

OCDA 06 2017

RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

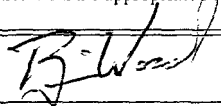
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. SHL: fee BHL: NMNM-117120
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator MATADOR PRODUCTION COMPANY		7. If Unit or CA Agreement, Name and No. will comm. w/ fee lease
3a. Address 5400 LBJ FREEWAY, SUITE 1500 DALLAS, TX 75240		8. Lease Name and Well No. Zach McCormick Fed Com 225H
3b. Phone No. (include area code) 972 371 5241		9. API Well No. 30-015- 44245
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 742' FNL & 290' FWL 18-24S-29E At proposed prod. zone 991' FNL & 240' FEL 18-24S-29E		10. Field and Pool, or Exploratory PIERCE CROSS, WOLFCAMP, NW G 98220
14. Distance in miles and direction from nearest town or post office* 2 AIR MILES E OF MALAGA, NM		11. Sec., T. R. M. or Blk. and Survey or Area SHL: Lot 1 18-24S-29E NMPM BHL: NENE 18-24S-29E NMPM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) SHL: 290' BHL: 240'	16. No. of acres in lease BLM lease = 520 acres comm. area = 319.28 acres	17. Spacing Unit dedicated to this well Lots 1 & 2, E2NW, & NE4 18-24S-29E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. SHL: 30' (Zach 221H) BHL: 805' (Zach 205H)	19. Proposed Depth TVD: 10550' MD: 15431'	20. BLM/BIA Bond No. on file BLM NMB-001079
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2953' UNGRADED	22. Approximate date work will start* 12/01/2016	23. Estimated duration 3 MONTHS

24. Attachments

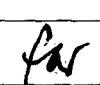
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

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

25. Signature 	Name (Printed/Typed) BRIAN WOOD (PHONE: 505 466-8120)	Date 08/09/2016
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Title CONSULTANT (FAX: 505 466-9682)

Approved by (Signature) 	Name (Printed/Typed) Cody L. Layman	Date 08/02/17
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Title  FIELD MANAGER Office BLM-CARLSBAD FIELD OFFICE

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

APPROVAL FOR TWO YEARS

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.

(Continued on page 2)

*(Instructions on page 2)

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

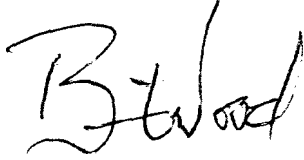
SEE ATTACHED FOR
CONDITIONS OF APPROVAL

1-7-17 AIR

August 9, 2016

To Who it May Concern regarding Zach McCormick Fed Com 18-24s-29e 225H:

Matador Resources Company has a private surface owner agreement with Evelyn Kay Walker Faulk (P. O. Box 115, Malaga NM 88263) for the existing road in NENE Section 13, T. 24 S., R. 28 E.; Eddy County, NM and with Roy Burkham (P. O. Box 84, Malaga NM 88263) for the existing road and existing pad in Lot 1 Section 18, T. 24 S., R. 29 E., Eddy County, NM.

A handwritten signature in black ink, appearing to read "B. Wood". The signature is stylized with a large, looped "B" and a cursive "Wood".

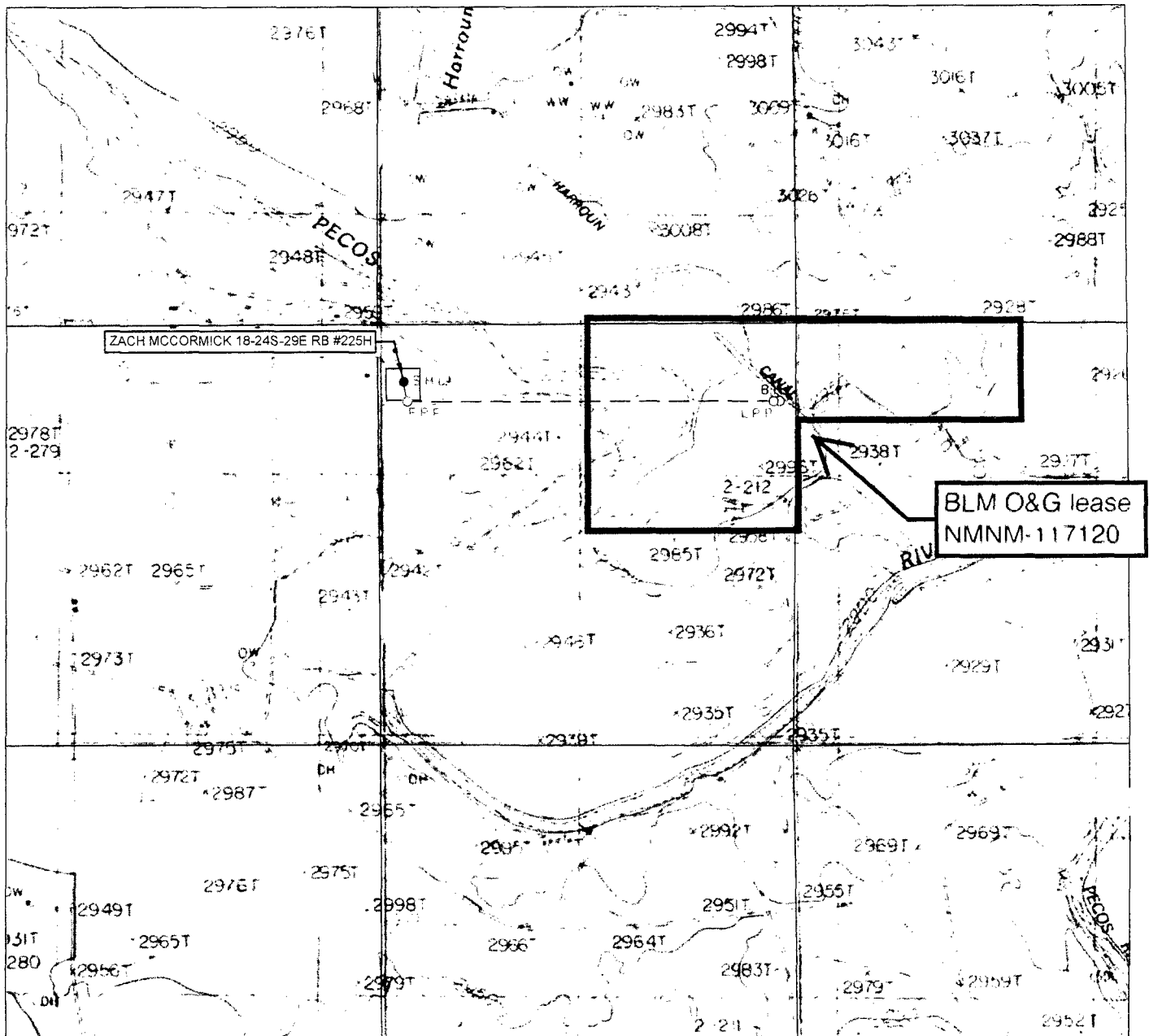
Brian Wood

Operating Rights

Matador Production Company proposed this well to its partners and is negotiating a form of Joint Operating Agreement naming Matador Production Company as the Operator. Per our discussions with our partners, all parties are agreeable to name Matador Production Company as Operator for this well. Matador's partners include: Horned Frog Oil and Gas, LP, RSC Resources LP, Amy Flores, Marty Young, BucJag Investments, LLC, and COG.

Please let us know if you have any questions or concerns.

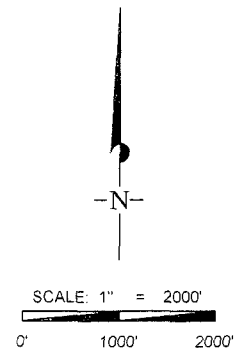
LOCATION & ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO.: ZACH MCCORMICK FEDERAL 18-24S-29E RB #225H

SECTION 18 TWP 24-S RGE 29-E SURVEY N.M.P.M.
 COUNTY EDDY STATE NM ELEVATION 2953'
 DESCRIPTION 742' FNL & 290' FWL

LATITUDE N 32.2228555 LONGITUDE W 104.0308316



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

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET.



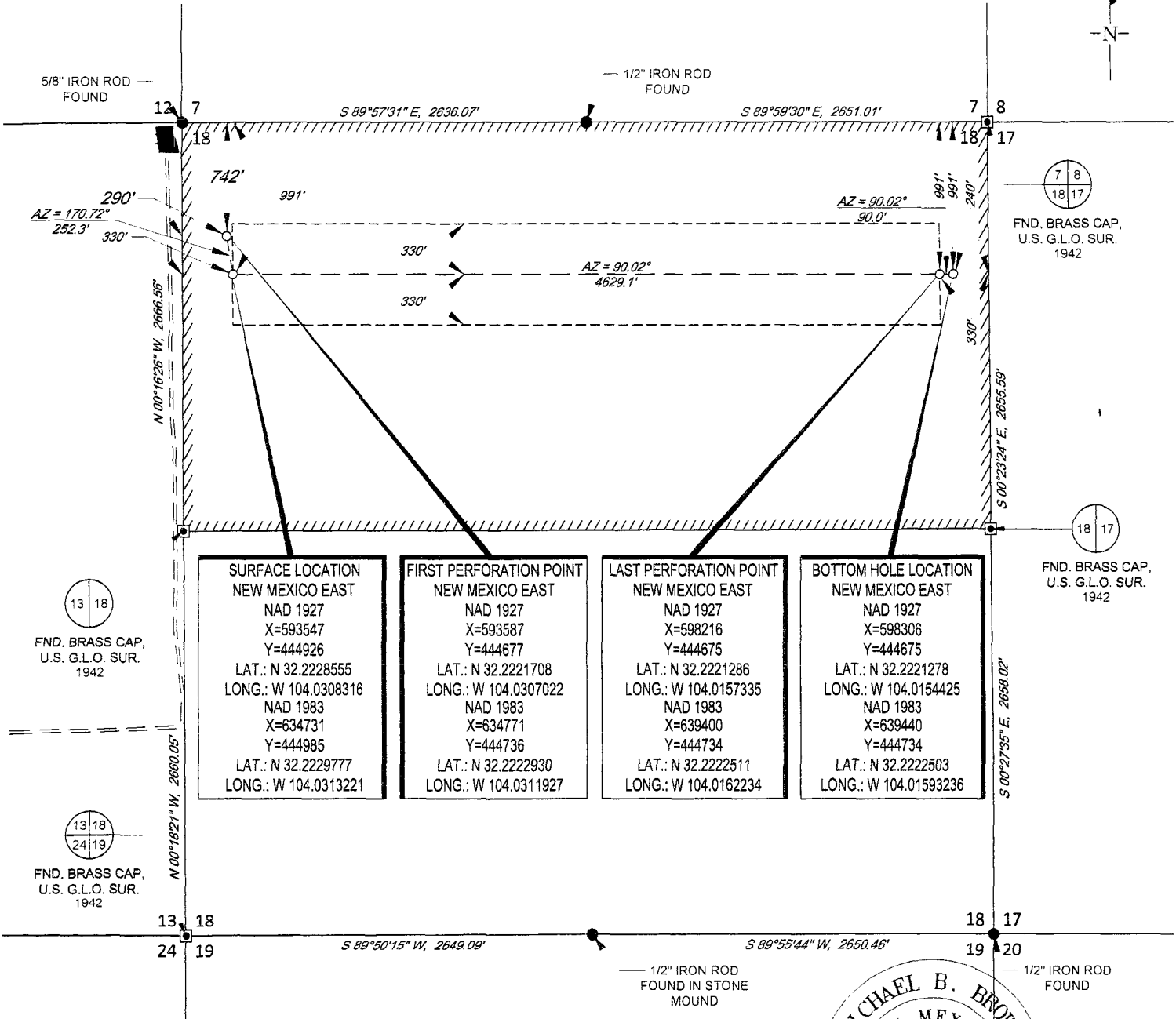
WWW.TOPOGRAPHIC.COM

SCALE: 1" = 1000'

0' 500' 1000'



SECTION 18, TOWNSHIP 24-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



**SURFACE LOCATION
NEW MEXICO EAST**
NAD 1927
X=593547
Y=444926
LAT.: N 32.2228555
LONG.: W 104.0308316
NAD 1983
X=634731
Y=444985
LAT.: N 32.2229777
LONG.: W 104.0313221

**FIRST PERFORATION POINT
NEW MEXICO EAST**
NAD 1927
X=593587
Y=444677
LAT.: N 32.2221708
LONG.: W 104.0307022
NAD 1983
X=634771
Y=444736
LAT.: N 32.2222930
LONG.: W 104.0311927

**LAST PERFORATION POINT
NEW MEXICO EAST**
NAD 1927
X=598216
Y=444675
LAT.: N 32.2221286
LONG.: W 104.0157335
NAD 1983
X=639400
Y=444734
LAT.: N 32.2222511
LONG.: W 104.0162234

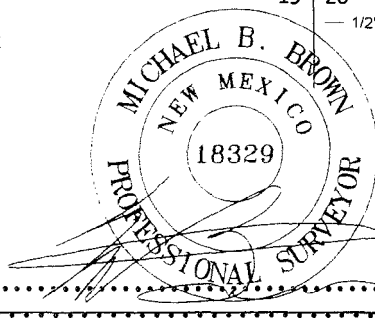
**BOTTOM HOLE LOCATION
NEW MEXICO EAST**
NAD 1927
X=598306
Y=444675
LAT.: N 32.2221278
LONG.: W 104.0154425
NAD 1983
X=639440
Y=444734
LAT.: N 32.2222503
LONG.: W 104.01593236

LEASE NAME & WELL NO.: ZACH MCCORMICK FEDERAL 18-24S-29E RB #225H

SECTION 18 TWP 24-S RGE 29-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 742' FNL & 290' FWL

DISTANCE & DIRECTION

.....
.....
.....

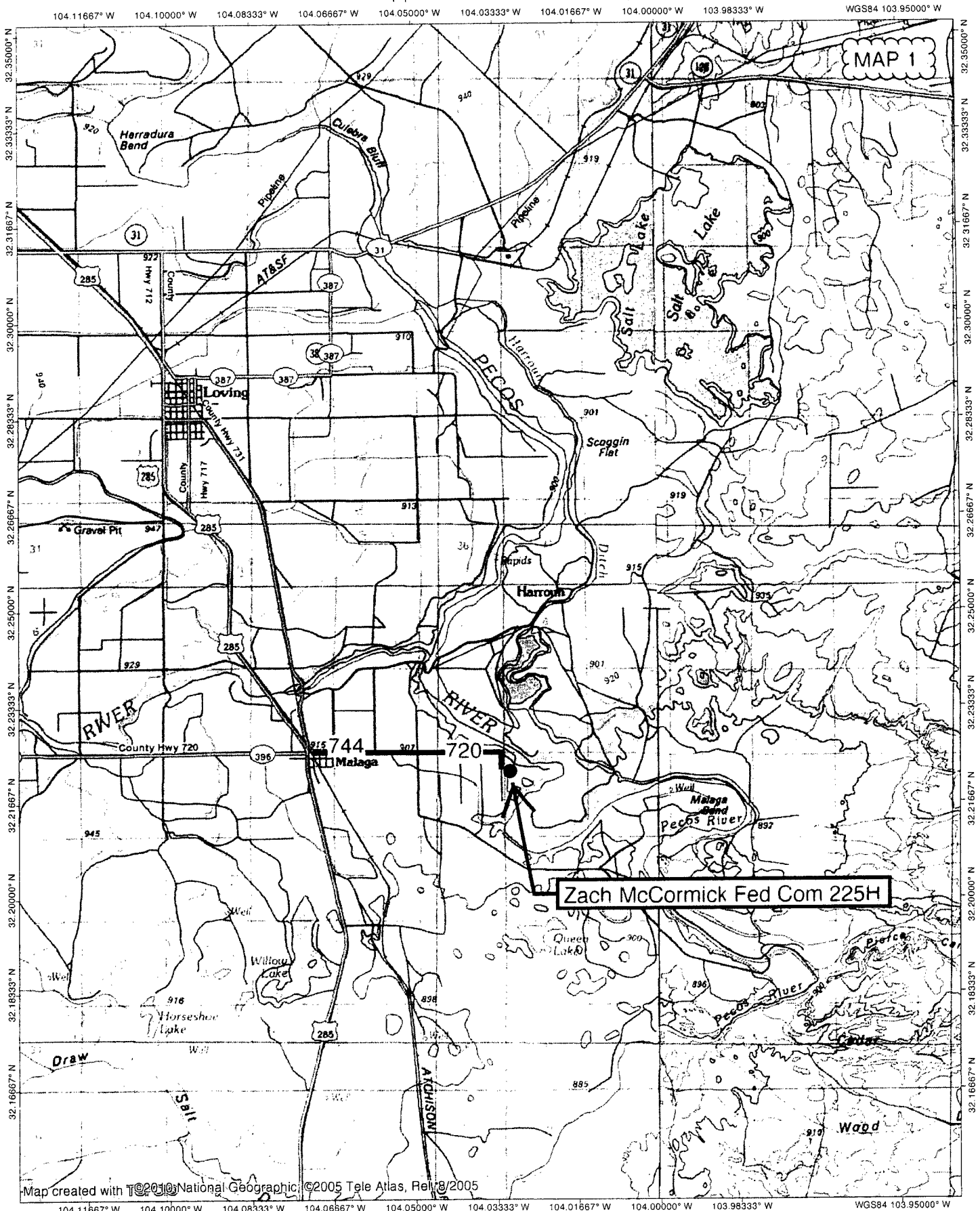


Michael Blake Brown, P.S. No. 18329
MAY 09, 2016

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.
AS OF THE DATE OF SURVEY, ALL ABOVE GROUND APPURTENANCES WITHIN 300' OF THE STAKED LOCATION ARE SHOWN HEREON.



WWW.TOPOGRAPHIC.COM



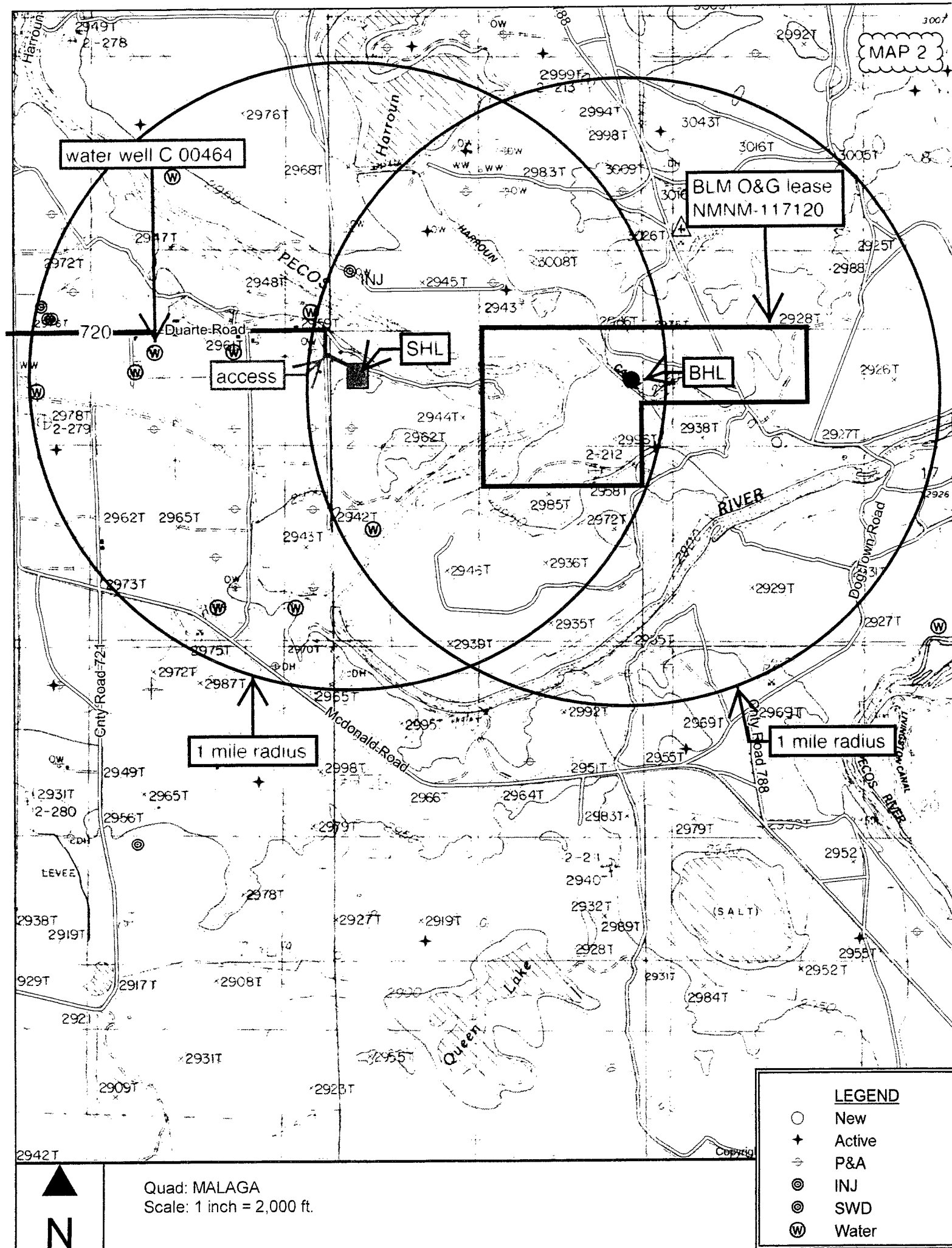
NATIONAL
GEOGRAPHIC

0.0 0.5 1.0 1.5 2.0 2.5 3.0 miles
0 1 2 3 4 5 km

TN 11°N

7.5°

12/18/15



720

Zach McCormick Fed Com 225H

32-22237, -30-0112

MAP 3

google earth

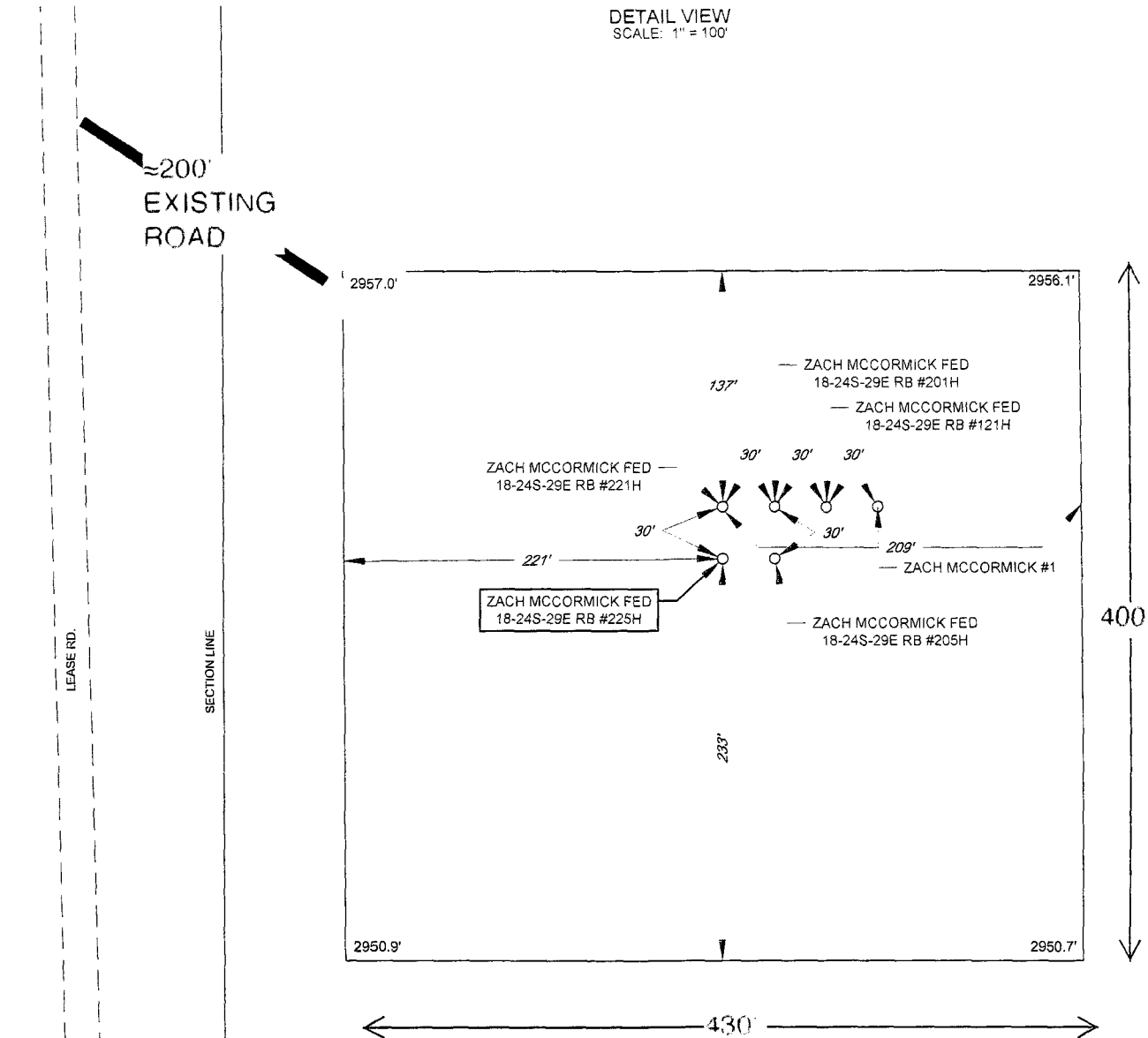
500 ft



MAP 4

SECTION 18, TOWNSHIP 24-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



EXISTING PAD BUILT FOR
ZACH MCCORMICK FEDERAL COM 18 24S 29E #1
(spud 3-24 16)

LEASE NAME & WELL NO.: ZACH MCCORMICK FEDERAL 18-24S-29E RB #225H

#225H LATITUDE N 32.2228555 #225H LONGITUDE W 104.0308316

LEGEND

- == == == == EXISTING ROAD
- — — — SECTION LINE
- — — — EXISTING PIPELINE

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID
BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE
NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET

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



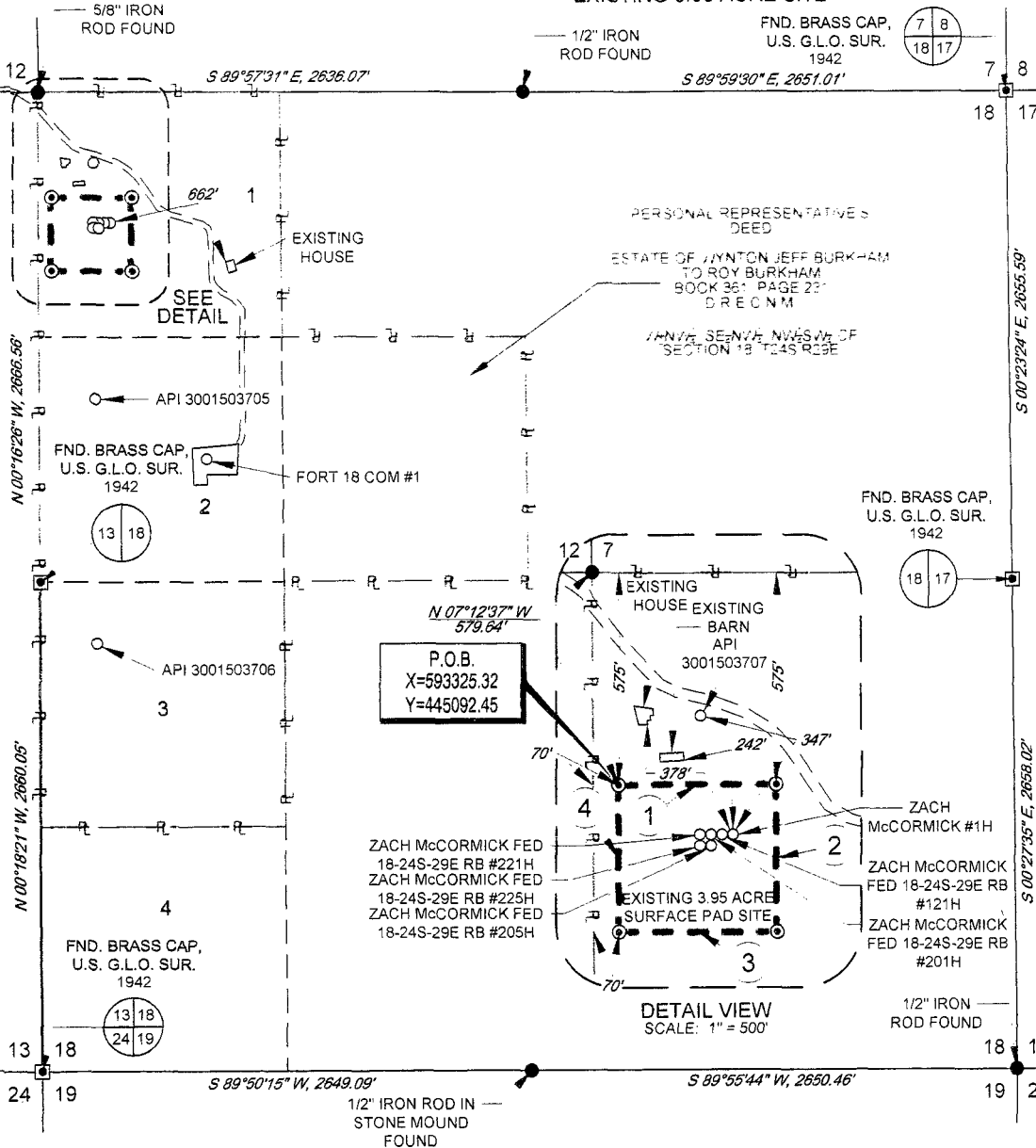
WWW.TOPOGRAPHIC.COM

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

SCALE: 1" = 1000'

SECTION 18, TOWNSHIP 24-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO
EXISTING 3.95 ACRE SITE

MAP 5



ZACK McCORMICK FED
18-24S-29E RB #201H
SURFACE PAD SITE

Metes and Bounds Description of an existing 3.95 acre surface pad site located within Lot 1, of Section 18, Township 24 South, Range 29 East, N.M.P.M. in Eddy County, New Mexico.

BEGINNING at a 1/2" iron rod with cap set for the Northwest corner of this site, from whence an iron rod found for the Northwest corner of said Section 18, bears N 07°12'37" W, a distance of 579.64 feet;

Thence S 89°57'31" E, a distance of 430.00 feet to a 1/2" iron rod with cap set for the Northeast corner of this site;

Thence S 00°16'26" E, a distance of 400.00 feet to a 1/2" iron rod with cap set for the Southeast corner of this site;

Thence N 89°57'31" W, a distance of 430.00 feet to a 1/2" iron rod with cap set for the Southwest corner of this site;

Thence N 00°16'26" W, a distance of 400.00 feet to the Point of Beginning.

LEGEND

- EXISTING SITE
- SURVEY/SECTION LINE
- TRACT BORDER
- == ROAD WAY
- ⊙ IRON ROD SET
- IRON ROD FOUND
- MONUMENT

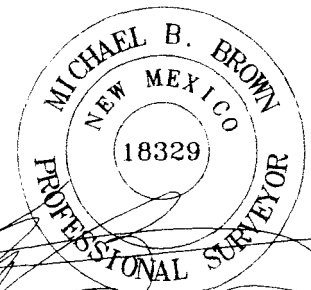
ZACK McCORMICK FED
18-24S-29E RB #201H
SURFACE PAD SITE

LINE	BEARING	DISTANCE
1	S 89°57'31" E	430.00'
2	S 00°16'26" E	400.00'
3	N 89°57'31" W	430.00'
4	N 00°16'26" W	400.00'



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

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2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
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Michael Blake Brown, R.P.L.S. No. 18329

MAY 10, 2016

ZACK McCORMICK FED
18-24S-29E RB #201H
SURFACE PAD SITE

REVISION:

A.C.C. 05/10/16

NOTES:

1. ORIGINAL DOCUMENT SIZE: 8 1/2" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR PRODUCTION COMPANY. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. P.O.B. = POINT OF BEGINNING

DATE: 02/10/16

FILE: 30 ZACK MCCORMICK FED 18-24S-29E RB 201H SURFACE PAD SITE REV1

DRAWN BY: GJU

SHEET: 1 OF 1

Matador Production Company
Zach McCormick Fed Com 225H
SHL 742' FNL & 290' FWL Sec. 18
BHL 991' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

DRILL PLAN PAGE 1

Drilling Program

1. ESTIMATED TOPS

Formation Name	TVD	Bearing
Quaternary	GL	water
top of salt	808.5'	salt
Lamar/base of salt	2681.5'	barren
Bell Canyon	2731.5'	barren
Cherry Canyon	3661.5'	hydrocarbon
Brushy Canyon	4886.5'	hydrocarbon
Bone Spring Lime	6465.5'	hydrocarbon
1st Bone Spring Sand	7407.5'	hydrocarbon
2nd Bone Spring Carbonate	7720.5'	hydrocarbon
2nd Bone Spring Sand	8319.5'	hydrocarbon
3 rd Bone Spring Carbonate	8558.5'	hydrocarbon
3rd Bone Spring Sand	9274.5'	hydrocarbon
Wolfcamp	9632.5'	hydrocarbon
Wolfcamp X	9664.5'	hydrocarbon
Wolfcamp Y	9729.5'	hydrocarbon
Wolfcamp B	10323.5	hydrocarbon (& goal)
TVD (Wolfcamp B)	10550'	ditto
MD (Wolfcamp B)	15431'	ditto

2. NOTABLE ZONES

Closest water well (C 00983) is 1239' northwest. Depth to water is 40' in this 92' deep well.

Matador Production Company
Zach McCormick Fed Com 225H
SHL 742' FNL & 290' FWL Sec. 18
BHL 991' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

DRILL PLAN PAGE 2

3. PRESSURE CONTROL

A BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram and 1 annular preventer will be installed. The BOP will be used below surface casing to TD. See attached BOP and choke manifold diagrams.

An accumulator compliant with Onshore Order 2 for the pressure rating of the BOP stack will be present. Rotating head will be installed as needed.

Pressure tests will be conducted before drilling out from under all casing strings. BOP will be inspected and operated as recommended in Onshore Order 2. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs. Test pressures will be as follows: After surface casing is set and the BOP is nipped up, the BOP pressure tests will be made to 250 psi low and 2000 psi high. On the intermediate #1, pressure tests will be made to 250 psi low and 3000 psi high. On the intermediate #2, pressure tests will be made to 250 psi low and 7500 psi high. The annular preventer will be tested to 250 psi low and 1000 psi high on the surface casing, and 250 psi low and 1500 psi high on the intermediate #1 and #2 casing. In the case of running a speed head with landing mandrel for 9-5/8" and 7" casing the initial, after surface casing is set, BOP test pressures will be 250 psi low and 3000 psi high with wellhead seals tested to 5000 psi once the 9-5/8" casing has been landed and cemented. BOP will then be lifted to install the 'C-section' of the wellhead. Matador will nipple the BOP back up and the pressure tests will be made to 250 psi low and 7500 psi high and the annular will be tested to 250 psi low and 1500 psi high.

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

Matador Production Company
 Zach McCormick Fed Com 225H
 SHL 742' FNL & 290' FWL Sec. 18
 BHL 991' FNL & 240' FEL Sec. 18
 T. 24 S., R. 29 E., Eddy County, NM

DRILL PLAN PAGE 3

4. CASING & CEMENT

Hole will extend east of the drilling window to allow for pump installation. All perforations will be $\geq 330'$ from the dedication perimeter.

Hole O. D.	Set @ (MD)	Casing O. D.	Age	Weight (lb/ft)	Grade	Thread Collar	Collapse	Burst	Tension
17.5"	650'	13.375"	New	54.5	J-55	BTC	1.125	1.125	1.8
12.25"	2750'	9.625"	New	40	J-55	BTC	1.125	1.125	1.8
8.75"	10790'	7"	New	29	P-110	BTC	1.125	1.125	1.8
6.125"	15431'	4.5"	New	13.5	P-110	BTC/TXP	1.125	1.125	1.8

Name	Type	Sacks	Yield	Cu. Ft.	Weight	Blend
Surface	Lead	240	1.82	436.8	12.8	Class C + Bentonite + 2% CaCl ₂ + 3% NaCl + LCM
	Tail	350	1.38	483	14.8	Class C + 5% NaCl + LCM
TOC = GL		100% Excess			Centralizers per Onshore Order 2.III.B.1f	
Intermediate	Lead	550	2.13	1171.5	12.6	Class C + Bentonite + 1% CaCl ₂ + 8% NaCl + LCM
	Tail	270	1.38	372.6	14.8	Class C + 5% NaCl + LCM
TOC = GL		100% Excess			2 on btm jt, 1 on 2nd jt, 1 every 4th jt to surface	
Intermediate 2	Lead	600	2.36	1416	11.5	TXI + Fluid Loss + Dispersant + Retarder + LCM
	Tail	300	1.38	414	13.2	TXI + Fluid Loss + Dispersant + Retarder + LCM
TOC = 1600'		35% Excess			2 on btm jt, 1 on 2nd jt, 1 every other jt to top of tail cement (500' above TOC)	
Production	Tail	570	1.17	666.9	15.8	Class H + Fluid Loss + Dispersant + Retarder + LCM
TOC = 9700'		10% Excess			2 on btm jt, 1 on 2nd jt, 1 every third jt to top of curve	

Matador Production Company
Zach McCormick Fed Com 225H
SHL 742' FNL & 290' FWL Sec. 18
BHL 991' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

DRILL PLAN PAGE 4

5. MUD PROGRAM

An electronic Pason mud monitoring system satisfying the requirements of Onshore Order 1 will be used. All necessary mud products for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

Name	Hole Size	Mud Weight	Visc	Fluid Loss	Type Mud
Surface	17.5"	8.30	28	NC	FW Spud Mud
Intermediate	12.25"	10.00	30-32	NC	Brine Water
Intermediate 2	8.75"	9.00	30-31	NC	FW/Cut Brine
Production	6.125"	12.50	50-60	<10	OBM

6. CORES, TESTS, & LOGS

No core or drill stem test is planned.

A 2-person mud-logging program will be used from $\approx 10800'$ to TD.

No electric logs are planned. GR will be collected through the MWD tools from intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to TOC.

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈ 7500 psi. Expected bottom hole temperature is $\approx 170^\circ$ F.

In accordance with Onshore Order 6, Matador does not anticipate that there will be enough H₂S from the surface to the Bone Spring to meet the BLM's minimum requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since Matador has an H₂S safety package on all wells, an "H₂S Drilling Operations Plan" is attached.

Matador Production Company
Zach McCormick Fed Com 225H
SHL 742' FNL & 290' FWL Sec. 18
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T. 24 S., R. 29 E., Eddy County, NM

DRILL PLAN PAGE 5

Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

8. OTHER INFORMATION

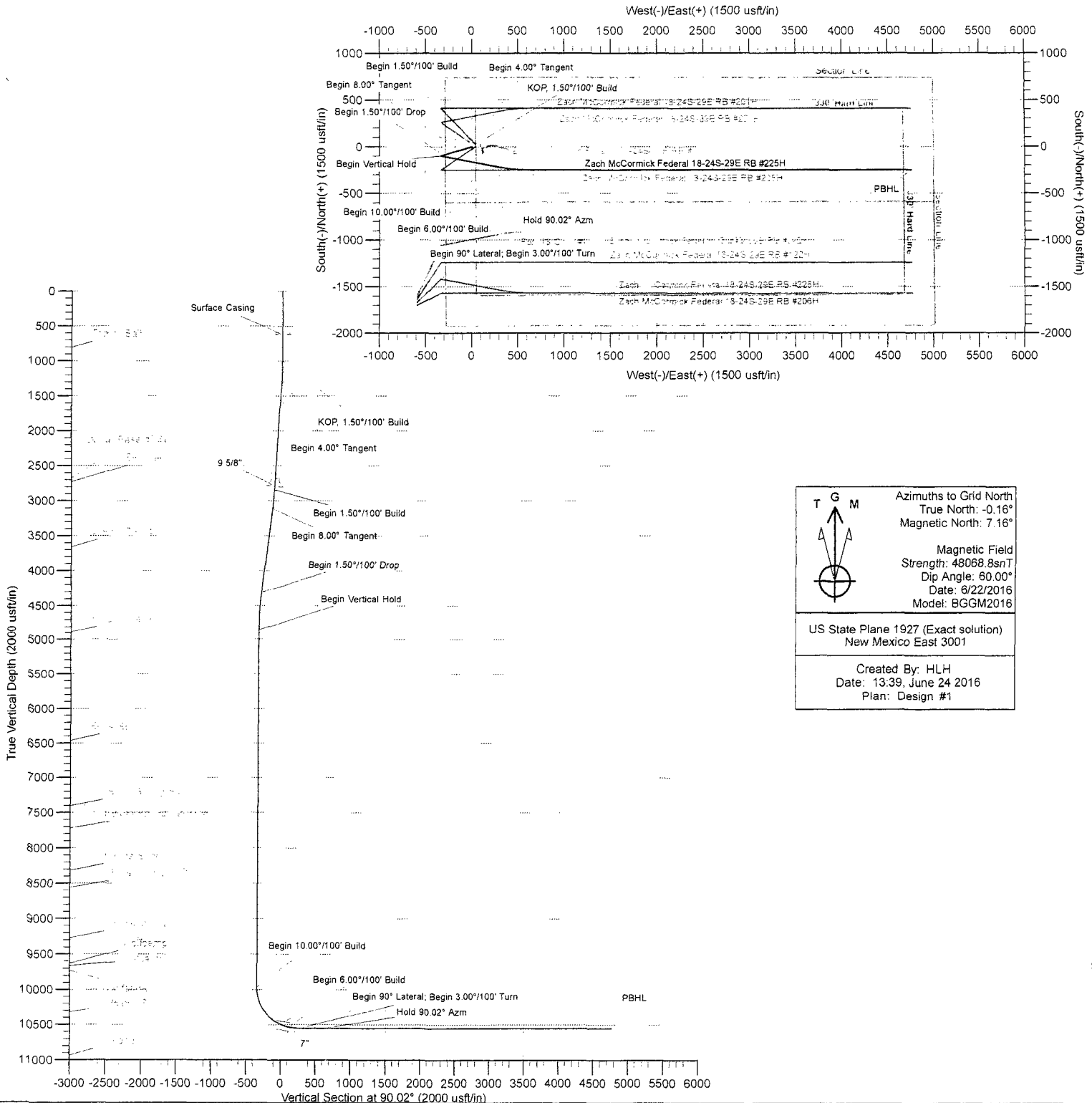
Anticipated spud date is upon approval. It is expected it will take $\approx$ 3 months to drill and complete the well.



Company: Matador Resources
Site: Zach McCormick Federal 18-24S-29E RB
Well: #225H
Project: Eddy County, New Mexico (NAD 27)
Rig: Patterson 297



ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	KOP, 1.50°/100' Build
1266.67	4.00	253.80	1266.45	-2.60	-8.94	-8.93	9.30	Begin 4.00° Tangent
2850.00	4.00	253.80	2845.93	-33.41	-115.00	-114.98	119.75	Begin 1.50°/100' Build
3116.67	8.00	253.80	3111.08	-41.19	-141.76	-141.74	147.62	Begin 8.00° Tangent
4333.13	8.00	253.80	4315.70	-88.43	-304.33	-304.30	316.92	Begin 1.50°/100' Drop
4866.46	0.00	0.00	4847.30	-98.80	-340.03	-340.00	354.09	Begin Vertical Hold
9990.39	0.00	0.00	9971.23	-98.80	-340.03	-340.00	354.09	Begin 10.00°/100' Build
10790.39	80.00	100.65	10535.49	-186.30	125.28	125.34	827.56	Begin 6.00°/100' Build
10957.06	90.00	100.65	10550.00	-216.95	288.24	288.32	993.38	Begin 90° Lateral; Begin 3.00°/100' Turn
11311.52	90.00	90.02	10550.00	-249.84	640.67	640.76	1347.84	Hold 90.02° Azm
15430.62	90.00	90.02	10550.00	-251.00	4759.76	4759.85	5466.94	PBHL





Company: Matador Resources
Site: Zach McCormick Federal 18-24S-29E RB
Well: #225H
Project: Eddy County, New Mexico (NAD 27)
Rig: Patterson 297

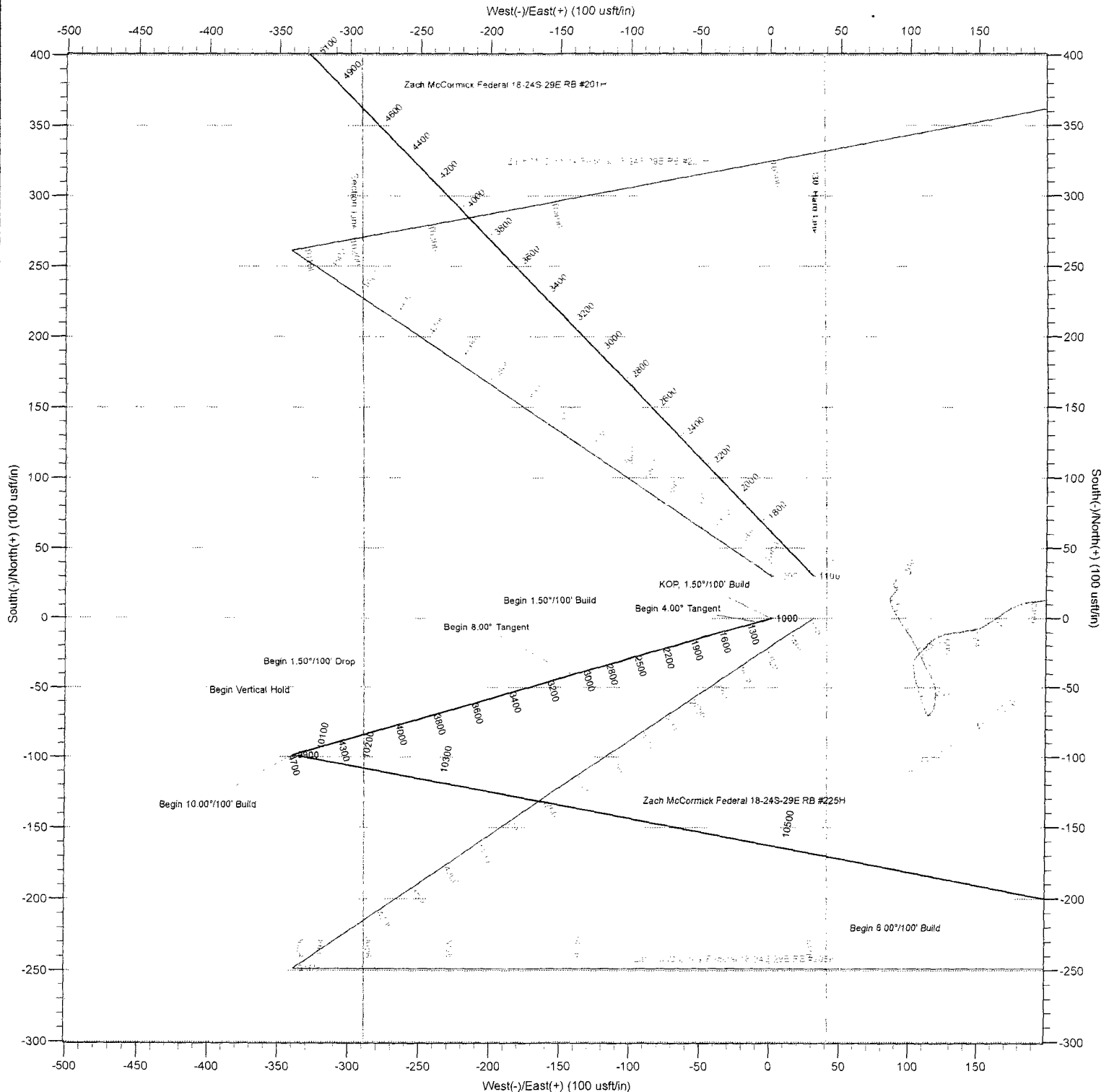
MS Energy Services.
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US State Plane 1927 (Exact solution)
New Mexico East 3001

ANNOTATIONS

Created By: HLH
Date: 13:36, June 24 2016
Plan: Design #1

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	KOP, 1.50°/100' Build
1266.67	4.00	253.80	1266.45	-2.60	-8.94	-8.93	9.30	Begin 4.00° Tangent
2850.00	4.00	253.80	2845.93	-33.41	-115.00	-114.98	119.75	Begin 1.50°/100' Build
3116.67	8.00	253.80	3111.08	-41.19	-141.76	-141.74	147.62	Begin 8.00° Tangent
4333.13	8.00	253.80	4315.70	-88.43	-304.33	-304.30	316.92	Begin 1.50°/100' Drop
4866.46	0.00	0.00	4847.30	-98.80	-340.03	-340.00	354.09	Begin Vertical Hold
9990.39	0.00	0.00	9971.23	-98.80	-340.03	-340.00	354.09	Begin 10.00°/100' Build
10790.39	80.00	100.65	10535.49	-186.30	125.28	125.34	827.56	Begin 6.00°/100' Build
10957.06	90.00	100.65	10550.00	-216.95	288.24	288.32	993.38	Begin 90° Lateral; Begin 3.00°/100' Turn
11311.52	90.00	90.02	10550.00	-249.84	640.67	640.76	1347.84	Hold 90.02° Azm
15430.62	90.00	90.02	10550.00	-251.00	4759.76	4759.85	5466.94	PBHL



The customer should only rely on this document after independently verifying all paths, targets, coordinates, lease and hard lines represented.

MS Energy Services, Inc. and its subsidiaries are not responsible for the accuracy of this schematic or the information contained herein.



Matador Resources

Eddy County, New Mexico (NAD 27)
Zach McCormick Federal 18-24S-29E RB
#225H

Wellbore #1

Plan: Design #1

Standard Planning Report

24 June, 2016



Planning Report

Database: EDM 5000.1 Conroe DB
Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Site: Zach McCormick Federal 18-24S-29E RB
Well: #225H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Eddy County, New Mexico (NAD 27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Well	#225H				
Well Position	+N/-S	444,925.57 usft	Northing:	444,925.57 usft	Latitude: 32° 13' 22.280 N
	+E/-W	593,546.62 usft	Easting:	593,546.62 usft	Longitude: 104° 1' 50.994 W
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft	Ground Level: 2,952.95 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2016	6/22/2016	7.32	60.00	48,069

Design	Design #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	90.02	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,266.67	4.00	253.80	1,266.45	-2.60	-8.94	1.50	1.50	0.00	253.80	VP - Zach McCorm
2,850.00	4.00	253.80	2,845.93	-33.41	-115.00	0.00	0.00	0.00	0.00	
3,116.67	8.00	253.80	3,111.08	-41.19	-141.76	1.50	1.50	0.00	0.00	
4,333.13	8.00	253.80	4,315.70	-88.43	-304.33	0.00	0.00	0.00	0.00	
4,866.46	0.00	0.00	4,847.31	-98.80	-340.03	1.50	-1.50	0.00	180.00	VP - Zach McCorm
9,990.39	0.00	0.00	9,971.24	-98.80	-340.03	0.00	0.00	0.00	0.00	
10,790.39	80.00	100.65	10,535.49	-186.30	125.28	10.00	10.00	0.00	100.65	
10,957.06	90.00	100.65	10,550.00	-216.95	288.24	6.00	6.00	0.00	0.00	
11,311.52	90.00	90.02	10,550.00	-249.84	640.67	3.00	0.00	-3.00	-90.00	
15,430.62	90.00	90.02	10,550.00	-251.00	4,759.76	0.00	0.00	0.00	0.00	PBHL - Zach McCo



Planning Report

Database: EDM 5000.1 Conroe DB
 Company: Matador Resources
 Project: Eddy County, New Mexico (NAD 27)
 Site: Zach McCormick Federal 18-24S-29E RB
 Well: #225H
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference: Well #225H
 TVD Reference: WELL @ 2981.95usft (Patterson 297)
 MD Reference: WELL @ 2981.95usft (Patterson 297)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, 1.50°/100' Build									
1,100.00	1.50	253.80	1,099.99	-0.37	-1.26	-1.26	1.50	1.50	0.00
1,200.00	3.00	253.80	1,199.91	-1.46	-5.03	-5.03	1.50	1.50	0.00
1,266.67	4.00	253.80	1,266.45	-2.60	-8.94	-8.93	1.50	1.50	0.00
Begin 4.00° Tangent									
1,300.00	4.00	253.80	1,299.70	-3.24	-11.17	-11.17	0.00	0.00	0.00
1,400.00	4.00	253.80	1,399.46	-5.19	-17.87	-17.86	0.00	0.00	0.00
1,500.00	4.00	253.80	1,499.22	-7.14	-24.57	-24.56	0.00	0.00	0.00
1,600.00	4.00	253.80	1,598.97	-9.08	-31.26	-31.26	0.00	0.00	0.00
1,700.00	4.00	253.80	1,698.73	-11.03	-37.96	-37.96	0.00	0.00	0.00
1,800.00	4.00	253.80	1,798.48	-12.98	-44.66	-44.66	0.00	0.00	0.00
1,900.00	4.00	253.80	1,898.24	-14.92	-51.36	-51.35	0.00	0.00	0.00
2,000.00	4.00	253.80	1,998.00	-16.87	-58.06	-58.05	0.00	0.00	0.00
2,100.00	4.00	253.80	2,097.75	-18.82	-64.76	-64.75	0.00	0.00	0.00
2,200.00	4.00	253.80	2,197.51	-20.76	-71.46	-71.45	0.00	0.00	0.00
2,300.00	4.00	253.80	2,297.27	-22.71	-78.15	-78.15	0.00	0.00	0.00
2,400.00	4.00	253.80	2,397.02	-24.66	-84.85	-84.84	0.00	0.00	0.00
2,500.00	4.00	253.80	2,496.78	-26.60	-91.55	-91.54	0.00	0.00	0.00
2,600.00	4.00	253.80	2,596.54	-28.55	-98.25	-98.24	0.00	0.00	0.00
2,700.00	4.00	253.80	2,696.29	-30.49	-104.95	-104.94	0.00	0.00	0.00
2,800.00	4.00	253.80	2,796.05	-32.44	-111.65	-111.64	0.00	0.00	0.00
2,850.00	4.00	253.80	2,845.93	-33.41	-115.00	-114.98	0.00	0.00	0.00
Begin 1.50°/100' Build									
2,900.00	4.75	253.80	2,895.78	-34.48	-118.66	-118.65	1.50	1.50	0.00
3,000.00	6.25	253.80	2,995.32	-37.15	-127.86	-127.85	1.50	1.50	0.00
3,100.00	7.75	253.80	3,094.57	-40.55	-139.57	-139.55	1.50	1.50	0.00
3,116.67	8.00	253.80	3,111.08	-41.19	-141.76	-141.74	1.50	1.50	0.00
Begin 8.00° Tangent									
3,200.00	8.00	253.80	3,193.60	-44.43	-152.90	-152.88	0.00	0.00	0.00
3,300.00	8.00	253.80	3,292.63	-48.31	-166.26	-166.24	0.00	0.00	0.00
3,400.00	8.00	253.80	3,391.65	-52.19	-179.62	-179.61	0.00	0.00	0.00
3,500.00	8.00	253.80	3,490.68	-56.08	-192.99	-192.97	0.00	0.00	0.00
3,600.00	8.00	253.80	3,589.71	-59.96	-206.35	-206.33	0.00	0.00	0.00
3,700.00	8.00	253.80	3,688.73	-63.84	-219.72	-219.70	0.00	0.00	0.00
3,800.00	8.00	253.80	3,787.76	-67.73	-233.08	-233.06	0.00	0.00	0.00
3,900.00	8.00	253.80	3,886.79	-71.61	-246.45	-246.42	0.00	0.00	0.00
4,000.00	8.00	253.80	3,985.82	-75.49	-259.81	-259.79	0.00	0.00	0.00
4,100.00	8.00	253.80	4,084.84	-79.37	-273.18	-273.15	0.00	0.00	0.00
4,200.00	8.00	253.80	4,183.87	-83.26	-286.54	-286.51	0.00	0.00	0.00
4,300.00	8.00	253.80	4,282.90	-87.14	-299.91	-299.88	0.00	0.00	0.00
4,333.13	8.00	253.80	4,315.70	-88.43	-304.33	-304.30	0.00	0.00	0.00
Begin 1.50°/100' Drop									
4,400.00	7.00	253.80	4,382.00	-90.86	-312.71	-312.68	1.50	-1.50	0.00



Planning Report

Database: EDM 5000.1 Conroe DB
Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Site: Zach McCormick Federal 18-24S-29E RB
Well: #225H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well #225H
WELL @ 2981.95usft (Patterson 297)
WELL @ 2981.95usft (Patterson 297)
Grid
Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.00	5.50	253.80	4,481.40	-93.90	-323.16	-323.13	1.50	-1.50	0.00
4,600.00	4.00	253.80	4,581.06	-96.21	-331.11	-331.07	1.50	-1.50	0.00
4,700.00	2.50	253.80	4,680.89	-97.79	-336.55	-336.51	1.50	-1.50	0.00
4,800.00	1.00	253.80	4,780.85	-98.64	-339.47	-339.44	1.50	-1.50	0.00
4,866.46	0.00	0.00	4,847.31	-98.80	-340.03	-340.00	1.50	-1.50	0.00
Begin Vertical Hold									
4,900.00	0.00	0.00	4,880.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
5,000.00	0.00	0.00	4,980.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,080.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,180.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,280.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,380.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,480.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,580.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,680.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,780.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,880.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,980.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,080.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,180.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,280.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,380.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,480.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,580.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,680.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,780.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,880.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
7,000.00	0.00	0.00	6,980.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,080.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,180.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,280.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,380.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,480.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,580.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,680.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,780.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,880.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
8,000.00	0.00	0.00	7,980.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,080.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,180.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,280.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,380.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,480.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,580.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,680.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,780.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,880.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
9,000.00	0.00	0.00	8,980.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,080.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,180.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,280.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,380.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,480.84	-98.80	-340.03	-340.00	0.00	0.00	0.00



Planning Report

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MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,600.00	0.00	0.00	9,580.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,680.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,780.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,880.84	-98.80	-340.03	-340.00	0.00	0.00	0.00
9,990.39	0.00	0.00	9,971.24	-98.80	-340.03	-340.00	0.00	0.00	0.00
Begin 10.00°/100' Build									
10,000.00	0.96	100.65	9,980.84	-98.81	-339.95	-339.92	10.00	10.00	0.00
10,050.00	5.96	100.65	10,030.73	-99.37	-336.99	-336.95	10.00	10.00	0.00
10,100.00	10.96	100.65	10,080.17	-100.73	-329.76	-329.72	10.00	10.00	0.00
10,150.00	15.96	100.65	10,128.79	-102.88	-318.32	-318.29	10.00	10.00	0.00
10,200.00	20.96	100.65	10,176.20	-105.81	-302.77	-302.73	10.00	10.00	0.00
10,250.00	25.96	100.65	10,222.05	-109.48	-283.21	-283.17	10.00	10.00	0.00
10,300.00	30.96	100.65	10,265.99	-113.89	-259.80	-259.76	10.00	10.00	0.00
10,350.00	35.96	100.65	10,307.69	-118.98	-232.72	-232.68	10.00	10.00	0.00
10,400.00	40.96	100.65	10,346.83	-124.73	-202.16	-202.12	10.00	10.00	0.00
10,450.00	45.96	100.65	10,383.11	-131.08	-168.37	-168.33	10.00	10.00	0.00
10,500.00	50.96	100.65	10,416.26	-137.99	-131.60	-131.56	10.00	10.00	0.00
10,550.00	55.96	100.65	10,446.02	-145.42	-92.14	-92.09	10.00	10.00	0.00
10,600.00	60.96	100.65	10,472.16	-153.29	-50.27	-50.22	10.00	10.00	0.00
10,650.00	65.96	100.65	10,494.50	-161.55	-6.32	-6.27	10.00	10.00	0.00
10,700.00	70.96	100.65	10,512.85	-170.15	39.37	39.43	10.00	10.00	0.00
10,750.00	75.96	100.65	10,527.08	-179.00	86.46	86.52	10.00	10.00	0.00
10,790.39	80.00	100.65	10,535.49	-186.30	125.28	125.34	10.00	10.00	0.00
Begin 6.00°/100' Build									
10,800.00	80.58	100.65	10,537.11	-188.05	134.59	134.65	6.00	6.00	0.00
10,850.00	83.58	100.65	10,544.00	-197.20	183.25	183.32	6.00	6.00	0.00
10,900.00	86.58	100.65	10,548.29	-206.41	232.20	232.27	6.00	6.00	0.00
10,950.00	89.58	100.65	10,549.97	-215.64	281.31	281.38	6.00	6.00	0.00
10,957.06	90.00	100.65	10,550.00	-216.95	288.24	288.32	6.00	6.00	0.00
Begin 90° Lateral; Begin 3.00°/100' Turn									
11,000.00	90.00	99.36	10,550.00	-224.41	330.53	330.61	3.00	0.00	-3.00
11,100.00	90.00	96.36	10,550.00	-238.08	429.58	429.66	3.00	0.00	-3.00
11,200.00	90.00	93.36	10,550.00	-246.56	529.21	529.29	3.00	0.00	-3.00
11,300.00	90.00	90.36	10,550.00	-249.81	629.14	629.23	3.00	0.00	-3.00
11,311.52	90.00	90.02	10,550.00	-249.84	640.67	640.76	3.00	0.00	-3.00
Hold 90.02° Azm									
11,400.00	90.00	90.02	10,550.00	-249.87	729.14	729.23	0.00	0.00	0.00
11,500.00	90.00	90.02	10,550.00	-249.90	829.14	829.23	0.00	0.00	0.00
11,600.00	90.00	90.02	10,550.00	-249.93	929.14	929.23	0.00	0.00	0.00
11,700.00	90.00	90.02	10,550.00	-249.95	1,029.14	1,029.23	0.00	0.00	0.00
11,800.00	90.00	90.02	10,550.00	-249.98	1,129.14	1,129.23	0.00	0.00	0.00
11,900.00	90.00	90.02	10,550.00	-250.01	1,229.14	1,229.23	0.00	0.00	0.00
12,000.00	90.00	90.02	10,550.00	-250.04	1,329.14	1,329.23	0.00	0.00	0.00
12,100.00	90.00	90.02	10,550.00	-250.07	1,429.14	1,429.23	0.00	0.00	0.00
12,200.00	90.00	90.02	10,550.00	-250.09	1,529.14	1,529.23	0.00	0.00	0.00
12,300.00	90.00	90.02	10,550.00	-250.12	1,629.14	1,629.23	0.00	0.00	0.00
12,400.00	90.00	90.02	10,550.00	-250.15	1,729.14	1,729.23	0.00	0.00	0.00
12,500.00	90.00	90.02	10,550.00	-250.18	1,829.14	1,829.23	0.00	0.00	0.00
12,600.00	90.00	90.02	10,550.00	-250.21	1,929.14	1,929.23	0.00	0.00	0.00
12,700.00	90.00	90.02	10,550.00	-250.23	2,029.14	2,029.23	0.00	0.00	0.00
12,800.00	90.00	90.02	10,550.00	-250.26	2,129.14	2,129.23	0.00	0.00	0.00
12,900.00	90.00	90.02	10,550.00	-250.29	2,229.14	2,229.23	0.00	0.00	0.00
13,000.00	90.00	90.02	10,550.00	-250.32	2,329.14	2,329.23	0.00	0.00	0.00



Planning Report

Database: EDM 5000.1 Conroe DB
Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Site: Zach McCormick Federal 18-24S-29E RB
Well: #225H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,100.00	90.00	90.02	10,550.00	-250.35	2,429.14	2,429.23	0.00	0.00	0.00
13,200.00	90.00	90.02	10,550.00	-250.37	2,529.14	2,529.23	0.00	0.00	0.00
13,300.00	90.00	90.02	10,550.00	-250.40	2,629.14	2,629.23	0.00	0.00	0.00
13,400.00	90.00	90.02	10,550.00	-250.43	2,729.14	2,729.23	0.00	0.00	0.00
13,500.00	90.00	90.02	10,550.00	-250.46	2,829.14	2,829.23	0.00	0.00	0.00
13,600.00	90.00	90.02	10,550.00	-250.49	2,929.14	2,929.23	0.00	0.00	0.00
13,700.00	90.00	90.02	10,550.00	-250.51	3,029.14	3,029.23	0.00	0.00	0.00
13,800.00	90.00	90.02	10,550.00	-250.54	3,129.14	3,129.23	0.00	0.00	0.00
13,900.00	90.00	90.02	10,550.00	-250.57	3,229.14	3,229.23	0.00	0.00	0.00
14,000.00	90.00	90.02	10,550.00	-250.60	3,329.14	3,329.23	0.00	0.00	0.00
14,100.00	90.00	90.02	10,550.00	-250.63	3,429.14	3,429.23	0.00	0.00	0.00
14,200.00	90.00	90.02	10,550.00	-250.65	3,529.14	3,529.23	0.00	0.00	0.00
14,300.00	90.00	90.02	10,550.00	-250.68	3,629.14	3,629.23	0.00	0.00	0.00
14,400.00	90.00	90.02	10,550.00	-250.71	3,729.14	3,729.23	0.00	0.00	0.00
14,500.00	90.00	90.02	10,550.00	-250.74	3,829.14	3,829.23	0.00	0.00	0.00
14,600.00	90.00	90.02	10,550.00	-250.77	3,929.14	3,929.23	0.00	0.00	0.00
14,700.00	90.00	90.02	10,550.00	-250.80	4,029.14	4,029.23	0.00	0.00	0.00
14,800.00	90.00	90.02	10,550.00	-250.82	4,129.14	4,129.23	0.00	0.00	0.00
14,900.00	90.00	90.02	10,550.00	-250.85	4,229.14	4,229.23	0.00	0.00	0.00
15,000.00	90.00	90.02	10,550.00	-250.88	4,329.14	4,329.23	0.00	0.00	0.00
15,100.00	90.00	90.02	10,550.00	-250.91	4,429.14	4,429.23	0.00	0.00	0.00
15,200.00	90.00	90.02	10,550.00	-250.94	4,529.14	4,529.23	0.00	0.00	0.00
15,300.00	90.00	90.02	10,550.00	-250.96	4,629.14	4,629.23	0.00	0.00	0.00
15,400.00	90.00	90.02	10,550.00	-250.99	4,729.14	4,729.23	0.00	0.00	0.00
15,430.62	90.00	90.02	10,550.00	-251.00	4,759.76	4,759.85	0.00	0.00	0.00
PBHL									

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
VP - Zach McCormick - plan hits target center - Point	0.00	0.00	4,847.31	-98.80	-340.03	444,826.77	593,206.59	32° 13' 21.312 N	104° 1' 54.955 W
PBHL - Zach McCormick - plan hits target center - Point	0.00	0.00	10,550.00	-251.00	4,759.76	444,674.57	598,306.38	32° 13' 19.660 N	104° 0' 55.593 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
625.00	625.00	Surface Casing	10-3/4	12-1/4
2,800.00	2,796.05	9 5/8"	9-5/8	12-1/4
10,790.39	10,535.49	7"	7	7-1/2



Planning Report



Database: EDM 5000.1 Conroe DB
Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Site: Zach McCormick Federal 18-24S-29E RB
Well: #225H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
808.95	808.95	Top of Salt		0.00	90.02
2,685.62	2,681.95	Lamar/Base of Salt		0.00	90.02
2,735.75	2,731.95	Bell Canyon		0.00	90.02
3,672.95	3,661.95	Cherry Canyon		0.00	90.02
4,906.11	4,886.95	Brushy Canyon		0.00	90.02
6,485.11	6,465.95	Bone Spring Lime		0.00	90.02
7,427.11	7,407.95	1st Bone Spring Sand		0.00	90.02
7,740.11	7,720.95	2nd Bone Spring Carbonate		0.00	90.02
8,339.11	8,319.95	2nd Bone Spring Sand		0.00	90.02
8,578.11	8,558.95	3rd Bone Spring Carbonate		0.00	90.02
9,294.11	9,274.95	3rd Bone Spring Sand		0.00	90.02
9,652.11	9,632.95	Wolfcamp		0.00	90.02
9,684.11	9,664.95	Wolfcamp X		0.00	90.02
9,749.11	9,729.95	Wolfcamp Y		0.00	90.02
10,370.35	10,323.95	Wolfcamp B		0.00	90.02

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,000.00	1,000.00	0.00	0.00	KOP, 1.50°/100' Build
1,266.67	1,266.45	-2.60	-8.94	Begin 4.00° Tangent
2,850.00	2,845.93	-33.41	-115.00	Begin 1.50°/100' Build
3,116.67	3,111.08	-41.19	-141.76	Begin 8.00° Tangent
4,333.13	4,315.70	-88.43	-304.33	Begin 1.50°/100' Drop
4,866.46	4,847.31	-98.80	-340.03	Begin Vertical Hold
9,990.39	9,971.24	-98.80	-340.03	Begin 10.00°/100' Build
10,790.39	10,535.49	-186.30	125.28	Begin 6.00°/100' Build
10,957.06	10,550.00	-216.95	288.24	Begin 90° Lateral; Begin 3.00°/100' Turn
11,311.52	10,550.00	-249.84	640.67	Hold 90.02° Azm
15,430.62	10,550.00	-251.00	4,759.76	PBHL



Matador Resources

Eddy County, New Mexico (NAD 27)
Zach McCormick Federal 18-24S-29E RB
#225H

Wellbore #1
Design #1

Anticollision Report

24 June, 2016



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Reference	Design #1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD + Stations Interval 100.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 10,000.00 u
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic
Casing Method:	Not applied

Survey Tool Program Date 6/23/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	15,430.23	Design #1 (Wellbore #1)	MWD	OWSG MWD - Standard

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Fort 18 Com						
#1 - 122H - Surveys	11,062.64	10,543.80	1,014.29	937.68	13.241	CC, ES
#1 - 122H - Surveys	11,100.00	10,541.91	1,015.34	938.42	13.200	SF
Zach McCormick Federal 18-24S-29E RB						
#1 - Wellbore #1 - Surveys	828.46	826.54	90.17	84.81	16.820	CC
#1 - Wellbore #1 - Surveys	1,000.00	997.44	91.00	84.43	13.849	ES
#1 - Wellbore #1 - Surveys	11,036.26	10,574.29	187.55	111.24	2.458	SF
#121H - Wellbore #1 - Design #1	1,000.00	1,000.10	67.12	60.41	10.007	CC, ES
#121H - Wellbore #1 - Design #1	7,900.00	7,903.34	180.29	123.66	3.183	SF
#122H - Wellbore #1 - Design #1	7,709.90	7,722.17	1,140.01	1,084.75	20.630	CC
#122H - Wellbore #1 - Design #1	7,900.00	7,909.52	1,140.13	1,083.54	20.144	ES
#122H - Wellbore #1 - Design #1	15,430.62	13,215.99	2,424.74	2,297.90	19.117	SF
#201H - Wellbore #1 - Design #1	1,000.00	1,000.25	42.45	35.75	6.329	CC, ES
#201H - Wellbore #1 - Design #1	1,200.00	1,199.68	47.10	38.99	5.808	SF
#202H - Wellbore #1 - Design #1	9,110.00	9,160.57	810.01	744.78	12.418	CC
#202H - Wellbore #1 - Design #1	9,300.00	9,348.15	810.16	743.59	12.170	ES
#202H - Wellbore #1 - Design #1	15,430.62	14,656.43	1,042.95	871.05	6.067	SF
#205H - Wellbore #1 - Design #1	1,000.00	999.65	30.04	23.33	4.480	CC
#205H - Wellbore #1 - Design #1	1,200.00	1,200.95	30.75	22.68	3.810	ES
#205H - Wellbore #1 - Design #1	9,300.00	9,304.39	150.48	84.40	2.277	SF
#206H - Wellbore #1 - Design #1	9,110.55	9,107.41	1,470.02	1,405.16	22.665	CC
#206H - Wellbore #1 - Design #1	15,430.62	14,600.73	1,546.68	1,325.76	7.001	ES, SF
#221H - Wellbore #1 - Design #1	1,000.00	999.98	30.08	23.37	4.485	CC, ES
#221H - Wellbore #1 - Design #1	15,428.14	15,433.94	660.00	410.45	2.645	SF
#222H - Wellbore #1 - Design #1	11,311.35	11,342.31	659.63	572.27	7.551	CC
#222H - Wellbore #1 - Design #1	15,430.62	15,455.21	660.00	405.83	2.597	ES, SF
#226H - Wellbore #1 - Design #1	11,311.35	11,311.75	1,319.62	1,232.51	15.149	CC
#226H - Wellbore #1 - Design #1	15,430.62	15,417.85	1,320.00	1,065.43	5.185	ES, SF

Offset Design Fort 18 Com - #1 - 122H - Surveys										Offset Site Error:	0.00 usft
Survey Program: 111-GYRO-NS										Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
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Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Fort 18 Com - #1 - 122H - Surveys												Offset Site Error:	0.00 usft
Survey Program: 111-GYRO-NS												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	153.77	-1,238.72	610.43	1,380.97				
100.00	100.00	103.99	103.99	0.13	0.16	153.80	-1,238.72	609.58	1,380.62	1,380.34	0.29	4,836.257	
200.00	200.00	205.93	205.91	0.49	0.51	153.87	-1,238.72	607.70	1,379.81	1,378.82	1.00	1,384.060	
300.00	300.00	307.27	307.23	0.84	0.88	153.95	-1,238.73	605.61	1,378.90	1,377.18	1.72	801.058	
400.00	400.00	408.15	408.08	1.20	1.25	154.03	-1,238.73	603.33	1,377.92	1,375.48	2.44	564.210	
500.00	500.00	509.03	508.93	1.56	1.61	154.12	-1,238.73	600.90	1,376.87	1,373.70	3.16	435.298	
600.00	600.00	609.89	609.76	1.92	1.98	154.22	-1,238.74	598.32	1,375.76	1,371.87	3.88	354.222	
700.00	700.00	710.41	710.25	2.28	2.32	154.32	-1,238.74	595.68	1,374.62	1,370.03	4.59	299.517	
800.00	800.00	814.72	814.50	2.64	2.69	154.44	-1,238.75	592.46	1,373.29	1,367.97	5.32	258.221	
900.00	900.00	918.97	918.67	3.00	3.06	154.59	-1,238.75	588.47	1,371.64	1,365.60	6.05	226.830	
1,000.00	1,000.00	1,021.05	1,020.65	3.35	3.43	154.76	-1,238.76	583.85	1,369.71	1,362.94	6.77	202.410	
1,100.00	1,099.99	1,116.20	1,115.73	3.70	3.76	-98.96	-1,238.76	580.02	1,368.20	1,360.76	7.45	183.724	
1,200.00	1,199.91	1,215.94	1,215.40	4.04	4.11	-99.00	-1,238.77	576.42	1,367.29	1,359.15	8.14	168.028	
1,266.67	1,266.45	1,285.27	1,284.67	4.27	4.35	-99.08	-1,238.77	573.70	1,366.81	1,358.20	8.61	158.731	
1,300.00	1,299.70	1,319.93	1,319.30	4.39	4.47	-99.13	-1,238.77	572.22	1,366.57	1,357.73	8.85	154.439	
1,400.00	1,399.46	1,421.98	1,421.25	4.74	4.84	-99.24	-1,238.78	567.56	1,365.74	1,356.18	9.56	142.863	
1,500.00	1,499.22	1,518.95	1,518.12	5.09	5.18	-99.36	-1,238.79	563.15	1,364.91	1,354.65	10.26	133.083	
1,600.00	1,598.97	1,615.97	1,615.06	5.45	5.52	-99.49	-1,238.79	559.31	1,364.35	1,353.40	10.95	124.555	
1,700.00	1,698.73	1,714.42	1,713.45	5.81	5.86	-99.64	-1,238.80	555.79	1,363.96	1,352.30	11.66	117.006	
1,800.00	1,798.48	1,814.35	1,813.32	6.17	6.21	-99.80	-1,238.80	552.30	1,363.61	1,351.25	12.37	110.258	
1,891.56	1,889.82	1,901.38	1,900.31	6.50	6.51	-99.95	-1,238.80	549.60	1,363.46	1,350.46	13.00	104.857	
1,900.00	1,898.24	1,909.40	1,908.33	6.53	6.54	-99.96	-1,238.81	549.38	1,363.46	1,350.40	13.06	104.387	
2,000.00	1,998.00	2,007.68	2,006.58	6.90	6.88	-100.16	-1,238.81	547.05	1,363.63	1,349.87	13.77	99.043	
2,100.00	2,097.75	2,111.16	2,110.02	7.26	7.24	-100.35	-1,238.81	544.25	1,363.68	1,349.18	14.49	94.089	
2,200.00	2,197.51	2,218.05	2,216.84	7.63	7.62	-100.52	-1,238.82	540.46	1,363.36	1,348.12	15.24	89.488	
2,300.00	2,297.27	2,324.09	2,322.76	8.00	7.99	-100.64	-1,238.82	535.49	1,362.53	1,346.55	15.98	85.288	
2,400.00	2,397.02	2,427.96	2,426.48	8.37	8.36	-100.72	-1,238.83	529.79	1,361.35	1,344.64	16.71	81.464	
2,500.00	2,496.78	2,530.13	2,528.47	8.74	8.73	-100.79	-1,238.84	523.72	1,359.96	1,342.52	17.44	77.967	
2,600.00	2,596.54	2,629.26	2,627.41	9.10	9.08	-100.85	-1,238.85	517.68	1,358.51	1,340.35	18.16	74.794	
2,700.00	2,696.29	2,725.50	2,723.49	9.47	9.43	-100.92	-1,238.86	512.21	1,357.25	1,338.37	18.88	71.887	
2,800.00	2,796.05	2,821.72	2,819.59	9.85	9.77	-101.02	-1,238.86	507.33	1,356.27	1,336.67	19.60	69.205	
2,850.00	2,845.93	2,869.83	2,867.65	10.03	9.95	-101.07	-1,238.87	505.10	1,355.88	1,335.92	19.96	67.942	
2,900.00	2,895.78	2,917.80	2,915.58	10.22	10.12	-101.15	-1,238.87	503.03	1,355.63	1,335.32	20.31	66.740	
2,935.97	2,931.62	2,952.25	2,949.99	10.35	10.24	-101.23	-1,238.87	501.65	1,355.57	1,335.00	20.57	65.905	
3,000.00	2,995.32	3,013.50	3,011.21	10.60	10.45	-101.39	-1,238.88	499.38	1,355.75	1,334.72	21.03	64.483	
3,100.00	3,094.57	3,111.99	3,109.64	10.99	10.80	-101.75	-1,238.88	496.03	1,356.62	1,334.86	21.76	62.353	
3,116.67	3,111.08	3,128.38	3,126.02	11.05	10.85	-101.82	-1,238.88	495.49	1,356.83	1,334.95	21.88	62.012	
3,200.00	3,193.60	3,210.29	3,207.89	11.38	11.14	-102.20	-1,238.88	492.86	1,357.99	1,335.49	22.50	60.367	
3,300.00	3,292.63	3,309.70	3,307.25	11.78	11.49	-102.65	-1,238.89	489.78	1,359.52	1,336.28	23.24	58.501	
3,400.00	3,391.65	3,410.26	3,407.76	12.18	11.84	-103.11	-1,238.89	486.53	1,361.07	1,337.08	23.99	56.738	
3,500.00	3,490.68	3,510.86	3,508.29	12.58	12.19	-103.56	-1,238.90	483.11	1,362.62	1,337.88	24.74	55.079	
3,600.00	3,589.71	3,608.16	3,605.54	12.99	12.53	-103.99	-1,238.90	479.86	1,364.29	1,338.81	25.48	53.544	
3,700.00	3,688.73	3,705.43	3,702.77	13.39	12.87	-104.44	-1,238.91	476.92	1,366.19	1,339.97	26.22	52.104	
3,800.00	3,787.76	3,802.99	3,800.29	13.80	13.21	-104.89	-1,238.91	474.26	1,368.34	1,341.37	26.96	50.749	
3,900.00	3,886.79	3,902.33	3,899.60	14.20	13.56	-105.36	-1,238.91	471.66	1,370.63	1,342.92	27.71	49.461	
4,000.00	3,985.82	4,070.33	3,998.91	14.61	14.14	-105.82	-1,238.92	469.06	1,373.02	1,344.32	28.70	47.839	
4,100.00	4,084.84	4,101.02	4,098.22	15.02	14.25	-106.29	-1,238.92	466.46	1,375.49	1,346.28	29.21	47.088	
4,200.00	4,183.87	4,200.36	4,197.53	15.43	14.60	-106.75	-1,238.92	463.86	1,378.06	1,348.10	29.96	45.992	
4,300.00	4,282.90	4,299.70	4,296.84	15.84	14.95	-107.21	-1,238.93	461.26	1,380.72	1,350.00	30.72	44.952	
4,333.13	4,315.70	4,332.61	4,329.74	15.97	15.06	-107.36	-1,238.93	460.40	1,381.62	1,350.65	30.96	44.619	
4,400.00	4,382.00	4,399.11	4,396.21	16.24	15.29	-107.67	-1,238.93	458.65	1,383.28	1,351.82	31.47	43.962	
4,500.00	4,481.40	4,498.75	4,495.82	16.64	15.64	-108.03	-1,238.94	456.05	1,385.17	1,352.96	32.21	43.011	

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Fort 18 Com - #1 - 122H - Surveys													Offset Site Error:	0.00 usft
Survey Program: 111-GYRO-NS													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Between Centres (usft)	Between Ellipses (usft)						
4,600.00	4,581.06	4,598.17	4,595.20	17.02	15.99	-108.28	-1,238.94	453.46	1,386.29	1,353.35	32.93	42.096		
4,700.00	4,680.89	4,697.45	4,694.45	17.39	16.34	-108.42	-1,238.94	450.95	1,386.64	1,353.00	33.65	41.214		
4,800.00	4,780.85	4,796.78	4,793.75	17.74	16.68	-108.45	-1,238.95	448.53	1,386.22	1,351.87	34.35	40.359		
4,866.46	4,847.31	4,862.79	4,859.74	17.97	16.92	-145.38	-1,238.95	446.97	1,385.51	1,350.71	34.80	39.811		
4,900.00	4,880.84	4,896.10	4,893.04	18.08	17.03	-145.41	-1,238.95	446.19	1,385.07	1,350.04	35.03	39.541		
5,000.00	4,980.84	4,995.41	4,992.33	18.40	17.38	-145.49	-1,238.95	443.94	1,383.78	1,348.08	35.70	38.757		
5,100.00	5,080.84	5,094.73	5,091.62	18.73	17.73	-145.56	-1,238.96	441.77	1,382.55	1,346.17	36.38	38.003		
5,200.00	5,180.84	5,194.02	5,190.89	19.06	18.07	-145.63	-1,238.96	439.68	1,381.37	1,344.31	37.06	37.277		
5,300.00	5,280.84	5,293.32	5,290.17	19.39	18.42	-145.70	-1,238.96	437.69	1,380.23	1,342.50	37.73	36.578		
5,400.00	5,380.84	5,392.62	5,389.46	19.72	18.76	-145.77	-1,238.96	435.78	1,379.15	1,340.74	38.41	35.904		
5,500.00	5,480.84	5,491.93	5,488.75	20.05	19.11	-145.83	-1,238.97	433.95	1,378.12	1,339.03	39.09	35.253		
5,600.00	5,580.84	5,591.54	5,588.34	20.39	19.46	-145.89	-1,238.97	432.20	1,377.14	1,337.36	39.77	34.625		
5,700.00	5,680.84	5,691.53	5,688.31	20.72	19.80	-145.95	-1,238.97	430.45	1,376.16	1,335.70	40.46	34.016		
5,800.00	5,780.84	5,791.51	5,788.28	21.05	20.15	-146.01	-1,238.97	428.71	1,375.19	1,334.05	41.14	33.426		
5,900.00	5,880.84	5,891.50	5,888.25	21.39	20.50	-146.07	-1,238.98	426.96	1,374.21	1,332.39	41.83	32.856		
6,000.00	5,980.84	5,991.48	5,988.22	21.73	20.85	-146.13	-1,238.98	425.22	1,373.24	1,330.73	42.51	32.303		
6,100.00	6,080.84	6,091.47	6,088.19	22.06	21.19	-146.19	-1,238.98	423.47	1,372.27	1,329.07	43.20	31.768		
6,200.00	6,180.84	6,200.55	6,188.16	22.40	21.89	-146.25	-1,238.98	421.73	1,371.30	1,327.07	44.23	31.005		
6,300.00	6,280.84	6,291.44	6,288.13	22.74	21.89	-146.31	-1,238.99	419.98	1,370.34	1,325.77	44.57	30.745		
6,400.00	6,380.84	6,391.42	6,388.10	23.08	22.24	-146.37	-1,238.99	418.24	1,369.37	1,324.11	45.26	30.256		
6,500.00	6,480.84	6,491.41	6,488.07	23.42	22.59	-146.44	-1,238.99	416.50	1,368.41	1,322.46	45.95	29.781		
6,600.00	6,580.84	6,591.39	6,588.04	23.76	22.93	-146.50	-1,238.99	414.75	1,367.45	1,320.81	46.64	29.320		
6,700.00	6,680.84	6,691.38	6,688.01	24.10	23.28	-146.56	-1,239.00	413.01	1,366.48	1,319.16	47.33	28.873		
6,800.00	6,780.84	6,792.98	6,789.60	24.44	23.64	-146.62	-1,239.00	411.19	1,365.50	1,317.48	48.03	28.433		
6,900.00	6,880.84	6,897.06	6,893.65	24.78	24.00	-146.70	-1,239.00	409.86	1,364.28	1,315.54	48.73	27.995		
7,000.00	6,980.84	7,001.11	6,997.66	25.12	24.37	-146.80	-1,239.01	405.97	1,362.75	1,313.31	49.44	27.563		
7,100.00	7,080.84	7,105.13	7,101.62	25.46	24.73	-146.93	-1,239.01	402.50	1,360.94	1,310.79	50.15	27.137		
7,200.00	7,180.84	7,209.10	7,205.51	25.81	25.10	-147.07	-1,239.02	398.47	1,358.83	1,307.97	50.86	26.718		
7,300.00	7,280.84	7,314.95	7,311.26	26.15	25.47	-147.24	-1,239.02	393.70	1,356.39	1,304.81	51.57	26.301		
7,400.00	7,380.84	7,416.08	7,412.25	26.49	25.82	-147.43	-1,239.03	388.45	1,353.59	1,301.32	52.27	25.896		
7,500.00	7,480.84	7,507.94	7,504.01	26.84	26.14	-147.57	-1,239.04	384.33	1,351.18	1,298.24	52.94	25.523		
7,600.00	7,580.84	7,619.41	7,615.36	27.18	26.53	-147.77	-1,239.04	378.94	1,348.60	1,294.93	53.67	25.127		
7,700.00	7,680.84	7,717.02	7,712.81	27.53	26.87	-147.96	-1,239.05	373.58	1,345.68	1,291.32	54.36	24.755		
7,800.00	7,780.84	7,814.52	7,810.18	27.87	27.22	-148.14	-1,239.06	368.56	1,342.95	1,287.91	55.05	24.396		
7,900.00	7,880.84	7,914.15	7,909.70	28.22	27.56	-148.32	-1,239.06	363.69	1,340.39	1,284.64	55.74	24.045		
8,000.00	7,980.84	8,014.68	8,010.10	28.56	27.92	-148.51	-1,239.07	358.56	1,337.72	1,281.27	56.44	23.700		
8,100.00	8,080.84	8,108.61	8,103.92	28.91	28.25	-148.66	-1,239.08	354.22	1,335.31	1,278.19	57.12	23.376		
8,200.00	8,180.84	8,203.71	8,198.96	29.26	28.58	-148.80	-1,239.08	350.64	1,333.36	1,275.56	57.80	23.067		
8,300.00	8,280.84	8,303.64	8,298.83	29.60	28.93	-148.93	-1,239.09	347.15	1,331.56	1,273.06	58.50	22.762		
8,400.00	8,380.84	8,401.55	8,396.69	29.95	29.27	-149.05	-1,239.09	343.86	1,329.83	1,270.64	59.19	22.467		
8,500.00	8,480.84	8,499.25	8,494.34	30.30	29.61	-149.16	-1,239.10	340.91	1,328.28	1,268.40	59.88	22.183		
8,600.00	8,580.84	8,597.34	8,592.39	30.65	29.96	-149.25	-1,239.10	338.26	1,326.90	1,266.33	60.57	21.907		
8,700.00	8,680.84	8,696.48	8,691.50	30.99	30.31	-149.35	-1,239.10	335.75	1,325.61	1,264.35	61.26	21.637		
8,800.00	8,780.84	8,795.62	8,790.62	31.34	30.65	-149.44	-1,239.11	333.37	1,324.39	1,262.43	61.96	21.375		
8,900.00	8,880.84	8,894.78	8,889.74	31.69	31.00	-149.52	-1,239.11	331.11	1,323.24	1,260.58	62.65	21.120		
9,000.00	8,980.84	8,997.02	8,991.96	32.04	31.36	-149.61	-1,239.11	328.74	1,322.07	1,258.71	63.36	20.865		
9,100.00	9,080.84	9,100.53	9,095.42	32.39	31.72	-149.72	-1,239.12	325.82	1,320.64	1,256.57	64.07	20.611		
9,200.00	9,180.84	9,204.00	9,198.84	32.74	32.09	-149.85	-1,239.12	322.35	1,318.96	1,254.17	64.79	20.359		
9,300.00	9,280.84	9,307.43	9,302.19	33.08	32.45	-150.00	-1,239.13	318.33	1,317.01	1,251.52	65.50	20.108		
9,400.00	9,380.84	9,410.34	9,405.00	33.43	32.81	-150.17	-1,239.13	313.80	1,314.82	1,248.62	66.21	19.859		
9,500.00	9,480.84	9,512.89	9,507.44	33.78	33.17	-150.36	-1,239.14	308.86	1,312.44	1,245.52	66.92	19.613		
9,600.00	9,580.84	9,612.69	9,607.10	34.13	33.52	-150.55	-1,239.15	303.75	1,309.92	1,242.30	67.62	19.372		

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



Anticollision Report



Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Fort 18 Com - #1 - 122H - Surveys													Offset Site Error: 0.00 usft
Survey Program: 111-GYRO-NS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,700.00	9,680.84	9,709.59	9,703.89	34.48	33.87	150.73	-1,239.15	299.12	1,307.58	1,239.27	68.31	19.142	
9,800.00	9,780.84	9,806.53	9,800.75	34.83	34.21	150.89	-1,239.16	294.94	1,305.48	1,236.48	69.00	18.919	
9,900.00	9,880.84	9,903.51	9,897.65	35.18	34.55	151.03	-1,239.17	291.21	1,303.62	1,233.92	69.70	18.704	
9,990.39	9,971.24	9,999.63	9,993.69	35.50	34.89	151.18	-1,239.17	287.47	1,301.93	1,231.58	70.35	18.507	
10,000.00	9,980.84	10,010.20	10,004.25	35.53	34.92	50.57	-1,239.17	286.98	1,301.66	1,231.24	70.42	18.485	
10,050.00	10,030.73	10,064.92	10,058.90	35.69	35.11	51.03	-1,239.18	284.20	1,298.53	1,227.76	70.77	18.349	
10,100.00	10,080.17	10,111.29	10,105.21	35.85	35.28	51.83	-1,239.18	281.85	1,292.70	1,221.62	71.09	18.185	
10,150.00	10,128.79	10,158.56	10,152.42	35.99	35.44	52.99	-1,239.18	279.48	1,284.30	1,212.89	71.40	17.987	
10,200.00	10,176.20	10,204.48	10,198.28	36.13	35.61	54.51	-1,239.19	277.23	1,273.47	1,201.77	71.70	17.761	
10,250.00	10,222.05	10,249.24	10,243.00	36.26	35.76	56.39	-1,239.19	275.07	1,260.41	1,188.42	71.99	17.508	
10,300.00	10,265.99	10,292.23	10,285.94	36.38	35.91	58.64	-1,239.19	272.99	1,245.33	1,173.06	72.27	17.232	
10,350.00	10,307.69	10,332.77	10,326.43	36.50	36.06	61.21	-1,239.19	271.00	1,228.50	1,155.98	72.53	16.938	
10,400.00	10,346.83	10,370.55	10,364.16	36.62	36.19	64.08	-1,239.20	269.14	1,210.25	1,137.48	72.78	16.630	
10,450.00	10,383.11	10,405.27	10,398.83	36.74	36.31	67.17	-1,239.20	267.42	1,190.93	1,117.92	73.01	16.311	
10,500.00	10,416.26	10,436.67	10,430.20	36.86	36.42	70.42	-1,239.20	265.85	1,170.91	1,097.66	73.24	15.987	
10,550.00	10,446.02	10,464.51	10,458.00	37.00	36.52	73.73	-1,239.20	264.45	1,150.58	1,077.12	73.47	15.661	
10,600.00	10,472.16	10,488.59	10,482.05	37.16	36.61	76.99	-1,239.20	263.23	1,130.37	1,056.68	73.70	15.338	
10,650.00	10,494.50	10,508.72	10,502.16	37.33	36.68	80.10	-1,239.21	262.21	1,110.69	1,036.76	73.93	15.024	
10,700.00	10,512.85	10,524.76	10,518.17	37.53	36.73	82.94	-1,239.21	261.39	1,091.93	1,017.76	74.17	14.721	
10,750.00	10,527.08	10,536.58	10,529.99	37.76	36.77	85.44	-1,239.21	260.78	1,074.48	1,000.05	74.43	14.435	
10,790.39	10,535.49	10,543.01	10,536.40	37.96	36.80	87.16	-1,239.21	260.46	1,061.57	986.92	74.66	14.219	
10,800.00	10,537.11	10,544.15	10,537.54	38.01	36.80	87.41	-1,239.21	260.40	1,058.68	983.97	74.71	14.170	
10,850.00	10,544.00	10,548.54	10,541.93	38.30	36.82	88.52	-1,239.21	260.17	1,044.85	969.84	75.01	13.929	
10,900.00	10,548.29	10,550.32	10,543.70	38.60	36.82	89.34	-1,239.21	260.08	1,033.18	957.84	75.34	13.714	
10,950.00	10,549.97	10,549.47	10,542.86	38.94	36.82	89.86	-1,239.21	260.12	1,023.79	948.10	75.69	13.526	
10,957.06	10,550.00	10,549.14	10,542.53	38.99	36.82	89.91	-1,239.21	260.14	1,022.65	946.91	75.74	13.502	
11,000.00	10,550.00	10,546.98	10,540.36	39.30	36.81	89.79	-1,239.21	260.25	1,017.24	941.17	76.07	13.373	
11,062.64	10,550.00	10,543.80	10,537.20	39.83	36.80	89.61	-1,239.21	260.41	1,014.29	937.68	76.60	13.241 CC, ES	
11,100.00	10,550.00	10,541.91	10,535.30	40.14	36.79	89.51	-1,239.21	260.51	1,015.34	938.42	76.92	13.200 SF	
11,200.00	10,550.00	10,536.82	10,530.22	41.09	36.78	89.21	-1,239.21	260.77	1,028.40	950.56	77.84	13.212	
11,300.00	10,550.00	10,531.72	10,525.13	42.16	36.76	88.91	-1,239.21	261.03	1,055.83	977.08	78.75	13.408	
11,311.52	10,550.00	10,531.13	10,524.54	42.29	36.76	88.87	-1,239.21	261.06	1,059.87	981.02	78.85	13.442	
11,400.00	10,550.00	10,526.63	10,520.05	43.33	36.74	88.61	-1,239.21	261.29	1,094.65	1,015.06	79.59	13.753	
11,500.00	10,550.00	10,521.55	10,514.97	44.59	36.72	88.32	-1,239.21	261.55	1,140.94	1,060.59	80.35	14.199	
11,600.00	10,550.00	10,516.49	10,509.91	45.95	36.70	88.02	-1,239.21	261.81	1,193.81	1,112.79	81.01	14.736	
11,700.00	10,550.00	10,511.43	10,504.86	47.39	36.69	87.73	-1,239.21	262.07	1,252.42	1,170.84	81.58	15.352	
11,800.00	10,550.00	10,506.38	10,499.82	48.91	36.67	87.44	-1,239.21	262.33	1,316.02	1,233.96	82.06	16.038	
11,900.00	10,550.00	10,501.34	10,494.79	50.51	36.65	87.15	-1,239.21	262.58	1,383.90	1,301.45	82.45	16.784	
12,000.00	10,550.00	10,496.31	10,489.77	52.16	36.63	86.86	-1,239.21	262.84	1,455.48	1,372.70	82.78	17.583	
12,100.00	10,550.00	10,491.30	10,484.76	53.87	36.61	86.57	-1,239.21	263.09	1,530.23	1,447.18	83.04	18.427	
12,200.00	10,550.00	10,486.29	10,479.76	55.64	36.60	86.28	-1,239.20	263.35	1,607.71	1,524.45	83.26	19.310	
12,300.00	10,550.00	10,481.29	10,474.77	57.45	36.58	85.99	-1,239.20	263.60	1,687.54	1,604.11	83.43	20.227	
12,400.00	10,550.00	10,476.31	10,469.79	59.31	36.56	85.71	-1,239.20	263.85	1,769.41	1,685.84	83.57	21.173	
12,500.00	10,550.00	10,471.33	10,464.82	61.20	36.54	85.42	-1,239.20	264.10	1,853.05	1,769.37	83.68	22.144	
12,600.00	10,550.00	10,466.36	10,459.85	63.14	36.53	85.14	-1,239.20	264.35	1,938.23	1,854.45	83.77	23.136	
12,700.00	10,550.00	10,461.41	10,454.90	65.10	36.51	84.85	-1,239.20	264.60	2,024.75	1,940.90	83.85	24.148	
12,800.00	10,550.00	10,456.46	10,449.96	67.10	36.49	84.57	-1,239.20	264.85	2,112.45	2,028.54	83.91	25.176	
12,900.00	10,550.00	10,451.52	10,445.03	69.12	36.47	84.29	-1,239.20	265.10	2,201.19	2,117.23	83.95	26.219	
13,000.00	10,550.00	10,446.59	10,440.11	71.17	36.46	84.00	-1,239.20	265.35	2,290.84	2,206.85	83.99	27.274	
13,100.00	10,550.00	10,441.68	10,435.20	73.24	36.44	83.72	-1,239.20	265.60	2,381.31	2,297.28	84.02	28.341	
13,200.00	10,550.00	10,436.77	10,430.30	75.33	36.42	83.44	-1,239.20	265.84	2,472.50	2,388.45	84.05	29.418	
13,300.00	10,550.00	10,431.87	10,425.41	77.44	36.41	83.16	-1,239.20	266.09	2,564.34	2,480.27	84.07	30.504	

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Fort 18 Com - #1 - 122H - Surveys													Offset Site Error:	0.00 usft
Survey Program: 111-GYRO-NS													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,400.00	10,550.00	10,426.98	10,420.52	79.57	36.39	82.88	-1,239.20	266.33	2,656.76	2,572.68	84.08	31.597		
13,500.00	10,550.00	10,422.10	10,415.65	81.72	36.37	82.61	-1,239.20	266.58	2,749.70	2,665.60	84.10	32.697		
13,600.00	10,550.00	10,417.23	10,410.79	83.88	36.35	82.33	-1,239.20	266.82	2,843.11	2,759.00	84.11	33.804		
13,700.00	10,550.00	10,412.37	10,405.93	86.05	36.34	82.05	-1,239.20	267.06	2,936.95	2,852.83	84.12	34.916		
13,800.00	10,550.00	10,407.52	10,401.09	88.24	36.32	81.78	-1,239.20	267.30	3,031.17	2,947.05	84.12	36.032		
13,900.00	10,550.00	10,402.68	10,396.26	90.44	36.30	81.50	-1,239.20	267.55	3,125.75	3,041.62	84.13	37.153		
14,000.00	10,550.00	10,397.85	10,391.43	92.65	36.29	81.23	-1,239.20	267.79	3,220.64	3,136.50	84.14	38.278		
14,100.00	10,550.00	10,393.03	10,386.62	94.87	36.27	80.96	-1,239.20	268.03	3,315.83	3,231.68	84.14	39.406		
14,200.00	10,550.00	10,388.22	10,381.81	97.10	36.25	80.69	-1,239.20	268.27	3,411.29	3,327.13	84.15	40.537		
14,300.00	10,550.00	10,383.42	10,377.01	99.34	36.24	80.42	-1,239.20	268.50	3,506.99	3,422.83	84.16	41.671		
14,400.00	10,550.00	10,378.62	10,372.23	101.59	36.22	80.15	-1,239.20	268.74	3,602.92	3,518.75	84.17	42.808		
14,500.00	10,550.00	10,373.84	10,367.45	103.85	36.20	79.88	-1,239.20	268.98	3,699.06	3,614.88	84.17	43.946		
14,600.00	10,550.00	10,369.07	10,362.68	106.11	36.18	79.61	-1,239.20	269.21	3,795.39	3,711.21	84.18	45.086		
14,700.00	10,550.00	10,364.30	10,357.92	108.38	36.17	79.35	-1,239.20	269.45	3,891.90	3,807.71	84.19	46.227		
14,800.00	10,550.00	10,359.55	10,353.17	110.66	36.15	79.08	-1,239.20	269.69	3,988.58	3,904.38	84.20	47.370		
14,900.00	10,550.00	10,354.80	10,348.43	112.94	36.13	78.82	-1,239.20	269.92	4,085.41	4,001.20	84.21	48.514		
15,000.00	10,550.00	10,350.07	10,343.70	115.23	36.12	78.55	-1,239.20	270.15	4,182.38	4,098.16	84.22	49.659		
15,100.00	10,550.00	10,345.34	10,338.98	117.52	36.10	78.29	-1,239.19	270.39	4,279.49	4,195.26	84.23	50.805		
15,200.00	10,550.00	10,340.62	10,334.27	119.82	36.08	78.03	-1,239.19	270.62	4,376.72	4,292.48	84.25	51.951		
15,300.00	10,550.00	10,335.91	10,329.57	122.13	36.07	77.77	-1,239.19	270.85	4,474.07	4,389.81	84.26	53.098		
15,400.00	10,550.00	10,331.21	10,324.87	124.44	36.05	77.51	-1,239.19	271.08	4,571.53	4,487.26	84.28	54.245		
15,430.62	10,550.00	10,329.77	10,323.44	124.92	36.05	77.43	-1,239.19	271.15	4,601.39	4,514.92	86.47	53.213		



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #1 - Wellbore #1 - Surveys													Offset Site Error:	0.00 usft
Survey Program: 125-GYRO-NS													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.00	0.00	0.00	0.00	0.00	0.00	73.53	26.43	89.38	93.23					
100.00	100.00	98.10	98.10	0.13	0.13	73.48	26.49	89.33	93.18	92.92	0.26	356.065		
136.66	136.66	134.79	134.79	0.26	0.19	73.45	26.54	89.29	93.15	92.71	0.44	210.101		
200.00	200.00	197.70	197.70	0.49	0.43	73.40	26.65	89.41	93.30	92.39	0.91	102.396		
300.00	300.00	298.18	298.18	0.84	0.78	73.32	26.83	89.53	93.46	91.84	1.62	57.681		
400.00	400.00	398.47	398.46	1.20	1.13	73.17	26.99	89.24	93.23	90.90	2.33	40.039		
500.00	500.00	498.90	498.90	1.56	1.48	73.28	26.59	88.53	92.44	89.40	3.04	30.426		
600.00	600.00	598.91	598.89	1.92	1.83	73.72	25.66	87.87	91.54	87.79	3.75	24.435		
700.00	700.00	698.69	698.67	2.28	2.18	74.26	24.62	87.35	90.75	86.30	4.45	20.377		
800.00	800.00	798.28	798.26	2.64	2.52	74.79	23.66	87.04	90.20	85.04	5.16	17.481		
828.46	828.46	826.54	826.51	2.74	2.62	74.93	23.45	87.07	90.17	84.81	5.36	16.820 CC		
900.00	900.00	897.62	897.59	3.00	2.87	75.27	22.98	87.42	90.39	84.52	5.86	15.412		
1,000.00	1,000.00	997.44	997.40	3.35	3.22	75.83	22.28	88.23	91.00	84.43	6.57	13.849 ES		
1,100.00	1,099.99	1,097.22	1,097.18	3.70	3.57	-177.52	21.73	89.19	93.11	85.84	7.27	12.813		
1,200.00	1,199.91	1,197.01	1,196.96	4.04	3.92	-177.26	21.36	90.31	98.03	90.08	7.95	12.325		
1,266.67	1,266.45	1,263.76	1,263.71	4.27	4.15	-177.17	21.17	90.98	102.71	94.29	8.42	12.204		
1,300.00	1,299.70	1,297.55	1,297.49	4.39	4.27	-177.15	21.08	91.20	105.22	96.57	8.65	12.167		
1,400.00	1,399.46	1,398.87	1,398.81	4.74	4.62	-177.03	20.37	90.85	111.69	102.34	9.35	11.951		
1,500.00	1,499.22	1,499.20	1,499.13	5.09	4.97	-176.97	19.56	89.52	117.18	107.14	10.04	11.669		
1,600.00	1,598.97	1,598.87	1,598.78	5.45	5.32	-176.72	18.34	88.24	122.62	111.88	10.74	11.419		
1,700.00	1,698.73	1,698.41	1,698.31	5.81	5.67	-176.44	17.09	87.30	128.39	116.96	11.44	11.226		
1,800.00	1,798.48	1,798.48	1,798.37	6.17	6.02	-176.19	15.81	86.28	134.08	121.94	12.14	11.046		
1,900.00	1,898.24	1,898.15	1,898.02	6.53	6.37	-175.96	14.52	85.16	139.66	126.83	12.84	10.878		
2,000.00	1,998.00	1,996.59	1,996.45	6.90	6.71	-175.56	12.87	84.61	145.73	132.20	13.54	10.767		
2,100.00	2,097.75	2,094.20	2,093.99	7.26	7.05	-174.42	9.48	85.81	153.22	138.99	14.23	10.769		
2,200.00	2,197.51	2,193.46	2,193.12	7.63	7.40	-172.92	4.91	87.95	161.48	146.55	14.93	10.817		
2,300.00	2,297.27	2,290.09	2,289.56	8.00	7.74	-171.26	-0.41	91.10	170.82	155.21	15.61	10.942		
2,400.00	2,397.02	2,387.51	2,386.59	8.37	8.09	-169.16	-7.49	95.91	181.77	165.47	16.30	11.152		
2,500.00	2,496.78	2,488.57	2,487.16	8.74	8.44	-166.90	-15.93	101.22	193.21	176.19	17.02	11.352		
2,600.00	2,596.54	2,591.52	2,589.84	9.10	8.80	-165.49	-22.35	104.62	203.02	185.26	17.75	11.436		
2,700.00	2,696.29	2,692.75	2,690.96	9.47	9.16	-164.77	-26.73	106.75	211.76	193.29	18.47	11.465		
2,800.00	2,796.05	2,792.99	2,791.13	9.85	9.51	-164.36	-30.07	108.17	219.85	200.67	19.18	11.462		
2,850.00	2,845.93	2,842.90	2,841.03	10.03	9.68	-164.28	-31.32	108.85	223.87	204.34	19.53	11.461		
2,900.00	2,895.78	2,892.62	2,890.72	10.22	9.86	-164.23	-32.47	109.53	228.21	208.33	19.89	11.476		
3,000.00	2,895.32	2,891.90	2,889.97	10.60	10.20	-164.25	-34.78	110.92	238.82	218.23	20.59	11.597		
3,100.00	3,094.57	3,091.62	3,089.66	10.99	10.55	-164.44	-37.04	112.02	251.63	230.32	21.31	11.810		
3,116.67	3,111.08	3,108.07	3,106.10	11.05	10.61	-164.48	-37.41	112.22	254.02	232.60	21.42	11.857		
3,200.00	3,193.60	3,190.97	3,188.98	11.38	10.90	-164.75	-39.23	113.19	266.15	244.13	22.02	12.089		
3,300.00	3,292.63	3,289.20	3,287.17	11.78	11.24	-165.07	-41.25	114.30	280.67	257.96	22.72	12.355		
3,400.00	3,391.65	3,388.97	3,386.92	12.18	11.59	-165.36	-43.37	115.51	295.28	271.85	23.43	12.602		
3,500.00	3,490.68	3,488.64	3,486.56	12.58	11.94	-165.58	-45.67	116.50	309.67	285.53	24.14	12.826		
3,600.00	3,589.71	3,588.11	3,586.01	12.99	12.29	-165.82	-47.71	117.10	323.69	298.84	24.85	13.023		
3,700.00	3,688.73	3,687.74	3,685.62	13.39	12.64	-166.09	-49.56	117.61	337.64	312.07	25.57	13.206		
3,800.00	3,787.76	3,787.45	3,785.30	13.80	12.99	-166.32	-51.44	118.01	351.47	325.19	26.28	13.374		
3,900.00	3,886.79	3,886.98	3,884.82	14.20	13.34	-166.59	-53.04	118.12	365.04	338.04	26.99	13.523		
4,000.00	3,985.82	3,985.48	3,983.32	14.61	13.68	-166.88	-54.31	118.22	378.63	350.93	27.70	13.669		
4,100.00	4,084.84	4,084.67	4,082.50	15.02	14.03	-167.15	-55.58	118.49	392.39	363.98	28.41	13.811		
4,200.00	4,183.87	4,185.24	4,183.06	15.43	14.38	-167.42	-56.81	118.46	405.87	376.74	29.13	13.933		
4,300.00	4,282.90	4,284.03	4,281.84	15.84	14.73	-167.70	-57.83	118.25	419.18	389.34	29.84	14.048		
4,333.13	4,315.70	4,316.49	4,314.30	15.97	14.84	-167.78	-58.15	118.21	423.63	393.56	30.07	14.087		
4,400.00	4,382.00	4,382.76	4,380.57	16.24	15.07	-167.96	-58.85	118.17	432.08	401.53	30.55	14.145		
4,500.00	4,481.40	4,480.28	4,478.08	16.64	15.42	-168.13	-60.03	118.20	442.67	411.42	31.24	14.168		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #1 - Wellbore #1 - Surveys													Offset Site Error: 0.00 usft	
Survey Program: 125-GYRO-NS													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,600.00	4,581.06	4,583.61	4,581.41	17.02	15.78	-168.22	-61.30	118.06	450.53	418.55	31.97	14.090		
4,700.00	4,680.89	4,682.70	4,680.48	17.39	16.13	-168.24	-62.45	117.74	455.66	422.98	32.68	13.944		
4,800.00	4,780.85	4,782.30	4,780.08	17.74	16.47	-168.20	-63.50	117.41	458.24	424.86	33.38	13.728		
4,866.46	4,847.31	4,848.40	4,846.18	17.97	16.71	85.68	-64.24	117.37	458.71	424.87	33.84	13.555		
4,900.00	4,880.84	4,883.87	4,881.64	18.08	16.83	85.73	-64.66	117.26	458.57	424.49	34.08	13.455		
5,000.00	4,980.84	4,984.73	4,982.50	18.40	17.18	85.88	-65.90	116.56	457.79	423.01	34.78	13.164		
5,100.00	5,080.84	5,085.87	5,083.62	18.73	17.54	86.05	-67.32	115.76	456.90	421.43	35.47	12.881		
5,200.00	5,180.84	5,187.42	5,185.15	19.06	17.89	86.22	-68.74	114.62	455.68	419.51	36.17	12.599		
5,300.00	5,280.84	5,288.54	5,286.26	19.39	18.25	86.36	-69.94	113.16	454.17	417.31	36.86	12.320		
5,400.00	5,380.84	5,387.22	5,384.90	19.72	18.59	86.20	-68.83	111.63	452.69	415.14	37.55	12.057		
5,500.00	5,480.84	5,485.91	5,483.52	20.05	18.93	85.75	-65.37	110.19	451.48	413.25	38.23	11.811		
5,600.00	5,580.84	5,585.80	5,583.35	20.39	19.27	85.32	-62.08	108.90	450.45	411.53	38.91	11.575		
5,700.00	5,680.84	5,686.46	5,683.90	20.72	19.62	84.76	-57.75	107.41	449.35	409.74	39.61	11.345		
5,800.00	5,780.84	5,786.64	5,783.87	21.05	19.97	83.95	-51.57	105.70	448.25	407.96	40.30	11.124		
5,900.00	5,880.84	5,886.39	5,883.46	21.39	20.31	83.22	-46.03	104.01	447.19	406.20	40.98	10.911		
5,993.62	5,974.46	5,975.58	5,972.50	21.70	20.62	82.59	-41.16	102.85	446.62	405.01	41.61	10.735		
6,000.00	5,980.84	5,981.92	5,978.84	21.73	20.64	82.54	-40.82	102.81	446.62	404.97	41.65	10.723		
6,100.00	6,080.84	6,080.08	6,076.85	22.06	20.98	81.87	-35.58	102.29	446.82	404.49	42.33	10.556		
6,200.00	6,180.84	6,169.55	6,166.19	22.40	21.29	81.26	-30.75	102.77	448.18	405.24	42.94	10.437		
6,300.00	6,280.84	6,255.78	6,252.26	22.74	21.59	80.78	-26.46	105.79	452.44	408.94	43.50	10.402		
6,400.00	6,380.84	6,356.67	6,352.86	23.08	21.93	80.20	-20.93	110.94	458.38	414.18	44.20	10.371		
6,500.00	6,480.84	6,446.97	6,442.91	23.42	22.25	79.75	-16.37	115.90	464.72	419.94	44.78	10.379		
6,600.00	6,580.84	6,536.40	6,531.90	23.76	22.56	79.40	-12.05	123.54	473.95	428.63	45.33	10.457		
6,700.00	6,680.84	6,645.73	6,640.77	24.10	22.94	79.41	-10.29	133.34	483.08	436.92	46.15	10.467		
6,800.00	6,780.84	6,755.56	6,750.34	24.44	23.32	79.41	-8.92	140.78	489.98	443.01	46.97	10.432		
6,900.00	6,880.84	6,852.95	6,847.58	24.78	23.66	79.41	-7.93	146.06	495.50	447.87	47.64	10.402		
7,000.00	6,980.84	6,952.12	6,946.54	25.12	24.01	79.35	-6.19	152.32	502.02	453.70	48.33	10.388		
7,100.00	7,080.84	7,042.69	7,036.84	25.46	24.32	79.09	-2.78	158.33	509.26	460.35	48.91	10.412		
7,200.00	7,180.84	7,136.40	7,130.07	25.81	24.65	78.69	2.45	166.18	518.54	469.02	49.53	10.470		
7,300.00	7,280.84	7,231.18	7,224.35	26.15	24.98	78.32	7.61	174.52	528.26	478.11	50.15	10.533		
7,400.00	7,380.84	7,327.14	7,319.73	26.49	25.32	78.18	10.89	184.35	538.99	488.19	50.80	10.610		
7,500.00	7,480.84	7,433.00	7,425.01	26.84	25.70	78.27	12.38	195.30	549.40	497.82	51.59	10.650		
7,600.00	7,580.84	7,520.43	7,511.97	27.18	26.00	78.40	12.92	204.43	559.82	507.71	52.11	10.743		
7,700.00	7,680.84	7,613.12	7,603.86	27.53	26.33	78.71	12.30	216.55	572.50	519.80	52.70	10.863		
7,800.00	7,780.84	7,708.66	7,698.45	27.87	26.67	79.02	11.76	229.97	586.17	532.83	53.34	10.989		
7,900.00	7,880.84	7,813.50	7,802.31	28.22	27.05	79.36	10.95	244.15	599.31	545.18	54.13	11.072		
8,000.00	7,980.84	7,923.37	7,911.29	28.56	27.44	79.79	8.86	257.96	611.35	556.37	54.98	11.119		
8,100.00	8,080.84	8,028.05	8,015.24	28.91	27.81	80.39	4.41	269.52	621.50	565.75	55.75	11.148		
8,200.00	8,180.84	8,125.00	8,111.47	29.26	28.16	80.99	-0.43	280.23	631.62	575.21	56.42	11.196		
8,300.00	8,280.84	8,215.35	8,200.96	29.60	28.48	81.50	-4.37	292.03	643.81	586.81	56.99	11.296		
8,400.00	8,380.84	8,319.06	8,303.77	29.95	28.85	82.06	-8.81	304.86	655.46	597.70	57.75	11.349		
8,500.00	8,480.84	8,417.89	8,401.82	30.30	29.21	82.45	-11.71	316.93	667.18	608.73	58.45	11.415		
8,600.00	8,580.84	8,528.48	8,511.66	30.65	29.60	82.81	-14.38	329.50	678.17	618.88	59.29	11.438		
8,700.00	8,680.84	8,643.54	8,626.23	30.99	30.01	83.12	-16.75	339.82	686.80	626.64	60.17	11.415		
8,800.00	8,780.84	8,757.91	8,740.34	31.34	30.41	83.31	-18.18	347.23	693.04	632.04	61.00	11.361		
8,900.00	8,880.84	8,845.21	8,827.45	31.69	30.72	83.41	-18.77	353.02	699.55	637.95	61.59	11.358		
9,000.00	8,980.84	8,947.91	8,929.84	32.04	31.08	83.60	-20.14	360.83	706.96	644.64	62.32	11.343		
9,100.00	9,080.84	9,062.00	9,043.72	32.39	31.48	83.79	-21.85	367.57	712.64	649.49	63.15	11.285		
9,200.00	9,180.84	9,180.51	9,162.13	32.74	31.89	83.98	-23.78	371.95	716.12	652.14	63.98	11.193		
9,300.00	9,280.84	9,296.25	9,277.82	33.08	32.30	84.20	-26.30	373.82	717.52	652.76	64.76	11.079		
9,364.80	9,345.64	9,362.16	9,343.69	33.31	32.53	84.37	-28.43	373.97	717.46	652.24	65.22	11.000		
9,400.00	9,380.84	9,395.67	9,377.18	33.43	32.64	84.48	-29.75	374.15	717.51	652.05	65.46	10.961		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #1 - Wellbore #1 - Surveys													Offset Site Error:	0.00 usft
Survey Program: 125-GYRO-NS													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,500.00	9,480.84	9,497.91	9,479.33	33.78	33.00	84.82	-33.97	374.68	717.65	651.47	66.17	10.845		
9,511.90	9,492.74	9,509.40	9,490.81	33.83	33.04	84.86	-34.46	374.72	717.64	651.39	66.25	10.832		
9,600.00	9,580.84	9,584.06	9,565.42	34.13	33.30	85.07	-37.06	375.53	718.34	651.53	66.81	10.752		
9,700.00	9,680.84	9,676.36	9,657.68	34.48	33.62	85.17	-38.08	377.85	720.76	653.29	67.47	10.683		
9,800.00	9,780.84	9,779.89	9,761.16	34.83	33.98	85.09	-36.87	380.65	723.55	655.36	68.19	10.610		
9,900.00	9,880.84	9,879.59	9,860.83	35.18	34.33	85.07	-36.44	383.13	726.07	657.18	68.90	10.539		
9,990.39	9,971.24	9,967.18	9,948.39	35.50	34.63	85.06	-36.07	385.42	728.45	658.94	69.51	10.479		
10,000.00	9,980.84	9,976.29	9,957.50	35.53	34.66	-15.59	-36.05	385.68	728.65	659.08	69.58	10.473		
10,050.00	10,030.73	10,026.26	10,007.45	35.69	34.84	-15.69	-36.00	387.17	727.24	657.32	69.92	10.401		
10,100.00	10,080.17	10,077.07	10,058.23	35.85	35.01	-15.98	-36.18	388.60	721.53	651.27	70.26	10.269		
10,150.00	10,128.79	10,125.33	10,106.47	35.99	35.18	-16.48	-36.48	389.96	711.68	641.10	70.58	10.083		
10,200.00	10,176.20	10,177.34	10,158.46	36.13	35.36	-17.27	-36.82	391.32	697.68	626.76	70.92	9.837		
10,250.00	10,222.05	10,223.83	10,204.94	36.26	35.53	-18.32	-37.21	392.43	679.67	608.44	71.23	9.542		
10,300.00	10,265.99	10,270.50	10,251.60	36.38	35.69	-19.77	-37.51	393.47	657.84	586.32	71.52	9.198		
10,350.00	10,307.69	10,316.47	10,297.56	36.50	35.85	-21.69	-37.95	394.27	632.25	560.45	71.81	8.805		
10,400.00	10,346.83	10,361.11	10,342.20	36.62	36.00	-24.25	-38.58	394.76	603.11	531.04	72.07	8.368		
10,450.00	10,383.11	10,404.11	10,385.18	36.74	36.15	-27.69	-39.39	394.84	570.64	498.32	72.32	7.890		
10,500.00	10,416.26	10,438.26	10,419.32	36.86	36.27	-31.91	-40.25	394.73	535.35	462.83	72.53	7.381		
10,550.00	10,446.02	10,468.09	10,449.14	37.00	36.38	-37.29	-41.08	394.58	497.80	425.08	72.71	6.846		
10,600.00	10,472.16	10,495.52	10,476.56	37.16	36.47	-44.28	-41.86	394.44	458.50	385.61	72.89	6.290		
10,650.00	10,494.50	10,520.11	10,501.13	37.33	36.56	-53.06	-42.61	394.21	417.91	344.84	73.07	5.720		
10,700.00	10,512.85	10,539.58	10,520.59	37.53	36.63	-63.01	-43.26	393.95	376.72	303.48	73.24	5.143		
10,750.00	10,527.08	10,554.27	10,535.27	37.76	36.68	-73.18	-43.78	393.71	335.84	262.39	73.45	4.572		
10,790.39	10,535.49	10,562.71	10,543.71	37.96	36.71	-80.64	-44.09	393.56	303.81	230.16	73.66	4.125		
10,800.00	10,537.11	10,564.30	10,545.29	38.01	36.71	-81.79	-44.14	393.53	296.42	222.71	73.71	4.021		
10,850.00	10,544.00	10,570.85	10,551.84	38.30	36.74	-86.90	-44.38	393.40	260.03	185.94	74.08	3.510		
10,900.00	10,548.29	10,574.58	10,555.57	38.60	36.75	-90.47	-44.51	393.32	228.59	153.99	74.60	3.064		
10,950.00	10,549.97	10,575.57	10,556.56	38.94	36.75	-92.41	-44.55	393.30	204.67	129.40	75.27	2.719		
10,957.06	10,550.00	10,575.50	10,556.48	38.99	36.75	-92.56	-44.54	393.30	202.07	126.70	75.37	2.681		
11,000.00	10,550.00	10,574.86	10,555.84	39.30	36.75	-92.38	-44.52	393.32	190.69	114.74	75.95	2.511		
11,036.26	10,550.00	10,574.29	10,555.28	39.61	36.75	-92.21	-44.50	393.33	187.55	111.24	76.32	2.458 SF		
11,100.00	10,550.00	10,573.26	10,554.24	40.14	36.74	-91.88	-44.46	393.35	197.08	120.66	76.41	2.579		
11,200.00	10,550.00	10,571.52	10,552.51	41.09	36.74	-91.32	-44.40	393.39	243.59	167.91	75.68	3.219		
11,300.00	10,550.00	10,569.67	10,550.66	42.16	36.73	-90.73	-44.34	393.42	312.71	237.84	74.87	4.177		
11,311.52	10,550.00	10,569.45	10,550.44	42.29	36.73	-90.67	-44.33	393.43	321.51	246.72	74.79	4.299		
11,400.00	10,550.00	10,567.78	10,548.77	43.33	36.73	-90.20	-44.27	393.46	393.64	319.31	74.33	5.296		
11,500.00	10,550.00	10,565.95	10,546.94	44.59	36.72	-89.69	-44.20	393.50	481.77	407.76	74.01	6.509		
11,600.00	10,550.00	10,564.19	10,545.18	45.95	36.71	-89.20	-44.14	393.53	573.79	499.97	73.82	7.773		
11,700.00	10,550.00	10,562.49	10,543.48	47.39	36.71	-88.73	-44.08	393.56	668.11	594.41	73.70	9.066		
11,800.00	10,550.00	10,560.84	10,541.84	48.91	36.70	-88.27	-44.02	393.59	763.87	690.25	73.62	10.376		
11,900.00	10,550.00	10,559.25	10,540.25	50.51	36.70	-87.83	-43.96	393.62	860.59	787.02	73.56	11.699		
12,000.00	10,550.00	10,557.72	10,538.72	52.16	36.69	-87.41	-43.91	393.65	957.98	884.45	73.53	13.029		
12,100.00	10,550.00	10,556.23	10,537.23	53.87	36.68	-86.99	-43.85	393.68	1,055.86	982.35	73.51	14.364		
12,200.00	10,550.00	10,554.79	10,535.79	55.64	36.68	-86.60	-43.80	393.70	1,154.09	1,080.60	73.49	15.703		
12,300.00	10,550.00	10,553.40	10,534.40	57.45	36.68	-86.21	-43.75	393.73	1,252.61	1,179.12	73.49	17.045		
12,400.00	10,550.00	10,552.04	10,533.05	59.31	36.67	-85.84	-43.70	393.75	1,351.34	1,277.85	73.49	18.389		
12,500.00	10,550.00	10,550.00	10,531.01	61.20	36.66	-85.27	-43.63	393.78	1,450.25	1,376.76	73.49	19.734		
12,600.00	10,550.00	10,549.42	10,530.42	63.14	36.66	-85.11	-43.61	393.79	1,549.29	1,475.79	73.50	21.080		
12,700.00	10,550.00	10,548.07	10,529.07	65.10	36.66	-84.74	-43.56	393.81	1,648.45	1,574.94	73.51	22.426		
12,800.00	10,550.00	10,546.75	10,527.76	67.10	36.65	-84.38	-43.51	393.84	1,747.70	1,674.18	73.52	23.772		
12,900.00	10,550.00	10,545.46	10,526.47	69.12	36.65	-84.03	-43.47	393.86	1,847.03	1,773.50	73.53	25.118		
13,000.00	10,550.00	10,544.20	10,525.21	71.17	36.64	-83.69	-43.42	393.88	1,946.43	1,872.88	73.55	26.464		

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



Anticollision Report



Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #1 - Wellbore #1 - Surveys											Offset Site Error: 0 00 usft	
Survey Program: 125-GYRO-NS											Offset Well Error: 0 00 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		
13,100.00	10,550.00	10,542.97	10,523.98	73.24	36.64	-83.35	-43.38	393.89	2,045.89	1,972.32	73.57	27.809
13,200.00	10,550.00	10,541.77	10,522.78	75.33	36.63	-83.02	-43.34	393.91	2,145.39	2,071.80	73.59	29.153
13,300.00	10,550.00	10,540.59	10,521.60	77.44	36.63	-82.70	-43.30	393.93	2,244.94	2,171.33	73.61	30.497
13,400.00	10,550.00	10,539.43	10,520.45	79.57	36.63	-82.39	-43.26	393.95	2,344.53	2,270.89	73.64	31.840
13,500.00	10,550.00	10,538.31	10,519.32	81.72	36.62	-82.08	-43.22	393.97	2,444.15	2,370.49	73.66	33.181
13,600.00	10,550.00	10,537.20	10,518.22	83.88	36.62	-81.78	-43.18	393.98	2,543.80	2,470.11	73.69	34.521
13,700.00	10,550.00	10,536.12	10,517.14	86.05	36.61	-81.49	-43.14	394.00	2,643.47	2,569.76	73.72	35.860
13,800.00	10,550.00	10,535.06	10,516.08	88.24	36.61	-81.21	-43.11	394.01	2,743.17	2,669.43	73.74	37.198
13,900.00	10,550.00	10,534.03	10,515.04	90.44	36.61	-80.93	-43.07	394.03	2,842.89	2,769.12	73.78	38.534
14,000.00	10,550.00	10,533.01	10,514.03	92.65	36.60	-80.66	-43.04	394.04	2,942.63	2,868.82	73.81	39.869
14,100.00	10,550.00	10,532.01	10,513.03	94.87	36.60	-80.39	-43.00	394.05	3,042.38	2,968.54	73.84	41.202
14,200.00	10,550.00	10,531.04	10,512.06	97.10	36.60	-80.13	-42.97	394.07	3,142.15	3,068.28	73.87	42.533
14,300.00	10,550.00	10,530.08	10,511.10	99.34	36.59	-79.87	-42.94	394.08	3,241.94	3,168.03	73.91	43.863
14,400.00	10,550.00	10,529.14	10,510.16	101.59	36.59	-79.62	-42.91	394.09	3,341.73	3,267.79	73.95	45.191
14,500.00	10,550.00	10,528.22	10,509.24	103.85	36.59	-79.38	-42.88	394.11	3,441.54	3,367.56	73.98	46.517
14,600.00	10,550.00	10,527.32	10,508.34	106.11	36.58	-79.14	-42.85	394.12	3,541.36	3,467.33	74.02	47.841
14,700.00	10,550.00	10,525.00	10,506.02	108.38	36.58	-78.52	-42.77	394.15	3,641.19	3,567.13	74.06	49.166
14,800.00	10,550.00	10,525.00	10,506.02	110.66	36.58	-78.52	-42.77	394.15	3,741.02	3,666.92	74.10	50.484
14,900.00	10,550.00	10,525.00	10,506.02	112.94	36.58	-78.52	-42.77	394.15	3,840.87	3,766.72	74.15	51.800
15,000.00	10,550.00	10,525.00	10,506.02	115.23	36.58	-78.52	-42.77	394.15	3,940.72	3,866.53	74.19	53.114
15,100.00	10,550.00	10,525.00	10,506.02	117.52	36.58	-78.52	-42.77	394.15	4,040.58	3,966.34	74.24	54.426
15,200.00	10,550.00	10,525.00	10,506.02	119.82	36.58	-78.52	-42.77	394.15	4,140.45	4,066.16	74.29	55.736
15,300.00	10,550.00	10,525.00	10,506.02	122.13	36.58	-78.52	-42.77	394.15	4,240.32	4,165.98	74.34	57.043
15,400.00	10,550.00	10,525.00	10,506.02	124.44	36.58	-78.52	-42.77	394.15	4,340.20	4,265.81	74.38	58.348
15,430.62	10,550.00	10,525.00	10,506.02	124.92	36.58	-78.52	-42.77	394.15	4,370.78	4,293.37	77.40	56.467



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #121H - Wellbore #1 - Design #1														Offset Site Error:	0.00 usft
Survey Program: 0-MWD														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
0.00	0.00	0.10	-0.10	0.00	0.00	63.42	30.03	60.03	67.12						
100.00	100.00	100.10	99.90	0.13	0.13	63.42	30.03	60.03	67.12	66.87	0.25	263.355			
200.00	200.00	200.10	199.90	0.49	0.49	63.42	30.03	60.03	67.12	66.15	0.97	69.069			
300.00	300.00	300.10	299.90	0.84	0.84	63.42	30.03	60.03	67.12	65.43	1.69	39.747			
400.00	400.00	400.10	399.90	1.20	1.20	63.42	30.03	60.03	67.12	64.72	2.41	27.901			
500.00	500.00	500.10	499.90	1.56	1.56	63.42	30.03	60.03	67.12	64.00	3.12	21.495			
600.00	600.00	600.10	599.90	1.92	1.92	63.42	30.03	60.03	67.12	63.28	3.84	17.482			
700.00	700.00	700.10	699.90	2.28	2.28	63.42	30.03	60.03	67.12	62.57	4.56	14.731			
800.00	800.00	800.10	799.90	2.64	2.64	63.42	30.03	60.03	67.12	61.85	5.27	12.728			
900.00	900.00	900.10	899.90	3.00	3.00	63.42	30.03	60.03	67.12	61.13	5.99	11.205			
1,000.00	1,000.00	1,000.10	999.90	3.35	3.35	63.42	30.03	60.03	67.12	60.41	6.71	10.007 CC, ES			
1,100.00	1,099.99	1,100.11	1,099.89	3.70	3.71	169.82	30.03	60.03	68.41	61.00	7.41	9.228			
1,200.00	1,199.91	1,200.19	1,199.81	4.04	4.07	170.36	30.03	60.03	72.28	64.17	8.11	8.910			
1,266.67	1,266.45	1,266.35	1,266.35	4.27	4.31	170.86	30.03	60.03	76.29	67.72	8.58	8.894			
1,300.00	1,299.70	1,300.40	1,299.60	4.39	4.43	171.13	30.03	60.03	78.59	69.78	8.81	8.916			
1,400.00	1,399.46	1,400.64	1,399.36	4.74	4.79	171.85	30.03	60.03	85.49	75.97	9.52	8.982			
1,500.00	1,499.22	1,499.12	1,499.12	5.09	5.14	172.46	30.03	60.03	92.40	82.18	10.22	9.044			
1,600.00	1,598.97	1,601.11	1,601.10	5.45	5.50	172.61	30.20	58.70	98.19	87.27	10.92	8.990			
1,700.00	1,698.73	1,703.34	1,703.24	5.81	5.85	171.95	30.72	54.66	101.70	90.08	11.62	8.753			
1,800.00	1,798.48	1,804.74	1,804.43	6.17	6.21	170.59	31.54	48.17	103.13	90.81	12.32	8.373			
1,900.00	1,898.24	1,904.70	1,904.15	6.53	6.56	169.14	32.43	41.25	104.18	91.16	13.02	8.002			
2,000.00	1,998.00	2,004.66	2,003.86	6.90	6.92	167.71	33.31	34.33	105.31	91.58	13.73	7.672			
2,100.00	2,097.75	2,104.62	2,103.58	7.26	7.27	166.32	34.19	27.42	106.49	92.06	14.43	7.378			
2,200.00	2,197.51	2,204.58	2,203.29	7.63	7.63	164.96	35.08	20.50	107.74	92.60	15.14	7.114			
2,300.00	2,297.27	2,304.54	2,303.01	8.00	7.99	163.63	35.96	13.58	109.05	93.19	15.86	6.877			
2,400.00	2,397.02	2,404.50	2,402.73	8.37	8.35	162.33	36.84	6.67	110.41	93.84	16.57	6.662			
2,500.00	2,496.78	2,504.46	2,502.44	8.74	8.71	161.06	37.72	-0.25	111.83	94.54	17.29	6.468			
2,600.00	2,596.54	2,604.42	2,602.16	9.10	9.08	159.83	38.61	-7.17	113.31	95.30	18.01	6.291			
2,700.00	2,696.29	2,704.38	2,701.88	9.47	9.44	158.62	39.49	-14.08	114.83	96.10	18.73	6.131			
2,800.00	2,796.05	2,804.34	2,801.59	9.85	9.81	157.45	40.37	-21.00	116.41	96.95	19.45	5.984			
2,850.00	2,845.93	2,854.41	2,851.54	10.03	9.99	156.88	40.81	-24.47	117.21	97.39	19.82	5.915			
2,900.00	2,895.78	2,905.46	2,902.44	10.22	10.18	156.22	41.32	-28.40	118.06	97.88	20.18	5.851			
3,000.00	2,995.32	3,007.51	3,004.00	10.60	10.56	154.60	42.58	-38.27	120.25	99.34	20.91	5.751			
3,100.00	3,094.57	3,109.49	3,105.19	10.99	10.95	152.62	44.18	-50.82	123.16	101.52	21.65	5.690			
3,116.67	3,111.08	3,126.28	3,121.81	11.05	11.01	152.27	44.47	-53.13	123.73	101.96	21.77	5.683			
3,200.00	3,193.60	3,209.47	3,204.20	11.38	11.33	150.63	45.94	-64.62	126.78	104.37	22.41	5.658			
3,300.00	3,292.63	3,309.31	3,303.07	11.78	11.72	148.75	47.70	-78.40	130.57	107.40	23.17	5.635			
3,400.00	3,391.65	3,409.15	3,401.94	12.18	12.11	146.99	49.46	-92.18	134.48	110.54	23.94	5.617			
3,500.00	3,490.68	3,508.99	3,500.80	12.58	12.51	145.32	51.22	-105.97	138.52	113.81	24.72	5.605			
3,600.00	3,589.71	3,608.83	3,599.67	12.99	12.90	143.75	52.98	-119.75	142.67	117.18	25.50	5.596			
3,700.00	3,688.73	3,708.67	3,698.54	13.39	13.30	142.27	54.73	-133.53	146.92	120.64	26.28	5.591			
3,800.00	3,787.76	3,808.51	3,797.41	13.80	13.70	140.88	56.49	-147.32	151.27	124.20	27.07	5.588			
3,900.00	3,886.79	3,908.35	3,896.28	14.20	14.10	139.56	58.25	-161.10	155.69	127.83	27.86	5.588			
4,000.00	3,985.82	4,008.19	3,995.14	14.61	14.50	138.32	60.01	-174.88	160.20	131.54	28.66	5.591			
4,100.00	4,084.84	4,108.03	4,094.01	15.02	14.90	137.14	61.77	-188.67	164.77	135.32	29.45	5.594			
4,200.00	4,183.87	4,207.87	4,192.88	15.43	15.30	136.03	63.53	-202.45	169.41	139.16	30.26	5.599			
4,300.00	4,282.90	4,307.71	4,291.75	15.84	15.71	134.98	65.29	-216.23	174.12	143.06	31.06	5.606			
4,333.13	4,315.70	4,340.79	4,324.50	15.97	15.84	134.64	65.87	-220.80	175.69	144.36	31.33	5.608			
4,400.00	4,382.00	4,407.55	4,390.62	16.24	16.11	133.88	67.05	-230.02	178.47	146.60	31.87	5.600			
4,500.00	4,481.40	4,507.38	4,489.47	16.64	16.52	132.26	68.81	-243.80	181.22	148.53	32.68	5.545			
4,600.00	4,581.06	4,607.12	4,588.24	17.02	16.92	130.05	70.57	-257.57	182.41	148.91	33.50	5.445			
4,700.00	4,680.89	4,706.71	4,686.86	17.39	17.33	127.22	72.32	-271.32	182.29	147.96	34.33	5.310			

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #121H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis			Distance				Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.00	4,780.85	4,806.07	4,785.26	17.74	17.73	123.71	74.07	-285.03	181.14	145.99	35.16	5.152		
4,866.46	4,847.31	4,871.96	4,850.51	17.97	18.00	14.78	75.23	-294.13	180.01	144.31	35.70	5.042		
4,900.00	4,880.84	4,905.17	4,883.40	18.08	18.14	13.31	75.82	-298.71	179.46	143.48	35.97	4.989		
5,000.00	4,980.84	5,004.11	4,981.44	18.40	18.54	9.06	77.50	-311.90	178.53	141.76	36.77	4.856		
5,047.96	5,028.80	5,051.70	5,028.70	18.56	18.73	7.27	78.21	-317.44	178.44	141.31	37.14	4.805		
5,100.00	5,080.84	5,103.50	5,080.21	18.73	18.93	5.54	78.89	-322.80	178.53	140.99	37.53	4.756		
5,200.00	5,180.84	5,203.40	5,179.75	19.06	19.32	2.83	79.96	-331.18	178.98	140.71	38.27	4.677		
5,300.00	5,280.84	5,303.67	5,279.85	19.39	19.68	0.97	80.70	-336.99	179.53	140.54	38.99	4.605		
5,400.00	5,380.84	5,404.18	5,380.31	19.72	20.04	-0.06	81.11	-340.20	179.91	140.23	39.68	4.534		
5,500.00	5,480.84	5,504.62	5,480.74	20.05	20.38	-0.27	81.20	-340.89	180.00	139.65	40.36	4.460		
5,600.00	5,580.84	5,604.62	5,580.74	20.39	20.71	-0.27	81.20	-340.89	180.00	138.98	41.02	4.388		
5,700.00	5,680.84	5,704.62	5,680.74	20.72	21.05	-0.27	81.20	-340.89	180.00	138.31	41.69	4.317		
5,800.00	5,780.84	5,804.62	5,780.74	21.05	21.38	-0.27	81.20	-340.89	180.00	137.64	42.36	4.249		
5,900.00	5,880.84	5,904.62	5,880.74	21.39	21.72	-0.27	81.20	-340.89	180.00	136.97	43.04	4.183		
6,000.00	5,980.84	6,004.62	5,980.74	21.73	22.05	-0.27	81.20	-340.89	180.00	136.29	43.71	4.118		
6,100.00	6,080.84	6,104.62	6,080.74	22.06	22.39	-0.27	81.20	-340.89	180.00	135.62	44.38	4.056		
6,200.00	6,180.84	6,204.62	6,180.74	22.40	22.73	-0.27	81.20	-340.89	180.00	134.94	45.06	3.995		
6,300.00	6,280.84	6,304.62	6,280.74	22.74	23.07	-0.27	81.20	-340.89	180.00	134.26	45.74	3.935		
6,400.00	6,380.84	6,404.62	6,380.74	23.08	23.40	-0.27	81.20	-340.89	180.00	133.58	46.42	3.878		
6,500.00	6,480.84	6,504.62	6,480.74	23.42	23.74	-0.27	81.20	-340.89	180.00	132.90	47.10	3.822		
6,600.00	6,580.84	6,604.62	6,580.74	23.76	24.08	-0.27	81.20	-340.89	180.00	132.22	47.78	3.767		
6,700.00	6,680.84	6,704.62	6,680.74	24.10	24.42	-0.27	81.20	-340.89	180.00	131.54	48.46	3.714		
6,800.00	6,780.84	6,804.62	6,780.74	24.44	24.77	-0.27	81.20	-340.89	180.00	130.86	49.14	3.663		
6,900.00	6,880.84	6,904.62	6,880.74	24.78	25.11	-0.27	81.20	-340.89	180.00	130.17	49.83	3.613		
7,000.00	6,980.84	7,004.62	6,980.74	25.12	25.45	-0.27	81.20	-340.89	180.00	129.49	50.51	3.564		
7,100.00	7,080.84	7,104.62	7,080.74	25.46	25.79	-0.27	81.20	-340.89	180.00	128.80	51.20	3.516		
7,200.00	7,180.84	7,204.62	7,180.74	25.81	26.13	-0.27	81.20	-340.89	180.00	128.12	51.88	3.469		
7,300.00	7,280.84	7,304.62	7,280.74	26.15	26.48	-0.27	81.20	-340.89	180.00	127.43	52.57	3.424		
7,400.00	7,380.84	7,404.62	7,380.74	26.49	26.82	-0.27	81.20	-340.89	180.00	126.74	53.26	3.380		
7,500.00	7,480.84	7,504.62	7,480.74	26.84	27.17	-0.27	81.20	-340.89	180.00	126.05	53.95	3.337		
7,600.00	7,580.84	7,604.62	7,580.74	27.18	27.51	-0.27	81.20	-340.89	180.00	125.36	54.64	3.294		
7,700.00	7,680.84	7,704.62	7,680.74	27.53	27.85	-0.27	81.20	-340.89	180.00	124.67	55.33	3.253		
7,800.00	7,780.84	7,804.64	7,780.76	27.87	28.20	-0.22	81.20	-340.73	180.00	123.98	56.02	3.213		
7,819.07	7,799.91	7,823.71	7,799.81	27.94	28.26	0.02	81.20	-339.95	180.00	123.86	56.14	3.206		
7,900.00	7,880.84	7,903.34	7,878.74	28.22	28.49	3.22	81.20	-329.90	180.29	123.66	56.63	3.183 SF		
8,000.00	7,980.84	7,995.77	7,967.56	28.56	28.73	11.12	81.18	-304.66	183.90	126.91	56.99	3.227		
8,100.00	8,080.84	8,078.33	8,042.55	28.91	28.92	21.18	81.17	-270.30	196.75	140.36	56.39	3.489		
8,200.00	8,180.84	8,150.00	8,103.07	29.26	29.07	30.98	81.15	-232.01	223.80	169.57	54.23	4.127		
8,300.00	8,280.84	8,210.18	8,149.87	29.60	29.20	39.02	81.14	-194.22	266.02	215.25	50.77	5.240		
8,400.00	8,380.84	8,261.06	8,186.17	29.95	29.32	45.24	81.12	-158.59	321.17	274.19	46.98	6.836		
8,500.00	8,480.84	8,300.00	8,211.73	30.30	29.42	49.52	81.11	-129.22	386.23	343.09	43.14	8.954		
8,600.00	8,580.84	8,339.86	8,235.77	30.65	29.54	53.44	81.09	-97.44	458.50	418.12	40.37	11.357		
8,700.00	8,680.84	8,370.44	8,252.68	30.99	29.64	56.14	81.08	-71.97	536.15	498.35	37.80	14.185		
8,800.00	8,780.84	8,400.00	8,267.71	31.34	29.74	58.50	81.07	-46.51	617.82	581.96	35.86	17.227		
8,900.00	8,880.84	8,419.06	8,276.70	31.69	29.81	59.90	81.07	-29.71	702.51	668.60	33.91	20.718		
9,000.00	8,980.84	8,450.00	8,290.09	32.04	29.93	62.00	81.05	-1.82	789.77	756.77	33.00	23.935		
9,100.00	9,080.84	8,450.00	8,290.09	32.39	29.93	62.00	81.05	-1.82	878.56	847.51	31.05	28.299		
9,200.00	9,180.84	8,470.63	8,298.17	32.74	30.02	63.27	81.05	17.16	968.95	938.64	30.31	31.968		
9,300.00	9,280.84	8,483.91	8,303.01	33.08	30.08	64.05	81.04	29.53	1,060.60	1,031.09	29.52	35.930		
9,400.00	9,380.84	8,500.00	8,308.48	33.43	30.16	64.94	81.03	44.66	1,153.28	1,124.28	29.01	39.758		
9,500.00	9,480.84	8,500.00	8,308.48	33.78	30.16	64.94	81.03	44.66	1,246.80	1,218.62	28.18	44.243		
9,600.00	9,580.84	8,500.00	8,308.48	34.13	30.16	64.94	81.03	44.66	1,341.26	1,313.71	27.54	48.697		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #121H - Wellbore #1 - Design #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,700.00	9,680.84	8,524.50	8,316.00	34.48	30.28	66.22	81.02	67.98	1,435.73	1,408.11	27.62	51.977	
9,800.00	9,780.84	8,532.34	8,318.19	34.83	30.32	66.60	81.02	75.51	1,531.03	1,503.65	27.37	55.928	
9,900.00	9,880.84	8,550.00	8,322.76	35.18	30.41	67.43	81.01	92.56	1,626.89	1,599.49	27.40	59.369	
9,990.39	9,971.24	8,550.00	8,322.76	35.50	30.41	67.43	81.01	92.56	1,713.66	1,686.50	27.16	63.092	
10,000.00	9,980.84	8,550.00	8,322.76	35.53	30.41	-31.46	81.01	92.56	1,722.88	1,695.74	27.14	63.487	
10,050.00	10,030.73	8,550.00	8,322.76	35.69	30.41	-24.47	81.01	92.56	1,770.28	1,743.29	26.99	65.583	
10,100.00	10,080.17	8,550.00	8,322.76	35.85	30.41	-19.91	81.01	92.56	1,816.47	1,789.65	26.82	67.739	
10,150.00	10,128.79	8,550.00	8,322.76	35.99	30.41	-16.76	81.01	92.56	1,861.19	1,834.57	26.62	69.928	
10,200.00	10,176.20	8,550.00	8,322.76	36.13	30.41	-14.48	81.01	92.56	1,904.22	1,877.82	26.40	72.126	
10,250.00	10,222.05	8,572.40	8,327.78	36.26	30.54	-12.78	81.00	114.39	1,944.80	1,918.30	26.50	73.392	
10,300.00	10,265.99	8,579.59	8,329.22	36.38	30.58	-11.51	81.00	121.43	1,983.44	1,957.09	26.35	75.263	
10,350.00	10,307.69	8,600.00	8,332.80	36.50	30.70	-10.54	80.99	141.53	2,019.86	1,993.49	26.37	76.588	
10,400.00	10,346.83	8,600.00	8,332.80	36.62	30.70	-9.75	80.99	141.53	2,053.38	2,027.25	26.13	78.591	
10,450.00	10,383.11	8,600.00	8,332.80	36.74	30.70	-9.10	80.99	141.53	2,084.32	2,058.41	25.91	80.450	
10,500.00	10,416.26	8,600.00	8,332.80	36.86	30.70	-8.58	80.99	141.53	2,112.57	2,086.84	25.72	82.123	
10,550.00	10,446.02	8,621.94	8,335.85	37.00	30.84	-8.23	80.98	163.25	2,137.49	2,111.71	25.78	82.928	
10,600.00	10,472.16	8,650.00	8,338.54	37.16	31.02	-7.98	80.97	191.18	2,159.89	2,134.00	25.89	83.439	
10,650.00	10,494.50	8,650.00	8,338.54	37.33	31.02	-7.71	80.97	191.18	2,178.43	2,152.63	25.79	84.454	
10,700.00	10,512.85	8,650.00	8,338.54	37.53	31.02	-7.50	80.97	191.18	2,193.92	2,168.15	25.77	85.138	
10,750.00	10,527.08	8,650.00	8,338.54	37.76	31.02	-7.33	80.97	191.18	2,206.31	2,180.50	25.82	85.463	
10,790.39	10,535.49	8,668.86	8,339.58	37.96	31.15	-7.31	80.96	210.01	2,213.64	2,187.66	25.98	85.209	
10,800.00	10,537.11	8,670.79	8,339.65	38.01	31.16	-7.31	80.96	211.94	2,215.12	2,189.11	26.01	85.165	
10,850.00	10,544.00	8,690.92	8,340.00	38.30	31.30	-7.35	80.95	232.07	2,221.92	2,195.68	26.24	84.678	
10,900.00	10,548.29	8,691.18	8,340.00	38.60	31.30	-7.31	80.95	232.33	2,226.81	2,200.34	26.47	84.135	
10,950.00	10,549.97	8,740.29	8,340.00	38.94	31.69	-7.52	80.93	281.43	2,229.68	2,202.85	26.84	83.086	
10,957.06	10,550.00	8,747.23	8,340.00	38.99	31.75	-7.55	80.93	288.37	2,229.88	2,202.99	26.89	82.928	
11,000.00	10,550.00	8,789.52	8,340.00	39.30	32.09	-7.76	80.91	330.66	2,230.89	2,203.67	27.22	81.967	
11,100.00	10,550.00	8,888.57	8,340.00	40.14	33.04	-8.16	80.87	429.72	2,232.79	2,204.77	28.03	79.662	
11,200.00	10,550.00	8,988.21	8,340.00	41.09	34.13	-8.41	80.82	529.35	2,234.01	2,205.13	28.88	77.352	
11,300.00	10,550.00	9,088.14	8,340.00	42.16	35.35	-8.51	80.78	629.29	2,234.49	2,204.73	29.76	75.083	
11,311.52	10,550.00	9,100.33	8,340.00	42.29	35.51	-8.51	80.78	640.81	2,234.49	2,204.63	29.86	74.822	
11,400.00	10,550.00	9,188.14	8,340.00	43.33	36.70	-8.51	80.74	729.29	2,234.49	2,203.81	30.68	72.840	
11,500.00	10,550.00	9,288.14	8,340.00	44.59	38.16	-8.51	80.70	829.29	2,234.49	2,202.83	31.66	70.581	
11,600.00	10,550.00	9,388.14	8,340.00	45.95	39.70	-8.51	80.65	929.29	2,234.48	2,201.79	32.70	68.334	
11,700.00	10,550.00	9,488.14	8,340.00	47.39	41.34	-8.51	80.61	1,029.29	2,234.48	2,200.69	33.79	66.119	
11,800.00	10,550.00	9,588.14	8,340.00	48.91	43.05	-8.51	80.57	1,129.29	2,234.48	2,199.54	34.94	63.954	
11,900.00	10,550.00	9,688.14	8,340.00	50.51	44.82	-8.51	80.52	1,229.29	2,234.48	2,198.35	36.13	61.851	
12,000.00	10,550.00	9,788.14	8,340.00	52.16	46.65	-8.51	80.48	1,329.29	2,234.48	2,197.12	37.35	59.818	
12,100.00	10,550.00	9,888.14	8,340.00	53.87	48.54	-8.51	80.44	1,429.29	2,234.47	2,195.86	38.62	57.859	
12,200.00	10,550.00	9,988.14	8,340.00	55.64	50.47	-8.51	80.39	1,529.29	2,234.47	2,194.56	39.92	55.980	
12,300.00	10,550.00	10,088.14	8,340.00	57.45	52.44	-8.51	80.35	1,629.29	2,234.47	2,193.23	41.24	54.179	
12,400.00	10,550.00	10,188.14	8,340.00	59.31	54.45	-8.50	80.31	1,729.29	2,234.47	2,191.87	42.60	52.457	
12,500.00	10,550.00	10,288.14	8,340.00	61.20	56.49	-8.50	80.26	1,829.29	2,234.47	2,190.49	43.97	50.814	
12,600.00	10,550.00	10,388.14	8,340.00	63.14	58.56	-8.50	80.22	1,929.29	2,234.46	2,189.09	45.37	49.245	
12,700.00	10,550.00	10,488.14	8,340.00	65.10	60.65	-8.50	80.18	2,029.29	2,234.46	2,187.67	46.79	47.750	
12,800.00	10,550.00	10,588.14	8,340.00	67.10	62.77	-8.50	80.13	2,129.29	2,234.46	2,186.23	48.23	46.325	
12,900.00	10,550.00	10,688.14	8,340.00	69.12	64.91	-8.50	80.09	2,229.29	2,234.46	2,184.77	49.69	44.968	
13,000.00	10,550.00	10,788.14	8,340.00	71.17	67.07	-8.50	80.05	2,329.29	2,234.46	2,183.29	51.16	43.674	
13,100.00	10,550.00	10,888.14	8,340.00	73.24	69.25	-8.50	80.00	2,429.29	2,234.45	2,181.80	52.65	42.441	
13,200.00	10,550.00	10,988.14	8,340.00	75.33	71.45	-8.50	79.96	2,529.29	2,234.45	2,180.30	54.15	41.266	
13,300.00	10,550.00	11,088.14	8,340.00	77.44	73.65	-8.50	79.92	2,629.29	2,234.45	2,178.79	55.66	40.146	
13,400.00	10,550.00	11,188.14	8,340.00	79.57	75.87	-8.50	79.88	2,729.29	2,234.45	2,177.27	57.18	39.077	

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design											Offset Site Error:		0.00 usft
Survey Program: 0-MWD											Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor
13,500.00	10,550.00	11,288.14	8,340.00	81.72	78.11	-8.50	79.83	2,829.29	2,234.44	2,175.73	58.71	38.057	
13,600.00	10,550.00	11,388.14	8,340.00	83.88	80.35	-8.50	79.79	2,929.29	2,234.44	2,174.19	60.26	37.082	
13,700.00	10,550.00	11,488.14	8,340.00	86.05	82.61	-8.50	79.75	3,029.29	2,234.44	2,172.63	61.81	36.152	
13,800.00	10,550.00	11,588.14	8,340.00	88.24	84.87	-8.50	79.70	3,129.29	2,234.44	2,171.07	63.37	35.262	
13,900.00	10,550.00	11,688.14	8,340.00	90.44	87.14	-8.50	79.66	3,229.29	2,234.44	2,169.50	64.93	34.411	
14,000.00	10,550.00	11,788.14	8,340.00	92.65	89.42	-8.50	79.62	3,329.29	2,234.43	2,167.93	66.51	33.597	
14,100.00	10,550.00	11,888.14	8,340.00	94.87	91.71	-8.50	79.57	3,429.29	2,234.43	2,166.34	68.09	32.817	
14,200.00	10,550.00	11,988.14	8,340.00	97.10	94.01	-8.50	79.53	3,529.29	2,234.43	2,164.75	69.68	32.069	
14,300.00	10,550.00	12,088.14	8,340.00	99.34	96.31	-8.50	79.49	3,629.29	2,234.43	2,163.16	71.27	31.353	
14,400.00	10,550.00	12,188.14	8,340.00	101.59	98.62	-8.50	79.44	3,729.29	2,234.43	2,161.56	72.87	30.665	
14,500.00	10,550.00	12,288.14	8,340.00	103.85	100.93	-8.50	79.40	3,829.29	2,234.42	2,159.95	74.47	30.005	
14,600.00	10,550.00	12,388.14	8,340.00	106.11	103.25	-8.50	79.36	3,929.29	2,234.42	2,158.34	76.08	29.371	
14,700.00	10,550.00	12,488.14	8,340.00	108.38	105.57	-8.50	79.31	4,029.29	2,234.42	2,156.73	77.69	28.761	
14,800.00	10,550.00	12,588.14	8,340.00	110.66	107.89	-8.50	79.27	4,129.29	2,234.42	2,155.11	79.30	28.175	
14,900.00	10,550.00	12,688.14	8,340.00	112.94	110.23	-8.50	79.23	4,229.29	2,234.41	2,153.49	80.92	27.611	
15,000.00	10,550.00	12,788.14	8,340.00	115.23	112.56	-8.49	79.18	4,329.29	2,234.41	2,151.86	82.55	27.068	
15,100.00	10,550.00	12,888.14	8,340.00	117.52	114.90	-8.49	79.14	4,429.29	2,234.41	2,150.23	84.18	26.544	
15,200.00	10,550.00	12,988.14	8,340.00	119.82	117.24	-8.49	79.10	4,529.29	2,234.41	2,148.60	85.81	26.040	
15,300.00	10,550.00	13,088.14	8,340.00	122.13	119.59	-8.49	79.06	4,629.29	2,234.41	2,146.97	87.44	25.553	
15,400.00	10,550.00	13,188.14	8,340.00	124.44	121.94	-8.49	79.01	4,729.29	2,234.40	2,145.33	89.08	25.084	
15,429.23	10,550.00	13,217.37	8,340.00	124.89	122.62	-8.49	79.00	4,758.51	2,234.40	2,144.96	89.45	24.981	
15,430.62	10,550.00	13,216.38	8,340.00	124.92	122.60	-8.49	79.00	4,757.52	2,234.40	2,144.96	89.45	24.981	



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #122H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)				Between Centres (usft)	Between Ellipses (usft)	
0.00	0.00	3.43	3.43	0.00	0.00	-160.15	-1,643.59	-593.46	1,747.45					
100.00	100.00	103.43	103.43	0.13	0.14	-160.15	-1,643.59	-593.46	1,747.45	1,747.18	0.27	6,549.401		
200.00	200.00	203.43	203.43	0.49	0.50	-160.15	-1,643.59	-593.46	1,747.45	1,746.47	0.98	1,776.309		
300.00	300.00	303.43	303.43	0.84	0.86	-160.15	-1,643.59	-593.46	1,747.45	1,745.75	1.70	1,027.491		
400.00	400.00	403.43	403.43	1.20	1.21	-160.15	-1,643.59	-593.46	1,747.45	1,745.03	2.42	722.792		
500.00	500.00	503.43	503.43	1.56	1.57	-160.15	-1,643.59	-593.46	1,747.45	1,744.32	3.13	557.475		
600.00	600.00	603.43	603.43	1.92	1.93	-160.15	-1,643.59	-593.46	1,747.45	1,743.60	3.85	453.703		
700.00	700.00	703.43	703.43	2.28	2.29	-160.15	-1,643.59	-593.46	1,747.45	1,742.88	4.57	382.502		
800.00	800.00	803.43	803.43	2.64	2.65	-160.15	-1,643.59	-593.46	1,747.45	1,742.17	5.29	330.618		
900.00	900.00	903.43	903.43	3.00	3.01	-160.15	-1,643.59	-593.46	1,747.45	1,741.45	6.00	291.127		
1,000.00	1,000.00	1,006.19	1,006.19	3.35	3.38	-160.15	-1,643.59	-593.46	1,747.45	1,740.72	6.73	259.684		
1,100.00	1,099.99	1,186.51	1,186.44	3.70	4.02	-54.08	-1,639.75	-591.01	1,744.22	1,736.50	7.72	226.029		
1,200.00	1,199.91	1,321.68	1,321.33	4.04	4.50	-54.38	-1,632.52	-586.38	1,735.58	1,727.05	8.53	203.357		
1,266.67	1,266.45	1,387.84	1,387.33	4.27	4.74	-54.61	-1,628.63	-583.89	1,728.69	1,719.69	9.00	192.072		
1,300.00	1,299.70	1,420.89	1,420.30	4.39	4.86	-54.69	-1,626.69	-582.65	1,725.08	1,715.84	9.23	186.838		
1,400.00	1,399.46	1,520.04	1,519.21	4.74	5.22	-54.94	-1,620.86	-578.92	1,714.27	1,704.33	9.93	172.558		
1,500.00	1,499.22	1,619.19	1,618.11	5.09	5.58	-55.18	-1,615.04	-575.20	1,703.49	1,692.85	10.64	160.110		
1,600.00	1,598.97	1,718.33	1,717.02	5.45	5.94	-55.43	-1,609.21	-571.47	1,692.74	1,681.39	11.35	149.170		
1,700.00	1,698.73	1,817.48	1,815.92	5.81	6.30	-55.68	-1,603.38	-567.75	1,682.02	1,669.96	12.06	139.488		
1,800.00	1,798.48	1,916.63	1,914.83	6.17	6.67	-55.94	-1,597.56	-564.02	1,671.34	1,658.57	12.77	130.864		
1,900.00	1,898.24	2,015.78	2,013.73	6.53	7.03	-56.20	-1,591.73	-560.29	1,660.69	1,647.20	13.49	123.137		
2,000.00	1,998.00	2,114.92	2,112.64	6.90	7.40	-56.46	-1,585.90	-556.57	1,650.07	1,635.87	14.20	116.177		
2,100.00	2,097.75	2,214.07	2,211.55	7.26	7.76	-56.73	-1,580.08	-552.84	1,639.49	1,624.57	14.92	109.878		
2,200.00	2,197.51	2,313.22	2,310.45	7.63	8.13	-57.00	-1,574.25	-549.11	1,628.95	1,613.31	15.64	104.150		
2,300.00	2,297.27	2,412.36	2,409.36	8.00	8.49	-57.27	-1,568.42	-545.39	1,618.44	1,602.08	16.36	98.922		
2,400.00	2,397.02	2,511.51	2,508.26	8.37	8.86	-57.55	-1,562.60	-541.66	1,607.97	1,590.89	17.08	94.131		
2,500.00	2,496.78	2,610.66	2,607.17	8.74	9.23	-57.83	-1,556.77	-537.94	1,597.53	1,579.73	17.80	89.726		
2,600.00	2,596.54	2,709.81	2,706.07	9.10	9.59	-58.11	-1,550.94	-534.21	1,587.14	1,568.61	18.53	85.663		
2,700.00	2,696.29	2,808.95	2,804.98	9.47	9.96	-58.40	-1,545.12	-530.48	1,576.78	1,557.53	19.25	81.904		
2,800.00	2,796.05	2,945.51	2,941.12	9.85	10.47	-58.81	-1,536.09	-524.71	1,565.77	1,545.69	20.08	77.967		
2,850.00	2,845.93	3,026.46	3,021.61	10.03	10.78	-59.08	-1,528.91	-520.12	1,558.95	1,538.42	20.53	75.952		
2,900.00	2,895.78	3,106.73	3,101.24	10.22	11.09	-59.50	-1,520.38	-514.66	1,550.98	1,530.02	20.96	73.998		
3,000.00	2,995.32	3,208.14	3,201.67	10.60	11.48	-60.22	-1,508.50	-507.07	1,532.92	1,511.22	21.70	70.645		
3,100.00	3,094.57	3,305.15	3,297.73	10.99	11.87	-61.04	-1,497.13	-499.79	1,513.69	1,491.26	22.44	67.465		
3,116.67	3,111.08	3,321.27	3,313.69	11.05	11.93	-61.18	-1,495.24	-498.58	1,510.38	1,487.82	22.56	66.947		
3,200.00	3,193.60	3,401.77	3,393.41	11.38	12.25	-61.71	-1,485.80	-492.55	1,493.82	1,470.64	23.18	64.444		
3,300.00	3,292.63	3,501.63	3,489.07	11.78	12.64	-62.36	-1,474.47	-485.30	1,474.11	1,450.17	23.94	61.579		
3,400.00	3,391.65	3,605.02	3,584.74	12.18	13.05	-63.02	-1,463.15	-478.06	1,454.59	1,429.87	24.71	58.858		
3,500.00	3,490.68	3,708.41	3,680.40	12.58	13.47	-63.71	-1,451.82	-470.82	1,435.27	1,409.78	25.49	56.303		
3,600.00	3,589.71	3,788.19	3,776.07	12.99	13.79	-64.41	-1,440.49	-463.57	1,416.16	1,389.97	26.19	54.080		
3,700.00	3,688.73	3,884.80	3,871.73	13.39	14.17	-65.13	-1,429.17	-456.33	1,397.26	1,370.32	26.95	51.853		
3,800.00	3,787.76	3,981.40	3,967.40	13.80	14.56	-65.86	-1,417.84	-449.08	1,378.59	1,350.88	27.71	49.750		
3,900.00	3,886.79	4,078.01	4,063.06	14.20	14.95	-66.62	-1,406.51	-441.84	1,360.16	1,331.68	28.48	47.762		
4,000.00	3,985.82	4,174.61	4,158.73	14.61	15.34	-67.40	-1,395.19	-434.60	1,341.97	1,312.72	29.25	45.881		
4,100.00	4,084.84	4,271.22	4,254.40	15.02	15.73	-68.20	-1,383.86	-427.35	1,324.03	1,294.01	30.02	44.101		
4,200.00	4,183.87	4,367.83	4,350.06	15.43	16.12	-69.01	-1,372.53	-420.11	1,306.36	1,275.55	30.80	42.413		
4,300.00	4,282.90	4,464.43	4,445.73	15.84	16.51	-69.85	-1,361.21	-412.86	1,288.96	1,257.38	31.58	40.813		
4,333.13	4,315.70	4,503.56	4,477.42	15.97	16.67	-70.14	-1,357.46	-410.46	1,283.26	1,251.39	31.87	40.267		
4,400.00	4,382.00	4,561.17	4,541.53	16.24	16.91	-70.53	-1,349.86	-405.61	1,272.04	1,239.67	32.36	39.304		
4,500.00	4,481.40	4,658.47	4,637.88	16.64	17.30	-71.06	-1,338.46	-398.31	1,256.18	1,223.05	33.14	37.908		
4,600.00	4,581.06	4,756.29	4,734.74	17.02	17.70	-71.52	-1,326.99	-390.98	1,241.36	1,207.46	33.90	36.618		
4,700.00	4,680.89	4,854.56	4,832.06	17.39	18.10	-71.89	-1,315.47	-383.61	1,227.51	1,192.86	34.65	35.424		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #122H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Between		Minimum		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)			
4,800.00	4,780.85	4,953.22	4,929.76	17.74	18.50	-72.17	-1,303.90	-376.21	1,214.56	1,179.17	35.39	34.319		
4,866.46	4,847.31	5,018.97	4,994.87	17.97	18.77	-178.50	-1,296.19	-371.28	1,206.44	1,170.57	35.87	33.634		
4,900.00	4,880.84	5,052.18	5,027.76	18.08	18.90	-178.62	-1,292.30	-368.79	1,202.43	1,166.33	36.11	33.300		
5,000.00	4,980.84	5,151.21	5,125.82	18.40	19.31	-178.97	-1,280.69	-361.37	1,190.52	1,153.70	36.82	32.331		
5,100.00	5,080.84	5,248.39	5,222.06	18.73	19.71	-179.31	-1,269.30	-354.08	1,178.66	1,141.13	37.54	31.400		
5,200.00	5,180.84	5,327.05	5,300.08	19.06	20.02	-179.57	-1,260.87	-348.70	1,167.86	1,129.64	38.22	30.554		
5,300.00	5,280.84	5,406.10	5,378.67	19.39	20.33	-179.80	-1,253.77	-344.15	1,158.83	1,119.93	38.90	29.792		
5,400.00	5,380.84	5,485.46	5,457.74	19.72	20.63	-179.98	-1,248.02	-340.48	1,151.57	1,112.01	39.56	29.112		
5,500.00	5,480.84	5,565.07	5,537.18	20.05	20.93	-179.88	-1,243.64	-337.68	1,146.07	1,105.87	40.20	28.508		
5,600.00	5,580.84	5,644.87	5,616.90	20.39	21.21	-179.79	-1,240.66	-335.77	1,142.33	1,101.50	40.83	27.977		
5,700.00	5,680.84	5,724.78	5,696.79	20.72	21.49	-179.73	-1,239.07	-334.76	1,140.36	1,098.91	41.44	27.515		
5,788.69	5,769.53	5,800.96	5,772.96	21.02	21.75	-179.73	-1,238.80	-334.58	1,140.01	1,098.02	42.00	27.145		
5,800.00	5,780.84	5,812.27	5,784.27	21.05	21.79	-179.73	-1,238.80	-334.58	1,140.01	1,097.94	42.07	27.095		
5,900.00	5,880.84	5,912.27	5,884.27	21.39	22.12	-179.73	-1,238.80	-334.58	1,140.01	1,097.26	42.76	26.662		
6,000.00	5,980.84	6,012.27	5,984.27	21.73	22.45	-179.73	-1,238.80	-334.58	1,140.01	1,096.57	43.44	26.243		
6,100.00	6,080.84	6,112.27	6,084.27	22.06	22.79	-179.73	-1,238.80	-334.58	1,140.01	1,095.89	44.13	25.836		
6,200.00	6,180.84	6,212.27	6,184.27	22.40	23.13	-179.73	-1,238.80	-334.58	1,140.01	1,095.20	44.81	25.440		
6,300.00	6,280.84	6,312.27	6,284.27	22.74	23.46	-179.73	-1,238.80	-334.58	1,140.01	1,094.51	45.50	25.056		
6,400.00	6,380.84	6,412.27	6,384.27	23.08	23.80	-179.73	-1,238.80	-334.58	1,140.01	1,093.83	46.19	24.683		
6,500.00	6,480.84	6,512.27	6,484.27	23.42	24.14	-179.73	-1,238.80	-334.58	1,140.01	1,093.14	46.87	24.321		
6,600.00	6,580.84	6,612.27	6,584.27	23.76	24.48	-179.73	-1,238.80	-334.58	1,140.01	1,092.45	47.56	23.968		
6,700.00	6,680.84	6,712.27	6,684.27	24.10	24.82	-179.73	-1,238.80	-334.58	1,140.01	1,091.76	48.25	23.625		
6,800.00	6,780.84	6,812.27	6,784.27	24.44	25.16	-179.73	-1,238.80	-334.58	1,140.01	1,091.07	48.94	23.292		
6,900.00	6,880.84	6,912.27	6,884.27	24.78	25.50	-179.73	-1,238.80	-334.58	1,140.01	1,090.38	49.64	22.967		
7,000.00	6,980.84	7,012.27	6,984.27	25.12	25.84	-179.73	-1,238.80	-334.58	1,140.01	1,089.68	50.33	22.652		
7,100.00	7,080.84	7,112.27	7,084.27	25.46	26.18	-179.73	-1,238.80	-334.58	1,140.01	1,088.99	51.02	22.344		
7,200.00	7,180.84	7,212.27	7,184.27	25.81	26.52	-179.73	-1,238.80	-334.58	1,140.01	1,088.30	51.72	22.044		
7,300.00	7,280.84	7,312.27	7,284.27	26.15	26.86	-179.73	-1,238.80	-334.58	1,140.01	1,087.60	52.41	21.752		
7,400.00	7,380.84	7,412.27	7,384.27	26.49	27.21	-179.73	-1,238.80	-334.58	1,140.01	1,086.91	53.10	21.467		
7,500.00	7,480.84	7,512.27	7,484.27	26.84	27.55	-179.73	-1,238.80	-334.58	1,140.01	1,086.21	53.80	21.190		
7,600.00	7,580.84	7,612.27	7,584.27	27.18	27.89	-179.73	-1,238.80	-334.58	1,140.01	1,085.52	54.50	20.919		
7,700.00	7,680.84	7,712.27	7,684.27	27.53	28.24	-179.73	-1,238.80	-334.58	1,140.01	1,084.82	55.19	20.655		
7,709.90	7,690.74	7,722.17	7,694.17	27.56	28.27	-179.73	-1,238.80	-334.58	1,140.01	1,084.75	55.26	20.630 CC		
7,800.00	7,780.84	7,812.09	7,784.09	27.87	28.58	-179.71	-1,238.80	-334.33	1,140.01	1,084.13	55.89	20.398		
7,900.00	7,880.84	7,909.52	7,880.76	28.22	28.93	-179.15	-1,238.80	-323.18	1,140.13	1,083.54	56.60	20.144 ES		
8,000.00	7,980.84	8,000.72	7,968.38	28.56	29.28	-177.89	-1,238.82	-298.06	1,140.90	1,083.58	57.32	19.904		
8,100.00	8,080.84	8,082.26	8,042.38	28.91	29.62	-176.19	-1,238.83	-264.08	1,143.32	1,085.32	58.00	19.711		
8,200.00	8,180.84	8,152.85	8,102.05	29.26	29.93	-174.31	-1,238.85	-226.44	1,148.64	1,090.05	58.59	19.606		
8,300.00	8,280.84	8,212.84	8,148.79	29.60	30.21	-172.45	-1,238.86	-188.88	1,157.99	1,098.99	59.00	19.626		
8,400.00	8,380.84	8,263.39	8,184.95	29.95	30.47	-170.71	-1,238.88	-153.58	1,172.29	1,113.10	59.19	19.805		
8,500.00	8,480.84	8,300.00	8,209.13	30.30	30.67	-169.37	-1,238.89	-126.10	1,192.17	1,133.14	59.03	20.195		
8,600.00	8,580.84	8,341.91	8,234.58	30.65	30.92	-167.77	-1,238.90	-92.81	1,217.88	1,159.10	58.78	20.720		
8,700.00	8,680.84	8,372.46	8,251.57	30.99	31.12	-166.55	-1,238.92	-67.43	1,249.56	1,191.38	58.18	21.476		
8,800.00	8,780.84	8,400.00	8,265.70	31.34	31.30	-165.44	-1,238.93	-43.79	1,287.07	1,229.69	57.38	22.429		
8,900.00	8,880.84	8,421.13	8,275.76	31.69	31.45	-164.56	-1,238.93	-25.22	1,330.15	1,273.78	56.37	23.599		
9,000.00	8,980.84	8,450.00	8,288.40	32.04	31.66	-163.36	-1,238.94	0.74	1,378.51	1,323.11	55.40	24.883		
9,100.00	9,080.84	8,450.00	8,288.40	32.39	31.66	-163.36	-1,238.94	0.74	1,431.60	1,377.73	53.87	26.575		
9,200.00	9,180.84	8,472.85	8,297.46	32.74	31.84	-162.40	-1,238.95	21.72	1,489.04	1,436.30	52.75	28.229		
9,300.00	9,280.84	8,500.00	8,307.12	33.08	32.05	-161.25	-1,238.96	47.08	1,550.69	1,498.98	51.71	29.987		
9,400.00	9,380.84	8,500.00	8,307.12	33.43	32.05	-161.25	-1,238.96	47.08	1,615.58	1,565.34	50.23	32.161		
9,500.00	9,480.84	8,500.00	8,307.12	33.78	32.05	-161.25	-1,238.96	47.08	1,683.90	1,635.08	48.81	34.496		
9,600.00	9,580.84	8,518.34	8,312.97	34.13	32.21	-160.47	-1,238.97	64.47	1,754.94	1,707.16	47.78	36.726		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #122H - Wellbore #1 - Design #1													Offset Site Error: 0 00 usft	
Survey Program: 0-MWD													Offset Well Error: 0 00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,700.00	9,680.84	8,527.02	8,315.54	34.48	32.28	160.10	-1,238.98	72.76	1,828.61	1,781.95	46.66	39.191		
9,800.00	9,780.84	8,550.00	8,321.74	34.83	32.48	159.12	-1,238.99	94.88	1,904.78	1,858.94	45.84	41.552		
9,900.00	9,880.84	8,550.00	8,321.74	35.18	32.48	159.12	-1,238.99	94.88	1,982.59	1,937.86	44.73	44.324		
9,990.39	9,971.24	8,550.00	8,321.74	35.50	32.48	159.12	-1,238.99	94.88	2,054.59	2,010.79	43.80	46.909		
10,000.00	9,980.84	8,550.00	8,321.74	35.53	32.48	57.38	-1,238.99	94.88	2,062.30	2,018.60	43.70	47.189		
10,050.00	10,030.73	8,550.00	8,321.74	35.69	32.48	52.11	-1,238.99	94.88	2,101.81	2,058.63	43.19	48.669		
10,100.00	10,080.17	8,550.00	8,321.74	35.85	32.48	47.56	-1,238.99	94.88	2,140.12	2,097.47	42.65	50.178		
10,150.00	10,128.79	8,550.00	8,321.74	35.99	32.48	43.66	-1,238.99	94.88	2,176.99	2,134.89	42.10	51.706		
10,200.00	10,176.20	8,568.51	8,326.08	36.13	32.65	39.90	-1,238.99	112.87	2,211.90	2,170.08	41.81	52.900		
10,250.00	10,222.05	8,575.15	8,327.50	36.26	32.71	37.00	-1,239.00	119.36	2,245.03	2,203.69	41.34	54.305		
10,300.00	10,265.99	8,600.00	8,332.14	36.38	32.94	34.24	-1,239.01	143.77	2,276.37	2,235.26	41.11	55.371		
10,350.00	10,307.69	8,600.00	8,332.14	36.50	32.94	32.33	-1,239.01	143.77	2,304.91	2,264.36	40.54	56.848		
10,400.00	10,346.83	8,600.00	8,332.14	36.62	32.94	30.72	-1,239.01	143.77	2,331.12	2,291.13	39.99	58.289		
10,450.00	10,383.11	8,600.00	8,332.14	36.74	32.94	29.37	-1,239.01	143.77	2,354.89	2,315.43	39.46	59.678		
10,500.00	10,416.26	8,600.00	8,332.14	36.86	32.94	28.24	-1,239.01	143.77	2,376.12	2,337.16	38.95	60.997		
10,550.00	10,446.02	8,624.70	8,335.69	37.00	33.18	27.08	-1,239.02	168.21	2,394.10	2,355.34	38.76	61.765		
10,600.00	10,472.16	8,650.00	8,338.23	37.16	33.43	26.14	-1,239.03	193.39	2,409.67	2,371.09	38.59	62.449		
10,650.00	10,494.50	8,650.00	8,338.23	37.33	33.43	25.60	-1,239.03	193.39	2,421.80	2,383.63	38.18	63.436		
10,700.00	10,512.85	8,650.00	8,338.23	37.53	33.43	25.19	-1,239.03	193.39	2,431.07	2,393.25	37.82	64.275		
10,750.00	10,527.08	8,650.00	8,338.23	37.76	33.43	24.92	-1,239.03	193.39	2,437.45	2,399.92	37.53	64.947		
10,790.39	10,535.49	8,671.58	8,339.52	37.96	33.65	24.68	-1,239.04	214.93	2,440.01	2,402.49	37.52	65.032		
10,800.00	10,537.11	8,673.51	8,339.60	38.01	33.67	24.66	-1,239.04	216.86	2,440.39	2,402.89	37.49	65.087		
10,850.00	10,544.00	8,695.04	8,340.00	38.30	33.89	24.53	-1,239.05	238.38	2,441.56	2,404.09	37.48	65.151		
10,900.00	10,548.29	8,695.04	8,340.00	38.60	33.89	24.55	-1,239.05	238.38	2,440.92	2,403.58	37.35	65.360		
10,950.00	10,549.97	8,737.53	8,340.00	38.94	34.37	24.43	-1,239.07	280.87	2,438.55	2,400.99	37.56	64.917		
10,957.06	10,550.00	8,744.46	8,340.00	38.99	34.44	24.41	-1,239.07	287.80	2,438.03	2,400.43	37.60	64.833		
11,000.00	10,550.00	8,786.75	8,340.00	39.30	34.92	24.34	-1,239.09	330.09	2,434.92	2,397.06	37.86	64.311		
11,100.00	10,550.00	8,885.81	8,340.00	40.14	36.14	24.20	-1,239.13	429.15	2,429.27	2,390.64	38.63	62.890		
11,200.00	10,550.00	8,985.44	8,340.00	41.09	37.49	24.12	-1,239.17	528.78	2,425.81	2,386.20	39.61	61.249		
11,300.00	10,550.00	9,085.38	8,340.00	42.16	38.95	24.08	-1,239.22	628.72	2,424.50	2,383.70	40.79	59.434		
11,311.23	10,550.00	9,103.39	8,340.00	42.29	39.21	24.08	-1,239.22	639.95	2,424.48	2,383.50	40.99	59.151		
11,311.52	10,550.00	9,103.10	8,340.00	42.29	39.21	24.08	-1,239.22	640.24	2,424.48	2,383.50	40.99	59.152		
11,400.00	10,550.00	9,185.38	8,340.00	43.33	40.49	24.08	-1,239.26	728.72	2,424.49	2,382.35	42.14	57.529		
11,500.00	10,550.00	9,285.38	8,340.00	44.59	42.12	24.08	-1,239.30	828.72	2,424.50	2,380.91	43.59	55.622		
11,600.00	10,550.00	9,385.38	8,340.00	45.95	43.83	24.09	-1,239.34	928.72	2,424.50	2,379.38	45.12	53.737		
11,700.00	10,550.00	9,485.38	8,340.00	47.39	45.60	24.09	-1,239.39	1,028.72	2,424.51	2,377.79	46.72	51.892		
11,800.00	10,550.00	9,585.38	8,340.00	48.91	47.43	24.09	-1,239.43	1,128.72	2,424.51	2,376.12	48.40	50.098		
11,900.00	10,550.00	9,685.38	8,340.00	50.51	49.31	24.09	-1,239.47	1,228.72	2,424.52	2,374.39	50.13	48.365		
12,000.00	10,550.00	9,785.38	8,340.00	52.16	51.23	24.09	-1,239.52	1,328.72	2,424.53	2,372.61	51.92	46.698		
12,100.00	10,550.00	9,885.38	8,340.00	53.87	53.20	24.09	-1,239.56	1,428.72	2,424.53	2,370.77	53.76	45.100		
12,200.00	10,550.00	9,985.38	8,340.00	55.64	55.20	24.09	-1,239.60	1,528.72	2,424.54	2,368.90	55.64	43.573		
12,300.00	10,550.00	10,085.38	8,340.00	57.45	57.24	24.09	-1,239.65	1,628.72	2,424.55	2,366.98	57.57	42.116		
12,400.00	10,550.00	10,185.38	8,340.00	59.31	59.31	24.09	-1,239.69	1,728.72	2,424.55	2,365.02	59.53	40.729		
12,500.00	10,550.00	10,285.38	8,340.00	61.20	61.40	24.09	-1,239.73	1,828.72	2,424.56	2,363.03	61.52	39.408		
12,600.00	10,550.00	10,385.38	8,340.00	63.14	63.51	24.09	-1,239.78	1,928.72	2,424.56	2,361.01	63.55	38.152		
12,700.00	10,550.00	10,485.38	8,340.00	65.10	65.65	24.09	-1,239.82	2,028.72	2,424.57	2,358.97	65.60	36.958		
12,800.00	10,550.00	10,585.38	8,340.00	67.10	67.80	24.09	-1,239.86	2,128.72	2,424.58	2,356.90	67.68	35.824		
12,900.00	10,550.00	10,685.38	8,340.00	69.12	69.98	24.09	-1,239.91	2,228.72	2,424.58	2,354.80	69.78	34.746		
13,000.00	10,550.00	10,785.38	8,340.00	71.17	72.17	24.09	-1,239.95	2,328.72	2,424.59	2,352.69	71.90	33.721		
13,100.00	10,550.00	10,885.38	8,340.00	73.24	74.37	24.09	-1,239.99	2,428.72	2,424.60	2,350.55	74.04	32.746		
13,200.00	10,550.00	10,985.38	8,340.00	75.33	76.59	24.09	-1,240.03	2,528.72	2,424.60	2,348.40	76.20	31.818		
13,300.00	10,550.00	11,085.38	8,340.00	77.44	78.82	24.09	-1,240.08	2,628.72	2,424.61	2,346.23	78.38	30.936		

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



Anticollision Report



Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #122H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MVD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,400.00	10,550.00	11,185.38	8,340.00	79.57	81.06	24.09	-1,240.12	2,728.72	2,424.61	2,344.05	80.56	30.095		
13,500.00	10,550.00	11,285.38	8,340.00	81.72	83.31	24.09	-1,240.16	2,828.72	2,424.62	2,341.85	82.77	29.294		
13,600.00	10,550.00	11,385.38	8,340.00	83.88	85.57	24.09	-1,240.21	2,928.72	2,424.63	2,339.64	84.98	28.531		
13,700.00	10,550.00	11,485.38	8,340.00	86.05	87.84	24.09	-1,240.25	3,028.72	2,424.63	2,337.42	87.21	27.802		
13,800.00	10,550.00	11,585.38	8,340.00	88.24	90.12	24.09	-1,240.29	3,128.72	2,424.64	2,335.19	89.45	27.107		
13,900.00	10,550.00	11,685.38	8,340.00	90.44	92.40	24.09	-1,240.34	3,228.72	2,424.65	2,332.95	91.70	26.442		
14,000.00	10,550.00	11,785.38	8,340.00	92.65	94.69	24.09	-1,240.38	3,328.72	2,424.65	2,330.70	93.95	25.807		
14,100.00	10,550.00	11,885.38	8,340.00	94.87	96.99	24.09	-1,240.42	3,428.72	2,424.66	2,328.44	96.22	25.199		
14,200.00	10,550.00	11,985.38	8,340.00	97.10	99.30	24.09	-1,240.47	3,528.72	2,424.66	2,326.17	98.49	24.617		
14,300.00	10,550.00	12,085.38	8,340.00	99.34	101.61	24.09	-1,240.51	3,628.72	2,424.67	2,323.89	100.78	24.060		
14,400.00	10,550.00	12,185.38	8,340.00	101.59	103.92	24.09	-1,240.55	3,728.72	2,424.68	2,321.61	103.06	23.526		
14,500.00	10,550.00	12,285.38	8,340.00	103.85	106.24	24.09	-1,240.60	3,828.72	2,424.68	2,319.32	105.36	23.013		
14,600.00	10,550.00	12,385.38	8,340.00	106.11	108.56	24.09	-1,240.64	3,928.72	2,424.69	2,317.03	107.66	22.521		
14,700.00	10,550.00	12,485.38	8,340.00	108.38	110.89	24.10	-1,240.68	4,028.72	2,424.69	2,314.73	109.97	22.049		
14,800.00	10,550.00	12,585.38	8,340.00	110.66	113.23	24.10	-1,240.72	4,128.72	2,424.70	2,312.42	112.28	21.595		
14,900.00	10,550.00	12,685.38	8,340.00	112.94	115.56	24.10	-1,240.77	4,228.72	2,424.71	2,310.11	114.60	21.158		
15,000.00	10,550.00	12,785.38	8,340.00	115.23	117.90	24.10	-1,240.81	4,328.72	2,424.71	2,307.79	116.92	20.738		
15,100.00	10,550.00	12,885.38	8,340.00	117.52	120.25	24.10	-1,240.85	4,428.72	2,424.72	2,305.47	119.25	20.333		
15,200.00	10,550.00	12,985.38	8,340.00	119.82	122.59	24.10	-1,240.90	4,528.72	2,424.73	2,303.14	121.58	19.943		
15,300.00	10,550.00	13,085.38	8,340.00	122.13	124.94	24.10	-1,240.94	4,628.72	2,424.73	2,300.81	123.92	19.567		
15,400.00	10,550.00	13,185.38	8,340.00	124.44	127.29	24.10	-1,240.98	4,728.72	2,424.74	2,298.48	126.26	19.204		
15,430.62	10,550.00	13,215.99	8,340.00	124.92	128.01	24.10	-1,241.00	4,759.33	2,424.74	2,297.90	126.84	19.117 SF		



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #201H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWVD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.00	0.00	0.25	-0.25	0.00	0.00	44.98	30.03	30.01	42.45					
100.00	100.00	100.25	99.75	0.13	0.13	44.98	30.03	30.01	42.45	42.20	0.26	166.221		
200.00	200.00	200.25	199.75	0.49	0.49	44.98	30.03	30.01	42.45	41.48	0.97	43.662		
300.00	300.00	300.25	299.75	0.84	0.85	44.98	30.03	30.01	42.45	40.77	1.69	25.132		
400.00	400.00	400.25	399.75	1.20	1.20	44.98	30.03	30.01	42.45	40.05	2.41	17.644		
500.00	500.00	500.25	499.75	1.56	1.56	44.98	30.03	30.01	42.45	39.33	3.12	13.593		
600.00	600.00	600.25	599.75	1.92	1.92	44.98	30.03	30.01	42.45	38.61	3.84	11.056		
700.00	700.00	700.25	699.75	2.28	2.28	44.98	30.03	30.01	42.45	37.90	4.56	9.316		
800.00	800.00	800.25	799.75	2.64	2.64	44.98	30.03	30.01	42.45	37.18	5.27	8.050		
900.00	900.00	900.25	899.75	3.00	3.00	44.98	30.03	30.01	42.45	36.46	5.99	7.086		
1,000.00	1,000.00	1,000.25	999.75	3.35	3.35	44.98	30.03	30.01	42.45	35.75	6.71	6.329 CC, ES		
1,100.00	1,099.99	1,100.26	1,099.74	3.70	3.71	152.00	30.03	30.01	43.61	36.19	7.41	5.882		
1,200.00	1,199.91	1,199.68	1,199.68	4.04	4.07	153.86	30.25	29.80	47.10	38.99	8.11	5.808 SF		
1,266.67	1,266.45	1,266.28	1,266.26	4.27	4.30	154.26	31.26	28.81	50.71	42.14	8.57	5.915		
1,300.00	1,299.70	1,299.56	1,299.53	4.39	4.42	154.11	32.09	28.02	52.76	43.95	8.81	5.991		
1,400.00	1,399.46	1,399.38	1,399.21	4.74	4.78	152.04	35.80	24.42	58.89	49.38	9.51	6.194		
1,500.00	1,499.22	1,499.03	1,498.56	5.09	5.14	148.07	41.36	19.02	65.21	55.00	10.21	6.385		
1,600.00	1,598.97	1,598.38	1,597.37	5.45	5.50	142.79	48.77	11.85	72.16	61.23	10.93	6.604		
1,700.00	1,698.73	1,702.63	1,695.52	5.81	5.88	136.69	57.96	2.94	80.26	68.59	11.66	6.881		
1,800.00	1,798.48	1,803.39	1,793.79	6.17	6.26	131.15	67.88	-6.67	89.44	77.05	12.40	7.215		
1,900.00	1,898.24	1,904.15	1,892.07	6.53	6.65	126.66	77.79	-16.29	99.30	86.17	13.13	7.562		
2,000.00	1,998.00	2,004.91	1,990.34	6.90	7.04	123.00	87.71	-25.90	109.66	95.79	13.87	7.905		
2,100.00	2,097.75	2,105.67	2,088.61	7.26	7.43	119.98	97.63	-35.51	120.39	105.77	14.62	8.237		
2,200.00	2,197.51	2,206.43	2,186.89	7.63	7.83	117.46	107.54	-45.13	131.39	116.03	15.36	8.554		
2,300.00	2,297.27	2,307.19	2,285.16	8.00	8.23	115.33	117.46	-54.74	142.61	126.50	16.11	8.854		
2,400.00	2,397.02	2,407.95	2,383.44	8.37	8.63	113.51	127.38	-64.35	153.99	137.13	16.85	9.137		
2,500.00	2,496.78	2,508.71	2,481.71	8.74	9.03	111.94	137.30	-73.96	165.50	147.90	17.60	9.402		
2,600.00	2,596.54	2,609.47	2,579.98	9.10	9.44	110.58	147.21	-83.58	177.12	158.77	18.35	9.651		
2,700.00	2,696.29	2,689.77	2,678.26	9.47	9.76	109.39	157.13	-93.19	188.83	169.81	19.02	9.926		
2,800.00	2,796.05	2,789.01	2,776.53	9.85	10.16	108.33	167.05	-102.80	200.61	180.84	19.77	10.147		
2,850.00	2,845.93	2,838.63	2,825.67	10.03	10.36	107.85	172.01	-107.61	206.52	186.38	20.14	10.253		
2,900.00	2,895.78	2,888.24	2,874.80	10.22	10.56	107.39	176.96	-112.41	212.55	192.03	20.52	10.359		
3,000.00	2,995.32	2,987.44	2,973.03	10.60	10.97	107.01	186.88	-122.02	225.19	203.91	21.28	10.583		
3,100.00	3,094.57	3,086.52	3,071.15	10.99	11.37	107.24	196.78	-131.62	238.59	216.54	22.05	10.820		
3,116.67	3,111.08	3,103.02	3,087.49	11.05	11.44	107.34	198.43	-133.22	240.90	218.72	22.18	10.861		
3,200.00	3,193.60	3,185.49	3,169.16	11.38	11.77	107.97	206.67	-141.21	252.53	229.70	22.83	11.060		
3,300.00	3,292.63	3,284.46	3,267.16	11.78	12.18	108.65	216.56	-150.79	266.51	242.90	23.61	11.286		
3,400.00	3,391.65	3,383.43	3,365.17	12.18	12.58	109.26	226.45	-160.38	280.53	256.13	24.40	11.497		
3,500.00	3,490.68	3,482.40	3,463.17	12.58	12.99	109.82	236.34	-169.97	294.58	269.40	25.19	11.696		
3,600.00	3,589.71	3,581.37	3,561.18	12.99	13.39	110.33	246.23	-179.55	308.66	282.68	25.97	11.883		
3,700.00	3,688.73	3,680.34	3,659.19	13.39	13.80	110.79	256.12	-189.14	322.75	295.99	26.76	12.059		
3,800.00	3,787.76	3,779.31	3,757.19	13.80	14.21	111.21	266.01	-198.73	336.87	309.31	27.55	12.225		
3,900.00	3,886.79	3,878.28	3,855.20	14.20	14.62	111.60	275.90	-208.31	351.00	322.65	28.35	12.383		
4,000.00	3,985.82	3,977.25	3,953.21	14.61	15.02	111.96	285.79	-217.90	365.14	336.00	29.14	12.531		
4,100.00	4,084.84	4,076.22	4,051.21	15.02	15.43	112.29	295.68	-227.49	379.30	349.37	29.93	12.672		
4,200.00	4,183.87	4,175.18	4,149.22	15.43	15.84	112.60	305.57	-237.07	393.47	362.74	30.73	12.805		
4,300.00	4,282.90	4,274.15	4,247.23	15.84	16.25	112.89	315.46	-246.66	407.65	376.13	31.52	12.932		
4,333.13	4,315.70	4,306.94	4,279.69	15.97	16.39	112.98	318.74	-249.84	412.35	380.56	31.79	12.973		
4,400.00	4,382.00	4,373.16	4,345.27	16.24	16.66	113.21	325.36	-256.25	421.61	389.30	32.31	13.047		
4,500.00	4,481.40	4,472.31	4,443.45	16.64	17.07	113.27	335.26	-265.85	434.61	401.51	33.10	13.132		
4,600.00	4,581.06	4,571.53	4,541.71	17.02	17.48	113.01	345.18	-275.47	446.59	412.73	33.86	13.189		
4,700.00	4,680.89	4,670.77	4,639.98	17.39	17.89	112.46	355.10	-285.08	457.61	423.00	34.61	13.220		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #201H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
4,800.00	4,780.85	4,769.94	4,738.19	17.74	18.30	111.63	365.01	-294.68	467.73	432.38	35.35	13.231	
4,866.46	4,847.31	4,835.79	4,803.40	17.97	18.58	4.74	371.59	-301.06	474.01	438.19	35.83	13.231	
4,900.00	4,880.84	4,869.00	4,836.29	18.08	18.71	4.32	374.91	-304.28	477.11	441.05	36.06	13.230	
5,000.00	4,980.84	4,968.30	4,934.62	18.40	19.13	3.09	384.83	-313.90	486.51	449.74	36.77	13.232	
5,100.00	5,080.84	5,077.18	5,042.65	18.73	19.57	1.94	394.54	-323.31	495.08	457.53	37.55	13.185	
5,200.00	5,180.84	5,186.75	5,151.71	19.06	19.99	1.08	402.08	-330.62	501.80	463.49	38.31	13.098	
5,300.00	5,280.84	5,296.83	5,261.54	19.39	20.40	0.48	407.39	-335.76	506.56	467.51	39.05	12.971	
5,400.00	5,380.84	5,407.25	5,371.88	19.72	20.78	0.15	410.43	-338.71	509.30	469.53	39.77	12.805	
5,500.00	5,480.84	5,515.98	5,480.59	20.05	21.15	0.06	411.21	-339.47	510.01	469.55	40.46	12.604	
5,600.00	5,580.84	5,615.98	5,580.59	20.39	21.47	0.06	411.21	-339.47	510.01	468.88	41.13	12.399	
5,700.00	5,680.84	5,715.98	5,680.59	20.72	21.80	0.06	411.21	-339.47	510.01	468.20	41.81	12.199	
5,800.00	5,780.84	5,815.98	5,780.59	21.05	22.13	0.06	411.21	-339.47	510.01	467.53	42.48	12.005	
5,900.00	5,880.84	5,915.98	5,880.59	21.39	22.46	0.06	411.21	-339.47	510.01	466.85	43.16	11.818	
6,000.00	5,980.84	6,015.98	5,980.59	21.73	22.79	0.06	411.21	-339.47	510.01	466.18	43.83	11.635	
6,100.00	6,080.84	6,115.98	6,080.59	22.06	23.12	0.06	411.21	-339.47	510.01	465.50	44.51	11.458	
6,200.00	6,180.84	6,215.98	6,180.59	22.40	23.45	0.06	411.21	-339.47	510.01	464.82	45.19	11.286	
6,300.00	6,280.84	6,315.98	6,280.59	22.74	23.78	0.06	411.21	-339.47	510.01	464.14	45.87	11.118	
6,400.00	6,380.84	6,415.98	6,380.59	23.08	24.12	0.06	411.21	-339.47	510.01	463.46	46.55	10.955	
6,500.00	6,480.84	6,515.98	6,480.59	23.42	24.45	0.06	411.21	-339.47	510.01	462.77	47.24	10.797	
6,600.00	6,580.84	6,615.98	6,580.59	23.76	24.78	0.06	411.21	-339.47	510.01	462.09	47.92	10.643	
6,700.00	6,680.84	6,715.98	6,680.59	24.10	25.12	0.06	411.21	-339.47	510.01	461.41	48.60	10.493	
6,800.00	6,780.84	6,815.98	6,780.59	24.44	25.46	0.06	411.21	-339.47	510.01	460.72	49.29	10.347	
6,900.00	6,880.84	6,915.98	6,880.59	24.78	25.79	0.06	411.21	-339.47	510.01	460.03	49.98	10.205	
7,000.00	6,980.84	7,015.98	6,980.59	25.12	26.13	0.06	411.21	-339.47	510.01	459.35	50.66	10.067	
7,100.00	7,080.84	7,115.98	7,080.59	25.46	26.47	0.06	411.21	-339.47	510.01	458.66	51.35	9.932	
7,200.00	7,180.84	7,215.98	7,180.59	25.81	26.81	0.06	411.21	-339.47	510.01	457.97	52.04	9.800	
7,300.00	7,280.84	7,315.98	7,280.59	26.15	27.14	0.06	411.21	-339.47	510.01	457.28	52.73	9.672	
7,400.00	7,380.84	7,415.98	7,380.59	26.49	27.48	0.06	411.21	-339.47	510.01	456.59	53.42	9.547	
7,500.00	7,480.84	7,515.98	7,480.59	26.84	27.82	0.06	411.21	-339.47	510.01	455.90	54.11	9.425	
7,600.00	7,580.84	7,615.98	7,580.59	27.18	28.16	0.06	411.21	-339.47	510.01	455.21	54.80	9.306	
7,700.00	7,680.84	7,715.98	7,680.59	27.53	28.50	0.06	411.21	-339.47	510.01	454.52	55.49	9.190	
7,800.00	7,780.84	7,815.98	7,780.59	27.87	28.84	0.06	411.21	-339.47	510.01	453.82	56.19	9.077	
7,900.00	7,880.84	7,915.98	7,880.59	28.22	29.19	0.06	411.21	-339.47	510.01	453.13	56.88	8.966	
8,000.00	7,980.84	8,015.98	7,980.59	28.56	29.53	0.06	411.21	-339.47	510.01	452.44	57.57	8.858	
8,100.00	8,080.84	8,115.98	8,080.59	28.91	29.87	0.06	411.21	-339.47	510.01	451.74	58.27	8.753	
8,200.00	8,180.84	8,215.98	8,180.59	29.26	30.21	0.06	411.21	-339.47	510.01	451.05	58.96	8.649	
8,300.00	8,280.84	8,315.98	8,280.59	29.60	30.56	0.06	411.21	-339.47	510.01	450.35	59.66	8.549	
8,400.00	8,380.84	8,415.98	8,380.59	29.95	30.90	0.06	411.21	-339.47	510.01	449.65	60.36	8.450	
8,500.00	8,480.84	8,515.98	8,480.59	30.30	31.24	0.06	411.21	-339.47	510.01	448.96	61.05	8.354	
8,600.00	8,580.84	8,615.98	8,580.59	30.65	31.59	0.06	411.21	-339.47	510.01	448.26	61.75	8.259	
8,700.00	8,680.84	8,715.98	8,680.59	30.99	31.93	0.06	411.21	-339.47	510.01	447.56	62.45	8.167	
8,800.00	8,780.84	8,815.98	8,780.59	31.34	32.28	0.06	411.21	-339.47	510.01	446.86	63.15	8.077	
8,900.00	8,880.84	8,915.98	8,880.59	31.69	32.62	0.06	411.21	-339.47	510.01	446.17	63.84	7.988	
9,000.00	8,980.84	9,015.98	8,980.59	32.04	32.97	0.06	411.21	-339.47	510.01	445.47	64.54	7.902	
9,100.00	9,080.84	9,115.98	9,080.59	32.39	33.31	0.06	411.21	-339.47	510.01	444.77	65.24	7.817	
9,112.18	9,093.02	9,128.16	9,092.77	32.43	33.36	0.06	411.21	-339.47	510.01	444.68	65.33	7.807	
9,200.00	9,180.84	9,215.97	9,180.58	32.74	33.66	0.08	411.21	-339.29	510.01	444.07	65.94	7.735	
9,201.29	9,182.13	9,217.26	9,181.87	32.74	33.66	0.09	411.21	-339.26	510.01	444.06	65.95	7.734	
9,300.00	9,280.84	9,314.43	9,278.32	33.08	33.96	1.31	411.21	-328.40	510.14	443.53	66.61	7.659	
9,400.00	9,380.84	9,406.63	9,366.90	33.43	34.20	4.13	411.19	-303.18	511.51	444.27	67.24	7.607	
9,500.00	9,480.84	9,489.00	9,441.71	33.78	34.38	7.94	411.18	-268.90	516.38	448.68	67.70	7.627	
9,600.00	9,580.84	9,560.20	9,501.86	34.13	34.51	12.08	411.16	-230.88	527.42	459.65	67.77	7.783	

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #201H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,700.00	9,680.84	9,620.60	9,548.86	34.48	34.62	16.09	411.15	-192.99	546.83	479.64	67.19	8.139		
9,800.00	9,780.84	9,671.42	9,585.14	34.83	34.70	19.70	411.13	-157.42	575.83	509.97	65.86	8.743		
9,900.00	9,880.84	9,714.14	9,613.09	35.18	34.77	22.85	411.12	-125.13	614.62	550.74	63.88	9.622		
9,990.39	9,971.24	9,750.00	9,634.65	35.50	34.83	25.53	411.10	-96.48	657.61	595.82	61.79	10.643		
10,000.00	9,980.84	9,750.00	9,634.65	35.53	34.83	-74.56	411.10	-96.48	662.55	601.11	61.44	10.784		
10,050.00	10,030.73	9,767.45	9,644.47	35.69	34.86	-70.40	411.10	-82.06	688.89	628.73	60.16	11.450		
10,100.00	10,080.17	9,785.21	9,654.02	35.85	34.90	-66.35	411.09	-67.09	715.79	656.89	58.90	12.153		
10,150.00	10,128.79	9,800.00	9,661.62	35.99	34.93	-62.65	411.09	-54.40	742.85	685.29	57.56	12.905		
10,200.00	10,176.20	9,822.00	9,672.31	36.13	34.99	-58.88	411.08	-35.17	769.70	713.20	56.49	13.624		
10,250.00	10,222.05	9,850.00	9,684.83	36.26	35.06	-55.25	411.07	-10.13	796.17	740.52	55.65	14.306		
10,300.00	10,265.99	9,850.00	9,684.83	36.38	35.06	-52.84	411.07	-10.13	821.81	767.75	54.07	15.200		
10,350.00	10,307.69	9,879.51	9,696.68	36.50	35.16	-49.87	411.06	16.90	846.33	792.92	53.41	15.845		
10,400.00	10,346.83	9,900.00	9,704.09	36.62	35.23	-47.48	411.05	36.00	869.81	817.22	52.59	16.539		
10,450.00	10,383.11	9,918.94	9,710.32	36.74	35.31	-45.41	411.04	53.88	891.97	840.12	51.84	17.205		
10,500.00	10,416.26	9,950.00	9,719.25	36.86	35.43	-43.50	411.03	83.63	912.81	861.34	51.47	17.735		
10,550.00	10,446.02	9,950.00	9,719.25	37.00	35.43	-42.10	411.03	83.63	931.85	881.26	50.59	18.419		
10,600.00	10,472.16	9,979.12	9,726.15	37.16	35.57	-40.74	411.01	111.91	949.16	898.73	50.43	18.822		
10,650.00	10,494.50	10,001.63	9,730.49	37.33	35.68	-39.64	411.00	133.99	964.80	914.52	50.27	19.192		
10,700.00	10,512.85	10,025.13	9,734.29	37.53	35.81	-38.76	410.99	157.19	978.45	928.17	50.28	19.460		
10,750.00	10,527.08	10,050.00	9,737.68	37.76	35.95	-38.10	410.98	181.83	989.91	939.46	50.45	19.621		
10,790.39	10,535.49	10,073.24	9,740.27	37.96	36.09	-37.74	410.97	204.93	997.52	946.79	50.73	19.662		
10,800.00	10,537.11	10,078.37	9,740.77	38.01	36.12	-37.71	410.97	210.03	999.14	948.33	50.81	19.665		
10,850.00	10,544.00	10,100.00	9,742.56	38.30	36.26	-37.56	410.96	231.58	1,007.03	955.81	51.22	19.661		
10,900.00	10,548.29	10,131.73	9,744.30	38.60	36.47	-37.53	410.95	263.26	1,013.95	962.14	51.81	19.570		
10,950.00	10,549.97	10,158.39	9,744.95	38.94	36.66	-37.52	410.94	289.92	1,019.97	967.51	52.45	19.445		
10,957.06	10,550.00	10,162.16	9,744.98	38.99	36.68	-37.52	410.94	293.68	1,020.74	968.19	52.55	19.424		
11,000.00	10,550.00	10,200.72	9,745.00	39.30	36.97	-37.92	410.92	330.81	1,025.31	972.09	53.22	19.265		
11,100.00	10,550.00	10,301.66	9,745.00	40.14	37.82	-38.71	410.88	429.86	1,033.81	978.98	54.83	18.853		
11,200.00	10,550.00	10,402.03	9,745.00	41.09	38.81	-39.20	410.83	529.49	1,039.12	982.68	56.44	18.410		
11,300.00	10,550.00	10,502.09	9,745.00	42.16	39.91	-39.38	410.79	629.43	1,041.15	983.12	58.03	17.941		
11,311.52	10,550.00	10,509.43	9,745.00	42.29	40.00	-39.38	410.78	640.95	1,041.18	982.99	58.18	17.896		
11,400.00	10,550.00	10,602.09	9,745.00	43.33	41.13	-39.38	410.75	729.43	1,041.17	981.51	59.65	17.454		
11,500.00	10,550.00	10,702.09	9,745.00	44.59	42.45	-39.38	410.70	829.43	1,041.16	979.75	61.41	16.955		
11,600.00	10,550.00	10,802.09	9,745.00	45.95	43.86	-39.38	410.66	929.43	1,041.15	977.86	63.29	16.451		
11,700.00	10,550.00	10,902.09	9,745.00	47.39	45.36	-39.38	410.62	1,029.43	1,041.14	975.86	65.28	15.948		
11,800.00	10,550.00	11,002.09	9,745.00	48.91	46.93	-39.38	410.57	1,129.43	1,041.13	973.75	67.38	15.451		
11,900.00	10,550.00	11,102.09	9,745.00	50.51	48.58	-39.38	410.53	1,229.43	1,041.12	971.55	69.57	14.964		
12,000.00	10,550.00	11,202.09	9,745.00	52.16	50.29	-39.38	410.49	1,329.43	1,041.11	969.26	71.85	14.490		
12,100.00	10,550.00	11,302.09	9,745.00	53.87	52.05	-39.38	410.44	1,429.43	1,041.10	966.89	74.21	14.029		
12,200.00	10,550.00	11,402.09	9,745.00	55.64	53.87	-39.38	410.40	1,529.43	1,041.09	964.45	76.64	13.585		
12,300.00	10,550.00	11,502.09	9,745.00	57.45	55.73	-39.38	410.36	1,629.43	1,041.08	961.95	79.13	13.157		
12,400.00	10,550.00	11,602.09	9,745.00	59.31	57.63	-39.38	410.31	1,729.43	1,041.07	959.39	81.68	12.746		
12,500.00	10,550.00	11,702.09	9,745.00	61.20	59.57	-39.38	410.27	1,829.43	1,041.06	956.78	84.28	12.353		
12,600.00	10,550.00	11,802.09	9,745.00	63.14	61.55	-39.37	410.23	1,929.43	1,041.05	954.12	86.93	11.976		
12,700.00	10,550.00	11,902.09	9,745.00	65.10	63.55	-39.37	410.18	2,029.43	1,041.04	951.42	89.62	11.616		
12,800.00	10,550.00	12,002.09	9,745.00	67.10	65.59	-39.37	410.14	2,129.43	1,041.03	948.67	92.36	11.271		
12,900.00	10,550.00	12,102.09	9,745.00	69.12	67.65	-39.37	410.10	2,229.43	1,041.02	945.89	95.13	10.943		
13,000.00	10,550.00	12,202.09	9,745.00	71.17	69.73	-39.37	410.05	2,329.43	1,041.01	943.08	97.94	10.629		
13,100.00	10,550.00	12,302.09	9,745.00	73.24	71.84	-39.37	410.01	2,429.43	1,041.00	940.23	100.77	10.330		
13,200.00	10,550.00	12,402.09	9,745.00	75.33	73.96	-39.37	409.97	2,529.43	1,040.99	937.36	103.64	10.045		
13,300.00	10,550.00	12,502.09	9,745.00	77.44	76.10	-39.37	409.92	2,629.43	1,040.98	934.46	106.53	9.772		
13,400.00	10,550.00	12,602.09	9,745.00	79.57	78.26	-39.37	409.88	2,729.43	1,040.97	931.53	109.44	9.512		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design										Zach McCormick Federal 18-24S-29E RB - #201H - Wellbore #1 - Design #1		Offset Site Error: 0.00 usft	
Survey Program: 0-MWD												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor
13,500.00	10,550.00	12,702.09	9,745.00	81.72	80.43	-39.37	409.84	2,829.43	1,040.96	928.59	112.38	9.263	
13,600.00	10,550.00	12,802.09	9,745.00	83.88	82.62	-39.37	409.79	2,929.43	1,040.95	925.62	115.33	9.026	
13,700.00	10,550.00	12,902.09	9,745.00	86.05	84.82	-39.37	409.75	3,029.43	1,040.95	922.64	118.31	8.799	
13,800.00	10,550.00	13,002.09	9,745.00	88.24	87.03	-39.37	409.71	3,129.43	1,040.94	919.64	121.30	8.582	
13,900.00	10,550.00	13,102.09	9,745.00	90.44	89.26	-39.37	409.66	3,229.43	1,040.93	916.62	124.31	8.374	
14,000.00	10,550.00	13,202.09	9,745.00	92.65	91.49	-39.37	409.62	3,329.43	1,040.92	913.58	127.33	8.175	
14,100.00	10,550.00	13,302.09	9,745.00	94.87	93.73	-39.36	409.58	3,429.43	1,040.91	910.54	130.37	7.984	
14,200.00	10,550.00	13,402.09	9,745.00	97.10	95.99	-39.36	409.53	3,529.43	1,040.90	907.48	133.42	7.802	
14,300.00	10,550.00	13,502.09	9,745.00	99.34	98.25	-39.36	409.49	3,629.43	1,040.89	904.41	136.48	7.627	
14,400.00	10,550.00	13,602.09	9,745.00	101.59	100.51	-39.36	409.44	3,729.43	1,040.88	901.32	139.56	7.459	
14,500.00	10,550.00	13,702.09	9,745.00	103.85	102.79	-39.36	409.40	3,829.43	1,040.87	898.23	142.64	7.297	
14,600.00	10,550.00	13,802.09	9,745.00	106.11	105.07	-39.36	409.36	3,929.43	1,040.86	895.13	145.73	7.142	
14,700.00	10,550.00	13,902.09	9,745.00	108.38	107.36	-39.36	409.31	4,029.43	1,040.85	892.01	148.84	6.993	
14,800.00	10,550.00	14,002.09	9,745.00	110.66	109.65	-39.36	409.27	4,129.43	1,040.84	888.89	151.95	6.850	
14,900.00	10,550.00	14,097.91	9,745.00	112.94	111.85	-39.36	409.23	4,229.43	1,040.83	885.83	155.00	6.715	
15,000.00	10,550.00	14,202.09	9,745.00	115.23	114.25	-39.36	409.18	4,329.43	1,040.82	882.62	158.20	6.579	
15,100.00	10,550.00	14,297.91	9,745.00	117.52	116.47	-39.36	409.14	4,429.43	1,040.81	879.54	161.27	6.454	
15,200.00	10,550.00	14,402.09	9,745.00	119.82	118.88	-39.36	409.10	4,529.43	1,040.80	876.33	164.47	6.328	
15,300.00	10,550.00	14,502.09	9,745.00	122.13	121.19	-39.36	409.05	4,629.43	1,040.79	873.17	167.62	6.209	
15,400.00	10,550.00	14,602.09	9,745.00	124.44	123.52	-39.36	409.01	4,729.43	1,040.78	870.00	170.78	6.094	
15,428.21	10,550.00	14,626.12	9,745.00	124.88	124.07	-39.36	409.00	4,757.64	1,040.78	869.33	171.45	6.071	
15,430.62	10,550.00	14,623.75	9,745.00	124.92	124.02	-39.36	409.00	4,755.27	1,040.79	869.36	171.43	6.071	



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #202H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)				Between Centres (usft)	Between Ellipses (usft)	
0.00	0.00	2.55	2.55	0.00	0.00	-159.46	-1,583.62	-593.48	1,691.17					
100.00	100.00	102.55	102.55	0.13	0.14	-159.46	-1,583.62	-593.48	1,691.17	1,690.91	0.26	6,414.318		
200.00	200.00	202.55	202.55	0.49	0.49	-159.46	-1,583.62	-593.48	1,691.17	1,690.19	0.98	1,724.634		
300.00	300.00	302.55	302.55	0.84	0.85	-159.46	-1,583.62	-593.48	1,691.17	1,689.48	1.70	996.249		
400.00	400.00	402.55	402.55	1.20	1.21	-159.46	-1,583.62	-593.48	1,691.17	1,688.76	2.41	700.429		
500.00	500.00	502.55	502.55	1.56	1.57	-159.46	-1,583.62	-593.48	1,691.17	1,688.04	3.13	540.065		
600.00	600.00	602.55	602.55	1.92	1.93	-159.46	-1,583.62	-593.48	1,691.17	1,687.33	3.85	439.452		
700.00	700.00	702.55	702.55	2.28	2.29	-159.46	-1,583.62	-593.48	1,691.17	1,686.61	4.57	370.440		
800.00	800.00	802.55	802.55	2.64	2.65	-159.46	-1,583.62	-593.48	1,691.17	1,685.89	5.28	320.161		
900.00	900.00	902.55	902.55	3.00	3.00	-159.46	-1,583.62	-593.48	1,691.17	1,685.18	6.00	281.900		
1,000.00	1,000.00	1,004.58	1,004.58	3.35	3.37	-159.46	-1,583.62	-593.48	1,691.17	1,684.45	6.72	251.536		
1,100.00	1,099.99	1,183.80	1,183.72	3.70	4.01	-53.36	-1,579.49	-591.90	1,687.92	1,680.22	7.71	218.959		
1,200.00	1,199.91	1,361.69	1,361.15	4.04	4.65	-53.67	-1,567.63	-587.38	1,678.46	1,669.78	8.67	193.565		
1,266.67	1,266.45	1,478.93	1,477.67	4.27	5.08	-53.99	-1,555.60	-582.80	1,668.74	1,659.44	9.30	179.401		
1,300.00	1,299.70	1,537.04	1,535.28	4.39	5.29	-54.11	-1,548.40	-580.05	1,662.96	1,653.35	9.61	172.994		
1,400.00	1,399.46	1,633.63	1,630.92	4.74	5.66	-54.31	-1,535.84	-575.26	1,644.99	1,634.69	10.30	159.680		
1,500.00	1,499.22	1,731.83	1,728.17	5.09	6.03	-54.52	-1,523.07	-570.39	1,627.04	1,616.04	11.00	147.901		
1,600.00	1,598.97	1,830.03	1,825.41	5.45	6.41	-54.73	-1,510.30	-565.52	1,609.11	1,597.40	11.70	137.485		
1,700.00	1,698.73	1,928.23	1,922.66	5.81	6.80	-54.95	-1,497.53	-560.65	1,591.20	1,578.79	12.41	128.217		
1,800.00	1,798.48	2,026.43	2,019.90	6.17	7.18	-55.17	-1,484.76	-555.78	1,573.31	1,560.19	13.12	119.923		
1,900.00	1,898.24	2,124.63	2,117.14	6.53	7.57	-55.40	-1,471.99	-550.92	1,555.45	1,541.62	13.83	112.461		
2,000.00	1,998.00	2,222.83	2,214.39	6.90	7.96	-55.64	-1,459.22	-546.05	1,537.61	1,523.07	14.54	105.717		
2,100.00	2,097.75	2,321.03	2,311.63	7.26	8.35	-55.87	-1,446.45	-541.18	1,519.80	1,504.54	15.26	99.592		
2,200.00	2,197.51	2,419.23	2,408.88	7.63	8.75	-56.12	-1,433.68	-536.31	1,502.01	1,486.03	15.98	94.009		
2,300.00	2,297.27	2,517.43	2,506.12	8.00	9.14	-56.37	-1,420.91	-531.44	1,484.25	1,467.56	16.70	88.899		
2,400.00	2,397.02	2,615.63	2,603.37	8.37	9.54	-56.62	-1,408.14	-526.57	1,466.52	1,449.11	17.42	84.206		
2,500.00	2,496.78	2,713.83	2,700.61	8.74	9.93	-56.89	-1,395.37	-521.70	1,448.82	1,430.68	18.14	79.882		
2,600.00	2,596.54	2,812.03	2,797.86	9.10	10.33	-57.16	-1,382.60	-516.83	1,431.15	1,412.29	18.86	75.886		
2,700.00	2,696.29	2,916.27	2,901.08	9.47	10.76	-57.45	-1,369.02	-511.65	1,413.49	1,393.89	19.60	72.131		
2,800.00	2,796.05	3,070.55	3,053.27	9.85	11.40	-57.91	-1,345.47	-502.67	1,393.48	1,373.06	20.43	68.212		
2,850.00	2,845.93	3,146.66	3,127.95	10.03	11.74	-58.15	-1,331.74	-497.43	1,382.03	1,361.20	20.83	66.346		
2,900.00	2,895.78	3,221.91	3,201.48	10.22	12.07	-58.59	-1,316.80	-491.74	1,369.47	1,348.25	21.22	64.527		
3,000.00	2,995.32	3,327.48	3,304.26	10.60	12.56	-59.43	-1,294.29	-483.15	1,341.83	1,319.87	21.96	61.108		
3,100.00	3,094.57	3,422.41	3,396.66	10.99	13.00	-60.38	-1,273.96	-475.40	1,312.94	1,290.25	22.69	57.862		
3,116.67	3,111.08	3,438.16	3,412.00	11.05	13.07	-60.55	-1,270.58	-474.11	1,308.01	1,285.20	22.81	57.333		
3,200.00	3,193.80	3,516.88	3,488.63	11.38	13.44	-61.09	-1,253.73	-467.69	1,283.37	1,259.94	23.43	54.778		
3,300.00	3,292.63	3,611.35	3,580.58	11.78	13.88	-61.77	-1,233.49	-459.97	1,253.95	1,229.78	24.17	51.881		
3,400.00	3,391.65	3,705.82	3,672.53	12.18	14.32	-62.48	-1,213.26	-452.26	1,224.70	1,199.78	24.92	49.154		
3,500.00	3,490.68	3,800.29	3,764.48	12.58	14.77	-63.22	-1,193.03	-444.54	1,195.63	1,169.96	25.67	46.584		
3,600.00	3,589.71	3,894.76	3,856.44	12.99	15.22	-64.00	-1,172.80	-436.83	1,166.76	1,140.34	26.42	44.160		
3,700.00	3,688.73	3,989.22	3,948.39	13.39	15.67	-64.81	-1,152.57	-429.11	1,138.10	1,110.92	27.18	41.870		
3,800.00	3,787.76	4,083.69	4,040.34	13.80	16.12	-65.67	-1,132.34	-421.40	1,109.68	1,081.73	27.95	39.705		
3,900.00	3,886.79	4,178.16	4,132.30	14.20	16.57	-66.57	-1,112.11	-413.68	1,081.50	1,052.78	28.72	37.657		
4,000.00	3,985.82	4,272.63	4,224.25	14.61	17.02	-67.52	-1,091.88	-405.97	1,053.59	1,024.09	29.50	35.718		
4,100.00	4,084.84	4,367.09	4,316.20	15.02	17.48	-68.52	-1,071.65	-398.26	1,025.96	995.68	30.28	33.880		
4,200.00	4,183.87	4,461.56	4,408.15	15.43	17.94	-69.57	-1,051.41	-390.54	998.65	967.58	31.07	32.138		
4,300.00	4,282.90	4,556.03	4,500.11	15.84	18.39	-70.67	-1,031.18	-382.83	971.68	939.81	31.87	30.486		
4,333.13	4,315.70	4,587.33	4,530.57	15.97	18.54	-71.05	-1,024.48	-380.27	962.83	930.69	32.14	29.958		
4,400.00	4,382.00	4,650.65	4,592.21	16.24	18.85	-71.55	-1,010.92	-375.10	945.26	912.58	32.68	28.927		
4,500.00	4,481.40	4,734.32	4,673.72	16.64	19.25	-72.10	-993.31	-368.38	920.32	886.83	33.49	27.479		
4,600.00	4,581.06	4,812.99	4,750.71	17.02	19.62	-72.52	-978.14	-362.60	898.18	863.88	34.30	26.189		
4,700.00	4,680.89	4,892.87	4,829.19	17.39	19.98	-72.84	-964.27	-357.31	878.90	843.82	35.07	25.058		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
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Well Error: 0.00 usft
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Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
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Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #202H - Wellbore #1 - Design #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,800.00	4,780.85	4,973.77	4,908.97	17.74	20.34	-73.06	-951.78	-352.55	862.44	826.61	35.82	24.075	
4,866.46	4,847.31	5,027.99	4,962.61	17.97	20.57	-179.35	-944.30	-349.70	853.04	816.74	36.30	23.500	
4,900.00	4,880.84	5,055.47	4,989.82	18.08	20.68	-179.43	-940.78	-348.35	848.72	812.19	36.53	23.232	
5,000.00	4,980.84	5,137.69	5,071.42	18.40	21.01	-179.67	-931.34	-344.75	837.19	799.97	37.22	22.494	
5,100.00	5,080.84	5,220.32	5,153.62	18.73	21.33	-179.88	-923.51	-341.77	827.69	789.80	37.89	21.846	
5,200.00	5,180.84	5,303.27	5,236.30	19.06	21.64	179.96	-917.32	-339.41	820.22	781.68	38.54	21.283	
5,300.00	5,280.84	5,386.47	5,319.36	19.39	21.93	179.83	-912.79	-337.68	814.79	775.62	39.17	20.802	
5,400.00	5,380.84	5,469.84	5,402.68	19.72	22.21	179.76	-909.96	-336.60	811.40	771.62	39.78	20.397	
5,500.00	5,480.84	5,553.31	5,486.13	20.05	22.47	179.73	-908.82	-336.17	810.04	769.67	40.37	20.066	
5,539.97	5,520.81	5,609.46	5,523.36	20.19	22.65	179.73	-908.80	-336.16	810.01	769.32	40.69	19.909	
5,600.00	5,580.84	5,650.57	5,583.39	20.39	22.77	179.73	-908.80	-336.16	810.01	768.98	41.03	19.744	
5,700.00	5,680.84	5,750.57	5,683.39	20.72	23.08	179.73	-908.80	-336.16	810.01	768.31	41.70	19.425	
5,800.00	5,780.84	5,850.57	5,783.39	21.05	23.39	179.73	-908.80	-336.16	810.01	767.63	42.37	19.116	
5,900.00	5,880.84	5,950.57	5,883.39	21.39	23.70	179.73	-908.80	-336.16	810.01	766.96	43.05	18.815	
6,000.00	5,980.84	6,050.57	5,983.39	21.73	24.01	179.73	-908.80	-336.16	810.01	766.28	43.73	18.523	
6,100.00	6,080.84	6,150.57	6,083.39	22.06	24.33	179.73	-908.80	-336.16	810.01	765.60	44.41	18.240	
6,200.00	6,180.84	6,250.57	6,183.39	22.40	24.64	179.73	-908.80	-336.16	810.01	764.92	45.09	17.965	
6,300.00	6,280.84	6,350.57	6,283.39	22.74	24.96	179.73	-908.80	-336.16	810.01	764.24	45.77	17.698	
6,400.00	6,380.84	6,450.57	6,383.39	23.08	25.28	179.73	-908.80	-336.16	810.01	763.56	46.45	17.438	
6,500.00	6,480.84	6,550.57	6,483.39	23.42	25.59	179.73	-908.80	-336.16	810.01	762.87	47.14	17.185	
6,600.00	6,580.84	6,650.57	6,583.39	23.76	25.91	179.73	-908.80	-336.16	810.01	762.19	47.82	16.939	
6,700.00	6,680.84	6,750.57	6,683.39	24.10	26.23	179.73	-908.80	-336.16	810.01	761.50	48.51	16.699	
6,800.00	6,780.84	6,850.57	6,783.39	24.44	26.56	179.73	-908.80	-336.16	810.01	760.82	49.19	16.466	
6,900.00	6,880.84	6,950.57	6,883.39	24.78	26.88	179.73	-908.80	-336.16	810.01	760.13	49.88	16.240	
7,000.00	6,980.84	7,050.57	6,983.39	25.12	27.20	179.73	-908.80	-336.16	810.01	759.44	50.57	16.019	
7,100.00	7,080.84	7,150.57	7,083.39	25.46	27.53	179.73	-908.80	-336.16	810.01	758.75	51.26	15.803	
7,200.00	7,180.84	7,250.57	7,183.39	25.81	27.85	179.73	-908.80	-336.16	810.01	758.06	51.95	15.594	
7,300.00	7,280.84	7,350.57	7,283.39	26.15	28.18	179.73	-908.80	-336.16	810.01	757.37	52.64	15.389	
7,400.00	7,380.84	7,450.57	7,383.39	26.49	28.50	179.73	-908.80	-336.16	810.01	756.68	53.33	15.190	
7,500.00	7,480.84	7,550.57	7,483.39	26.84	28.83	179.73	-908.80	-336.16	810.01	755.99	54.02	14.995	
7,600.00	7,580.84	7,650.57	7,583.39	27.18	29.16	179.73	-908.80	-336.16	810.01	755.30	54.71	14.805	
7,700.00	7,680.84	7,750.57	7,683.39	27.53	29.49	179.73	-908.80	-336.16	810.01	754.61	55.40	14.620	
7,800.00	7,780.84	7,850.57	7,783.39	27.87	29.82	179.73	-908.80	-336.16	810.01	753.91	56.10	14.440	
7,900.00	7,880.84	7,950.57	7,883.39	28.22	30.15	179.73	-908.80	-336.16	810.01	753.22	56.79	14.263	
8,000.00	7,980.84	8,050.57	7,983.39	28.56	30.48	179.73	-908.80	-336.16	810.01	752.52	57.49	14.091	
8,100.00	8,080.84	8,150.57	8,083.39	28.91	30.81	179.73	-908.80	-336.16	810.01	751.83	58.18	13.922	
8,200.00	8,180.84	8,250.57	8,183.39	29.26	31.14	179.73	-908.80	-336.16	810.01	751.13	58.88	13.758	
8,300.00	8,280.84	8,350.57	8,283.39	29.60	31.47	179.73	-908.80	-336.16	810.01	750.44	59.57	13.597	
8,400.00	8,380.84	8,450.57	8,383.39	29.95	31.81	179.73	-908.80	-336.16	810.01	749.74	60.27	13.440	
8,500.00	8,480.84	8,550.57	8,483.39	30.30	32.14	179.73	-908.80	-336.16	810.01	749.04	60.97	13.286	
8,600.00	8,580.84	8,650.57	8,583.39	30.65	32.47	179.73	-908.80	-336.16	810.01	748.34	61.66	13.136	
8,700.00	8,680.84	8,750.57	8,683.39	30.99	32.81	179.73	-908.80	-336.16	810.01	747.65	62.36	12.989	
8,800.00	8,780.84	8,850.57	8,783.39	31.34	33.14	179.73	-908.80	-336.16	810.01	746.95	63.06	12.845	
8,900.00	8,880.84	8,950.57	8,883.39	31.69	33.48	179.73	-908.80	-336.16	810.01	746.25	63.76	12.704	
9,000.00	8,980.84	9,050.57	8,983.39	32.04	33.81	179.73	-908.80	-336.16	810.01	745.55	64.46	12.566	
9,100.00	9,080.84	9,150.57	9,083.39	32.39	34.15	179.73	-908.80	-336.16	810.01	744.85	65.16	12.431	
9,110.00	9,090.84	9,160.57	9,093.39	32.42	34.19	179.73	-908.80	-336.16	810.01	744.78	65.23	12.418 CC	
9,200.00	9,180.84	9,250.44	9,183.26	32.74	34.49	179.71	-908.80	-335.91	810.01	744.15	65.86	12.299	
9,300.00	9,280.84	9,348.15	9,280.21	33.08	34.82	178.92	-908.80	-324.71	810.16	743.59	66.57	12.170 ES	
9,400.00	9,380.84	9,439.60	9,368.00	33.43	35.15	177.13	-908.82	-299.46	811.18	743.90	67.28	12.056	
9,500.00	9,480.84	9,521.30	9,442.16	33.78	35.46	174.73	-908.83	-265.35	814.51	746.60	67.91	11.993	
9,600.00	9,580.84	9,591.99	9,501.86	34.13	35.73	172.10	-908.85	-227.57	821.87	753.52	68.35	12.024	

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #202H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
9,700.00	9,680.84	9,650.00	9,547.08	34.48	35.96	169.59	-908.86	-191.27	834.81	766.39	68.43	12.200		
9,800.00	9,780.84	9,700.00	9,582.94	34.83	36.17	167.23	-908.88	-156.45	854.46	786.37	68.09	12.548		
9,900.00	9,880.84	9,750.00	9,615.63	35.18	36.40	164.71	-908.89	-118.64	881.46	813.97	67.49	13.061		
9,990.39	9,971.24	9,777.87	9,632.38	35.50	36.53	163.26	-908.90	-96.36	912.25	845.93	66.32	13.756		
10,000.00	9,980.84	9,781.11	9,634.25	35.53	36.55	62.10	-908.90	-93.73	915.84	849.66	66.19	13.838		
10,050.00	10,030.73	9,800.00	9,644.89	35.69	36.64	59.40	-908.91	-78.12	934.46	888.96	65.50	14.268		
10,100.00	10,080.17	9,816.02	9,653.51	35.85	36.72	57.00	-908.92	-64.61	952.73	888.07	64.66	14.734		
10,150.00	10,128.79	9,834.19	9,662.82	35.99	36.82	54.65	-908.92	-49.01	970.43	906.61	63.82	15.206		
10,200.00	10,176.20	9,850.00	9,670.52	36.13	36.91	52.58	-908.93	-35.20	987.37	924.51	62.86	15.707		
10,250.00	10,222.05	9,871.60	9,680.41	36.26	37.03	50.49	-908.94	-16.00	1,003.33	941.31	62.02	16.177		
10,300.00	10,265.99	9,900.00	9,692.31	36.38	37.20	48.39	-908.95	9.78	1,018.26	958.93	61.33	16.604		
10,350.00	10,307.69	9,900.00	9,692.31	36.50	37.20	47.35	-908.95	9.78	1,031.85	971.95	59.89	17.228		
10,400.00	10,346.83	9,929.72	9,703.37	36.62	37.39	45.63	-908.96	37.36	1,043.90	984.68	59.22	17.626		
10,450.00	10,383.11	9,950.00	9,710.09	36.74	37.53	44.36	-908.97	56.50	1,054.55	996.23	58.32	18.081		
10,500.00	10,416.26	9,969.38	9,715.88	36.86	37.66	43.30	-908.98	74.99	1,063.59	1,006.15	57.44	18.518		
10,550.00	10,446.02	10,000.00	9,723.73	37.00	37.88	42.19	-908.99	104.58	1,071.04	1,014.21	56.84	18.844		
10,600.00	10,472.16	10,009.54	9,725.86	37.16	37.95	41.65	-908.99	113.88	1,076.49	1,020.65	55.84	19.279		
10,650.00	10,494.50	10,033.42	9,730.49	37.33	38.14	41.02	-909.00	137.30	1,080.24	1,025.02	55.22	19.564		
10,700.00	10,512.85	10,050.00	9,733.23	37.53	38.27	40.67	-909.01	153.66	1,082.02	1,027.48	54.55	19.837		
10,750.00	10,527.08	10,081.58	9,737.66	37.76	38.53	40.30	-909.02	184.93	1,081.60	1,027.34	54.25	19.937		
10,790.39	10,535.49	10,100.00	9,739.76	37.96	38.69	40.23	-909.03	203.23	1,079.66	1,025.69	53.97	20.007		
10,800.00	10,537.11	10,100.00	9,739.76	38.01	38.69	40.25	-909.03	203.23	1,079.06	1,025.22	53.84	20.041		
10,850.00	10,544.00	10,134.85	9,742.77	38.30	39.00	40.08	-909.05	237.94	1,075.07	1,021.29	53.78	19.992		
10,900.00	10,548.29	10,161.47	9,744.22	38.60	39.25	40.03	-909.06	264.53	1,070.23	1,016.58	53.66	19.945		
10,950.00	10,549.97	10,188.10	9,744.93	38.94	39.50	40.05	-909.07	291.14	1,064.49	1,010.87	53.62	19.851		
10,957.06	10,550.00	10,200.08	9,745.00	38.99	39.61	39.99	-909.08	303.13	1,063.67	1,009.96	53.71	19.803		
11,000.00	10,550.00	10,227.19	9,745.00	39.30	39.89	39.92	-909.09	330.24	1,058.73	1,004.93	53.80	19.679		
11,100.00	10,550.00	10,326.25	9,745.00	40.14	40.95	39.55	-909.13	429.29	1,049.97	995.38	54.59	19.234		
11,200.00	10,550.00	10,425.88	9,745.00	41.09	42.13	39.32	-909.17	528.92	1,044.60	988.89	55.71	18.750		
11,300.00	10,550.00	10,525.82	9,745.00	42.16	43.42	39.23	-909.22	628.86	1,042.57	985.39	57.18	18.233		
11,311.23	10,550.00	10,537.05	9,745.00	42.29	43.58	39.23	-909.22	640.09	1,042.55	985.18	57.37	18.173		
11,311.52	10,550.00	10,537.34	9,745.00	42.29	43.58	39.23	-909.22	640.38	1,042.55	985.18	57.37	18.172		
11,400.00	10,550.00	10,625.82	9,745.00	43.33	44.81	39.23	-909.26	728.86	1,042.56	983.65	58.91	17.698		
11,500.00	10,550.00	10,725.82	9,745.00	44.59	46.28	39.23	-909.30	828.86	1,042.57	981.80	60.77	17.157		
11,600.00	10,550.00	10,825.82	9,745.00	45.95	47.84	39.23	-909.35	928.86	1,042.58	979.83	62.74	16.617		
11,700.00	10,550.00	10,925.82	9,745.00	47.39	49.46	39.23	-909.39	1,028.86	1,042.59	977.76	64.83	16.083		
11,800.00	10,550.00	11,025.82	9,745.00	48.91	51.15	39.24	-909.43	1,128.86	1,042.60	975.59	67.01	15.560		
11,900.00	10,550.00	11,125.82	9,745.00	50.51	52.89	39.24	-909.48	1,228.86	1,042.61	973.33	69.27	15.051		
12,000.00	10,550.00	11,225.82	9,745.00	52.16	54.69	39.24	-909.52	1,328.86	1,042.61	971.00	71.62	14.558		
12,100.00	10,550.00	11,325.82	9,745.00	53.87	56.53	39.24	-909.56	1,428.86	1,042.62	968.59	74.04	14.082		
12,200.00	10,550.00	11,425.82	9,745.00	55.64	58.42	39.24	-909.60	1,528.86	1,042.63	966.11	76.52	13.626		
12,300.00	10,550.00	11,525.82	9,745.00	57.45	60.35	39.24	-909.65	1,628.86	1,042.64	963.58	79.06	13.187		
12,400.00	10,550.00	11,625.82	9,745.00	59.31	62.31	39.24	-909.69	1,728.86	1,042.65	960.99	81.66	12.768		
12,500.00	10,550.00	11,725.82	9,745.00	61.20	64.30	39.24	-909.73	1,828.86	1,042.66	958.36	84.30	12.368		
12,600.00	10,550.00	11,825.82	9,745.00	63.14	66.32	39.24	-909.78	1,928.86	1,042.67	955.68	86.99	11.986		
12,700.00	10,550.00	11,925.82	9,745.00	65.10	68.37	39.24	-909.82	2,028.86	1,042.68	952.96	89.72	11.621		
12,800.00	10,550.00	12,025.82	9,745.00	67.10	70.44	39.24	-909.86	2,128.86	1,042.69	950.20	92.49	11.274		
12,900.00	10,550.00	12,125.82	9,745.00	69.12	72.54	39.24	-909.91	2,228.86	1,042.70	947.42	95.29	10.943		
13,000.00	10,550.00	12,225.82	9,745.00	71.17	74.65	39.24	-909.95	2,328.86	1,042.71	944.59	98.12	10.627		
13,100.00	10,550.00	12,325.82	9,745.00	73.24	76.78	39.24	-909.99	2,428.86	1,042.72	941.75	100.97	10.327		
13,200.00	10,550.00	12,425.82	9,745.00	75.33	78.93	39.24	-910.04	2,528.86	1,042.73	938.87	103.86	10.040		
13,300.00	10,550.00	12,525.82	9,745.00	77.44	81.10	39.25	-910.08	2,628.86	1,042.74	935.97	106.77	9.767		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #202H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,400.00	10,550.00	12,625.82	9,745.00	79.57	83.28	39.25	-910.12	2,728.86	1,042.75	933.05	109.69	9.506		
13,500.00	10,550.00	12,725.82	9,745.00	81.72	85.47	39.25	-910.17	2,828.86	1,042.76	930.11	112.64	9.257		
13,600.00	10,550.00	12,825.82	9,745.00	83.88	87.67	39.25	-910.21	2,928.86	1,042.77	927.16	115.61	9.020		
13,700.00	10,550.00	12,925.82	9,745.00	86.05	89.89	39.25	-910.25	3,028.86	1,042.78	924.18	118.60	8.793		
13,800.00	10,550.00	13,025.82	9,745.00	88.24	92.12	39.25	-910.29	3,128.86	1,042.79	921.19	121.60	8.576		
13,900.00	10,550.00	13,125.82	9,745.00	90.44	94.35	39.25	-910.34	3,228.86	1,042.80	918.18	124.62	8.368		
14,000.00	10,550.00	13,225.82	9,745.00	92.65	96.60	39.25	-910.38	3,328.86	1,042.81	915.16	127.65	8.170		
14,100.00	10,550.00	13,325.82	9,745.00	94.87	98.85	39.25	-910.42	3,428.86	1,042.82	912.13	130.69	7.979		
14,200.00	10,550.00	13,425.82	9,745.00	97.10	101.11	39.25	-910.47	3,528.86	1,042.83	909.08	133.74	7.797		
14,300.00	10,550.00	13,525.82	9,745.00	99.34	103.38	39.25	-910.51	3,628.86	1,042.84	906.03	136.81	7.623		
14,400.00	10,550.00	13,625.82	9,745.00	101.59	105.66	39.25	-910.55	3,728.86	1,042.85	902.96	139.89	7.455		
14,500.00	10,550.00	13,725.82	9,745.00	103.85	107.94	39.25	-910.60	3,828.86	1,042.86	899.88	142.97	7.294		
14,600.00	10,550.00	13,825.82	9,745.00	106.11	110.23	39.25	-910.64	3,928.86	1,042.87	896.80	146.07	7.140		
14,700.00	10,550.00	13,925.82	9,745.00	108.38	112.52	39.25	-910.68	4,028.86	1,042.87	893.70	149.17	6.991		
14,800.00	10,550.00	14,025.82	9,745.00	110.66	114.82	39.25	-910.73	4,128.86	1,042.88	890.60	152.28	6.848		
14,900.00	10,550.00	14,125.82	9,745.00	112.94	117.13	39.26	-910.77	4,228.86	1,042.89	887.49	155.40	6.711		
15,000.00	10,550.00	14,225.82	9,745.00	115.23	119.44	39.26	-910.81	4,328.86	1,042.90	884.38	158.53	6.579		
15,100.00	10,550.00	14,325.82	9,745.00	117.52	121.75	39.26	-910.86	4,428.86	1,042.91	881.25	161.66	6.451		
15,200.00	10,550.00	14,425.82	9,745.00	119.82	124.07	39.26	-910.90	4,528.86	1,042.92	878.12	164.80	6.328		
15,300.00	10,550.00	14,525.82	9,745.00	122.13	126.39	39.26	-910.94	4,628.86	1,042.93	874.99	167.95	6.210		
15,400.00	10,550.00	14,625.82	9,745.00	124.44	128.72	39.26	-910.98	4,728.86	1,042.94	871.84	171.10	6.096		
15,430.62	10,550.00	14,656.43	9,745.00	124.92	129.43	39.26	-911.00	4,759.48	1,042.95	871.05	171.90	6.067 SF		



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #205H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.00	0.00	0.35	-0.35	0.00	0.00	90.02	-0.01	30.04	30.04					
100.00	100.00	100.35	99.65	0.13	0.13	90.02	-0.01	30.04	30.04	29.78	0.26	117.449		
200.00	200.00	200.35	199.65	0.49	0.49	90.02	-0.01	30.04	30.04	29.07	0.97	30.883		
300.00	300.00	300.35	299.65	0.84	0.85	90.02	-0.01	30.04	30.04	28.35	1.69	17.779		
400.00	400.00	400.35	399.65	1.20	1.20	90.02	-0.01	30.04	30.04	27.63	2.41	12.482		
500.00	500.00	500.35	499.65	1.56	1.56	90.02	-0.01	30.04	30.04	26.92	3.12	9.617		
600.00	600.00	600.35	599.65	1.92	1.92	90.02	-0.01	30.04	30.04	26.20	3.84	7.822		
700.00	700.00	700.35	699.65	2.28	2.28	90.02	-0.01	30.04	30.04	25.48	4.56	6.591		
800.00	800.00	800.35	799.65	2.64	2.64	90.02	-0.01	30.04	30.04	24.77	5.27	5.695		
900.00	900.00	900.35	899.65	3.00	3.00	90.02	-0.01	30.04	30.04	24.05	5.99	5.014		
1,000.00	1,000.00	999.65	999.65	3.35	3.35	90.02	-0.01	30.04	30.04	23.33	6.71	4.480 CC		
1,100.00	1,099.99	1,100.30	1,100.29	3.70	3.70	-163.08	-0.75	28.95	30.21	22.82	7.40	4.084		
1,200.00	1,199.91	1,200.95	1,200.85	4.04	4.04	-161.01	-2.96	25.66	30.75	22.68	8.07	3.810 ES		
1,266.67	1,266.45	1,268.03	1,267.81	4.27	4.27	-158.94	-5.26	22.24	31.34	22.82	8.52	3.677		
1,300.00	1,299.70	1,301.35	1,301.05	4.39	4.38	-157.82	-6.56	20.32	31.70	22.95	8.75	3.623		
1,400.00	1,399.46	1,401.33	1,400.78	4.74	4.73	-154.60	-10.46	14.53	32.87	23.42	9.44	3.481		
1,500.00	1,499.22	1,501.30	1,500.52	5.09	5.08	-151.61	-14.35	8.75	34.12	23.98	10.14	3.365		
1,600.00	1,598.97	1,601.28	1,600.25	5.45	5.43	-148.84	-18.25	2.96	35.47	24.63	10.84	3.271		
1,700.00	1,698.73	1,701.26	1,699.98	5.81	5.79	-146.28	-22.14	-2.82	36.89	25.34	11.55	3.193		
1,800.00	1,798.48	1,801.23	1,799.72	6.17	6.15	-143.91	-26.04	-8.61	38.38	26.11	12.27	3.128		
1,900.00	1,898.24	1,901.21	1,899.45	6.53	6.51	-141.73	-29.94	-14.39	39.93	26.94	12.99	3.074		
2,000.00	1,998.00	2,001.19	1,999.18	6.90	6.87	-139.70	-33.83	-20.17	41.54	27.82	13.71	3.029		
2,100.00	2,097.75	2,101.16	2,098.91	7.26	7.24	-137.84	-37.73	-25.96	43.19	28.75	14.44	2.991		
2,200.00	2,197.51	2,201.14	2,198.65	7.63	7.60	-136.11	-41.62	-31.74	44.88	29.72	15.17	2.959		
2,300.00	2,297.27	2,301.12	2,298.38	8.00	7.97	-134.50	-45.52	-37.53	46.62	30.72	15.90	2.932		
2,400.00	2,397.02	2,401.09	2,398.11	8.37	8.34	-133.02	-49.42	-43.31	48.38	31.75	16.63	2.909		
2,500.00	2,496.78	2,501.07	2,497.85	8.74	8.71	-131.64	-53.31	-49.09	50.18	32.81	17.37	2.889		
2,600.00	2,596.54	2,601.05	2,597.58	9.10	9.08	-130.35	-57.21	-54.88	52.00	33.90	18.11	2.872		
2,700.00	2,696.29	2,701.03	2,697.31	9.47	9.45	-129.16	-61.11	-60.66	53.85	35.01	18.85	2.857		
2,800.00	2,796.05	2,801.00	2,797.05	9.85	9.82	-128.04	-65.00	-66.45	55.72	36.14	19.59	2.845		
2,850.00	2,845.93	2,850.99	2,846.92	10.03	10.00	-127.51	-66.95	-69.34	56.67	36.71	19.96	2.839		
2,900.00	2,895.78	2,901.20	2,896.98	10.22	10.19	-127.00	-69.05	-72.46	57.73	37.40	20.33	2.839		
3,000.00	2,995.32	3,001.65	2,996.98	10.60	10.57	-125.77	-74.35	-80.32	60.40	39.31	21.09	2.864		
3,100.00	3,094.57	3,102.07	3,096.67	10.99	10.96	-124.30	-81.11	-90.36	63.81	41.95	21.86	2.919		
3,116.67	3,111.08	3,118.80	3,113.25	11.05	11.02	-124.04	-82.38	-92.25	64.45	42.46	21.99	2.931		
3,200.00	3,193.60	3,202.08	3,195.71	11.38	11.35	-122.75	-88.85	-101.86	67.71	45.06	22.65	2.989		
3,300.00	3,292.63	3,301.99	3,294.65	11.78	11.75	-121.36	-96.62	-113.39	71.66	48.21	23.45	3.056		
3,400.00	3,391.65	3,401.90	3,393.58	12.18	12.15	-120.11	-104.39	-124.92	75.64	51.40	24.25	3.120		
3,500.00	3,490.68	3,501.80	3,492.52	12.58	12.55	-118.98	-112.16	-136.45	79.66	54.61	25.05	3.180		
3,600.00	3,589.71	3,601.71	3,591.45	12.99	12.96	-117.97	-119.92	-147.99	83.71	57.85	25.85	3.238		
3,700.00	3,688.73	3,701.62	3,690.39	13.39	13.36	-117.05	-127.69	-159.52	87.78	61.12	26.66	3.292		
3,800.00	3,787.76	3,801.53	3,789.32	13.80	13.76	-116.21	-135.46	-171.05	91.87	64.40	27.47	3.344		
3,900.00	3,886.79	3,901.43	3,888.26	14.20	14.17	-115.44	-143.23	-182.58	95.97	67.69	28.28	3.393		
4,000.00	3,985.82	4,001.34	3,987.20	14.61	14.58	-114.74	-150.99	-194.12	100.10	71.00	29.10	3.440		
4,100.00	4,084.84	4,101.25	4,086.13	15.02	14.99	-114.09	-158.76	-205.65	104.24	74.32	29.91	3.485		
4,200.00	4,183.87	4,201.16	4,185.07	15.43	15.39	-113.49	-166.53	-217.18	108.39	77.66	30.73	3.527		
4,300.00	4,282.90	4,301.07	4,284.00	15.84	15.80	-112.94	-174.30	-228.71	112.55	81.00	31.55	3.567		
4,333.13	4,315.70	4,334.16	4,316.78	15.97	15.94	-112.76	-176.87	-232.53	113.93	82.11	31.82	3.580		
4,400.00	4,382.00	4,400.97	4,382.94	16.24	16.22	-112.19	-182.07	-240.24	116.50	84.13	32.37	3.599		
4,500.00	4,481.40	4,500.85	4,481.84	16.64	16.63	-110.40	-189.83	-251.77	119.58	86.39	33.19	3.603		
4,600.00	4,581.06	4,600.63	4,580.65	17.02	17.04	-107.54	-197.59	-263.29	121.97	87.97	34.00	3.588		
4,700.00	4,680.89	4,700.25	4,679.30	17.39	17.45	-103.63	-205.33	-274.79	124.02	89.23	34.79	3.565		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #205H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
4,800.00	4,780.85	4,800.37	4,777.71	17.74	17.86	-98.72	-213.06	-286.26	126.22	90.67	35.55	3.550		
4,866.46	4,847.31	4,865.52	4,842.96	17.97	18.13	158.86	-218.18	-293.87	128.06	92.04	36.02	3.555		
4,900.00	4,880.84	4,901.27	4,875.85	18.08	18.28	160.86	-220.77	-297.70	129.19	92.92	36.26	3.563		
5,000.00	4,980.84	4,997.83	4,973.98	18.40	18.68	166.60	-228.47	-309.14	133.46	96.55	36.91	3.616		
5,100.00	5,080.84	5,098.46	5,073.83	18.73	19.09	171.47	-235.48	-319.54	138.36	100.80	37.56	3.684		
5,200.00	5,180.84	5,199.69	5,174.56	19.06	19.48	175.09	-241.04	-327.80	142.89	104.67	38.22	3.739		
5,300.00	5,280.84	5,301.38	5,275.99	19.39	19.87	177.59	-245.13	-333.87	146.53	107.66	38.87	3.770		
5,400.00	5,380.84	5,403.39	5,377.89	19.72	20.23	179.10	-247.71	-337.70	148.95	109.42	39.53	3.768		
5,500.00	5,480.84	5,505.58	5,480.06	20.05	20.59	179.71	-248.77	-339.28	149.97	109.78	40.19	3.731		
5,600.00	5,580.84	5,606.01	5,580.49	20.39	20.91	179.73	-248.80	-339.32	150.00	109.15	40.85	3.672		
5,700.00	5,680.84	5,706.01	5,680.49	20.72	21.23	179.73	-248.80	-339.32	150.00	108.49	41.51	3.614		
5,800.00	5,780.84	5,806.01	5,780.49	21.05	21.54	179.73	-248.80	-339.32	150.00	107.83	42.17	3.557		
5,900.00	5,880.84	5,906.01	5,880.49	21.39	21.87	179.73	-248.80	-339.32	150.00	107.17	42.83	3.502		
6,000.00	5,980.84	6,006.01	5,980.49	21.73	22.19	179.73	-248.80	-339.32	150.00	106.50	43.50	3.448		
6,100.00	6,080.84	6,106.01	6,080.49	22.06	22.51	179.73	-248.80	-339.32	150.00	105.84	44.17	3.396		
6,200.00	6,180.84	6,206.01	6,180.49	22.40	22.83	179.73	-248.80	-339.32	150.00	105.17	44.83	3.346		
6,300.00	6,280.84	6,306.01	6,280.49	22.74	23.16	179.73	-248.80	-339.32	150.00	104.50	45.50	3.296		
6,400.00	6,380.84	6,406.01	6,380.49	23.08	23.49	179.73	-248.80	-339.32	150.00	103.83	46.17	3.249		
6,500.00	6,480.84	6,506.01	6,480.49	23.42	23.81	179.73	-248.80	-339.32	150.00	103.15	46.85	3.202		
6,600.00	6,580.84	6,606.01	6,580.49	23.76	24.14	179.73	-248.80	-339.32	150.00	102.48	47.52	3.157		
6,700.00	6,680.84	6,706.01	6,680.49	24.10	24.47	179.73	-248.80	-339.32	150.00	101.81	48.20	3.112		
6,800.00	6,780.84	6,806.01	6,780.49	24.44	24.80	179.73	-248.80	-339.32	150.00	101.13	48.87	3.069		
6,900.00	6,880.84	6,906.01	6,880.49	24.78	25.13	179.73	-248.80	-339.32	150.00	100.45	49.55	3.027		
7,000.00	6,980.84	7,006.01	6,980.49	25.12	25.46	179.73	-248.80	-339.32	150.00	99.77	50.23	2.986		
7,100.00	7,080.84	7,106.01	7,080.49	25.46	25.79	179.73	-248.80	-339.32	150.00	99.09	50.91	2.947		
7,200.00	7,180.84	7,206.01	7,180.49	25.81	26.12	179.73	-248.80	-339.32	150.00	98.41	51.59	2.908		
7,300.00	7,280.84	7,306.01	7,280.49	26.15	26.46	179.73	-248.80	-339.32	150.00	97.73	52.27	2.870		
7,400.00	7,380.84	7,406.01	7,380.49	26.49	26.79	179.73	-248.80	-339.32	150.00	97.05	52.95	2.833		
7,500.00	7,480.84	7,506.01	7,480.49	26.84	27.13	179.73	-248.80	-339.32	150.00	96.37	53.63	2.797		
7,600.00	7,580.84	7,606.01	7,580.49	27.18	27.46	179.73	-248.80	-339.32	150.00	95.68	54.32	2.762		
7,700.00	7,680.84	7,706.01	7,680.49	27.53	27.80	179.73	-248.80	-339.32	150.00	95.00	55.00	2.727		
7,800.00	7,780.84	7,806.01	7,780.49	27.87	28.13	179.73	-248.80	-339.32	150.00	94.31	55.69	2.694		
7,900.00	7,880.84	7,906.01	7,880.49	28.22	28.47	179.73	-248.80	-339.32	150.00	93.63	56.38	2.661		
8,000.00	7,980.84	8,006.01	7,980.49	28.56	28.81	179.73	-248.80	-339.32	150.00	92.94	57.06	2.629		
8,100.00	8,080.84	8,106.01	8,080.49	28.91	29.14	179.73	-248.80	-339.32	150.00	92.25	57.75	2.597		
8,200.00	8,180.84	8,206.01	8,180.49	29.26	29.48	179.73	-248.80	-339.32	150.00	91.56	58.44	2.567		
8,300.00	8,280.84	8,306.01	8,280.49	29.60	29.82	179.73	-248.80	-339.32	150.00	90.87	59.13	2.537		
8,400.00	8,380.84	8,406.01	8,380.49	29.95	30.16	179.73	-248.80	-339.32	150.00	90.18	59.82	2.508		
8,500.00	8,480.84	8,506.01	8,480.49	30.30	30.50	179.73	-248.80	-339.32	150.00	89.49	60.51	2.479		
8,600.00	8,580.84	8,606.01	8,580.49	30.65	30.84	179.73	-248.80	-339.32	150.00	88.80	61.20	2.451		
8,700.00	8,680.84	8,706.01	8,680.49	30.99	31.18	179.73	-248.80	-339.32	150.00	88.11	61.89	2.424		
8,800.00	8,780.84	8,806.01	8,780.49	31.34	31.52	179.73	-248.80	-339.32	150.00	87.42	62.59	2.397		
8,900.00	8,880.84	8,906.01	8,880.49	31.69	31.86	179.73	-248.80	-339.32	150.00	86.72	63.28	2.370		
9,000.00	8,980.84	9,006.01	8,980.49	32.04	32.20	179.73	-248.80	-339.32	150.00	86.03	63.97	2.345		
9,100.00	9,080.84	9,106.01	9,080.49	32.39	32.55	179.73	-248.80	-339.32	150.00	85.34	64.67	2.320		
9,111.72	9,092.56	9,117.73	9,092.21	32.43	32.59	179.73	-248.80	-339.32	150.00	85.25	64.75	2.317		
9,200.00	9,180.84	9,205.99	9,180.47	32.74	32.89	179.66	-248.80	-339.14	150.00	84.64	65.36	2.295		
9,300.00	9,280.84	9,304.39	9,278.14	33.08	33.19	175.52	-248.80	-328.29	150.48	84.40	66.08	2.277 SF		
9,400.00	9,380.84	9,396.54	9,366.68	33.43	33.43	166.18	-248.82	-303.11	155.11	88.52	66.59	2.329		
9,500.00	9,480.84	9,478.87	9,441.48	33.78	33.62	154.63	-248.83	-268.88	170.57	104.74	65.82	2.591		
9,600.00	9,580.84	9,550.00	9,501.59	34.13	33.77	143.98	-248.85	-230.93	201.60	138.59	63.01	3.199		
9,700.00	9,680.84	9,610.47	9,548.66	34.48	33.89	135.59	-248.86	-193.02	248.01	189.08	58.94	4.208		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #205H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,800.00	9,780.84	9,661.30	9,584.96	34.83	33.99	129.42	-248.88	-157.46	306.74	252.03	54.71	5.606		
9,900.00	9,880.84	9,700.00	9,610.40	35.18	34.07	125.33	-248.89	-128.30	374.57	324.03	50.54	7.411		
9,990.39	9,971.24	9,736.86	9,632.75	35.50	34.15	121.91	-248.90	-99.00	441.54	393.55	47.99	9.200		
10,000.00	9,980.84	9,740.11	9,634.63	35.53	34.15	20.58	-248.90	-96.35	448.88	401.17	47.71	9.409		
10,050.00	10,030.73	9,750.00	9,640.26	35.69	34.18	17.98	-248.91	-88.21	486.26	440.61	45.65	10.652		
10,100.00	10,080.17	9,775.12	9,653.91	35.85	34.24	15.04	-248.92	-67.13	521.86	477.10	44.76	11.659		
10,150.00	10,128.79	9,800.00	9,666.50	35.99	34.31	12.78	-248.93	-45.68	555.92	512.15	43.77	12.701		
10,200.00	10,176.20	9,811.92	9,672.20	36.13	34.34	11.45	-248.93	-35.21	587.99	546.13	41.85	14.048		
10,250.00	10,222.05	9,830.83	9,680.80	36.26	34.40	10.11	-248.94	-18.37	618.19	577.77	40.42	15.295		
10,300.00	10,265.99	9,850.00	9,688.94	36.38	34.46	9.00	-248.95	-1.01	646.37	607.37	39.00	16.574		
10,350.00	10,307.69	9,869.45	9,696.61	36.50	34.53	8.06	-248.95	16.86	672.44	634.84	37.61	17.880		
10,400.00	10,346.83	9,900.00	9,707.41	36.62	34.65	7.02	-248.97	45.44	696.53	659.71	36.82	18.916		
10,450.00	10,383.11	9,900.00	9,707.41	36.74	34.65	6.73	-248.97	45.44	718.14	683.59	34.54	20.789		
10,500.00	10,416.26	9,928.82	9,716.18	36.86	34.77	5.96	-248.98	72.88	737.39	703.66	33.73	21.863		
10,550.00	10,446.02	9,950.00	9,721.75	37.00	34.87	5.41	-248.99	93.32	754.44	721.81	32.63	23.121		
10,600.00	10,472.16	9,969.06	9,726.11	37.16	34.96	4.96	-248.99	111.87	769.11	737.55	31.55	24.375		
10,650.00	10,494.50	9,991.76	9,730.49	37.33	35.07	4.51	-249.00	134.14	781.38	750.66	30.72	25.437		
10,700.00	10,512.85	10,015.02	9,734.25	37.53	35.20	4.10	-249.01	157.10	791.04	761.02	30.02	26.348		
10,750.00	10,527.08	10,050.00	9,738.85	37.76	35.40	3.56	-249.03	191.77	797.96	768.26	29.70	26.867		
10,790.39	10,535.49	10,063.14	9,740.25	37.96	35.48	3.37	-249.03	204.84	801.32	772.10	29.22	27.424		
10,800.00	10,537.11	10,068.27	9,740.75	38.01	35.51	3.29	-249.04	209.94	801.89	772.73	29.16	27.501		
10,850.00	10,544.00	10,100.00	9,743.21	38.30	35.71	2.86	-249.05	241.57	804.23	775.26	28.98	27.756		
10,900.00	10,548.29	10,121.62	9,744.29	38.60	35.86	2.58	-249.06	263.17	805.38	776.55	28.83	27.938		
10,950.00	10,549.97	10,150.00	9,744.96	38.94	36.06	2.20	-249.07	291.54	805.42	776.54	28.88	27.893		
10,957.06	10,550.00	10,152.06	9,744.98	38.99	36.07	2.18	-249.07	293.60	805.33	776.43	28.89	27.872		
11,000.00	10,550.00	10,188.98	9,745.00	39.30	36.35	1.73	-249.09	330.52	805.02	775.99	29.03	27.732		
11,100.00	10,550.00	10,288.04	9,745.00	40.14	37.19	0.78	-249.13	429.57	804.72	775.26	29.46	27.319		
11,200.00	10,550.00	10,387.67	9,745.00	41.09	38.17	0.19	-249.17	529.21	804.65	774.62	30.03	26.799		
11,261.30	10,550.00	10,448.91	9,745.00	41.75	38.85	0.00	-249.20	590.45	804.65	774.21	30.43	26.439		
11,300.00	10,550.00	10,487.61	9,745.00	42.16	39.28	-0.04	-249.22	629.14	804.65	773.95	30.70	26.210		
11,311.52	10,550.00	10,500.87	9,745.00	42.29	39.43	-0.04	-249.22	640.67	804.65	773.86	30.79	26.134		
11,400.00	10,550.00	10,587.61	9,745.00	43.33	40.50	-0.04	-249.26	729.14	804.65	773.19	31.45	25.582		
11,500.00	10,550.00	10,687.61	9,745.00	44.59	41.83	-0.04	-249.30	829.14	804.65	772.38	32.27	24.938		
11,600.00	10,550.00	10,787.61	9,745.00	45.95	43.25	-0.04	-249.35	929.14	804.65	771.51	33.13	24.286		
11,700.00	10,550.00	10,887.61	9,745.00	47.39	44.76	-0.04	-249.39	1,029.14	804.65	770.60	34.05	23.632		
11,800.00	10,550.00	10,987.61	9,745.00	48.91	46.34	-0.04	-249.43	1,129.14	804.65	769.63	35.01	22.982		
11,900.00	10,550.00	11,087.61	9,745.00	50.51	48.00	-0.04	-249.48	1,229.14	804.65	768.63	36.02	22.340		
12,000.00	10,550.00	11,187.61	9,745.00	52.16	49.72	-0.04	-249.52	1,329.14	804.65	767.58	37.06	21.710		
12,100.00	10,550.00	11,287.61	9,745.00	53.87	51.49	-0.04	-249.56	1,429.14	804.65	766.50	38.14	21.095		
12,200.00	10,550.00	11,387.61	9,745.00	55.64	53.32	-0.03	-249.61	1,529.14	804.65	765.39	39.26	20.497		
12,300.00	10,550.00	11,487.61	9,745.00	57.45	55.19	-0.03	-249.65	1,629.14	804.65	764.25	40.40	19.917		
12,400.00	10,550.00	11,587.61	9,745.00	59.31	57.11	-0.03	-249.69	1,729.14	804.65	763.07	41.57	19.355		
12,500.00	10,550.00	11,687.61	9,745.00	61.20	59.06	-0.03	-249.74	1,829.14	804.65	761.88	42.77	18.814		
12,600.00	10,550.00	11,787.61	9,745.00	63.14	61.04	-0.03	-249.78	1,929.14	804.65	760.66	43.99	18.292		
12,700.00	10,550.00	11,887.61	9,745.00	65.10	63.06	-0.03	-249.82	2,029.14	804.65	759.42	45.23	17.789		
12,800.00	10,550.00	11,987.61	9,745.00	67.10	65.10	-0.03	-249.87	2,129.14	804.65	758.15	46.49	17.307		
12,900.00	10,550.00	12,087.61	9,745.00	69.12	67.17	-0.03	-249.91	2,229.14	804.65	756.87	47.77	16.843		
13,000.00	10,550.00	12,187.61	9,745.00	71.17	69.26	-0.03	-249.95	2,329.14	804.65	755.58	49.07	16.398		
13,100.00	10,550.00	12,287.61	9,745.00	73.24	71.37	-0.03	-249.99	2,429.14	804.65	754.27	50.38	15.971		
13,200.00	10,550.00	12,387.61	9,745.00	75.33	73.51	-0.02	-250.04	2,529.14	804.65	752.94	51.71	15.561		
13,300.00	10,550.00	12,487.61	9,745.00	77.44	75.66	-0.02	-250.08	2,629.14	804.65	751.60	53.05	15.168		
13,400.00	10,550.00	12,587.61	9,745.00	79.57	77.82	-0.02	-250.12	2,729.14	804.65	750.25	54.40	14.791		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #205H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,500.00	10,550.00	12,687.61	9,745.00	81.72	80.00	-0.02	-250.17	2,829.14	804.65	748.88	55.76	14.430		
13,600.00	10,550.00	12,787.61	9,745.00	83.88	82.20	-0.02	-250.21	2,929.14	804.65	747.51	57.14	14.083		
13,700.00	10,550.00	12,887.61	9,745.00	86.05	84.40	-0.02	-250.25	3,029.14	804.65	746.13	58.52	13.750		
13,800.00	10,550.00	12,987.61	9,745.00	88.24	86.62	-0.02	-250.30	3,129.14	804.65	744.74	59.91	13.430		
13,900.00	10,550.00	13,087.61	9,745.00	90.44	88.85	-0.02	-250.34	3,229.14	804.65	743.33	61.31	13.123		
14,000.00	10,550.00	13,187.61	9,745.00	92.65	91.09	-0.02	-250.38	3,329.14	804.65	741.92	62.72	12.828		
14,100.00	10,550.00	13,287.61	9,745.00	94.87	93.34	-0.01	-250.43	3,429.14	804.65	740.51	64.14	12.545		
14,200.00	10,550.00	13,387.61	9,745.00	97.10	95.60	-0.01	-250.47	3,529.14	804.65	739.08	65.56	12.273		
14,300.00	10,550.00	13,487.61	9,745.00	99.34	97.86	-0.01	-250.51	3,629.14	804.65	737.65	66.99	12.011		
14,400.00	10,550.00	13,587.61	9,745.00	101.59	100.13	-0.01	-250.56	3,729.14	804.65	736.22	68.43	11.759		
14,500.00	10,550.00	13,687.61	9,745.00	103.85	102.41	-0.01	-250.60	3,829.14	804.65	734.78	69.87	11.516		
14,600.00	10,550.00	13,787.61	9,745.00	106.11	104.70	-0.01	-250.64	3,929.14	804.65	733.33	71.32	11.282		
14,700.00	10,550.00	13,887.61	9,745.00	108.38	106.99	-0.01	-250.68	4,029.14	804.65	731.88	72.77	11.057		
14,800.00	10,550.00	13,987.61	9,745.00	110.66	109.29	-0.01	-250.73	4,129.14	804.65	730.42	74.23	10.840		
14,900.00	10,550.00	14,087.61	9,745.00	112.94	111.59	-0.01	-250.77	4,229.14	804.65	728.96	75.69	10.631		
15,000.00	10,550.00	14,187.61	9,745.00	115.23	113.90	0.00	-250.81	4,329.14	804.65	727.49	77.16	10.429		
15,100.00	10,550.00	14,287.61	9,745.00	117.52	116.21	0.00	-250.86	4,429.14	804.65	726.02	78.63	10.234		
15,200.00	10,550.00	14,387.61	9,745.00	119.82	118.53	0.00	-250.90	4,529.14	804.65	724.55	80.10	10.046		
15,300.00	10,550.00	14,487.61	9,745.00	122.13	120.85	0.00	-250.94	4,629.14	804.65	723.07	81.58	9.864		
15,400.00	10,550.00	14,587.61	9,745.00	124.44	123.18	0.00	-250.99	4,729.14	804.65	721.59	83.06	9.688		
15,430.62	10,550.00	14,618.22	9,745.00	124.92	123.89	0.00	-251.00	4,759.76	804.65	721.25	83.40	9.648		



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #206H - Wellbore #1 - Design #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	1.12	1.12	0.00	0.00	-160.79	-1,703.51	-593.50	1,803.94				
100.00	100.00	101.12	101.12	0.13	0.13	-160.79	-1,703.51	-593.50	1,803.94	1,803.68	0.26	6.977	669
200.00	200.00	201.12	201.12	0.49	0.49	-160.79	-1,703.51	-593.50	1,803.94	1,802.96	0.98	1,849	294
300.00	300.00	301.12	301.12	0.84	0.85	-160.79	-1,703.51	-593.50	1,803.94	1,802.24	1.69	1,065	894
400.00	400.00	401.12	401.12	1.20	1.21	-160.79	-1,703.51	-593.50	1,803.94	1,801.53	2.41	748	721
500.00	500.00	501.12	501.12	1.56	1.57	-160.79	-1,703.51	-593.50	1,803.94	1,800.81	3.13	577	019
600.00	600.00	601.12	601.12	1.92	1.92	-160.79	-1,703.51	-593.50	1,803.94	1,800.09	3.84	469	379
700.00	700.00	701.12	701.12	2.28	2.28	-160.79	-1,703.51	-593.50	1,803.94	1,799.38	4.56	395	584
800.00	800.00	801.12	801.12	2.64	2.64	-160.79	-1,703.51	-593.50	1,803.94	1,798.66	5.28	341	840
900.00	900.00	901.12	901.12	3.00	3.00	-160.79	-1,703.51	-593.50	1,803.94	1,797.94	5.99	300	953
1,000.00	1,000.00	1,001.70	1,001.70	3.35	3.36	-160.79	-1,703.51	-593.50	1,803.94	1,797.22	6.71	268	721
1,100.00	1,099.99	1,153.70	1,153.66	3.70	3.90	-54.74	-1,702.09	-590.75	1,801.70	1,794.11	7.60	237	187
1,200.00	1,199.91	1,308.24	1,291.48	4.04	4.44	-55.13	-1,698.43	-583.68	1,795.20	1,786.72	8.48	211	725
1,266.67	1,266.45	1,357.86	1,357.42	4.27	4.62	-55.41	-1,696.31	-579.58	1,789.52	1,780.64	8.89	201	398
1,300.00	1,299.70	1,390.87	1,390.35	4.39	4.74	-55.52	-1,695.26	-577.54	1,786.53	1,777.41	9.12	195	934
1,400.00	1,399.46	1,489.91	1,489.15	4.74	5.09	-55.86	-1,692.08	-571.40	1,777.60	1,767.78	9.82	181	035
1,500.00	1,499.22	1,588.94	1,587.94	5.09	5.45	-56.20	-1,688.91	-565.27	1,768.73	1,758.20	10.53	168	046
1,600.00	1,598.97	1,687.98	1,686.73	5.45	5.81	-56.55	-1,685.74	-559.13	1,759.92	1,748.68	11.24	156	642
1,700.00	1,698.73	1,787.01	1,785.53	5.81	6.17	-56.90	-1,682.56	-552.99	1,751.18	1,739.23	11.95	146	558
1,800.00	1,798.48	1,886.05	1,884.32	6.17	6.54	-57.25	-1,679.39	-546.86	1,742.50	1,729.84	12.66	137	586
1,900.00	1,898.24	1,985.09	1,983.12	6.53	6.90	-57.61	-1,676.22	-540.72	1,733.89	1,720.51	13.38	129	555
2,000.00	1,998.00	2,084.12	2,081.91	6.90	7.26	-57.97	-1,673.04	-534.58	1,725.35	1,711.25	14.10	122	330
2,100.00	2,097.75	2,183.16	2,180.71	7.26	7.63	-58.34	-1,669.87	-528.45	1,716.88	1,702.06	14.83	115	797
2,200.00	2,197.51	2,282.19	2,279.50	7.63	7.99	-58.70	-1,666.70	-522.31	1,708.48	1,692.93	15.55	109	865
2,300.00	2,297.27	2,381.23	2,378.30	8.00	8.36	-59.07	-1,663.52	-516.18	1,700.15	1,683.88	16.28	104	455
2,400.00	2,397.02	2,480.27	2,477.09	8.37	8.72	-59.45	-1,660.35	-510.04	1,691.90	1,674.89	17.00	99	504
2,500.00	2,496.78	2,579.30	2,575.89	8.74	9.09	-59.83	-1,657.18	-503.90	1,683.71	1,665.98	17.73	94	956
2,600.00	2,596.54	2,678.34	2,674.68	9.10	9.45	-60.21	-1,654.00	-497.77	1,675.60	1,657.14	18.46	90	765
2,700.00	2,596.29	2,777.37	2,773.48	9.47	9.82	-60.60	-1,650.83	-491.63	1,667.57	1,648.38	19.19	86	893
2,800.00	2,796.05	2,886.77	2,882.60	9.85	10.23	-61.03	-1,647.24	-484.69	1,659.53	1,639.58	19.96	83	160
2,850.00	2,845.93	2,955.44	2,950.99	10.03	10.49	-61.34	-1,644.46	-479.31	1,654.99	1,634.60	20.38	81	190
2,900.00	2,895.78	3,023.60	3,018.77	10.22	10.75	-61.76	-1,641.13	-472.88	1,649.75	1,628.94	20.81	79	273
3,000.00	2,995.32	3,146.69	3,140.81	10.60	11.22	-62.73	-1,633.78	-458.66	1,636.92	1,615.28	21.63	75	665
3,100.00	3,094.57	3,243.31	3,236.49	10.99	11.61	-63.66	-1,627.60	-446.72	1,622.62	1,600.23	22.39	72	463
3,116.67	3,111.08	3,259.35	3,252.37	11.05	11.67	-63.83	-1,626.58	-444.74	1,620.15	1,597.63	22.52	71	943
3,200.00	3,193.60	3,339.48	3,331.73	11.38	11.99	-64.50	-1,621.46	-434.83	1,607.88	1,584.72	23.16	69	431
3,300.00	3,292.63	3,435.65	3,426.95	11.78	12.37	-65.32	-1,615.31	-422.94	1,593.46	1,569.53	23.93	66	595
3,400.00	3,391.65	3,531.81	3,522.18	12.18	12.75	-66.16	-1,609.16	-411.05	1,579.38	1,554.68	24.70	63	938
3,500.00	3,490.68	3,627.97	3,617.41	12.58	13.14	-67.00	-1,603.01	-399.17	1,565.66	1,540.18	25.48	61	445
3,600.00	3,589.71	3,724.13	3,712.63	12.99	13.62	-67.87	-1,596.86	-387.28	1,552.31	1,526.04	26.26	59	105
3,700.00	3,688.73	3,820.30	3,807.86	13.39	13.91	-68.74	-1,590.72	-375.39	1,539.32	1,512.27	27.05	56	905
3,800.00	3,787.76	3,912.85	3,899.51	13.80	14.28	-69.60	-1,584.82	-363.98	1,526.74	1,498.91	27.83	54	859
3,900.00	3,886.79	3,992.55	3,978.60	14.20	14.60	-70.31	-1,580.26	-355.17	1,515.28	1,486.71	28.57	53	035
4,000.00	3,985.82	4,073.12	4,058.73	14.61	14.91	-70.98	-1,576.43	-347.76	1,505.22	1,475.91	29.31	51	361
4,100.00	4,084.84	4,154.49	4,139.83	15.02	15.22	-71.61	-1,573.34	-341.79	1,496.51	1,466.47	30.04	49	824
4,200.00	4,183.87	4,236.61	4,221.78	15.43	15.52	-72.20	-1,571.03	-337.33	1,489.10	1,458.34	30.76	48	411
4,300.00	4,282.90	4,319.40	4,304.51	15.84	15.82	-72.73	-1,569.53	-334.42	1,482.93	1,451.45	31.48	47	114
4,333.13	4,315.70	4,346.96	4,332.06	15.97	15.92	-72.90	-1,569.21	-333.80	1,481.15	1,449.44	31.71	46	709
4,400.00	4,382.00	4,402.86	4,387.96	16.24	16.11	-73.15	-1,568.84	-333.09	1,478.13	1,445.95	32.18	45	932
4,500.00	4,481.40	4,502.57	4,482.52	16.64	16.45	-73.49	-1,568.80	-333.01	1,474.93	1,442.01	32.92	44	804
4,600.00	4,581.06	4,602.92	4,582.18	17.02	16.79	-73.76	-1,568.80	-333.01	1,472.59	1,438.95	33.65	43	767
4,700.00	4,680.89	4,703.08	4,682.01	17.39	17.13	-73.95	-1,568.80	-333.01	1,471.02	1,436.66	34.36	42	813

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #206H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
4,800.00	4,780.85	4,803.13	4,781.97	17.74	17.48	-74.05	-1,568.80	-333.01	1,470.18	1,435.12	35.06	41.936		
4,866.46	4,847.31	4,863.33	4,848.43	17.97	17.68	179.73	-1,568.80	-333.01	1,470.02	1,434.53	35.49	41.422		
4,900.00	4,880.84	4,903.13	4,881.96	18.08	17.82	179.73	-1,568.80	-333.01	1,470.02	1,434.28	35.74	41.136		
5,000.00	4,980.84	5,003.13	4,981.96	18.40	18.16	179.73	-1,568.80	-333.01	1,470.02	1,433.61	36.41	40.376		
5,100.00	5,080.84	5,103.13	5,081.96	18.73	18.50	179.73	-1,568.80	-333.01	1,470.02	1,432.93	37.08	39.642		
5,200.00	5,180.84	5,203.13	5,181.96	19.06	18.85	179.73	-1,568.80	-333.01	1,470.02	1,432.26	37.76	38.933		
5,300.00	5,280.84	5,303.13	5,281.96	19.39	19.19	179.73	-1,568.80	-333.01	1,470.02	1,431.58	38.44	38.247		
5,400.00	5,380.84	5,403.13	5,381.96	19.72	19.53	179.73	-1,568.80	-333.01	1,470.02	1,430.90	39.11	37.583		
5,500.00	5,480.84	5,503.13	5,481.96	20.05	19.88	179.73	-1,568.80	-333.01	1,470.02	1,430.22	39.79	36.941		
5,600.00	5,580.84	5,603.13	5,581.96	20.39	20.23	179.73	-1,568.80	-333.01	1,470.02	1,429.54	40.48	36.319		
5,700.00	5,680.84	5,703.13	5,681.96	20.72	20.57	179.73	-1,568.80	-333.01	1,470.02	1,428.86	41.16	35.717		
5,800.00	5,780.84	5,803.13	5,781.96	21.05	20.92	179.73	-1,568.80	-333.01	1,470.02	1,428.18	41.84	35.133		
5,900.00	5,880.84	5,903.13	5,881.96	21.39	21.27	179.73	-1,568.80	-333.01	1,470.02	1,427.49	42.53	34.567		
6,000.00	5,980.84	6,003.13	5,981.96	21.73	21.61	179.73	-1,568.80	-333.01	1,470.02	1,426.80	43.21	34.019		
6,100.00	6,080.84	6,103.13	6,081.96	22.06	21.96	179.73	-1,568.80	-333.01	1,470.02	1,426.12	43.90	33.486		
6,200.00	6,180.84	6,203.13	6,181.96	22.40	22.31	179.73	-1,568.80	-333.01	1,470.02	1,425.43	44.59	32.970		
6,300.00	6,280.84	6,303.13	6,281.96	22.74	22.66	179.73	-1,568.80	-333.01	1,470.02	1,424.74	45.28	32.468		
6,400.00	6,380.84	6,403.13	6,381.96	23.08	23.00	179.73	-1,568.80	-333.01	1,470.02	1,424.05	45.96	31.981		
6,500.00	6,480.84	6,503.13	6,481.96	23.42	23.35	179.73	-1,568.80	-333.01	1,470.02	1,423.36	46.66	31.508		
6,600.00	6,580.84	6,603.13	6,581.96	23.76	23.70	179.73	-1,568.80	-333.01	1,470.02	1,422.67	47.35	31.048		
6,700.00	6,680.84	6,703.13	6,681.96	24.10	24.05	179.73	-1,568.80	-333.01	1,470.02	1,421.98	48.04	30.601		
6,800.00	6,780.84	6,803.13	6,781.96	24.44	24.40	179.73	-1,568.80	-333.01	1,470.02	1,421.29	48.73	30.166		
6,900.00	6,880.84	6,903.13	6,881.96	24.78	24.75	179.73	-1,568.80	-333.01	1,470.02	1,420.59	49.42	29.743		
7,000.00	6,980.84	7,003.13	6,981.96	25.12	25.10	179.73	-1,568.80	-333.01	1,470.02	1,419.90	50.12	29.331		
7,100.00	7,080.84	7,103.13	7,081.96	25.46	25.45	179.73	-1,568.80	-333.01	1,470.02	1,419.20	50.81	28.930		
7,200.00	7,180.84	7,203.13	7,181.96	25.81	25.80	179.73	-1,568.80	-333.01	1,470.02	1,418.51	51.51	28.540		
7,300.00	7,280.84	7,303.13	7,281.96	26.15	26.15	179.73	-1,568.80	-333.01	1,470.02	1,417.81	52.20	28.159		
7,400.00	7,380.84	7,403.13	7,381.96	26.49	26.51	179.73	-1,568.80	-333.01	1,470.02	1,417.12	52.90	27.789		
7,500.00	7,480.84	7,503.13	7,481.96	26.84	26.86	179.73	-1,568.80	-333.01	1,470.02	1,416.42	53.60	27.427		
7,600.00	7,580.84	7,603.13	7,581.96	27.18	27.21	179.73	-1,568.80	-333.01	1,470.02	1,415.72	54.29	27.075		
7,700.00	7,680.84	7,703.13	7,681.96	27.53	27.56	179.73	-1,568.80	-333.01	1,470.02	1,415.02	54.99	26.731		
7,800.00	7,780.84	7,803.13	7,781.96	27.87	27.91	179.73	-1,568.80	-333.01	1,470.02	1,414.33	55.69	26.396		
7,900.00	7,880.84	7,903.13	7,881.96	28.22	28.26	179.73	-1,568.80	-333.01	1,470.02	1,413.63	56.39	26.069		
8,000.00	7,980.84	8,003.13	7,981.96	28.56	28.62	179.73	-1,568.80	-333.01	1,470.02	1,412.93	57.09	25.750		
8,100.00	8,080.84	8,103.13	8,081.96	28.91	28.97	179.73	-1,568.80	-333.01	1,470.02	1,412.23	57.79	25.438		
8,200.00	8,180.84	8,203.13	8,181.96	29.26	29.32	179.73	-1,568.80	-333.01	1,470.02	1,411.53	58.49	25.133		
8,300.00	8,280.84	8,303.13	8,281.96	29.60	29.67	179.73	-1,568.80	-333.01	1,470.02	1,410.83	59.19	24.836		
8,400.00	8,380.84	8,403.13	8,381.96	29.95	30.03	179.73	-1,568.80	-333.01	1,470.02	1,410.13	59.89	24.545		
8,500.00	8,480.84	8,503.13	8,481.96	30.30	30.38	179.73	-1,568.80	-333.01	1,470.02	1,409.43	60.59	24.261		
8,600.00	8,580.84	8,603.13	8,581.96	30.65	30.73	179.73	-1,568.80	-333.01	1,470.02	1,408.72	61.29	23.983		
8,700.00	8,680.84	8,703.13	8,681.96	30.99	31.09	179.73	-1,568.80	-333.01	1,470.02	1,408.02	62.00	23.712		
8,800.00	8,780.84	8,803.13	8,781.96	31.34	31.44	179.73	-1,568.80	-333.01	1,470.02	1,407.32	62.70	23.446		
8,900.00	8,880.84	8,903.13	8,881.96	31.69	31.79	179.73	-1,568.80	-333.01	1,470.02	1,406.62	63.40	23.186		
9,000.00	8,980.84	9,003.13	8,981.96	32.04	32.15	179.73	-1,568.80	-333.01	1,470.02	1,405.91	64.10	22.932		
9,100.00	9,080.84	9,103.13	9,081.96	32.39	32.50	179.73	-1,568.80	-333.01	1,470.02	1,405.21	64.81	22.683		
9,110.55	9,091.39	9,107.41	9,092.51	32.42	32.51	179.73	-1,568.80	-333.01	1,470.02	1,405.16	64.86	22.665 CC		
9,200.00	9,180.84	9,196.66	9,181.75	32.74	32.83	179.72	-1,568.80	-332.80	1,470.02	1,404.53	65.49	22.447		
9,300.00	9,280.84	9,293.86	9,278.23	33.08	33.19	179.30	-1,568.80	-321.96	1,470.12	1,403.92	66.20	22.208		
9,400.00	9,380.84	9,384.97	9,365.79	33.43	33.55	178.33	-1,568.82	-297.14	1,470.73	1,403.82	66.91	21.979		
9,500.00	9,480.84	9,466.51	9,439.95	33.78	33.90	177.02	-1,568.83	-263.40	1,472.63	1,405.03	67.60	21.785		
9,600.00	9,580.84	9,537.17	9,499.80	34.13	34.22	175.56	-1,568.85	-225.91	1,476.76	1,408.55	68.21	21.651		
9,700.00	9,680.84	9,600.00	9,548.77	34.48	34.52	174.04	-1,568.86	-186.61	1,484.04	1,415.32	68.72	21.596		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #206H - Wellbore #1 - Design #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,800.00	9,780.84	9,650.00	9,584.49	34.83	34.78	172.70	-1,568.88	-151.64	1,495.20	1,426.15	69.04	21.656	
9,900.00	9,880.84	9,690.65	9,611.20	35.18	35.01	171.53	-1,568.89	-121.01	1,510.78	1,441.62	69.16	21.844	
9,990.39	9,971.24	9,723.51	9,631.16	35.50	35.20	170.53	-1,568.90	-94.91	1,528.95	1,459.84	69.11	22.123	
10,000.00	9,980.84	9,726.76	9,633.05	35.53	35.22	69.58	-1,568.90	-92.27	1,531.09	1,462.00	69.09	22.160	
10,050.00	10,030.73	9,750.00	9,646.14	35.69	35.36	67.85	-1,568.91	-73.07	1,542.07	1,473.02	69.05	22.332	
10,100.00	10,080.17	9,761.80	9,652.48	35.85	35.44	66.53	-1,568.92	-63.12	1,552.59	1,483.76	68.84	22.555	
10,150.00	10,128.79	9,780.02	9,661.87	35.99	35.56	65.12	-1,568.92	-47.51	1,562.59	1,493.93	68.66	22.759	
10,200.00	10,176.20	9,800.00	9,671.59	36.13	35.69	63.77	-1,568.93	-30.05	1,571.90	1,503.43	68.47	22.958	
10,250.00	10,222.05	9,817.53	9,679.61	36.26	35.81	62.59	-1,568.94	-14.47	1,580.40	1,512.18	68.23	23.163	
10,300.00	10,265.99	9,836.71	9,687.85	36.38	35.95	61.50	-1,568.94	2.86	1,588.00	1,520.01	67.99	23.357	
10,350.00	10,307.69	9,850.00	9,693.20	36.50	36.04	60.65	-1,568.95	15.02	1,594.60	1,526.94	67.66	23.567	
10,400.00	10,346.83	9,875.76	9,702.78	36.62	36.23	59.70	-1,568.96	38.93	1,600.06	1,532.56	67.50	23.704	
10,450.00	10,383.11	9,900.00	9,710.80	36.74	36.42	58.92	-1,568.97	61.81	1,604.38	1,537.05	67.33	23.830	
10,500.00	10,416.26	9,915.49	9,715.42	36.86	36.54	58.43	-1,568.98	76.59	1,607.42	1,540.36	67.06	23.969	
10,550.00	10,446.02	9,935.54	9,720.80	37.00	36.71	58.00	-1,568.98	95.91	1,609.19	1,542.30	66.89	24.059	
10,600.00	10,472.16	9,950.00	9,724.25	37.16	36.82	57.78	-1,568.99	109.95	1,609.64	1,542.96	66.68	24.140	
10,650.00	10,494.50	9,981.14	9,730.49	37.33	37.09	57.51	-1,569.00	140.45	1,608.69	1,541.96	66.73	24.109	
10,700.00	10,512.85	10,000.00	9,733.58	37.53	37.25	57.54	-1,569.01	159.06	1,606.29	1,539.60	66.69	24.086	
10,750.00	10,527.08	10,027.36	9,737.41	37.76	37.50	57.66	-1,569.02	186.14	1,602.32	1,535.50	66.82	23.978	
10,790.39	10,535.49	10,050.00	9,740.00	37.96	37.71	57.89	-1,569.03	208.64	1,597.96	1,530.97	66.99	23.854	
10,800.00	10,537.11	10,050.00	9,740.00	38.01	37.71	57.95	-1,569.03	208.64	1,596.80	1,529.82	66.98	23.840	
10,850.00	10,544.00	10,080.66	9,742.64	38.30	38.01	58.12	-1,569.05	239.18	1,590.30	1,523.01	67.29	23.633	
10,900.00	10,548.29	10,100.00	9,743.80	38.60	38.19	58.40	-1,569.06	258.49	1,583.19	1,515.65	67.54	23.440	
10,950.00	10,549.97	10,133.96	9,744.90	38.94	38.54	58.68	-1,569.07	292.42	1,575.38	1,507.38	68.00	23.167	
10,957.06	10,550.00	10,137.72	9,744.95	38.99	38.58	58.73	-1,569.07	296.18	1,574.23	1,506.17	68.06	23.129	
11,000.00	10,550.00	10,171.49	9,745.00	39.30	38.93	58.72	-1,569.09	329.95	1,567.80	1,499.25	68.55	22.872	
11,100.00	10,550.00	10,270.54	9,745.00	40.14	40.05	58.64	-1,569.13	429.01	1,556.12	1,486.07	70.05	22.214	
11,200.00	10,550.00	10,370.17	9,745.00	41.09	41.27	58.60	-1,569.17	528.64	1,548.91	1,477.09	71.82	21.566	
11,300.00	10,550.00	10,470.11	9,745.00	42.16	42.61	58.58	-1,569.21	628.58	1,546.18	1,472.33	73.85	20.937	
11,311.23	10,550.00	10,481.34	9,745.00	42.29	42.76	58.58	-1,569.22	639.81	1,546.15	1,472.06	74.09	20.869	
11,311.52	10,550.00	10,481.63	9,745.00	42.29	42.76	58.58	-1,569.22	640.10	1,546.15	1,472.05	74.09	20.867	
11,400.00	10,550.00	10,570.11	9,745.00	43.33	44.03	58.58	-1,569.26	728.58	1,546.16	1,470.07	76.09	20.320	
11,500.00	10,550.00	10,670.11	9,745.00	44.59	45.54	58.58	-1,569.30	828.58	1,546.17	1,467.68	78.50	19.697	
11,600.00	10,550.00	10,770.11	9,745.00	45.95	47.13	58.58	-1,569.34	928.58	1,546.19	1,465.14	81.05	19.077	
11,700.00	10,550.00	10,870.11	9,745.00	47.39	48.79	58.58	-1,569.39	1,028.58	1,546.20	1,462.46	83.74	18.465	
11,800.00	10,550.00	10,970.11	9,745.00	48.91	50.50	58.58	-1,569.43	1,128.58	1,546.21	1,459.67	86.54	17.866	
11,900.00	10,550.00	11,070.11	9,745.00	50.51	52.28	58.58	-1,569.47	1,228.58	1,546.22	1,456.76	89.46	17.283	
12,000.00	10,550.00	11,170.11	9,745.00	52.16	54.10	58.58	-1,569.52	1,328.58	1,546.24	1,453.76	92.48	16.719	
12,100.00	10,550.00	11,270.11	9,745.00	53.87	55.97	58.58	-1,569.56	1,428.58	1,546.25	1,450.66	95.59	16.176	
12,200.00	10,550.00	11,370.11	9,745.00	55.64	57.89	58.58	-1,569.60	1,528.57	1,546.26	1,447.48	98.78	15.654	
12,300.00	10,550.00	11,470.11	9,745.00	57.45	59.83	58.58	-1,569.65	1,628.57	1,546.28	1,444.23	102.04	15.153	
12,400.00	10,550.00	11,570.11	9,745.00	59.31	61.82	58.58	-1,569.69	1,728.57	1,546.29	1,440.91	105.38	14.674	
12,500.00	10,550.00	11,670.11	9,745.00	61.20	63.83	58.58	-1,569.73	1,828.57	1,546.30	1,437.53	108.77	14.216	
12,600.00	10,550.00	11,770.11	9,745.00	63.14	65.87	58.58	-1,569.78	1,928.57	1,546.31	1,434.10	112.22	13.780	
12,700.00	10,550.00	11,870.11	9,745.00	65.10	67.94	58.58	-1,569.82	2,028.57	1,546.33	1,430.61	115.72	13.363	
12,800.00	10,550.00	11,970.11	9,745.00	67.10	70.02	58.58	-1,569.86	2,128.57	1,546.34	1,427.08	119.26	12.966	
12,900.00	10,550.00	12,070.11	9,745.00	69.12	72.13	58.58	-1,569.90	2,228.57	1,546.35	1,423.50	122.85	12.587	
13,000.00	10,550.00	12,170.11	9,745.00	71.17	74.26	58.58	-1,569.95	2,328.57	1,546.37	1,419.89	126.48	12.226	
13,100.00	10,550.00	12,270.11	9,745.00	73.24	76.41	58.58	-1,569.99	2,428.57	1,546.38	1,416.24	130.14	11.883	
13,200.00	10,550.00	12,370.11	9,745.00	75.33	78.57	58.58	-1,570.03	2,528.57	1,546.39	1,412.56	133.83	11.555	
13,300.00	10,550.00	12,470.11	9,745.00	77.44	80.75	58.58	-1,570.08	2,628.57	1,546.40	1,408.85	137.56	11.242	
13,400.00	10,550.00	12,570.11	9,745.00	79.57	82.94	58.58	-1,570.12	2,728.57	1,546.42	1,405.11	141.31	10.944	

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



Anticollision Report



Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #206H - Wellbore #1 - Design #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
13,500.00	10,550.00	12,670.11	9,745.00	81.72	85.14	58.58	-1,570.16	2,828.57	1,546.43	1,401.35	145.09	10.659	
13,600.00	10,550.00	12,770.11	9,745.00	83.88	87.36	58.58	-1,570.21	2,928.57	1,546.44	1,397.56	148.89	10.387	
13,700.00	10,550.00	12,870.11	9,745.00	86.05	89.59	58.58	-1,570.25	3,028.57	1,546.46	1,393.75	152.71	10.127	
13,800.00	10,550.00	12,970.11	9,745.00	88.24	91.82	58.58	-1,570.29	3,128.57	1,546.47	1,389.92	156.55	9.878	
13,900.00	10,550.00	13,070.11	9,745.00	90.44	94.07	58.58	-1,570.34	3,228.57	1,546.48	1,386.07	160.41	9.641	
14,000.00	10,550.00	13,170.11	9,745.00	92.65	96.32	58.58	-1,570.38	3,328.57	1,546.50	1,382.21	164.29	9.413	
14,100.00	10,550.00	13,270.11	9,745.00	94.87	98.58	58.58	-1,570.42	3,428.57	1,546.51	1,378.32	168.18	9.195	
14,200.00	10,550.00	13,370.11	9,745.00	97.10	100.85	58.58	-1,570.47	3,528.57	1,546.52	1,374.43	172.09	8.987	
14,300.00	10,550.00	13,470.11	9,745.00	99.34	103.13	58.58	-1,570.51	3,628.57	1,546.53	1,370.52	176.02	8.786	
14,400.00	10,550.00	13,570.11	9,745.00	101.59	105.41	58.58	-1,570.55	3,728.57	1,546.55	1,366.59	179.95	8.594	
14,500.00	10,550.00	13,670.11	9,745.00	103.85	107.70	58.58	-1,570.59	3,828.57	1,546.56	1,362.66	183.90	8.410	
14,600.00	10,550.00	13,770.11	9,745.00	106.11	110.00	58.59	-1,570.64	3,928.57	1,546.57	1,358.71	187.86	8.232	
14,700.00	10,550.00	13,870.11	9,745.00	108.38	112.30	58.59	-1,570.68	4,028.57	1,546.59	1,354.75	191.83	8.062	
14,800.00	10,550.00	13,970.11	9,745.00	110.66	114.61	58.59	-1,570.72	4,128.57	1,546.60	1,350.78	195.82	7.898	
14,900.00	10,550.00	14,070.11	9,745.00	112.94	116.92	58.59	-1,570.77	4,228.57	1,546.61	1,346.80	199.81	7.741	
15,000.00	10,550.00	14,170.11	9,745.00	115.23	119.23	58.59	-1,570.81	4,328.57	1,546.62	1,342.82	203.81	7.589	
15,100.00	10,550.00	14,270.11	9,745.00	117.52	121.55	58.59	-1,570.85	4,428.57	1,546.64	1,338.82	207.82	7.442	
15,200.00	10,550.00	14,370.11	9,745.00	119.82	123.87	58.59	-1,570.90	4,528.57	1,546.65	1,334.82	211.83	7.301	
15,300.00	10,550.00	14,470.11	9,745.00	122.13	126.20	58.59	-1,570.94	4,628.57	1,546.66	1,330.81	215.86	7.165	
15,400.00	10,550.00	14,570.11	9,745.00	124.44	128.53	58.59	-1,570.98	4,728.57	1,546.68	1,326.79	219.89	7.034	
15,430.62	10,550.00	14,600.73	9,745.00	124.92	129.25	58.59	-1,571.00	4,759.19	1,546.68	1,325.76	220.92	7.001 ES, SF	



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #221H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.02	-0.02	0.00	0.00	-0.02	30.08	-0.01	30.08					
100.00	100.00	100.02	99.98	0.13	0.13	-0.02	30.08	-0.01	30.08	29.83	0.25	118.152		
200.00	200.00	200.02	199.98	0.49	0.49	-0.02	30.08	-0.01	30.08	29.11	0.97	30.961		
300.00	300.00	300.02	299.98	0.84	0.84	-0.02	30.08	-0.01	30.08	28.39	1.69	17.815		
400.00	400.00	400.02	399.98	1.20	1.20	-0.02	30.08	-0.01	30.08	27.67	2.41	12.505		
500.00	500.00	500.02	499.98	1.56	1.56	-0.02	30.08	-0.01	30.08	26.96	3.12	9.634		
600.00	600.00	600.02	599.98	1.92	1.92	-0.02	30.08	-0.01	30.08	26.24	3.84	7.835		
700.00	700.00	700.02	699.98	2.28	2.28	-0.02	30.08	-0.01	30.08	25.52	4.56	6.602		
800.00	800.00	800.02	799.98	2.64	2.64	-0.02	30.08	-0.01	30.08	24.81	5.27	5.704		
900.00	900.00	900.02	899.98	3.00	3.00	-0.02	30.08	-0.01	30.08	24.09	5.99	5.022		
1,000.00	1,000.00	999.98	999.98	3.35	3.35	-0.02	30.08	-0.01	30.08	23.37	6.71	4.485 CC, ES		
1,100.00	1,099.99	1,099.53	1,099.52	3.70	3.71	106.49	30.81	-1.08	31.18	23.77	7.41	4.209		
1,200.00	1,199.91	1,199.00	1,198.91	4.04	4.06	107.30	32.98	-4.30	34.47	26.37	8.10	4.256		
1,266.67	1,266.45	1,268.10	1,265.02	4.27	4.30	107.99	35.24	-7.63	37.88	29.31	8.57	4.419		
1,300.00	1,299.70	1,301.49	1,298.22	4.39	4.42	108.34	36.54	-9.56	39.84	31.03	8.81	4.524		
1,400.00	1,399.46	1,401.66	1,397.80	4.74	4.78	109.21	40.44	-15.33	45.73	36.21	9.52	4.806		
1,500.00	1,499.22	1,501.84	1,497.38	5.09	5.14	109.88	44.34	-21.09	51.63	41.40	10.23	5.047		
1,600.00	1,598.97	1,602.02	1,596.96	5.45	5.51	110.42	48.24	-26.66	57.53	46.58	10.95	5.255		
1,700.00	1,698.73	1,702.19	1,696.54	5.81	5.87	110.85	52.14	-32.63	63.43	51.77	11.67	5.436		
1,800.00	1,798.48	1,802.37	1,796.12	6.17	6.24	111.21	56.04	-38.40	69.34	56.95	12.39	5.595		
1,900.00	1,898.24	1,902.54	1,895.70	6.53	6.61	111.52	59.94	-44.17	75.25	62.13	13.12	5.736		
2,000.00	1,998.00	2,002.72	1,995.29	6.90	6.97	111.78	63.85	-49.93	81.17	67.32	13.85	5.861		
2,100.00	2,097.75	2,102.89	2,094.87	7.26	7.34	112.00	67.75	-55.70	87.08	72.50	14.58	5.973		
2,200.00	2,197.51	2,203.07	2,194.45	7.63	7.71	112.20	71.65	-61.47	93.00	77.69	15.31	6.074		
2,300.00	2,297.27	2,303.24	2,294.03	8.00	8.08	112.37	75.55	-67.24	98.91	82.87	16.04	6.165		
2,400.00	2,397.02	2,403.42	2,393.61	8.37	8.45	112.52	79.45	-73.01	104.83	88.05	16.78	6.248		
2,500.00	2,496.78	2,503.60	2,493.19	8.74	8.82	112.66	83.35	-78.77	110.75	93.24	17.51	6.324		
2,600.00	2,596.54	2,603.77	2,592.77	9.10	9.19	112.78	87.25	-84.54	116.67	98.42	18.25	6.393		
2,700.00	2,696.29	2,703.95	2,692.35	9.47	9.56	112.90	91.15	-90.31	122.59	103.60	18.99	6.457		
2,800.00	2,796.05	2,804.12	2,791.94	9.85	9.94	113.00	95.05	-96.08	128.51	108.78	19.72	6.516		
2,850.00	2,845.93	2,845.79	2,841.73	10.03	10.09	113.04	97.00	-98.96	131.47	111.41	20.06	6.554		
2,900.00	2,895.78	2,894.97	2,890.77	10.22	10.27	113.07	99.07	-102.02	134.68	114.25	20.42	6.594		
3,000.00	2,995.32	2,993.03	2,988.39	10.60	10.64	113.13	104.25	-109.68	142.74	121.58	21.16	6.746		
3,100.00	3,094.57	3,090.80	3,085.45	10.99	11.02	113.18	110.81	-119.38	152.98	131.07	21.90	6.984		
3,116.67	3,111.08	3,107.06	3,101.57	11.05	11.09	113.19	112.04	-121.19	154.89	132.87	22.03	7.031		
3,200.00	3,193.60	3,189.64	3,183.34	11.38	11.41	113.30	118.47	-130.70	164.72	142.05	22.67	7.265		
3,300.00	3,292.63	3,288.94	3,281.67	11.78	11.81	113.40	126.21	-142.15	176.52	153.07	23.45	7.527		
3,400.00	3,391.65	3,388.24	3,380.01	12.18	12.20	113.50	133.96	-153.60	188.32	164.09	24.23	7.772		
3,500.00	3,490.68	3,487.54	3,478.34	12.58	12.60	113.58	141.70	-165.05	200.12	175.10	25.01	8.000		
3,600.00	3,589.71	3,586.84	3,576.68	12.99	12.99	113.66	149.44	-176.49	211.92	186.12	25.80	8.214		
3,700.00	3,688.73	3,686.14	3,675.01	13.39	13.39	113.72	157.18	-187.94	223.72	197.13	26.59	8.414		
3,800.00	3,787.76	3,785.44	3,773.35	13.80	13.79	113.78	164.93	-199.39	235.52	208.14	27.38	8.602		
3,900.00	3,886.79	3,884.74	3,871.68	14.20	14.19	113.84	172.67	-210.84	247.32	219.15	28.17	8.780		
4,000.00	3,985.82	3,984.05	3,970.02	14.61	14.60	113.89	180.41	-222.28	259.12	230.16	28.96	8.947		
4,100.00	4,084.84	4,083.35	4,068.35	15.02	15.00	113.93	188.15	-233.73	270.92	241.16	29.76	9.104		
4,200.00	4,183.87	4,182.65	4,166.68	15.43	15.40	113.97	195.90	-245.18	282.72	252.17	30.55	9.253		
4,300.00	4,282.90	4,281.95	4,265.02	15.84	15.81	114.01	203.64	-256.63	294.52	263.17	31.35	9.394		
4,333.13	4,315.70	4,314.85	4,297.60	15.97	15.94	114.02	206.20	-260.42	298.43	266.82	31.62	9.440		
4,400.00	4,382.00	4,381.27	4,363.38	16.24	16.21	114.05	211.38	-268.08	306.09	273.94	32.15	9.522		
4,500.00	4,481.40	4,480.68	4,461.82	16.64	16.62	113.73	219.13	-279.54	316.66	283.73	32.93	9.615		
4,600.00	4,581.06	4,580.10	4,560.27	17.02	17.02	112.99	226.88	-291.00	326.23	292.52	33.71	9.678		
4,700.00	4,680.89	4,679.47	4,658.67	17.39	17.43	111.89	234.63	-302.45	334.90	300.43	34.47	9.715		

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



Anticollision Report



Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #221H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
4,800.00	4,780.85	4,779.91	4,758.15	17.74	17.84	110.42	242.41	-313.96	342.76	307.52	35.23	9.729		
4,866.46	4,847.31	4,849.09	4,826.80	17.97	18.12	3.14	247.19	-321.02	347.12	311.38	35.74	9.712		
4,900.00	4,880.84	4,884.08	4,861.58	18.08	18.26	2.60	249.34	-324.20	349.03	313.04	35.99	9.698		
5,000.00	4,980.84	4,988.81	4,965.86	18.40	18.66	1.28	254.71	-332.14	353.92	317.18	36.73	9.635		
5,100.00	5,080.84	5,093.98	5,070.82	18.73	19.05	0.37	258.49	-337.73	357.44	319.98	37.46	9.542		
5,200.00	5,180.84	5,199.45	5,176.21	19.06	19.42	-0.14	260.65	-340.93	359.48	321.32	38.17	9.419		
5,300.00	5,280.84	5,304.07	5,280.82	19.39	19.78	-0.27	261.21	-341.75	360.01	321.16	38.85	9.266		
5,400.00	5,380.84	5,404.07	5,380.82	19.72	20.11	-0.27	261.21	-341.75	360.01	320.49	39.52	9.109		
5,500.00	5,480.84	5,504.07	5,480.82	20.05	20.45	-0.27	261.21	-341.75	360.01	319.82	40.20	8.956		
5,600.00	5,580.84	5,604.07	5,580.82	20.39	20.79	-0.27	261.21	-341.75	360.01	319.14	40.87	8.808		
5,700.00	5,680.84	5,704.07	5,680.82	20.72	21.12	-0.27	261.21	-341.75	360.01	318.47	41.55	8.665		
5,800.00	5,780.84	5,804.07	5,780.82	21.05	21.46	-0.27	261.21	-341.75	360.01	317.79	42.22	8.526		
5,900.00	5,880.84	5,904.07	5,880.82	21.39	21.80	-0.27	261.21	-341.75	360.01	317.11	42.90	8.391		
6,000.00	5,980.84	6,004.07	5,980.82	21.73	22.14	-0.27	261.21	-341.75	360.01	316.43	43.58	8.261		
6,100.00	6,080.84	6,104.07	6,080.82	22.06	22.48	-0.27	261.21	-341.75	360.01	315.75	44.26	8.134		
6,200.00	6,180.84	6,204.07	6,180.82	22.40	22.82	-0.27	261.21	-341.75	360.01	315.07	44.94	8.010		
6,300.00	6,280.84	6,304.07	6,280.82	22.74	23.16	-0.27	261.21	-341.75	360.01	314.39	45.63	7.890		
6,400.00	6,380.84	6,404.07	6,380.82	23.08	23.50	-0.27	261.21	-341.75	360.01	313.70	46.31	7.774		
6,500.00	6,480.84	6,504.07	6,480.82	23.42	23.84	-0.27	261.21	-341.75	360.01	313.02	47.00	7.660		
6,600.00	6,580.84	6,604.07	6,580.82	23.76	24.18	-0.27	261.21	-341.75	360.01	312.33	47.68	7.550		
6,700.00	6,680.84	6,704.07	6,680.82	24.10	24.52	-0.27	261.21	-341.75	360.01	311.64	48.37	7.443		
6,800.00	6,780.84	6,804.07	6,780.82	24.44	24.87	-0.27	261.21	-341.75	360.01	310.96	49.06	7.339		
6,900.00	6,880.84	6,904.07	6,880.82	24.78	25.21	-0.27	261.21	-341.75	360.01	310.27	49.75	7.237		
7,000.00	6,980.84	7,004.07	6,980.82	25.12	25.55	-0.27	261.21	-341.75	360.01	309.58	50.43	7.138		
7,100.00	7,080.84	7,104.07	7,080.82	25.46	25.90	-0.27	261.21	-341.75	360.01	308.89	51.12	7.042		
7,200.00	7,180.84	7,204.07	7,180.82	25.81	26.24	-0.27	261.21	-341.75	360.01	308.20	51.82	6.948		
7,300.00	7,280.84	7,304.07	7,280.82	26.15	26.59	-0.27	261.21	-341.75	360.01	307.51	52.51	6.857		
7,400.00	7,380.84	7,404.07	7,380.82	26.49	26.93	-0.27	261.21	-341.75	360.01	306.82	53.20	6.767		
7,500.00	7,480.84	7,504.07	7,480.82	26.84	27.28	-0.27	261.21	-341.75	360.01	306.12	53.89	6.680		
7,600.00	7,580.84	7,604.07	7,580.82	27.18	27.63	-0.27	261.21	-341.75	360.01	305.43	54.59	6.595		
7,700.00	7,680.84	7,704.07	7,680.82	27.53	27.97	-0.27	261.21	-341.75	360.01	304.73	55.28	6.513		
7,800.00	7,780.84	7,804.07	7,780.82	27.87	28.32	-0.27	261.21	-341.75	360.01	304.04	55.97	6.432		
7,900.00	7,880.84	7,904.07	7,880.82	28.22	28.67	-0.27	261.21	-341.75	360.01	303.35	56.67	6.353		
8,000.00	7,980.84	8,004.07	7,980.82	28.56	29.01	-0.27	261.21	-341.75	360.01	302.65	57.36	6.276		
8,100.00	8,080.84	8,104.07	8,080.82	28.91	29.36	-0.27	261.21	-341.75	360.01	301.95	58.06	6.201		
8,200.00	8,180.84	8,204.07	8,180.82	29.26	29.71	-0.27	261.21	-341.75	360.01	301.26	58.76	6.127		
8,300.00	8,280.84	8,304.07	8,280.82	29.60	30.06	-0.27	261.21	-341.75	360.01	300.56	59.45	6.055		
8,400.00	8,380.84	8,404.07	8,380.82	29.95	30.40	-0.27	261.21	-341.75	360.01	299.86	60.15	5.985		
8,500.00	8,480.84	8,504.07	8,480.82	30.30	30.75	-0.27	261.21	-341.75	360.01	299.16	60.85	5.916		
8,600.00	8,580.84	8,604.07	8,580.82	30.65	31.10	-0.27	261.21	-341.75	360.01	298.46	61.55	5.849		
8,700.00	8,680.84	8,704.07	8,680.82	30.99	31.45	-0.27	261.21	-341.75	360.01	297.77	62.25	5.784		
8,800.00	8,780.84	8,804.07	8,780.82	31.34	31.80	-0.27	261.21	-341.75	360.01	297.07	62.95	5.719		
8,900.00	8,880.84	8,904.07	8,880.82	31.69	32.15	-0.27	261.21	-341.75	360.01	296.37	63.65	5.656		
9,000.00	8,980.84	9,004.07	8,980.82	32.04	32.50	-0.27	261.21	-341.75	360.01	295.67	64.35	5.595		
9,100.00	9,080.84	9,104.07	9,080.82	32.39	32.85	-0.27	261.21	-341.75	360.01	294.97	65.05	5.535		
9,200.00	9,180.84	9,204.07	9,180.82	32.74	33.20	-0.27	261.21	-341.75	360.01	294.27	65.75	5.476		
9,300.00	9,280.84	9,304.07	9,280.82	33.08	33.55	-0.27	261.21	-341.75	360.01	293.56	66.45	5.418		
9,400.00	9,380.84	9,404.07	9,380.82	33.43	33.90	-0.27	261.21	-341.75	360.01	292.86	67.15	5.361		
9,500.00	9,480.84	9,504.07	9,480.82	33.78	34.25	-0.27	261.21	-341.75	360.01	292.16	67.85	5.306		
9,600.00	9,580.84	9,604.07	9,580.82	34.13	34.60	-0.27	261.21	-341.75	360.01	291.46	68.56	5.251		
9,700.00	9,680.84	9,704.07	9,680.82	34.48	34.95	-0.27	261.21	-341.75	360.01	290.76	69.26	5.198		
9,800.00	9,780.84	9,804.07	9,780.82	34.83	35.30	-0.27	261.21	-341.75	360.01	290.05	69.96	5.146		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #221H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,900.00	9,880.84	9,904.07	9,880.82	35.18	35.65	-0.27	261.21	-341.75	360.01	289.35	70.66	5.095		
9,990.39	9,971.24	9,994.46	9,971.22	35.50	35.97	-0.27	261.21	-341.75	360.01	288.71	71.30	5.049		
10,000.00	9,980.84	10,003.10	9,979.86	35.53	36.00	-100.92	261.22	-341.69	360.04	288.68	71.36	5.045		
10,050.00	10,030.73	10,048.05	10,024.73	35.69	36.14	-100.86	261.67	-339.29	361.10	289.43	71.67	5.039		
10,100.00	10,080.17	10,092.96	10,069.23	35.85	36.28	-100.71	262.76	-333.45	363.67	291.72	71.95	5.055		
10,150.00	10,128.79	10,137.80	10,113.06	35.99	36.42	-100.47	264.47	-324.22	367.74	295.54	72.20	5.093		
10,200.00	10,176.20	10,182.54	10,155.93	36.13	36.54	-100.15	266.81	-311.68	373.27	300.83	72.44	5.153		
10,250.00	10,222.05	10,227.15	10,197.56	36.26	36.66	-99.74	269.74	-295.95	380.23	307.57	72.66	5.233		
10,300.00	10,265.99	10,271.62	10,237.69	36.38	36.77	-99.25	273.24	-277.14	388.55	315.68	72.87	5.332		
10,350.00	10,307.69	10,315.94	10,276.09	36.50	36.87	-98.67	277.29	-255.40	398.17	325.10	73.08	5.449		
10,400.00	10,346.83	10,360.12	10,312.55	36.62	36.97	-98.03	281.85	-230.90	409.03	335.74	73.29	5.581		
10,450.00	10,383.11	10,404.15	10,346.88	36.74	37.06	-97.31	286.90	-203.80	421.04	347.53	73.51	5.727		
10,500.00	10,416.26	10,448.08	10,378.91	36.86	37.15	-96.53	292.40	-174.27	434.11	360.36	73.75	5.886		
10,550.00	10,446.02	10,491.92	10,408.49	37.00	37.25	-95.69	298.32	-142.48	448.16	374.14	74.02	6.055		
10,600.00	10,472.16	10,535.71	10,435.49	37.16	37.35	-94.80	304.63	-108.59	463.07	388.76	74.31	6.232		
10,650.00	10,494.50	10,579.51	10,459.78	37.33	37.47	-93.86	311.31	-72.76	478.76	404.13	74.64	6.415		
10,700.00	10,512.85	10,623.39	10,481.25	37.53	37.61	-92.88	318.31	-35.16	495.12	420.12	75.00	6.602		
10,750.00	10,527.08	10,667.41	10,499.79	37.76	37.76	-91.88	325.62	4.09	512.03	436.64	75.38	6.792		
10,790.39	10,535.49	10,703.14	10,512.54	37.96	37.90	-91.06	331.73	36.89	526.02	450.30	75.72	6.947		
10,800.00	10,537.11	10,711.67	10,515.28	38.01	37.94	-91.01	333.21	44.83	529.38	453.57	75.80	6.984		
10,850.00	10,544.00	10,756.40	10,527.64	38.30	38.14	-90.61	341.08	87.08	547.05	470.79	76.26	7.174		
10,900.00	10,548.29	10,801.71	10,536.72	38.60	38.36	-90.06	349.20	130.70	564.92	488.18	76.75	7.361		
10,950.00	10,549.97	10,847.61	10,543.26	38.94	38.61	-89.46	357.52	175.37	582.91	505.63	77.28	7.543		
10,957.06	10,550.00	10,854.11	10,544.01	38.99	38.65	-89.37	358.70	181.72	585.45	508.10	77.35	7.569		
11,000.00	10,550.00	10,893.98	10,547.64	39.30	38.89	-89.76	365.97	220.75	600.50	522.65	77.85	7.713		
11,100.00	10,550.00	11,002.38	10,550.00	40.14	39.61	-90.00	385.37	327.34	631.78	552.45	79.33	7.964		
11,200.00	10,550.00	11,149.78	10,550.00	41.09	40.85	-90.00	403.59	473.57	652.52	570.96	81.56	8.000		
11,300.00	10,550.00	11,301.71	10,550.00	42.16	42.36	-90.00	410.51	625.30	660.33	576.18	84.15	7.847		
11,311.52	10,550.00	11,317.32	10,550.00	42.29	42.53	-90.00	410.54	640.92	660.39	575.94	84.45	7.820		
11,400.00	10,550.00	11,405.80	10,550.00	43.33	43.54	-90.00	410.51	729.39	660.38	573.89	86.49	7.635		
11,500.00	10,550.00	11,505.80	10,550.00	44.59	44.78	-90.00	410.47	829.39	660.37	571.37	89.00	7.420		
11,600.00	10,550.00	11,605.80	10,550.00	45.95	46.12	-90.00	410.43	929.39	660.36	568.67	91.69	7.202		
11,700.00	10,550.00	11,705.80	10,550.00	47.39	47.53	-90.00	410.40	1,029.39	660.35	565.80	94.55	6.984		
11,800.00	10,550.00	11,805.80	10,550.00	48.91	49.03	-90.00	410.36	1,129.39	660.34	562.76	97.58	6.767		
11,900.00	10,550.00	11,905.80	10,550.00	50.51	50.60	-90.00	410.32	1,229.39	660.33	559.59	100.74	6.555		
12,000.00	10,550.00	12,005.80	10,550.00	52.16	52.23	-90.00	410.28	1,329.39	660.32	556.29	104.04	6.347		
12,100.00	10,550.00	12,105.80	10,550.00	53.87	53.92	-90.00	410.25	1,429.39	660.31	552.87	107.45	6.145		
12,200.00	10,550.00	12,205.80	10,550.00	55.64	55.67	-90.00	410.21	1,529.39	660.30	549.34	110.97	5.950		
12,300.00	10,550.00	12,305.80	10,550.00	57.45	57.46	-90.00	410.17	1,629.39	660.29	545.71	114.58	5.763		
12,400.00	10,550.00	12,405.80	10,550.00	59.31	59.30	-90.00	410.13	1,729.39	660.28	542.00	118.29	5.582		
12,500.00	10,550.00	12,505.80	10,550.00	61.20	61.18	-90.00	410.10	1,829.39	660.27	538.20	122.07	5.409		
12,600.00	10,550.00	12,605.80	10,550.00	63.14	63.10	-90.00	410.06	1,929.39	660.27	534.34	125.93	5.243		
12,700.00	10,550.00	12,705.80	10,550.00	65.10	65.05	-90.00	410.02	2,029.39	660.26	530.40	129.85	5.085		
12,800.00	10,550.00	12,805.80	10,550.00	67.10	67.03	-90.00	409.98	2,129.39	660.25	526.41	133.84	4.933		
12,900.00	10,550.00	12,905.80	10,550.00	69.12	69.04	-90.00	409.95	2,229.39	660.24	522.36	137.88	4.789		
13,000.00	10,550.00	13,005.80	10,550.00	71.17	71.08	-90.00	409.91	2,329.39	660.23	518.26	141.97	4.651		
13,100.00	10,550.00	13,105.80	10,550.00	73.24	73.13	-90.00	409.87	2,429.39	660.22	514.11	146.11	4.519		
13,200.00	10,550.00	13,205.80	10,550.00	75.33	75.22	-90.00	409.83	2,529.39	660.21	509.92	150.29	4.393		
13,300.00	10,550.00	13,305.80	10,550.00	77.44	77.32	-90.00	409.80	2,629.39	660.20	505.70	154.50	4.273		
13,400.00	10,550.00	13,405.80	10,550.00	79.57	79.44	-90.00	409.76	2,729.39	660.19	501.43	158.76	4.158		
13,500.00	10,550.00	13,505.80	10,550.00	81.72	81.57	-90.00	409.72	2,829.39	660.18	497.13	163.05	4.049		
13,600.00	10,550.00	13,605.80	10,550.00	83.88	83.72	-90.00	409.68	2,929.39	660.17	492.81	167.36	3.945		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #221H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MVWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,700.00	10,550.00	13,705.80	10,550.00	86.05	85.89	-90.00	409.65	3,029.39	660.16	488.45	171.71	3.845		
13,800.00	10,550.00	13,805.80	10,550.00	88.24	88.07	-90.00	409.61	3,129.39	660.15	484.07	176.08	3.749		
13,900.00	10,550.00	13,905.80	10,550.00	90.44	90.26	-90.00	409.57	3,229.39	660.14	479.66	180.48	3.658		
14,000.00	10,550.00	14,005.80	10,550.00	92.65	92.47	-90.00	409.53	3,329.39	660.13	475.23	184.90	3.570		
14,100.00	10,550.00	14,105.80	10,550.00	94.87	94.68	-90.00	409.50	3,429.39	660.12	470.78	189.34	3.486		
14,200.00	10,550.00	14,205.80	10,550.00	97.10	96.91	-90.00	409.46	3,529.39	660.11	466.31	193.80	3.406		
14,300.00	10,550.00	14,305.80	10,550.00	99.34	99.14	-90.00	409.42	3,629.39	660.11	461.83	198.28	3.329		
14,400.00	10,550.00	14,405.80	10,550.00	101.59	101.38	-90.00	409.38	3,729.39	660.10	457.32	202.78	3.255		
14,500.00	10,550.00	14,505.80	10,550.00	103.85	103.63	-90.00	409.35	3,829.39	660.09	452.80	207.29	3.184		
14,600.00	10,550.00	14,605.80	10,550.00	106.11	105.89	-90.00	409.31	3,929.39	660.08	448.26	211.81	3.116		
14,700.00	10,550.00	14,705.80	10,550.00	108.38	108.16	-90.00	409.27	4,029.39	660.07	443.71	216.35	3.051		
14,800.00	10,550.00	14,805.80	10,550.00	110.66	110.43	-90.00	409.23	4,129.39	660.06	439.15	220.91	2.988		
14,900.00	10,550.00	14,905.80	10,550.00	112.94	112.71	-90.00	409.20	4,229.39	660.05	434.58	225.47	2.927		
15,000.00	10,550.00	15,005.80	10,550.00	115.23	114.99	-90.00	409.16	4,329.39	660.04	429.99	230.05	2.869		
15,100.00	10,550.00	15,105.80	10,550.00	117.52	117.28	-90.00	409.12	4,429.39	660.03	425.39	234.64	2.813		
15,200.00	10,550.00	15,205.80	10,550.00	119.82	119.58	-90.00	409.08	4,529.39	660.02	420.79	239.23	2.759		
15,300.00	10,550.00	15,305.80	10,550.00	122.13	121.88	-90.00	409.05	4,629.39	660.01	416.17	243.84	2.707		
15,400.00	10,550.00	15,405.80	10,550.00	124.44	124.18	-90.00	409.01	4,729.39	660.00	411.54	248.46	-		
15,428.14	10,550.00	15,433.94	10,550.00	124.88	124.83	-90.00	409.00	4,757.53	660.00	410.45	249.55	2.645 SF		
15,430.62	10,550.00	15,431.68	10,550.00	124.92	124.78	-90.00	409.00	4,755.27	660.02	410.48	249.53	2.645		



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MVD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #222H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	2.87	2.87	0.00	0.00	-159.81	-1,613.56	-593.42	1,719.22					
100.00	100.00	102.87	102.87	0.13	0.14	-159.81	-1,613.56	-593.42	1,719.22	1,718.96	0.26	6,492.449		
200.00	200.00	202.87	202.87	0.49	0.50	-159.81	-1,613.56	-593.42	1,719.22	1,718.24	0.98	1,751.187		
300.00	300.00	302.87	302.87	0.84	0.85	-159.81	-1,613.56	-593.42	1,719.22	1,717.52	1.70	1,012.087		
400.00	400.00	402.87	402.87	1.20	1.21	-159.81	-1,613.56	-593.42	1,719.22	1,716.81	2.42	711.707		
500.00	500.00	502.87	502.87	1.56	1.57	-159.81	-1,613.56	-593.42	1,719.22	1,716.09	3.13	548.821		
600.00	600.00	602.87	602.87	1.92	1.93	-159.81	-1,613.56	-593.42	1,719.22	1,715.37	3.85	446.607		
700.00	700.00	702.87	702.87	2.28	2.29	-159.81	-1,613.56	-593.42	1,719.22	1,714.66	4.57	376.489		
800.00	800.00	802.87	802.87	2.64	2.65	-159.81	-1,613.56	-593.42	1,719.22	1,713.94	5.28	325.400		
900.00	900.00	902.87	902.87	3.00	3.01	-159.81	-1,613.56	-593.42	1,719.22	1,713.22	6.00	286.520		
1,000.00	1,000.00	1,005.20	1,005.20	3.35	3.37	-159.81	-1,613.56	-593.42	1,719.22	1,712.49	6.73	255.622		
1,100.00	1,099.99	1,186.30	1,186.22	3.70	4.02	-53.72	-1,609.44	-591.50	1,715.95	1,708.23	7.72	222.354		
1,200.00	1,199.91	1,365.99	1,365.43	4.04	4.67	-54.07	-1,597.67	-586.03	1,706.43	1,697.75	8.69	196.472		
1,266.67	1,266.45	1,447.03	1,446.04	4.27	4.96	-54.34	-1,590.13	-582.52	1,697.20	1,688.00	9.20	184.494		
1,300.00	1,299.70	1,479.94	1,478.77	4.39	5.08	-54.41	-1,587.01	-581.07	1,692.38	1,682.95	9.43	179.445		
1,400.00	1,399.46	1,578.67	1,576.96	4.74	5.44	-54.64	-1,577.65	-576.72	1,677.93	1,667.80	10.13	165.646		
1,500.00	1,499.22	1,677.40	1,675.15	5.09	5.81	-54.87	-1,568.29	-572.37	1,663.51	1,652.67	10.83	153.570		
1,600.00	1,598.97	1,776.13	1,773.34	5.45	6.18	-55.10	-1,558.94	-568.02	1,649.11	1,637.57	11.54	142.925		
1,700.00	1,698.73	1,874.86	1,871.53	5.81	6.55	-55.34	-1,549.58	-563.67	1,634.74	1,622.49	12.25	133.478		
1,800.00	1,798.48	1,973.59	1,969.71	6.17	6.93	-55.59	-1,540.22	-559.32	1,620.40	1,607.44	12.96	125.044		
1,900.00	1,898.24	2,072.32	2,067.90	6.53	7.30	-55.83	-1,530.86	-554.96	1,606.09	1,592.41	13.67	117.471		
2,000.00	1,998.00	2,171.05	2,166.09	6.90	7.68	-56.08	-1,521.51	-550.61	1,591.80	1,577.42	14.39	110.638		
2,100.00	2,097.75	2,269.78	2,264.28	7.26	8.05	-56.34	-1,512.15	-546.26	1,577.55	1,562.45	15.10	104.443		
2,200.00	2,197.51	2,368.51	2,362.47	7.63	8.43	-56.60	-1,502.79	-541.91	1,563.33	1,547.51	15.82	98.803		
2,300.00	2,297.27	2,467.24	2,460.66	8.00	8.81	-56.86	-1,493.43	-537.56	1,549.14	1,532.60	16.54	93.647		
2,400.00	2,397.02	2,565.97	2,558.85	8.37	9.19	-57.13	-1,484.07	-533.21	1,534.99	1,517.73	17.26	88.917		
2,500.00	2,496.78	2,664.70	2,657.04	8.74	9.57	-57.41	-1,474.72	-528.85	1,520.87	1,502.88	17.98	84.563		
2,600.00	2,596.54	2,763.43	2,755.23	9.10	9.95	-57.69	-1,465.36	-524.50	1,506.78	1,488.08	18.71	80.543		
2,700.00	2,696.29	2,862.16	2,853.42	9.47	10.33	-57.97	-1,456.00	-520.15	1,492.74	1,473.30	19.43	76.821		
2,800.00	2,796.05	2,960.89	2,951.79	9.85	10.85	-58.37	-1,446.41	-515.83	1,478.07	1,457.83	20.24	73.023		
2,850.00	2,845.93	3,074.69	3,064.33	10.03	11.17	-58.63	-1,432.47	-509.21	1,469.43	1,448.76	20.67	71.093		
2,900.00	2,895.78	3,153.24	3,141.89	10.22	11.49	-59.05	-1,421.17	-503.95	1,459.63	1,438.54	21.09	69.217		
3,000.00	2,995.32	3,294.26	3,280.42	10.60	12.08	-60.01	-1,397.31	-492.86	1,436.29	1,414.40	21.88	65.638		
3,100.00	3,094.57	3,389.92	3,374.16	10.99	12.50	-60.93	-1,380.02	-484.82	1,410.66	1,388.04	22.62	62.374		
3,116.67	3,111.08	3,405.80	3,389.73	11.05	12.56	-61.09	-1,377.15	-483.48	1,406.28	1,383.54	22.74	61.842		
3,200.00	3,193.60	3,485.14	3,467.47	11.38	12.91	-61.64	-1,362.81	-476.81	1,384.37	1,361.02	23.36	59.273		
3,300.00	3,292.63	3,580.35	3,560.78	11.78	13.33	-62.32	-1,345.59	-468.81	1,358.25	1,334.16	24.10	56.361		
3,400.00	3,391.65	3,675.57	3,654.08	12.18	13.74	-63.02	-1,328.38	-460.80	1,332.32	1,307.48	24.85	53.621		
3,500.00	3,490.68	3,770.78	3,747.38	12.58	14.16	-63.75	-1,311.17	-452.80	1,306.59	1,281.00	25.60	51.041		
3,600.00	3,589.71	3,865.99	3,840.68	12.99	14.58	-64.51	-1,293.96	-444.79	1,281.08	1,254.72	26.36	48.607		
3,700.00	3,688.73	3,961.21	3,933.98	13.39	15.01	-65.30	-1,276.74	-436.79	1,255.79	1,228.67	27.12	46.309		
3,800.00	3,787.76	4,056.42	4,027.29	13.80	15.43	-66.12	-1,259.53	-428.79	1,230.73	1,202.85	27.88	44.138		
3,900.00	3,886.79	4,151.63	4,120.59	14.20	15.86	-66.97	-1,242.32	-420.78	1,205.94	1,177.28	28.66	42.085		
4,000.00	3,985.82	4,246.85	4,213.89	14.61	16.29	-67.86	-1,225.11	-412.78	1,181.41	1,151.98	29.43	40.141		
4,100.00	4,084.84	4,342.06	4,307.19	15.02	16.72	-68.78	-1,207.89	-404.77	1,157.17	1,126.96	30.21	38.300		
4,200.00	4,183.87	4,437.27	4,400.49	15.43	17.15	-69.75	-1,190.68	-396.77	1,133.24	1,102.24	31.00	36.555		
4,300.00	4,282.90	4,532.49	4,493.80	15.84	17.58	-70.75	-1,173.47	-388.76	1,109.63	1,077.84	31.79	34.900		
4,333.13	4,315.70	4,564.03	4,524.71	15.97	17.72	-71.09	-1,167.77	-386.11	1,101.89	1,069.83	32.06	34.370		
4,400.00	4,382.00	4,627.85	4,587.25	16.24	18.01	-71.54	-1,156.23	-380.75	1,086.55	1,053.96	32.59	33.338		
4,500.00	4,481.40	4,723.83	4,681.30	16.64	18.44	-72.15	-1,138.88	-372.68	1,064.54	1,031.16	33.38	31.891		
4,600.00	4,581.06	4,812.70	4,768.41	17.02	18.85	-72.62	-1,122.92	-365.26	1,043.71	1,009.55	34.16	30.551		
4,700.00	4,680.89	4,890.75	4,845.16	17.39	19.19	-72.91	-1,110.08	-359.29	1,025.33	990.40	34.93	29.355		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #222H - Wellbore #1 - Design #1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.00	4,780.85	4,969.78	4,923.15	17.74	19.53	-73.11	-1,098.52	-353.91	1,009.66	974.00	35.67	28.308		
4,866.46	4,847.31	5,022.75	4,975.57	17.97	19.75	-179.38	-1,091.60	-350.69	1,000.74	964.61	36.14	27.692		
4,900.00	4,880.84	5,049.59	5,002.17	18.08	19.86	-179.47	-1,088.34	-349.18	996.65	960.28	36.37	27.403		
5,000.00	4,980.84	5,129.89	5,081.89	18.40	20.19	-179.70	-1,079.61	-345.12	985.73	948.68	37.05	26.605		
5,100.00	5,080.84	5,210.56	5,162.16	18.73	20.50	-179.90	-1,072.37	-341.75	976.73	939.01	37.72	25.896		
5,200.00	5,180.84	5,291.54	5,242.89	19.06	20.80	179.94	-1,066.66	-339.09	969.66	931.30	38.37	25.274		
5,300.00	5,280.84	5,372.75	5,323.97	19.39	21.09	179.83	-1,062.48	-337.15	964.52	925.53	39.00	24.733		
5,400.00	5,380.84	5,454.12	5,405.28	19.72	21.37	179.76	-1,059.86	-335.94	961.32	921.71	39.61	24.269		
5,500.00	5,480.84	5,535.57	5,486.73	20.05	21.64	179.73	-1,058.82	-335.45	960.04	919.83	40.21	23.878		
5,539.82	5,520.66	5,572.37	5,523.53	20.19	21.76	179.73	-1,058.80	-335.44	960.01	919.55	40.46	23.728		
5,600.00	5,580.84	5,632.55	5,583.71	20.39	21.95	179.73	-1,058.80	-335.44	960.01	919.14	40.87	23.492		
5,700.00	5,680.84	5,732.55	5,683.71	20.72	22.27	179.73	-1,058.80	-335.44	960.01	918.47	41.54	23.109		
5,800.00	5,780.84	5,832.55	5,783.71	21.05	22.59	179.73	-1,058.80	-335.44	960.01	917.79	42.22	22.737		
5,900.00	5,880.84	5,932.55	5,883.71	21.39	22.91	179.73	-1,058.80	-335.44	960.01	917.11	42.90	22.377		
6,000.00	5,980.84	6,032.55	5,983.71	21.73	23.24	179.73	-1,058.80	-335.44	960.01	916.43	43.58	22.027		
6,100.00	6,080.84	6,132.55	6,083.71	22.06	23.56	179.73	-1,058.80	-335.44	960.01	915.75	44.26	21.688		
6,200.00	6,180.84	6,232.55	6,183.71	22.40	23.89	179.73	-1,058.80	-335.44	960.01	915.06	44.95	21.358		
6,300.00	6,280.84	6,332.55	6,283.71	22.74	24.21	179.73	-1,058.80	-335.44	960.01	914.38	45.63	21.038		
6,400.00	6,380.84	6,432.55	6,383.71	23.08	24.54	179.73	-1,058.80	-335.44	960.01	913.69	46.32	20.727		
6,500.00	6,480.84	6,532.55	6,483.71	23.42	24.87	179.73	-1,058.80	-335.44	960.01	913.01	47.00	20.424		
6,600.00	6,580.84	6,632.55	6,583.71	23.76	25.20	179.73	-1,058.80	-335.44	960.01	912.32	47.69	20.130		
6,700.00	6,680.84	6,732.55	6,683.71	24.10	25.53	179.73	-1,058.80	-335.44	960.01	911.63	48.38	19.844		
6,800.00	6,780.84	6,832.55	6,783.71	24.44	25.86	179.73	-1,058.80	-335.44	960.01	910.94	49.07	19.565		
6,900.00	6,880.84	6,932.55	6,883.71	24.78	26.19	179.73	-1,058.80	-335.44	960.01	910.25	49.76	19.294		
7,000.00	6,980.84	7,032.55	6,983.71	25.12	26.52	179.73	-1,058.80	-335.44	960.01	909.56	50.45	19.030		
7,100.00	7,080.84	7,132.55	7,083.71	25.46	26.85	179.73	-1,058.80	-335.44	960.01	908.87	51.14	18.773		
7,200.00	7,180.84	7,232.55	7,183.71	25.81	27.19	179.73	-1,058.80	-335.44	960.01	908.18	51.83	18.522		
7,300.00	7,280.84	7,332.55	7,283.71	26.15	27.52	179.73	-1,058.80	-335.44	960.01	907.49	52.52	18.278		
7,400.00	7,380.84	7,432.55	7,383.71	26.49	27.85	179.73	-1,058.80	-335.44	960.01	906.80	53.22	18.040		
7,500.00	7,480.84	7,532.55	7,483.71	26.84	28.19	179.73	-1,058.80	-335.44	960.01	906.10	53.91	17.808		
7,600.00	7,580.84	7,632.55	7,583.71	27.18	28.52	179.73	-1,058.80	-335.44	960.01	905.41	54.60	17.582		
7,700.00	7,680.84	7,732.55	7,683.71	27.53	28.86	179.73	-1,058.80	-335.44	960.01	904.71	55.30	17.361		
7,800.00	7,780.84	7,832.55	7,783.71	27.87	29.20	179.73	-1,058.80	-335.44	960.01	904.02	55.99	17.145		
7,900.00	7,880.84	7,932.55	7,883.71	28.22	29.53	179.73	-1,058.80	-335.44	960.01	903.32	56.69	16.934		
8,000.00	7,980.84	8,032.55	7,983.71	28.56	29.87	179.73	-1,058.80	-335.44	960.01	902.62	57.39	16.729		
8,100.00	8,080.84	8,132.55	8,083.71	28.91	30.21	179.73	-1,058.80	-335.44	960.01	901.93	58.08	16.528		
8,200.00	8,180.84	8,232.55	8,183.71	29.26	30.55	179.73	-1,058.80	-335.44	960.01	901.23	58.78	16.332		
8,300.00	8,280.84	8,332.55	8,283.71	29.60	30.89	179.73	-1,058.80	-335.44	960.01	900.53	59.48	16.140		
8,400.00	8,380.84	8,432.55	8,383.71	29.95	31.23	179.73	-1,058.80	-335.44	960.01	899.83	60.18	15.953		
8,500.00	8,480.84	8,532.55	8,483.71	30.30	31.57	179.73	-1,058.80	-335.44	960.01	899.14	60.88	15.770		
8,600.00	8,580.84	8,632.55	8,583.71	30.65	31.91	179.73	-1,058.80	-335.44	960.01	898.44	61.58	15.591		
8,700.00	8,680.84	8,732.55	8,683.71	30.99	32.25	179.73	-1,058.80	-335.44	960.01	897.74	62.27	15.416		
8,800.00	8,780.84	8,832.55	8,783.71	31.34	32.59	179.73	-1,058.80	-335.44	960.01	897.04	62.97	15.244		
8,900.00	8,880.84	8,932.55	8,883.71	31.69	32.93	179.73	-1,058.80	-335.44	960.01	896.34	63.68	15.077		
9,000.00	8,980.84	9,032.55	8,983.71	32.04	33.27	179.73	-1,058.80	-335.44	960.01	895.64	64.38	14.913		
9,100.00	9,080.84	9,132.55	9,083.71	32.39	33.62	179.73	-1,058.80	-335.44	960.01	894.93	65.08	14.752		
9,200.00	9,180.84	9,232.55	9,183.71	32.74	33.96	179.73	-1,058.80	-335.44	960.01	894.23	65.78	14.595		
9,300.00	9,280.84	9,332.55	9,283.71	33.08	34.30	179.73	-1,058.80	-335.44	960.01	893.53	66.48	14.441		
9,400.00	9,380.84	9,432.55	9,383.71	33.43	34.65	179.73	-1,058.80	-335.44	960.01	892.83	67.18	14.290		
9,500.00	9,480.84	9,532.55	9,483.71	33.78	34.99	179.73	-1,058.80	-335.44	960.01	892.13	67.88	14.142		
9,600.00	9,580.84	9,632.55	9,583.71	34.13	35.33	179.73	-1,058.80	-335.44	960.01	891.42	68.59	13.997		
9,700.00	9,680.84	9,732.55	9,683.71	34.48	35.68	179.73	-1,058.80	-335.44	960.01	890.72	69.29	13.855		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #222H - Wellbore #1 - Design #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,800.00	9,780.84	9,832.55	9,783.71	34.83	36.02	179.73	-1,058.80	-335.44	960.01	890.02	69.99	13.716	
9,900.00	9,880.84	9,932.55	9,883.71	35.18	36.37	179.73	-1,058.80	-335.44	960.01	889.31	70.70	13.579	
9,990.39	9,971.24	10,024.17	9,975.33	35.50	36.68	179.73	-1,058.80	-335.43	960.01	888.67	71.34	13.457	
10,000.00	9,980.84	10,037.87	9,989.02	35.53	36.73	79.07	-1,058.75	-335.17	959.96	888.53	71.43	13.440	
10,050.00	10,030.73	10,108.96	10,059.76	35.69	36.98	79.07	-1,057.54	-328.68	958.56	886.70	71.86	13.339	
10,100.00	10,080.17	10,179.29	10,128.41	35.85	37.25	79.11	-1,054.78	-313.83	955.25	882.98	72.28	13.217	
10,150.00	10,128.79	10,248.35	10,193.52	35.99	37.52	79.19	-1,050.58	-291.32	950.10	877.42	72.68	13.073	
10,200.00	10,176.20	10,315.74	10,253.95	36.13	37.81	79.32	-1,045.14	-262.10	943.19	870.11	73.08	12.906	
10,250.00	10,222.05	10,381.15	10,308.88	36.26	38.09	79.51	-1,038.65	-227.25	934.63	861.14	73.49	12.718	
10,300.00	10,265.99	10,444.39	10,357.81	36.38	38.38	79.78	-1,031.33	-187.92	924.54	850.62	73.92	12.508	
10,350.00	10,307.69	10,505.38	10,400.56	36.50	38.69	80.11	-1,023.37	-145.19	913.06	838.69	74.37	12.277	
10,400.00	10,346.83	10,564.12	10,437.14	36.62	39.00	80.53	-1,014.96	-100.03	900.33	825.47	74.86	12.027	
10,450.00	10,383.11	10,620.70	10,467.75	36.74	39.34	81.04	-1,006.25	-53.28	886.48	811.11	75.38	11.761	
10,500.00	10,416.26	10,675.23	10,492.67	36.86	39.68	81.63	-997.37	-5.62	871.67	795.75	75.92	11.481	
10,550.00	10,446.02	10,727.87	10,512.26	37.00	40.05	82.30	-988.43	42.39	856.03	779.54	76.50	11.191	
10,600.00	10,472.16	10,778.79	10,526.87	37.16	40.43	83.05	-979.50	90.33	839.69	762.61	77.08	10.893	
10,650.00	10,494.50	10,827.94	10,536.83	37.33	40.82	83.87	-970.69	137.64	822.79	745.11	77.68	10.592	
10,700.00	10,512.85	10,875.13	10,543.48	37.53	41.22	84.85	-962.14	183.56	805.49	727.20	78.29	10.288	
10,750.00	10,527.08	10,922.05	10,547.81	37.76	41.63	85.99	-953.59	229.49	787.88	708.97	78.92	9.984	
10,790.39	10,535.49	10,959.82	10,549.62	37.96	41.98	87.03	-946.68	266.57	773.48	694.04	79.44	9.737	
10,800.00	10,537.11	10,968.78	10,549.83	38.01	42.07	87.14	-945.04	275.38	770.03	690.47	79.57	9.678	
10,850.00	10,544.00	11,007.11	10,550.00	38.30	42.44	87.85	-938.13	313.08	752.22	672.07	80.16	9.384	
10,900.00	10,548.29	11,040.78	10,550.00	38.60	42.78	88.69	-932.61	346.30	735.11	654.38	80.74	9.105	
10,950.00	10,549.97	11,074.99	10,550.00	38.94	43.13	89.62	-927.60	380.13	718.79	637.45	81.35	8.836	
10,957.06	10,550.00	11,079.86	10,550.00	38.99	43.18	89.76	-926.94	384.96	716.56	635.12	81.44	8.799	
11,000.00	10,550.00	11,109.74	10,550.00	39.30	43.50	89.76	-923.14	414.59	703.78	621.77	82.01	8.582	
11,100.00	10,550.00	11,181.07	10,550.00	40.14	44.29	89.75	-915.94	485.55	680.17	596.66	83.51	8.145	
11,200.00	10,550.00	11,254.20	10,550.00	41.09	45.15	89.75	-911.32	558.54	665.42	580.20	85.21	7.809	
11,300.00	10,550.00	11,328.32	10,550.00	42.16	46.05	89.75	-909.49	632.63	659.70	572.63	87.07	7.577	
11,311.35	10,550.00	11,342.31	10,550.00	42.29	46.23	89.75	-909.46	640.25	659.63	572.27	87.36	7.551 CC	
11,311.52	10,550.00	11,342.14	10,550.00	42.29	46.23	89.75	-909.46	640.42	659.63	572.27	87.36	7.551	
11,400.00	10,550.00	11,424.59	10,550.00	43.33	47.31	89.75	-909.50	728.90	659.63	570.13	89.50	7.370	
11,500.00	10,550.00	11,524.59	10,550.00	44.59	48.69	89.75	-909.53	828.90	659.64	567.46	92.19	7.155	
11,600.00	10,550.00	11,624.59	10,550.00	45.95	50.15	89.75	-909.57	928.90	659.65	564.61	95.04	6.941	
11,700.00	10,550.00	11,724.59	10,550.00	47.39	51.68	89.75	-909.61	1,028.90	659.66	561.61	98.05	6.728	
11,800.00	10,550.00	11,824.59	10,550.00	48.91	53.28	89.75	-909.65	1,128.90	659.67	558.46	101.21	6.518	
11,900.00	10,550.00	11,924.59	10,550.00	50.51	54.94	89.75	-909.68	1,228.90	659.68	555.19	104.49	6.313	
12,000.00	10,550.00	12,024.59	10,550.00	52.16	56.66	89.75	-909.72	1,328.90	659.69	551.79	107.90	6.114	
12,100.00	10,550.00	12,124.59	10,550.00	53.87	58.42	89.75	-909.76	1,428.90	659.70	548.29	111.41	5.921	
12,200.00	10,550.00	12,224.59	10,550.00	55.64	60.24	89.75	-909.80	1,528.90	659.71	544.69	115.02	5.736	
12,300.00	10,550.00	12,324.59	10,550.00	57.45	62.09	89.75	-909.83	1,628.90	659.72	541.00	118.71	5.557	
12,400.00	10,550.00	12,424.59	10,550.00	59.31	63.99	89.75	-909.87	1,728.90	659.73	537.24	122.49	5.386	
12,500.00	10,550.00	12,524.59	10,550.00	61.20	65.91	89.75	-909.91	1,828.90	659.74	533.39	126.34	5.222	
12,600.00	10,550.00	12,624.59	10,550.00	63.14	67.87	89.75	-909.94	1,928.90	659.74	529.49	130.26	5.065	
12,700.00	10,550.00	12,724.59	10,550.00	65.10	69.86	89.75	-909.98	2,028.90	659.75	525.52	134.24	4.915	
12,800.00	10,550.00	12,824.59	10,550.00	67.10	71.88	89.75	-910.02	2,128.90	659.76	521.49	138.27	4.772	
12,900.00	10,550.00	12,924.59	10,550.00	69.12	73.92	89.75	-910.06	2,228.90	659.77	517.42	142.36	4.635	
13,000.00	10,550.00	13,024.59	10,550.00	71.17	75.99	89.75	-910.09	2,328.90	659.78	513.29	146.49	4.504	
13,100.00	10,550.00	13,124.59	10,550.00	73.24	78.07	89.75	-910.13	2,428.90	659.79	509.13	150.66	4.379	
13,200.00	10,550.00	13,224.59	10,550.00	75.33	80.17	89.75	-910.17	2,528.90	659.80	504.92	154.88	4.260	
13,300.00	10,550.00	13,324.59	10,550.00	77.44	82.30	89.75	-910.20	2,628.90	659.81	500.68	159.13	4.146	
13,400.00	10,550.00	13,424.59	10,550.00	79.57	84.43	89.75	-910.24	2,728.90	659.82	496.41	163.41	4.038	

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



Anticollision Report



Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #222H - Wellbore #1 - Design #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWVD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
13,500.00	10,550.00	13,524.59	10,550.00	81.72	86.59	89.75	-910.28	2,828.90	659.83	492.10	167.72	3.934	
13,600.00	10,550.00	13,624.59	10,550.00	83.88	88.75	89.75	-910.32	2,928.90	659.84	487.77	172.07	3.835	
13,700.00	10,550.00	13,724.59	10,550.00	86.05	90.93	89.75	-910.35	3,028.90	659.85	483.41	176.43	3.740	
13,800.00	10,550.00	13,824.59	10,550.00	88.24	93.13	89.75	-910.39	3,128.90	659.85	479.03	180.83	3.649	
13,900.00	10,550.00	13,924.59	10,550.00	90.44	95.33	89.75	-910.43	3,228.90	659.86	474.62	185.24	3.562	
14,000.00	10,550.00	14,024.59	10,550.00	92.65	97.54	89.75	-910.47	3,328.90	659.87	470.19	189.68	3.479	
14,100.00	10,550.00	14,124.59	10,550.00	94.87	99.77	89.75	-910.50	3,428.90	659.88	465.74	194.14	3.399	
14,200.00	10,550.00	14,224.59	10,550.00	97.10	102.00	89.75	-910.54	3,528.90	659.89	461.28	198.61	3.322	
14,300.00	10,550.00	14,324.59	10,550.00	99.34	104.24	89.75	-910.58	3,628.90	659.90	456.80	203.11	3.249	
14,400.00	10,550.00	14,424.59	10,550.00	101.59	106.49	89.75	-910.61	3,728.90	659.91	452.30	207.61	3.179	
14,500.00	10,550.00	14,524.59	10,550.00	103.85	108.75	89.75	-910.65	3,828.90	659.92	447.78	212.14	3.111	
14,600.00	10,550.00	14,624.59	10,550.00	106.11	111.01	89.75	-910.69	3,928.90	659.93	443.25	216.67	3.046	
14,700.00	10,550.00	14,724.59	10,550.00	108.38	113.28	89.75	-910.73	4,028.90	659.94	438.71	221.23	2.983	
14,800.00	10,550.00	14,824.59	10,550.00	110.66	115.56	89.75	-910.76	4,128.90	659.95	434.16	225.79	2.923	
14,900.00	10,550.00	14,924.59	10,550.00	112.94	117.84	89.75	-910.80	4,228.90	659.96	429.59	230.36	2.865	
15,000.00	10,550.00	15,024.59	10,550.00	115.23	120.13	89.75	-910.84	4,328.90	659.97	425.02	234.95	2.809	
15,100.00	10,550.00	15,124.59	10,550.00	117.52	122.43	89.75	-910.88	4,428.90	659.97	420.43	239.54	2.755	
15,200.00	10,550.00	15,224.59	10,550.00	119.82	124.72	89.75	-910.91	4,528.90	659.98	415.83	244.15	2.703	
15,300.00	10,550.00	15,324.59	10,550.00	122.13	127.03	89.75	-910.95	4,628.90	659.99	411.23	248.77	2.653	
15,400.00	10,550.00	15,424.59	10,550.00	124.44	129.16	89.75	-910.99	4,728.90	660.00	406.79	253.21	2.607	
15,430.62	10,550.00	15,455.21	10,550.00	124.92	129.66	89.75	-911.00	4,759.51	660.00	405.83	254.18	2.597 ES, SF	



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #226H - Wellbore #1 - Design #1													Offset Site Error:	0 00 usft
Survey Program: 0-MWD													Offset Well Error:	0 00 usft
Reference		Offset		Semi Major Axis			Distance			Minimum Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor			
0.00	0.00	1.14	1.14	0.00	0.00	-160.48	-1,673.49	-593.43	1,775.59					
100.00	100.00	101.14	101.14	0.13	0.13	-160.48	-1,673.49	-593.43	1,775.59	1,775.33	0.26		6,866.127	
200.00	200.00	201.14	201.14	0.49	0.49	-160.48	-1,673.49	-593.43	1,775.59	1,774.62	0.98		1,820.103	
300.00	300.00	301.14	301.14	0.84	0.85	-160.48	-1,673.49	-593.43	1,775.59	1,773.90	1.69		1,049.102	
400.00	400.00	401.14	401.14	1.20	1.21	-160.48	-1,673.49	-593.43	1,775.59	1,773.18	2.41		736.934	
500.00	500.00	501.14	501.14	1.56	1.57	-160.48	-1,673.49	-593.43	1,775.59	1,772.47	3.13		567.940	
600.00	600.00	601.14	601.14	1.92	1.92	-160.48	-1,673.49	-593.43	1,775.59	1,771.75	3.84		461.995	
700.00	700.00	701.14	701.14	2.28	2.28	-160.48	-1,673.49	-593.43	1,775.59	1,771.03	4.56		389.362	
800.00	800.00	801.14	801.14	2.64	2.64	-160.48	-1,673.49	-593.43	1,775.59	1,770.32	5.28		336.465	
900.00	900.00	901.14	901.14	3.00	3.00	-160.48	-1,673.49	-593.43	1,775.59	1,769.60	5.99		296.221	
1,000.00	1,000.00	1,001.14	1,001.14	3.35	3.36	-160.48	-1,673.49	-593.43	1,775.59	1,768.88	6.71		264.576	
1,100.00	1,099.99	1,101.13	1,101.13	3.70	3.72	-54.32	-1,673.49	-593.43	1,774.83	1,767.41	7.42		239.290	
1,200.00	1,199.91	1,201.05	1,201.05	4.04	4.07	-54.45	-1,673.49	-593.43	1,772.54	1,764.43	8.12		218.413	
1,266.67	1,266.45	1,267.59	1,267.59	4.27	4.31	-54.58	-1,673.49	-593.43	1,770.18	1,761.59	8.58		206.223	
1,300.00	1,299.70	1,300.84	1,300.84	4.39	4.43	-54.65	-1,673.49	-593.43	1,768.83	1,760.01	8.82		200.580	
1,400.00	1,399.46	1,400.60	1,400.60	4.74	4.79	-54.83	-1,673.49	-593.43	1,764.79	1,755.27	9.52		185.287	
1,500.00	1,499.22	1,500.36	1,500.36	5.09	5.15	-55.01	-1,673.49	-593.43	1,760.78	1,750.54	10.23		172.055	
1,600.00	1,598.97	1,600.11	1,600.11	5.45	5.50	-55.20	-1,673.49	-593.43	1,756.78	1,745.84	10.95		160.502	
1,700.00	1,698.73	1,700.13	1,699.87	5.81	5.86	-55.39	-1,673.49	-593.43	1,752.80	1,741.14	11.66		150.323	
1,800.00	1,798.48	1,799.62	1,799.62	6.17	6.22	-55.58	-1,673.49	-593.43	1,748.84	1,736.47	12.37		141.323	
1,900.00	1,898.24	1,906.33	1,906.32	6.53	6.59	-55.83	-1,673.74	-591.97	1,744.70	1,731.80	13.11		133.133	
2,000.00	1,998.00	2,012.52	2,012.41	6.90	6.95	-56.17	-1,674.50	-587.61	1,740.21	1,726.39	13.83		125.858	
2,100.00	2,097.75	2,114.99	2,114.65	7.26	7.31	-56.59	-1,675.66	-580.94	1,735.46	1,720.92	14.54		119.348	
2,200.00	2,197.51	2,214.06	2,213.49	7.63	7.65	-57.01	-1,676.84	-574.13	1,730.75	1,715.50	15.25		113.504	
2,300.00	2,297.27	2,313.14	2,312.32	8.00	8.00	-57.43	-1,678.02	-567.32	1,726.13	1,710.17	15.96		108.161	
2,400.00	2,397.02	2,412.21	2,411.16	8.37	8.34	-57.85	-1,679.20	-560.51	1,721.61	1,704.94	16.67		103.260	
2,500.00	2,496.78	2,511.29	2,509.99	8.74	8.70	-58.27	-1,680.38	-553.70	1,717.18	1,699.80	17.39		98.752	
2,600.00	2,596.54	2,610.37	2,608.83	9.10	9.05	-58.70	-1,681.56	-546.89	1,712.85	1,694.75	18.11		94.593	
2,700.00	2,696.29	2,709.44	2,707.66	9.47	9.40	-59.13	-1,682.75	-540.08	1,708.62	1,689.79	18.83		90.747	
2,800.00	2,796.05	2,808.52	2,806.50	9.85	9.76	-59.56	-1,683.93	-533.28	1,704.48	1,684.93	19.55		87.181	
2,850.00	2,845.93	2,858.34	2,856.19	10.03	9.94	-59.77	-1,684.52	-529.84	1,702.45	1,682.54	19.91		85.489	
2,900.00	2,895.78	2,909.41	2,907.11	10.22	10.12	-60.05	-1,685.21	-525.89	1,700.25	1,679.97	20.28		83.823	
3,000.00	2,995.32	3,010.54	3,007.74	10.60	10.49	-60.74	-1,686.91	-516.08	1,694.86	1,673.83	21.03		80.596	
3,100.00	3,094.57	3,109.99	3,106.41	10.99	10.86	-61.60	-1,688.03	-503.88	1,688.29	1,666.50	21.78		77.499	
3,116.67	3,111.08	3,126.19	3,122.45	11.05	10.92	-61.76	-1,689.41	-501.66	1,687.09	1,665.18	21.91		76.997	
3,200.00	3,193.60	3,206.45	3,201.94	11.38	11.23	-62.47	-1,691.32	-490.66	1,681.19	1,658.65	22.54		74.582	
3,300.00	3,292.63	3,302.78	3,297.33	11.78	11.60	-63.33	-1,693.61	-477.45	1,674.48	1,651.18	23.30		71.857	
3,400.00	3,391.65	3,400.90	3,392.72	12.18	11.97	-64.19	-1,695.90	-464.25	1,668.17	1,644.10	24.08		69.287	
3,500.00	3,490.68	3,504.57	3,488.10	12.58	12.37	-65.07	-1,698.20	-451.04	1,662.28	1,637.40	24.88		66.824	
3,600.00	3,589.71	3,608.25	3,583.49	12.99	12.78	-65.94	-1,700.49	-437.84	1,656.80	1,631.12	25.68		64.520	
3,700.00	3,688.73	3,688.07	3,678.88	13.39	13.09	-66.83	-1,702.78	-424.64	1,651.73	1,625.34	26.39		62.583	
3,800.00	3,787.76	3,784.40	3,774.26	13.80	13.47	-67.71	-1,705.07	-411.43	1,647.09	1,619.92	27.17		60.612	
3,900.00	3,886.79	3,880.72	3,869.65	14.20	13.85	-68.60	-1,707.36	-398.23	1,642.88	1,614.92	27.96		58.761	
4,000.00	3,985.82	3,977.05	3,965.04	14.61	14.23	-69.50	-1,709.65	-385.02	1,639.10	1,610.35	28.75		57.020	
4,100.00	4,084.84	4,073.37	4,060.43	15.02	14.61	-70.40	-1,711.94	-371.82	1,635.74	1,606.21	29.54		55.383	
4,200.00	4,183.87	4,174.04	4,160.23	15.43	15.01	-71.32	-1,714.20	-358.82	1,632.73	1,602.39	30.34		53.815	
4,300.00	4,282.90	4,277.16	4,262.77	15.84	15.41	-72.17	-1,716.05	-348.14	1,629.76	1,598.61	31.15		52.327	
4,333.13	4,315.70	4,311.60	4,297.08	15.97	15.54	-72.43	-1,716.56	-345.18	1,628.77	1,597.35	31.41		51.850	
4,400.00	4,382.00	4,381.64	4,366.93	16.24	15.80	-72.89	-1,717.44	-340.11	1,626.89	1,594.95	31.94		50.931	
4,500.00	4,481.40	4,487.61	4,472.76	16.64	16.19	-73.43	-1,718.36	-334.83	1,624.53	1,591.81	32.72		49.647	
4,600.00	4,581.06	4,594.68	4,579.80	17.02	16.56	-73.78	-1,718.78	-332.43	1,622.57	1,589.09	33.48		48.467	
4,700.00	4,680.89	4,703.08	4,682.03	17.39	16.93	-73.96	-1,718.80	-332.29	1,621.02	1,586.80	34.21		47.377	

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #226H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.00	4,780.85	4,803.13	4,781.99	17.74	17.27	-74.05	-1,718.80	-332.29	1,620.18	1,585.27	34.91	46.410		
4,866.46	4,847.31	4,863.33	4,846.45	17.97	17.48	179.73	-1,718.80	-332.29	1,620.02	1,584.68	35.34	45.841		
4,900.00	4,880.84	4,903.14	4,881.98	18.08	17.61	179.73	-1,718.80	-332.29	1,620.02	1,584.43	35.59	45.524		
5,000.00	4,980.84	5,003.14	4,981.98	18.40	17.96	179.73	-1,718.80	-332.29	1,620.02	1,583.76	36.26	44.682		
5,100.00	5,080.84	5,103.14	5,081.98	18.73	18.30	179.73	-1,718.80	-332.29	1,620.02	1,583.09	36.93	43.868		
5,200.00	5,180.84	5,203.14	5,181.98	19.06	18.64	179.73	-1,718.80	-332.29	1,620.02	1,582.42	37.60	43.082		
5,300.00	5,280.84	5,303.14	5,281.98	19.39	18.98	179.73	-1,718.80	-332.29	1,620.02	1,581.74	38.28	42.321		
5,400.00	5,380.84	5,403.14	5,381.98	19.72	19.33	179.73	-1,718.80	-332.29	1,620.02	1,581.06	38.96	41.586		
5,500.00	5,480.84	5,503.14	5,481.98	20.05	19.67	179.73	-1,718.80	-332.29	1,620.02	1,580.38	39.63	40.874		
5,600.00	5,580.84	5,603.14	5,581.98	20.39	20.02	179.73	-1,718.80	-332.29	1,620.02	1,579.70	40.31	40.184		
5,700.00	5,680.84	5,703.14	5,681.98	20.72	20.36	179.73	-1,718.80	-332.29	1,620.02	1,579.02	41.00	39.517		
5,800.00	5,780.84	5,803.14	5,781.98	21.05	20.71	179.73	-1,718.80	-332.29	1,620.02	1,578.34	41.68	38.870		
5,900.00	5,880.84	5,903.14	5,881.98	21.39	21.06	179.73	-1,718.80	-332.29	1,620.02	1,577.66	42.36	38.243		
6,000.00	5,980.84	6,003.14	5,981.98	21.73	21.40	179.73	-1,718.80	-332.29	1,620.02	1,576.97	43.05	37.634		
6,100.00	6,080.84	6,103.14	6,081.98	22.06	21.75	179.73	-1,718.80	-332.29	1,620.02	1,576.29	43.73	37.044		
6,200.00	6,180.84	6,203.14	6,181.98	22.40	22.10	179.73	-1,718.80	-332.29	1,620.02	1,575.60	44.42	36.472		
6,300.00	6,280.84	6,303.14	6,281.98	22.74	22.45	179.73	-1,718.80	-332.29	1,620.02	1,574.91	45.11	35.916		
6,400.00	6,380.84	6,403.14	6,381.98	23.08	22.79	179.73	-1,718.80	-332.29	1,620.02	1,574.22	45.79	35.376		
6,500.00	6,480.84	6,503.14	6,481.98	23.42	23.14	179.73	-1,718.80	-332.29	1,620.02	1,573.54	46.48	34.852		
6,600.00	6,580.84	6,603.14	6,581.98	23.76	23.49	179.73	-1,718.80	-332.29	1,620.02	1,572.84	47.17	34.342		
6,700.00	6,680.84	6,703.14	6,681.98	24.10	23.84	179.73	-1,718.80	-332.29	1,620.02	1,572.15	47.86	33.846		
6,800.00	6,780.84	6,803.14	6,781.98	24.44	24.19	179.73	-1,718.80	-332.29	1,620.02	1,571.46	48.56	33.364		
6,900.00	6,880.84	6,903.14	6,881.98	24.78	24.54	179.73	-1,718.80	-332.29	1,620.02	1,570.77	49.25	32.895		
7,000.00	6,980.84	7,003.14	6,981.98	25.12	24.89	179.73	-1,718.80	-332.29	1,620.02	1,570.08	49.94	32.438		
7,100.00	7,080.84	7,103.14	7,081.98	25.46	25.24	179.73	-1,718.80	-332.29	1,620.02	1,569.38	50.64	31.994		
7,200.00	7,180.84	7,203.14	7,181.98	25.81	25.59	179.73	-1,718.80	-332.29	1,620.02	1,568.69	51.33	31.561		
7,300.00	7,280.84	7,303.14	7,281.98	26.15	25.94	179.73	-1,718.80	-332.29	1,620.02	1,567.99	52.02	31.140		
7,400.00	7,380.84	7,403.14	7,381.98	26.49	26.29	179.73	-1,718.80	-332.29	1,620.02	1,567.30	52.72	30.729		
7,500.00	7,480.84	7,503.14	7,481.98	26.84	26.64	179.73	-1,718.80	-332.29	1,620.02	1,566.60	53.42	30.328		
7,600.00	7,580.84	7,603.14	7,581.98	27.18	26.99	179.73	-1,718.80	-332.29	1,620.02	1,565.91	54.11	29.938		
7,700.00	7,680.84	7,703.14	7,681.98	27.53	27.34	179.73	-1,718.80	-332.29	1,620.02	1,565.21	54.81	29.557		
7,800.00	7,780.84	7,803.14	7,781.98	27.87	27.70	179.73	-1,718.80	-332.29	1,620.02	1,564.51	55.51	29.186		
7,900.00	7,880.84	7,903.14	7,881.98	28.22	28.05	179.73	-1,718.80	-332.29	1,620.02	1,563.81	56.21	28.823		
8,000.00	7,980.84	8,003.14	7,981.98	28.56	28.40	179.73	-1,718.80	-332.29	1,620.02	1,563.11	56.90	28.469		
8,100.00	8,080.84	8,103.14	8,081.98	28.91	28.75	179.73	-1,718.80	-332.29	1,620.02	1,562.42	57.60	28.124		
8,200.00	8,180.84	8,203.14	8,181.98	29.26	29.10	179.73	-1,718.80	-332.29	1,620.02	1,561.72	58.30	27.786		
8,300.00	8,280.84	8,303.14	8,281.98	29.60	29.46	179.73	-1,718.80	-332.29	1,620.02	1,561.02	59.00	27.457		
8,400.00	8,380.84	8,403.14	8,381.98	29.95	29.81	179.73	-1,718.80	-332.29	1,620.02	1,560.32	59.70	27.135		
8,500.00	8,480.84	8,503.14	8,481.98	30.30	30.16	179.73	-1,718.80	-332.29	1,620.02	1,559.61	60.40	26.820		
8,600.00	8,580.84	8,603.14	8,581.98	30.65	30.52	179.73	-1,718.80	-332.29	1,620.02	1,558.91	61.11	26.512		
8,700.00	8,680.84	8,703.14	8,681.98	30.99	30.87	179.73	-1,718.80	-332.29	1,620.02	1,558.21	61.81	26.211		
8,800.00	8,780.84	8,803.14	8,781.98	31.34	31.22	179.73	-1,718.80	-332.29	1,620.02	1,557.51	62.51	25.917		
8,900.00	8,880.84	8,903.14	8,881.98	31.69	31.57	179.73	-1,718.80	-332.29	1,620.02	1,556.81	63.21	25.629		
9,000.00	8,980.84	9,003.14	8,981.98	32.04	31.93	179.73	-1,718.80	-332.29	1,620.02	1,556.11	63.91	25.347		
9,100.00	9,080.84	9,103.14	9,081.98	32.39	32.28	179.73	-1,718.80	-332.29	1,620.02	1,555.40	64.62	25.072		
9,200.00	9,180.84	9,203.14	9,181.98	32.74	32.63	179.73	-1,718.80	-332.29	1,620.02	1,554.70	65.32	24.802		
9,300.00	9,280.84	9,303.14	9,281.98	33.08	32.99	179.73	-1,718.80	-332.29	1,620.02	1,554.00	66.02	24.537		
9,400.00	9,380.84	9,403.14	9,381.98	33.43	33.34	179.73	-1,718.80	-332.29	1,620.02	1,553.29	66.73	24.279		
9,500.00	9,480.84	9,503.14	9,481.98	33.78	33.70	179.73	-1,718.80	-332.29	1,620.02	1,552.59	67.43	24.025		
9,600.00	9,580.84	9,603.14	9,581.98	34.13	34.05	179.73	-1,718.80	-332.29	1,620.02	1,551.88	68.13	23.777		
9,700.00	9,680.84	9,703.14	9,681.98	34.48	34.40	179.73	-1,718.80	-332.29	1,620.02	1,551.18	68.84	23.534		
9,800.00	9,780.84	9,803.14	9,781.98	34.83	34.76	179.73	-1,718.80	-332.29	1,620.02	1,550.48	69.54	23.295		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #226H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,900.00	9,880.84	9,903.14	9,881.98	35.18	35.11	179.73	-1,718.80	-332.29	1,620.02	1,549.77	70.25	23.061		
9,990.39	9,971.24	9,988.41	9,973.53	35.50	35.41	179.73	-1,718.80	-332.29	1,620.02	1,549.15	70.87	22.860		
10,000.00	9,980.84	10,007.79	9,992.90	35.53	35.48	79.07	-1,718.73	-331.89	1,619.97	1,549.00	70.97	22.827		
10,050.00	10,030.73	10,107.86	10,092.06	35.69	35.85	79.01	-1,716.44	-319.62	1,618.28	1,546.83	71.45	22.650		
10,100.00	10,080.17	10,204.84	10,184.68	35.85	36.24	78.90	-1,711.25	-291.75	1,614.28	1,542.38	71.89	22.453		
10,150.00	10,128.79	10,296.83	10,266.94	35.99	36.63	78.77	-1,703.75	-251.48	1,608.11	1,535.78	72.33	22.233		
10,200.00	10,176.20	10,382.71	10,336.91	36.13	37.02	78.68	-1,694.66	-202.66	1,599.98	1,527.21	72.77	21.986		
10,250.00	10,222.05	10,462.13	10,394.35	36.26	37.41	78.66	-1,684.63	-148.83	1,590.11	1,516.87	73.24	21.710		
10,300.00	10,265.99	10,535.27	10,440.09	36.38	37.80	78.74	-1,674.19	-92.79	1,578.72	1,504.98	73.75	21.407		
10,350.00	10,307.69	10,602.63	10,475.48	36.50	38.20	78.95	-1,663.71	-36.49	1,566.03	1,491.75	74.29	21.080		
10,400.00	10,346.83	10,664.87	10,502.01	36.62	38.61	79.29	-1,653.41	18.84	1,552.23	1,477.37	74.86	20.735		
10,450.00	10,383.11	10,722.69	10,521.05	36.74	39.02	79.76	-1,643.41	72.48	1,537.49	1,462.04	75.45	20.377		
10,500.00	10,416.26	10,776.73	10,533.79	36.86	39.43	80.35	-1,633.80	124.10	1,521.96	1,445.91	76.05	20.013		
10,550.00	10,446.02	10,824.55	10,541.40	37.00	39.82	81.13	-1,625.16	170.50	1,505.82	1,429.19	76.63	19.650		
10,600.00	10,472.16	10,871.01	10,546.50	37.16	40.21	82.04	-1,616.71	215.89	1,489.22	1,412.00	77.22	19.285		
10,650.00	10,494.50	10,917.06	10,549.33	37.33	40.62	83.06	-1,608.29	261.08	1,472.22	1,394.39	77.83	18.916		
10,700.00	10,512.85	10,952.79	10,550.00	37.53	40.95	84.35	-1,601.75	296.19	1,454.90	1,376.54	78.37	18.565		
10,750.00	10,527.08	10,983.78	10,550.00	37.76	41.25	85.77	-1,596.32	326.70	1,437.70	1,358.81	78.89	18.224		
10,790.39	10,535.49	11,000.00	10,550.00	37.96	41.41	87.05	-1,593.68	342.71	1,424.14	1,344.89	79.25	17.971		
10,800.00	10,537.11	11,000.00	10,550.00	38.01	41.41	87.25	-1,593.68	342.71	1,421.00	1,341.70	79.30	17.920		
10,850.00	10,544.00	11,037.02	10,550.00	38.30	41.80	88.04	-1,588.16	379.31	1,404.72	1,324.77	79.95	17.571		
10,900.00	10,548.29	11,064.34	10,550.00	38.60	42.09	88.92	-1,584.54	406.39	1,389.10	1,308.57	80.52	17.251		
10,950.00	10,549.97	11,100.00	10,550.00	38.94	42.46	89.82	-1,580.40	441.81	1,374.16	1,292.95	81.21	16.921		
10,957.06	10,550.00	11,100.00	10,550.00	38.99	42.46	89.95	-1,580.40	441.81	1,372.07	1,290.81	81.26	16.885		
11,000.00	10,550.00	11,120.00	10,550.00	39.30	42.70	89.95	-1,578.37	461.70	1,360.30	1,278.50	81.80	16.630		
11,100.00	10,550.00	11,177.20	10,550.00	40.14	43.36	89.95	-1,573.70	518.71	1,338.59	1,255.32	83.27	16.075		
11,200.00	10,550.00	11,235.56	10,550.00	41.09	44.08	89.95	-1,570.71	576.99	1,325.01	1,240.08	84.94	15.600		
11,300.00	10,550.00	11,305.17	10,550.00	42.16	44.97	89.95	-1,569.47	646.58	1,319.78	1,232.89	86.89	15.190		
11,311.35	10,550.00	11,311.75	10,550.00	42.29	45.06	89.95	-1,569.46	640.00	1,319.62	1,232.51	87.11	15.149 CC		
11,311.52	10,550.00	11,311.57	10,550.00	42.29	45.05	89.95	-1,569.46	640.18	1,319.62	1,232.51	87.11	15.149		
11,400.00	10,550.00	11,387.24	10,550.00	43.33	46.08	89.95	-1,569.50	728.65	1,319.63	1,230.45	89.18	14.798		
11,500.00	10,550.00	11,487.24	10,550.00	44.59	47.52	89.95	-1,569.53	828.65	1,319.64	1,227.76	91.88	14.363		
11,600.00	10,550.00	11,587.24	10,550.00	45.95	49.03	89.95	-1,569.57	928.65	1,319.65	1,224.90	94.75	13.928		
11,700.00	10,550.00	11,687.24	10,550.00	47.39	50.61	89.95	-1,569.61	1,028.65	1,319.66	1,221.88	97.78	13.497		
11,800.00	10,550.00	11,787.24	10,550.00	48.91	52.25	89.95	-1,569.65	1,128.65	1,319.66	1,218.72	100.95	13.073		
11,900.00	10,550.00	11,887.24	10,550.00	50.51	53.96	89.95	-1,569.68	1,228.65	1,319.67	1,215.43	104.25	12.659		
12,000.00	10,550.00	11,987.24	10,550.00	52.16	55.71	89.95	-1,569.72	1,328.65	1,319.68	1,212.02	107.66	12.257		
12,100.00	10,550.00	12,087.24	10,550.00	53.87	57.52	89.95	-1,569.76	1,428.65	1,319.69	1,208.50	111.19	11.869		
12,200.00	10,550.00	12,187.24	10,550.00	55.64	59.37	89.95	-1,569.79	1,528.65	1,319.70	1,204.89	114.81	11.495		
12,300.00	10,550.00	12,287.24	10,550.00	57.45	61.26	89.95	-1,569.83	1,628.65	1,319.71	1,201.19	118.52	11.135		
12,400.00	10,550.00	12,387.24	10,550.00	59.31	63.19	89.95	-1,569.87	1,728.65	1,319.72	1,197.41	122.31	10.790		
12,500.00	10,550.00	12,487.24	10,550.00	61.20	65.15	89.95	-1,569.91	1,828.65	1,319.73	1,193.56	126.17	10.460		
12,600.00	10,550.00	12,587.24	10,550.00	63.14	67.14	89.95	-1,569.94	1,928.65	1,319.74	1,189.64	130.10	10.144		
12,700.00	10,550.00	12,687.24	10,550.00	65.10	69.16	89.95	-1,569.98	2,028.65	1,319.75	1,185.66	134.08	9.843		
12,800.00	10,550.00	12,787.24	10,550.00	67.10	71.20	89.95	-1,570.02	2,128.65	1,319.76	1,181.63	138.13	9.555		
12,900.00	10,550.00	12,887.24	10,550.00	69.12	73.27	89.95	-1,570.05	2,228.65	1,319.77	1,177.54	142.22	9.280		
13,000.00	10,550.00	12,987.24	10,550.00	71.17	75.35	89.95	-1,570.09	2,328.65	1,319.77	1,173.41	146.36	9.017		
13,100.00	10,550.00	13,087.24	10,550.00	73.24	77.46	89.95	-1,570.13	2,428.65	1,319.78	1,169.24	150.54	8.767		
13,200.00	10,550.00	13,187.24	10,550.00	75.33	79.59	89.95	-1,570.17	2,528.65	1,319.79	1,165.03	154.77	8.528		
13,300.00	10,550.00	13,287.24	10,550.00	77.44	81.73	89.95	-1,570.20	2,628.65	1,319.80	1,160.78	159.02	8.299		
13,400.00	10,550.00	13,387.24	10,550.00	79.57	83.89	89.95	-1,570.24	2,728.65	1,319.81	1,156.50	163.31	8.082		
13,500.00	10,550.00	13,487.24	10,550.00	81.72	86.06	89.95	-1,570.28	2,828.65	1,319.82	1,152.19	167.63	7.873		

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



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design Zach McCormick Federal 18-24S-29E RB - #226H - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
13,600.00	10,550.00	13,587.24	10,550.00	83.88	88.24	89.95	-1,570.32	2,928.65	1,319.83	1,147.85	171.98	7.674		
13,700.00	10,550.00	13,687.24	10,550.00	86.05	90.44	89.95	-1,570.35	3,028.65	1,319.84	1,143.48	176.36	7.484		
13,800.00	10,550.00	13,787.24	10,550.00	88.24	92.65	89.95	-1,570.39	3,128.65	1,319.85	1,139.09	180.76	7.302		
13,900.00	10,550.00	13,887.24	10,550.00	90.44	94.87	89.95	-1,570.43	3,228.65	1,319.86	1,134.68	185.18	7.128		
14,000.00	10,550.00	13,987.24	10,550.00	92.65	97.10	89.95	-1,570.46	3,328.65	1,319.87	1,130.25	189.62	6.961		
14,100.00	10,550.00	14,087.24	10,550.00	94.87	99.33	89.95	-1,570.50	3,428.65	1,319.88	1,125.79	194.08	6.801		
14,200.00	10,550.00	14,187.24	10,550.00	97.10	101.58	89.95	-1,570.54	3,528.65	1,319.88	1,121.32	198.56	6.647		
14,300.00	10,550.00	14,287.24	10,550.00	99.34	103.83	89.95	-1,570.58	3,628.65	1,319.89	1,116.84	203.06	6.500		
14,400.00	10,550.00	14,387.24	10,550.00	101.59	106.10	89.95	-1,570.61	3,728.65	1,319.90	1,112.33	207.57	6.359		
14,500.00	10,550.00	14,487.24	10,550.00	103.85	108.36	89.95	-1,570.65	3,828.65	1,319.91	1,107.81	212.10	6.223		
14,600.00	10,550.00	14,587.24	10,550.00	106.11	110.64	89.95	-1,570.69	3,928.65	1,319.92	1,103.28	216.64	6.093		
14,700.00	10,550.00	14,687.24	10,550.00	108.38	112.92	89.95	-1,570.72	4,028.65	1,319.93	1,098.74	221.19	5.967		
14,800.00	10,550.00	14,787.24	10,550.00	110.66	115.21	89.95	-1,570.76	4,128.65	1,319.94	1,094.18	225.76	5.847		
14,900.00	10,550.00	14,887.24	10,550.00	112.94	117.50	89.95	-1,570.80	4,228.65	1,319.95	1,089.61	230.34	5.730		
15,000.00	10,550.00	14,987.24	10,550.00	115.23	119.80	89.95	-1,570.84	4,328.65	1,319.96	1,085.03	234.93	5.619		
15,100.00	10,550.00	15,087.24	10,550.00	117.52	122.10	89.95	-1,570.87	4,428.65	1,319.97	1,080.44	239.53	5.511		
15,200.00	10,550.00	15,187.24	10,550.00	119.82	124.41	89.95	-1,570.91	4,528.65	1,319.98	1,075.84	244.14	5.407		
15,300.00	10,550.00	15,287.24	10,550.00	122.13	126.72	89.95	-1,570.95	4,628.65	1,319.99	1,071.23	248.75	5.306		
15,400.00	10,550.00	15,387.24	10,550.00	124.44	129.04	89.95	-1,570.99	4,728.65	1,319.99	1,066.61	253.38	5.210		
15,430.62	10,550.00	15,417.85	10,550.00	124.92	129.75	89.95	-1,571.00	4,759.27	1,320.00	1,065.43	254.57	5.185 ES, SF		



Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 2981.95usft (Patterson 297) Coordinates are relative to: #225H

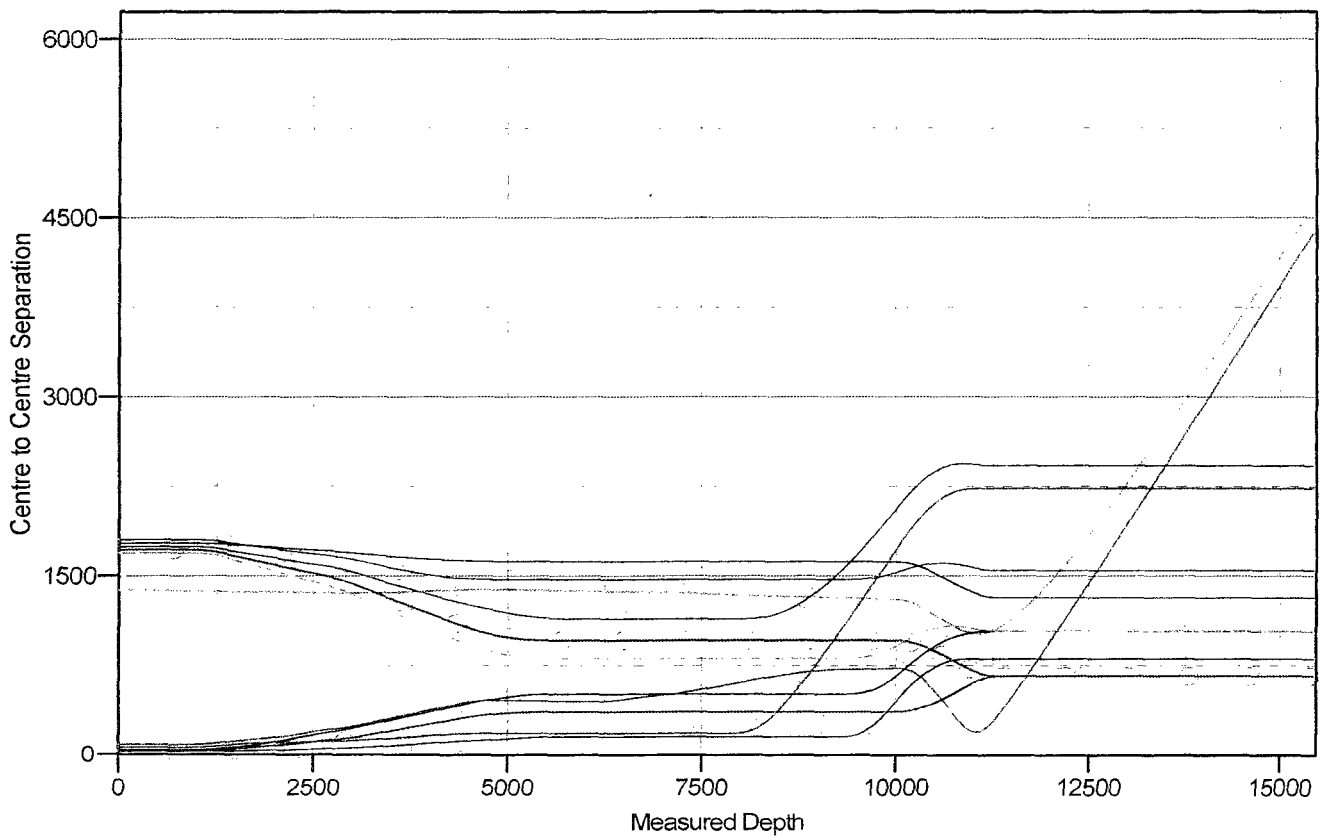
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

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

Grid Convergence at Surface is: 0.16°

Ladder Plot



LEGEND

- | | | |
|----------------------------------|----------------------------------|----------------------------------|
| #1, 122H, Surveys V0 | #121H, Wellbore #1, Design #1 V0 | #122H, Wellbore #1, Design #1 V0 |
| #222H, Wellbore #1, Design #1 V0 | #201H, Wellbore #1, Design #1 V0 | #206H, Wellbore #1, Design #1 V0 |
| #1, Wellbore #1, Surveys V0 | #202H, Wellbore #1, Design #1 V0 | #226H, Wellbore #1, Design #1 V0 |
| #221H, Wellbore #1, Design #1 V0 | #205H, Wellbore #1, Design #1 V0 | |



Anticollision Report

Company: Matador Resources
Project: Eddy County, New Mexico (NAD 27)
Reference Site: Zach McCormick Federal 18-24S-29E RB
Site Error: 0.00 usft
Reference Well: #225H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #225H
TVD Reference: WELL @ 2981.95usft (Patterson 297)
MD Reference: WELL @ 2981.95usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Conroe DB
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 2981.95usft (Patterson 297) Coordinates are relative to: #225H

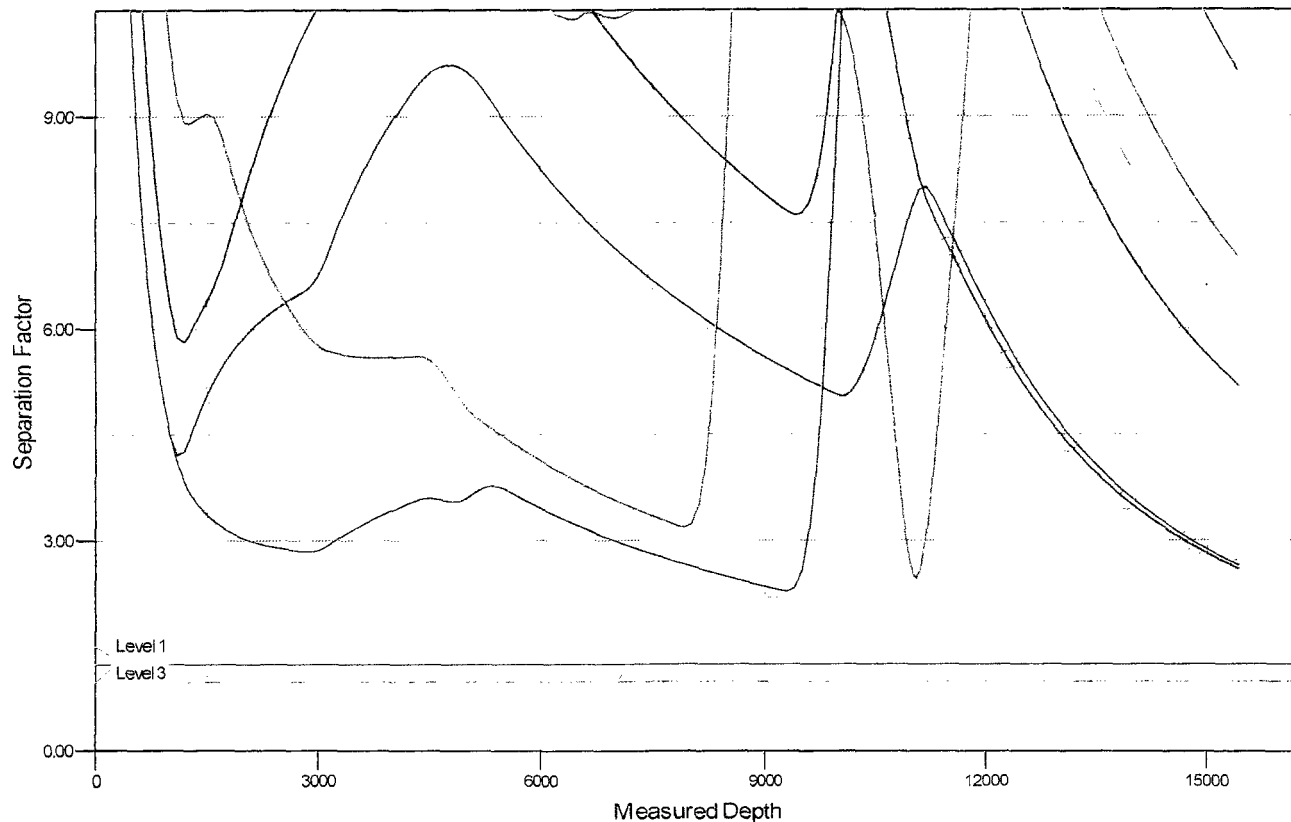
Offset Depths are relative to Offset Datum

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

Central Meridian is 104° 20' 0.000 W

Grid Convergence at Surface is: 0.16°

Separation Factor Plot



LEGEND

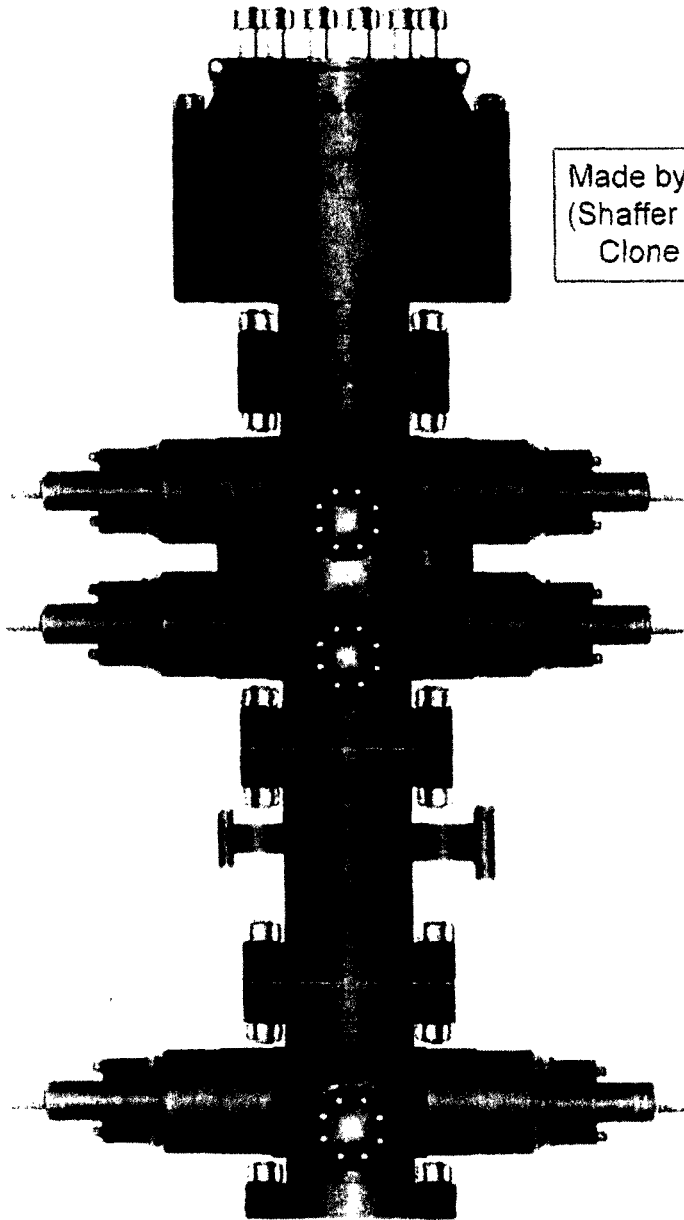
- | | | |
|------------------------------------|------------------------------------|------------------------------------|
| ⊗ #1, 122H, Surveys V0 | ⊗ #121H, Wellbore #1, Design #1 V0 | ⊗ #122H, Wellbore #1, Design #1 V0 |
| ⊗ #222H, Wellbore #1, Design #1 V0 | ⊗ #201H, Wellbore #1, Design #1 V0 | ⊗ #206H, Wellbore #1, Design #1 V0 |
| ⊗ #1, Wellbore #1, Surveys V0 | ⊗ #202H, Wellbore #1, Design #1 V0 | ⊗ #226H, Wellbore #1, Design #1 V0 |
| ⊗ #221H, Wellbore #1, Design #1 V0 | ⊗ #205H, Wellbore #1, Design #1 V0 | |



PATTERSON-UTI

Well Control

297



Made by Cameron
(Shaffer Spherical)
Clone Annular

PATTERSON-UTI # PS2-628

STYLE: New Shaffer Spherical

BORE 13 5/8" PRESSURE 5,000

HEIGHT: 48 1/2" WEIGHT: 13,800 lbs

PATTERSON-UTI # PC2-128

STYLE: New Cameron Type U

BORE 13 5/8" PRESSURE 10,000

RAMS: TOP 5" Pipe BTM Blinds

HEIGHT: 66 5/8" WEIGHT: 24,000 lbs

Length 40" Outlets 4" 10M

DSA 4" 10M x 2" 10M

PATTERSON-UTI # PC2-228

STYLE: New Cameron Type U

BORE 13 5/8" PRESSURE 10,000

RAMS: 5" Pipe

HEIGHT: 41 5/8" WEIGHT: 13,000 lbs

WING VALVES



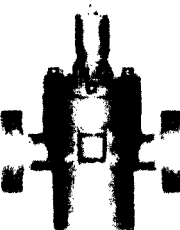
2" Check Valve



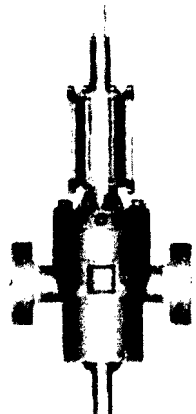
2" Manual Valve



2" Manual Valve



4" Manual Valve



4" Hydraulic Valve

3. PRESSURE CONTROL

A BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram and 1 annular preventer will be installed. The BOP will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator that meets the requirements of Onshore Order 2 for the pressure rating of the BOP stack will be present. A rotating head will be installed as needed.

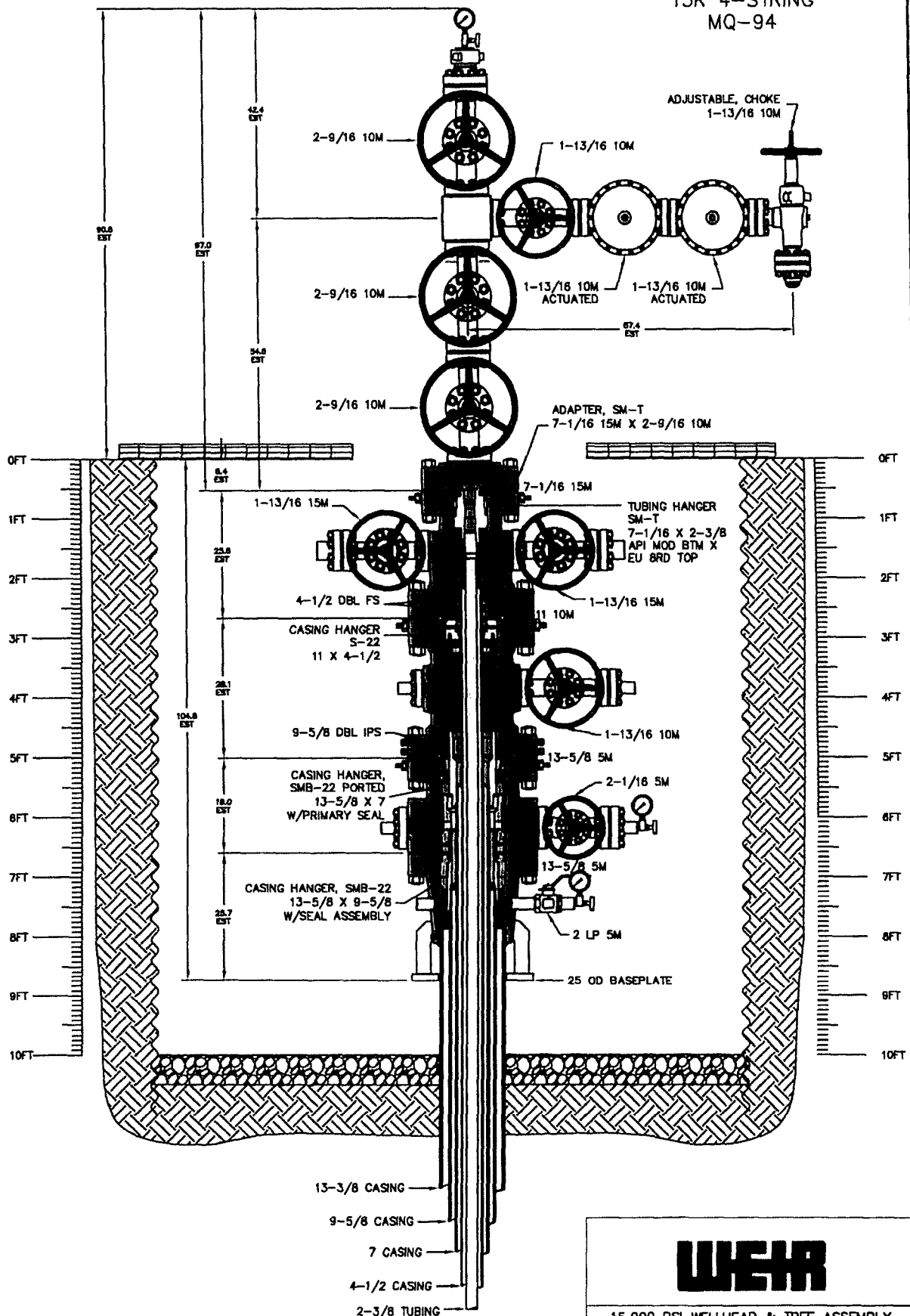
Pressure tests will be conducted before drilling out from under all casing strings. BOP will be inspected and operated as recommended in Onshore Order 2. A Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs. Test pressures will be as follows: After surface casing is set and the BOP is nipped up, BOP pressure tests will be made to 250 psi low and 2000 psi high. On the intermediate #1, pressure tests will be made to 250 psi low and 3000 psi high. On the intermediate #2, pressure tests will be made to 250 psi low and 5000 psi high. The annular preventer will be tested to 250 psi low and 1000 psi high on the surface casing, and 250 psi low and 2500 psi high on the intermediate #1 and #2 casing. In the case of running a speed head with landing mandrel for 9-5/8" and 7" casing the initial, after surface casing is set, BOP test pressures will be 250 psi low and 3000 psi high with wellhead seals tested to 5000 psi once the 9-5/8" casing has been landed and cemented.

The BOP will then be lifted to install the 'C-section' of the wellhead. Matador will nipple the BOP back up and the pressure tests will be made to 250 psi low and 5000 psi high and the annular will be tested to 250 psi low and 2500 psi high.

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

MATADOR
15K 4-STRING
MQ-94



NOTE:
DIMENSIONS SHOWN ON THIS DRAWING ARE
ESTIMATES ONLY AND CAN VARY SIGNIFICANTLY
DEPENDING ON RAW MATERIAL LENGTHS.
NO GUARANTEE OF STACKUP HEIGHT IS IMPLIED.
DIMENSIONS SHOWN SHOULD BE CONSIDERED
FOR REFERENCE PURPOSES ONLY.

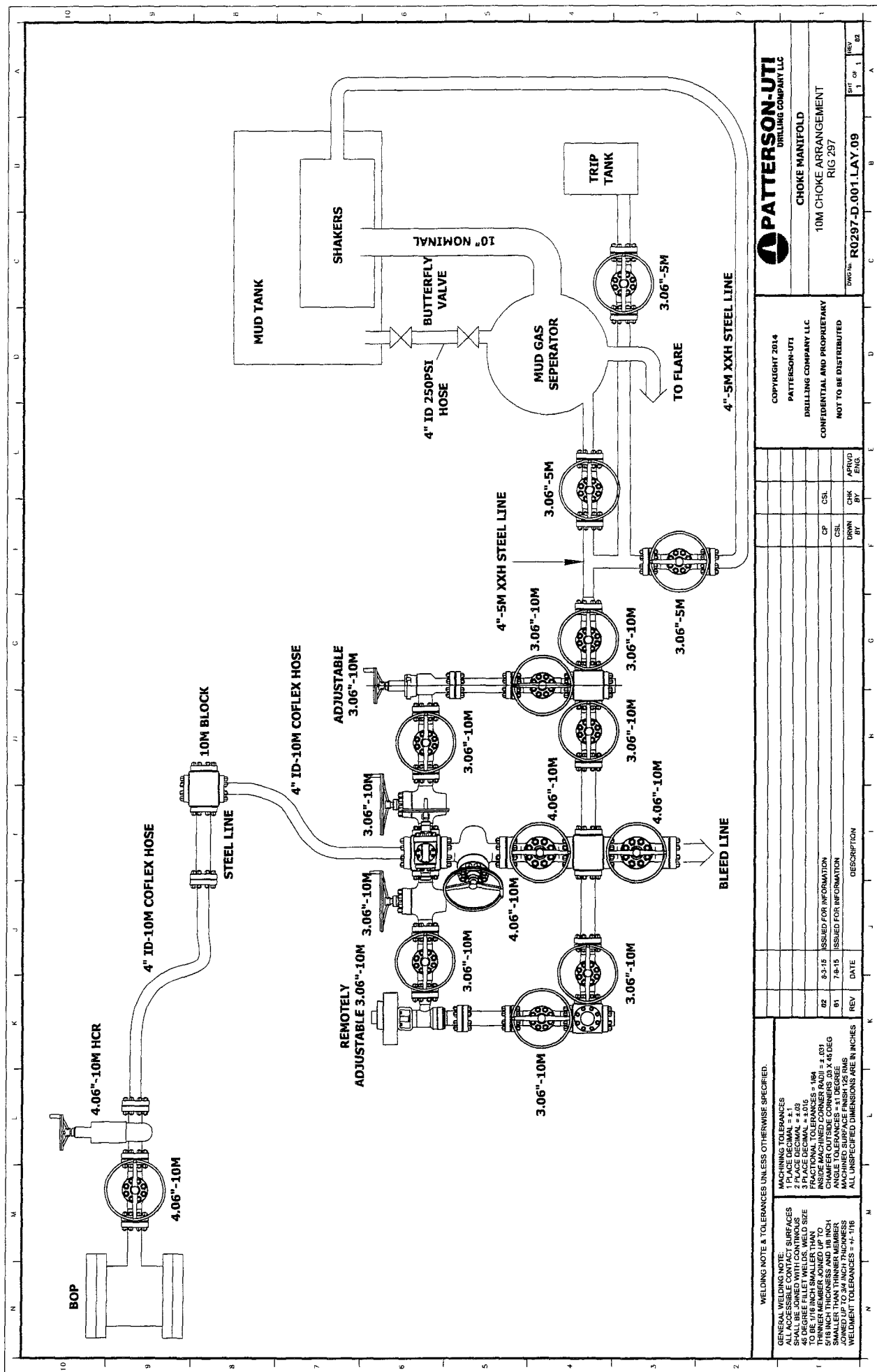
RESTRICTED CONFIDENTIAL DOCUMENT

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SUBMITTED ON A CONFIDENTIAL BASIS ONLY. THE RECIPIENT AGREES
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THAT NO DISCLOSURE OF THE DRAWING OR THE INFORMATION HEREON
HEREIN WILL BE MADE TO A THIRD PARTY WITHOUT PRIOR WRITTEN
CONSENT OF BUSHNELL INTERNATIONAL, INC.

WEIR

15,000 PSI WELLHEAD & TREE ASSEMBLY
13-3/8 X 9-5/8 X 7 X 4-1/2 X 2-3/8

BY: RPL	SCALE: 1:10	DATE: 18JAN16	REV:
CHECKED BY:	DRAWING NO. P-20986		
APPROVED BY:			



PATTERSON-UTI
DRILLING COMPANY LLC

CHOKE MANIFOLD
10M CHOKE ARRANGEMENT
RIG 297

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PATTERSON-UTI
DRILLING COMPANY LLC
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REV	DATE	DESCRIPTION	CHK	APP
02	8-3-15	ISSUED FOR INFORMATION	CSL	CSL
01	7-8-15	ISSUED FOR INFORMATION	CSL	CSL

WELDING NOTE: A TOLERANCES UNLESS OTHERWISE SPECIFIED.

GENERAL WELDING NOTE:
ALL ACCESSIBLE CONTACT SURFACES
TO BE 1/16 INCH SMALLER THAN
FURNER MEMBER JOINED UP TO 1/4
SMALLER THAN THINNER MEMBER
JOINED UP TO 3/4 INCH THICKNESS
WELDMENT TOLERANCES = +/- .118

MACHINING TOLERANCES
1 PLACE DECIMAL = +/- .1
2 PLACE DECIMAL = +/- .05
3 PLACE DECIMAL = +/- .01
FRACTIONAL TOLERANCES = 1/64
INSIDE MACHINED CORNER RADIUS = .031
ANGLE TOLERANCES = +/- 10 DEG
MACHINED SURFACE FINISH 125 RMS
ALL UNSPECIFIED DIMENSIONS ARE IN INCHES

DWG No. R0297-D-001 LAY 09

REV 1 OF 1



Midwest Hose
& Specialty, Inc.

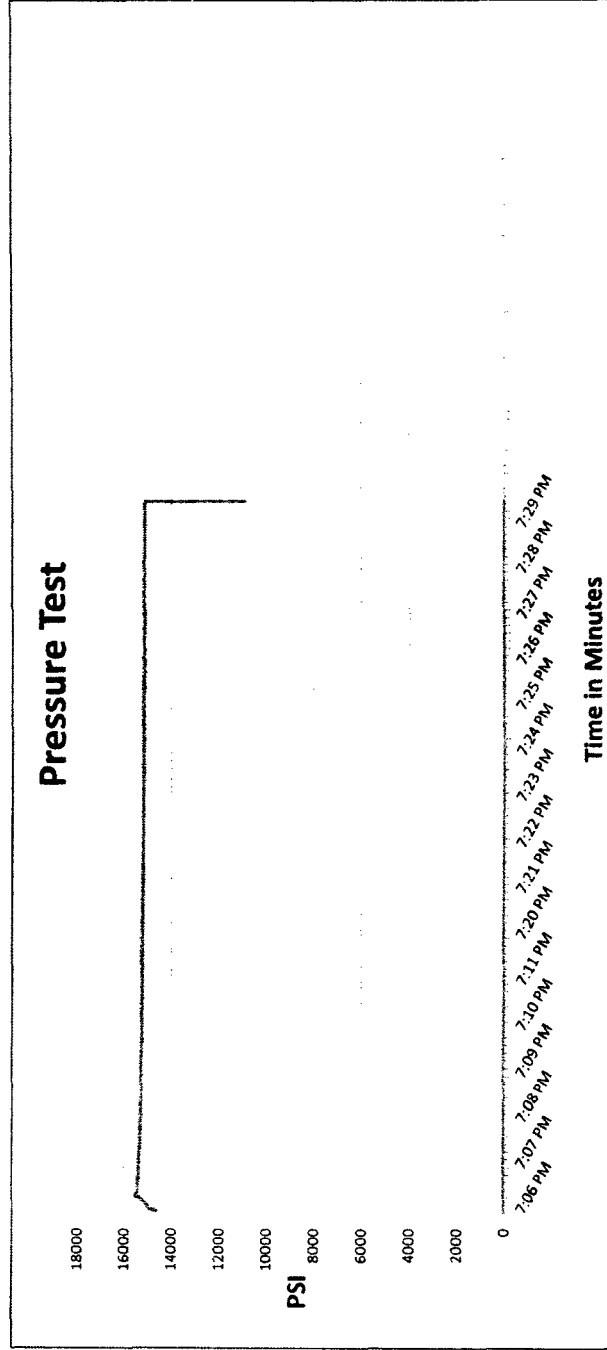
Internal Hydrostatic Test Graph

December 8, 2014

Customer: Patterson

Pick Ticket #: 284918

Hose Specifications		Verification	
Hose Type	Length	Type of Fitting	Coupling Method
Ck	10'	4-1/16 10K	Swage
I.D.	O.D.	Die Size	Final O.D.
3"	4.79"	5.37"	5.37"
Working Pressure	Burst Pressure	Hose Serial #	Hose Assembly Serial #
10000 PSI	Standard Safety Multiplier Applies	10490	284918-2



Test Pressure	15000 PSI	Time Held at Test Pressure	15 2/4 Minutes	Actual Burst Pressure	Peak Pressure
					15732 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Tyler Hill

Approved By: Ryan Adams

[Signature: Tyler Hill]

[Signature: Ryan Adams]



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-2	Hose O.D. (Inches)	5.30"
Hose Assembly Length	10'	Armor (yes/no)	YES
Fitings			
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	91996	Stem (Heat #)	91996
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)		Connection (Heat #)	
Dies Used	5.37	Dies Used	5.37
Hydrostatic Test Requirements			
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	15 1/2		
Date Tested	Tested By		Approved By
12/8/2014			



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: **PATTERSON B&E**

Customer P.O.# **260471**

Sales Order # **236404**

Date Assembled: **12/8/2014**

Specifications

Hose Assembly Type: **Choke & Kill**

Assembly Serial # **287918-2**

Hose Lot # and Date Code **10490-01/13**

Hose Working Pressure (psi) **10000**

Test Pressure (psi) **15000**

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:

Midwest Hose & Specialty, Inc.

3312 S I-35 Service Rd

Oklahoma City, OK 73129

Comments:

Approved By

Date

12/9/2014



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

December 9, 2014

Customer: Patterson

Pick Ticket #: 284918

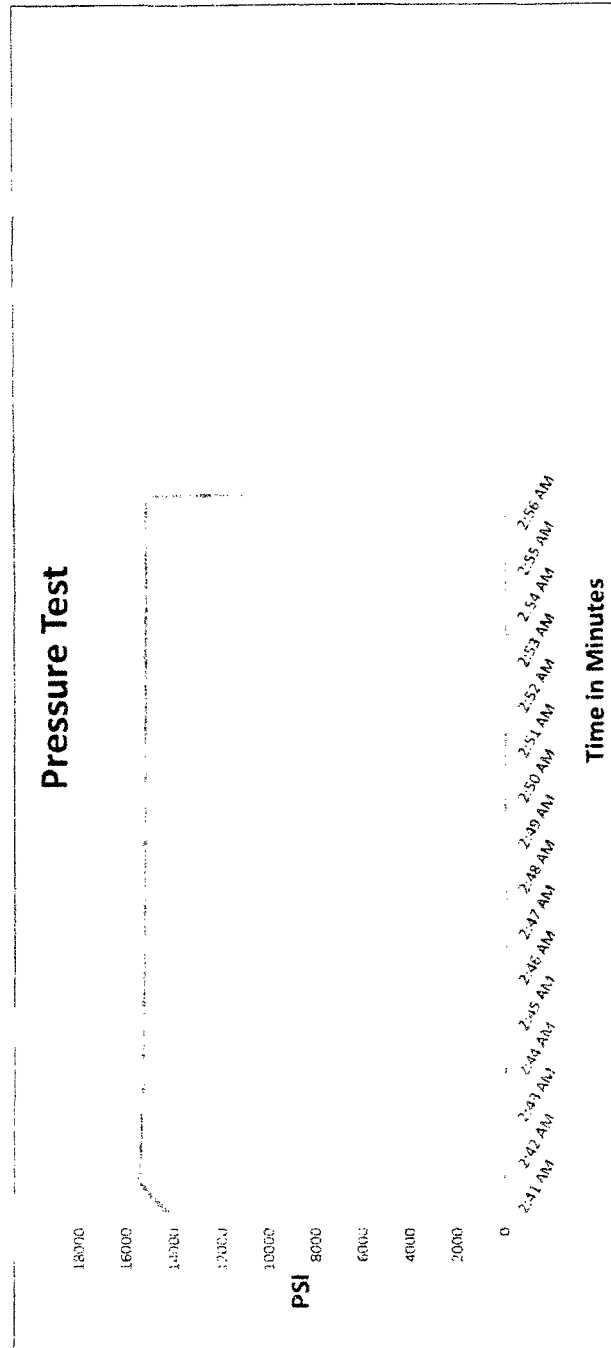
Hose Specifications

Hose Type
Ck
I.D.
3"
Working Pressure
10000 PSI

Length
20'
O.D.
4.77"

Verification

Type of Fitting
4-1/16 10K
Die Size
5.37"
Coupling Method
Swage
Final O.D.
5.40"
Hose Serial #
10490
Hose Assembly Serial #
284918-1



Test Pressure
15000 PSI

Time Held at Test Pressure
15 2/4 Minutes

Actual Burst Pressure

Peak Pressure
15893 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Tyler Hill

Approved By: Ryan Adams



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-1	Hose O.D. (Inches)	5.30"
Hose Assembly Length	20'	Armor (yes/no)	YES
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	A141420	Stem (Heat #)	A141420
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)	V3579	Connection (Heat #)	V3579
Dies Used	5.37	Dies Used	5.37
Hydrostatic Test Requirements			
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	15 1/2		
Date Tested	Tested By		Approved By
12/9/2014			



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: **PATTERSON B&E**

Customer P.O.# **260471**

Sales Order # **236404**

Date Assembled: **12/8/2014**

Specifications

Hose Assembly Type: **Choke & Kill**

Assembly Serial # **287918-1**

Hose Lot # and Date Code **10490-01/13**

Hose Working Pressure (psi) **10000**

Test Pressure (psi) **15000**

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:

Midwest Hose & Specialty, Inc.

3312 S I-35 Service Rd

Oklahoma City, OK 73129

Comments:

Approved By

Date

12/9/2014

Internal Hydrostatic Test Graph



Midwest Hose
& Specialty, Inc.

Customer: Patterson

Pick Ticket #: 284918

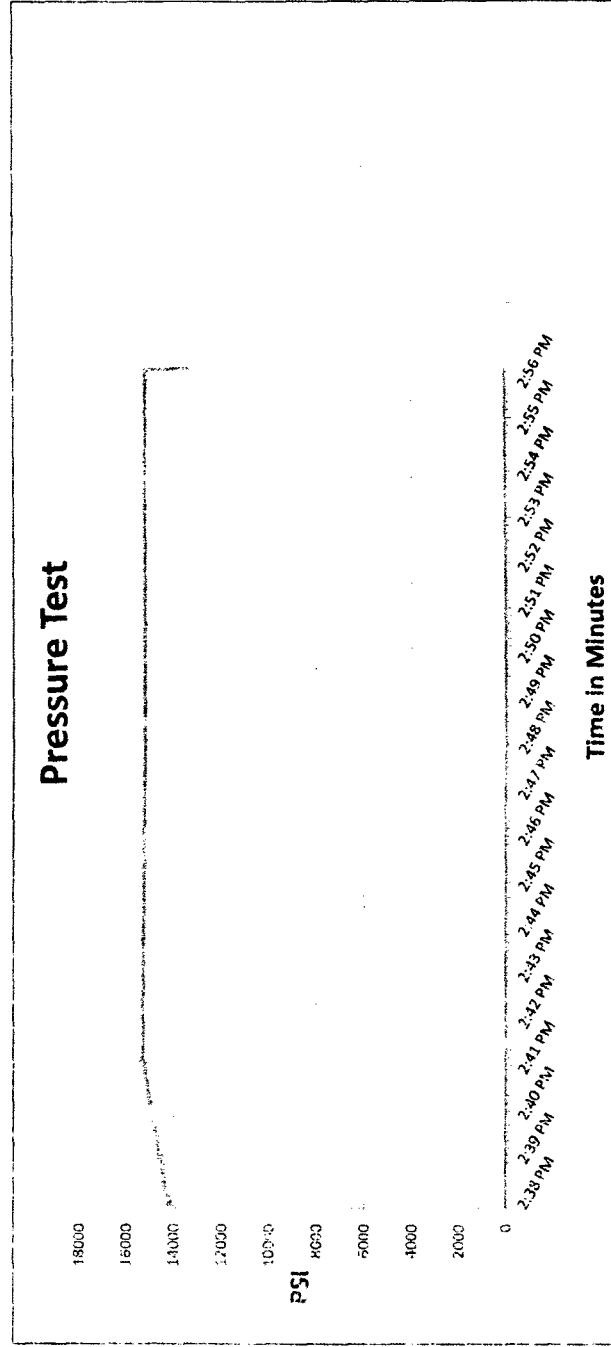
Hose Specifications

Hose Type
Mud
I.D.
3"
Working Pressure
10000 PSI

Length
70'
O.D.
4.79"

Verification

Type of Fitting
4 1/16 10K
Die Size
5.37"
Hose Serial #
10490
Coupling Method
Swage
Final O.D.
5.37"
Hose Assembly Serial #
284918-3



Test Pressure
15000 PSI
Time Held at Test Pressure
16 3/4 Minutes
Actual Burst Pressure
15410 PSI
Peak Pressure
15410 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Tyler Hill

Approved By: Ryan Adams

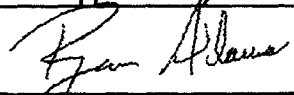
[Signature]

[Signature]



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-3	Hose O.D. (Inches)	5.23"
Hose Assembly Length	70'	Armor (yes/no)	YES
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	A141420	Stem (Heat #)	A141420
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)		Connection (Heat #)	
Dies Used	5.37	Dies Used	5.37
Hydrostatic Test Requirements			
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	16 3/4		
Date Tested	Tested By	Approved By	
12/9/2014			



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: **PATTERSON B&E**

Customer P.O.# **260471**

Sales Order # **236404**

Date Assembled: **12/8/2014**

Specifications

Hose Assembly Type: **Choke & Kill**

Assembly Serial # **287918-3**

Hose Lot # and Date Code **10490-01/13**

Hose Working Pressure (psi) **10000**

Test Pressure (psi) **15000**

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:

Midwest Hose & Specialty, Inc.

3312 S I-35 Service Rd

Oklahoma City, OK 73129

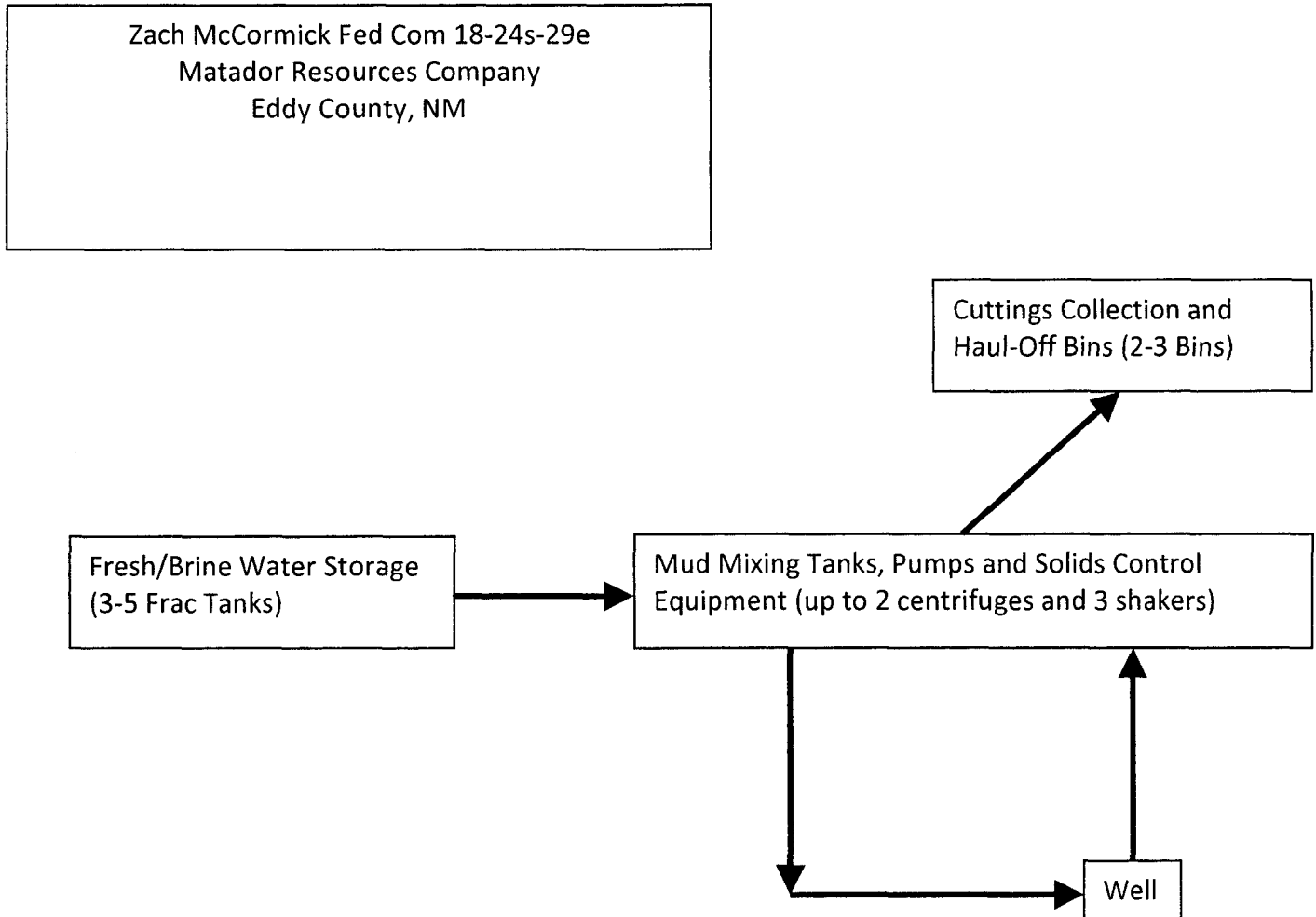
Comments:

Approved By

Date

12/9/2014

Closed-Loop System

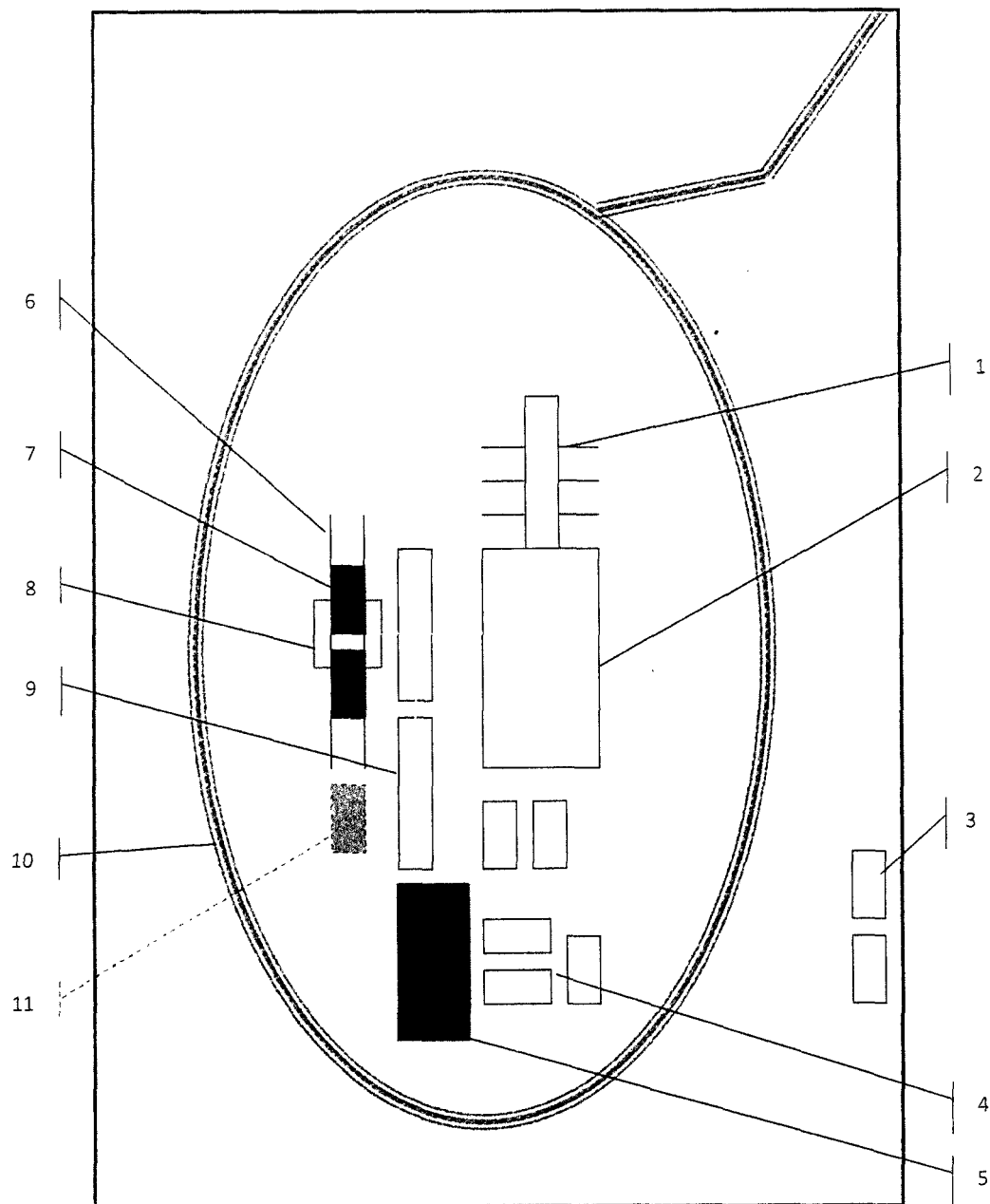


Operating and Maintenance Plan:

During drilling operations, third party service companies will utilize solids control equipment to remove cuttings from the drilling fluids and collect it in haul-off bins. Equipment will be closely monitored at all times while drilling by the derrick man and the service company employees.

Closure Plan:

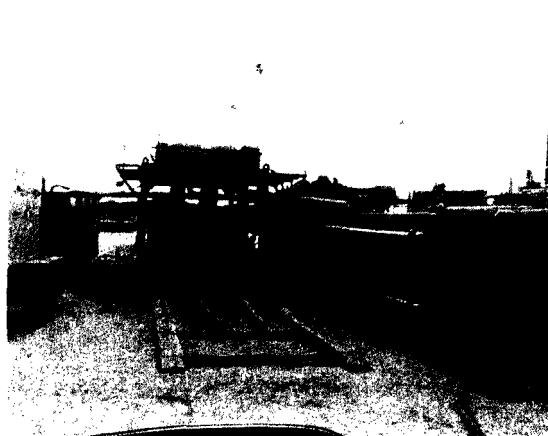
During drilling operations, third party service companies will haul off drill solids and fluids to an approved disposal facility. At the end of the well, all closed loop equipment will be removed from the location.



Schematic Closed Loop Drilling Rig*

1. Pipe Rack
2. Drill Rig
3. House Trailers/ Offices
4. Generator/Fuel/Storage
5. Overflow-Frac Tank
6. Skids
7. Roll Offs
8. Hopper or Centrifuge
9. Mud Tanks
10. Loop Drive
11. Generator (only for use with centrifuge)

*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available

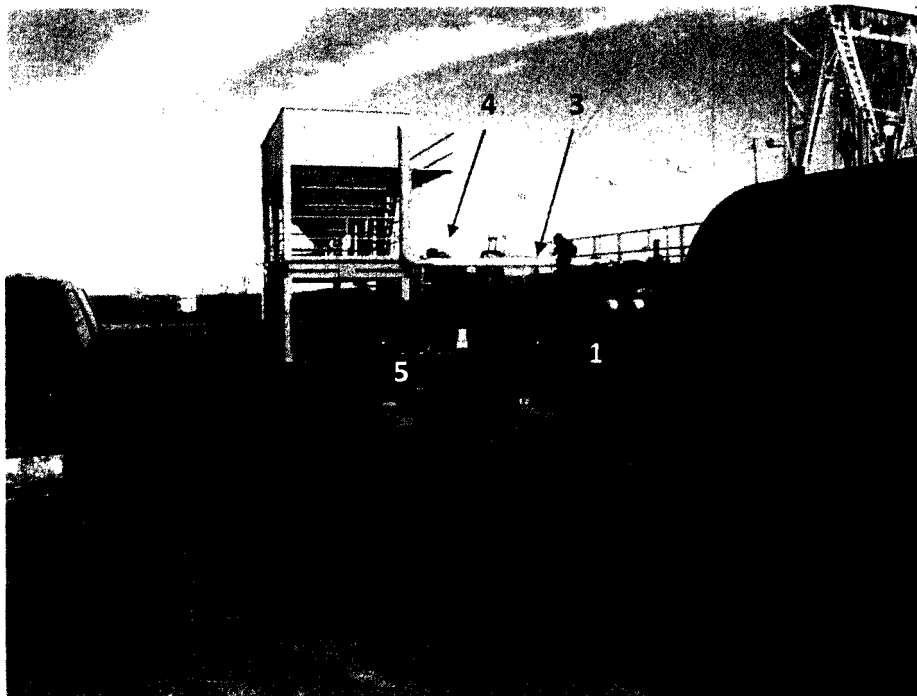


Above: Centrifugal Closed Loop System

PERMITS WEST, INC.

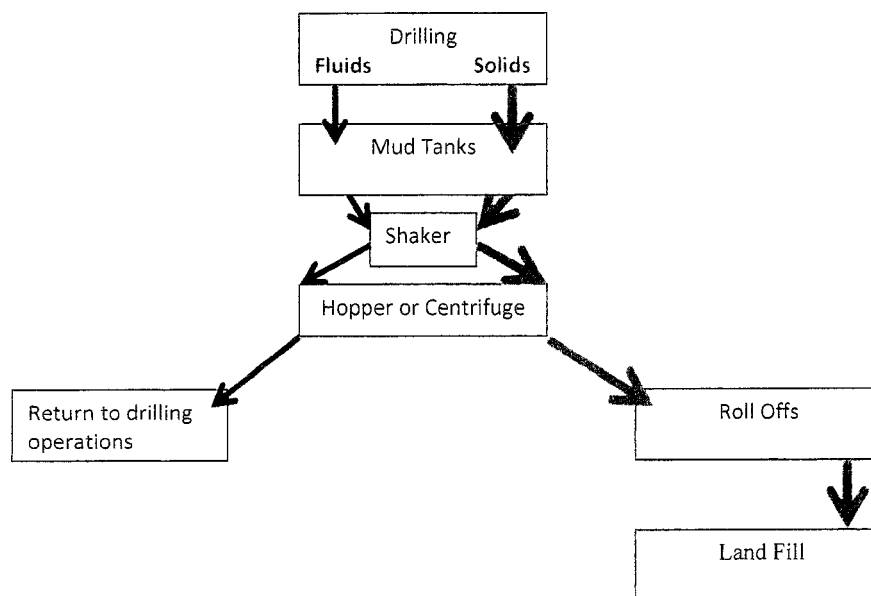
PROVIDING PERMITS for LAND USERS

17Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120



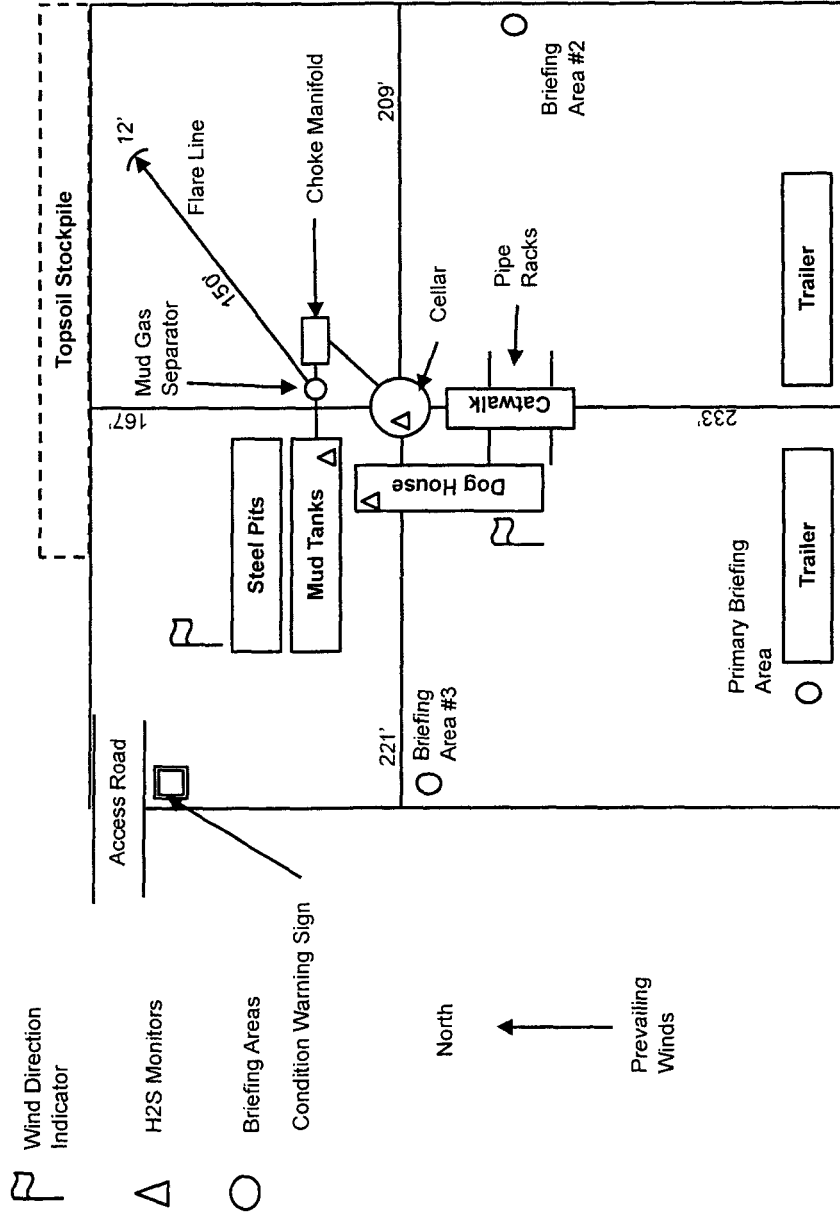
Closed Loop Drilling System: Mud tanks to right (1)
Hopper in air to settle out solids (2)
Water return pipe (3)
Shaker between hopper and mud tanks (4)
Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Rig Diagram

Zach McCormick Fed Com 225H
18-24S-29E, Eddy County, NM
SHL 742' FNL & 290' FWL
BHL 991' FNL & 240' FEL





Hydrogen Sulfide Drilling Operations Plan

Matador Production Company

1 H2S safety instructions covering:

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

2 H2S Detection and Alarm Systems:

- H2S sensor/detectors to be located on the drilling rig floor, in the base of the sub structure / cellar area, and on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary.
- An audio alarm system will be installed on the derrick floor and in the doghouse.

3 Windssocks and / Wind Streamers:

- Windssocks at mud pit area should be high enough to be visible.
- Windssocks on the rig floor and top of doghouse should be high enough to be visible.

4 Condition Flags and Signs:

- Warning sign on access road to location
- Flags to be displayed on sign at entrance to location
 - Green Flag – Normal Safe Operation Condition
 - Yellow Flag – Potential Pressure and Danger
 - Red Flag – Danger (H2S present in dangerous concentrations) Only H2S trained personnel admitted on location

5 Well Control Equipment:

- See APD

6 Communications:

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



7 Drill Stem Testing:

- No DST or cores are planned at this time.

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

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

11 Emergency Contacts

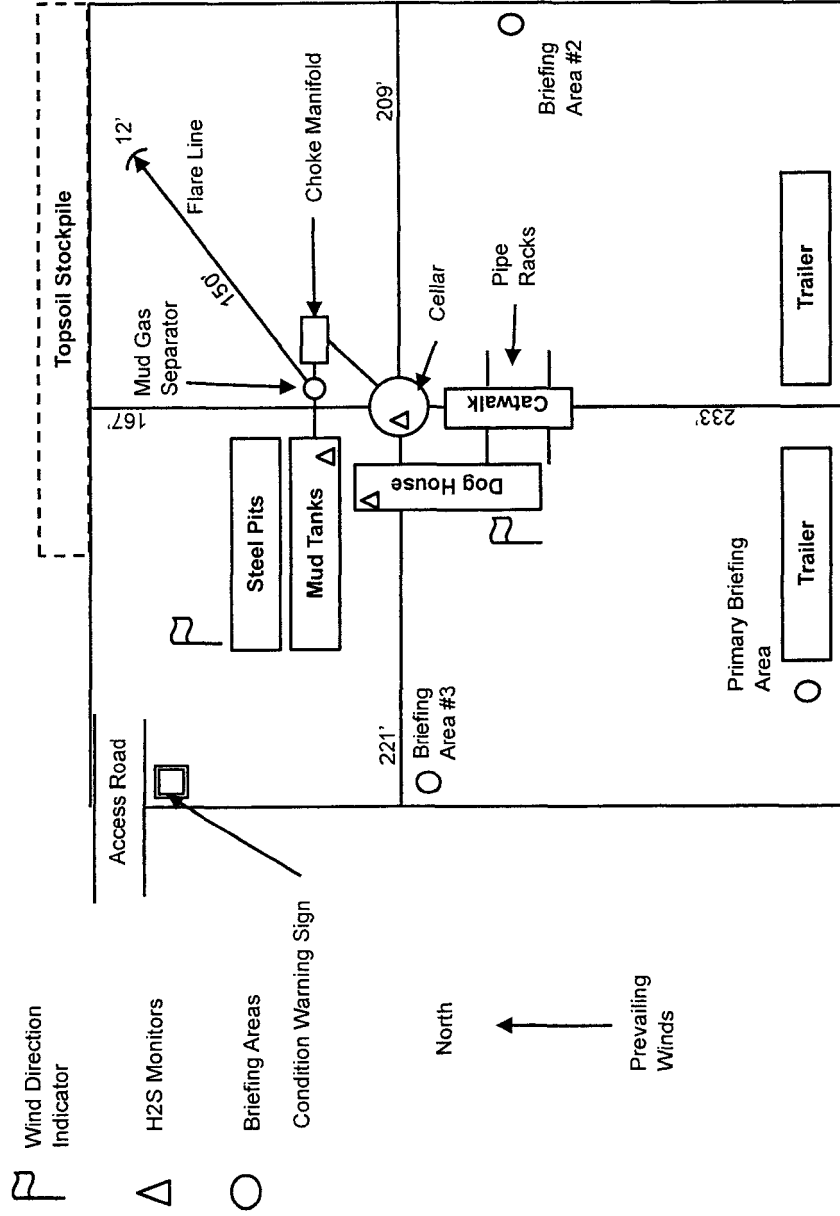
- See next page

H2S Contingency Plan Emergency Contacts
Matador Production Company
Zach McCormick Fed Com 18-24s-29e wells, Eddy County, NM

Company Office			
Matador Production Company		(972)-371-5200	
Key Personnel			
Name	Title	Office	Mobile
Billy Goodwin	Vice President Drilling	972-371-5210	817-522-2928
Gary Martin	Drilling Superintendent		601-669-1774
Dee Smith	Drilling Superintendent	972-371-5447	972-822-1010
Aaron Byrd	Drilling Engineer	972-371-5267	214-507-2333
	Construction Superintendent		
	Construction Superintendent		
Artesia			
Ambulance			911
State Police		575-746-2703	
City Police		575-746-2703	
Sheriff's Office		575-746-9888	
Fire Department		575-746-2701	
Local Emergency Planning Committee		575-746-2122	
New Mexico Oil Conservation Division		575-748-1283	
Carlsbad			
Ambulance			911
State Police		575-885-3137	
Loving City Police		575-745-3511	
Sheriff's Office		575-887-7551	
Malaga Fire Department		575-745-2317	
Local Emergency Planning Committee		575-885-3581	
Santa Fe			
New Mexico Emergency Response Commission (Santa Fe)		505-476-9600	
New Mexico Emergency Response Commission (Santa Fe) 24 hrs		505-827-9126	
New Mexico State Emergency Operations Center		505-476-9635	
National			
Carlsbad BLM		575-234-5972	
National Emergency Response Center (Washington, D.C.)		800-424-8802	
Medical			
Flight for Life- 4000 24th St.; Lubbock, TX		806-743-9911	
Aerocare- R3, Box 49F; Lubbock, TX		806-747-8923	
Med Flight Air Amb- 2301 Yale Blvd S.E., D3; Albuquerque, NM		505-842-4433	
SB Air Med Service- 2505 Clark Carr Loop S.E.; Albuquerque, NM		505-842-4949	
Other			
Boots & Coots IWC		800-256-9688	or 281-931-8884
Cudd Pressure Control		432-699-0139	or 432-563-3356
Halliburton		575-746-2757	
B.J. Services		575-746-3569	

H2S Rig Diagram

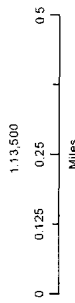
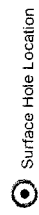
Zach McCormick Fed Com 225H
18-24S-29E, Eddy County, NM
SHL 742' FNL & 290' FWL
BHL 991' FNL & 240' FEL



Matador Production Company

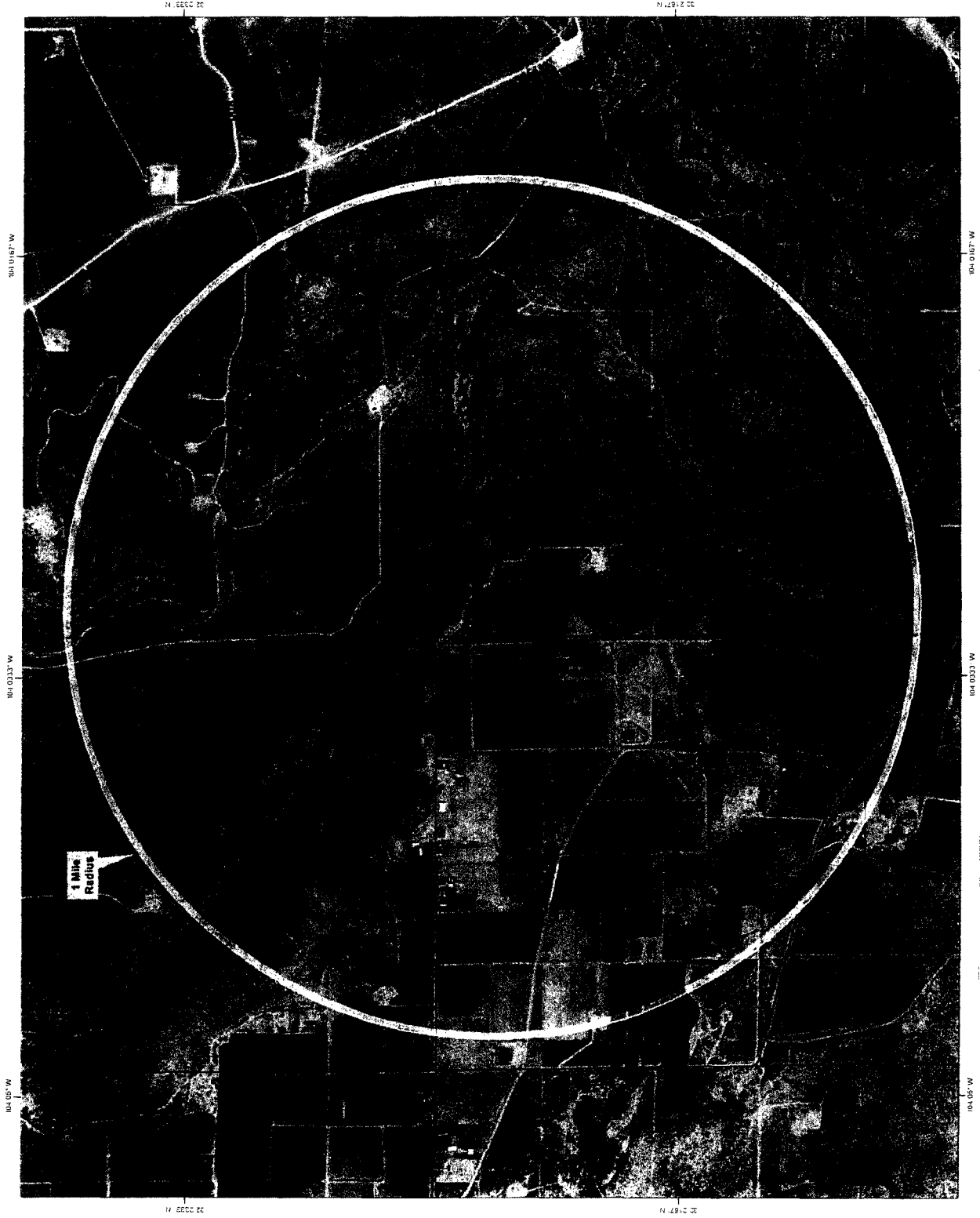
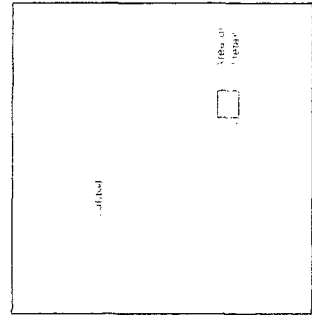
Zach McCormick Federal Com
18-24S-29E RB #225H
H&S Contingency Plan:
1 Mile Radius Map

Section 18, Township 24S, Range 29E
Eddy County, New Mexico



NAD 1927 New Mexico State Plane East
FIPS 3001 Feet

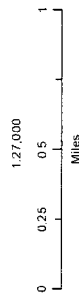
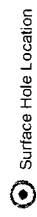
Prepared by Permits West, Inc. June 22, 2016
for Matador Production Company



Matador Production Company

Zach McCormick Federal Com
18-24S-29E RB #225H
H2S Contingency Plan:
2 Mile Radius Map

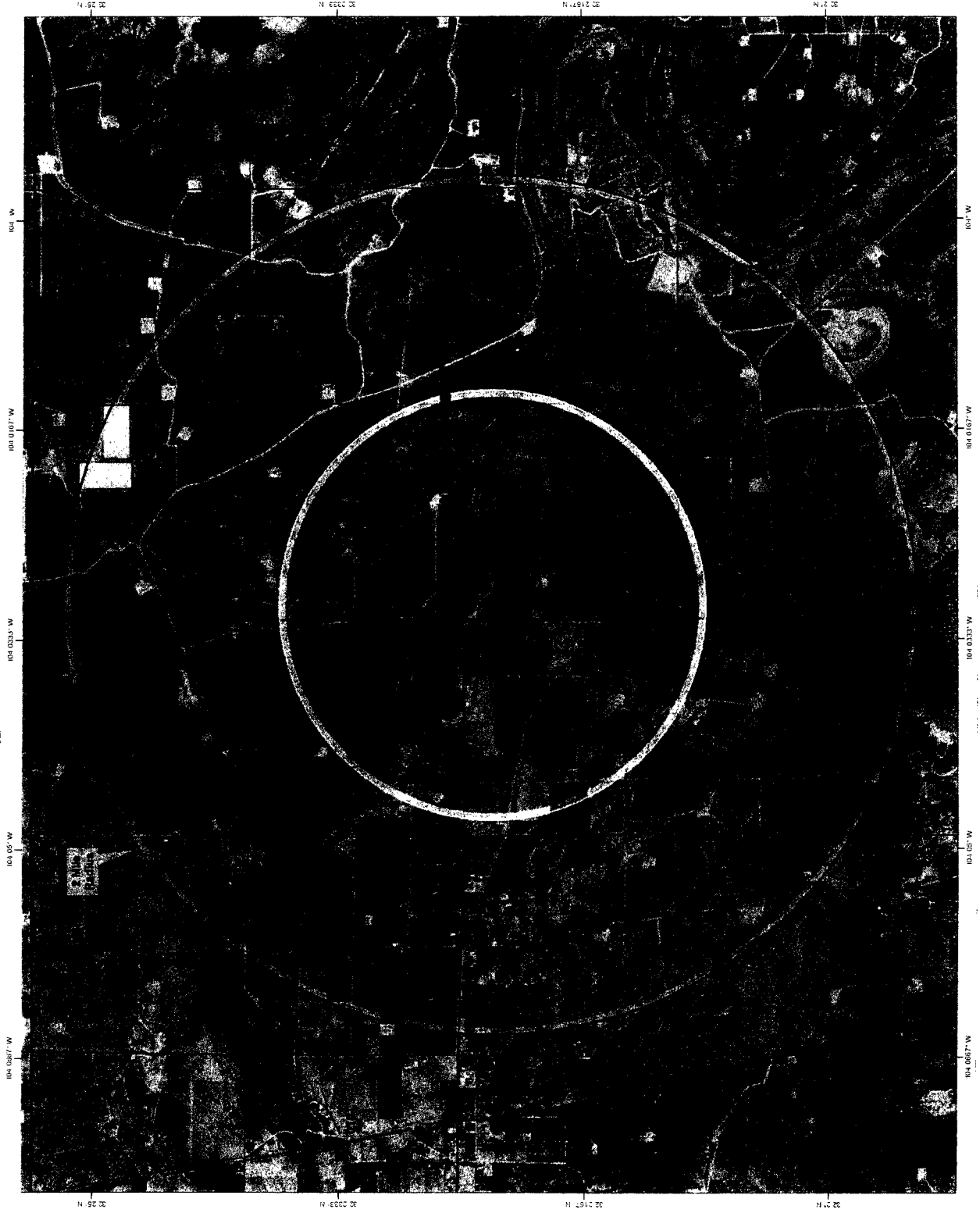
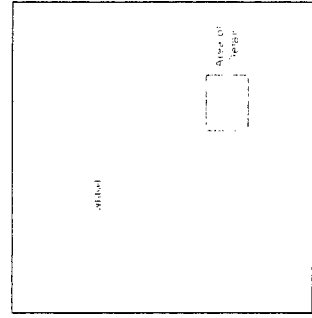
Section 18, Township 24S, Range 29E
Eddy County, New Mexico



NAO 1927 New Mexico State Plane East
FIPS 3001 Feet

PERMIT WEST

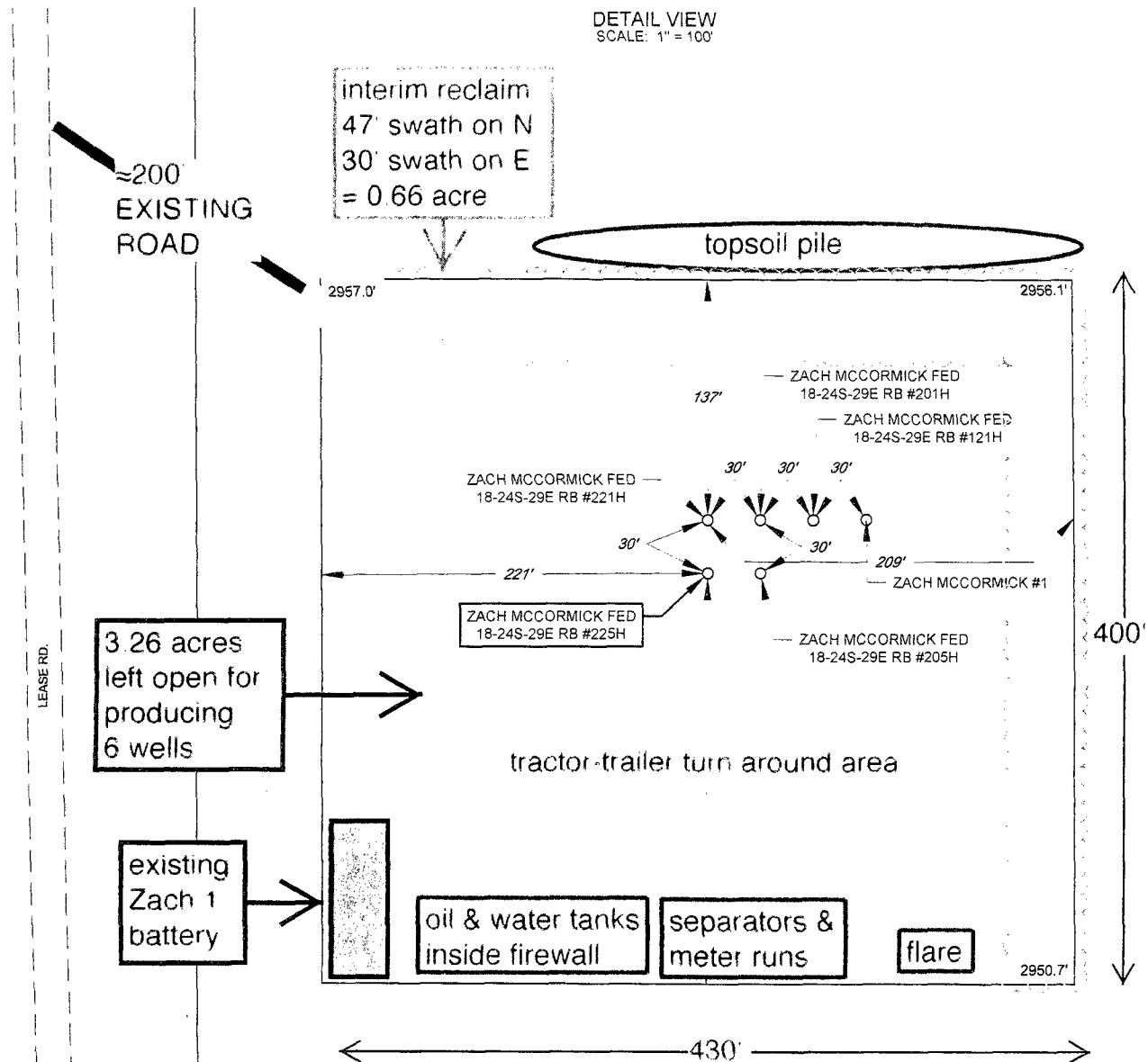
Prepared by Permits West, Inc. June 22, 2016
for Matador Production Company





SECTION 18, TOWNSHIP 24-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'

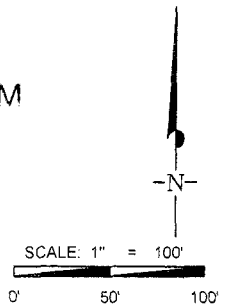


PRODUCTION FACILITY & INTERIM RECLAMATION DIAGRAM

LEGEND

- EXISTING ROAD
- SECTION LINE
- EXISTING PIPELINE

LEASE NAME & WELL NO.: ZACH MCCORMICK FEDERAL 18-24S-29E RB #225H
#225H LATITUDE N 32.2228555 #225H LONGITUDE W 104.0308316



ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET

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



WWW.TOPOGRAPHIC.COM

Matador Production Company
Zach McCormick Fed Com 225H
SHL 742' FNL & 290' FWL Sec. 18
BHL 991' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

SURFACE PLAN PAGE 1

Surface Use Plan

1. ROAD DIRECTIONS & DESCRIPTIONS (See MAPS 1 - 4)

From Malaga, NM...

Go East 2.3 miles on paved County Roads 744 and 720

Then turn right onto a caliche road and go South 500'

Then turn left and go Southeast 200' on a caliche road to an existing pad

Non-county roads will be maintained as needed to Gold Book standards. This includes pulling ditches, preserving the crown, and cleaning culverts. This will be done at least once a year, and more often as needed. Caliche will be hauled from existing caliche pits on private land in NWSE 1-24s-28e and NWSW 6-24s-29e.

2. ROAD TO BE BUILT OR UPGRADED

No new road or upgrade is needed. All access is via existing roads.

3. EXISTING WELLS (See MAP 2)

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

4. PROPOSED PRODUCTION FACILITIES (See preceding page)

Oil tanks, water tanks, meter runs, separators, and a flare will be installed on the south side of the pad (see preceding diagram). A berm will surround the fill sides of the facility.

Matador Production Company
Zach McCormick Fed Com 225H
SHL 742' FNL & 290' FWL Sec. 18
BHL 991' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

SURFACE PLAN PAGE 2

Longwood Midstream's Black River Gathering System will serve the facility with $\approx 6"$ O. D. steel gas line and $\approx 6"$ O. D. HDPE buried saltwater disposal line laid in the same trench which is under construction to the existing Zach McCormick Federal Com 18-24s-29e #1. Xcel will build a 3-phase raptor safe overhead power line 1/10 mile south to the well pad.

5. WATER SUPPLY (See MAP 2)

Water will be trucked 0.6 mile via existing roads from existing water well C 00464 on private land in NENW 13-24s-28e.

6. CONSTRUCTION MATERIALS & METHODS (see MAPS 4 & 5)

NM One Call (811) will be notified before construction starts. Top $\approx 6"$ of soil and brush is stockpiled north of the pad. Pipe racks will be to the south. A closed loop drilling system will be used. Caliche will be hauled from existing caliche pits on private land in NWSE 1-24s-28e and NWSW 6-24s-29e. A berm will surround the fill sides of the pad.

7. WASTE DISPOSAL

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

Matador Production Company
Zach McCormick Fed Com 225H
SHL 742' FNL & 290' FWL Sec. 18
BHL 991' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

SURFACE PLAN PAGE 3

8. ANCILLARY FACILITIES

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

9. WELL SITE LAYOUT

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

10. RECLAMATION

Interim reclamation will be completed within 6 months of completing the last well on the pad. (A variance is requested for the intervening wells.) Interim reclamation will consist of shrinking the pad $\approx 17\%$ by removing caliche and reclaiming the north (47') and east (30') sides. This will leave 3.26 acres for six pump jacks and tractor-trailer turn around. Disturbed areas will be contoured to match pre-construction grades. Soil and brush will be evenly spread over disturbed areas. Disturbed areas will be seeded in accordance with the surface owner's requirements. Enough stockpiled topsoil will be retained to cover the remainder of the pad when the wells are plugged. Once the last well is plugged, then the remainder of the pad will be similarly reclaimed within 6 months of plugging. Noxious weeds will be controlled.

11. SURFACE OWNER

All construction occurred on private surface.

Matador Resources Company has a private surface owner agreement with Evelyn Kay Walker Faulk (P. O. Box 115, Malaga NM 88263) for the existing road in NENE Section 13, T. 24 S., R. 28 E. and with Roy Burkham (P. O. Box 84, Malaga

Matador Production Company
Zach McCormick Fed Com 225H
SHL 742' FNL & 290' FWL Sec. 18
BHL 991' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

SURFACE PLAN PAGE 4

NM 88263) for the existing road and existing pad in Lot 1 Section 18, T. 24 S., R. 29 E., Eddy County, NM.

12. OTHER INFORMATION

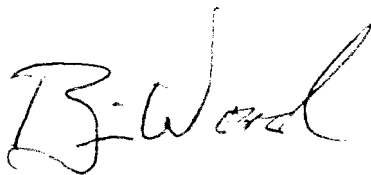
On site inspection was held with Vance Wolf and Bob Ballard (both of BLM) on June 2, 2016.

Matador Production Company
Zach McCormick Fed Com 225H
SHL 742' FNL & 290' FWL Sec. 18
BHL 991' FNL & 240' FEL Sec. 18
T. 24 S., R. 29 E., Eddy County, NM

SURFACE PLAN PAGE 5

CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this 9th day of August, 2016.



Brian Wood, Consultant

Permits West, Inc.

37 Verano Loop, Santa Fe, NM 87508

(505) 466-8120

FAX: (505) 466-9682

Cellular: (505) 699-2276

Field representative will be:

Sam Pryor, Senior Staff Landman

Matador Production Company

5400 LBJ Freeway, Suite 1500

Dallas TX 75240

Phone: (972) 371-5241

FAX: (214) 866-4841

**PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM117120
WELL NAME & NO.:	225H-Zach McCormick Fed Com
SURFACE HOLE FOOTAGE:	724'/N & 290'/W
BOTTOM HOLE FOOTAGE:	991'/N & 240'/E
LOCATION:	Section 18, T.24 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico

Communitization Agreement

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

A. DRILLING OPERATIONS REQUIREMENTS

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

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

☒ **Eddy County**

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

1. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. It is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements,**

which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, report measured amounts and formations to the BLM.

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

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

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

Wait on cement (WOC) for Water Basin:

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

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

Medium Cave/Karst

Possible water flows in the Artesia Group and Salado.

Possibility of lost circulation in the Artesia Group, Rustler, Capitan Reef, and Delaware.

Abnormal pressure might be encountered upon entering third Bone Spring and subsequent formations.

1. The 13-3/8 inch surface casing shall be set at approximately **650** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 9-5/8 inch 1st intermediate casing is:
☒ 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.**
3. The minimum required fill of cement behind the 7 inch 2nd intermediate casing is:
☒ Cement as proposed. Operator shall provide method of verification.
4. The minimum required fill of cement behind the 4-1/2 inch production casing is:
☒ Cement as proposed. Operator shall provide method of verification. **Excess calculates to 22%. Additional cement may be required.**
5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **13-3/8** inch surface casing shoe shall be **2000 (2M) annular**.

Option 1:

- i. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch second intermediate casing shoe shall be **3000 (3M)** psi.
- ii. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7** inch third intermediate casing shoe shall be **5000 (5M)** psi.

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

Option 2:

- i. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the second intermediate casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch second intermediate 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. Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.
- e. **After the 9 5/8" casing has been landed and cemented, the operator will then lift up the BOP to install the 'D-section' of the wellhead. Therefore, per Onshore Oil and Gas Order No. 2, the entire BOP/BOPE shall be tested prior to drilling out the second intermediate casing hole.**
- f. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

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

- 4. 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. 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).

- c. 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.
- d. The results of the test shall be reported to the appropriate BLM office.
- e. 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.**
- f. 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.
- g. 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.

D. 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.

Proposed mud weight may not be adequate for drilling through Wolfcamp.

E. DRILL STEM TEST

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

F. WASTE MATERIAL AND FLUIDS

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

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

TMAK 05262017

**PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM117120
WELL NAME & NO.:	225H-Zach McCormick Fed Com
SURFACE HOLE FOOTAGE:	724'/N & 290'/W
BOTTOM HOLE FOOTAGE	991'/N & 240'/E
LOCATION:	Section 18, T.24 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

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

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Avian Protection
 - Cave/Karst
- ☐ **Construction**
 - Notification
 - Topsoil
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 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

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

IV. NOXIOUS WEEDS

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

V. SPECIAL REQUIREMENT(S)

Avian Protection

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

COA Mid Karst

Cave and Karst

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

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

- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g. caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.

- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)

Tank Battery Liners and Berms:

Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:

A method of detecting leaks is required. The method could incorporate gauges to measure loss, siting valves and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:

Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:

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

Pressure Testing:

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

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

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

G. ON LEASE ACCESS ROADS**Road Width**

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

Surfacing

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

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

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

Crowning

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

Ditching

Ditching shall be required on both sides of the road.

Turnouts

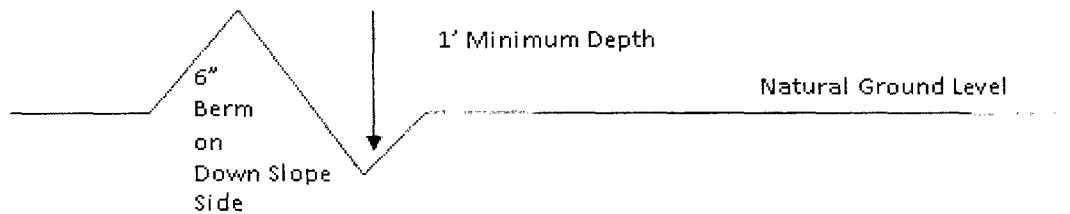
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

Cattle guards

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

Fence Requirement

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

Public Access

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

Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

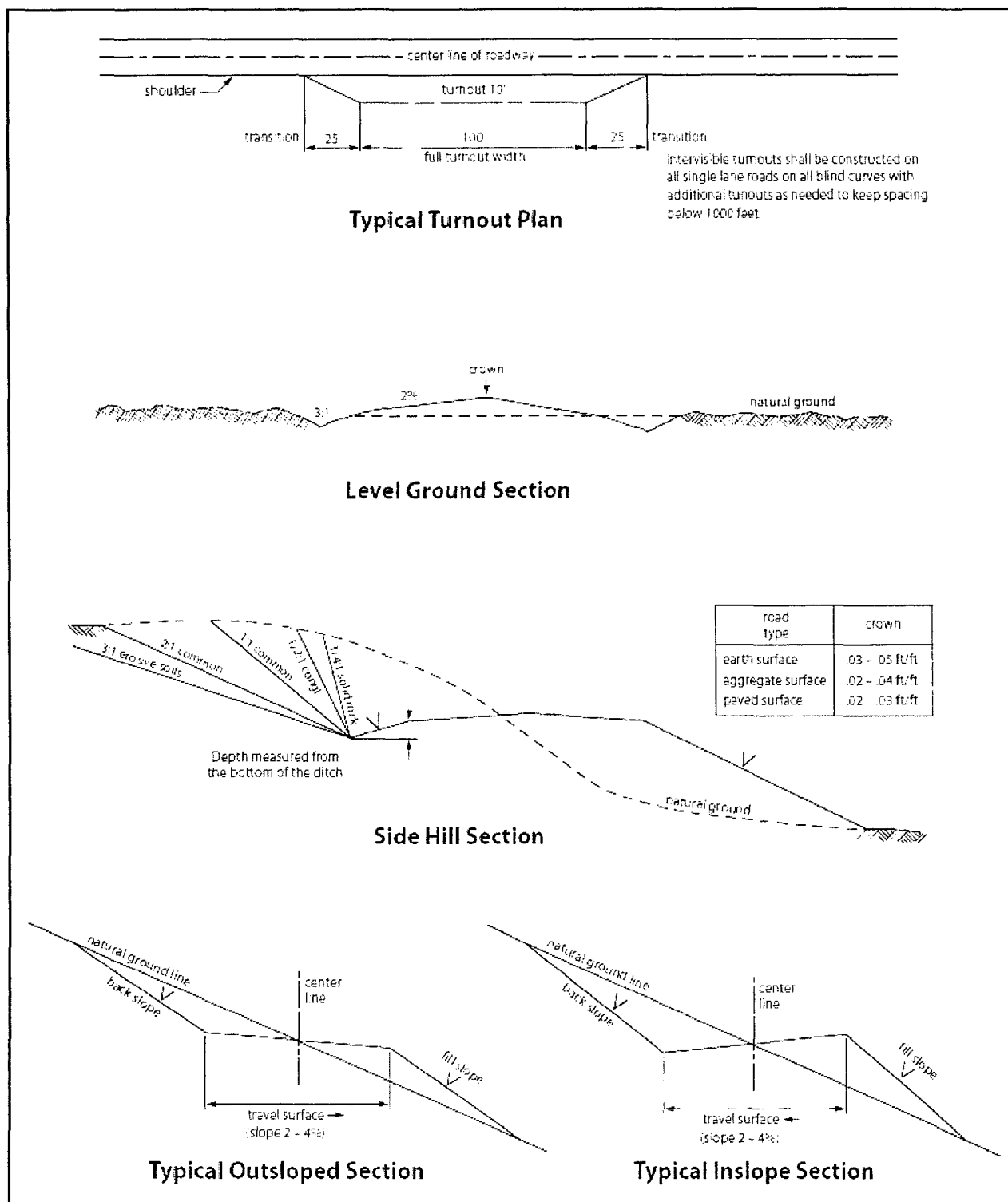


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

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

Exclosure Netting (Open-top Tanks)

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

Chemical and Fuel Secondary Containment and Exclosure Screening

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

Open-Vent Exhaust Stack Exclosures

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

Containment Structures

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

Painting Requirement

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

B. PIPELINES

BURIED PIPELINE STIPULATIONS

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

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

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of

the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

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

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

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

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

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

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

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

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

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

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

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

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

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.
5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching

deterrence shall be placed on all vertical poles that extend past the cross arms.

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

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

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

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

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

11. Special Stipulations:

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

VIII. INTERIM RECLAMATION

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

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce

the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

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

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

Seed Mixture 3, for Shallow Sites

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

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

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

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass (<i>Setaria macrostachya</i>)	1.0
Green Sprangletop (<i>Leptochloa dubia</i>)	2.0
Sideoats Grama (<i>Bouteloua curtipendula</i>)	5.0

*Pounds of pure live seed:

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