	334.31	323.80	10.51	31.809		
100.00	100.00	92.80	92.80	0.52	10.04	140.71	-258.63	211.64	334.18	323.63	10.56	31.658		
150.00	150.00	143.45	143.45	0.59	10.09	140.67	-258.33	211.64	333.95	323.27	10.68	31.265		
200.00	200.00	194.10	194.10	0.70	10.17	140.63	-257.90	211.64	333.63	322.76	10.87	30.698		
250.00	250.00	244.75	244.75	0.84	10.26	140.57	-257.34	211.64	333.20	322.11	11.10	30.019		
300.00	300.00	295.13	295.11	0.99	10.48	140.49	-256.68	211.64	332.70	321.23	11.47	29.008		
350.00	350.00	345.35	345.34	1.15	10.83	140.42	-255.97	211.64	332.15	320.17	11.98	27.727		
400.00	400.00	395.58	395.56	1.31	11.27	140.33	-255.22	211.64	331.57	318.99	12.58	26.363		
450.00	450.00	445.81	445.78	1.48	11.78	140.24	-254.41	211.64	330.96	317.70	13.25	24.973		
500.00	500.00	496.03	496.00	1.65	12.35	140.15	-253.56	211.64	330.31	316.31	14.00	23.602		
550.00	550.00	546.79	546.75	1.82	13.08	140.04	-252.61	211.64	329.59	314.69	14.90	22.124		
600.00	600.00	597.61	597.56	1.99	13.89	139.92	-251.49	211.64	328.75	312.87	15.88	20.703		
650.00	650.00	648.43	648.35	2.17	14.75	139.77	-250.21	211.64	327.78	310.86	16.92	19.376		
700.00	700.00	699.23	699.14	2.34	15.66	139.61	-248.75	211.64	326.69	308.69	18.00	18.149		
750.00	750.00	749.71	749.59	2.52	16.75	139.43	-247.17	211.64	325.49	306.23	19.26	16.896		
800.00	800.00	800.15	800.01	2.69	17.90	139.24	-245.49	211.64	324.23	303.85	20.58	15.754		
850.00	850.00	849.73	849.56	2.87	18.98	139.04	-243.80	211.64	322.94	301.10	21.84	14.785		
900.00	900.00	898.85	898.65	3.04	20.04	138.86	-242.29	211.64	321.78	298.70	23.08	13.942		
950.00	950.00	947.98	947.76	3.22	21.12	138.71	-240.95	211.64	320.75	296.42	24.34	13.180		
1,000.00	1,000.00	997.12	996.89	3.40	22.21	138.57	-239.78	211.64	319.86	294.25	25.61	12.489		
1,050.00	1,050.00	1,075.99	1,045.77	3.58	23.95	138.45	-238.78	211.64	319.09	291.57	27.52	11.594		
1,100.00	1,100.00	1,096.00	1,095.75	3.75	24.33	138.34	-237.90	211.64	318.44	290.36	28.08	11.338		
1,150.00	1,150.00	1,145.99	1,145.74	3.93	25.30	138.24	-237.03	211.64	317.79	288.56	29.23	10.871		
1,200.00	1,200.00	1,195.99	1,195.72	4.11	26.28	138.13	-236.16	211.64	317.14	286.75	30.39	10.437		
1,250.00	1,250.00	1,245.98	1,245.71	4.29	27.26	138.03	-235.29	211.64	316.49	284.94	31.55	10.032		
1,300.00	1,300.00	1,295.97	1,295.69	4.47	28.25	137.92	-234.41	211.64	315.84	283.13	32.71	9.655		
1,350.00	1,350.00	1,345.96	1,345.68	4.64	29.24	137.82	-233.54	211.64	315.19	281.31	33.89	9.302		
1,400.00	1,400.00	1,395.96	1,395.66	4.82	30.24	137.71	-232.67	211.64	314.55	279.49	35.06	8.971		
1,450.00	1,450.00	1,445.95	1,445.65	5.00	31.24	137.60	-231.80	211.64	313.90	277.66	36.24	8.661		
1,500.00	1,500.00	1,495.94	1,495.63	5.18	32.25	137.50	-230.92	211.64	313.26	275.83	37.43	8.370		
1,550.00	1,550.00	1,546.00	1,545.68	5.36	33.29	137.39	-230.05	211.64	312.61	273.97	38.64	8.090		
1,600.00	1,600.00	1,596.20	1,595.88	5.54	34.40	137.27	-229.13	211.64	311.95	272.02	39.93	7.812		
1,650.00	1,650.00	1,646.41	1,646.07	5.71	35.51	137.15	-228.17	211.64	311.24	270.02	41.22	7.550		
1,700.00	1,700.00	1,696.61	1,696.27	5.89	36.63	137.03	-227.17	211.64	310.51	267.99	42.52	7.303		
1,750.00	1,750.00	1,746.81	1,746.46	6.07	37.75	136.89	-226.11	211.64	309.74	265.93	43.81	7.069		
1,800.00	1,800.00	1,797.01	1,796.64	6.25	38.87	136.75	-225.01	211.64	308.94	263.83	45.11	6.848		
1,850.00	1,850.00	1,847.21	1,846.83	6.43	39.99	136.61	-223.86	211.64	308.11	261.69	46.42	6.638		
1,900.00	1,900.00	1,897.40	1,897.01	6.61	41.12	136.46	-222.67	211.64	307.25	259.53	47.72	6.438		
1,950.00	1,950.00	1,947.59	1,947.18	6.79	42.25	136.30	-221.43	211.64	306.35	257.32	49.03	6.249		
2,000.00	2,000.00	1,997.78	1,997.36	6.96	43.38	136.13	-220.14	211.64	305.42	255.09	50.33	6.068		
2,050.00	2,050.00	2,047.97	2,047.53	7.14	44.51	135.95	-218.80	211.64	304.47	252.82	51.64	5.896		
2,100.00	2,100.00	2,097.76	2,097.30	7.32	45.82	135.79	-217.52	211.64	303.54	250.41	53.14	5.713		
2,150.00	2,150.00	2,147.74	2,147.26	7.50	47.05	135.61	-216.21	211.64	302.60	248.06	54.54	5.548		
2,200.00	2,200.00	2,197.72	2,197.23	7.68	48.28	135.44	-214.90	211.64	301.67	245.72	55.95	5.392		
2,250.00	2,250.00	2,247.71	2,247.19	7.86	49.51	135.26	-213.60	211.64	300.74	243.38	57.36	5.243		
2,300.00	2,300.00	2,297.69	2,297.16	8.04	50.74	135.09	-212.29	211.64	299.81	241.04	58.77	5.102		
2,350.00	2,350.00	2,347.67	2,347.12	8.22	51.97	134.91	-210.98	211.64	298.88	238.71	60.18	4.967 Alert		
2,400.00	2,400.00	2,397.65	2,397.09	8.40	53.20	134.73	-209.67	211.64	297.96	236.37	61.59	4.838 Alert		
2,450.00	2,450.00	2,447.64	2,447.06	8.57	54.44	134.55	-208.36	211.64	297.04	234.04	63.00	4.715 Alert		
2,500.00	2,500.00	2,498.12	2,497.52	8.75	55.96	134.37	-207.01	211.64	296.10	231.40	64.70	4.576 Alert		
2,550.00	2,550.00	2,549.07	2,548.44	8.93	57.76	134.15	-205.43	211.64	295.02	228.35	66.67	4.425 Alert		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
Sec 15-T23S-R31E - Todd 15 D Fed #004 (P&A) - Wellbore #1 - Inc Only Surveys														Offset Well Error:	10.00 ft
Survey Program: 262-INC-ONLY															
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
2,600.00	2,600.00	2,600.00	2,599.34	9.11	59.55	133.89	-203.62	211.64	293.78	225.14	68.64	4.280	Alert		
2,650.00	2,650.00	2,650.91	2,650.22	9.29	61.35	133.60	-201.56	211.64	292.39	221.78	70.61	4.141	Alert		
2,700.00	2,700.00	2,701.81	2,701.06	9.47	63.15	133.28	-199.27	211.64	290.84	218.26	72.58	4.007	Alert		
2,750.00	2,750.00	2,752.68	2,751.86	9.65	64.95	132.91	-196.74	211.64	289.14	214.59	74.55	3.879	Alert		
2,800.00	2,800.00	2,803.52	2,802.63	9.83	66.74	132.51	-193.97	211.64	287.29	210.77	76.52	3.755	Alert		
2,850.00	2,850.00	2,854.34	2,853.36	10.01	68.54	132.06	-190.96	211.64	285.30	206.81	78.48	3.635	Alert		
2,900.00	2,900.00	2,905.13	2,904.05	10.19	70.34	131.57	-187.72	211.64	283.17	202.72	80.45	3.520	Alert		
2,950.00	2,950.00	2,955.89	2,954.69	10.36	72.14	131.04	-184.25	211.64	280.90	198.49	82.42	3.408	Alert		
3,000.00	3,000.00	3,005.11	3,003.80	10.54	74.53	130.52	-180.89	211.64	278.68	193.68	85.00	3.279	Alert		
3,050.00	3,050.00	3,054.64	3,053.21	10.72	76.81	130.00	-177.61	211.64	276.53	189.07	87.46	3.162	Alert		
3,100.00	3,100.00	3,103.09	3,101.57	10.90	78.83	129.53	-174.66	211.64	274.58	184.91	89.67	3.062	Alert		
3,150.00	3,150.00	3,151.93	3,150.35	11.08	80.73	129.11	-172.05	211.64	272.89	181.13	91.76	2.974	Alert		
3,200.00	3,200.00	3,201.22	3,199.57	11.26	82.41	128.72	-169.65	211.64	271.35	177.72	93.63	2.898	Alert		
3,250.00	3,250.00	3,250.52	3,248.82	11.44	84.10	128.35	-167.43	211.64	269.95	174.45	95.50	2.827	Alert		
3,300.00	3,300.00	3,299.83	3,298.10	11.62	85.79	128.01	-165.39	211.64	268.68	171.30	97.38	2.759	Alert		
3,350.00	3,350.00	3,349.17	3,347.40	11.80	87.48	127.70	-163.55	211.64	267.53	168.28	99.25	2.696	Alert		
3,400.00	3,400.00	3,399.47	3,397.67	11.98	89.15	127.39	-161.74	211.64	266.43	165.33	101.10	2.635	Alert		
3,450.00	3,450.00	3,449.91	3,448.07	12.15	90.83	127.05	-159.77	211.64	265.25	162.30	102.95	2.577	Alert		
3,500.00	3,500.00	3,500.34	3,498.46	12.33	92.50	126.68	-157.66	211.64	263.99	159.19	104.80	2.519	Alert		
3,550.00	3,550.00	3,550.76	3,548.82	12.51	94.17	126.29	-155.39	211.64	262.66	156.01	106.65	2.463	Minor Risk		
3,600.00	3,600.00	3,600.60	3,598.61	12.69	95.80	125.87	-153.05	211.64	261.27	152.81	108.46	2.409	Minor Risk		
3,650.00	3,650.00	3,649.86	3,647.82	12.87	97.38	125.49	-150.90	211.64	260.00	149.78	110.22	2.359	Minor Risk		
3,700.00	3,700.00	3,699.13	3,697.06	13.05	98.96	125.15	-148.99	211.64	258.88	146.89	111.99	2.312	Minor Risk		
3,750.00	3,750.00	3,748.42	3,746.31	13.23	100.55	124.84	-147.30	211.64	257.89	144.14	113.76	2.267	Minor Risk		
3,800.00	3,800.00	3,798.49	3,796.36	13.41	102.16	124.55	-145.72	211.64	257.00	141.45	115.54	2.224	Minor Risk		
3,850.00	3,850.00	3,848.91	3,846.75	13.59	103.78	124.23	-144.00	211.64	256.03	138.69	117.34	2.182	Minor Risk		
3,900.00	3,900.00	3,899.32	3,897.13	13.77	105.40	123.88	-142.12	211.64	254.98	135.85	119.13	2.140	Minor Risk		
3,950.00	3,950.00	3,949.71	3,947.48	13.95	107.02	123.50	-140.08	211.64	253.86	132.93	120.93	2.099	Minor Risk		
4,000.00	4,000.00	4,000.10	3,997.82	14.12	108.64	123.09	-137.89	211.64	252.67	129.94	122.72	2.059	Minor Risk		
4,050.00	4,050.00	4,050.48	4,048.14	14.30	110.26	123.66	-135.54	211.64	251.67	127.15	124.52	2.021	Minor Risk		
4,100.00	4,099.99	4,099.90	4,097.51	14.48	111.91	123.88	-133.27	211.64	251.21	124.86	126.35	1.988	Minor Risk		
4,110.80	4,110.79	4,110.59	4,108.19	14.52	112.27	123.81	-132.81	211.64	251.20	124.45	126.75	1.982	Minor Risk, CC		
4,150.00	4,149.97	4,149.38	4,146.95	14.66	113.56	123.57	-131.18	211.64	251.39	123.20	128.19	1.961	Minor Risk		
4,200.00	4,199.94	4,198.87	4,196.41	14.84	115.21	123.32	-129.27	211.64	252.19	122.17	130.02	1.940	Minor Risk		
4,250.00	4,249.88	4,248.64	4,246.14	15.01	116.81	123.15	-127.51	211.64	253.60	121.80	131.80	1.924	Minor Risk, ES		
4,300.00	4,299.79	4,298.66	4,296.13	15.19	118.37	123.01	-125.74	211.64	255.53	122.00	133.53	1.914	Minor Risk		
4,350.00	4,349.66	4,348.65	4,346.09	15.37	119.92	122.90	-123.96	211.64	257.97	122.71	135.26	1.907	Minor Risk		
4,400.00	4,399.49	4,398.62	4,396.03	15.54	121.47	122.83	-122.15	211.64	260.92	123.93	136.98	1.905	Minor Risk, SF		
4,450.00	4,449.29	4,448.57	4,445.94	15.72	123.02	122.79	-120.32	211.64	264.27	125.56	138.71	1.905	Minor Risk		
4,500.00	4,499.08	4,498.52	4,495.85	15.90	124.57	122.76	-118.46	211.64	267.66	127.22	140.44	1.906	Minor Risk		
4,550.00	4,548.87	4,548.46	4,545.76	16.08	126.12	122.72	-116.59	211.64	271.03	128.87	142.16	1.906	Minor Risk		
4,600.00	4,598.66	4,598.41	4,595.68	16.25	127.67	122.68	-114.69	211.64	274.39	130.50	143.89	1.907	Minor Risk		
4,650.00	4,648.45	4,648.36	4,645.59	16.43	129.22	122.64	-112.77	211.64	277.74	132.12	145.62	1.907	Minor Risk		
4,700.00	4,698.24	4,698.31	4,695.50	16.61	130.77	122.59	-110.83	211.64	281.08	133.74	147.34	1.908	Minor Risk		
4,750.00	4,748.03	4,748.26	4,745.42	16.79	132.32	122.55	-108.87	211.64	284.41	135.34	149.07	1.908	Minor Risk		
4,800.00	4,797.82	4,797.68	4,794.79	16.96	133.77	122.52	-107.05	211.64	287.80	137.10	150.69	1.910	Minor Risk		
4,850.00	4,847.61	4,847.27	4,844.35	17.14	135.25	122.47	-105.30	211.64	291.23	138.87	152.35	1.912	Minor Risk		
4,900.00	4,897.40	4,898.85	4,893.91	17.32	136.73	122.43	-103.65	211.64	294.71	140.69	154.01	1.913	Minor Risk		
4,950.00	4,947.19	4,946.45	4,943.49	17.50	138.21	122.39	-102.09	211.64	298.24	142.57	155.67	1.916	Minor Risk		
5,000.00	4,996.98	4,996.40	4,993.41	17.68	139.64	122.35	-100.55	211.64	301.78	144.50	157.28	1.919	Minor Risk		
5,050.00	5,046.78	5,046.35	5,043.33	17.85	141.07	122.31	-98.99	211.64	305.32	146.43	158.89	1.922	Minor Risk		
5,100.00	5,096.57	5,096.29	5,093.26	18.03	142.50	122.27	-97.40	211.64	308.84	148.34	160.50	1.924	Minor Risk		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore:	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error: 0.00 ft	
Sec 15-T23S-R31E - Todd 15 D Fed #004 (P&A) - Wellbore #1 - Inc Only Surveys													Offset Well Error: 10.00 ft	
Survey Program: 262-INC-ONLY														
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,150.00	5,146.36	5,146.24	5,143.18	18.21	143.94	161.80	-95.80	211.64	312.35	150.25	162.10	1.927	Minor Risk	
5,200.00	5,196.15	5,196.20	5,193.11	18.39	145.37	161.61	-94.17	211.64	315.85	152.13	163.71	1.929	Minor Risk	
5,250.00	5,245.94	5,246.15	5,243.03	18.57	146.80	161.61	-92.51	211.64	319.33	154.01	165.32	1.932	Minor Risk	
5,300.00	5,295.73	5,296.11	5,292.96	18.75	148.23	161.61	-90.83	211.64	322.81	155.88	166.93	1.934	Minor Risk	
5,350.00	5,345.52	5,346.06	5,342.89	18.93	149.67	161.61	-89.13	211.64	326.27	157.73	168.54	1.936	Minor Risk	
5,400.00	5,395.31	5,396.02	5,392.82	19.10	151.10	161.61	-87.41	211.64	329.72	159.57	170.15	1.938	Minor Risk	
5,450.00	5,445.10	5,445.98	5,442.75	19.28	152.61	161.60	-85.66	211.64	333.16	161.32	171.84	1.939	Minor Risk	
5,500.00	5,494.89	5,495.95	5,492.68	19.46	154.16	161.58	-83.89	211.64	336.59	163.02	173.57	1.939	Minor Risk	
5,550.00	5,544.68	5,545.91	5,542.61	19.64	155.72	161.57	-82.10	211.64	340.00	164.70	175.30	1.940	Minor Risk	
5,600.00	5,594.47	5,595.88	5,592.54	19.82	157.27	161.55	-80.28	211.64	343.41	166.38	177.03	1.940	Minor Risk	
5,650.00	5,644.26	5,645.84	5,642.48	20.00	158.82	161.53	-78.44	211.64	346.80	168.04	178.76	1.940	Minor Risk	
5,700.00	5,694.05	5,695.81	5,692.41	20.18	160.38	161.50	-76.58	211.64	350.18	169.69	180.49	1.940	Minor Risk	
5,750.00	5,743.85	5,745.78	5,742.35	20.36	161.93	161.47	-74.69	211.64	353.55	171.32	182.22	1.940	Minor Risk	
5,800.00	5,793.64	5,795.75	5,792.28	20.53	163.49	161.44	-72.79	211.64	356.90	172.95	183.95	1.940	Minor Risk	
5,850.00	5,843.43	5,845.73	5,842.22	20.71	165.04	161.41	-70.85	211.64	360.25	174.56	185.69	1.940	Minor Risk	
5,900.00	5,893.22	5,895.70	5,892.15	20.89	166.59	161.38	-68.90	211.64	363.58	176.16	187.42	1.940	Minor Risk	
5,950.00	5,943.01	5,945.57	5,941.98	21.07	168.22	161.34	-66.94	211.64	366.91	177.69	189.22	1.939	Minor Risk	
6,000.00	5,992.80	5,995.46	5,991.83	21.25	169.83	161.31	-64.98	211.64	370.24	179.22	191.01	1.938	Minor Risk	
6,050.00	6,042.59	6,045.35	6,041.68	21.43	171.45	161.27	-63.02	211.64	373.57	180.76	192.80	1.938	Minor Risk	
6,100.00	6,092.38	6,095.24	6,091.53	21.61	173.06	161.24	-61.07	211.64	376.90	182.30	194.59	1.937	Minor Risk	
6,150.00	6,142.17	6,145.12	6,141.38	21.79	174.67	161.21	-59.11	211.64	380.23	183.84	196.39	1.936	Minor Risk	
6,200.00	6,191.96	6,195.01	6,191.23	21.97	176.28	161.17	-57.15	211.64	383.56	185.38	198.18	1.935	Minor Risk	
6,250.00	6,241.75	6,244.90	6,241.08	22.15	177.90	161.14	-55.19	211.64	386.89	186.92	199.97	1.935	Minor Risk	
6,300.00	6,291.54	6,294.79	6,290.93	22.33	179.51	161.11	-53.23	211.64	390.22	188.45	201.76	1.934	Minor Risk	
6,350.00	6,341.33	6,344.68	6,340.78	22.51	181.12	161.08	-51.27	211.64	393.55	189.99	203.55	1.933	Minor Risk	
6,400.00	6,391.12	6,394.57	6,390.63	22.69	182.74	161.05	-49.31	211.64	396.88	191.53	205.34	1.933	Minor Risk	
6,450.00	6,440.91	6,444.12	6,440.15	22.87	184.12	161.03	-47.44	211.64	400.24	193.33	206.91	1.934	Minor Risk	
6,500.00	6,490.71	6,493.81	6,489.81	23.05	185.61	161.01	-45.60	211.64	403.63	195.05	208.58	1.935	Minor Risk	
6,550.00	6,540.50	6,543.51	6,539.47	23.23	187.09	161.00	-43.80	211.64	407.04	196.79	210.24	1.936	Minor Risk	
6,600.00	6,590.29	6,593.20	6,589.13	23.41	188.58	161.00	-42.05	211.64	410.47	198.56	211.91	1.937	Minor Risk	
6,650.00	6,640.08	6,642.89	6,638.79	23.59	190.07	161.00	-40.34	211.64	413.92	200.35	213.58	1.938	Minor Risk	
6,700.00	6,689.87	6,692.57	6,688.45	23.76	191.55	161.01	-38.68	211.64	417.40	202.16	215.24	1.939	Minor Risk	
6,750.00	6,739.66	6,742.25	6,738.10	23.94	193.04	161.02	-37.06	211.64	420.90	203.99	216.91	1.940	Minor Risk	
6,800.00	6,789.45	6,792.04	6,787.63	24.12	194.57	161.03	-35.49	211.64	424.42	204.00	220.42	1.925	Minor Risk	
6,850.00	6,839.24	6,841.67	6,837.48	24.30	195.97	161.06	-33.96	211.64	427.97	207.77	220.20	1.944	Minor Risk	
6,900.00	6,889.03	6,891.55	6,887.33	24.48	197.34	161.08	-32.44	211.64	431.52	209.77	221.75	1.946	Minor Risk	
6,950.00	6,938.82	6,941.42	6,937.18	24.66	198.71	161.10	-30.92	211.64	435.08	211.77	223.30	1.948	Minor Risk	
7,000.00	6,988.61	6,991.29	6,987.03	24.84	200.08	161.12	-29.39	211.64	438.63	213.78	224.85	1.951	Minor Risk	
7,050.00	7,038.40	7,041.17	7,036.88	25.02	201.46	161.14	-27.87	211.64	442.18	215.78	226.40	1.953	Minor Risk	
7,100.00	7,088.19	7,091.04	7,086.73	25.20	202.83	161.16	-26.35	211.64	445.73	217.78	227.95	1.955	Minor Risk	
7,150.00	7,137.98	7,140.91	7,136.58	25.38	204.20	161.19	-24.83	211.64	449.28	219.78	229.50	1.958	Minor Risk	
7,200.00	7,187.78	7,190.79	7,186.43	25.56	205.57	161.21	-23.30	211.64	452.83	221.78	231.05	1.960	Minor Risk	
7,250.00	7,237.57	7,240.66	7,236.28	25.74	206.94	161.23	-21.78	211.64	456.39	223.78	232.60	1.962	Minor Risk	
7,300.00	7,287.36	7,290.53	7,286.13	25.92	208.31	161.25	-20.26	211.64	459.94	225.79	234.15	1.964	Minor Risk	
7,350.00	7,337.15	7,340.56	7,336.13	26.10	209.74	161.26	-18.71	211.64	463.48	227.72	235.76	1.966	Minor Risk	
7,400.00	7,386.94	7,390.60	7,386.15	26.28	211.18	161.28	-17.14	211.64	467.01	229.63	237.38	1.967	Minor Risk	
7,450.00	7,436.73	7,440.64	7,436.16	26.46	212.62	161.29	-15.52	211.64	470.52	231.53	238.99	1.969	Minor Risk	
7,500.00	7,486.52	7,490.69	7,486.18	26.64	214.05	161.29	-13.88	211.64	474.01	233.40	240.61	1.970	Minor Risk	
7,550.00	7,536.31	7,540.74	7,536.20	26.82	215.49	161.30	-12.19	211.64	477.48	235.26	242.22	1.971	Minor Risk	
7,600.00	7,586.10	7,590.79	7,586.22	27.01	216.93	161.30	-10.48	211.64	480.94	237.10	243.84	1.972	Minor Risk	
7,650.00	7,635.89	7,640.84	7,636.24	27.19	218.36	161.29	-8.73	211.64	484.38	238.92	245.45	1.973	Minor Risk	
7,700.00	7,685.68	7,689.91	7,685.28	27.37	219.78	161.30	-7.13	211.64	487.88	241.13	246.75	1.977	Minor Risk	

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error: 0.00 ft		
Sec 15-T23S-R31E - Todd 15 D Fed #004 (P&A) - Wellbore #1 - Inc Only Surveys														Offset Well Error: 10.00 ft		
Survey Program: 262-INC-ONLY																
Reference		Offset		Semi Major Axis		Distance										Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
7,750.00	7,735.47	7,739.35	7,734.70	27.55	220.72	161.31	-5.59	211.64	491.41	243.24	248.17	1.980	Minor Risk			
7,800.00	7,785.26	7,788.78	7,784.11	27.73	221.96	161.34	-4.13	211.64	494.99	245.40	249.59	1.983	Minor Risk			
7,850.00	7,835.05	7,838.21	7,833.52	27.91	223.20	161.37	-2.76	211.64	498.62	247.60	251.02	1.986	Minor Risk			
7,900.00	7,884.84	7,887.63	7,882.93	28.09	224.43	161.41	-1.48	211.64	502.29	249.85	252.44	1.990	Minor Risk			
7,950.00	7,934.64	7,937.04	7,932.33	28.27	225.67	161.45	-0.28	211.64	506.00	252.14	253.86	1.993	Minor Risk			
8,000.00	7,984.43	7,986.45	7,981.72	28.45	226.91	161.51	0.84	211.64	509.75	254.48	255.28	1.997	Minor Risk			
8,050.00	8,034.22	8,035.85	8,031.10	28.63	228.15	161.57	1.87	211.64	513.56	256.86	256.70	2.001	Minor Risk			
8,100.00	8,084.01	8,085.24	8,080.48	28.81	229.39	161.64	2.81	211.64	517.40	259.29	258.12	2.005	Minor Risk			
8,150.00	8,133.80	8,135.47	8,130.71	28.99	230.58	161.71	3.73	211.64	521.27	261.78	259.49	2.009	Minor Risk			
8,200.00	8,183.59	8,186.45	8,181.68	29.17	231.74	161.77	4.84	211.64	525.05	264.23	260.82	2.013	Minor Risk			
8,250.00	8,233.38	8,215.00	8,210.22	29.35	232.38	161.79	5.55	211.64	529.19	267.66	261.53	2.023	Minor Risk			
8,300.00	8,283.17	8,215.00	8,210.22	29.53	232.38	161.79	5.55	211.64	537.22	277.31	259.91	2.067	Minor Risk			
8,350.00	8,332.96	8,215.00	8,210.22	29.71	232.38	161.79	5.55	211.64	549.70	293.37	256.33	2.145	Minor Risk			
8,400.00	8,382.75	8,215.00	8,210.22	29.89	232.38	161.79	5.55	211.64	566.34	315.20	251.14	2.255	Minor Risk			
8,450.00	8,432.54	8,215.00	8,210.22	30.07	232.38	161.79	5.55	211.64	586.78	342.05	244.73	2.398	Minor Risk			
8,500.00	8,482.33	8,215.00	8,210.22	30.25	232.38	161.79	5.55	211.64	610.63	373.14	237.49	2.571	Alert			
8,550.00	8,532.12	8,215.00	8,210.22	30.43	232.38	161.79	5.55	211.64	637.53	407.75	229.77	2.775	Alert			
8,600.00	8,581.91	8,215.00	8,210.22	30.61	232.38	161.79	5.55	211.64	667.09	445.23	221.86	3.007	Alert			
8,650.00	8,631.71	8,215.00	8,210.22	30.79	232.38	161.79	5.55	211.64	698.98	485.02	213.96	3.267	Alert			
8,700.00	8,681.50	8,215.00	8,210.22	30.98	232.38	161.79	5.55	211.64	732.90	526.65	206.25	3.554	Alert			
8,750.00	8,731.29	8,215.00	8,210.22	31.16	232.38	161.79	5.55	211.64	768.57	569.76	198.81	3.866	Alert			
8,800.00	8,781.08	8,215.00	8,210.22	31.34	232.38	161.79	5.55	211.64	805.77	614.04	191.73	4.203	Alert			
8,850.00	8,830.87	8,215.00	8,210.22	31.52	232.38	161.79	5.55	211.64	844.29	659.26	185.03	4.563	Alert			
8,900.00	8,880.66	8,215.00	8,210.22	31.70	232.38	161.79	5.55	211.64	883.97	705.23	178.73	4.946	Alert			
8,950.00	8,930.45	8,215.00	8,210.22	31.88	232.38	161.79	5.55	211.64	924.64	751.81	172.83	5.350				
9,000.00	8,980.24	8,215.00	8,210.22	32.06	232.38	161.79	5.55	211.64	966.19	798.88	167.31	5.775				
9,050.00	9,030.03	8,215.00	8,210.22	32.24	232.38	161.79	5.55	211.64	1,008.51	846.34	162.17	6.219				
9,100.00	9,079.83	8,215.00	8,210.22	32.42	232.38	161.96	5.55	211.64	1,051.47	894.11	157.36	6.682				
9,150.00	9,129.67	8,215.00	8,210.22	32.60	232.38	162.36	5.55	211.64	1,094.78	941.99	152.79	7.165				
9,200.00	9,179.56	8,215.00	8,210.22	32.78	232.38	162.76	5.55	211.64	1,138.34	989.90	148.43	7.669				
9,250.00	9,229.49	8,215.00	8,210.22	32.96	232.38	163.16	5.55	211.64	1,182.11	1,037.84	144.27	8.194				
9,300.00	9,279.45	8,215.00	8,210.22	33.14	232.38	163.55	5.55	211.64	1,226.07	1,085.79	140.28	8.740				
9,350.00	9,329.43	8,215.00	8,210.22	33.32	232.38	163.95	5.55	211.64	1,270.19	1,133.74	136.45	9.309				
9,400.00	9,379.43	8,215.00	8,210.22	33.50	232.38	164.34	5.55	211.64	1,314.45	1,181.67	132.78	9.899				
9,450.00	9,429.43	8,215.00	8,210.22	33.68	232.38	123.95	5.55	211.64	1,358.85	1,229.59	129.26	10.513				
9,500.00	9,479.43	8,215.00	8,210.22	33.85	232.38	123.95	5.55	211.64	1,403.58	1,277.64	125.94	11.145				
9,550.00	9,529.43	8,215.00	8,210.22	34.03	232.38	123.95	5.55	211.64	1,448.66	1,325.84	122.82	11.795				
9,600.00	9,579.43	8,215.00	8,210.22	34.21	232.38	123.95	5.55	211.64	1,494.06	1,374.16	119.89	12.461				

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error: 0.50 ft	
Survey Program: 100-GYRO-NS-CT, 10741-MWD+IGRF													Offset Well Error: 0.50 ft	
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
19,900.00	10,330.00	16,050.00	11,396.51	81.10	99.63	-173.17	-10,494.67	-114.27	1,489.30	1,381.95	107.36	13.873		
19,950.00	10,330.00	16,050.00	11,396.51	81.44	99.63	-173.17	-10,494.67	-114.27	1,454.48	1,345.87	108.61	13.392		
20,000.00	10,330.00	16,050.00	11,396.51	81.78	99.63	-173.17	-10,494.67	-114.27	1,420.56	1,310.65	109.91	12.925		
20,050.00	10,330.00	16,050.00	11,396.51	82.13	99.63	-173.17	-10,494.67	-114.27	1,387.61	1,276.37	111.25	12.473		
20,100.00	10,330.00	16,050.00	11,396.51	82.47	99.63	-173.17	-10,494.67	-114.27	1,355.71	1,243.09	112.62	12.037		
20,150.00	10,330.00	16,050.00	11,396.51	82.81	99.63	-173.17	-10,494.67	-114.27	1,324.93	1,210.89	114.04	11.618		
20,200.00	10,330.00	16,050.00	11,396.51	83.16	99.63	-173.17	-10,494.67	-114.27	1,295.34	1,179.87	115.48	11.217		
20,250.00	10,330.00	16,050.00	11,396.51	83.50	99.63	-173.17	-10,494.67	-114.27	1,267.04	1,150.11	116.94	10.835		
20,300.00	10,330.00	16,050.00	11,396.51	83.85	99.63	-173.17	-10,494.67	-114.27	1,240.11	1,121.70	118.41	10.473		
20,350.00	10,330.00	16,050.00	11,396.51	84.19	99.63	-173.17	-10,494.67	-114.27	1,214.64	1,094.76	119.89	10.132		
20,400.00	10,330.00	16,050.00	11,396.51	84.54	99.63	-173.17	-10,494.67	-114.27	1,190.73	1,069.38	121.35	9.812		
20,450.00	10,330.00	16,050.00	11,396.51	84.88	99.63	-173.17	-10,494.67	-114.27	1,168.47	1,045.67	122.80	9.515		
20,500.00	10,330.00	16,050.00	11,396.51	85.23	99.63	-173.17	-10,494.67	-114.27	1,147.96	1,023.75	124.21	9.242		
20,550.00	10,330.00	16,050.00	11,396.51	85.58	99.63	-173.17	-10,494.67	-114.27	1,129.28	1,003.72	125.56	8.994		
20,600.00	10,330.00	16,050.00	11,396.51	85.92	99.63	-173.17	-10,494.67	-114.27	1,112.55	985.71	126.84	8.771		
20,650.00	10,330.00	16,050.00	11,396.51	86.27	99.63	-173.17	-10,494.67	-114.27	1,097.84	969.80	128.04	8.574		
20,700.00	10,330.00	16,050.00	11,396.51	86.62	99.63	-173.17	-10,494.67	-114.27	1,085.23	956.11	129.12	8.405		
20,750.00	10,330.00	16,050.00	11,396.51	86.97	99.63	-173.17	-10,494.67	-114.27	1,074.81	944.72	130.08	8.262		
20,800.00	10,330.00	16,050.00	11,396.51	87.31	99.63	-173.17	-10,494.67	-114.27	1,066.62	935.72	130.90	8.148		
20,850.00	10,330.00	16,050.00	11,396.51	87.66	99.63	-173.17	-10,494.67	-114.27	1,060.74	929.17	131.57	8.062		
20,900.00	10,330.00	16,050.00	11,396.51	88.01	99.63	-173.17	-10,494.67	-114.27	1,057.19	925.11	132.08	8.004		
20,950.00	10,330.00	16,050.00	11,396.51	88.36	99.63	-173.17	-10,494.67	-114.27	1,056.00	923.59	132.41	7.976		
20,950.19	10,330.00	16,050.00	11,396.51	88.36	99.63	-173.17	-10,494.67	-114.27	1,056.00	923.59	132.41	7.975		
21,000.00	10,330.00	16,045.40	11,396.73	88.71	99.55	-173.19	-10,499.26	-114.43	1,057.16	924.61	132.55	7.976		
21,050.00	10,330.00	15,999.07	11,398.92	89.06	98.73	-173.30	-10,545.51	-116.01	1,059.29	926.74	132.55	7.992		
21,100.00	10,330.00	15,932.16	11,401.80	89.41	97.55	-173.45	-10,612.32	-118.19	1,061.20	928.69	132.51	8.008		
21,150.00	10,330.00	15,869.43	11,403.54	89.76	96.45	-173.58	-10,675.01	-119.92	1,062.39	929.91	132.48	8.019		
21,200.00	10,330.00	15,807.31	11,404.58	90.11	95.35	-173.69	-10,737.10	-121.59	1,063.04	930.60	132.44	8.026		
21,250.00	10,330.00	15,740.17	11,404.74	90.46	94.18	-173.81	-10,804.21	-123.38	1,062.99	930.61	132.38	8.030		
21,300.00	10,330.00	15,693.73	11,404.43	90.81	93.36	-173.88	-10,850.64	-124.56	1,062.50	930.09	132.41	8.024		
21,330.10	10,330.00	15,669.71	11,404.43	91.02	92.94	-173.92	-10,874.64	-125.08	1,062.42	929.96	132.46	8.021		
21,350.00	10,330.00	15,653.84	11,404.51	91.16	92.66	-173.94	-10,890.52	-125.40	1,062.45	929.97	132.48	8.020		
21,400.00	10,330.00	15,604.80	11,404.96	91.51	91.81	-174.00	-10,939.54	-126.23	1,062.79	930.28	132.51	8.020		
21,450.00	10,330.00	15,542.20	11,405.02	91.86	90.72	-174.07	-11,002.13	-127.19	1,062.73	930.24	132.49	8.021		
21,496.05	10,330.00	15,503.72	11,404.91	92.19	90.05	-174.11	-11,040.62	-127.75	1,062.52	929.98	132.56	8.015		
21,500.00	10,330.00	15,500.65	11,404.92	92.22	89.99	-174.12	-11,043.68	-127.79	1,062.52	929.95	132.57	8.015		
21,550.00	10,330.00	15,461.84	11,405.24	92.57	89.32	-174.16	-11,082.48	-128.34	1,062.82	930.18	132.64	8.013		
21,600.00	10,330.00	15,411.36	11,406.06	92.92	88.44	-174.22	-11,132.96	-129.06	1,063.54	930.86	132.68	8.016		
21,650.00	10,330.00	15,345.85	11,406.43	93.27	87.31	-174.29	-11,198.45	-130.03	1,063.72	931.06	132.66	8.018		
21,700.00	10,330.00	15,296.30	11,406.38	93.63	86.46	-174.35	-11,248.00	-130.96	1,063.55	930.85	132.70	8.015		
21,750.00	10,330.00	15,245.55	11,406.38	93.98	85.58	-174.44	-11,298.73	-132.27	1,063.39	930.66	132.73	8.012		
21,800.00	10,330.00	15,181.90	11,405.93	94.33	84.49	-174.55	-11,362.35	-134.02	1,062.88	930.18	132.70	8.010		
21,850.00	10,330.00	15,132.29	11,405.12	94.69	83.64	-174.63	-11,411.94	-135.26	1,061.92	929.18	132.75	8.000		
21,900.00	10,330.00	15,091.67	11,404.72	95.04	82.95	-174.68	-11,452.55	-136.02	1,061.33	928.49	132.84	7.989		
21,942.96	10,330.00	15,056.65	11,404.66	95.34	82.35	-174.71	-11,487.57	-136.48	1,061.17	928.25	132.92	7.983		
21,950.00	10,330.00	15,050.79	11,404.67	95.39	82.25	-174.72	-11,493.43	-136.55	1,061.17	928.24	132.93	7.983		
22,000.00	10,330.00	15,009.20	11,404.95	95.75	81.55	-174.76	-11,535.02	-137.06	1,061.43	928.41	133.02	7.979		
22,050.00	10,330.00	14,967.37	11,405.57	96.10	80.84	-174.81	-11,576.83	-137.66	1,062.08	928.98	133.10	7.979		
22,100.00	10,330.00	14,898.46	11,406.24	96.46	79.67	-174.89	-11,645.73	-138.66	1,062.47	929.37	133.10	7.983		
22,150.00	10,330.00	14,845.04	11,406.06	96.81	78.77	-174.94	-11,699.15	-139.41	1,062.21	929.06	133.15	7.978		
22,189.72	10,330.00	14,809.82	11,406.05	97.09	78.18	-174.98	-11,734.36	-140.00	1,062.12	928.91	133.21	7.973		
22,200.00	10,330.00	14,800.71	11,406.08	97.17	78.03	-174.99	-11,743.47	-140.16	1,062.13	928.90	133.23	7.972		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Offset Design										Sec 27-T23S-R31E - Aldabra 27 Fed 1H - Wellbore #1 - Wellbore #1		Offset Site Error: 0.50 ft	
Survey Program: 100-GYRO-NS-CT, 10741-MWD+IGRF												Offset Well Error: 0.50 ft	
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
22,250.00	10,330.00	14,755.60	11,406.34	97.52	77.27	-175.06	-11,788.57	-141.07	1,062.31	928.99	133.31	7.969	
22,300.00	10,330.00	14,709.76	11,406.82	97.88	76.51	-175.14	-11,834.40	-142.26	1,062.69	929.30	133.39	7.967	
22,350.00	10,330.00	14,652.74	11,407.50	98.23	75.56	-175.25	-11,891.38	-144.04	1,063.15	929.73	133.43	7.968	
22,400.00	10,330.00	14,583.53	11,407.27	98.59	74.42	-175.38	-11,960.56	-146.11	1,062.84	929.43	133.41	7.967	
22,450.00	10,330.00	14,521.46	11,406.15	98.95	73.39	-175.49	-12,022.60	-147.87	1,061.80	928.39	133.42	7.959	
22,500.00	10,330.00	14,472.73	11,404.90	99.30	72.60	-175.57	-12,071.29	-149.22	1,060.39	926.90	133.50	7.943	
22,550.00	10,330.00	14,433.27	11,404.20	99.66	71.95	-175.64	-12,110.73	-150.34	1,059.39	925.76	133.62	7.928	
22,600.00	10,330.00	14,393.96	11,403.91	100.02	71.31	-175.72	-12,150.02	-151.48	1,058.88	925.13	133.75	7.917	
22,623.18	10,330.00	14,376.08	11,403.91	100.18	71.02	-175.75	-12,167.90	-152.00	1,058.82	925.02	133.81	7.913	
22,650.00	10,330.00	14,355.38	11,404.02	100.37	70.69	-175.79	-12,188.58	-152.58	1,058.90	925.03	133.87	7.910	
22,700.00	10,330.00	14,324.58	11,404.32	100.73	70.19	-175.84	-12,219.37	-153.42	1,059.41	925.41	134.00	7.906	
22,750.00	10,330.00	14,255.40	11,405.51	101.09	69.07	-175.97	-12,288.52	-155.21	1,060.16	926.11	134.04	7.909	
22,800.00	10,330.00	14,195.77	11,405.58	101.45	68.12	-176.07	-12,348.13	-156.74	1,060.08	925.98	134.10	7.905	
22,826.14	10,330.00	14,173.00	11,405.59	101.63	67.76	-176.10	-12,370.89	-157.27	1,060.04	925.88	134.16	7.901	
22,850.00	10,330.00	14,152.23	11,405.66	101.80	67.43	-176.13	-12,391.66	-157.71	1,060.08	925.86	134.22	7.898	
22,900.00	10,330.00	14,103.31	11,406.00	102.16	66.65	-176.20	-12,440.56	-158.61	1,060.35	926.02	134.32	7.894	
22,950.00	10,330.00	14,034.69	11,405.78	102.52	65.57	-176.28	-12,509.17	-159.86	1,060.11	925.75	134.36	7.890	
23,000.00	10,330.00	13,985.71	11,405.13	102.88	64.81	-176.34	-12,558.14	-160.75	1,059.37	924.90	134.47	7.878	
23,050.00	10,330.00	13,940.75	11,404.73	103.24	64.11	-176.39	-12,603.09	-161.41	1,058.86	924.26	134.60	7.867	
23,100.00	10,330.00	13,897.45	11,404.56	103.59	63.44	-176.43	-12,646.39	-161.97	1,058.61	923.88	134.74	7.857	
23,110.98	10,330.00	13,888.09	11,404.57	103.67	63.30	-176.44	-12,655.75	-162.11	1,058.61	923.84	134.77	7.855	
23,150.00	10,330.00	13,854.80	11,404.70	103.95	62.78	-176.48	-12,689.03	-162.63	1,058.71	923.84	134.88	7.850	
23,200.00	10,330.00	13,806.58	11,405.14	104.31	62.05	-176.55	-12,737.25	-163.50	1,059.09	924.09	135.00	7.845	
23,250.00	10,330.00	13,753.02	11,405.51	104.67	61.23	-176.62	-12,790.79	-164.51	1,059.36	924.25	135.11	7.841	
23,300.00	10,330.00	13,704.39	11,405.77	105.03	60.50	-176.69	-12,839.42	-165.51	1,059.55	924.31	135.24	7.835	
23,350.00	10,330.00	13,662.64	11,406.06	105.39	59.87	-176.76	-12,881.15	-166.56	1,059.85	924.47	135.38	7.828	
23,400.00	10,330.00	13,596.51	11,406.55	105.75	58.90	-176.89	-12,947.24	-168.58	1,060.11	924.64	135.48	7.825	
23,450.00	10,330.00	13,537.46	11,406.17	106.11	58.03	-177.01	-13,006.26	-170.60	1,059.67	924.09	135.58	7.816	
23,500.00	10,330.00	13,495.16	11,405.96	106.47	57.42	-177.11	-13,048.52	-172.23	1,059.31	923.57	135.74	7.804	
23,533.89	10,330.00	13,474.43	11,405.89	106.71	57.12	-177.16	-13,069.24	-173.06	1,059.23	923.37	135.86	7.796	
23,550.00	10,330.00	13,451.43	11,406.08	106.83	56.79	-177.23	-13,092.21	-174.10	1,059.32	923.43	135.89	7.795	
23,600.00	10,330.00	13,380.05	11,405.70	107.19	55.77	-177.41	-13,163.53	-177.17	1,058.94	922.97	135.98	7.788	
23,650.00	10,330.00	13,315.69	11,404.22	107.55	54.87	-177.57	-13,227.82	-179.79	1,057.68	921.61	136.07	7.773	
23,700.00	10,330.00	13,258.16	11,402.25	107.91	54.07	-177.71	-13,285.26	-182.12	1,055.86	919.68	136.19	7.753	
23,750.00	10,330.00	13,218.10	11,400.97	108.27	53.53	-177.80	-13,325.28	-183.60	1,054.19	917.80	136.39	7.729	
23,800.00	10,330.00	13,177.99	11,400.06	108.63	52.98	-177.88	-13,365.36	-184.87	1,052.98	916.40	136.58	7.709	
23,850.00	10,330.00	13,135.87	11,399.46	108.99	52.42	-177.96	-13,407.45	-186.14	1,052.21	915.43	136.77	7.693	
23,900.00	10,330.00	13,093.41	11,399.17	109.36	51.85	-178.05	-13,449.89	-187.55	1,051.79	914.83	136.96	7.680	
23,950.00	10,330.00	13,046.28	11,399.12	109.72	51.24	-178.15	-13,496.99	-189.21	1,051.67	914.53	137.14	7.669	
24,000.00	10,330.00	13,000.43	11,399.05	110.08	50.64	-178.25	-13,542.82	-190.65	1,051.54	914.22	137.32	7.657	
24,019.45	10,330.00	12,974.68	11,399.05	110.22	50.31	-178.29	-13,568.56	-191.34	1,051.52	914.13	137.39	7.654	
24,050.00	10,330.00	12,934.22	11,398.74	110.44	49.81	-178.36	-13,609.00	-192.43	1,051.26	913.77	137.49	7.646	
24,100.00	10,330.00	12,876.75	11,397.67	110.80	49.09	-178.46	-13,666.44	-193.97	1,050.27	912.61	137.66	7.629	
24,150.00	10,330.00	12,839.44	11,397.16	111.16	48.63	-178.52	-13,703.74	-194.87	1,049.55	911.67	137.88	7.612	
24,184.50	10,330.00	12,813.69	11,397.07	111.41	48.32	-178.56	-13,729.48	-195.43	1,049.41	911.38	138.03	7.603	
24,200.00	10,330.00	12,802.12	11,397.10	111.53	48.18	-178.58	-13,741.05	-195.66	1,049.43	911.34	138.10	7.599	
24,250.00	10,330.00	12,762.84	11,397.48	111.89	47.72	-178.63	-13,780.32	-196.43	1,049.89	911.58	138.31	7.591	
24,300.00	10,330.00	12,723.03	11,398.26	112.25	47.25	-178.69	-13,820.11	-197.29	1,050.83	912.32	138.51	7.587	
24,350.00	10,330.00	12,672.99	11,399.62	112.61	46.67	-178.77	-13,870.12	-198.47	1,052.16	913.44	138.72	7.585	
24,400.00	10,330.00	12,607.34	11,400.72	112.98	45.93	-178.88	-13,935.74	-200.00	1,052.97	914.02	138.95	7.578	
24,450.00	10,330.00	12,540.29	11,400.81	113.34	45.21	-178.98	-14,002.78	-201.47	1,053.00	913.83	139.18	7.566	
24,500.00	10,330.00	12,481.13	11,400.05	113.70	44.59	-179.05	-14,061.92	-202.53	1,052.33	912.93	139.40	7.549	

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

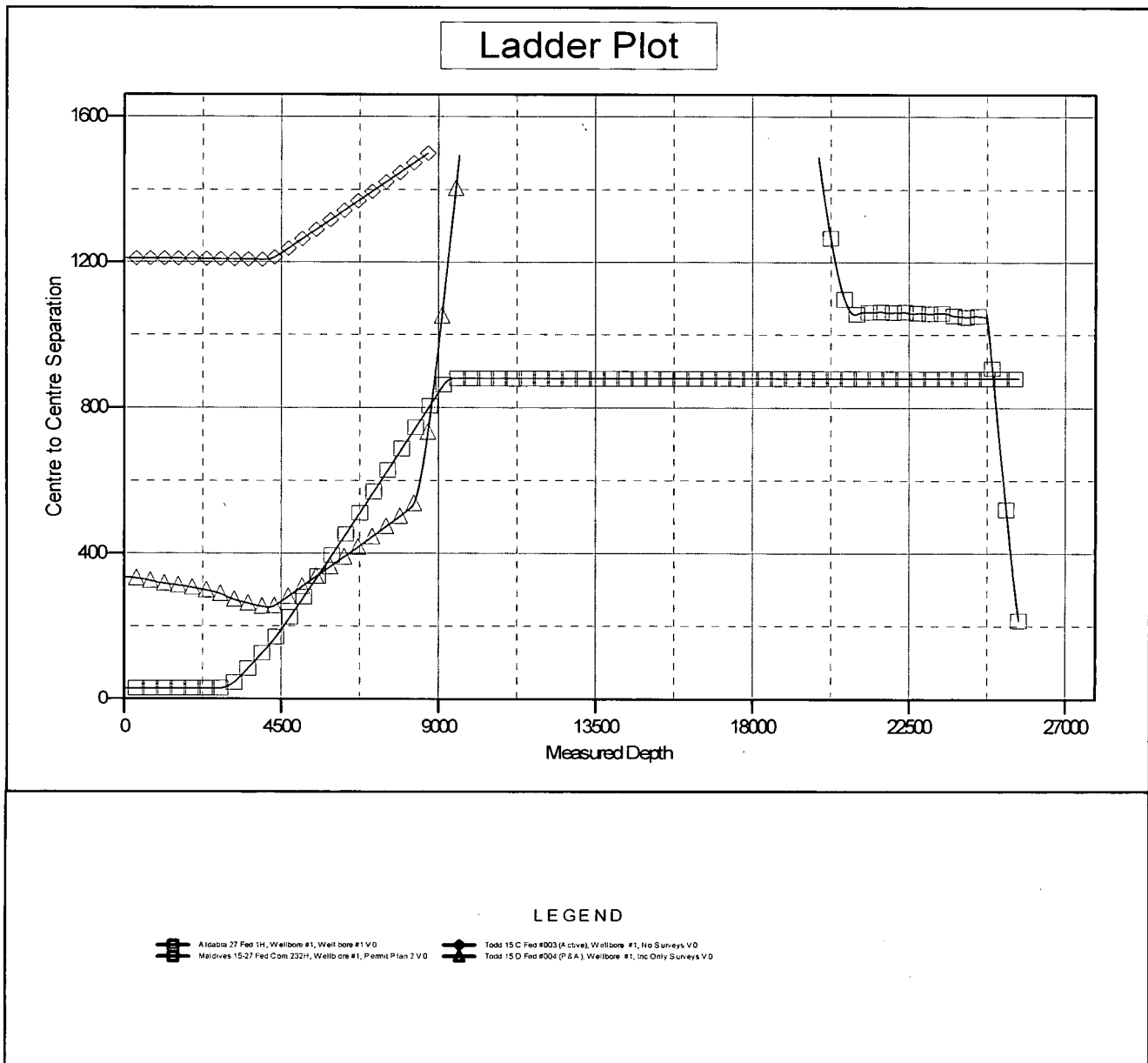
Offset Design													Sec 27-T23S-R31E - Aldabra 27 Fed 1H - Wellbore #1 - Wellbore #1		Offset Site Error:	0.50 ft
Survey Program: 100-GYRO-NS-CT, 10741-MWD+IGRF															Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
24,550.00	10,330.00	12,428.86	11,399.16	114.07	44.06	-179.07	-14,114.18	-202.69	1,051.48	911.84	139.64	7.530				
24,800.00	10,330.00	12,383.04	11,398.37	114.43	43.62	-179.06	-14,160.00	-202.16	1,050.62	910.73	139.89	7.510				
24,650.00	10,330.00	12,339.54	11,397.87	114.79	43.20	-179.01	-14,203.48	-201.10	1,050.07	909.92	140.15	7.493				
24,700.00	10,330.00	12,283.97	11,397.37	115.16	42.69	-178.92	-14,259.01	-199.17	1,049.65	909.24	140.41	7.476				
24,750.00	10,330.00	12,221.81	11,396.10	115.52	42.15	-178.82	-14,321.12	-197.00	1,048.65	907.97	140.68	7.454				
24,800.00	10,330.00	10,336.56	10,334.32	115.88	36.01	85.57	-15,336.56	-389.31	1,006.16	921.56	84.60	11.893				
24,850.00	10,330.00	10,337.36	10,335.12	116.25	36.01	85.82	-15,336.57	-389.31	956.98	871.96	85.03	11.255				
24,900.00	10,330.00	10,338.16	10,335.92	116.61	36.01	86.08	-15,336.58	-389.30	907.89	822.38	85.51	10.617				
24,950.00	10,330.00	10,338.95	10,336.71	116.97	36.01	86.34	-15,336.60	-389.29	858.90	772.83	86.07	9.979				
25,000.00	10,330.00	10,339.74	10,337.50	117.34	36.02	86.59	-15,336.61	-389.28	810.04	723.32	86.72	9.341				
25,050.00	10,330.00	10,340.53	10,338.29	117.70	36.02	86.85	-15,336.62	-389.28	761.32	673.84	87.48	8.703				
25,100.00	10,330.00	10,341.32	10,339.08	118.07	36.02	87.11	-15,336.63	-389.27	712.78	624.40	88.38	8.065				
25,150.00	10,330.00	10,342.11	10,339.87	118.43	36.03	87.36	-15,336.64	-389.26	664.45	574.99	89.46	7.427				
25,200.00	10,330.00	10,342.89	10,340.65	118.80	36.03	87.61	-15,336.66	-389.25	616.39	525.63	90.76	6.792				
25,250.00	10,330.00	10,343.67	10,341.43	119.16	36.03	87.87	-15,336.67	-389.25	568.67	476.32	92.35	6.158				
25,300.00	10,330.00	10,344.45	10,342.21	119.53	36.03	88.12	-15,336.68	-389.24	521.37	427.05	94.32	5.528				
25,350.00	10,330.00	10,345.23	10,342.99	119.89	36.04	88.37	-15,336.69	-389.23	474.62	377.84	96.78	4.904 Alert				
25,400.00	10,330.00	10,346.00	10,343.76	120.26	36.04	88.62	-15,336.70	-389.22	428.60	328.71	99.90	4.290 Alert				
25,450.00	10,330.00	10,346.77	10,344.53	120.62	36.04	88.87	-15,336.71	-389.22	383.59	279.69	103.90	3.692 Alert				
25,500.00	10,330.00	10,347.54	10,345.30	120.99	36.04	89.12	-15,336.73	-389.21	339.96	230.90	109.06	3.117 Alert				
25,550.00	10,330.00	10,348.31	10,346.07	121.35	36.05	89.37	-15,336.74	-389.20	298.34	182.60	115.75	2.578 Alert				
25,600.00	10,330.00	10,349.08	10,346.83	121.72	36.05	89.62	-15,336.75	-389.19	259.70	135.41	124.29	2.089 Minor Risk				
25,650.00	10,330.00	10,349.84	10,347.60	122.12	36.05	89.87	-15,336.76	-389.19	225.56	89.85	135.71	1.662 Minor Risk				
25,666.80	10,330.00	10,350.10	10,347.85	122.25	36.05	89.95	-15,336.76	-389.18	215.48	75.84	139.64	1.543 Minor Risk, CC, ES, SF				

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB @ 3411.40ft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Maldives 15-27 Fed Com 231H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.30°



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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Maldives 15-27 Fed Com 231H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3411.40ft
Reference Site:	Sec 15-T23S-R31E	MD Reference:	RKB @ 3411.40ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Maldives 15-27 Fed Com 231H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB @ 3411.40ft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Maldives 15-27 Fed Com 231H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.30°

