

NM OIL CONSERVATION

ARTESIA DISTRICT
OCD Artesia

JUN 07 2017

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

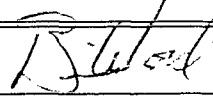
APPLICATION FOR PERMIT TO DRILL OR REENTER

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 122H
3b. Phone No. (include area code) 972 371 5241		9. API Well No. 30-015- 44255
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 2384' FNL & 311' FEL 13-24S-28E At proposed prod. zone 1981' FNL & 240' FEL 18-24S-29E		10. Field and Pool, or Exploratory 50371 PIERCE CROSSING; BONE SPRING
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: SENE 13-24S-28E NMPM BHL: SENE 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: 311' BHL: 240'	16. No. of acres in lease BLM lease = 520 acres comm. area = 159.68 acres	17. Spacing Unit dedicated to this well Lot 2, SENW, & S2NE4 18-24S-29E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. SHL: 586' (Hannah 1) BHL: 4145' (Fort Com 1)	19. Proposed Depth TVD: 8340' MD: 13223'	20. BLM/BIA Bond No. on file BLM NMB-001079
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2956' UNGRADED	22. Approximate date work will start* 12/01/2016	23. Estimated duration 3 MONTHS

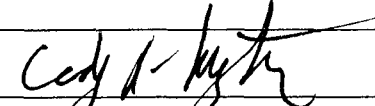
24. Attachments

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 08/11/2016
---	--	--------------------

Title CONSULTANT (FAX: 505 466-9682)

Approved by (Signature) 	Name (Printed/Typed) Cody A. Layman	Date 08/11/2016
---	--	--------------------

Title for 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**

RWP 6.7.17

Matador Production Company

SURFACE PLAN PAGE 5

Zach McCormick Fed Com 122H

SHL 2384' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1981' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

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 11th 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

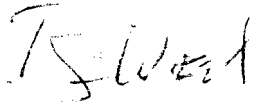
Phone: (972) 371-5241

FAX: (214) 866-4841

August 11, 2016

To Who it May Concern:

Matador Resources Company has a private surface owner agreement with Evelyn Kay Walker Faulk (P. O. Box 115, Malaga NM 88263) for the Zach McCormick Fed Com 122H well site, pipelines, tank battery, and road in E2NE4 Section 13, T. 24 S., R. 28 E.; Eddy County, NM.

A handwritten signature in black ink, appearing to read "B. Wood".

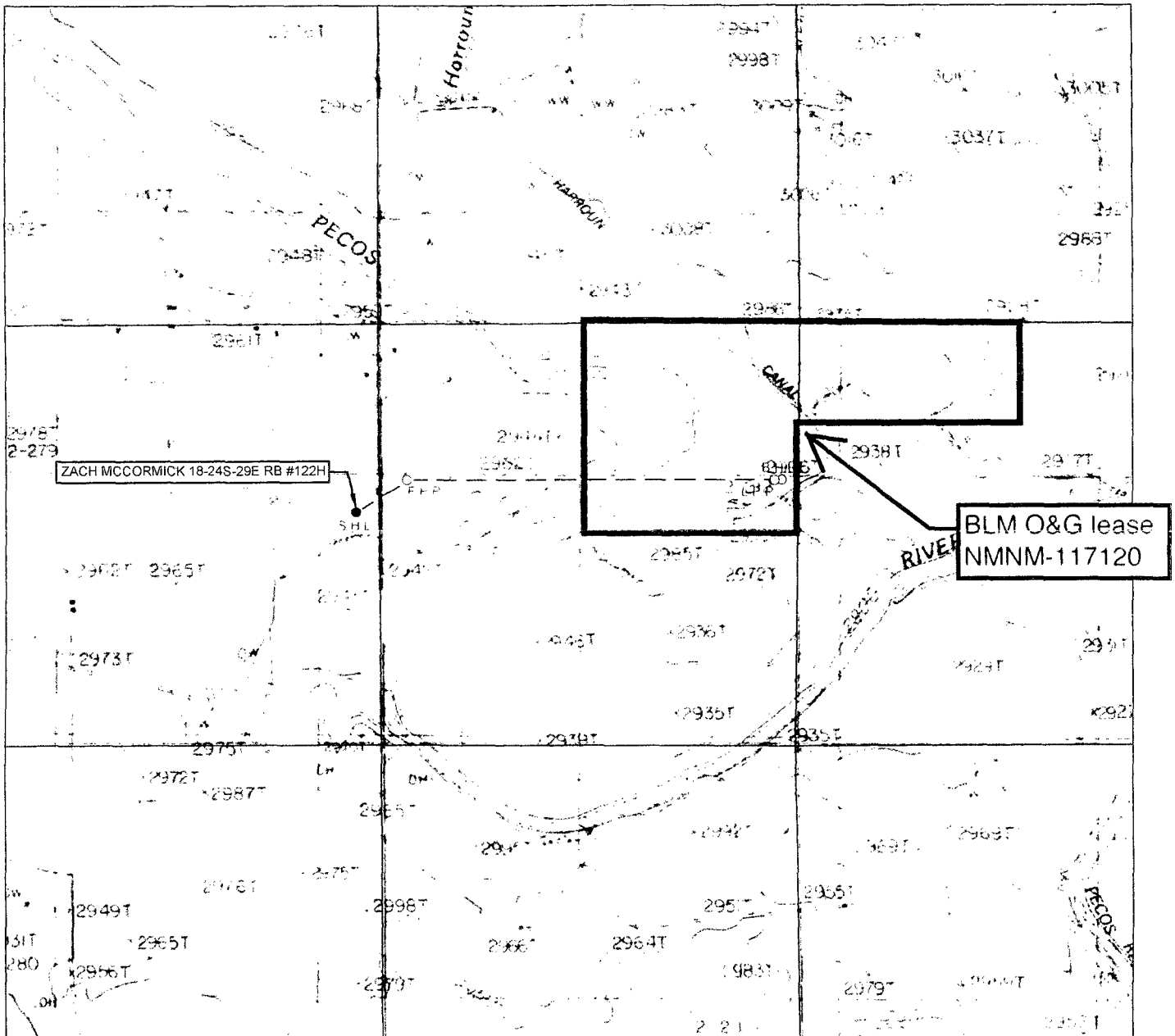
Brian Wood

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 #122H

SECTION 13 TWP 24-S RGE 28-E SURVEY N.M.P.M.
 COUNTY EDDY STATE NM ELEVATION 2956'
 DESCRIPTION 2384' FNL & 311' FEL

LATITUDE N 32.2183419 LONGITUDE W 104.0327655



SCALE 1" = 2000'
 0' 1000' 2000'

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.

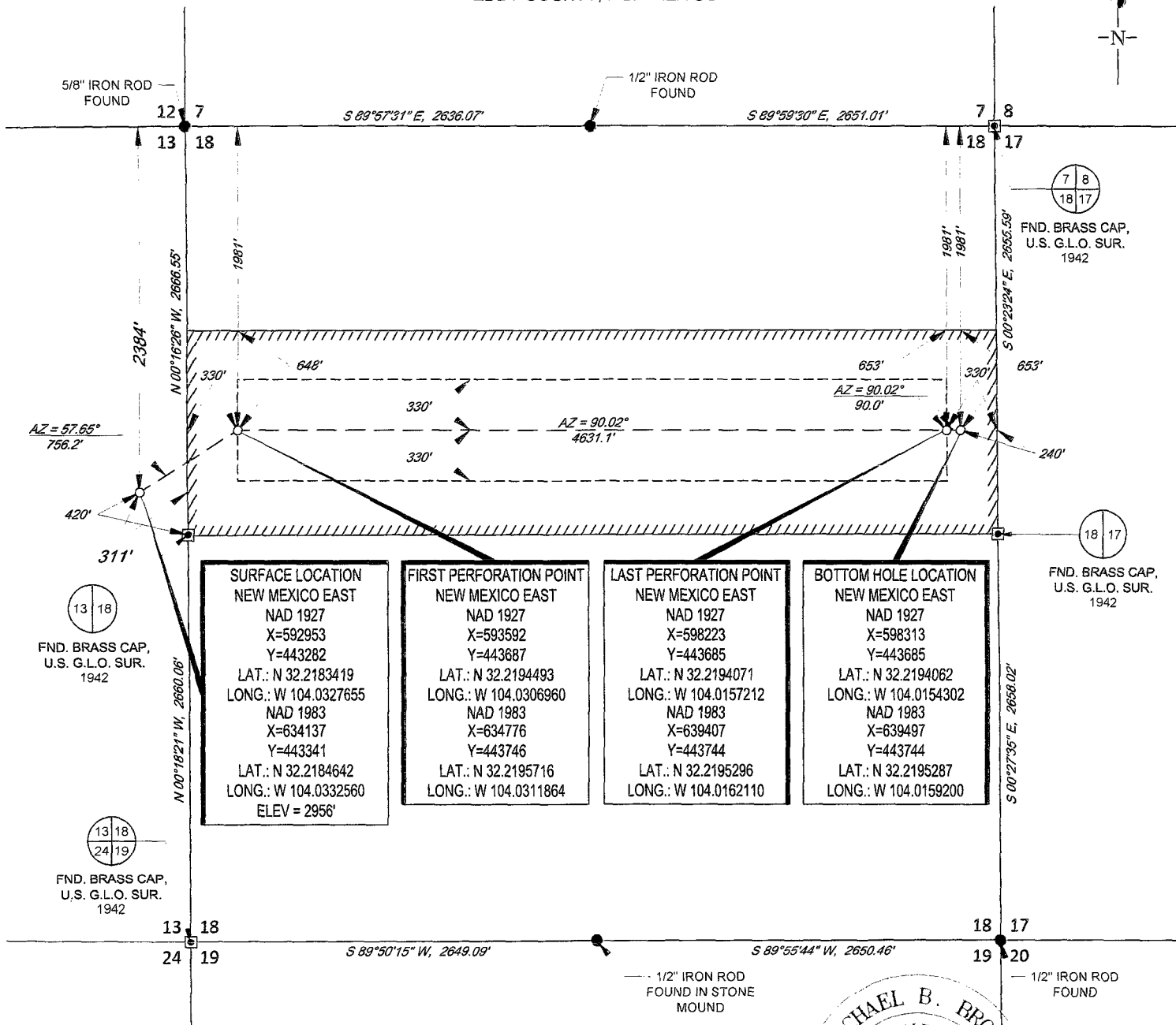


WWW.TOPOGRAPHIC.COM

0' 500' 1000'



SECTION 13, TOWNSHIP 24-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



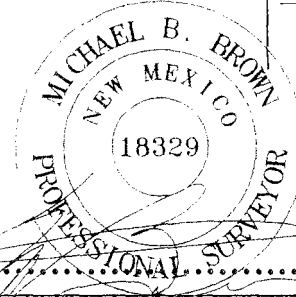
SECTION 13 TWP 24-S RGE 28-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 2384' FNL & 311' FEL

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.



Michael Blake Brown, P.S. No. 18329

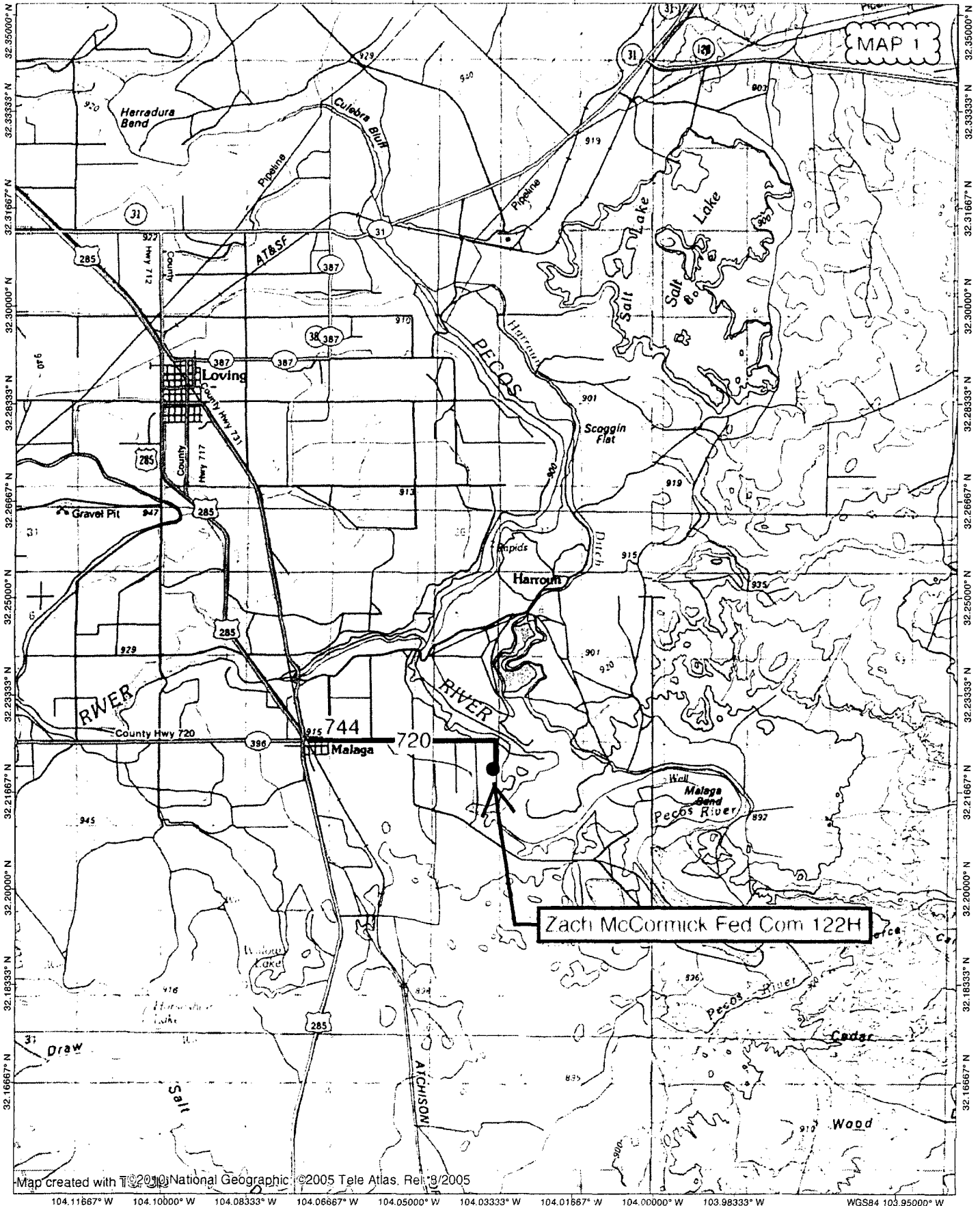
• MAY 09 • 2016



TOPOGRAPHIC

LOYALTY INNOVATION LEGACY

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Zach McCormick Fed Com 122H

MAP 2

BLM O&G lease
NMNM 117120

water well C 00464

access

SHL

BHL

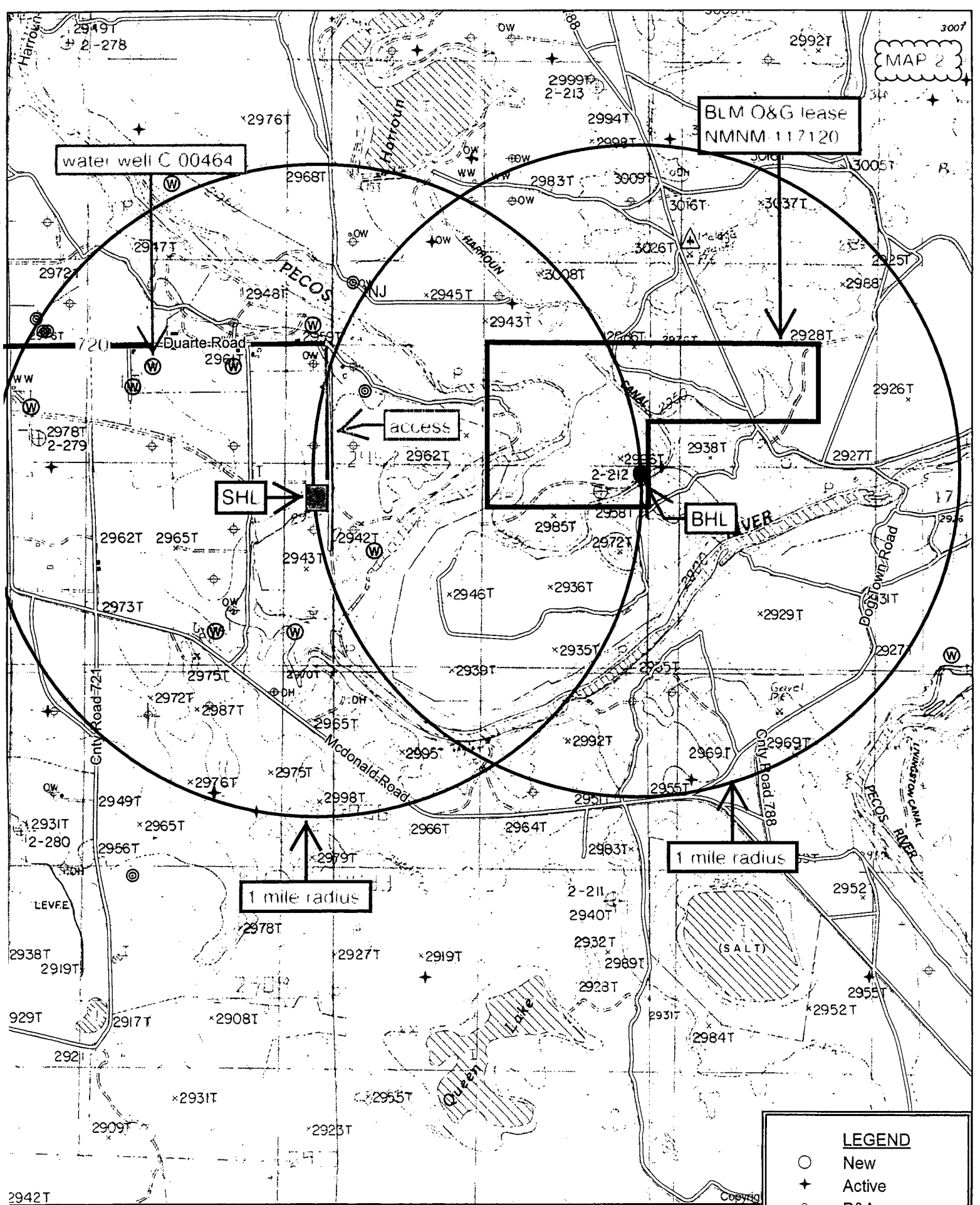
1 mile radius

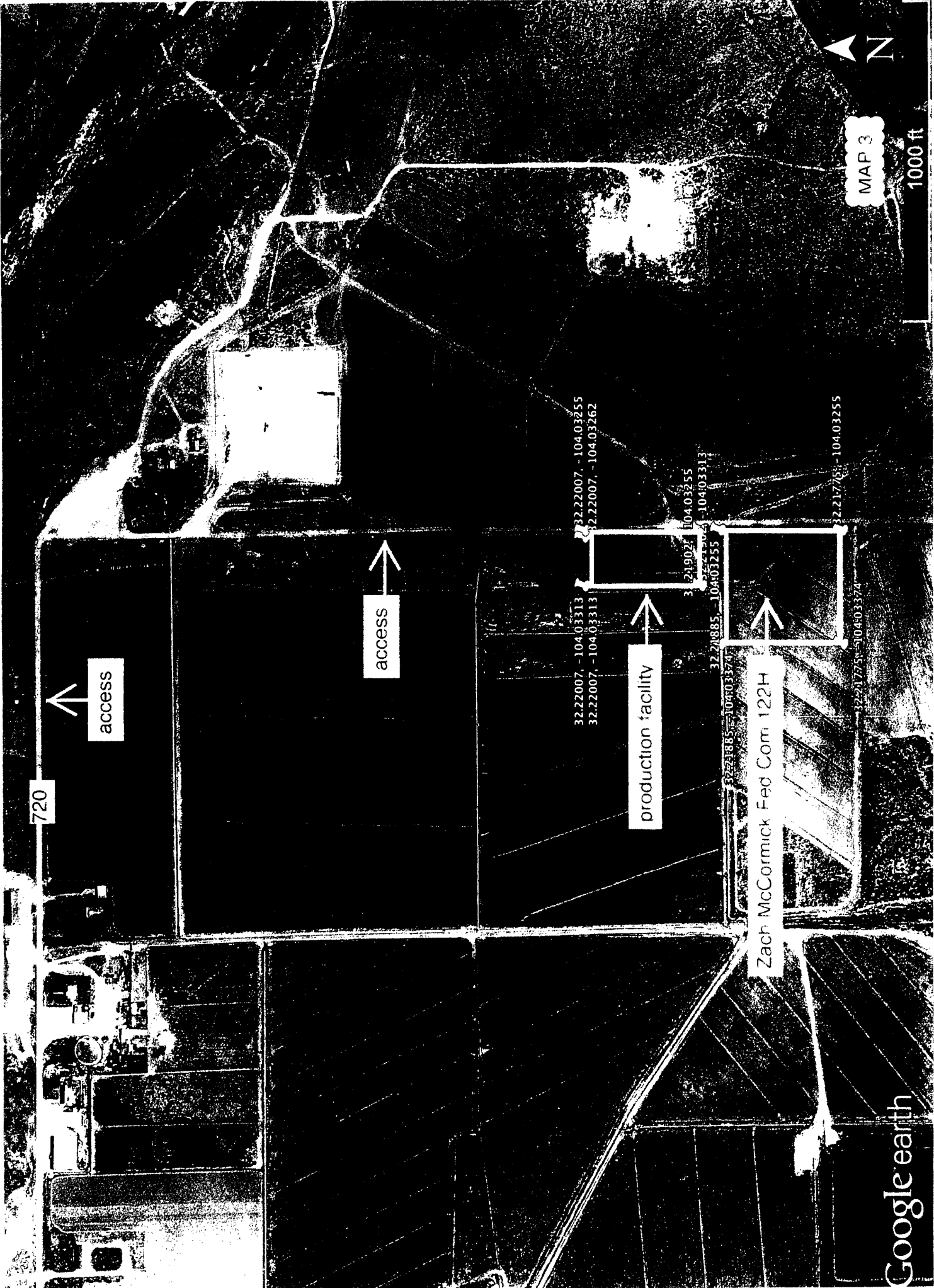
1 mile radius

LEGEND

- New
- + Active
- ⊕ P&A
- ⊙ INJ
- ⊙ SWD
- ⊙ Water

Quad: MALAGA
Scale: 1 inch = 2,000 ft.



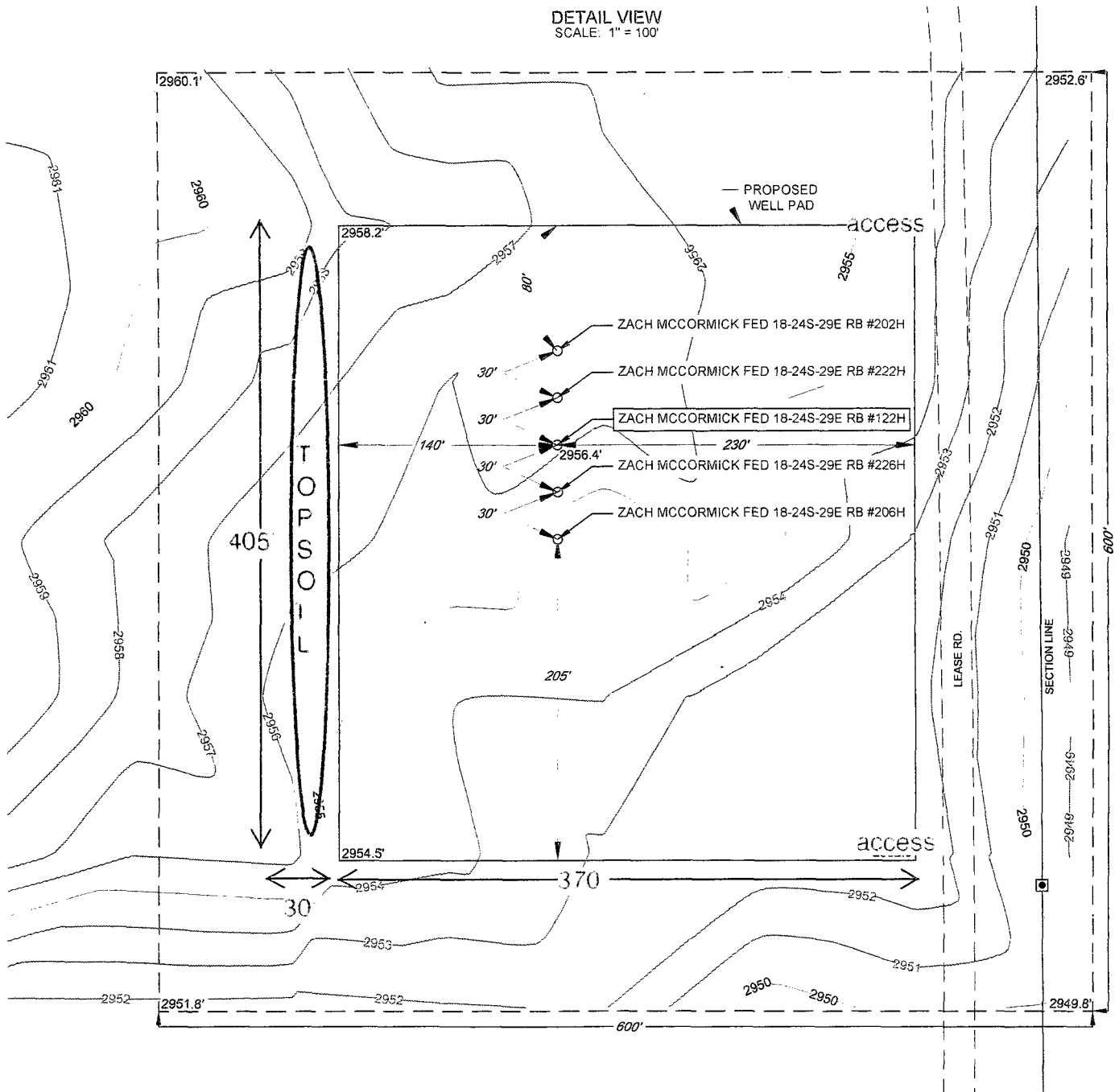




MAP 4

SECTION 13, TOWNSHIP 24-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



LEGEND

- EXISTING ROAD
- SECTION LINE
- ARCH SITE

LEASE NAME & WELL NO.: ZACH MCCORMICK FEDERAL 18-24S-29E RB #122H
#122H LATITUDE N 32.2183419 #122H LONGITUDE W 104.0327655

SCALE: 1" = 100'
0' 50' 100'

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.



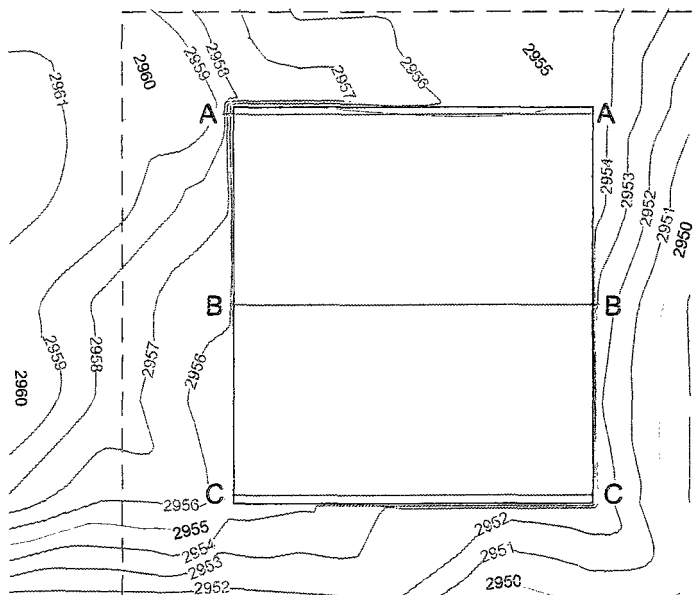
WWW.TOPOGRAPHIC.COM

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

SCALE 1" = 200'
0' 100' 200'

SECTION 13, TOWNSHIP 24-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

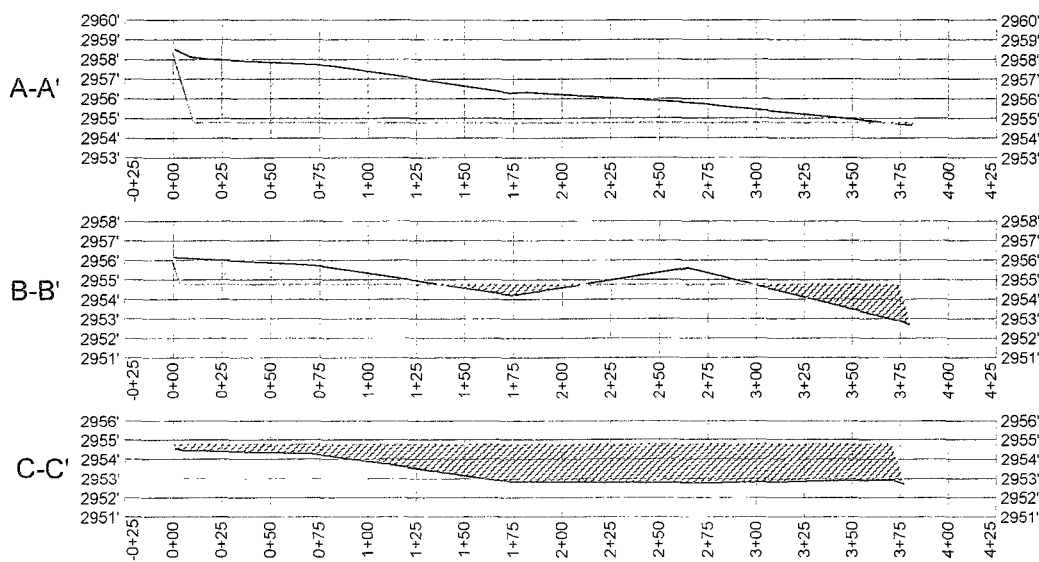
MAP 5



TOP OF PAD ELEVATION:
2954.8'

CUT SLOPE 33.33% 3.00:1 18.43°
FILL SLOPE 33.33% 3.00:1 18.43°
BALANCE TOLERANCE (C.Y.): 0.00
CUT SWELL FACTOR 1.00
FILL SHRINK FACTOR 1.00

PAD EARTHWORK VOLUMES
CUT 91,390.2 C.F., 3,384.82 C.Y.
FILL 91,390.2 C.F., 3,384.82 C.Y.
BALANCE IMPORT: 0.0 C.F., 0.00 C.Y.
AREA: 157182.9 SQ.FT., 3.608 ACRES

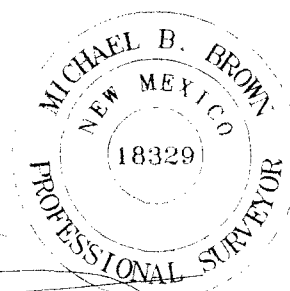


Horizontal Scale = 1" = 100'
Vertical Scale = 1" = 5'



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LOYALTY INNOVATION INTEGRITY

1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM



Michael Blake Brown, P.S. No. 18329

MAY 10, 2016

Field note description of even date accompanies this plat.

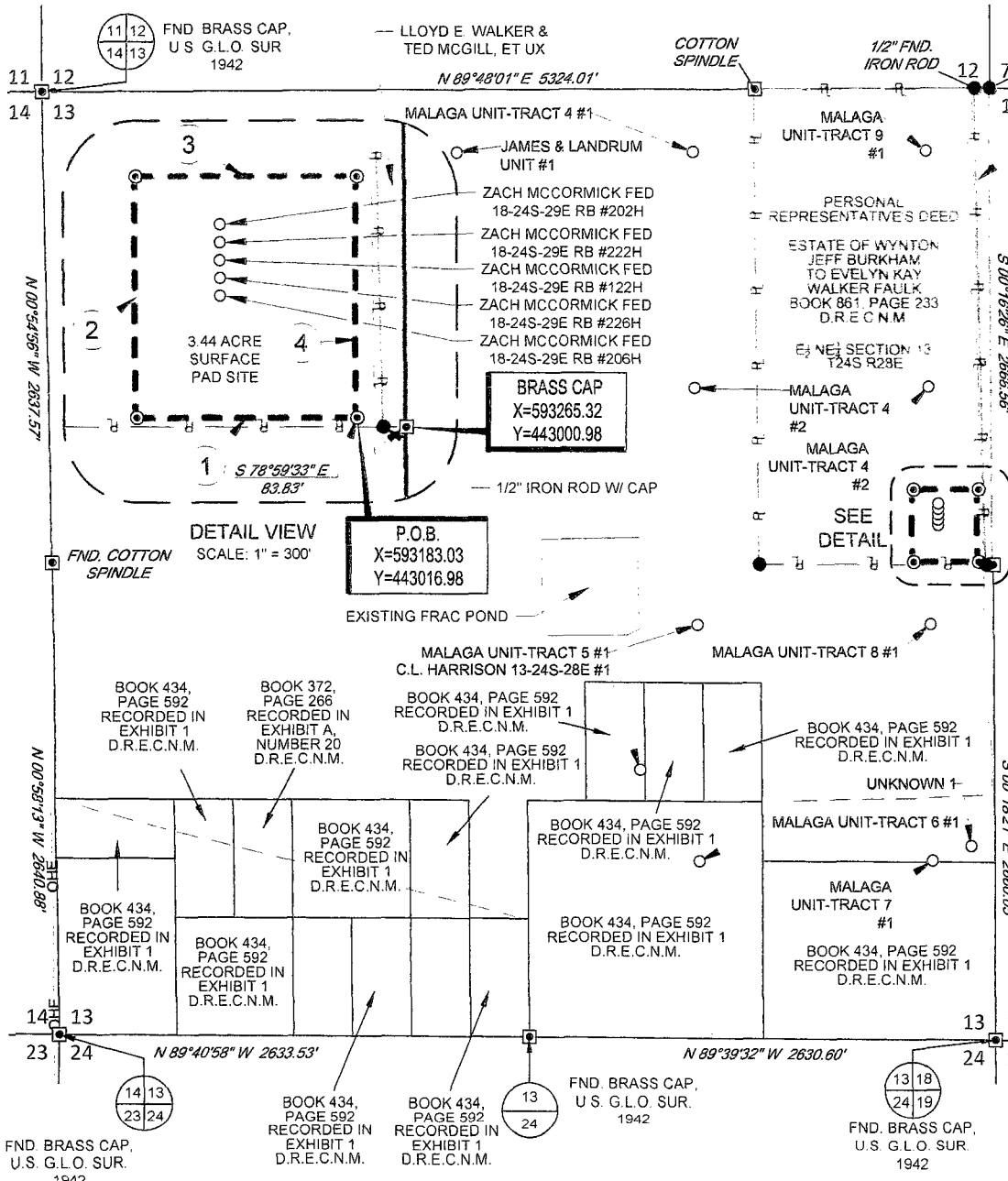
ZACH MCCORMICK FED 18-24S-29E RB #202H SURFACE PAD SITE PRO	REVISION:		NOTES:
	INT	DATE	
DATE: 05/10/16			1. ORIGINAL DOCUMENT SIZE: 8.5" X 11" 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, 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 RESOURCE 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.
FILE: 10 ZACH MCCORMICK FEDERAL TRANSFER TO ZACH SURFACE PAD SITE PRO			
DRAWN BY: MML			
SHEET:			

SCALE: 1" = 1000'

0' 500' 1000'

SECTION 13, TOWNSHIP 24-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO
PROPOSED 3.44 ACRE SITE

MAP 6



LINE	BEARING	DISTANCE
1	N 89°58'53" W	370.00'
2	N 00°01'07" E	405.00'
3	S 89°58'53" E	370.00'
4	S 00°01'07" W	405.00'

ZACH MCCORMICK FED 18-24S-29E RB #202H SURFACE PAD SITE

Metes and Bounds Description of a proposed 3.44 acre surface pad site located within Section 13, Township 24 South, Range 28 East, N.M.P.M., in Eddy County, New Mexico

BEGINNING at a 1/2" iron rod set for the Southeast corner of this site, from whence a brass cap found for the East quarter corner of said Section 13, bears S 78°59'33" E, a distance of 83.83 feet,

Thence N 89°58'53" W, a distance of 370.00 feet to a 1/2" iron rod set for the Southwest corner of this site,

Thence N 00°01'07" E, a distance of 405.00 feet to a 1/2" iron rod set for the Northwest corner of this site,

Thence S 89°58'53" E, a distance of 370.00 feet to a 1/2" iron rod set for the Northeast corner of this site,

Thence S 00°01'07" W, a distance of 405.00 feet to the Point of Beginning

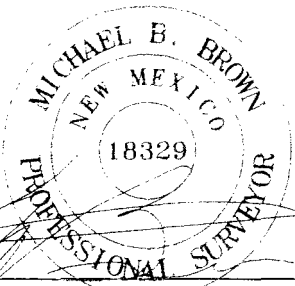
LEGEND

- SURVEY/SECTION LINE
- - - PROPOSED SITE
- - - BOUNDARY
- - - OVERHEAD ELECTRIC
- - - FENCES
- - - ROAD WAY
- MONUMENT
- IRON ROD SET
- IRON ROD FOUND



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TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM



Michael Blake Brown, P.S. No. 18329
May 9, 2016

ZACH MCCORMICK FED 18-24S-29E RB #202H SURFACE PAD SITE	REVISION:	
	INT	DATE
DATE: 05/09/16		
FILE: 80 ZACH MCCORMICK FED 18-24S-29E RB #202H SURFACE PAD SITE		
DRAWN BY: GJU		
SHEET:		

- NOTES
1. ORIGINAL DOCUMENT SIZE: 8.5" 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.
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 4. P.O.B. = POINT OF BEGINNING
 5. D.R.E.C.N.M. = DEED RECORDS EDDY COUNTY NEW MEXICO

SCALE: 1" = 200'

0' 100' 200'

SECTION 13, TOWNSHIP 24-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

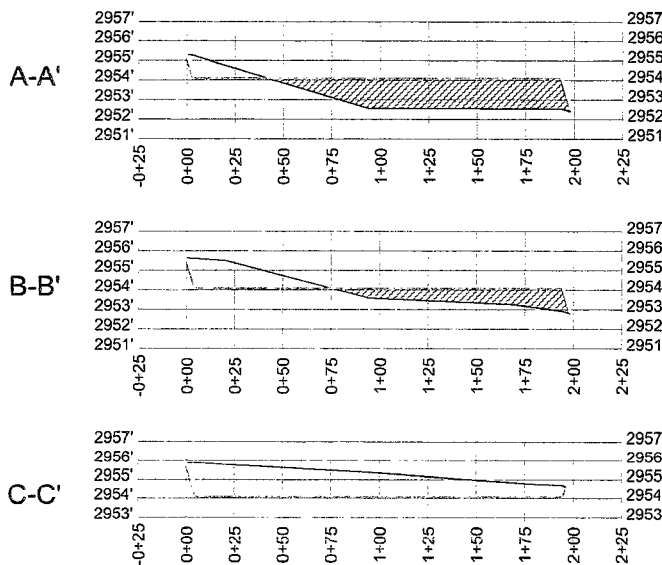
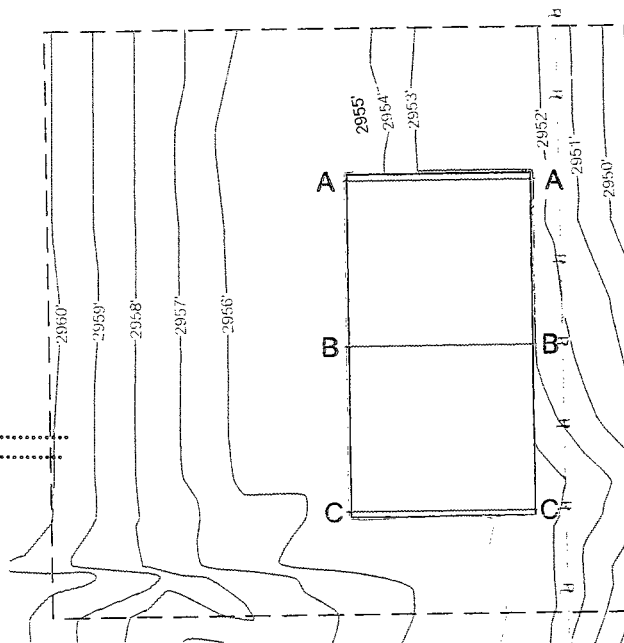
MAP 7

N

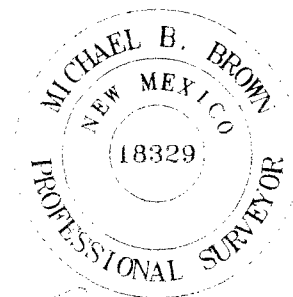
TOP OF PAD ELEVATION:
2954.1'

BALANCE TOLERANCE (C.Y.): 0.00
CUT SWELL FACTOR: 1.00
FILL SHRINK FACTOR: 1.00

PAD EARTHWORK VOLUMES
CUT 32,455.5 C.F., 1,202.05 C.Y.
FILL 32,455.5 C.F., 1,202.05 C.Y.
BALANCE IMPORT: 0.0 C.F., 0.00 C.Y.
AREA: 70693.8 SQ. FT., 1.623 Acres



Horizontal Scale = 1:100
Vertical Scale = 1:5



Michael Blake Brown, P.S., No. 18329

MAY 10, 2016

Field note description of even date accompanies this plat.

WWW.TOPOGRAPHIC.COM

ZACK McCORMICK FED
PRODUCTION FACILITY
SITE PROFILE

REVISION:

INT DATE

DATE: 05/10/16

FILE: 00 ZACK McCORMICK, FEDERAL, PRODUCTION FACILITY SITE PRO

DRAWN BY: A.C.C.

SHEET:

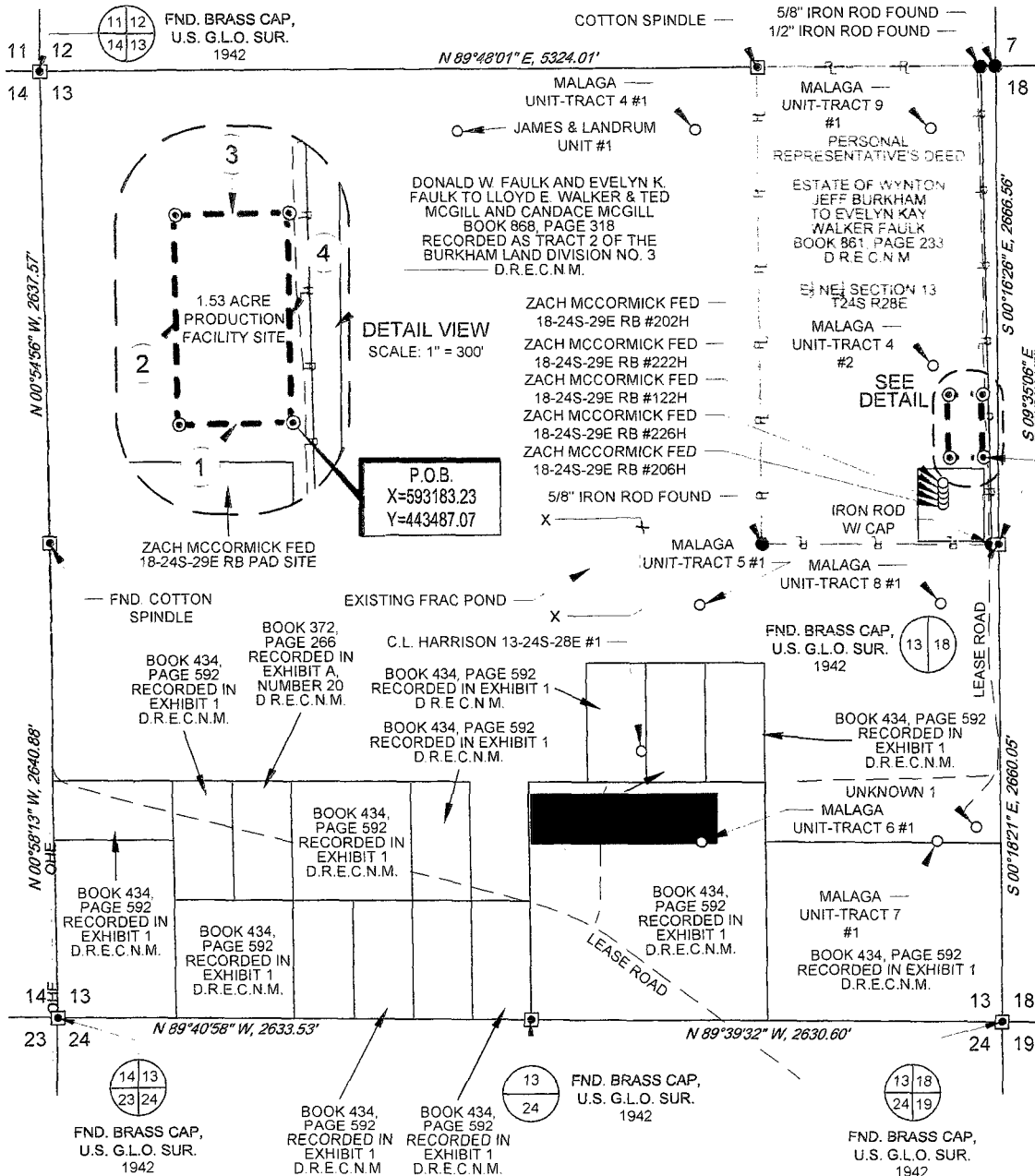
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SCALE: 1" = 1000'

SECTION 13, TOWNSHIP 24-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO
PROPOSED 1.53 ACRE SITE

MAP 8



**ZACK McCORMICK FED
PRODUCTION FACILITY SITE**

Metes and Bounds Description of a proposed 1.53 acre proposed facility site located within Section 13, Township 24 South, Range 28 East, N.M.P.M., in Eddy County, New Mexico.

BEGINNING at a 1/2" iron rod with cap set for the Southeast corner of this site, from whence a brass cap found for the East quarter corner of distance of 492.98 feet;

to a 1/2" iron rod with cap set for the Southwest corner of this site,

Thence to a 1/2" iron rod with cap set for the Northwest corner of this site,

Thence to a 1/2" iron rod with cap set for the Northeast corner of this site,

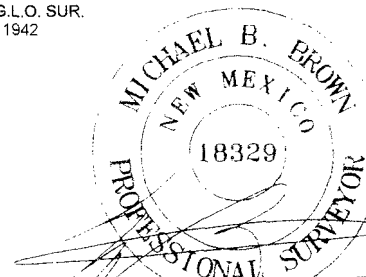
Thence to the Point of Beginning.

LEGEND

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

**ZACK McCORMICK FED
PRODUCTION FACILITY SITE**

LINE	BEARING	DISTANCE
1		190.00'
2		360.00'
3		190.00'
4		350.00'



Michael Blake Brown, P.S. No. 18329
MAY 9, 2016

WWW.TOPOGRAPHIC.COM

**ZACK McCORMICK FED
PRODUCTION FACILITY
SITE**

REVISION:

INT DATE

DATE: 05/09/16

FILE: BO_ZACK_McCORMICK_FEDERAL_PRODUCTION_FACILITY_SITE

DRAWN BY: A.C.C.

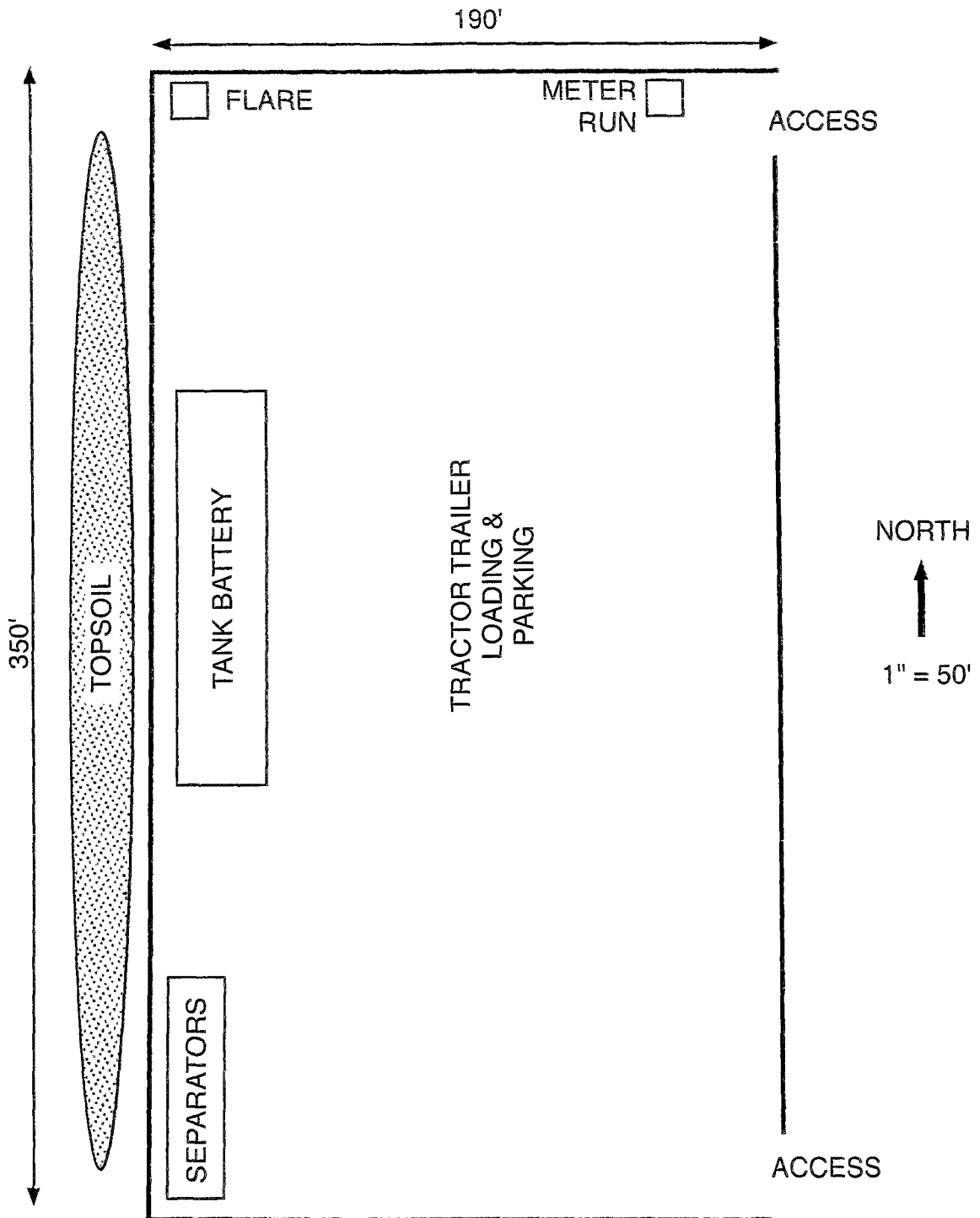
SHEET :

NOTES:

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4. P.O.B. = POINT OF BEGINNING

Matador's
Zach McCormick Fed Com
Production Facility
SENE 13-24s-28e
Eddy County NM

MAP 9



Matador Production Company

DRILL PLAN PAGE 1

Zach McCormick Fed Com 122H

SHL 2384' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1981' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

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 (& target formation)
TVD (2nd Bone Spring Sand)	8340'	ditto
MD (2nd Bone Spring Sand)	13223'	ditto

2. NOTABLE ZONES

Closest water well (C 00750) is 908' to the west. Depth of well is 110'. Depth to water has not been reported to the State.

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

Matador Production Company

DRILL PLAN PAGE 2

Zach McCormick Fed Com 122H

SHL 2384' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1981' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

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. 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 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.

4. CASING & CEMENT

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

Matador Production Company**DRILL PLAN PAGE 3****Zach McCormick Fed Com 122H****SHL 2384' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.****BHL 1981' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.****Eddy County, NM**

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"	13223'	5.5"	New	20	P-110	BTC/TXP	1.125	1.125	1.8

Name	Type	Sacks	Yield	Cubic Feet	Weight	Blend & Centralizers
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 = 0'		100% Excess			Centralizers per Onshore Order 2.III.B.1f	
Intermediate	Lead	570	2.13	1214.1	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 = 0'		100% Excess			2 on btm jt, 1 on 2nd jt, 1 every 4th jt to surface	
Production	Lead	830	2.35	1950.5	11.5	TXI + Fluid Loss + Dispersant + Retarder + LCM
	Tail	1450	1.39	2015.5	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)	

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

Matador Production Company

DRILL PLAN PAGE 4

Zach McCormick Fed Com 122H

SHL 2384' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1981' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

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	17-1/2"	8.30	28	NC	FW Spud Mud
Intermediate	12-1/4"	10.00	30-32	NC	Brine Water
Production	8-3/4"	9.00	30-32	NC	FW/Cut Brine

6. CORES, TESTS, & LOGS

No core or drill stem test is planned.

A 2-person mud-logging program will be used from ≈7500' 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 ≈3500 psi. Expected bottom hole temperature is ≈140° 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. 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.

Matador Production Company

DRILL PLAN PAGE 5

Zach McCormick Fed Com 122H

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Eddy County, NM

8. OTHER INFORMATION

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



Matador Resources

Eddy County, New Mexico (NAD 27)
Zach McCormick Federal 18-24S-29E RB
#122H

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: #122H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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	#122H				
Well Position	+N/-S	443,281.98 usft	Northing:	443,281.98 usft	Latitude: 32° 13' 6.031 N
	+E/-W	592,953.16 usft	Easting:	592,953.16 usft	Longitude: 104° 1' 57.956 W
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft	Ground Level: 2,956.38 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2016	6/22/2016	7.32	59.99	48,066

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	32.60	1,266.45	7.84	5.01	1.50	1.50	0.00	32.60	VP - Zach McCormi
2,850.00	4.00	32.60	2,845.93	100.89	64.52	0.00	0.00	0.00	0.00	
3,116.67	8.00	32.60	3,111.08	124.36	79.54	1.50	1.50	0.00	0.00	
5,241.35	8.00	32.60	5,215.09	373.47	238.85	0.00	0.00	0.00	0.00	
5,774.69	0.00	0.00	5,746.69	404.79	258.88	1.50	-1.50	0.00	180.00	VP - Zach McCormi
7,795.04	0.00	0.00	7,767.04	404.79	258.88	0.00	0.00	0.00	0.00	
8,695.04	90.00	90.02	8,340.00	404.54	831.84	10.00	10.00	0.00	90.02	
13,223.16	90.00	90.02	8,340.00	402.59	5,359.96	0.00	0.00	0.00	0.00	PBHL - Zach McCo



Planning Report



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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	32.60	1,099.99	1.10	0.71	0.70	1.50	1.50	0.00
1,200.00	3.00	32.60	1,199.91	4.41	2.82	2.82	1.50	1.50	0.00
1,266.67	4.00	32.60	1,266.45	7.84	5.01	5.01	1.50	1.50	0.00
Begin 4.00° Tangent									
1,300.00	4.00	32.60	1,299.70	9.80	6.27	6.26	0.00	0.00	0.00
1,400.00	4.00	32.60	1,399.46	15.67	10.02	10.02	0.00	0.00	0.00
1,500.00	4.00	32.60	1,499.22	21.55	13.78	13.78	0.00	0.00	0.00
1,600.00	4.00	32.60	1,598.97	27.43	17.54	17.53	0.00	0.00	0.00
1,700.00	4.00	32.60	1,698.73	33.30	21.30	21.29	0.00	0.00	0.00
1,800.00	4.00	32.60	1,798.48	39.18	25.06	25.04	0.00	0.00	0.00
1,900.00	4.00	32.60	1,898.24	45.06	28.82	28.80	0.00	0.00	0.00
2,000.00	4.00	32.60	1,998.00	50.93	32.57	32.56	0.00	0.00	0.00
2,100.00	4.00	32.60	2,097.75	56.81	36.33	36.31	0.00	0.00	0.00
2,200.00	4.00	32.60	2,197.51	62.69	40.09	40.07	0.00	0.00	0.00
2,300.00	4.00	32.60	2,297.27	68.56	43.85	43.83	0.00	0.00	0.00
2,400.00	4.00	32.60	2,397.02	74.44	47.61	47.58	0.00	0.00	0.00
2,500.00	4.00	32.60	2,496.78	80.32	51.37	51.34	0.00	0.00	0.00
2,600.00	4.00	32.60	2,596.54	86.19	55.12	55.09	0.00	0.00	0.00
2,700.00	4.00	32.60	2,696.29	92.07	58.88	58.85	0.00	0.00	0.00
2,800.00	4.00	32.60	2,796.05	97.95	62.64	62.61	0.00	0.00	0.00
2,850.00	4.00	32.60	2,845.93	100.89	64.52	64.49	0.00	0.00	0.00
Begin 1.50°/100' Build									
2,900.00	4.75	32.60	2,895.78	104.10	66.58	66.54	1.50	1.50	0.00
3,000.00	6.25	32.60	2,995.32	112.17	71.74	71.70	1.50	1.50	0.00
3,100.00	7.75	32.60	3,094.57	122.44	78.30	78.26	1.50	1.50	0.00
3,116.67	8.00	32.60	3,111.08	124.36	79.54	79.49	1.50	1.50	0.00
Begin 8.00° Tangent									
3,200.00	8.00	32.60	3,193.60	134.13	85.78	85.74	0.00	0.00	0.00
3,300.00	8.00	32.60	3,292.63	145.86	93.28	93.23	0.00	0.00	0.00
3,400.00	8.00	32.60	3,391.65	157.58	100.78	100.73	0.00	0.00	0.00
3,500.00	8.00	32.60	3,490.68	169.31	108.28	108.22	0.00	0.00	0.00
3,600.00	8.00	32.60	3,589.71	181.03	115.78	115.71	0.00	0.00	0.00
3,700.00	8.00	32.60	3,688.73	192.76	123.28	123.21	0.00	0.00	0.00
3,800.00	8.00	32.60	3,787.76	204.48	130.77	130.70	0.00	0.00	0.00
3,900.00	8.00	32.60	3,886.79	216.21	138.27	138.20	0.00	0.00	0.00
4,000.00	8.00	32.60	3,985.82	227.93	145.77	145.69	0.00	0.00	0.00
4,100.00	8.00	32.60	4,084.84	239.65	153.27	153.19	0.00	0.00	0.00
4,200.00	8.00	32.60	4,183.87	251.38	160.77	160.68	0.00	0.00	0.00
4,300.00	8.00	32.60	4,282.90	263.10	168.27	168.17	0.00	0.00	0.00
4,400.00	8.00	32.60	4,381.92	274.83	175.76	175.67	0.00	0.00	0.00
4,500.00	8.00	32.60	4,480.95	286.55	183.26	183.16	0.00	0.00	0.00
4,600.00	8.00	32.60	4,579.98	298.28	190.76	190.66	0.00	0.00	0.00



Planning Report



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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)
4,700.00	8.00	32.60	4,679.00	310.00	198.26	198.15	0.00	0.00	0.00
4,800.00	8.00	32.60	4,778.03	321.73	205.76	205.65	0.00	0.00	0.00
4,900.00	8.00	32.60	4,877.06	333.45	213.26	213.14	0.00	0.00	0.00
5,000.00	8.00	32.60	4,976.08	345.18	220.75	220.63	0.00	0.00	0.00
5,100.00	8.00	32.60	5,075.11	356.90	228.25	228.13	0.00	0.00	0.00
5,200.00	8.00	32.60	5,174.14	368.63	235.75	235.62	0.00	0.00	0.00
5,241.35	8.00	32.60	5,215.09	373.47	238.85	238.72	0.00	0.00	0.00
Begin 1.50°/100' Drop									
5,300.00	7.12	32.60	5,273.22	379.97	243.01	242.88	1.50	-1.50	0.00
5,400.00	5.62	32.60	5,372.60	389.32	248.99	248.85	1.50	-1.50	0.00
5,500.00	4.12	32.60	5,472.24	396.47	253.56	253.42	1.50	-1.50	0.00
5,600.00	2.62	32.60	5,572.06	401.43	256.73	256.59	1.50	-1.50	0.00
5,700.00	1.12	32.60	5,672.01	404.17	258.49	258.35	1.50	-1.50	0.00
5,774.69	0.00	0.00	5,746.69	404.79	258.88	258.74	1.50	-1.50	0.00
Begin Vertical Hold									
5,800.00	0.00	0.00	5,772.00	404.79	258.88	258.74	0.00	0.00	0.00
5,900.00	0.00	0.00	5,872.00	404.79	258.88	258.74	0.00	0.00	0.00
6,000.00	0.00	0.00	5,972.00	404.79	258.88	258.74	0.00	0.00	0.00
6,100.00	0.00	0.00	6,072.00	404.79	258.88	258.74	0.00	0.00	0.00
6,200.00	0.00	0.00	6,172.00	404.79	258.88	258.74	0.00	0.00	0.00
6,300.00	0.00	0.00	6,272.00	404.79	258.88	258.74	0.00	0.00	0.00
6,400.00	0.00	0.00	6,372.00	404.79	258.88	258.74	0.00	0.00	0.00
6,500.00	0.00	0.00	6,472.00	404.79	258.88	258.74	0.00	0.00	0.00
6,600.00	0.00	0.00	6,572.00	404.79	258.88	258.74	0.00	0.00	0.00
6,700.00	0.00	0.00	6,672.00	404.79	258.88	258.74	0.00	0.00	0.00
6,800.00	0.00	0.00	6,772.00	404.79	258.88	258.74	0.00	0.00	0.00
6,900.00	0.00	0.00	6,872.00	404.79	258.88	258.74	0.00	0.00	0.00
7,000.00	0.00	0.00	6,972.00	404.79	258.88	258.74	0.00	0.00	0.00
7,100.00	0.00	0.00	7,072.00	404.79	258.88	258.74	0.00	0.00	0.00
7,200.00	0.00	0.00	7,172.00	404.79	258.88	258.74	0.00	0.00	0.00
7,300.00	0.00	0.00	7,272.00	404.79	258.88	258.74	0.00	0.00	0.00
7,400.00	0.00	0.00	7,372.00	404.79	258.88	258.74	0.00	0.00	0.00
7,500.00	0.00	0.00	7,472.00	404.79	258.88	258.74	0.00	0.00	0.00
7,600.00	0.00	0.00	7,572.00	404.79	258.88	258.74	0.00	0.00	0.00
7,700.00	0.00	0.00	7,672.00	404.79	258.88	258.74	0.00	0.00	0.00
7,795.04	0.00	0.00	7,767.04	404.79	258.88	258.74	0.00	0.00	0.00
Begin 10.00°/100' Build									
7,800.00	0.50	90.02	7,772.00	404.79	258.90	258.76	10.00	10.00	0.00
7,850.00	5.50	90.02	7,821.92	404.79	261.51	261.37	10.00	10.00	0.00
7,900.00	10.50	90.02	7,871.42	404.79	268.47	268.33	10.00	10.00	0.00
7,950.00	15.50	90.02	7,920.12	404.78	279.71	279.57	10.00	10.00	0.00
8,000.00	20.50	90.02	7,967.66	404.77	295.15	295.01	10.00	10.00	0.00
8,050.00	25.50	90.02	8,013.67	404.77	314.68	314.54	10.00	10.00	0.00
8,100.00	30.50	90.02	8,057.81	404.76	338.14	338.00	10.00	10.00	0.00
8,150.00	35.50	90.02	8,099.73	404.74	365.36	365.22	10.00	10.00	0.00
8,200.00	40.50	90.02	8,139.12	404.73	396.13	395.99	10.00	10.00	0.00
8,250.00	45.50	90.02	8,175.68	404.72	430.22	430.08	10.00	10.00	0.00
8,300.00	50.50	90.02	8,209.13	404.70	467.36	467.22	10.00	10.00	0.00
8,350.00	55.50	90.02	8,239.21	404.68	507.28	507.14	10.00	10.00	0.00
8,400.00	60.50	90.02	8,265.70	404.66	549.67	549.52	10.00	10.00	0.00
8,450.00	65.50	90.02	8,288.40	404.65	594.20	594.06	10.00	10.00	0.00
8,500.00	70.50	90.02	8,307.12	404.63	640.54	640.40	10.00	10.00	0.00
8,550.00	75.50	90.02	8,321.74	404.60	688.34	688.20	10.00	10.00	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: #122H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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)
8,600.00	80.50	90.02	8,332.14	404.58	737.23	737.09	10.00	10.00	0.00
8,650.00	85.50	90.02	8,338.23	404.56	786.85	786.70	10.00	10.00	0.00
8,695.04	90.00	90.02	8,340.00	404.54	831.84	831.70	10.00	10.00	0.00
Begin 90.00° Lateral									
8,700.00	90.00	90.02	8,340.00	404.54	836.80	836.66	0.00	0.00	0.00
8,800.00	90.00	90.02	8,340.00	404.50	936.80	936.66	0.00	0.00	0.00
8,900.00	90.00	90.02	8,340.00	404.45	1,036.80	1,036.66	0.00	0.00	0.00
9,000.00	90.00	90.02	8,340.00	404.41	1,136.80	1,136.66	0.00	0.00	0.00
9,100.00	90.00	90.02	8,340.00	404.37	1,236.80	1,236.66	0.00	0.00	0.00
9,200.00	90.00	90.02	8,340.00	404.33	1,336.80	1,336.66	0.00	0.00	0.00
9,300.00	90.00	90.02	8,340.00	404.28	1,436.80	1,436.66	0.00	0.00	0.00
9,400.00	90.00	90.02	8,340.00	404.24	1,536.80	1,536.66	0.00	0.00	0.00
9,500.00	90.00	90.02	8,340.00	404.20	1,636.80	1,636.66	0.00	0.00	0.00
9,600.00	90.00	90.02	8,340.00	404.15	1,736.80	1,736.66	0.00	0.00	0.00
9,700.00	90.00	90.02	8,340.00	404.11	1,836.80	1,836.66	0.00	0.00	0.00
9,800.00	90.00	90.02	8,340.00	404.07	1,936.80	1,936.66	0.00	0.00	0.00
9,900.00	90.00	90.02	8,340.00	404.02	2,036.80	2,036.66	0.00	0.00	0.00
10,000.00	90.00	90.02	8,340.00	403.98	2,136.80	2,136.66	0.00	0.00	0.00
10,100.00	90.00	90.02	8,340.00	403.94	2,236.80	2,236.66	0.00	0.00	0.00
10,200.00	90.00	90.02	8,340.00	403.89	2,336.80	2,336.66	0.00	0.00	0.00
10,300.00	90.00	90.02	8,340.00	403.85	2,436.80	2,436.66	0.00	0.00	0.00
10,400.00	90.00	90.02	8,340.00	403.81	2,536.80	2,536.66	0.00	0.00	0.00
10,500.00	90.00	90.02	8,340.00	403.76	2,636.80	2,636.66	0.00	0.00	0.00
10,600.00	90.00	90.02	8,340.00	403.72	2,736.80	2,736.66	0.00	0.00	0.00
10,700.00	90.00	90.02	8,340.00	403.68	2,836.80	2,836.66	0.00	0.00	0.00
10,800.00	90.00	90.02	8,340.00	403.64	2,936.80	2,936.66	0.00	0.00	0.00
10,900.00	90.00	90.02	8,340.00	403.59	3,036.80	3,036.66	0.00	0.00	0.00
11,000.00	90.00	90.02	8,340.00	403.55	3,136.80	3,136.66	0.00	0.00	0.00
11,100.00	90.00	90.02	8,340.00	403.51	3,236.80	3,236.66	0.00	0.00	0.00
11,200.00	90.00	90.02	8,340.00	403.46	3,336.80	3,336.66	0.00	0.00	0.00
11,300.00	90.00	90.02	8,340.00	403.42	3,436.80	3,436.66	0.00	0.00	0.00
11,400.00	90.00	90.02	8,340.00	403.38	3,536.80	3,536.66	0.00	0.00	0.00
11,500.00	90.00	90.02	8,340.00	403.33	3,636.80	3,636.66	0.00	0.00	0.00
11,600.00	90.00	90.02	8,340.00	403.29	3,736.80	3,736.66	0.00	0.00	0.00
11,700.00	90.00	90.02	8,340.00	403.25	3,836.80	3,836.66	0.00	0.00	0.00
11,800.00	90.00	90.02	8,340.00	403.20	3,936.80	3,936.66	0.00	0.00	0.00
11,900.00	90.00	90.02	8,340.00	403.16	4,036.80	4,036.66	0.00	0.00	0.00
12,000.00	90.00	90.02	8,340.00	403.12	4,136.80	4,136.66	0.00	0.00	0.00
12,100.00	90.00	90.02	8,340.00	403.07	4,236.80	4,236.66	0.00	0.00	0.00
12,200.00	90.00	90.02	8,340.00	403.03	4,336.80	4,336.66	0.00	0.00	0.00
12,300.00	90.00	90.02	8,340.00	402.99	4,436.80	4,436.66	0.00	0.00	0.00
12,400.00	90.00	90.02	8,340.00	402.95	4,536.80	4,536.66	0.00	0.00	0.00
12,500.00	90.00	90.02	8,340.00	402.90	4,636.80	4,636.66	0.00	0.00	0.00
12,600.00	90.00	90.02	8,340.00	402.86	4,736.80	4,736.66	0.00	0.00	0.00
12,700.00	90.00	90.02	8,340.00	402.82	4,836.80	4,836.66	0.00	0.00	0.00
12,800.00	90.00	90.02	8,340.00	402.77	4,936.80	4,936.66	0.00	0.00	0.00
12,900.00	90.00	90.02	8,340.00	402.73	5,036.80	5,036.66	0.00	0.00	0.00
13,000.00	90.00	90.02	8,340.00	402.69	5,136.80	5,136.66	0.00	0.00	0.00
13,100.00	90.00	90.02	8,340.00	402.64	5,236.80	5,236.66	0.00	0.00	0.00
13,200.00	90.00	90.02	8,340.00	402.60	5,336.80	5,336.66	0.00	0.00	0.00
13,223.16	90.00	90.02	8,340.00	402.59	5,359.96	5,359.82	0.00	0.00	0.00
PBHL									



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: #122H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Design Targets

Target Name	- hit/miss target	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	0.00	0.00	5,746.69	404.79	258.88	443,686.77	593,212.04	32° 13' 10.030 N	104° 1' 54.929 W
PBHL - Zach McCormick	- plan hits target center	0.00	0.00	8,340.00	402.59	5,359.96	443,684.57	598,313.12	32° 13' 9.862 N	104° 0' 55.549 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

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
812.38	812.38	Top of Salt		0.00	90.02
2,689.06	2,685.38	Lamar/Base of Salt		0.00	90.02
2,739.18	2,735.38	Bell Canyon		0.00	90.02
3,676.42	3,665.38	Cherry Canyon		0.00	90.02
4,913.45	4,890.38	Brushy Canyon		0.00	90.02
6,497.38	6,469.38	Bone Spring Lime		0.00	90.02
7,439.38	7,411.38	1st Bone Spring Sand		0.00	90.02
7,752.38	7,724.38	2nd Bone Spring Carbonate		0.00	90.02
8,556.70	8,323.38	2nd Bone Spring Sand		0.00	90.02

Plan Annotations

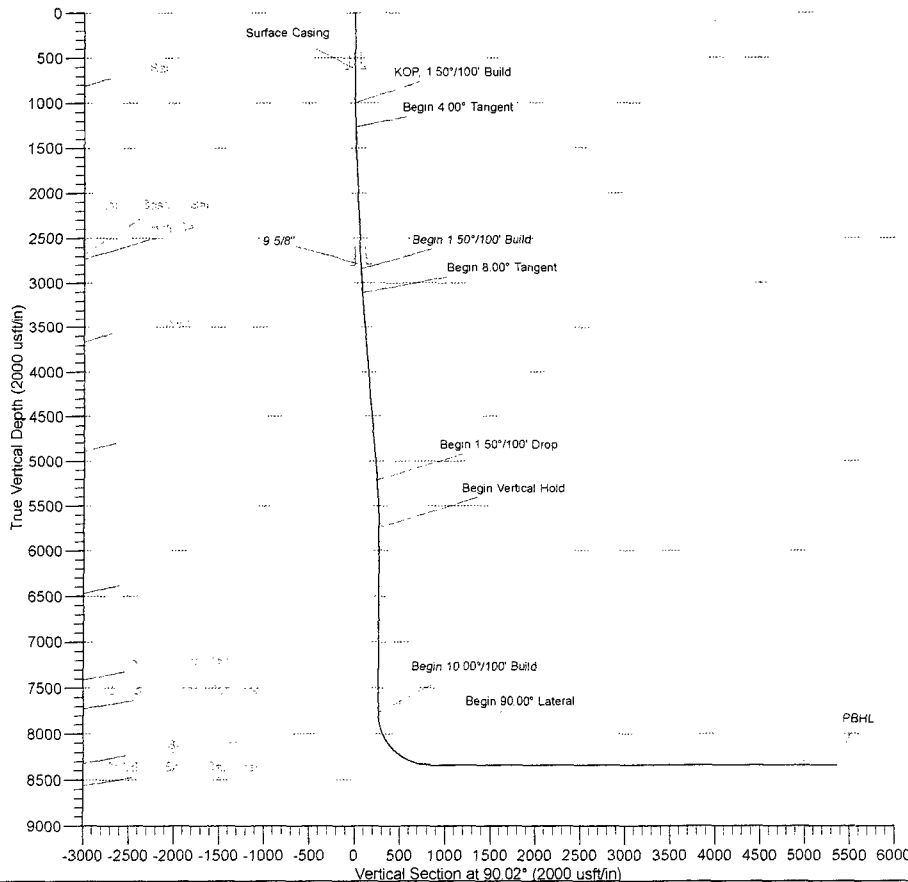
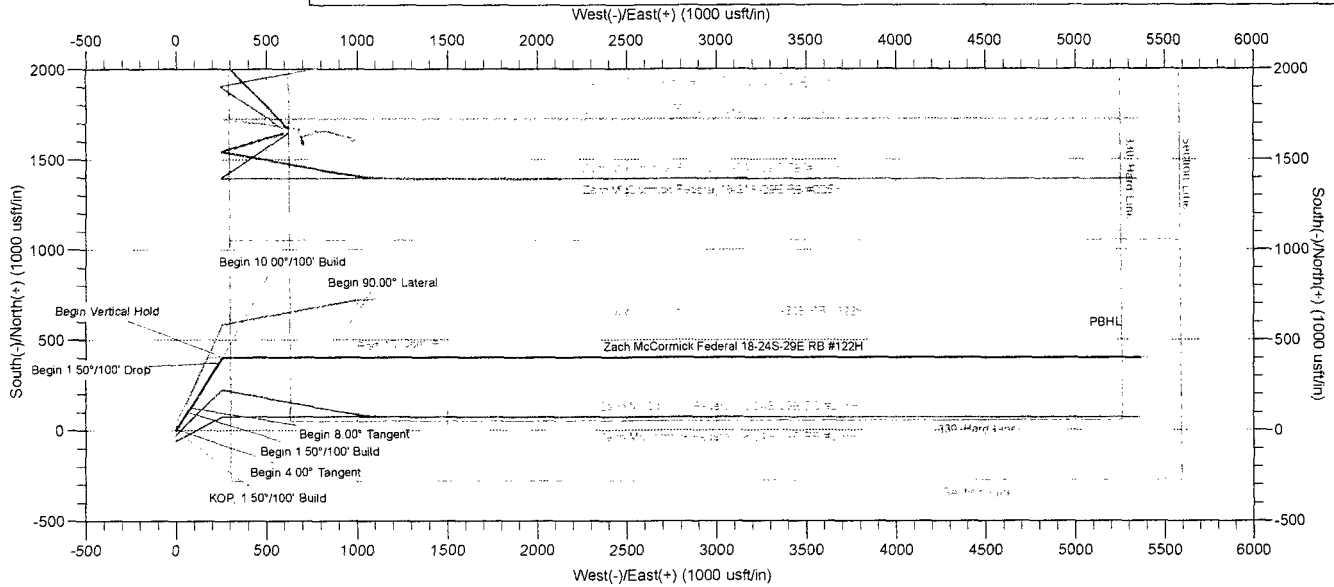
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates	Comment
1,000.00	1,000.00	+N/-S (usft) 0.00	KOP, 1.50°/100' Build
1,266.67	1,266.45	+E/-W (usft) 7.84	Begin 4.00° Tangent
2,850.00	2,845.93	100.89	Begin 1.50°/100' Build
3,116.67	3,111.08	124.36	Begin 8.00° Tangent
5,241.35	5,215.09	373.47	Begin 1.50°/100' Drop
5,774.69	5,746.69	404.79	Begin Vertical Hold
7,795.04	7,767.04	404.79	Begin 10.00°/100' Build
8,695.04	8,340.00	404.54	Begin 90.00° Lateral
13,223.16	8,340.00	402.59	PBHL



Company: Matador Resources
 Site: Zach McCormick Federal 18-24S-29E RB
 Well: #122H
 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	32.60	1266.45	7.84	5.01	5.01	9.30	Begin 4.00" Tangent	
2850.00	4.00	32.60	2845.93	100.89	64.52	64.49	119.75	Begin 1.50"/100' Build	
3116.67	8.00	32.60	3111.08	124.36	79.54	79.49	147.62	Begin 8.00" Tangent	
5241.35	8.00	32.60	5215.09	373.47	238.85	238.72	443.32	Begin 1.50"/100' Drop	
5774.69	0.00	0.00	5746.69	404.79	258.88	258.74	480.49	Begin Vertical Hold	
7795.04	0.00	0.00	7767.04	404.79	258.88	258.74	480.49	Begin 10.00"/100' Build	
8695.04	90.00	90.02	8340.00	404.54	831.84	831.70	1053.45	Begin 90.00" Lateral	
13223.16	90.00	90.02	8340.00	402.59	5359.96	5359.82	5581.57	PBHL	



Azimuths to Grid North
 True North: -0.16°
 Magnetic North: 7.16°

Magnetic Field
 Strength: 48065.6nT
 Dip Angle: 59.99°
 Date: 6/22/2016
 Model: BGGM2016

US State Plane 1927 (Exact solution)
 New Mexico East 3001

Created By: HLH
 Date: 13:03, June 24 2016
 Plan: Design #1

The customer should only rely on this document after independently verifying all paths, targets, coordinates, lease and hard lines represented.
 Any decisions made or wells drilled utilizing this or any other information supplied by MS Energy are at the sole risk and responsibility of the customer. MS Energy is not responsible for the accuracy of this schematic or the information contained herein.



Company: Matador Resources
 Site: Zach McCormick Federal 18-24S-29E RB
 Well: #122H
 Project: Eddy County, New Mexico (NAD 27)
 Rig: Patterson 297

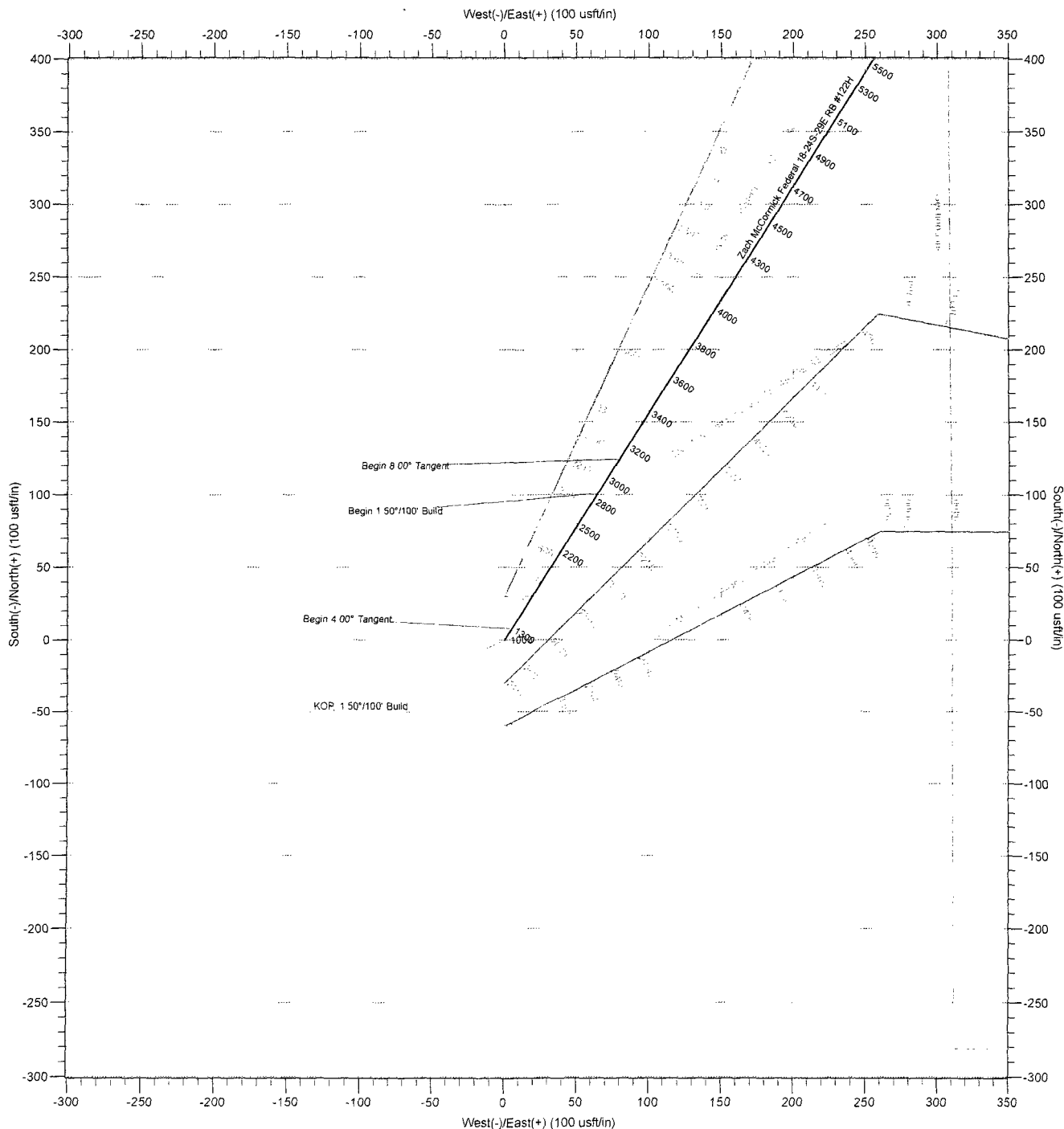


US State Plane 1927 (Exact solution)
 New Mexico East 3001

Created By: HLH
 Date: 11:59, June 24 2016
 Plan: Design #1

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	32.60	1266.45	7.84	5.01	5.01	9.30	Begin 4.00° Tangent
2850.00	4.00	32.60	2845.93	100.89	64.52	64.49	119.75	Begin 1.50°/100' Build
3116.67	8.00	32.60	3111.08	124.36	79.54	79.49	147.62	Begin 8.00° Tangent
5241.35	8.00	32.60	5215.09	373.47	238.85	238.72	443.32	Begin 1.50°/100' Drop
5774.69	0.00	0.00	5746.69	404.79	258.88	258.74	480.49	Begin Vertical Hold
7795.04	0.00	0.00	7767.04	404.79	258.88	258.74	480.49	Begin 10.00°/100' Build
8695.04	90.00	90.02	8340.00	404.54	831.84	831.70	1053.45	Begin 90.00° Lateral
13223.16	90.00	90.02	8340.00	402.59	5359.96	5359.82	5581.57	PBHL





Matador Resources

Eddy County, New Mexico (NAD 27)
Zach McCormick Federal 18-24S-29E RB
#122H

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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	6/24/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	13,223.16	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	8,802.72	8,335.45	0.01	-61.22	0.000	Level 1, CC, ES, SF
Zach McCormick Federal 18-24S-29E RB						
#1 - Wellbore #1 - Surveys	8,768.84	8,382.85	1,228.68	1,165.23	19.363	CC
#1 - Wellbore #1 - Surveys	8,800.00	8,386.39	1,229.07	1,165.20	19.243	ES
#1 - Wellbore #1 - Surveys	9,100.00	8,421.03	1,271.94	1,203.77	18.658	SF
#121H - Wellbore #1 - Design #1	13,215.24	13,218.00	1,320.00	1,069.44	5.268	CC
#121H - Wellbore #1 - Design #1	13,223.16	13,216.38	1,320.04	1,069.30	5.265	ES, SF
#201H - Wellbore #1 - Design #1	7,795.04	7,801.25	1,650.02	1,593.71	29.303	CC
#201H - Wellbore #1 - Design #1	8,000.00	8,000.64	1,650.54	1,592.76	28.568	ES
#201H - Wellbore #1 - Design #1	13,223.16	14,623.75	2,169.56	1,972.43	11.005	SF
#202H - Wellbore #1 - Design #1	1,000.00	999.12	59.97	53.27	8.946	CC
#202H - Wellbore #1 - Design #1	1,266.67	1,261.94	60.67	52.08	7.066	ES
#202H - Wellbore #1 - Design #1	8,050.00	8,079.97	334.97	276.52	5.731	SF
#205H - Wellbore #1 - Design #1	7,795.04	7,788.78	990.01	934.20	17.739	CC
#205H - Wellbore #1 - Design #1	7,950.00	7,941.86	990.34	933.40	17.394	ES
#205H - Wellbore #1 - Design #1	13,223.16	14,618.22	1,721.86	1,562.89	10.831	SF
#206H - Wellbore #1 - Design #1	1,000.00	997.69	59.92	53.22	8.945	CC
#206H - Wellbore #1 - Design #1	1,100.00	1,098.40	60.45	53.03	8.155	ES
#206H - Wellbore #1 - Design #1	2,900.00	2,898.60	115.62	95.09	5.631	SF
#221H - Wellbore #1 - Design #1	7,795.04	7,786.84	1,500.03	1,443.94	26.743	CC
#221H - Wellbore #1 - Design #1	7,950.00	7,939.92	1,500.28	1,443.08	26.228	ES
#221H - Wellbore #1 - Design #1	13,223.16	15,431.68	2,760.79	2,597.73	16.930	SF
#222H - Wellbore #1 - Design #1	1,000.00	999.44	30.03	23.33	4.479	CC
#222H - Wellbore #1 - Design #1	1,266.67	1,264.22	30.55	21.96	3.555	ES
#222H - Wellbore #1 - Design #1	7,950.00	7,968.40	181.31	123.87	3.156	SF
#225H - Wellbore #1 - Design #1	7,795.04	7,782.77	1,140.01	1,084.24	20.442	CC
#225H - Wellbore #1 - Design #1	7,950.00	7,935.85	1,140.31	1,083.42	20.043	ES
#225H - Wellbore #1 - Design #1	13,223.16	15,430.62	2,424.75	2,297.82	19.103	SF
#226H - Wellbore #1 - Design #1	1,000.00	1,002.29	29.90	23.18	4.453	CC, ES
#226H - Wellbore #1 - Design #1	7,900.00	7,907.17	180.21	123.59	3.183	SF

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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 (°)	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	0.00	0.00	0.00	0.00	71.41	404.87	1,203.89	1,270.18				
100.00	100.00	111.78	111.77	0.13	0.17	71.40	404.87	1,202.91	1,269.39	1,269.09	0.30	4,167.765	
200.00	200.00	214.38	214.36	0.49	0.54	71.37	404.87	1,201.00	1,267.63	1,266.61	1.02	1,244.173	
300.00	300.00	317.11	317.06	0.84	0.92	71.34	404.86	1,198.85	1,265.65	1,263.91	1.73	730.034	
400.00	400.00	418.81	418.74	1.20	1.29	71.31	404.86	1,196.54	1,263.49	1,261.04	2.45	515.699	
500.00	500.00	520.59	520.49	1.56	1.65	71.27	404.86	1,194.07	1,261.20	1,258.03	3.17	398.332	
600.00	600.00	622.37	622.23	1.92	2.02	71.23	404.85	1,191.45	1,258.76	1,254.87	3.88	324.236	
700.00	700.00	724.40	724.23	2.28	2.37	71.19	404.85	1,188.76	1,256.25	1,251.66	4.60	273.220	
800.00	800.00	833.47	833.24	2.64	2.76	71.14	404.84	1,185.26	1,253.22	1,247.87	5.34	234.677	
900.00	900.00	942.48	942.16	3.00	3.15	71.08	404.84	1,180.92	1,249.45	1,243.37	6.08	205.430	
1,000.00	1,000.00	1,041.34	1,040.92	3.35	3.50	71.01	404.83	1,176.41	1,245.14	1,238.35	6.79	183.450	
1,100.00	1,099.99	1,134.21	1,133.73	3.71	3.82	38.44	404.83	1,172.81	1,240.44	1,232.97	7.47	166.043	
1,200.00	1,199.91	1,235.78	1,235.23	4.07	4.18	38.56	404.82	1,169.14	1,233.94	1,225.76	8.18	150.782	
1,266.67	1,266.45	1,307.77	1,307.15	4.31	4.43	38.70	404.82	1,166.21	1,228.20	1,219.53	8.67	141.590	
1,300.00	1,299.70	1,342.70	1,342.05	4.43	4.56	38.74	404.82	1,164.67	1,225.00	1,216.08	8.92	137.394	
1,400.00	1,399.46	1,446.54	1,445.78	4.79	4.92	38.89	404.81	1,159.85	1,215.16	1,205.53	9.64	126.106	
1,500.00	1,499.22	1,537.69	1,536.84	5.15	5.24	39.02	404.80	1,155.83	1,205.55	1,195.24	10.31	116.879	
1,600.00	1,598.97	1,632.33	1,631.41	5.51	5.58	39.16	404.80	1,152.17	1,196.47	1,185.46	11.01	108.714	
1,700.00	1,698.73	1,729.72	1,728.74	5.87	5.92	39.31	404.79	1,148.72	1,187.70	1,175.99	11.71	101.454	
1,800.00	1,798.48	1,827.87	1,826.83	6.24	6.26	39.47	404.79	1,145.30	1,179.00	1,166.59	12.41	94.995	
1,900.00	1,898.24	1,918.88	1,917.80	6.61	6.57	39.63	404.78	1,142.59	1,170.78	1,157.69	13.09	89.425	
2,000.00	1,998.00	2,017.01	2,015.90	6.97	6.92	39.81	404.78	1,140.28	1,163.17	1,149.37	13.80	84.301	
2,100.00	2,097.75	2,123.48	2,122.33	7.34	7.29	40.00	404.78	1,137.34	1,155.18	1,140.65	14.53	79.498	
2,200.00	2,197.51	2,236.98	2,235.75	7.71	7.69	40.20	404.77	1,133.12	1,146.30	1,131.01	15.29	74.988	
2,300.00	2,297.27	2,346.71	2,345.35	8.08	8.07	40.37	404.76	1,127.77	1,136.32	1,120.29	16.03	70.893	
2,400.00	2,397.02	2,452.16	2,450.63	8.45	8.45	40.52	404.76	1,121.85	1,125.64	1,108.88	16.76	67.172	
2,500.00	2,496.78	2,554.23	2,552.52	8.82	8.81	40.67	404.75	1,115.71	1,114.59	1,097.12	17.48	63.774	
2,600.00	2,596.54	2,650.85	2,648.97	9.19	9.16	40.81	404.74	1,109.86	1,103.52	1,085.34	18.18	60.693	
2,700.00	2,696.29	2,744.07	2,742.04	9.56	9.49	40.96	404.73	1,104.68	1,092.93	1,074.05	18.88	57.893	
2,800.00	2,796.05	2,837.38	2,835.23	9.93	9.83	41.11	404.73	1,100.05	1,082.90	1,063.33	19.58	55.320	
2,850.00	2,845.93	2,884.07	2,881.88	10.11	10.00	41.20	404.72	1,097.93	1,078.11	1,058.18	19.92	54.111	
2,900.00	2,895.78	2,930.49	2,928.26	10.30	10.16	41.34	404.72	1,095.97	1,073.21	1,052.94	20.27	52.942	
3,000.00	2,995.32	3,023.70	3,021.40	10.67	10.49	41.72	404.71	1,092.49	1,062.43	1,041.46	20.97	50.664	
3,100.00	3,094.57	3,120.92	3,118.57	11.06	10.83	42.23	404.71	1,089.19	1,050.09	1,028.41	21.68	48.426	
3,116.67	3,111.08	3,137.10	3,134.73	11.13	10.88	42.32	404.71	1,088.66	1,047.87	1,026.06	21.80	48.058	
3,200.00	3,193.60	3,217.93	3,215.52	11.45	11.17	42.71	404.71	1,086.08	1,036.72	1,014.31	22.40	46.281	
3,300.00	3,292.63	3,316.95	3,314.50	11.85	11.51	43.19	404.70	1,083.01	1,023.49	1,000.37	23.12	44.262	
3,400.00	3,391.65	3,417.40	3,414.89	12.24	11.86	43.69	404.70	1,079.75	1,010.21	986.36	23.85	42.353	
3,500.00	3,490.68	3,517.82	3,515.25	12.64	12.21	44.20	404.69	1,076.32	996.83	972.25	24.58	40.551	
3,600.00	3,589.71	3,613.27	3,610.65	13.03	12.55	44.70	404.69	1,073.16	983.63	958.33	25.30	38.879	
3,700.00	3,688.73	3,709.15	3,706.49	13.43	12.88	45.22	404.68	1,070.27	970.80	944.78	26.02	37.308	
3,800.00	3,787.76	3,805.62	3,802.92	13.83	13.22	45.76	404.68	1,067.65	958.34	931.60	26.74	35.833	
3,900.00	3,886.79	3,904.42	3,901.68	14.23	13.56	46.33	404.68	1,065.06	946.07	918.60	27.48	34.432	
4,000.00	3,985.82	4,003.21	4,000.45	14.64	13.91	46.92	404.67	1,062.48	933.90	905.69	28.21	33.105	
4,100.00	4,084.84	4,102.01	4,099.21	15.04	14.25	47.52	404.67	1,059.89	921.82	892.88	28.94	31.848	
4,200.00	4,183.87	4,200.80	4,197.97	15.44	14.60	48.13	404.67	1,057.31	909.85	880.17	29.68	30.654	
4,300.00	4,282.90	4,299.60	4,296.73	15.85	14.94	48.76	404.66	1,054.72	897.99	867.57	30.42	29.521	
4,400.00	4,381.92	4,398.40	4,395.50	16.25	15.29	49.41	404.66	1,052.13	886.23	855.07	31.16	28.443	
4,500.00	4,480.95	4,497.19	4,494.26	16.66	15.64	50.07	404.65	1,049.55	874.59	842.69	31.90	27.417	
4,600.00	4,579.98	4,595.56	4,592.59	17.06	15.98	50.75	404.65	1,046.99	863.09	830.45	32.64	26.442	
4,700.00	4,679.00	4,693.66	4,690.66	17.47	16.32	51.45	404.65	1,044.51	851.79	818.40	33.38	25.515	
4,800.00	4,778.03	4,791.77	4,788.74	17.88	16.67	52.16	404.64	1,042.11	840.69	806.57	34.13	24.633	

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: #122H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
 TVD Reference: WELL @ 2985.38usft (Patterson 297)
 MD Reference: WELL @ 2985.38usft (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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,877.06	4,889.90	4,886.84	18.28	17.01	52.89	404.64	1,039.80	829.82	794.95	34.87	23.795	
5,000.00	4,976.08	4,988.04	4,984.96	18.69	17.35	53.65	404.64	1,037.56	819.17	783.55	35.62	22.996	
5,100.00	5,075.11	5,086.20	5,083.10	19.10	17.70	54.42	404.63	1,035.41	808.76	772.38	36.37	22.236	
5,200.00	5,174.14	5,184.35	5,181.22	19.51	18.04	55.21	404.63	1,033.34	798.57	761.45	37.12	21.512	
5,241.35	5,215.09	5,224.94	5,221.81	19.68	18.18	55.55	404.63	1,032.51	794.44	757.00	37.43	21.222	
5,300.00	5,273.22	5,282.58	5,279.44	19.92	18.38	55.93	404.63	1,031.36	788.89	751.02	37.87	20.829	
5,400.00	5,372.60	5,381.15	5,377.98	20.31	18.72	56.49	404.63	1,029.45	780.76	742.14	38.62	20.219	
5,500.00	5,472.24	5,480.01	5,476.83	20.69	19.07	56.93	404.62	1,027.63	774.23	734.89	39.35	19.678	
5,600.00	5,572.06	5,579.31	5,576.11	21.06	19.41	57.23	404.62	1,025.87	769.27	729.20	40.06	19.201	
5,700.00	5,672.01	5,679.21	5,675.99	21.41	19.76	57.39	404.62	1,024.13	765.76	724.99	40.77	18.782	
5,774.89	5,746.69	5,753.87	5,750.64	21.66	20.02	90.01	404.62	1,022.83	764.06	722.77	41.29	18.505	
5,800.00	5,772.00	5,779.18	5,775.95	21.74	20.11	90.01	404.62	1,022.39	763.62	722.16	41.46	18.417	
5,900.00	5,872.00	5,879.16	5,875.92	22.08	20.46	90.01	404.61	1,020.64	761.88	719.72	42.15	18.074	
6,000.00	5,972.00	5,979.15	5,975.89	22.41	20.80	90.01	404.61	1,018.90	760.13	717.29	42.84	17.743	
6,100.00	6,072.00	6,079.13	6,075.86	22.75	21.15	90.01	404.61	1,017.15	758.39	714.85	43.53	17.421	
6,200.00	6,172.00	6,179.12	6,175.83	23.09	21.50	90.01	404.61	1,015.41	756.64	712.42	44.22	17.110	
6,300.00	6,272.00	6,279.10	6,275.80	23.42	21.85	90.01	404.60	1,013.66	754.90	709.98	44.91	16.808	
6,400.00	6,372.00	6,379.09	6,375.77	23.76	22.19	90.01	404.60	1,011.92	753.15	707.54	45.61	16.515	
6,500.00	6,472.00	6,479.07	6,475.74	24.10	22.54	90.01	404.60	1,010.17	751.40	705.11	46.30	16.230	
6,600.00	6,572.00	6,579.06	6,575.71	24.44	22.89	90.01	404.60	1,008.43	749.66	702.67	46.99	15.954	
6,700.00	6,672.00	6,679.04	6,675.68	24.78	23.24	90.01	404.59	1,006.68	747.91	700.23	47.68	15.685	
6,800.00	6,772.00	6,780.13	6,776.75	25.12	23.59	90.02	404.59	1,004.90	746.15	697.77	48.38	15.423	
6,900.00	6,872.00	6,884.19	6,880.79	25.46	23.96	90.02	404.59	1,002.64	743.98	694.90	49.08	15.158	
7,000.00	6,972.00	6,988.23	6,984.78	25.80	24.32	90.02	404.59	999.81	741.27	691.48	49.78	14.890	
7,100.00	7,072.00	7,092.22	7,088.72	26.14	24.69	90.02	404.58	996.42	738.00	687.52	50.48	14.619	
7,200.00	7,172.00	7,196.18	7,192.61	26.48	25.05	90.02	404.57	992.46	734.19	683.01	51.18	14.345	
7,300.00	7,272.00	7,301.62	7,297.94	26.82	25.42	90.02	404.57	987.81	729.78	677.90	51.88	14.067	
7,400.00	7,372.00	7,404.36	7,400.55	27.17	25.78	90.02	404.56	982.52	724.63	672.05	52.58	13.782	
7,500.00	7,472.00	7,495.38	7,491.47	27.51	26.10	90.02	404.56	978.28	719.98	666.71	53.27	13.515	
7,600.00	7,572.00	7,605.51	7,601.48	27.85	26.48	90.02	404.55	973.17	715.35	661.38	53.97	13.254	
7,700.00	7,672.00	7,704.88	7,700.69	28.20	26.83	90.02	404.54	967.68	709.83	655.16	54.67	12.984	
7,795.04	7,767.04	7,797.52	7,793.20	28.52	27.16	90.02	404.53	962.87	704.88	649.55	55.33	12.739	
7,800.00	7,772.00	7,802.36	7,798.04	28.54	27.17	0.00	404.53	962.62	704.61	649.25	55.37	12.726	
7,850.00	7,821.92	7,850.94	7,846.57	28.71	27.34	0.00	404.53	960.22	699.54	643.82	55.71	12.556	
7,900.00	7,871.42	7,900.30	7,895.87	28.89	27.52	0.00	404.53	957.83	690.19	634.14	56.06	12.313	
7,950.00	7,920.12	7,949.58	7,945.08	29.08	27.69	0.00	404.52	955.37	676.54	620.14	56.39	11.997	
8,000.00	7,967.66	7,997.39	7,992.83	29.28	27.86	0.00	404.52	952.91	658.66	601.94	56.72	11.612	
8,050.00	8,013.67	8,039.58	8,034.97	29.48	28.00	0.00	404.52	950.79	636.85	579.81	57.04	11.165	
8,100.00	8,057.81	8,080.27	8,075.61	29.70	28.15	0.00	404.51	948.91	611.37	554.03	57.34	10.661	
8,150.00	8,099.73	8,118.88	8,114.19	29.92	28.28	0.00	404.51	947.26	582.39	524.76	57.63	10.106	
8,200.00	8,139.12	8,155.16	8,150.44	30.15	28.41	0.00	404.51	945.83	550.09	492.20	57.89	9.502	
8,250.00	8,175.68	8,189.00	8,184.26	30.40	28.53	0.00	404.51	944.61	514.71	456.57	58.14	8.853	
8,300.00	8,209.13	8,221.13	8,216.37	30.67	28.64	0.00	404.51	943.49	476.42	418.07	58.35	8.164	
8,350.00	8,239.21	8,249.81	8,245.03	30.97	28.74	0.00	404.51	942.49	435.48	376.93	58.54	7.438	
8,400.00	8,265.70	8,274.80	8,270.01	31.30	28.83	0.00	404.50	941.62	392.19	333.48	58.71	6.680	
8,450.00	8,288.40	8,295.93	8,291.12	31.66	28.90	0.00	404.50	940.88	346.89	288.05	58.84	5.895	
8,500.00	8,307.12	8,313.03	8,308.21	32.05	28.96	0.00	404.50	940.28	299.92	240.97	58.95	5.088	
8,550.00	8,321.74	8,325.97	8,321.14	32.48	29.01	-0.01	404.50	939.83	251.64	192.61	59.03	4.263	
8,600.00	8,332.14	8,334.51	8,329.68	32.94	29.04	-0.01	404.50	939.54	202.43	143.34	59.09	3.426	
8,650.00	8,338.23	8,338.88	8,334.05	33.43	29.05	-0.04	404.50	939.39	152.64	93.52	59.11	2.582	
8,695.04	8,340.00	8,339.12	8,334.28	33.89	29.05	-179.93	404.50	939.38	107.61	48.49	59.12	1.820	
8,700.00	8,340.00	8,338.95	8,334.12	33.95	29.05	-179.93	404.50	939.39	102.65	43.53	59.12	1.736	

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
8,800.00	8,340.00	8,335.54	8,330.71	35.07	29.04	-177.28	404.50	939.51	2.71	-56.40	59.11	0.046	Level 1	
8,802.72	8,340.00	8,335.45	8,330.62	35.10	29.04	-86.21	404.50	939.51	0.01	-61.22	61.22	0.000	Level 1, CC, ES, SF	
8,900.00	8,340.00	8,332.11	8,327.29	36.32	29.03	-0.08	404.50	939.62	97.23	38.12	59.11	1.645		
9,000.00	8,340.00	8,328.66	8,323.84	37.69	29.01	-0.04	404.50	939.74	197.17	138.07	59.11	3.336		
9,100.00	8,340.00	8,325.19	8,320.36	39.16	29.00	-0.03	404.50	939.86	297.11	238.01	59.10	5.027		
9,200.00	8,340.00	8,321.69	8,316.87	40.72	28.99	-0.02	404.50	939.98	397.05	337.95	59.10	6.718		
9,300.00	8,340.00	8,318.17	8,313.35	42.37	28.98	-0.02	404.50	940.10	496.99	437.89	59.10	8.409		
9,400.00	8,340.00	8,314.62	8,309.80	44.08	28.97	-0.02	404.50	940.23	596.93	537.83	59.10	10.100		
9,500.00	8,340.00	8,311.12	8,306.30	45.86	28.95	-0.01	404.50	940.35	696.87	637.77	59.10	11.791		
9,600.00	8,340.00	8,307.63	8,302.81	47.70	28.94	-0.01	404.50	940.47	796.81	737.71	59.10	13.482		
9,700.00	8,340.00	8,304.14	8,299.32	49.58	28.93	-0.01	404.50	940.59	896.75	837.64	59.11	15.172		
9,800.00	8,340.00	8,300.65	8,295.84	51.52	28.92	-0.01	404.50	940.72	996.69	937.58	59.11	16.861		
9,900.00	8,340.00	8,297.16	8,292.35	53.49	28.90	-0.01	404.50	940.84	1,096.63	1,037.51	59.12	18.550		
10,000.00	8,340.00	8,293.67	8,288.86	55.50	28.89	-0.01	404.50	940.96	1,196.57	1,137.45	59.12	20.239		
10,100.00	8,340.00	8,290.18	8,285.37	57.54	28.88	-0.01	404.50	941.08	1,296.51	1,237.38	59.13	21.927		
10,200.00	8,340.00	8,286.69	8,281.88	59.61	28.87	-0.01	404.50	941.20	1,396.45	1,337.31	59.14	23.614		
10,300.00	8,340.00	8,283.20	8,278.40	61.70	28.86	-0.01	404.50	941.32	1,496.39	1,437.24	59.15	25.300		
10,400.00	8,340.00	8,279.71	8,274.91	63.82	28.84	-0.01	404.50	941.45	1,596.32	1,537.17	59.16	26.985		
10,500.00	8,340.00	8,276.22	8,271.42	65.96	28.83	-0.01	404.50	941.57	1,696.26	1,637.10	59.17	28.669		
10,600.00	8,340.00	8,272.73	8,267.93	68.12	28.82	-0.01	404.50	941.69	1,796.20	1,737.02	59.18	30.352		
10,700.00	8,340.00	8,269.24	8,264.45	70.30	28.81	-0.01	404.50	941.81	1,896.14	1,836.95	59.19	32.034		
10,800.00	8,340.00	8,265.75	8,260.96	72.49	28.79	-0.01	404.50	941.93	1,996.08	1,936.88	59.20	33.715		
10,900.00	8,340.00	8,262.26	8,257.47	74.69	28.78	-0.01	404.50	942.06	2,096.02	2,036.80	59.22	35.394		
11,000.00	8,340.00	8,258.77	8,253.98	76.91	28.77	-0.01	404.50	942.18	2,195.96	2,136.72	59.24	37.072		
11,100.00	8,340.00	8,255.28	8,250.49	79.14	28.76	-0.01	404.50	942.30	2,295.90	2,236.65	59.25	38.748		
11,200.00	8,340.00	8,251.79	8,247.01	81.39	28.75	-0.01	404.50	942.42	2,395.84	2,336.57	59.27	40.423		
11,300.00	8,340.00	8,248.30	8,243.52	83.64	28.73	-0.01	404.51	942.54	2,495.78	2,436.49	59.29	42.096		
11,400.00	8,340.00	8,244.81	8,240.03	85.90	28.72	-0.01	404.51	942.66	2,595.72	2,536.41	59.31	43.768		
11,500.00	8,340.00	8,241.32	8,236.54	88.17	28.71	-0.01	404.51	942.79	2,695.65	2,636.33	59.33	45.437		
11,600.00	8,340.00	8,237.83	8,233.06	90.45	28.70	-0.01	404.51	942.91	2,795.59	2,736.25	59.35	47.105		
11,700.00	8,340.00	8,234.34	8,229.57	92.74	28.69	-0.01	404.51	943.03	2,895.53	2,836.16	59.37	48.771		
11,800.00	8,340.00	8,230.85	8,226.08	95.03	28.67	-0.01	404.51	943.15	2,995.47	2,936.08	59.39	50.435		
11,900.00	8,340.00	8,227.36	8,222.59	97.33	28.66	-0.01	404.51	943.27	3,095.41	3,035.99	59.42	52.097		
12,000.00	8,340.00	8,223.87	8,219.10	99.63	28.65	-0.01	404.51	943.40	3,195.35	3,135.91	59.44	53.756		
12,100.00	8,340.00	8,220.38	8,215.62	101.94	28.64	-0.01	404.51	943.52	3,295.29	3,235.82	59.47	55.414		
12,200.00	8,340.00	8,216.89	8,212.13	104.26	28.62	-0.01	404.51	943.64	3,395.23	3,335.73	59.49	57.069		
12,300.00	8,340.00	8,213.40	8,208.64	106.58	28.61	-0.01	404.51	943.76	3,495.17	3,435.65	59.52	58.721		
12,400.00	8,340.00	8,222.09	8,217.33	108.90	28.64	-0.01	404.51	943.52	3,595.06	3,535.46	59.61	60.314		
12,500.00	8,340.00	8,217.33	8,212.58	111.23	28.63	-0.01	404.51	943.67	3,695.01	3,635.38	59.63	61.967		
12,600.00	8,340.00	8,212.44	8,207.69	113.57	28.61	-0.01	404.51	943.83	3,794.96	3,735.31	59.65	63.618		
12,700.00	8,340.00	8,207.41	8,202.66	115.90	28.59	-0.01	404.51	943.99	3,894.91	3,835.23	59.68	65.268		
12,800.00	8,340.00	8,202.24	8,197.49	118.24	28.57	-0.01	404.51	944.16	3,994.85	3,935.15	59.70	66.915		
12,900.00	8,340.00	8,196.92	8,192.17	120.59	28.55	-0.01	404.51	944.34	4,094.80	4,035.07	59.72	68.561		
13,000.00	8,340.00	8,191.43	8,186.69	122.93	28.54	-0.01	404.51	944.53	4,194.74	4,134.99	59.75	70.206		
13,100.00	8,340.00	8,185.79	8,181.05	125.28	28.52	-0.01	404.51	944.72	4,294.68	4,234.91	59.77	71.848		
13,200.00	8,340.00	8,179.97	8,175.23	127.64	28.50	-0.01	404.51	944.93	4,394.62	4,334.82	59.80	73.489		
13,223.16	8,340.00	8,178.59	8,173.86	128.18	28.49	-0.01	404.51	944.98	4,417.77	4,357.96	59.81	73.869		

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: #122H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
 TVD Reference: WELL @ 2985.38usft (Patterson 297)
 MD Reference: WELL @ 2985.38usft (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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	22.24	1,670.02	682.84	1,804.24				
100.00	100.00	93.39	93.39	0.13	0.13	22.24	1,670.07	682.80	1,804.26	1,804.00	0.26	7,068.072	
200.00	200.00	189.06	189.06	0.49	0.40	22.24	1,670.22	682.85	1,804.42	1,803.54	0.88	2,047.035	
300.00	300.00	293.77	293.77	0.84	0.76	22.24	1,670.42	682.99	1,804.65	1,803.05	1.61	1,123.458	
400.00	400.00	396.77	396.77	1.20	1.12	22.23	1,670.57	682.71	1,804.69	1,802.37	2.32	776.525	
500.00	500.00	513.29	513.29	1.56	1.53	22.21	1,670.07	681.88	1,804.01	1,800.92	3.09	584.065	
600.00	600.00	614.63	614.62	1.92	1.88	22.20	1,669.10	681.22	1,802.87	1,799.07	3.80	474.380	
700.00	700.00	715.32	715.30	2.28	2.23	22.20	1,668.04	680.74	1,801.71	1,797.20	4.51	399.441	
800.00	800.00	807.09	807.07	2.64	2.55	22.20	1,667.18	680.50	1,800.76	1,795.57	5.19	346.989	
900.00	900.00	901.03	901.01	3.00	2.88	22.22	1,666.54	680.90	1,800.29	1,794.41	5.88	306.359	
1,000.00	1,000.00	1,000.20	1,000.17	3.35	3.23	22.26	1,665.85	681.72	1,799.95	1,793.37	6.58	273.495	
1,100.00	1,099.99	1,094.94	1,094.91	3.71	3.56	-10.32	1,665.33	682.62	1,798.51	1,791.24	7.27	247.410	
1,200.00	1,199.91	1,192.69	1,192.65	4.07	3.90	-10.32	1,664.97	683.72	1,794.73	1,786.77	7.97	225.256	
1,266.67	1,266.45	1,258.65	1,258.60	4.31	4.13	-10.33	1,664.77	684.40	1,790.81	1,782.37	8.44	212.270	
1,300.00	1,299.70	1,300.34	1,300.29	4.43	4.28	-10.34	1,664.65	684.67	1,788.52	1,779.82	8.70	205.540	
1,400.00	1,399.46	1,413.10	1,413.04	4.79	4.67	-10.39	1,663.86	684.15	1,780.82	1,771.37	9.45	188.407	
1,500.00	1,499.22	1,522.92	1,522.85	5.15	5.05	-10.47	1,662.88	682.65	1,772.62	1,762.43	10.19	173.917	
1,600.00	1,598.97	1,620.13	1,620.04	5.51	5.39	-10.53	1,661.67	681.46	1,764.15	1,753.26	10.89	161.998	
1,700.00	1,698.73	1,720.47	1,720.38	5.87	5.75	-10.58	1,660.40	680.56	1,755.78	1,744.18	11.60	151.375	
1,800.00	1,798.48	1,820.98	1,820.87	6.24	6.10	-10.64	1,659.11	679.47	1,747.34	1,735.03	12.31	141.958	
1,900.00	1,898.24	1,921.44	1,921.32	6.61	6.45	-10.70	1,657.79	678.40	1,738.87	1,725.85	13.02	133.564	
2,000.00	1,998.00	2,039.38	2,039.22	6.97	6.86	-10.72	1,655.21	678.37	1,730.01	1,716.22	13.79	125.483	
2,100.00	2,097.75	2,153.23	2,152.94	7.34	7.26	-10.64	1,650.38	680.54	1,719.93	1,705.39	14.54	118.290	
2,200.00	2,197.51	2,260.25	2,259.79	7.71	7.64	-10.53	1,644.96	683.39	1,709.38	1,694.11	15.27	111.935	
2,300.00	2,297.27	2,390.52	2,389.59	8.08	8.10	-10.28	1,635.85	689.53	1,697.89	1,681.82	16.07	105.636	
2,400.00	2,397.02	2,481.78	2,480.39	8.45	8.42	-10.06	1,628.16	694.37	1,685.30	1,668.54	16.76	100.563	
2,500.00	2,496.78	2,563.07	2,561.45	8.82	8.70	-9.93	1,622.77	697.33	1,673.72	1,656.31	17.41	96.117	
2,600.00	2,596.54	2,643.88	2,642.14	9.19	8.99	-9.85	1,618.80	699.28	1,663.25	1,645.19	18.06	92.072	
2,700.00	2,696.29	2,735.88	2,734.06	9.56	9.31	-9.79	1,615.32	700.86	1,653.57	1,634.82	18.75	88.193	
2,800.00	2,796.05	2,821.06	2,819.19	9.93	9.61	-9.75	1,612.79	702.01	1,644.49	1,625.08	19.41	84.712	
2,850.00	2,845.93	2,868.62	2,866.74	10.11	9.77	-9.74	1,611.67	702.66	1,640.23	1,620.47	19.76	83.009	
2,900.00	2,895.78	2,917.69	2,915.78	10.30	9.94	-9.73	1,610.54	703.34	1,635.69	1,615.58	20.11	81.330	
3,000.00	2,895.32	3,018.52	3,016.57	10.67	10.30	-9.74	1,608.19	704.74	1,624.64	1,603.82	20.83	78.012	
3,100.00	3,094.57	3,116.89	3,114.92	11.06	10.64	-9.78	1,605.98	705.79	1,610.99	1,589.46	21.53	74.816	
3,116.67	3,111.08	3,132.98	3,131.01	11.13	10.70	-9.79	1,605.62	705.99	1,608.48	1,586.83	21.65	74.293	
3,200.00	3,193.60	3,214.34	3,212.34	11.45	10.98	-9.81	1,603.86	706.89	1,595.77	1,573.53	22.24	71.762	
3,300.00	3,292.63	3,311.08	3,309.05	11.85	11.32	-9.82	1,601.89	708.05	1,580.65	1,557.71	22.94	68.909	
3,400.00	3,391.65	3,415.37	3,413.31	12.24	11.69	-9.84	1,599.62	709.23	1,565.38	1,541.72	23.66	66.154	
3,500.00	3,490.68	3,514.35	3,512.26	12.64	12.03	-9.87	1,597.35	710.14	1,549.93	1,525.56	24.37	63.595	
3,600.00	3,589.71	3,609.93	3,607.82	13.03	12.37	-9.90	1,595.46	710.69	1,534.63	1,509.56	25.07	61.210	
3,700.00	3,688.73	3,708.88	3,706.75	13.43	12.71	-9.95	1,593.64	711.16	1,519.42	1,493.64	25.78	58.935	
3,800.00	3,787.76	3,807.71	3,805.57	13.83	13.06	-10.00	1,591.80	711.50	1,504.14	1,477.65	26.49	56.778	
3,900.00	3,886.79	3,901.79	3,899.64	14.23	13.39	-10.07	1,590.34	711.58	1,489.05	1,461.86	27.19	54.767	
4,000.00	3,985.82	3,998.38	3,996.22	14.64	13.73	-10.14	1,589.12	711.71	1,474.24	1,446.34	27.89	52.853	
4,100.00	4,084.84	4,098.61	4,096.44	15.04	14.08	-10.20	1,587.83	711.97	1,459.46	1,430.85	28.61	51.015	
4,200.00	4,183.87	4,196.22	4,194.04	15.44	14.42	-10.29	1,586.66	711.90	1,444.63	1,415.31	29.32	49.276	
4,300.00	4,282.90	4,293.47	4,291.28	15.85	14.76	-10.38	1,585.67	711.70	1,429.92	1,399.90	30.02	47.625	
4,400.00	4,381.92	4,394.10	4,391.91	16.25	15.11	-10.47	1,584.62	711.63	1,415.25	1,384.51	30.74	46.036	
4,500.00	4,480.95	4,493.49	4,491.29	16.66	15.46	-10.55	1,583.39	711.70	1,400.46	1,369.00	31.46	44.521	
4,600.00	4,579.98	4,594.45	4,592.24	17.06	15.82	-10.64	1,582.16	711.47	1,385.57	1,353.40	32.17	43.064	
4,700.00	4,679.00	4,691.10	4,688.88	17.47	16.15	-10.74	1,581.05	711.18	1,370.72	1,337.84	32.88	41.685	
4,800.00	4,778.03	4,789.45	4,787.23	17.88	16.50	-10.85	1,580.02	710.86	1,355.96	1,322.37	33.60	40.362	

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: #122H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
 TVD Reference: WELL @ 2985.38usft (Patterson 297)
 MD Reference: WELL @ 2985.38usft (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		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)					
4,900.00	4,877.06	4,891.29	4,889.07	18.28	16.86	-10.95	1,578.85	710.68	1,341.17	1,306.86	34.32	39.082	
5,000.00	4,976.08	4,992.92	4,990.68	18.69	17.21	-11.08	1,577.58	709.96	1,326.10	1,291.06	35.04	37.848	
5,100.00	5,075.11	5,093.82	5,091.57	19.10	17.57	-11.21	1,576.16	709.15	1,310.85	1,275.09	35.76	36.661	
5,200.00	5,174.14	5,193.12	5,190.85	19.51	17.91	-11.35	1,574.77	708.00	1,295.49	1,259.02	36.47	35.520	
5,241.35	5,215.09	5,233.04	5,230.77	19.68	18.05	-11.42	1,574.28	707.46	1,289.17	1,252.41	36.77	35.065	
5,300.00	5,273.22	5,289.83	5,287.54	19.92	18.25	-11.48	1,573.83	706.60	1,280.68	1,243.49	37.18	34.444	
5,400.00	5,372.60	5,350.00	5,347.70	20.31	18.46	-11.55	1,573.64	705.67	1,269.47	1,231.67	37.80	33.587	
5,500.00	5,472.24	5,434.29	5,431.94	20.69	18.75	-11.70	1,576.42	704.35	1,263.61	1,225.15	38.46	32.856	
5,600.00	5,572.08	5,536.06	5,533.64	21.06	19.10	-11.86	1,579.89	702.99	1,260.56	1,221.39	39.17	32.181	
5,670.29	5,642.31	5,605.70	5,603.24	21.30	19.34	-11.95	1,582.17	702.11	1,259.89	1,220.22	39.66	31.764	
5,700.00	5,672.01	5,631.06	5,628.58	21.41	19.43	-11.99	1,583.04	701.78	1,260.03	1,220.17	39.86	31.612	
5,774.69	5,746.69	5,680.97	5,678.42	21.66	19.60	20.53	1,585.51	700.97	1,262.33	1,222.04	40.29	31.330	
5,800.00	5,772.00	5,703.06	5,700.46	21.74	19.68	20.49	1,586.85	700.59	1,263.63	1,223.18	40.45	31.236	
5,900.00	5,872.00	5,809.57	5,806.77	22.08	20.05	20.31	1,593.34	698.75	1,268.75	1,227.57	41.18	30.812	
6,000.00	5,972.00	5,911.15	5,908.18	22.41	20.40	20.15	1,598.91	697.06	1,273.32	1,231.44	41.88	30.404	
6,100.00	6,072.00	6,007.91	6,004.79	22.75	20.73	20.03	1,604.17	696.09	1,278.08	1,235.52	42.56	30.028	
6,200.00	6,172.00	6,103.62	6,100.36	23.09	21.06	19.93	1,609.29	695.72	1,282.98	1,239.74	43.24	29.669	
6,300.00	6,272.00	6,200.95	6,197.54	23.42	21.40	19.91	1,614.33	697.06	1,288.32	1,244.39	43.93	29.327	
6,400.00	6,372.00	6,278.04	6,274.45	23.76	21.66	19.99	1,618.39	700.40	1,294.71	1,250.18	44.52	29.079	
6,500.00	6,472.00	6,386.74	6,382.86	24.10	22.04	20.13	1,624.16	705.89	1,301.42	1,256.16	45.26	28.755	
6,600.00	6,572.00	6,465.17	6,461.03	24.44	22.31	20.27	1,628.25	710.70	1,308.49	1,262.64	45.85	28.536	
6,700.00	6,672.00	6,614.92	6,610.07	24.78	22.83	20.75	1,632.91	724.23	1,314.55	1,267.78	46.77	28.108	
6,800.00	6,772.00	6,726.86	6,721.69	25.12	23.22	21.07	1,634.34	732.53	1,318.39	1,270.88	47.51	27.750	
6,900.00	6,872.00	6,831.81	6,826.48	25.46	23.59	21.28	1,635.42	738.27	1,321.31	1,273.09	48.22	27.399	
7,000.00	6,972.00	6,917.05	6,911.55	25.80	23.88	21.48	1,636.53	743.60	1,324.82	1,275.95	48.87	27.108	
7,100.00	7,072.00	6,993.65	6,987.96	26.14	24.15	21.64	1,638.76	748.34	1,329.82	1,280.35	49.48	26.878	
7,200.00	7,172.00	7,065.77	7,059.83	26.48	24.40	21.80	1,641.95	753.59	1,336.68	1,286.63	50.04	26.711	
7,300.00	7,272.00	7,158.24	7,151.80	26.82	24.73	22.02	1,647.33	761.44	1,345.23	1,294.53	50.70	26.532	
7,400.00	7,372.00	7,237.59	7,236.52	27.17	25.13	22.35	1,653.03	772.09	1,353.33	1,301.86	51.48	26.289	
7,500.00	7,472.00	7,403.65	7,395.82	27.51	25.59	22.85	1,655.61	785.84	1,359.13	1,306.82	52.32	25.980	
7,600.00	7,572.00	7,513.83	7,505.41	27.85	25.98	23.27	1,656.54	797.09	1,363.92	1,310.86	53.06	25.706	
7,700.00	7,672.00	7,608.12	7,598.90	28.20	26.31	23.75	1,655.92	809.34	1,368.54	1,314.81	53.74	25.467	
7,795.04	7,767.04	7,699.00	7,688.89	28.52	26.64	24.24	1,655.41	822.07	1,373.51	1,319.12	54.39	25.252	
7,800.00	7,772.00	7,704.38	7,694.21	28.54	26.66	-65.73	1,655.38	822.83	1,373.77	1,319.34	54.43	25.240	
7,850.00	7,821.92	7,760.56	7,749.85	28.71	26.86	-65.41	1,654.95	830.59	1,375.21	1,320.40	54.81	25.093	
7,900.00	7,871.42	7,811.76	7,800.59	28.89	27.04	-65.46	1,654.55	837.38	1,374.72	1,319.56	55.17	24.919	
7,950.00	7,920.12	7,885.85	7,874.07	29.08	27.31	-65.97	1,653.53	846.88	1,372.12	1,316.50	55.62	24.670	
8,000.00	7,967.66	7,967.15	7,954.75	29.28	27.60	-67.04	1,650.74	856.38	1,366.55	1,310.48	56.08	24.370	
8,050.00	8,013.67	8,017.44	8,004.71	29.48	27.77	-68.31	1,648.49	861.80	1,358.75	1,302.31	56.44	24.073	
8,100.00	8,057.81	8,068.69	8,055.58	29.70	27.96	-69.91	1,646.06	867.48	1,349.46	1,292.64	56.82	23.750	
8,150.00	8,099.73	8,115.98	8,102.53	29.92	28.12	-71.78	1,643.63	872.67	1,338.76	1,281.57	57.19	23.408	
8,200.00	8,139.12	8,143.90	8,130.20	30.15	28.22	-73.49	1,642.21	875.99	1,327.27	1,269.73	57.54	23.069	
8,250.00	8,175.68	8,173.21	8,159.22	30.40	28.33	-75.37	1,640.93	879.93	1,315.52	1,257.62	57.90	22.721	
8,300.00	8,209.13	8,215.95	8,201.55	30.67	28.48	-77.78	1,639.20	885.57	1,303.41	1,245.10	58.31	22.352	
8,350.00	8,239.21	8,254.61	8,239.87	30.97	28.62	-80.25	1,637.54	890.45	1,291.04	1,232.30	58.74	21.977	
8,400.00	8,265.70	8,286.80	8,271.78	31.30	28.74	-82.62	1,636.13	894.41	1,278.87	1,219.67	59.20	21.604	
8,450.00	8,288.40	8,311.85	8,296.62	31.66	28.83	-84.75	1,635.07	897.44	1,267.32	1,207.64	59.67	21.238	
8,500.00	8,307.12	8,330.80	8,315.42	32.05	28.89	-86.58	1,634.33	899.74	1,256.80	1,196.62	60.18	20.884	
8,550.00	8,321.74	8,344.90	8,329.40	32.48	28.94	-88.11	1,633.85	901.47	1,247.65	1,186.93	60.72	20.547	
8,600.00	8,332.14	8,357.75	8,342.15	32.94	28.99	-89.44	1,633.46	903.07	1,240.11	1,178.81	61.30	20.230	
8,650.00	8,338.23	8,368.18	8,352.49	33.43	29.03	-90.48	1,633.16	904.36	1,234.36	1,172.45	61.91	19.939	
8,695.04	8,340.00	8,374.42	8,358.69	33.89	29.05	-91.12	1,632.99	905.13	1,230.87	1,168.40	62.47	19.703	

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: #122H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
 TVD Reference: WELL @ 2985.38usft (Patterson 297)
 MD Reference: WELL @ 2985.38usft (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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference Offset (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,700.00	8,340.00	8,374.94	8,359.20	33.95	29.05	-91.15	1,632.98	905.20	1,230.58	1,168.05	62.53	19.679	
8,768.84	8,340.00	8,382.85	8,367.05	34.72	29.08	-91.51	1,632.77	906.17	1,228.68	1,165.23	63.46	19.363 CC	
8,800.00	8,340.00	8,386.39	8,370.56	35.07	29.09	-91.68	1,632.67	906.60	1,229.07	1,165.20	63.87	19.243 ES	
8,900.00	8,340.00	8,397.56	8,381.65	36.32	29.13	-92.19	1,632.39	907.95	1,235.57	1,170.27	65.30	18.922	
9,000.00	8,340.00	8,409.23	8,393.22	37.69	29.18	-92.73	1,632.09	909.35	1,249.95	1,183.20	66.75	18.726	
9,100.00	8,340.00	8,421.03	8,404.94	39.16	29.22	-93.28	1,631.80	910.77	1,271.94	1,203.77	68.17	18.658 SF	
9,200.00	8,340.00	8,432.74	8,416.56	40.72	29.26	-93.82	1,631.50	912.17	1,301.15	1,231.63	69.52	18.717	
9,300.00	8,340.00	8,444.35	8,428.09	42.37	29.30	-94.36	1,631.22	913.55	1,337.12	1,266.36	70.76	18.897	
9,400.00	8,340.00	8,455.35	8,439.00	44.08	29.34	-94.86	1,630.94	914.86	1,379.31	1,307.44	71.87	19.191	
9,500.00	8,340.00	8,465.55	8,449.12	45.86	29.38	-95.33	1,630.69	916.05	1,427.19	1,354.33	72.86	19.587	
9,600.00	8,340.00	8,475.41	8,458.92	47.70	29.41	-95.79	1,630.45	917.19	1,480.21	1,406.48	73.73	20.077	
9,700.00	8,340.00	8,484.59	8,468.03	49.58	29.45	-96.21	1,630.23	918.23	1,537.84	1,463.37	74.47	20.651	
9,800.00	8,340.00	8,493.45	8,476.84	51.52	29.48	-96.62	1,630.02	919.22	1,599.58	1,524.48	75.10	21.299	
9,900.00	8,340.00	8,502.08	8,485.42	53.49	29.51	-97.02	1,629.82	920.17	1,664.99	1,589.35	75.64	22.012	
10,000.00	8,340.00	8,510.58	8,493.87	55.50	29.54	-97.41	1,629.62	921.08	1,733.65	1,657.55	76.09	22.784	
10,100.00	8,340.00	8,518.80	8,502.03	57.54	29.57	-97.78	1,629.44	921.95	1,805.18	1,728.71	76.47	23.606	
10,200.00	8,340.00	8,526.77	8,509.96	59.61	29.60	-98.15	1,629.25	922.79	1,879.28	1,802.48	76.79	24.472	
10,300.00	8,340.00	8,534.54	8,517.68	61.70	29.62	-98.50	1,629.07	923.58	1,955.63	1,878.58	77.06	25.379	
10,400.00	8,340.00	8,541.99	8,525.10	63.82	29.65	-98.84	1,628.89	924.33	2,034.01	1,956.73	77.28	26.320	
10,500.00	8,340.00	8,550.00	8,533.07	65.96	29.68	-99.21	1,628.69	925.11	2,114.17	2,036.70	77.47	27.291	
10,600.00	8,340.00	8,556.15	8,539.19	68.12	29.70	-99.49	1,628.54	925.70	2,195.93	2,118.31	77.62	28.291	
10,700.00	8,340.00	8,562.91	8,545.91	70.30	29.73	-99.80	1,628.37	926.34	2,279.11	2,201.37	77.75	29.314	
10,800.00	8,340.00	8,569.41	8,552.39	72.49	29.75	-100.09	1,628.19	926.94	2,363.58	2,285.72	77.85	30.359	
10,900.00	8,340.00	8,575.00	8,557.95	74.69	29.77	-100.34	1,628.04	927.45	2,449.19	2,371.25	77.94	31.423	
11,000.00	8,340.00	8,581.10	8,564.02	76.91	29.79	-100.62	1,627.88	927.99	2,535.83	2,457.82	78.02	32.504	
11,100.00	8,340.00	8,586.50	8,569.40	79.14	29.81	-100.86	1,627.75	928.47	2,623.41	2,545.33	78.08	33.601	
11,200.00	8,340.00	8,591.80	8,574.68	81.39	29.83	-101.10	1,627.62	928.94	2,711.82	2,633.70	78.13	34.711	
11,300.00	8,340.00	8,600.00	8,582.84	83.64	29.86	-101.47	1,627.44	929.65	2,801.00	2,722.83	78.18	35.829	
11,400.00	8,340.00	8,600.00	8,582.84	85.90	29.86	-101.47	1,627.44	929.65	2,890.88	2,812.68	78.20	36.968	
11,500.00	8,340.00	8,606.87	8,589.68	88.17	29.88	-101.78	1,627.31	930.24	2,981.38	2,903.14	78.23	38.108	
11,600.00	8,340.00	8,611.63	8,594.43	90.45	29.90	-102.00	1,627.22	930.65	3,072.46	2,994.20	78.26	39.259	
11,700.00	8,340.00	8,616.33	8,599.11	92.74	29.91	-102.21	1,627.15	931.05	3,164.06	3,085.78	78.28	40.418	
11,800.00	8,340.00	8,625.00	8,607.75	95.03	29.94	-102.59	1,627.04	931.78	3,256.15	3,177.84	78.31	41.578	
11,900.00	8,340.00	8,625.00	8,607.75	97.33	29.94	-102.59	1,627.04	931.78	3,348.68	3,270.36	78.32	42.757	
12,000.00	8,340.00	8,625.00	8,607.75	99.63	29.94	-102.59	1,627.04	931.78	3,441.62	3,363.30	78.32	43.943	
12,100.00	8,340.00	8,633.60	8,616.33	101.94	29.96	-102.98	1,626.94	932.48	3,534.93	3,456.58	78.35	45.118	
12,200.00	8,340.00	8,637.50	8,620.20	104.26	29.99	-103.15	1,626.90	932.80	3,628.59	3,550.23	78.36	46.307	
12,300.00	8,340.00	8,641.29	8,623.98	106.58	30.00	-103.32	1,626.86	933.10	3,722.57	3,644.20	78.37	47.499	
12,400.00	8,340.00	8,650.00	8,632.67	108.90	30.03	-103.70	1,626.78	933.78	3,816.86	3,738.46	78.40	48.684	
12,500.00	8,340.00	8,650.00	8,632.67	111.23	30.03	-103.70	1,626.78	933.78	3,911.41	3,833.01	78.40	49.891	
12,600.00	8,340.00	8,650.00	8,632.67	113.57	30.03	-103.70	1,626.78	933.78	4,006.22	3,927.82	78.40	51.101	
12,700.00	8,340.00	8,656.23	8,638.88	115.90	30.06	-103.98	1,626.73	934.25	4,101.27	4,022.85	78.42	52.300	
12,800.00	8,340.00	8,660.00	8,642.64	118.24	30.07	-104.15	1,626.70	934.53	4,196.55	4,118.12	78.43	53.506	
12,900.00	8,340.00	8,663.67	8,646.30	120.59	30.08	-104.31	1,626.66	934.80	4,292.03	4,213.59	78.44	54.715	
13,000.00	8,340.00	8,667.24	8,649.86	122.93	30.09	-104.46	1,626.63	935.06	4,387.71	4,309.26	78.46	55.925	
13,100.00	8,340.00	8,675.00	8,657.60	125.28	30.12	-104.80	1,626.56	935.61	4,483.58	4,405.10	78.49	57.126	
13,200.00	8,340.00	8,675.00	8,657.60	127.64	30.12	-104.80	1,626.56	935.61	4,579.61	4,501.12	78.49	58.347	
13,223.16	8,340.00	8,675.00	8,657.60	128.18	30.12	-104.80	1,626.56	935.61	4,601.88	4,523.39	78.49	58.631	

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: #122H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
 TVD Reference: WELL @ 2985.38usft (Patterson 297)
 MD Reference: WELL @ 2985.38usft (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)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	3.53	-3.53	0.00	0.00	21.33	1,673.62	653.49	1,796.68				
100.00	100.00	103.53	96.47	0.13	0.14	21.33	1,673.62	653.49	1,796.68	1,796.41	0.27	6,724.871	
200.00	200.00	203.53	196.47	0.49	0.50	21.33	1,673.62	653.49	1,796.68	1,795.69	0.98	1,825.684	
300.00	300.00	303.53	296.47	0.84	0.86	21.33	1,673.62	653.49	1,796.68	1,794.98	1.70	1,056.214	
400.00	400.00	403.53	396.47	1.20	1.22	21.33	1,673.62	653.49	1,796.68	1,794.26	2.42	743.044	
500.00	500.00	503.53	496.47	1.56	1.57	21.33	1,673.62	653.49	1,796.68	1,793.54	3.13	573.114	
600.00	600.00	603.53	596.47	1.92	1.93	21.33	1,673.62	653.49	1,796.68	1,792.83	3.85	466.441	
700.00	700.00	703.53	696.47	2.28	2.29	21.33	1,673.62	653.49	1,796.68	1,792.11	4.57	393.247	
800.00	800.00	803.53	796.47	2.64	2.65	21.33	1,673.62	653.49	1,796.68	1,791.39	5.29	339.909	
900.00	900.00	903.53	896.47	3.00	3.01	21.33	1,673.62	653.49	1,796.68	1,790.68	6.00	299.311	
1,000.00	1,000.00	1,003.53	996.47	3.35	3.37	21.33	1,673.62	653.49	1,796.68	1,789.96	6.72	267.377	
1,100.00	1,099.99	1,103.54	1,096.46	3.71	3.72	-11.28	1,673.62	653.49	1,795.39	1,787.96	7.44	241.465	
1,200.00	1,199.91	1,203.62	1,196.38	4.07	4.08	-11.32	1,673.62	653.49	1,791.54	1,783.39	8.15	219.786	
1,266.67	1,266.45	1,262.92	1,262.92	4.31	4.30	-11.36	1,673.62	653.49	1,787.55	1,778.95	8.60	207.790	
1,300.00	1,299.70	1,303.83	1,296.17	4.43	4.44	-11.37	1,673.62	653.49	1,785.27	1,776.41	8.87	201.301	
1,400.00	1,399.46	1,404.07	1,395.93	4.79	4.80	-11.42	1,673.62	653.49	1,778.44	1,768.85	9.58	185.552	
1,500.00	1,499.22	1,495.69	1,495.69	5.15	5.13	-11.46	1,673.62	653.49	1,771.60	1,761.33	10.27	172.498	
1,600.00	1,598.97	1,607.28	1,607.27	5.51	5.52	-11.56	1,673.81	652.00	1,764.44	1,753.42	11.02	160.120	
1,700.00	1,698.73	1,719.04	1,718.92	5.87	5.91	-11.76	1,674.41	647.26	1,756.60	1,744.84	11.76	149.337	
1,800.00	1,798.48	1,823.50	1,823.15	6.24	6.27	-12.03	1,675.30	640.33	1,748.21	1,735.72	12.49	140.019	
1,900.00	1,898.24	1,922.81	1,922.21	6.61	6.62	-12.30	1,676.18	633.46	1,739.80	1,726.60	13.19	131.862	
2,000.00	1,998.00	2,022.11	2,021.27	6.97	6.98	-12.58	1,677.05	626.58	1,731.43	1,717.52	13.91	124.515	
2,100.00	2,097.75	2,121.42	2,120.34	7.34	7.33	-12.85	1,677.93	619.71	1,723.09	1,708.47	14.62	117.867	
2,200.00	2,197.51	2,220.72	2,219.40	7.71	7.69	-13.13	1,678.81	612.84	1,714.80	1,699.46	15.33	111.827	
2,300.00	2,297.27	2,320.03	2,318.46	8.08	8.05	-13.41	1,679.69	605.97	1,706.55	1,690.50	16.05	106.316	
2,400.00	2,397.02	2,419.33	2,417.53	8.45	8.41	-13.70	1,680.56	599.10	1,698.34	1,681.57	16.77	101.269	
2,500.00	2,496.78	2,518.64	2,516.59	8.82	8.77	-13.98	1,681.44	592.23	1,690.17	1,672.68	17.49	96.633	
2,600.00	2,596.54	2,617.94	2,615.65	9.19	9.13	-14.27	1,682.32	585.36	1,682.04	1,663.83	18.21	92.359	
2,700.00	2,696.29	2,717.25	2,714.72	9.56	9.49	-14.56	1,683.19	578.48	1,673.96	1,655.03	18.93	88.408	
2,800.00	2,796.05	2,816.55	2,813.78	9.93	9.85	-14.86	1,684.07	571.61	1,665.92	1,646.26	19.66	84.745	
2,850.00	2,845.93	2,867.59	2,864.69	10.11	10.04	-15.01	1,684.53	568.04	1,661.91	1,641.89	20.02	82.992	
2,900.00	2,895.78	2,921.32	2,918.24	10.30	10.24	-15.21	1,685.08	563.71	1,657.50	1,637.10	20.40	81.239	
3,000.00	2,995.32	3,027.93	3,024.29	10.67	10.64	-15.73	1,686.46	552.89	1,646.49	1,625.33	21.16	77.804	
3,100.00	3,094.57	3,132.00	3,127.48	11.06	11.03	-16.38	1,688.16	539.54	1,632.65	1,610.73	21.92	74.475	
3,116.67	3,111.08	3,148.22	3,143.54	11.13	11.10	-16.49	1,688.45	537.30	1,630.10	1,608.05	22.05	73.938	
3,200.00	3,193.60	3,229.24	3,223.78	11.45	11.41	-17.00	1,689.88	526.11	1,617.21	1,594.54	22.67	71.350	
3,300.00	3,292.63	3,326.48	3,320.06	11.85	11.79	-17.63	1,691.59	512.69	1,601.92	1,578.51	23.41	68.424	
3,400.00	3,391.65	3,423.71	3,416.35	12.24	12.17	-18.27	1,693.30	499.27	1,586.83	1,562.67	24.16	65.677	
3,500.00	3,490.68	3,520.94	3,512.64	12.64	12.56	-18.91	1,695.02	485.84	1,571.94	1,547.03	24.91	63.096	
3,600.00	3,589.71	3,618.18	3,608.93	13.03	12.94	-19.58	1,696.73	472.42	1,557.26	1,531.59	25.67	60.666	
3,700.00	3,688.73	3,715.41	3,705.22	13.43	13.33	-20.25	1,698.44	459.00	1,542.79	1,516.36	26.43	58.377	
3,800.00	3,787.76	3,812.65	3,801.51	13.83	13.71	-20.93	1,700.16	445.57	1,528.54	1,501.35	27.19	56.218	
3,900.00	3,886.79	3,909.88	3,897.79	14.23	14.10	-21.63	1,701.87	432.15	1,514.52	1,486.57	27.95	54.180	
4,000.00	3,985.82	4,007.12	3,994.08	14.64	14.49	-22.34	1,703.58	418.72	1,500.73	1,472.01	28.72	52.253	
4,100.00	4,084.84	4,104.35	4,090.37	15.04	14.88	-23.06	1,705.30	405.30	1,487.18	1,457.69	29.49	50.431	
4,200.00	4,183.87	4,201.59	4,186.66	15.44	15.28	-23.80	1,707.01	391.88	1,473.88	1,443.62	30.26	48.705	
4,300.00	4,282.90	4,301.18	4,282.95	15.85	15.68	-24.55	1,708.72	378.45	1,460.82	1,429.78	31.05	47.055	
4,400.00	4,381.92	4,403.94	4,379.23	16.25	16.10	-25.31	1,710.44	365.03	1,448.03	1,416.19	31.84	45.473	
4,500.00	4,480.95	4,506.71	4,475.52	16.66	16.51	-26.08	1,712.15	351.61	1,435.50	1,402.86	32.65	43.973	
4,600.00	4,579.98	4,609.48	4,571.81	17.06	16.93	-26.87	1,713.86	338.18	1,423.25	1,389.80	33.45	42.550	
4,700.00	4,679.00	4,687.76	4,668.10	17.47	17.25	-27.67	1,715.58	324.76	1,411.27	1,377.12	34.15	41.321	
4,800.00	4,778.03	4,784.99	4,764.39	17.88	17.65	-28.48	1,717.29	311.34	1,399.59	1,364.65	34.94	40.058	

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
Reference Well: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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 (°)	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)						
4,900.00	4,877.06	4,882.23	4,860.68	18.28	18.05	-29.31	1,719.00	297.91	1,388.19	1,352.47	35.73	38.857		
5,000.00	4,976.08	4,980.55	4,958.06	18.69	18.45	-30.15	1,720.71	284.52	1,377.09	1,340.57	36.52	37.711		
5,100.00	5,075.11	5,081.39	5,058.22	19.10	18.85	-30.94	1,722.20	272.86	1,366.09	1,328.79	37.31	36.619		
5,200.00	5,174.14	5,183.12	5,159.53	19.51	19.24	-31.63	1,723.36	263.77	1,355.07	1,316.99	38.08	35.582		
5,241.35	5,215.09	5,225.42	5,201.72	19.68	19.40	-31.89	1,723.74	260.78	1,350.48	1,312.08	38.40	35.168		
5,300.00	5,273.22	5,285.88	5,261.88	19.92	19.62	-32.17	1,724.18	257.32	1,344.31	1,305.46	38.85	34.606		
5,400.00	5,372.60	5,389.17	5,365.29	20.31	19.99	-32.52	1,724.66	253.57	1,335.35	1,295.76	39.59	33.729		
5,500.00	5,472.24	5,507.41	5,468.71	20.69	20.39	-32.71	1,724.79	252.57	1,328.32	1,287.96	40.36	32.912		
5,600.00	5,572.06	5,607.59	5,568.53	21.06	20.72	-32.81	1,724.79	252.57	1,323.37	1,282.31	41.06	32.233		
5,700.00	5,672.01	5,707.64	5,668.48	21.41	21.06	-32.86	1,724.79	252.57	1,320.63	1,278.88	41.75	31.634		
5,774.69	5,746.69	5,767.04	5,743.16	21.66	21.26	-0.27	1,724.79	252.57	1,320.02	1,277.81	42.21	31.275		
5,800.00	5,772.00	5,807.65	5,788.47	21.74	21.39	-0.27	1,724.79	252.57	1,320.02	1,277.59	42.43	31.111		
5,900.00	5,872.00	5,907.65	5,868.47	22.08	21.73	-0.27	1,724.79	252.57	1,320.02	1,276.90	43.11	30.619		
6,000.00	5,972.00	6,007.65	5,968.47	22.41	22.06	-0.27	1,724.79	252.57	1,320.02	1,276.22	43.79	30.142		
6,100.00	6,072.00	6,107.65	6,068.47	22.75	22.40	-0.27	1,724.79	252.57	1,320.02	1,275.54	44.48	29.678		
6,200.00	6,172.00	6,207.65	6,168.47	23.09	22.74	-0.27	1,724.79	252.57	1,320.02	1,274.85	45.16	29.229		
6,300.00	6,272.00	6,307.65	6,268.47	23.42	23.08	-0.27	1,724.79	252.57	1,320.02	1,274.17	45.85	28.791		
6,400.00	6,372.00	6,407.65	6,368.47	23.76	23.42	-0.27	1,724.79	252.57	1,320.02	1,273.48	46.53	28.367		
6,500.00	6,472.00	6,507.65	6,468.47	24.10	23.75	-0.27	1,724.79	252.57	1,320.02	1,272.79	47.22	27.954		
6,600.00	6,572.00	6,607.65	6,568.47	24.44	24.09	-0.27	1,724.79	252.57	1,320.02	1,272.11	47.91	27.552		
6,700.00	6,672.00	6,707.65	6,668.47	24.78	24.44	-0.27	1,724.79	252.57	1,320.02	1,271.42	48.60	27.161		
6,800.00	6,772.00	6,807.65	6,768.47	25.12	24.78	-0.27	1,724.79	252.57	1,320.02	1,270.73	49.29	26.781		
6,900.00	6,872.00	6,907.65	6,868.47	25.46	25.12	-0.27	1,724.79	252.57	1,320.02	1,270.04	49.98	26.411		
7,000.00	6,972.00	7,007.65	6,968.47	25.80	25.46	-0.27	1,724.79	252.57	1,320.02	1,269.34	50.67	26.051		
7,100.00	7,072.00	7,107.65	7,068.47	26.14	25.80	-0.27	1,724.79	252.57	1,320.02	1,268.65	51.36	25.700		
7,200.00	7,172.00	7,207.65	7,168.47	26.48	26.14	-0.27	1,724.79	252.57	1,320.02	1,267.96	52.06	25.358		
7,300.00	7,272.00	7,307.65	7,268.47	26.82	26.49	-0.27	1,724.79	252.57	1,320.02	1,267.27	52.75	25.024		
7,400.00	7,372.00	7,407.65	7,368.47	27.17	26.83	-0.27	1,724.79	252.57	1,320.02	1,266.57	53.44	24.699		
7,500.00	7,472.00	7,507.65	7,468.47	27.51	27.18	-0.27	1,724.79	252.57	1,320.02	1,265.88	54.14	24.382		
7,600.00	7,572.00	7,607.65	7,568.47	27.85	27.52	-0.27	1,724.79	252.57	1,320.02	1,265.18	54.83	24.073		
7,700.00	7,672.00	7,707.65	7,668.47	28.20	27.87	-0.27	1,724.79	252.57	1,320.02	1,264.49	55.53	23.772		
7,795.04	7,767.04	7,787.39	7,763.51	28.52	28.14	-0.27	1,724.79	252.57	1,320.02	1,263.88	56.14	23.514		
7,800.00	7,772.00	7,792.37	7,768.49	28.54	28.16	-90.30	1,724.79	252.57	1,320.02	1,263.84	56.17	23.499		
7,850.00	7,821.92	7,842.99	7,819.04	28.71	28.32	-90.31	1,724.79	254.93	1,320.02	1,263.51	56.51	23.361		
7,900.00	7,871.42	7,893.64	7,869.21	28.89	28.46	-90.32	1,724.79	261.75	1,320.02	1,263.18	56.84	23.224		
7,950.00	7,920.12	7,944.30	7,918.59	29.08	28.60	-90.33	1,724.78	272.98	1,320.02	1,262.85	57.17	23.090		
8,000.00	7,967.66	7,994.97	7,966.81	29.28	28.73	-90.33	1,724.77	288.52	1,320.02	1,262.52	57.50	22.957		
8,050.00	8,013.67	8,045.66	8,013.47	29.48	28.84	-90.34	1,724.77	308.27	1,320.02	1,262.19	57.83	22.826		
8,100.00	8,057.81	8,086.34	8,058.20	29.70	28.95	-90.34	1,724.76	332.06	1,320.02	1,261.85	58.17	22.694		
8,150.00	8,099.73	8,147.02	8,100.65	29.92	29.06	-90.33	1,724.74	359.71	1,320.02	1,261.51	58.51	22.560		
8,200.00	8,139.12	8,197.69	8,140.49	30.15	29.18	-90.33	1,724.73	391.00	1,320.02	1,261.14	58.87	22.421		
8,250.00	8,175.68	8,248.35	8,177.40	30.40	29.29	-90.32	1,724.72	425.67	1,320.02	1,260.76	59.26	22.274		
8,300.00	8,209.13	8,298.99	8,211.09	30.67	29.42	-90.31	1,724.70	463.45	1,320.02	1,260.33	59.68	22.117		
8,350.00	8,239.21	8,349.60	8,241.30	30.97	29.57	-90.29	1,724.68	504.04	1,320.01	1,259.87	60.15	21.946		
8,400.00	8,265.70	8,400.18	8,267.80	31.30	29.74	-90.28	1,724.66	547.10	1,320.01	1,259.35	60.66	21.760		
8,450.00	8,288.40	8,450.73	8,290.39	31.66	29.93	-90.26	1,724.64	592.31	1,320.01	1,258.78	61.23	21.557		
8,500.00	8,307.12	8,501.24	8,308.89	32.05	30.16	-90.24	1,724.62	639.29	1,320.01	1,258.14	61.87	21.335		
8,550.00	8,321.74	8,551.71	8,323.17	32.48	30.42	-90.22	1,724.60	687.88	1,320.01	1,257.43	62.57	21.096		
8,600.00	8,332.14	8,602.14	8,333.13	32.94	30.72	-90.20	1,724.58	737.10	1,320.01	1,256.67	63.34	20.841		
8,650.00	8,338.23	8,652.51	8,338.71	33.43	31.04	-90.17	1,724.56	787.15	1,320.00	1,255.84	64.16	20.574		
8,695.04	8,340.00	8,702.20	8,340.00	33.89	31.39	-90.15	1,724.54	832.41	1,320.00	1,255.03	64.98	20.315		
8,700.00	8,340.00	8,702.76	8,340.00	33.95	31.39	-90.15	1,724.54	837.37	1,320.00	1,254.97	65.03	20.297		

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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 (°)	Distance		Minimum Separation (usft)	Separation		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)			
8,800.00	8,340.00	8,802.76	8,340.00	35.07	32.20	-90.15	1,724.49	937.37	1,320.00	1,253.01	66.99	19.705		
8,900.00	8,340.00	8,902.76	8,340.00	36.32	33.18	-90.15	1,724.45	1,037.37	1,320.00	1,250.78	69.23	19.068		
9,000.00	8,340.00	9,002.76	8,340.00	37.69	34.29	-90.15	1,724.41	1,137.37	1,320.00	1,248.28	71.72	18.404		
9,100.00	8,340.00	9,102.76	8,340.00	39.16	35.54	-90.15	1,724.37	1,237.37	1,320.00	1,245.55	74.45	17.730		
9,200.00	8,340.00	9,202.76	8,340.00	40.72	36.90	-90.15	1,724.32	1,337.37	1,320.00	1,242.61	77.39	17.057		
9,300.00	8,340.00	9,302.76	8,340.00	42.37	38.37	-90.15	1,724.28	1,437.37	1,320.00	1,239.49	80.51	16.395		
9,400.00	8,340.00	9,402.76	8,340.00	44.08	39.94	-90.15	1,724.24	1,537.37	1,320.00	1,236.20	83.80	15.752		
9,500.00	8,340.00	9,502.76	8,340.00	45.86	41.58	-90.15	1,724.19	1,637.37	1,320.00	1,232.77	87.23	15.132		
9,600.00	8,340.00	9,602.76	8,340.00	47.70	43.30	-90.15	1,724.15	1,737.37	1,320.00	1,229.20	90.80	14.538		
9,700.00	8,340.00	9,702.76	8,340.00	49.58	45.08	-90.15	1,724.11	1,837.37	1,320.00	1,225.52	94.48	13.972		
9,800.00	8,340.00	9,802.76	8,340.00	51.52	46.92	-90.15	1,724.06	1,937.37	1,320.00	1,221.74	98.26	13.434		
9,900.00	8,340.00	9,902.76	8,340.00	53.49	48.81	-90.15	1,724.02	2,037.37	1,320.00	1,217.87	102.13	12.925		
10,000.00	8,340.00	10,002.76	8,340.00	55.50	50.75	-90.15	1,723.98	2,137.37	1,320.00	1,213.92	106.08	12.443		
10,100.00	8,340.00	10,102.76	8,340.00	57.54	52.73	-90.15	1,723.93	2,237.37	1,320.00	1,209.90	110.11	11.988		
10,200.00	8,340.00	10,202.76	8,340.00	59.61	54.74	-90.15	1,723.89	2,337.37	1,320.00	1,205.81	114.19	11.559		
10,300.00	8,340.00	10,302.76	8,340.00	61.70	56.79	-90.15	1,723.85	2,437.37	1,320.00	1,201.66	118.34	11.154		
10,400.00	8,340.00	10,402.76	8,340.00	63.82	58.86	-90.15	1,723.80	2,537.37	1,320.00	1,197.46	122.54	10.772		
10,500.00	8,340.00	10,502.76	8,340.00	65.96	60.96	-90.15	1,723.76	2,637.37	1,320.00	1,193.22	126.78	10.412		
10,600.00	8,340.00	10,602.76	8,340.00	68.12	63.08	-90.15	1,723.72	2,737.37	1,320.00	1,188.93	131.07	10.071		
10,700.00	8,340.00	10,702.76	8,340.00	70.30	65.23	-90.15	1,723.67	2,837.37	1,320.00	1,184.61	135.39	9.749		
10,800.00	8,340.00	10,802.76	8,340.00	72.49	67.39	-90.15	1,723.63	2,937.37	1,320.00	1,180.25	139.75	9.445		
10,900.00	8,340.00	10,902.76	8,340.00	74.69	69.57	-90.15	1,723.59	3,037.37	1,320.00	1,175.86	144.14	9.158		
11,000.00	8,340.00	11,002.76	8,340.00	76.91	71.77	-90.15	1,723.55	3,137.37	1,320.00	1,171.44	148.56	8.885		
11,100.00	8,340.00	11,102.76	8,340.00	79.14	73.98	-90.15	1,723.50	3,237.37	1,320.00	1,166.99	153.01	8.627		
11,200.00	8,340.00	11,202.76	8,340.00	81.39	76.20	-90.15	1,723.46	3,337.37	1,320.00	1,162.53	157.48	8.382		
11,300.00	8,340.00	11,302.76	8,340.00	83.64	78.44	-90.15	1,723.42	3,437.37	1,320.00	1,158.03	161.97	8.150		
11,400.00	8,340.00	11,402.76	8,340.00	85.90	80.68	-90.15	1,723.37	3,537.37	1,320.00	1,153.52	166.48	7.929		
11,500.00	8,340.00	11,502.76	8,340.00	88.17	82.94	-90.15	1,723.33	3,637.37	1,320.00	1,148.99	171.01	7.719		
11,600.00	8,340.00	11,602.76	8,340.00	90.45	85.20	-90.15	1,723.29	3,737.37	1,320.00	1,144.45	175.55	7.519		
11,700.00	8,340.00	11,702.76	8,340.00	92.74	87.48	-90.15	1,723.24	3,837.37	1,320.00	1,139.89	180.11	7.329		
11,800.00	8,340.00	11,802.76	8,340.00	95.03	89.76	-90.15	1,723.20	3,937.37	1,320.00	1,135.31	184.69	7.147		
11,900.00	8,340.00	11,902.76	8,340.00	97.33	92.05	-90.15	1,723.16	4,037.37	1,320.00	1,130.72	189.28	6.974		
12,000.00	8,340.00	12,002.76	8,340.00	99.63	94.34	-90.15	1,723.11	4,137.37	1,320.00	1,126.12	193.88	6.808		
12,100.00	8,340.00	12,102.76	8,340.00	101.94	96.65	-90.15	1,723.07	4,237.37	1,320.00	1,121.50	198.50	6.650		
12,200.00	8,340.00	12,202.76	8,340.00	104.26	98.95	-90.15	1,723.03	4,337.37	1,320.00	1,116.88	203.12	6.498		
12,300.00	8,340.00	12,302.76	8,340.00	106.58	101.27	-90.15	1,722.98	4,437.37	1,320.00	1,112.24	207.76	6.353		
12,400.00	8,340.00	12,402.76	8,340.00	108.90	103.58	-90.15	1,722.94	4,537.37	1,320.00	1,107.60	212.41	6.215		
12,500.00	8,340.00	12,502.76	8,340.00	111.23	105.91	-90.15	1,722.90	4,637.37	1,320.00	1,102.94	217.06	6.081		
12,600.00	8,340.00	12,602.76	8,340.00	113.57	108.24	-90.15	1,722.85	4,737.37	1,320.00	1,098.28	221.72	5.953		
12,700.00	8,340.00	12,702.76	8,340.00	115.90	110.57	-90.15	1,722.81	4,837.37	1,320.00	1,093.61	226.39	5.831		
12,800.00	8,340.00	12,802.76	8,340.00	118.24	112.90	-90.15	1,722.77	4,937.37	1,320.00	1,088.93	231.07	5.713		
12,900.00	8,340.00	12,902.76	8,340.00	120.59	115.24	-90.15	1,722.73	5,037.37	1,320.00	1,084.25	235.75	5.599		
13,000.00	8,340.00	13,002.76	8,340.00	122.93	117.58	-90.15	1,722.68	5,137.37	1,320.00	1,079.56	240.44	5.490		
13,100.00	8,340.00	13,102.76	8,340.00	125.28	119.93	-90.15	1,722.64	5,237.37	1,320.00	1,074.86	245.14	5.385		
13,200.00	8,340.00	13,202.76	8,340.00	127.64	122.28	-90.15	1,722.60	5,337.37	1,320.00	1,070.16	249.84	5.283		
13,215.24	8,340.00	13,218.00	8,340.00	128.00	122.64	-90.15	1,722.59	5,352.61	1,320.00	1,069.44	250.56	5.268 CC		
13,223.16	8,340.00	13,216.38	8,340.00	128.18	122.60	-90.15	1,722.59	5,350.98	1,320.04	1,069.30	250.73	5.265 ES, SF		

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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		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)				
0.00	0.00	3.68	-3.68	0.00	0.00	20.43	1,673.62	623.47	1,785.98			
100.00	100.00	103.68	96.32	0.13	0.14	20.43	1,673.62	623.47	1,785.98	1,785.71	0.27	6,671.395
200.00	200.00	203.68	196.32	0.49	0.50	20.43	1,673.62	623.47	1,785.98	1,784.99	0.98	1,813.821
300.00	300.00	303.68	296.32	0.84	0.86	20.43	1,673.62	623.47	1,785.98	1,784.28	1.70	1,049.592
400.00	400.00	403.68	396.32	1.20	1.22	20.43	1,673.62	623.47	1,785.98	1,783.56	2.42	738.454
500.00	500.00	503.68	496.32	1.56	1.57	20.43	1,673.62	623.47	1,785.98	1,782.84	3.14	569.603
600.00	600.00	603.68	596.32	1.92	1.93	20.43	1,673.62	623.47	1,785.98	1,782.13	3.85	463.599
700.00	700.00	703.68	696.32	2.28	2.29	20.43	1,673.62	623.47	1,785.98	1,781.41	4.57	390.859
800.00	800.00	803.68	796.32	2.64	2.65	20.43	1,673.62	623.47	1,785.98	1,780.69	5.29	337.850
900.00	900.00	903.68	896.32	3.00	3.01	20.43	1,673.62	623.47	1,785.98	1,779.98	6.00	297.502
1,000.00	1,000.00	1,003.68	996.32	3.35	3.37	20.43	1,673.62	623.47	1,785.98	1,779.26	6.72	265.763
1,100.00	1,099.99	1,103.69	1,096.31	3.71	3.73	-12.18	1,673.62	623.47	1,784.70	1,777.26	7.44	240.009
1,200.00	1,199.91	1,188.78	1,188.78	4.07	4.03	-12.22	1,673.75	623.34	1,780.95	1,772.86	8.10	219.952
1,266.67	1,266.45	1,244.20	1,244.19	4.31	4.23	-12.28	1,674.42	622.69	1,777.46	1,768.93	8.53	208.330
1,300.00	1,299.70	1,271.89	1,271.87	4.43	4.32	-12.32	1,674.98	622.15	1,775.59	1,766.84	8.75	202.945
1,400.00	1,399.46	1,354.92	1,354.82	4.79	4.62	-12.46	1,677.50	619.71	1,770.61	1,761.21	9.40	188.361
1,500.00	1,499.22	1,437.81	1,437.55	5.15	4.92	-12.66	1,681.31	616.01	1,766.59	1,756.54	10.05	175.738
1,600.00	1,598.97	1,520.50	1,519.92	5.51	5.21	-12.91	1,686.40	611.09	1,763.56	1,752.86	10.71	164.719
1,700.00	1,698.73	1,602.89	1,601.84	5.87	5.51	-13.21	1,692.73	604.94	1,761.54	1,750.18	11.36	155.040
1,800.00	1,798.48	1,685.09	1,683.18	6.24	5.82	-13.56	1,700.30	597.61	1,760.57	1,748.55	12.02	146.466
1,900.00	1,898.24	1,783.92	1,781.22	6.61	6.19	-14.01	1,710.20	588.02	1,760.18	1,747.43	12.75	138.053
2,000.00	1,998.00	1,882.93	1,879.27	6.97	6.57	-14.46	1,720.09	578.43	1,759.91	1,746.42	13.48	130.511
2,100.00	2,097.75	1,981.94	1,977.31	7.34	6.95	-14.91	1,729.99	568.83	1,759.75	1,745.52	14.22	123.725
2,194.51	2,192.03	2,075.51	2,069.98	7.69	7.31	-15.34	1,739.34	559.77	1,759.70	1,744.77	14.92	117.914
2,200.00	2,197.51	2,080.94	2,075.36	7.71	7.33	-15.37	1,739.88	559.24	1,759.70	1,744.73	14.96	117.594
2,300.00	2,297.27	2,179.95	2,173.40	8.06	7.72	-15.82	1,749.77	549.65	1,759.76	1,744.05	15.71	112.031
2,400.00	2,397.02	2,278.96	2,271.45	8.45	8.11	-16.27	1,759.67	540.06	1,759.93	1,743.48	16.45	106.964
2,500.00	2,496.78	2,377.97	2,369.50	8.82	8.51	-16.72	1,769.56	530.47	1,760.22	1,743.02	17.20	102.334
2,600.00	2,596.54	2,476.98	2,467.54	9.19	8.90	-17.18	1,779.46	520.88	1,760.62	1,742.67	17.95	98.088
2,700.00	2,696.29	2,575.99	2,565.59	9.56	9.30	-17.63	1,789.35	511.29	1,761.13	1,742.43	18.70	94.182
2,800.00	2,796.05	2,675.00	2,663.63	9.93	9.70	-18.08	1,799.24	501.70	1,761.75	1,742.30	19.45	90.579
2,850.00	2,845.93	2,724.50	2,712.66	10.11	9.90	-18.31	1,804.19	496.91	1,762.10	1,742.28	19.83	88.881
2,900.00	2,895.78	2,773.99	2,761.66	10.30	10.10	-18.53	1,809.14	492.11	1,762.17	1,741.97	20.20	87.230
3,000.00	2,995.32	2,872.87	2,859.58	10.67	10.50	-19.02	1,819.02	482.53	1,760.54	1,739.59	20.95	84.016
3,100.00	3,094.57	2,971.54	2,957.29	11.06	10.90	-19.55	1,828.88	472.98	1,756.57	1,734.86	21.71	80.910
3,116.67	3,111.08	2,987.97	2,973.56	11.13	10.97	-19.64	1,830.52	471.39	1,755.69	1,733.85	21.84	80.401
3,200.00	3,193.60	3,070.05	3,054.84	11.45	11.30	-20.08	1,838.72	463.43	1,751.14	1,728.67	22.47	77.944
3,300.00	3,292.63	3,168.56	3,152.39	11.85	11.70	-20.61	1,848.57	453.89	1,745.83	1,722.60	23.22	75.174
3,400.00	3,391.65	3,267.07	3,249.94	12.24	12.11	-21.14	1,858.41	444.35	1,740.66	1,716.68	23.98	72.583
3,500.00	3,490.68	3,365.58	3,347.49	12.64	12.51	-21.68	1,868.26	434.81	1,735.66	1,710.92	24.74	70.155
3,600.00	3,589.71	3,464.09	3,445.04	13.03	12.91	-22.21	1,878.10	425.27	1,730.81	1,705.31	25.50	67.876
3,700.00	3,688.73	3,562.60	3,542.59	13.43	13.32	-22.76	1,887.94	415.72	1,726.12	1,699.86	26.26	65.733
3,800.00	3,787.76	3,661.11	3,640.14	13.83	13.72	-23.30	1,897.79	406.18	1,721.59	1,694.57	27.02	63.715
3,900.00	3,886.79	3,759.61	3,737.69	14.23	14.13	-23.85	1,907.63	396.64	1,717.21	1,689.43	27.78	61.812
4,000.00	3,985.82	3,858.12	3,835.24	14.64	14.53	-24.40	1,917.48	387.10	1,713.00	1,684.46	28.54	60.016
4,100.00	4,084.84	3,956.63	3,932.79	15.04	14.94	-24.95	1,927.32	377.56	1,708.96	1,679.65	29.30	58.318
4,200.00	4,183.87	4,055.14	4,030.34	15.44	15.35	-25.51	1,937.16	368.01	1,705.07	1,675.01	30.07	56.710
4,300.00	4,282.90	4,153.65	4,127.89	15.85	15.75	-26.06	1,947.01	358.47	1,701.36	1,670.53	30.83	55.187
4,400.00	4,381.92	4,252.16	4,225.44	16.25	16.16	-26.62	1,956.85	348.93	1,697.81	1,666.21	31.59	53.742
4,500.00	4,480.95	4,350.66	4,322.99	16.66	16.57	-27.18	1,966.70	339.39	1,694.42	1,662.07	32.35	52.370
4,600.00	4,579.98	4,449.17	4,420.54	17.06	16.97	-27.75	1,976.54	329.85	1,691.20	1,658.09	33.12	51.066
4,700.00	4,679.00	4,547.68	4,518.09	17.47	17.38	-28.32	1,986.39	320.30	1,688.16	1,654.28	33.88	49.825

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface	Offset Wellbore Centre	Distance	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
				(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)		
4,800.00	4,778.03	4,846.19	4,815.64	17.88	17.79	-28.88		1,996.23	310.76	1,685.28	1,650.64	34.65	48.644	
4,900.00	4,877.06	4,744.70	4,713.19	18.28	18.20	-29.45		2,006.07	301.22	1,682.58	1,647.17	35.41	47.518	
5,000.00	4,976.08	4,843.21	4,810.74	18.69	18.61	-30.03		2,015.92	291.68	1,680.04	1,643.87	36.17	46.445	
5,100.00	5,075.11	4,941.71	4,908.29	19.10	19.02	-30.60		2,025.76	282.14	1,677.68	1,640.75	36.94	45.420	
5,200.00	5,174.14	5,073.85	5,039.34	19.51	19.55	-31.33		2,037.87	270.40	1,674.74	1,636.90	37.84	44.257	
5,241.35	5,215.09	5,133.06	5,098.23	19.68	19.78	-31.63		2,042.26	266.15	1,672.84	1,634.61	38.22	43.764	
5,300.00	5,273.22	5,217.30	5,182.17	19.92	20.11	-31.98		2,047.37	261.19	1,669.78	1,631.03	38.76	43.086	
5,400.00	5,372.60	5,361.61	5,326.25	20.31	20.62	-32.42		2,053.04	255.70	1,664.28	1,624.66	39.61	42.012	
5,500.00	5,472.24	5,503.95	5,468.56	20.69	21.11	-32.65		2,054.80	253.99	1,658.33	1,617.91	40.42	41.031	
5,600.00	5,572.06	5,603.77	5,568.38	21.06	21.43	-32.72		2,054.80	253.99	1,653.38	1,612.26	41.11	40.215	
5,700.00	5,672.01	5,703.71	5,668.33	21.41	21.76	-32.76		2,054.80	253.99	1,650.63	1,608.83	41.81	39.484	
5,774.69	5,746.69	5,778.40	5,743.01	21.66	22.00	-0.17		2,054.80	253.99	1,650.02	1,607.70	42.32	38.991	
5,800.00	5,772.00	5,803.71	5,768.32	21.74	22.09	-0.17		2,054.80	253.99	1,650.02	1,607.53	42.49	38.832	
5,900.00	5,872.00	5,903.71	5,868.32	22.08	22.42	-0.17		2,054.80	253.99	1,650.02	1,606.84	43.18	38.216	
6,000.00	5,972.00	6,003.71	5,968.32	22.41	22.75	-0.17		2,054.80	253.99	1,650.02	1,606.16	43.86	37.619	
6,100.00	6,072.00	6,103.71	6,068.32	22.75	23.08	-0.17		2,054.80	253.99	1,650.02	1,605.47	44.55	37.039	
6,200.00	6,172.00	6,203.71	6,168.32	23.09	23.41	-0.17		2,054.80	253.99	1,650.02	1,604.78	45.24	36.476	
6,300.00	6,272.00	6,303.71	6,268.32	23.42	23.74	-0.17		2,054.80	253.99	1,650.02	1,604.09	45.92	35.929	
6,400.00	6,372.00	6,403.71	6,368.32	23.76	24.07	-0.17		2,054.80	253.99	1,650.02	1,603.40	46.61	35.398	
6,500.00	6,472.00	6,503.71	6,468.32	24.10	24.41	-0.17		2,054.80	253.99	1,650.02	1,602.71	47.30	34.882	
6,600.00	6,572.00	6,603.71	6,568.32	24.44	24.74	-0.17		2,054.80	253.99	1,650.02	1,602.02	47.99	34.380	
6,700.00	6,672.00	6,703.71	6,668.32	24.78	25.08	-0.17		2,054.80	253.99	1,650.02	1,601.33	48.69	33.891	
6,800.00	6,772.00	6,803.71	6,768.32	25.12	25.41	-0.17		2,054.80	253.99	1,650.02	1,600.64	49.38	33.416	
6,900.00	6,872.00	6,903.71	6,868.32	25.46	25.75	-0.17		2,054.80	253.99	1,650.02	1,599.95	50.07	32.953	
7,000.00	6,972.00	7,003.71	6,968.32	25.80	26.09	-0.17		2,054.80	253.99	1,650.02	1,599.25	50.76	32.503	
7,100.00	7,072.00	7,103.71	7,068.32	26.14	26.43	-0.17		2,054.80	253.99	1,650.02	1,598.56	51.46	32.065	
7,200.00	7,172.00	7,203.71	7,168.32	26.48	26.76	-0.17		2,054.80	253.99	1,650.02	1,597.86	52.15	31.637	
7,300.00	7,272.00	7,303.71	7,268.32	26.82	27.10	-0.17		2,054.80	253.99	1,650.02	1,597.17	52.85	31.221	
7,400.00	7,372.00	7,403.71	7,368.32	27.17	27.44	-0.17		2,054.80	253.99	1,650.02	1,596.47	53.55	30.815	
7,500.00	7,472.00	7,503.71	7,468.32	27.51	27.78	-0.17		2,054.80	253.99	1,650.02	1,595.77	54.24	30.419	
7,600.00	7,572.00	7,603.71	7,568.32	27.85	28.12	-0.17		2,054.80	253.99	1,650.02	1,595.08	54.94	30.033	
7,700.00	7,672.00	7,703.71	7,668.32	28.20	28.46	-0.17		2,054.80	253.99	1,650.02	1,594.38	55.64	29.657	
7,795.04	7,767.04	7,801.25	7,763.36	28.52	28.79	-0.17		2,054.80	253.99	1,650.02	1,593.71	56.31	29.303 CC	
7,800.00	7,772.00	7,803.71	7,768.32	28.54	28.80	-90.20		2,054.80	253.99	1,650.02	1,593.68	56.34	29.289	
7,850.00	7,821.92	7,853.62	7,818.24	28.71	28.97	-90.28		2,054.80	253.99	1,650.03	1,593.34	56.68	29.109	
7,900.00	7,871.42	7,903.12	7,867.74	28.89	29.14	-90.52		2,054.80	253.99	1,650.08	1,593.04	57.04	28.928	
7,950.00	7,920.12	7,951.83	7,916.44	29.08	29.31	-90.88		2,054.80	253.99	1,650.22	1,592.82	57.40	28.748	
8,000.00	7,967.66	8,000.64	7,963.98	29.28	29.48	-91.36		2,054.80	253.99	1,650.54	1,592.76	57.78	28.568 ES	
8,050.00	8,013.67	8,045.38	8,009.99	29.48	29.63	-91.92		2,054.80	253.99	1,651.15	1,593.01	58.14	28.398	
8,100.00	8,057.81	8,089.51	8,054.13	29.70	29.78	-92.54		2,054.80	253.99	1,652.19	1,593.67	58.52	28.232	
8,150.00	8,099.73	8,131.43	8,096.05	29.92	29.92	-93.17		2,054.80	253.99	1,653.81	1,594.90	58.91	28.076	
8,200.00	8,139.12	8,170.82	8,135.44	30.15	30.06	-93.77		2,054.80	253.99	1,656.18	1,596.88	59.30	27.930	
8,250.00	8,175.68	8,207.38	8,172.00	30.40	30.18	-94.30		2,054.80	253.99	1,659.47	1,599.77	59.70	27.796	
8,300.00	8,209.13	8,240.83	8,205.45	30.67	30.30	-94.72		2,054.80	253.99	1,663.84	1,603.72	60.12	27.676	
8,350.00	8,239.21	8,270.91	8,235.53	30.97	30.40	-94.98		2,054.80	253.99	1,669.44	1,608.89	60.55	27.572	
8,400.00	8,265.70	8,302.59	8,262.02	31.30	30.51	-95.06		2,054.80	253.99	1,676.42	1,615.40	61.01	27.476	
8,450.00	8,288.40	8,320.10	8,284.72	31.66	30.57	-94.90		2,054.80	253.99	1,684.86	1,623.40	61.46	27.414	
8,500.00	8,307.12	8,338.83	8,303.44	32.05	30.64	-94.48		2,054.80	253.99	1,694.85	1,632.91	61.94	27.364	
8,550.00	8,321.74	8,353.45	8,318.06	32.48	30.69	-93.78		2,054.80	253.99	1,708.40	1,643.98	62.42	27.336	
8,600.00	8,332.14	8,363.84	8,328.46	32.94	30.72	-92.77		2,054.80	253.99	1,719.52	1,656.60	62.92	27.330	
8,650.00	8,338.23	8,369.94	8,334.55	33.43	30.74	-91.45		2,054.80	253.99	1,734.13	1,670.73	63.41	27.349	
8,695.04	8,340.00	8,371.71	8,336.32	33.89	30.75	-90.00		2,054.80	253.99	1,748.50	1,684.66	63.84	27.388	

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well#122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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						Wanning
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	
8,700.00	8,340.00	8,371.71	8,336.32	33.95	30.75	-90.00	2,054.80	253.99	1,750.15	1,686.26	63.89	27.393	
8,800.00	8,340.00	8,371.71	8,336.32	35.07	30.75	-90.00	2,054.80	253.99	1,785.98	1,721.10	64.88	27.529	
8,900.00	8,340.00	8,371.71	8,336.32	36.32	30.75	-90.00	2,054.80	253.99	1,828.59	1,760.70	65.89	27.721	
9,000.00	8,340.00	8,371.71	8,336.32	37.69	30.75	-90.00	2,054.80	253.99	1,871.67	1,804.75	66.91	27.972	
9,100.00	8,340.00	8,371.71	8,336.32	39.16	30.75	-90.00	2,054.80	253.99	1,920.90	1,852.98	67.91	28.284	
9,200.00	8,340.00	8,371.71	8,336.32	40.72	30.75	-90.00	2,054.80	253.99	1,973.97	1,905.08	68.89	28.656	
9,300.00	8,340.00	8,371.71	8,336.32	42.37	30.75	-90.00	2,054.80	253.99	2,030.58	1,960.76	69.82	29.085	
9,400.00	8,340.00	8,371.71	8,336.32	44.08	30.75	-90.00	2,054.80	253.99	2,090.44	2,019.74	70.70	29.568	
9,500.00	8,340.00	8,371.71	8,336.32	45.86	30.75	-90.00	2,054.80	253.99	2,153.29	2,081.76	71.53	30.103	
9,600.00	8,340.00	11,012.53	9,745.00	47.70	47.11	-130.49	2,054.16	1,737.51	2,169.54	2,096.88	72.66	29.858	
9,700.00	8,340.00	11,112.53	9,745.00	49.58	48.76	-130.49	2,054.11	1,837.51	2,169.54	2,094.07	75.46	28.749	
9,800.00	8,340.00	11,212.53	9,745.00	51.52	50.47	-130.49	2,054.07	1,937.51	2,169.54	2,091.19	78.35	27.690	
9,900.00	8,340.00	11,312.53	9,745.00	53.49	52.24	-130.49	2,054.03	2,037.51	2,169.54	2,088.22	81.32	26.680	
10,000.00	8,340.00	11,412.53	9,745.00	55.50	54.06	-130.49	2,053.98	2,137.51	2,169.54	2,085.19	84.35	25.721	
10,100.00	8,340.00	11,512.53	9,745.00	57.54	55.93	-130.49	2,053.94	2,237.51	2,169.54	2,082.09	87.44	24.811	
10,200.00	8,340.00	11,612.53	9,745.00	59.61	57.83	-130.49	2,053.90	2,337.51	2,169.54	2,078.94	90.59	23.948	
10,300.00	8,340.00	11,712.53	9,745.00	61.70	59.78	-130.49	2,053.85	2,437.51	2,169.54	2,075.74	93.79	23.131	
10,400.00	8,340.00	11,812.53	9,745.00	63.82	61.76	-130.49	2,053.81	2,537.51	2,169.54	2,072.50	97.04	22.358	
10,500.00	8,340.00	11,912.53	9,745.00	65.96	63.76	-130.49	2,053.77	2,637.51	2,169.54	2,069.21	100.32	21.626	
10,600.00	8,340.00	12,012.53	9,745.00	68.12	65.80	-130.49	2,053.72	2,737.51	2,169.54	2,065.89	103.64	20.933	
10,700.00	8,340.00	12,112.53	9,745.00	70.30	67.86	-130.49	2,053.68	2,837.51	2,169.54	2,062.54	107.00	20.276	
10,800.00	8,340.00	12,212.53	9,745.00	72.49	69.95	-130.49	2,053.64	2,937.51	2,169.54	2,059.15	110.38	19.654	
10,900.00	8,340.00	12,312.53	9,745.00	74.69	72.06	-130.49	2,053.59	3,037.51	2,169.54	2,055.74	113.80	19.065	
11,000.00	8,340.00	12,412.53	9,745.00	76.91	74.18	-130.49	2,053.55	3,137.51	2,169.54	2,052.30	117.23	18.506	
11,100.00	8,340.00	12,512.53	9,745.00	79.14	76.33	-130.49	2,053.51	3,237.51	2,169.53	2,048.84	120.69	17.975	
11,200.00	8,340.00	12,612.53	9,745.00	81.39	78.49	-130.49	2,053.46	3,337.51	2,169.53	2,045.36	124.18	17.471	
11,300.00	8,340.00	12,712.53	9,745.00	83.64	80.66	-130.49	2,053.42	3,437.51	2,169.53	2,041.86	127.68	16.992	
11,400.00	8,340.00	12,812.53	9,745.00	85.90	82.85	-130.49	2,053.38	3,537.51	2,169.53	2,038.34	131.20	16.537	
11,500.00	8,340.00	12,912.53	9,745.00	88.17	85.05	-130.49	2,053.33	3,637.51	2,169.53	2,034.80	134.73	16.103	
11,600.00	8,340.00	13,012.53	9,745.00	90.45	87.27	-130.49	2,053.29	3,737.51	2,169.53	2,031.25	138.28	15.689	
11,700.00	8,340.00	13,112.53	9,745.00	92.74	89.49	-130.49	2,053.25	3,837.51	2,169.53	2,027.69	141.85	15.295	
11,800.00	8,340.00	13,212.53	9,745.00	95.03	91.72	-130.49	2,053.20	3,937.51	2,169.53	2,024.11	145.42	14.919	
11,900.00	8,340.00	13,312.53	9,745.00	97.33	93.97	-130.49	2,053.16	4,037.51	2,169.53	2,020.52	149.01	14.559	
12,000.00	8,340.00	13,412.53	9,745.00	99.63	96.22	-130.49	2,053.12	4,137.51	2,169.53	2,016.92	152.61	14.216	
12,100.00	8,340.00	13,512.53	9,745.00	101.94	98.48	-130.49	2,053.07	4,237.51	2,169.53	2,013.31	156.22	13.887	
12,200.00	8,340.00	13,612.53	9,745.00	104.26	100.75	-130.49	2,053.03	4,337.51	2,169.53	2,009.69	159.84	13.573	
12,300.00	8,340.00	13,712.53	9,745.00	106.58	103.03	-130.49	2,052.99	4,437.51	2,169.53	2,006.06	163.47	13.271	
12,400.00	8,340.00	13,812.53	9,745.00	108.90	105.31	-130.49	2,052.94	4,537.51	2,169.53	2,002.42	167.11	12.982	
12,500.00	8,340.00	13,912.53	9,745.00	111.23	107.60	-130.49	2,052.90	4,637.51	2,169.53	1,998.77	170.76	12.705	
12,600.00	8,340.00	14,012.53	9,745.00	113.57	109.89	-130.49	2,052.86	4,737.51	2,169.53	1,995.12	174.41	12.439	
12,700.00	8,340.00	14,112.53	9,745.00	115.90	112.19	-130.49	2,052.81	4,837.51	2,169.53	1,991.46	178.07	12.183	
12,800.00	8,340.00	14,212.53	9,745.00	118.24	114.49	-130.49	2,052.77	4,937.51	2,169.53	1,987.79	181.74	11.938	
12,900.00	8,340.00	14,312.53	9,745.00	120.59	116.80	-130.49	2,052.73	5,037.51	2,169.53	1,984.12	185.41	11.701	
13,000.00	8,340.00	14,412.53	9,745.00	122.93	119.12	-130.49	2,052.68	5,137.51	2,169.53	1,980.44	189.09	11.473	
13,100.00	8,340.00	14,512.53	9,745.00	125.28	121.44	-130.49	2,052.64	5,237.51	2,169.53	1,976.75	192.78	11.254	
13,200.00	8,340.00	14,612.53	9,745.00	127.64	123.76	-130.49	2,052.59	5,337.51	2,169.53	1,973.06	196.47	11.043	
13,213.04	8,340.00	14,625.57	9,745.00	127.94	124.06	-130.49	2,052.59	5,350.55	2,169.53	1,972.58	196.95	11.016	
13,223.15	8,340.00	14,623.75	9,745.00	128.18	124.02	-130.49	2,052.59	5,348.73	2,169.56	1,972.43	197.13	11.005 SF	

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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										
Measured Depth (usft)	Vertical Depth (usft)	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)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.88	-0.88	0.00	0.00	-0.02	59.97	-0.02	59.97				
100.00	100.00	100.88	99.12	0.13	0.13	-0.02	59.97	-0.02	59.97	59.71	0.26	232.740	
200.00	200.00	200.88	199.12	0.49	0.49	-0.02	59.97	-0.02	59.97	59.00	0.97	61.532	
300.00	300.00	300.88	299.12	0.84	0.85	-0.02	59.97	-0.02	59.97	58.28	1.69	35.453	
400.00	400.00	400.88	399.12	1.20	1.21	-0.02	59.97	-0.02	59.97	57.56	2.41	24.899	
500.00	500.00	500.88	499.12	1.56	1.56	-0.02	59.97	-0.02	59.97	56.84	3.13	19.188	
600.00	600.00	600.88	599.12	1.92	1.92	-0.02	59.97	-0.02	59.97	56.13	3.84	15.607	
700.00	700.00	700.88	699.12	2.28	2.28	-0.02	59.97	-0.02	59.97	55.41	4.56	13.153	
800.00	800.00	800.88	799.12	2.64	2.64	-0.02	59.97	-0.02	59.97	54.69	5.28	11.366	
900.00	900.00	900.88	899.12	3.00	3.00	-0.02	59.97	-0.02	59.97	53.98	5.99	10.006	
1,000.00	1,000.00	999.12	999.12	3.35	3.35	-0.02	59.97	-0.02	59.97	53.27	6.70	8.946 CC	
1,100.00	1,099.99	1,097.69	1,097.68	3.71	3.70	-32.86	61.14	0.43	60.05	52.64	7.41	8.101	
1,200.00	1,199.91	1,196.24	1,196.15	4.07	4.06	-33.55	64.68	1.78	60.35	52.23	8.12	7.434	
1,266.67	1,266.45	1,261.94	1,261.73	4.31	4.29	-34.26	68.36	3.18	60.67	52.08	8.59	7.066 ES	
1,300.00	1,299.70	1,294.78	1,294.49	4.43	4.41	-34.61	70.59	4.03	60.99	52.17	8.82	6.915	
1,400.00	1,399.46	1,393.28	1,392.58	4.79	4.77	-35.02	78.87	7.19	63.54	54.02	9.52	6.674	
1,500.00	1,499.22	1,491.59	1,490.24	5.15	5.13	-34.54	89.49	11.24	68.46	58.25	10.22	6.701	
1,600.00	1,598.97	1,609.36	1,588.35	5.51	5.57	-33.51	102.16	16.07	75.38	64.38	10.99	6.857	
1,700.00	1,698.73	1,709.62	1,687.12	5.87	5.95	-32.58	115.13	21.01	82.52	70.81	11.72	7.043	
1,800.00	1,798.48	1,809.89	1,785.88	6.24	6.34	-31.81	128.10	25.96	89.69	77.25	12.44	7.208	
1,900.00	1,898.24	1,889.89	1,884.65	6.61	6.65	-31.14	141.07	30.90	96.87	83.77	13.09	7.398	
2,000.00	1,998.00	1,989.59	1,983.41	6.97	7.04	-30.57	154.03	35.85	104.06	90.24	13.82	7.529	
2,100.00	2,097.75	2,089.32	2,082.18	7.34	7.43	-30.08	167.00	40.79	111.26	96.71	14.55	7.648	
2,200.00	2,197.51	2,189.06	2,180.95	7.71	7.83	-29.64	179.97	45.74	118.47	103.19	15.28	7.755	
2,300.00	2,297.27	2,288.79	2,279.71	8.08	8.22	-29.25	192.94	50.69	125.68	109.67	16.00	7.853	
2,400.00	2,397.02	2,388.53	2,378.48	8.45	8.62	-28.91	205.91	55.63	132.90	116.16	16.73	7.942	
2,500.00	2,496.78	2,488.27	2,477.24	8.82	9.02	-28.60	218.88	60.58	140.12	122.66	17.46	8.023	
2,600.00	2,596.54	2,588.00	2,576.01	9.19	9.43	-28.32	231.85	65.52	147.35	129.15	18.19	8.098	
2,700.00	2,696.29	2,687.74	2,674.77	9.56	9.83	-28.07	244.82	70.47	154.58	135.65	18.93	8.168	
2,800.00	2,796.05	2,787.47	2,773.54	9.93	10.23	-27.84	257.79	75.41	161.81	142.15	19.66	8.232	
2,850.00	2,845.93	2,837.35	2,822.92	10.11	10.44	-27.73	264.28	77.89	165.42	145.40	20.02	8.262	
2,900.00	2,895.78	2,887.23	2,872.32	10.30	10.64	-27.66	270.76	80.36	168.75	148.36	20.39	8.277	
3,000.00	2,995.32	2,983.44	2,967.47	10.67	11.03	-27.73	284.12	85.45	174.59	153.51	21.08	8.283	
3,100.00	3,094.57	3,079.00	3,061.58	11.06	11.44	-27.95	299.58	91.35	180.50	158.74	21.76	8.297	
3,116.67	3,111.08	3,094.92	3,077.21	11.13	11.51	-28.00	302.37	92.41	181.49	159.62	21.87	8.300	
3,200.00	3,193.60	3,174.37	3,155.06	11.45	11.86	-28.22	317.19	98.06	187.30	164.87	22.43	8.352	
3,300.00	3,292.63	3,270.34	3,248.64	11.85	12.29	-28.28	337.06	105.64	196.39	173.29	23.10	8.500	
3,400.00	3,391.65	3,369.85	3,345.51	12.24	12.75	-28.28	358.38	113.77	206.24	182.38	23.86	8.644	
3,500.00	3,490.68	3,469.37	3,442.37	12.64	13.21	-28.28	379.69	121.89	216.09	191.47	24.62	8.778	
3,600.00	3,589.71	3,568.88	3,539.24	13.03	13.68	-28.28	401.00	130.02	225.94	200.56	25.38	8.903	
3,700.00	3,688.73	3,668.39	3,636.10	13.43	14.15	-28.28	422.31	138.15	235.79	209.65	26.14	9.021	
3,800.00	3,787.76	3,767.91	3,732.97	13.83	14.62	-28.27	443.62	146.27	245.63	218.73	26.90	9.131	
3,900.00	3,886.79	3,867.42	3,829.83	14.23	15.09	-28.27	464.94	154.40	255.48	227.82	27.66	9.235	
4,000.00	3,985.82	3,966.94	3,926.70	14.64	15.56	-28.27	486.25	162.53	265.33	236.90	28.43	9.333	
4,100.00	4,084.84	4,066.45	4,023.56	15.04	16.04	-28.27	507.56	170.65	275.18	245.98	29.19	9.426	
4,200.00	4,183.87	4,165.96	4,120.43	15.44	16.51	-28.27	528.87	178.78	285.03	255.07	29.96	9.513	
4,300.00	4,282.90	4,265.48	4,217.29	15.85	16.99	-28.27	550.18	186.91	294.87	264.15	30.73	9.596	
4,400.00	4,381.92	4,364.99	4,314.15	16.25	17.47	-28.27	571.49	195.03	304.72	273.23	31.50	9.675	
4,500.00	4,480.95	4,464.50	4,411.02	16.66	17.95	-28.27	592.81	203.16	314.57	282.30	32.27	9.749	
4,600.00	4,579.98	4,564.02	4,507.88	17.06	18.43	-28.26	614.12	211.29	324.42	291.38	33.04	9.820	
4,700.00	4,679.00	4,663.53	4,604.75	17.47	18.91	-28.26	635.43	219.41	334.27	300.46	33.81	9.888	
4,800.00	4,778.03	4,770.51	4,709.10	17.88	19.42	-28.31	657.44	227.81	343.25	308.57	34.69	9.986	

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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:
Survey Program: 0-MWVD													Offset Well Error:
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.00	4,877.08	4,879.79	4,816.32	18.28	19.93	-28.50	677.16	235.32	349.57	314.00	35.57	9.827	
5,000.00	4,976.08	4,989.35	4,924.37	18.69	20.40	-28.83	694.03	241.76	353.16	316.73	36.43	9.693	
5,100.00	5,075.11	5,098.99	5,032.99	19.10	20.86	-29.31	708.01	247.09	354.03	316.76	37.27	9.499	
5,200.00	5,174.14	5,208.55	5,141.90	19.51	21.29	-29.94	719.07	251.31	352.19	314.11	38.08	9.249	
5,241.35	5,215.09	5,253.79	5,186.96	19.68	21.46	-30.26	722.78	252.72	350.65	312.24	38.40	9.131	
5,300.00	5,273.22	5,317.87	5,250.87	19.92	21.69	-30.69	727.19	254.40	348.07	309.21	38.85	8.958	
5,400.00	5,372.60	5,427.00	5,359.86	20.31	22.07	-31.39	732.39	256.38	343.35	303.76	39.59	8.672	
5,500.00	5,472.24	5,535.94	5,468.77	20.69	22.42	-32.02	734.67	257.25	338.23	297.94	40.28	8.396	
5,600.00	5,572.06	5,638.36	5,571.18	21.06	22.74	-32.53	734.79	257.30	333.37	292.37	40.99	8.133	
5,700.00	5,672.01	5,738.30	5,671.13	21.41	23.04	-32.81	734.79	257.30	330.62	288.92	41.70	7.929	
5,774.69	5,746.69	5,812.99	5,745.81	21.66	23.27	-0.27	734.79	257.30	330.00	287.79	42.22	7.817	
5,800.00	5,772.00	5,838.30	5,771.12	21.74	23.35	-0.27	734.79	257.30	330.00	287.61	42.39	7.785	
5,900.00	5,872.00	5,938.30	5,871.12	22.08	23.66	-0.27	734.79	257.30	330.00	286.93	43.07	7.661	
6,000.00	5,972.00	6,038.30	5,971.12	22.41	23.98	-0.27	734.79	257.30	330.00	286.24	43.76	7.541	
6,100.00	6,072.00	6,138.30	6,071.12	22.75	24.29	-0.27	734.79	257.30	330.00	285.56	44.45	7.424	
6,200.00	6,172.00	6,238.30	6,171.12	23.09	24.60	-0.27	734.79	257.30	330.00	284.87	45.14	7.311	
6,300.00	6,272.00	6,338.30	6,271.12	23.42	24.92	-0.27	734.79	257.30	330.00	284.18	45.83	7.201	
6,400.00	6,372.00	6,438.30	6,371.12	23.76	25.24	-0.27	734.79	257.30	330.00	283.49	46.52	7.094	
6,500.00	6,472.00	6,538.30	6,471.12	24.10	25.56	-0.27	734.79	257.30	330.00	282.80	47.21	6.991	
6,600.00	6,572.00	6,638.30	6,571.12	24.44	25.88	-0.27	734.79	257.30	330.00	282.10	47.90	6.890	
6,700.00	6,672.00	6,738.30	6,671.12	24.78	26.20	-0.27	734.79	257.30	330.00	281.41	48.59	6.791	
6,800.00	6,772.00	6,838.30	6,771.12	25.12	26.52	-0.27	734.79	257.30	330.00	280.72	49.28	6.696	
6,900.00	6,872.00	6,938.30	6,871.12	25.46	26.84	-0.27	734.79	257.30	330.00	280.03	49.98	6.603	
7,000.00	6,972.00	7,038.30	6,971.12	25.80	27.16	-0.27	734.79	257.30	330.00	279.33	50.67	6.512	
7,100.00	7,072.00	7,138.30	7,071.12	26.14	27.49	-0.27	734.79	257.30	330.00	278.64	51.37	6.424	
7,200.00	7,172.00	7,238.30	7,171.12	26.48	27.81	-0.27	734.79	257.30	330.00	277.94	52.06	6.338	
7,300.00	7,272.00	7,338.30	7,271.12	26.82	28.14	-0.27	734.79	257.30	330.00	277.24	52.76	6.255	
7,400.00	7,372.00	7,438.30	7,371.12	27.17	28.46	-0.27	734.79	257.30	330.00	276.55	53.46	6.173	
7,500.00	7,472.00	7,538.30	7,471.12	27.51	28.79	-0.27	734.79	257.30	330.00	275.85	54.15	6.094	
7,600.00	7,572.00	7,638.30	7,571.12	27.85	29.12	-0.27	734.79	257.30	330.00	275.15	54.85	6.016	
7,700.00	7,672.00	7,738.30	7,671.12	28.20	29.45	-0.27	734.79	257.30	330.00	274.45	55.55	5.941	
7,795.04	7,767.04	7,833.34	7,766.16	28.52	29.76	-0.27	734.79	257.30	330.00	273.79	56.21	5.870	
7,800.00	7,772.00	7,838.30	7,771.12	28.54	29.78	-90.30	734.79	257.30	330.00	273.76	56.25	5.867	
7,850.00	7,821.92	7,888.22	7,821.04	28.71	29.94	-90.75	734.79	257.30	330.03	273.41	56.61	5.829	
7,900.00	7,871.42	7,937.71	7,870.54	28.89	30.10	-91.93	734.79	257.30	330.19	273.18	57.02	5.791	
7,950.00	7,920.12	7,986.42	7,919.24	29.08	30.26	-93.77	734.79	257.30	330.77	273.31	57.46	5.757	
8,000.00	7,967.66	8,033.96	7,966.78	29.28	30.42	-96.16	734.79	257.30	332.18	274.24	57.94	5.734	
8,050.00	8,013.67	8,079.97	8,012.79	29.48	30.57	-98.94	734.79	257.30	334.97	276.52	58.45	5.731 SF	
8,100.00	8,057.81	8,124.10	8,056.93	29.70	30.72	-101.94	734.79	257.30	339.79	280.78	59.01	5.758	
8,150.00	8,099.73	8,166.03	8,098.85	29.92	30.86	-104.95	734.79	257.30	347.29	287.70	59.59	5.828	
8,200.00	8,139.12	8,205.42	8,138.24	30.15	30.99	-107.76	734.79	257.30	358.07	297.88	60.18	5.950	
8,250.00	8,175.68	8,241.97	8,174.80	30.40	31.11	-110.18	734.79	257.30	372.63	311.85	60.77	6.132	
8,300.00	8,209.13	8,275.42	8,208.25	30.67	31.22	-112.06	734.79	257.30	391.26	329.93	61.33	6.380	
8,350.00	8,239.21	8,305.51	8,238.33	30.97	31.32	-113.24	734.79	257.30	414.08	352.24	61.84	6.696	
8,400.00	8,265.70	8,332.00	8,264.82	31.30	31.41	-113.58	734.79	257.30	440.98	378.70	62.28	7.080	
8,450.00	8,288.40	8,354.69	8,287.52	31.66	31.49	-112.96	734.79	257.30	471.70	409.04	62.66	7.528	
8,500.00	8,307.12	8,373.42	8,306.24	32.05	31.55	-111.20	734.79	257.30	505.85	442.88	62.97	8.033	
8,550.00	8,321.74	8,388.04	8,320.86	32.48	31.60	-108.12	734.79	257.30	542.97	479.76	63.21	8.589	
8,600.00	8,332.14	8,401.57	8,331.26	32.94	31.64	-103.51	734.79	257.30	582.56	519.15	63.41	9.187	
8,650.00	8,338.23	8,404.53	8,337.35	33.43	31.65	-97.18	734.79	257.30	624.07	560.54	63.53	9.823	
8,695.04	8,340.00	8,406.30	8,339.12	33.89	31.66	-90.00	734.79	257.30	662.69	599.08	63.61	10.418	
8,700.00	8,340.00	8,406.30	8,339.12	33.95	31.66	-90.00	734.79	257.30	667.00	603.38	63.62	10.484	

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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		
8,800.00	8,340.00	8,406.30	8,339.12	35.07	31.66	-90.00	734.79	257.30	755.52	691.79	63.73	11.855		
8,900.00	8,340.00	8,406.30	8,339.12	36.32	31.66	-90.00	734.79	257.30	846.60	782.81	63.80	13.270		
9,000.00	8,340.00	8,406.30	8,339.12	37.69	31.66	-90.00	734.79	257.30	939.50	875.66	63.84	14.716		
9,100.00	8,340.00	8,406.30	8,339.12	39.16	31.66	-90.00	734.79	257.30	1,033.73	969.86	63.87	16.185		
9,200.00	8,340.00	8,406.30	8,339.12	40.72	31.66	-90.00	734.79	257.30	1,128.95	1,065.06	63.89	17.670		
9,300.00	8,340.00	8,406.30	8,339.12	42.37	31.66	-90.00	734.79	257.30	1,224.93	1,161.02	63.91	19.167		
9,400.00	8,340.00	8,406.30	8,339.12	44.08	31.66	-90.00	734.79	257.30	1,321.51	1,257.59	63.92	20.674		
9,500.00	8,340.00	8,406.30	8,339.12	45.86	31.66	-90.00	734.79	257.30	1,418.56	1,354.63	63.93	22.188		
9,600.00	8,340.00	11,040.44	9,745.00	47.70	51.40	-166.79	734.15	1,736.94	1,444.09	1,408.28	35.81	40.330		
9,700.00	8,340.00	11,140.44	9,745.00	49.58	53.15	-166.79	734.11	1,836.94	1,444.09	1,406.88	37.21	38.811		
9,800.00	8,340.00	11,240.44	9,745.00	51.52	54.96	-166.79	734.07	1,936.94	1,444.09	1,405.44	38.65	37.363		
9,900.00	8,340.00	11,340.44	9,745.00	53.49	56.81	-166.79	734.02	2,036.94	1,444.09	1,403.96	40.13	35.987		
10,000.00	8,340.00	11,440.44	9,745.00	55.50	58.70	-166.79	733.98	2,136.94	1,444.09	1,402.45	41.64	34.681		
10,100.00	8,340.00	11,540.44	9,745.00	57.54	60.63	-166.79	733.94	2,236.94	1,444.09	1,400.91	43.18	33.445		
10,200.00	8,340.00	11,640.44	9,745.00	59.61	62.60	-166.79	733.89	2,336.94	1,444.09	1,399.35	44.74	32.275		
10,300.00	8,340.00	11,740.44	9,745.00	61.70	64.60	-166.79	733.85	2,436.94	1,444.09	1,397.76	46.33	31.168		
10,400.00	8,340.00	11,840.44	9,745.00	63.82	66.62	-166.79	733.81	2,536.94	1,444.09	1,396.15	47.94	30.121		
10,500.00	8,340.00	11,940.44	9,745.00	65.96	68.67	-166.79	733.76	2,636.94	1,444.09	1,394.52	49.57	29.131		
10,600.00	8,340.00	12,040.44	9,745.00	68.12	70.75	-166.79	733.72	2,736.94	1,444.09	1,392.87	51.22	28.195		
10,700.00	8,340.00	12,140.44	9,745.00	70.30	72.85	-166.79	733.68	2,836.94	1,444.09	1,391.21	52.88	27.309		
10,800.00	8,340.00	12,240.44	9,745.00	72.49	74.96	-166.79	733.63	2,936.94	1,444.09	1,389.54	54.56	26.470		
10,900.00	8,340.00	12,340.44	9,745.00	74.69	77.10	-166.79	733.59	3,036.94	1,444.09	1,387.85	56.24	25.675		
11,000.00	8,340.00	12,440.44	9,745.00	76.91	79.25	-166.79	733.55	3,136.94	1,444.09	1,386.15	57.95	24.922		
11,100.00	8,340.00	12,540.44	9,745.00	79.14	81.42	-166.79	733.50	3,236.94	1,444.09	1,384.43	59.66	24.207		
11,200.00	8,340.00	12,640.44	9,745.00	81.39	83.60	-166.79	733.46	3,336.94	1,444.09	1,382.71	61.38	23.528		
11,300.00	8,340.00	12,740.44	9,745.00	83.64	85.79	-166.79	733.42	3,436.94	1,444.09	1,380.98	63.11	22.882		
11,400.00	8,340.00	12,840.44	9,745.00	85.90	88.00	-166.79	733.38	3,536.94	1,444.09	1,379.24	64.85	22.269		
11,500.00	8,340.00	12,940.44	9,745.00	88.17	90.22	-166.79	733.33	3,636.94	1,444.09	1,377.50	66.59	21.685		
11,600.00	8,340.00	13,040.44	9,745.00	90.45	92.44	-166.79	733.29	3,736.94	1,444.09	1,375.74	68.35	21.128		
11,700.00	8,340.00	13,140.44	9,745.00	92.74	94.68	-166.79	733.25	3,836.94	1,444.09	1,373.98	70.11	20.598		
11,800.00	8,340.00	13,240.44	9,745.00	95.03	96.93	-166.79	733.20	3,936.94	1,444.09	1,372.22	71.88	20.092		
11,900.00	8,340.00	13,340.44	9,745.00	97.33	99.18	-166.79	733.16	4,036.94	1,444.09	1,370.44	73.65	19.608		
12,000.00	8,340.00	13,440.44	9,745.00	99.63	101.45	-166.79	733.12	4,136.94	1,444.09	1,368.67	75.43	19.146		
12,100.00	8,340.00	13,540.44	9,745.00	101.94	103.72	-166.79	733.07	4,236.94	1,444.09	1,366.88	77.21	18.704		
12,200.00	8,340.00	13,640.44	9,745.00	104.26	105.99	-166.79	733.03	4,336.94	1,444.09	1,365.10	79.00	18.281		
12,300.00	8,340.00	13,740.44	9,745.00	106.58	108.28	-166.79	732.99	4,436.94	1,444.09	1,363.30	80.79	17.875		
12,400.00	8,340.00	13,840.44	9,745.00	108.90	110.57	-166.79	732.94	4,536.94	1,444.09	1,361.51	82.58	17.487		
12,500.00	8,340.00	13,940.44	9,745.00	111.23	112.86	-166.79	732.90	4,636.94	1,444.09	1,359.71	84.38	17.114		
12,600.00	8,340.00	14,040.44	9,745.00	113.57	115.16	-166.79	732.86	4,736.94	1,444.09	1,357.91	86.18	16.756		
12,700.00	8,340.00	14,140.44	9,745.00	115.90	117.47	-166.79	732.81	4,836.94	1,444.09	1,356.10	87.99	16.412		
12,800.00	8,340.00	14,240.44	9,745.00	118.24	119.78	-166.79	732.77	4,936.94	1,444.09	1,354.29	89.80	16.081		
12,900.00	8,340.00	14,340.44	9,745.00	120.59	122.09	-166.79	732.73	5,036.94	1,444.09	1,352.48	91.61	15.763		
13,000.00	8,340.00	14,440.44	9,745.00	122.93	124.41	-166.79	732.69	5,136.94	1,444.09	1,350.66	93.43	15.457		
13,100.00	8,340.00	14,540.44	9,745.00	125.28	126.73	-166.79	732.64	5,236.94	1,444.09	1,348.85	95.24	15.162		
13,200.00	8,340.00	14,640.44	9,745.00	127.64	129.06	-166.79	732.60	5,336.94	1,444.09	1,347.03	97.06	14.878		
13,223.16	8,340.00	14,663.60	9,745.00	128.18	129.60	-166.79	732.59	5,360.10	1,444.09	1,346.61	97.48	14.813		

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well#122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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-MWVD													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(")	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)		
0.00	0.00	3.78	-3.78	0.00	0.00	20.77		1,643.58	623.50	1,757.87				
100.00	100.00	103.78	96.22	0.13	0.14	20.77		1,643.58	623.50	1,757.87	1,757.60	0.27	6,557.618	
200.00	200.00	203.78	196.22	0.49	0.50	20.77		1,643.58	623.50	1,757.87	1,756.89	0.99	1,784.624	
300.00	300.00	303.78	296.22	0.84	0.86	20.77		1,643.58	623.50	1,757.87	1,756.17	1.70	1,032.856	
400.00	400.00	403.78	396.22	1.20	1.22	20.77		1,643.58	623.50	1,757.87	1,755.45	2.42	726.725	
500.00	500.00	503.78	496.22	1.56	1.57	20.77		1,643.58	623.50	1,757.87	1,754.73	3.14	560.574	
600.00	600.00	603.78	596.22	1.92	1.93	20.77		1,643.58	623.50	1,757.87	1,754.02	3.85	456.260	
700.00	700.00	703.78	696.22	2.28	2.29	20.77		1,643.58	623.50	1,757.87	1,753.30	4.57	384.678	
800.00	800.00	803.78	796.22	2.64	2.65	20.77		1,643.58	623.50	1,757.87	1,752.58	5.29	332.510	
900.00	900.00	903.78	896.22	3.00	3.01	20.77		1,643.58	623.50	1,757.87	1,751.87	6.00	292.802	
1,000.00	1,000.00	996.22	996.22	3.35	3.34	20.77		1,643.58	623.50	1,757.87	1,751.18	6.69	262.625	
1,100.00	1,099.99	1,153.96	1,153.92	3.71	3.88	-11.91		1,641.85	620.93	1,755.01	1,747.42	7.59	231.258	
1,200.00	1,199.91	1,304.34	1,295.37	4.07	4.39	-12.13		1,637.25	614.11	1,746.34	1,737.89	8.45	206.637	
1,266.67	1,266.45	1,361.77	1,361.33	4.31	4.59	-12.27		1,634.68	610.28	1,738.59	1,729.70	8.89	195.621	
1,300.00	1,299.70	1,394.80	1,394.27	4.43	4.70	-12.33		1,633.39	608.37	1,734.43	1,725.31	9.12	190.184	
1,400.00	1,399.46	1,506.14	1,493.09	4.79	5.10	-12.52		1,629.53	602.64	1,721.98	1,712.12	9.86	174.647	
1,500.00	1,499.22	1,607.07	1,591.92	5.15	5.45	-12.70		1,625.67	596.91	1,709.54	1,698.97	10.57	161.774	
1,600.00	1,598.97	1,708.00	1,690.75	5.51	5.81	-12.89		1,621.81	591.17	1,697.12	1,685.85	11.28	150.481	
1,700.00	1,698.73	1,808.94	1,789.57	5.87	6.18	-13.09		1,617.95	585.44	1,684.73	1,672.74	11.99	140.499	
1,800.00	1,798.48	1,909.87	1,888.40	6.24	6.54	-13.28		1,614.09	579.71	1,672.35	1,659.64	12.71	131.619	
1,900.00	1,898.24	1,989.20	1,987.22	6.61	6.93	-13.48		1,610.22	573.98	1,659.99	1,646.64	13.35	124.383	
2,000.00	1,998.00	2,088.27	2,086.05	6.97	7.19	-13.68		1,606.36	568.25	1,647.65	1,633.59	14.06	117.211	
2,100.00	2,097.75	2,187.33	2,184.87	7.34	7.55	-13.89		1,602.50	562.52	1,635.33	1,620.56	14.77	110.721	
2,200.00	2,197.51	2,286.40	2,283.70	7.71	7.92	-14.09		1,598.64	556.79	1,623.03	1,607.55	15.48	104.822	
2,300.00	2,297.27	2,385.47	2,382.52	8.08	8.28	-14.31		1,594.78	551.05	1,610.75	1,594.56	16.20	99.438	
2,400.00	2,397.02	2,484.53	2,481.35	8.45	8.65	-14.52		1,590.92	545.32	1,598.50	1,581.58	16.91	94.505	
2,500.00	2,496.78	2,583.60	2,580.18	8.82	9.01	-14.74		1,587.06	539.59	1,586.27	1,568.64	17.63	89.970	
2,600.00	2,596.54	2,682.67	2,679.00	9.19	9.38	-14.96		1,583.20	533.86	1,574.06	1,555.71	18.35	85.786	
2,700.00	2,696.29	2,781.73	2,777.83	9.56	9.74	-15.18		1,579.34	528.13	1,561.87	1,542.80	19.07	81.916	
2,800.00	2,796.05	2,881.86	2,887.68	9.93	10.15	-15.44		1,574.96	521.62	1,549.62	1,529.81	19.82	78.194	
2,850.00	2,845.93	2,964.06	2,959.59	10.11	10.43	-15.64		1,571.40	516.34	1,542.83	1,522.59	20.24	76.220	
2,900.00	2,895.78	3,035.71	3,030.83	10.30	10.70	-15.91		1,567.11	509.98	1,535.02	1,514.36	20.66	74.291	
3,000.00	2,995.32	3,160.52	3,154.55	10.67	11.19	-16.52		1,557.97	496.40	1,515.67	1,494.21	21.45	70.648	
3,100.00	3,094.57	3,257.25	3,250.34	11.06	11.57	-17.09		1,550.45	485.24	1,493.41	1,471.23	22.18	67.327	
3,116.67	3,111.08	3,273.31	3,266.25	11.13	11.64	-17.19		1,549.20	483.38	1,489.47	1,467.16	22.30	66.781	
3,200.00	3,193.60	3,353.54	3,345.70	11.45	11.96	-17.61		1,542.96	474.12	1,469.66	1,446.75	22.91	64.152	
3,300.00	3,292.63	3,449.83	3,441.05	11.85	12.34	-18.13		1,535.48	463.01	1,445.99	1,422.36	23.64	61.174	
3,400.00	3,391.65	3,546.12	3,536.40	12.24	12.73	-18.67		1,527.99	451.89	1,422.45	1,398.08	24.37	58.371	
3,500.00	3,490.68	3,642.40	3,631.75	12.64	13.12	-19.22		1,520.50	440.78	1,399.02	1,373.92	25.10	55.730	
3,600.00	3,589.71	3,738.69	3,727.10	13.03	13.51	-19.80		1,513.02	429.66	1,375.73	1,349.89	25.84	53.239	
3,700.00	3,688.73	3,834.97	3,822.44	13.43	13.90	-20.39		1,505.53	418.55	1,352.58	1,326.00	26.58	50.885	
3,800.00	3,787.76	3,931.26	3,917.79	13.83	14.29	-21.00		1,498.04	407.43	1,329.57	1,302.24	27.32	48.659	
3,900.00	3,886.79	4,027.54	4,013.14	14.23	14.68	-21.64		1,490.56	396.32	1,306.71	1,278.64	28.07	46.551	
4,000.00	3,985.82	4,123.83	4,108.49	14.64	15.08	-22.30		1,483.07	385.21	1,284.02	1,255.20	28.82	44.553	
4,100.00	4,084.84	4,220.12	4,203.84	15.04	15.47	-22.98		1,475.59	374.09	1,261.49	1,231.92	29.57	42.657	
4,200.00	4,183.87	4,316.40	4,299.19	15.44	15.87	-23.68		1,468.10	362.98	1,239.15	1,208.82	30.33	40.856	
4,300.00	4,282.90	4,412.69	4,394.54	15.85	16.26	-24.41		1,460.61	351.86	1,216.99	1,185.90	31.09	39.145	
4,400.00	4,381.92	4,508.97	4,489.89	16.25	16.66	-25.16		1,453.13	340.75	1,195.03	1,163.18	31.85	37.517	
4,500.00	4,480.95	4,605.26	4,585.24	16.66	17.06	-25.95		1,445.64	329.63	1,173.28	1,140.66	32.62	35.967	
4,600.00	4,579.98	4,701.55	4,680.59	17.06	17.45	-26.76		1,438.15	318.52	1,151.75	1,118.36	33.39	34.492	
4,700.00	4,679.00	4,802.17	4,775.93	17.47	17.87	-27.60		1,430.67	307.41	1,130.46	1,096.28	34.18	33.069	
4,800.00	4,778.03	4,905.88	4,871.28	17.88	18.30	-28.47		1,423.18	296.29	1,109.42	1,074.43	34.99	31.703	

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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			
4,900.00	4,877.06	4,990.40	4,966.63	18.28	18.65	-29.37	1,415.70	285.18	1,088.64	1,052.91	35.73	30.466			
5,000.00	4,976.08	5,073.04	5,048.57	18.69	18.98	-30.14	1,409.74	276.34	1,068.74	1,032.25	36.50	29.281			
5,100.00	5,075.11	5,156.31	5,131.36	19.10	19.31	-30.86	1,404.75	268.93	1,050.36	1,013.10	37.26	28.192			
5,200.00	5,174.14	5,240.42	5,215.16	19.51	19.64	-31.52	1,400.73	262.96	1,033.44	995.43	38.00	27.193			
5,241.35	5,215.09	5,275.43	5,250.09	19.68	19.77	-31.78	1,399.36	260.93	1,026.86	988.55	38.31	26.804			
5,300.00	5,273.22	5,325.37	5,299.94	19.92	19.95	-32.04	1,397.72	258.49	1,018.32	979.58	38.74	26.287			
5,400.00	5,372.60	5,411.31	5,385.80	20.31	20.26	-32.40	1,395.74	255.56	1,006.59	967.13	39.45	25.513			
5,500.00	5,472.24	5,498.00	5,472.48	20.69	20.56	-32.64	1,394.85	254.22	998.38	958.23	40.15	24.868			
5,600.00	5,572.06	5,606.19	5,568.28	21.06	20.91	-32.78	1,394.79	254.14	993.37	952.50	40.87	24.306			
5,700.00	5,672.01	5,706.25	5,668.23	21.41	21.23	-32.86	1,394.79	254.14	990.62	949.07	41.55	23.840			
5,774.69	5,746.69	5,768.43	5,742.91	21.66	21.42	-0.27	1,394.79	254.14	990.01	947.99	42.02	23.562			
5,800.00	5,772.00	5,806.26	5,768.22	21.74	21.55	-0.27	1,394.79	254.14	990.01	947.78	42.23	23.445			
5,900.00	5,872.00	5,906.26	5,868.22	22.08	21.87	-0.27	1,394.79	254.14	990.01	947.11	42.90	23.077			
6,000.00	5,972.00	6,006.26	5,968.22	22.41	22.19	-0.27	1,394.79	254.14	990.01	946.44	43.57	22.720			
6,100.00	6,072.00	6,106.26	6,068.22	22.75	22.51	-0.27	1,394.79	254.14	990.01	945.76	44.25	22.374			
6,200.00	6,172.00	6,206.26	6,168.22	23.09	22.84	-0.27	1,394.79	254.14	990.01	945.09	44.93	22.037			
6,300.00	6,272.00	6,306.26	6,268.22	23.42	23.16	-0.27	1,394.79	254.14	990.01	944.41	45.60	21.709			
6,400.00	6,372.00	6,406.26	6,368.22	23.76	23.49	-0.27	1,394.79	254.14	990.01	943.73	46.28	21.391			
6,500.00	6,472.00	6,506.26	6,468.22	24.10	23.81	-0.27	1,394.79	254.14	990.01	943.05	46.96	21.081			
6,600.00	6,572.00	6,606.26	6,568.22	24.44	24.14	-0.27	1,394.79	254.14	990.01	942.37	47.64	20.780			
6,700.00	6,672.00	6,706.26	6,668.22	24.78	24.47	-0.27	1,394.79	254.14	990.01	941.69	48.32	20.487			
6,800.00	6,772.00	6,806.26	6,768.22	25.12	24.80	-0.27	1,394.79	254.14	990.01	941.00	49.01	20.201			
6,900.00	6,872.00	6,906.26	6,868.22	25.46	25.13	-0.27	1,394.79	254.14	990.01	940.32	49.69	19.923			
7,000.00	6,972.00	7,006.26	6,968.22	25.80	25.46	-0.27	1,394.79	254.14	990.01	939.63	50.38	19.652			
7,100.00	7,072.00	7,106.26	7,068.22	26.14	25.79	-0.27	1,394.79	254.14	990.01	938.95	51.06	19.388			
7,200.00	7,172.00	7,206.26	7,168.22	26.48	26.12	-0.27	1,394.79	254.14	990.01	938.26	51.75	19.131			
7,300.00	7,272.00	7,306.26	7,268.22	26.82	26.46	-0.27	1,394.79	254.14	990.01	937.57	52.44	18.880			
7,400.00	7,372.00	7,406.26	7,368.22	27.17	26.79	-0.27	1,394.79	254.14	990.01	936.89	53.13	18.635			
7,500.00	7,472.00	7,506.26	7,468.22	27.51	27.13	-0.27	1,394.79	254.14	990.01	936.20	53.81	18.397			
7,600.00	7,572.00	7,606.26	7,568.22	27.85	27.46	-0.27	1,394.79	254.14	990.01	935.51	54.50	18.164			
7,700.00	7,672.00	7,706.26	7,668.22	28.20	27.80	-0.27	1,394.79	254.14	990.01	934.82	55.19	17.937			
7,795.04	7,767.04	7,788.78	7,763.26	28.52	28.07	-0.27	1,394.79	254.14	990.01	934.20	55.81	17.739 CC			
7,800.00	7,772.00	7,806.26	7,768.22	28.54	28.13	-90.30	1,394.79	254.14	990.01	934.13	55.88	17.715			
7,850.00	7,821.92	7,843.66	7,818.14	28.71	28.26	-90.45	1,394.79	254.14	990.03	933.84	56.19	17.619			
7,900.00	7,871.42	7,906.84	7,867.64	28.89	28.47	-90.84	1,394.79	254.14	990.11	933.50	56.60	17.492			
7,950.00	7,920.12	7,941.86	7,916.34	29.08	28.59	-91.45	1,394.79	254.14	990.34	933.40	56.94	17.394 ES			
8,000.00	7,967.66	7,989.40	7,963.88	29.28	28.75	-92.25	1,394.79	254.14	990.86	933.54	57.33	17.284			
8,050.00	8,013.67	8,035.41	8,009.89	29.48	28.91	-93.18	1,394.79	254.14	991.87	934.14	57.73	17.180			
8,100.00	8,057.81	8,079.55	8,054.03	29.70	29.05	-94.20	1,394.79	254.14	993.59	935.44	58.15	17.087			
8,150.00	8,099.73	8,121.47	8,095.95	29.92	29.20	-95.25	1,394.79	254.14	996.27	937.70	58.58	17.008			
8,200.00	8,139.12	8,160.86	8,135.34	30.15	29.33	-96.24	1,394.79	254.14	1,000.19	941.17	59.02	16.946			
8,250.00	8,175.68	8,202.58	8,171.90	30.40	29.47	-97.12	1,394.79	254.14	1,005.61	946.11	59.50	16.902			
8,300.00	8,209.13	8,230.87	8,205.35	30.67	29.57	-97.82	1,394.79	254.14	1,012.79	952.84	59.95	16.894			
8,350.00	8,239.21	8,260.95	8,235.43	30.97	29.67	-98.26	1,394.79	254.14	1,021.95	961.52	60.43	16.911			
8,400.00	8,265.70	8,287.44	8,261.92	31.30	29.76	-98.38	1,394.79	254.14	1,033.29	972.37	60.92	16.961			
8,450.00	8,288.40	8,310.14	8,284.62	31.66	29.84	-98.12	1,394.79	254.14	1,046.91	985.50	61.42	17.046			
8,500.00	8,307.12	8,328.86	8,303.34	32.05	29.90	-97.43	1,394.79	254.14	1,062.89	1,000.98	61.91	17.168			
8,550.00	8,321.74	8,343.48	8,317.96	32.48	29.95	-96.27	1,394.79	254.14	1,081.20	1,018.81	62.39	17.329			
8,600.00	8,332.14	8,353.88	8,328.36	32.94	29.98	-94.61	1,394.79	254.14	1,101.77	1,038.91	62.86	17.527			
8,650.00	8,338.23	8,359.97	8,334.45	33.43	30.00	-92.42	1,394.79	254.14	1,124.42	1,061.12	63.30	17.763			
8,695.04	8,340.00	8,361.74	8,336.22	33.89	30.01	-90.00	1,394.79	254.14	1,146.44	1,082.77	63.67	18.006			
8,700.00	8,340.00	8,361.74	8,336.22	33.95	30.01	-90.00	1,394.79	254.14	1,148.95	1,085.24	63.71	18.035			

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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:
Survey Program: 0-MWD													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	
8,800.00	8,340.00	8,361.74	8,336.22	35.07	30.01	-90.00	1,394.79	254.14	1,202.79	1,138.32	64.47	18.657	
8,900.00	8,340.00	8,361.74	8,336.22	36.32	30.01	-90.00	1,394.79	254.14	1,262.27	1,197.10	65.17	19.369	
9,000.00	8,340.00	8,361.74	8,336.22	37.69	30.01	-90.00	1,394.79	254.14	1,326.63	1,260.83	65.80	20.162	
9,100.00	8,340.00	8,361.74	8,336.22	39.16	30.01	-90.00	1,394.79	254.14	1,395.19	1,328.83	66.36	21.025	
9,200.00	8,340.00	8,361.74	8,336.22	40.72	30.01	-90.00	1,394.79	254.14	1,467.37	1,400.52	66.85	21.950	
9,300.00	8,340.00	8,361.74	8,336.22	42.37	30.01	-90.00	1,394.79	254.14	1,542.66	1,475.37	67.28	22.928	
9,400.00	8,340.00	8,361.74	8,336.22	44.08	30.01	-90.00	1,394.79	254.14	1,620.62	1,552.96	67.66	23.952	
9,500.00	8,340.00	8,361.74	8,336.22	45.86	30.01	-90.00	1,394.79	254.14	1,700.89	1,632.90	67.99	25.017	
9,600.00	8,340.00	11,002.23	9,745.00	47.70	46.58	-144.90	1,394.15	1,737.23	1,721.85	1,662.58	59.26	29.054	
9,700.00	8,340.00	11,102.23	9,745.00	49.58	48.24	-144.90	1,394.11	1,837.23	1,721.85	1,660.34	61.51	27.992	
9,800.00	8,340.00	11,202.23	9,745.00	51.52	49.97	-144.90	1,394.06	1,937.23	1,721.85	1,658.02	63.83	26.977	
9,900.00	8,340.00	11,302.23	9,745.00	53.49	51.75	-144.90	1,394.02	2,037.23	1,721.85	1,655.64	66.20	26.008	
10,000.00	8,340.00	11,402.23	9,745.00	55.50	53.59	-144.90	1,393.98	2,137.23	1,721.85	1,653.21	68.63	25.087	
10,100.00	8,340.00	11,502.23	9,745.00	57.54	55.47	-144.90	1,393.93	2,237.23	1,721.85	1,650.74	71.11	24.213	
10,200.00	8,340.00	11,602.23	9,745.00	59.61	57.39	-144.90	1,393.89	2,337.23	1,721.85	1,648.21	73.63	23.384	
10,300.00	8,340.00	11,702.23	9,745.00	61.70	59.34	-144.90	1,393.85	2,437.23	1,721.85	1,645.65	76.20	22.598	
10,400.00	8,340.00	11,802.23	9,745.00	63.82	61.33	-144.90	1,393.80	2,537.23	1,721.85	1,643.05	78.79	21.853	
10,500.00	8,340.00	11,902.23	9,745.00	65.96	63.35	-144.90	1,393.76	2,637.23	1,721.85	1,640.43	81.42	21.147	
10,600.00	8,340.00	12,002.23	9,745.00	68.12	65.40	-144.90	1,393.72	2,737.23	1,721.85	1,637.77	84.08	20.479	
10,700.00	8,340.00	12,102.23	9,745.00	70.30	67.47	-144.90	1,393.68	2,837.23	1,721.85	1,635.08	86.76	19.845	
10,800.00	8,340.00	12,202.23	9,745.00	72.49	69.57	-144.90	1,393.63	2,937.23	1,721.85	1,632.37	89.47	19.244	
10,900.00	8,340.00	12,302.23	9,745.00	74.69	71.68	-144.90	1,393.59	3,037.23	1,721.85	1,629.64	92.20	18.674	
11,000.00	8,340.00	12,402.23	9,745.00	76.91	73.82	-144.90	1,393.55	3,137.23	1,721.85	1,626.89	94.95	18.133	
11,100.00	8,340.00	12,502.23	9,745.00	79.14	75.97	-144.90	1,393.50	3,237.23	1,721.85	1,624.12	97.72	17.620	
11,200.00	8,340.00	12,602.23	9,745.00	81.39	78.14	-144.90	1,393.46	3,337.23	1,721.85	1,621.34	100.51	17.131	
11,300.00	8,340.00	12,702.23	9,745.00	83.64	80.32	-144.90	1,393.42	3,437.23	1,721.85	1,618.54	103.31	16.667	
11,400.00	8,340.00	12,802.23	9,745.00	85.90	82.52	-144.90	1,393.37	3,537.23	1,721.85	1,615.72	106.13	16.224	
11,500.00	8,340.00	12,902.23	9,745.00	88.17	84.73	-144.90	1,393.33	3,637.23	1,721.85	1,612.89	108.96	15.803	
11,600.00	8,340.00	13,002.23	9,745.00	90.45	86.95	-144.90	1,393.29	3,737.23	1,721.85	1,610.05	111.80	15.401	
11,700.00	8,340.00	13,102.23	9,745.00	92.74	89.18	-144.90	1,393.24	3,837.23	1,721.85	1,607.20	114.65	15.018	
11,800.00	8,340.00	13,202.23	9,745.00	95.03	91.42	-144.90	1,393.20	3,937.23	1,721.85	1,604.33	117.51	14.652	
11,900.00	8,340.00	13,302.23	9,745.00	97.33	93.67	-144.90	1,393.16	4,037.23	1,721.85	1,601.46	120.39	14.302	
12,000.00	8,340.00	13,402.23	9,745.00	99.63	95.93	-144.90	1,393.11	4,137.23	1,721.85	1,598.58	123.27	13.968	
12,100.00	8,340.00	13,502.23	9,745.00	101.94	98.19	-144.90	1,393.07	4,237.23	1,721.85	1,595.69	126.16	13.648	
12,200.00	8,340.00	13,602.23	9,745.00	104.26	100.47	-144.90	1,393.03	4,337.23	1,721.85	1,592.79	129.06	13.342	
12,300.00	8,340.00	13,702.23	9,745.00	106.58	102.75	-144.90	1,392.99	4,437.23	1,721.85	1,589.88	131.97	13.048	
12,400.00	8,340.00	13,802.23	9,745.00	108.90	105.03	-144.90	1,392.94	4,537.23	1,721.85	1,586.97	134.88	12.766	
12,500.00	8,340.00	13,902.23	9,745.00	111.23	107.33	-144.90	1,392.90	4,637.23	1,721.85	1,584.05	137.80	12.495	
12,600.00	8,340.00	14,002.23	9,745.00	113.57	109.62	-144.90	1,392.86	4,737.23	1,721.85	1,581.12	140.72	12.236	
12,700.00	8,340.00	14,102.23	9,745.00	115.90	111.93	-144.90	1,392.81	4,837.23	1,721.85	1,578.19	143.65	11.986	
12,800.00	8,340.00	14,202.23	9,745.00	118.24	114.24	-144.90	1,392.77	4,937.23	1,721.85	1,575.26	146.59	11.746	
12,900.00	8,340.00	14,302.23	9,745.00	120.59	116.55	-144.90	1,392.73	5,037.23	1,721.85	1,572.31	149.53	11.515	
13,000.00	8,340.00	14,402.23	9,745.00	122.93	118.87	-144.90	1,392.68	5,137.23	1,721.85	1,569.37	152.48	11.292	
13,100.00	8,340.00	14,502.23	9,745.00	125.28	121.19	-144.90	1,392.64	5,237.23	1,721.85	1,566.42	155.43	11.078	
13,200.00	8,340.00	14,602.23	9,745.00	127.64	123.52	-144.90	1,392.60	5,337.23	1,721.85	1,563.46	158.38	10.871	
13,217.78	8,340.00	14,620.01	9,745.00	128.06	123.93	-144.90	1,392.59	5,355.01	1,721.85	1,562.94	158.91	10.835	
13,223.16	8,340.00	14,618.22	9,745.00	128.18	123.89	-144.90	1,392.59	5,353.22	1,721.86	1,562.89	158.97	10.831 SF	

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: #122H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
 TVD Reference: WELL @ 2985.38usft (Patterson 297)
 MD Reference: WELL @ 2985.38usft (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 (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	2.31	-2.31	0.00	0.00	-179.96	-59.92	-0.04	59.92				
100.00	100.00	102.31	97.69	0.13	0.14	-179.96	-59.92	-0.04	59.92	59.66	0.26	228.010	
200.00	200.00	202.31	197.69	0.49	0.49	-179.96	-59.92	-0.04	59.92	58.94	0.98	61.159	
300.00	300.00	302.31	297.69	0.84	0.85	-179.96	-59.92	-0.04	59.92	58.22	1.70	35.316	
400.00	400.00	402.31	397.69	1.20	1.21	-179.96	-59.92	-0.04	59.92	57.51	2.41	24.826	
500.00	500.00	502.31	497.69	1.56	1.57	-179.96	-59.92	-0.04	59.92	56.79	3.13	19.140	
600.00	600.00	602.31	597.69	1.92	1.93	-179.96	-59.92	-0.04	59.92	56.07	3.85	15.574	
700.00	700.00	702.31	697.69	2.28	2.29	-179.96	-59.92	-0.04	59.92	55.36	4.56	13.128	
800.00	800.00	802.31	797.69	2.64	2.64	-179.96	-59.92	-0.04	59.92	54.64	5.28	11.345	
900.00	900.00	902.31	897.69	3.00	3.00	-179.96	-59.92	-0.04	59.92	53.92	6.00	9.989	
1,000.00	1,000.00	997.69	997.69	3.35	3.35	-179.96	-59.92	-0.04	59.92	53.22	6.70	8.945 CC	
1,100.00	1,099.99	1,098.40	1,098.39	3.71	3.70	147.04	-59.34	1.09	60.45	53.03	7.41	8.155 ES	
1,200.00	1,199.91	1,199.09	1,199.00	4.07	4.06	145.79	-57.54	4.57	61.99	53.87	8.12	7.632	
1,266.67	1,266.45	1,266.19	1,265.98	4.31	4.29	144.53	-55.66	8.20	63.61	55.01	8.60	7.398	
1,300.00	1,299.70	1,300.49	1,299.21	4.43	4.42	143.85	-54.59	10.26	64.54	55.70	8.84	7.302	
1,400.00	1,399.46	1,400.56	1,398.90	4.79	4.77	141.92	-51.39	16.45	67.40	57.84	9.56	7.053	
1,500.00	1,499.22	1,500.62	1,498.59	5.15	5.13	140.15	-48.19	22.64	70.32	60.04	10.28	6.843	
1,600.00	1,598.97	1,600.69	1,598.29	5.51	5.50	138.52	-44.99	28.84	73.31	62.31	11.00	6.665	
1,700.00	1,698.73	1,700.75	1,697.98	5.87	5.86	137.02	-41.78	35.03	76.35	64.62	11.73	6.511	
1,800.00	1,798.48	1,800.82	1,797.67	6.24	6.22	135.64	-38.58	41.22	79.44	66.99	12.45	6.379	
1,900.00	1,898.24	1,900.88	1,897.36	6.61	6.59	134.36	-35.38	47.41	82.57	69.39	13.18	6.263	
2,000.00	1,998.00	2,000.95	1,997.05	6.97	6.96	133.18	-32.18	53.60	85.74	71.83	13.91	6.162	
2,100.00	2,097.75	2,101.01	2,096.74	7.34	7.32	132.08	-28.98	59.80	88.95	74.30	14.65	6.072	
2,200.00	2,197.51	2,201.08	2,196.43	7.71	7.69	131.05	-25.77	65.99	92.18	76.80	15.38	5.993	
2,300.00	2,297.27	2,301.15	2,296.12	8.08	8.06	130.10	-22.57	72.18	95.44	79.33	16.12	5.922	
2,400.00	2,397.02	2,401.21	2,395.82	8.45	8.43	129.21	-19.37	78.37	98.73	81.88	16.85	5.858	
2,500.00	2,496.78	2,501.28	2,495.51	8.82	8.80	128.38	-16.17	84.56	102.04	84.45	17.59	5.801	
2,600.00	2,596.54	2,601.34	2,595.20	9.19	9.17	127.60	-12.97	90.76	105.37	87.04	18.33	5.749	
2,700.00	2,696.29	2,701.41	2,694.89	9.56	9.54	126.86	-9.76	96.95	108.72	89.65	19.07	5.702	
2,800.00	2,796.05	2,801.47	2,794.58	9.93	9.91	126.17	-6.56	103.14	112.08	92.28	19.80	5.660	
2,850.00	2,845.93	2,848.50	2,844.43	10.11	10.08	125.84	-4.96	106.24	113.77	93.61	20.16	5.643	
2,900.00	2,895.78	2,898.60	2,894.39	10.30	10.27	125.48	-3.21	109.62	115.62	95.09	20.53	5.631 SF	
3,000.00	2,995.32	2,998.75	2,994.08	10.67	10.65	124.61	1.18	118.11	120.29	99.01	21.29	5.651	
3,100.00	3,094.57	3,098.79	3,093.37	11.06	11.04	123.58	6.77	128.91	126.26	104.21	22.06	5.725	
3,116.67	3,111.08	3,115.45	3,109.88	11.13	11.10	123.40	7.81	130.93	127.39	105.20	22.19	5.742	
3,200.00	3,193.60	3,201.43	3,192.18	11.45	11.44	122.58	13.13	141.21	133.10	110.25	22.85	5.826	
3,300.00	3,292.63	3,301.69	3,290.95	11.85	11.84	121.68	19.50	153.54	139.99	116.36	23.63	5.924	
3,400.00	3,391.65	3,401.95	3,389.72	12.24	12.23	120.87	25.88	165.87	146.91	122.49	24.42	6.016	
3,500.00	3,490.68	3,502.21	3,488.49	12.64	12.63	120.13	32.25	178.20	153.86	128.65	25.21	6.104	
3,600.00	3,589.71	3,602.47	3,587.26	13.03	13.04	119.46	38.63	190.53	160.83	134.83	26.00	6.186	
3,700.00	3,688.73	3,697.27	3,686.03	13.43	13.42	118.84	45.01	202.86	167.82	141.05	26.77	6.268	
3,800.00	3,787.76	3,802.99	3,784.80	13.83	13.84	118.27	51.38	215.19	174.83	147.24	27.59	6.336	
3,900.00	3,886.79	3,896.75	3,883.57	14.23	14.22	117.74	57.76	227.52	181.85	153.49	28.37	6.411	
4,000.00	3,985.82	3,996.68	3,982.70	14.64	14.62	117.66	63.55	238.71	188.84	159.68	29.16	6.476	
4,100.00	4,084.84	4,096.58	4,082.10	15.04	15.00	118.34	68.14	247.58	195.74	165.80	29.94	6.538	
4,200.00	4,183.87	4,196.30	4,181.54	15.44	15.38	119.72	71.52	254.14	202.65	171.95	30.70	6.601	
4,300.00	4,282.90	4,295.71	4,280.83	15.85	15.74	121.71	73.72	258.37	209.73	178.29	31.44	6.671	
4,400.00	4,381.92	4,394.67	4,379.77	16.25	16.09	124.24	74.72	260.31	217.24	185.08	32.16	6.755	
4,500.00	4,480.95	4,506.46	4,478.64	16.66	16.47	127.10	74.79	260.45	225.39	192.49	32.90	6.851	
4,600.00	4,579.98	4,607.43	4,577.67	17.06	16.81	129.80	74.79	260.45	234.10	200.50	33.60	6.968	
4,700.00	4,679.00	4,708.40	4,676.69	17.47	17.15	132.31	74.79	260.45	243.29	209.00	34.29	7.094	
4,800.00	4,778.03	4,809.38	4,775.72	17.88	17.50	134.63	74.79	260.45	252.92	217.93	34.99	7.228	

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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		Distances									
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	
4,900.00	4,877.06	4,889.65	4,874.75	18.28	17.77	136.78	74.79	260.45	262.93	227.32	35.61	7.383		
5,000.00	4,976.08	4,988.68	4,973.77	18.69	18.11	138.77	74.79	260.45	273.28	236.98	36.30	7.528		
5,100.00	5,075.11	5,087.70	5,072.80	19.10	18.45	140.61	74.79	260.45	283.94	246.95	36.99	7.677		
5,200.00	5,174.14	5,186.73	5,171.83	19.51	18.79	142.32	74.79	260.45	294.87	257.19	37.68	7.826		
5,241.35	5,215.09	5,227.68	5,212.78	19.68	18.93	142.99	74.79	260.45	299.46	261.50	37.96	7.889		
5,300.00	5,273.22	5,285.82	5,270.91	19.92	19.13	143.92	74.79	260.45	305.68	267.32	38.37	7.968		
5,400.00	5,372.60	5,385.20	5,370.29	20.31	19.47	145.18	74.79	260.45	314.74	275.68	39.06	8.058		
5,500.00	5,472.24	5,484.83	5,469.93	20.69	19.82	146.10	74.79	260.45	321.76	282.01	39.75	8.094		
5,600.00	5,572.06	5,584.66	5,569.75	21.06	20.16	146.72	74.79	260.45	326.66	286.21	40.44	8.077		
5,700.00	5,672.01	5,684.60	5,669.70	21.41	20.51	147.05	74.79	260.45	329.39	288.25	41.14	8.007		
5,774.69	5,746.69	5,759.28	5,744.38	21.66	20.77	179.73	74.79	260.45	330.00	288.35	41.66	7.922		
5,800.00	5,772.00	5,784.60	5,769.69	21.74	20.85	179.73	74.79	260.45	330.00	288.17	41.83	7.889		
5,900.00	5,872.00	5,884.60	5,869.69	22.08	21.20	179.73	74.79	260.45	330.00	287.48	42.53	7.760		
6,000.00	5,972.00	5,984.60	5,969.69	22.41	21.55	179.73	74.79	260.45	330.00	286.78	43.22	7.635		
6,100.00	6,072.00	6,084.60	6,069.69	22.75	21.90	179.73	74.79	260.45	330.00	286.09	43.92	7.514		
6,200.00	6,172.00	6,184.60	6,169.69	23.09	22.24	179.73	74.79	260.45	330.00	285.39	44.61	7.397		
6,300.00	6,272.00	6,284.60	6,269.69	23.42	22.59	179.73	74.79	260.45	330.00	284.69	45.31	7.283		
6,400.00	6,372.00	6,384.60	6,369.69	23.76	22.94	179.73	74.79	260.45	330.00	284.00	46.01	7.173		
6,500.00	6,472.00	6,484.60	6,469.69	24.10	23.29	179.73	74.79	260.45	330.00	283.30	46.70	7.066		
6,600.00	6,572.00	6,584.60	6,569.69	24.44	23.64	179.73	74.79	260.45	330.00	282.60	47.40	6.962		
6,700.00	6,672.00	6,684.60	6,669.69	24.78	23.99	179.73	74.79	260.45	330.00	281.90	48.10	6.861		
6,800.00	6,772.00	6,784.60	6,769.69	25.12	24.34	179.73	74.79	260.45	330.00	281.20	48.80	6.762		
6,900.00	6,872.00	6,884.60	6,869.69	25.46	24.69	179.73	74.79	260.45	330.00	280.50	49.50	6.667		
7,000.00	6,972.00	6,984.60	6,969.69	25.80	25.04	179.73	74.79	260.45	330.00	279.80	50.20	6.574		
7,100.00	7,072.00	7,084.60	7,069.69	26.14	25.39	179.73	74.79	260.45	330.00	279.10	50.90	6.483		
7,200.00	7,172.00	7,184.60	7,169.69	26.48	25.74	179.73	74.79	260.45	330.00	278.40	51.60	6.395		
7,300.00	7,272.00	7,284.60	7,269.69	26.82	26.09	179.73	74.79	260.45	330.00	277.70	52.31	6.309		
7,400.00	7,372.00	7,384.60	7,369.69	27.17	26.44	179.73	74.79	260.45	330.00	277.00	53.01	6.226		
7,500.00	7,472.00	7,484.60	7,469.69	27.51	26.79	179.73	74.79	260.45	330.00	276.29	53.71	6.144		
7,600.00	7,572.00	7,584.60	7,569.69	27.85	27.14	179.73	74.79	260.45	330.00	275.59	54.41	6.065		
7,700.00	7,672.00	7,684.60	7,669.69	28.20	27.49	179.73	74.79	260.45	330.00	274.89	55.12	5.987		
7,795.04	7,767.04	7,779.64	7,764.73	28.52	27.83	179.73	74.79	260.45	330.00	274.22	55.78	5.916		
7,800.00	7,772.00	7,784.60	7,769.69	28.54	27.85	89.71	74.79	260.45	330.00	274.18	55.82	5.912		
7,839.35	7,811.31	7,823.90	7,809.00	28.68	27.98	90.00	74.79	260.45	330.00	273.91	56.09	5.883		
7,850.00	7,821.92	7,834.51	7,819.61	28.71	28.02	90.16	74.79	260.45	330.00	273.84	56.16	5.876		
7,900.00	7,871.42	7,884.01	7,869.11	28.89	28.20	91.34	74.79	260.45	330.09	273.59	56.50	5.842		
7,950.00	7,920.12	7,932.72	7,917.81	29.08	28.37	93.19	74.79	260.45	330.55	273.72	56.83	5.816		
8,000.00	7,967.66	7,980.25	7,965.35	29.28	28.54	95.60	74.79	260.45	331.80	274.65	57.15	5.806		
8,050.00	8,013.67	8,026.27	8,011.36	29.48	28.70	98.41	74.79	260.45	334.40	276.94	57.46	5.820		
8,100.00	8,057.81	8,070.40	8,055.50	29.70	28.85	101.45	74.79	260.45	338.99	281.24	57.75	5.870		
8,150.00	8,099.73	8,112.32	8,097.42	29.92	29.00	104.49	74.79	260.45	346.23	288.21	58.02	5.967		
8,200.00	8,139.12	8,151.71	8,136.81	30.15	29.14	107.35	74.79	260.45	356.75	298.47	58.28	6.122		
8,250.00	8,175.68	8,188.27	8,173.37	30.40	29.27	109.81	74.79	260.45	371.04	312.53	58.51	6.341		
8,300.00	8,209.13	8,221.72	8,206.82	30.67	29.39	111.73	74.79	260.45	389.43	330.70	58.73	6.631		
8,350.00	8,239.21	8,251.80	8,236.90	30.97	29.49	112.95	74.79	260.45	412.01	353.09	58.92	6.993		
8,400.00	8,265.70	8,278.29	8,263.39	31.30	29.59	113.34	74.79	260.45	438.71	379.62	59.09	7.424		
8,450.00	8,288.40	8,300.99	8,286.09	31.66	29.67	112.75	74.79	260.45	469.25	410.01	59.24	7.922		
8,500.00	8,307.12	8,319.72	8,304.81	32.05	29.73	111.03	74.79	260.45	503.25	443.90	59.35	8.479		
8,550.00	8,321.74	8,334.33	8,319.43	32.48	29.78	107.99	74.79	260.45	540.25	480.80	59.45	9.088		
8,600.00	8,332.14	8,344.73	8,329.83	32.94	29.82	103.41	74.79	260.45	579.73	520.22	59.51	9.742		
8,650.00	8,338.23	8,350.83	8,335.92	33.43	29.84	97.14	74.79	260.45	621.16	561.61	59.55	10.431		
8,695.04	8,340.00	8,352.59	8,337.69	33.89	29.85	90.00	74.79	260.45	659.71	600.15	59.56	11.077		

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: #122H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
 TVD Reference: WELL @ 2985.38usft (Patterson 297)
 MD Reference: WELL @ 2985.38usft (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		Minimum Separation		Separation Factor		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,700.00	8,340.00	8,352.59	8,337.69	33.95	29.85	90.00	74.79	260.45	664.01	604.45	59.56	11.149	
8,800.00	8,340.00	8,352.59	8,337.69	35.07	29.85	90.00	74.79	260.45	752.43	692.87	59.57	12.632	
8,900.00	8,340.00	8,352.59	8,337.69	36.32	29.85	90.00	74.79	260.45	843.44	783.87	59.58	14.157	
9,000.00	8,340.00	8,352.59	8,337.69	37.69	29.85	90.00	74.79	260.45	936.29	876.70	59.59	15.712	
9,100.00	8,340.00	8,352.59	8,337.69	39.16	29.85	90.00	74.79	260.45	1,030.48	970.87	59.61	17.287	
9,200.00	8,340.00	8,352.59	8,337.69	40.72	29.85	90.00	74.79	260.45	1,125.66	1,066.04	59.63	18.879	
9,300.00	8,340.00	8,352.59	8,337.69	42.37	29.85	90.00	74.79	260.45	1,221.62	1,161.98	59.64	20.482	
9,400.00	8,340.00	8,352.59	8,337.69	44.08	29.85	90.00	74.79	260.45	1,318.18	1,258.52	59.66	22.094	
9,500.00	8,340.00	8,352.59	8,337.69	45.86	29.85	90.00	74.79	260.45	1,415.22	1,355.54	59.68	23.712	
9,600.00	8,340.00	10,984.73	9,745.00	47.70	50.76	166.80	74.15	1,736.66	1,445.48	1,406.48	39.01	37.056	
9,700.00	8,340.00	11,084.73	9,745.00	49.58	52.54	166.80	74.11	1,836.66	1,445.48	1,405.09	40.39	35.789	
9,800.00	8,340.00	11,184.73	9,745.00	51.52	54.37	166.80	74.07	1,936.66	1,445.48	1,403.67	41.81	34.573	
9,900.00	8,340.00	11,284.73	9,745.00	53.49	56.25	166.80	74.02	2,036.66	1,445.48	1,402.22	43.27	33.409	
10,000.00	8,340.00	11,384.73	9,745.00	55.50	58.17	166.80	73.98	2,136.66	1,445.48	1,400.73	44.76	32.297	
10,100.00	8,340.00	11,484.73	9,745.00	57.54	60.12	166.80	73.94	2,236.66	1,445.48	1,399.21	46.27	31.237	
10,200.00	8,340.00	11,584.73	9,745.00	59.61	62.11	166.80	73.89	2,336.66	1,445.48	1,397.66	47.82	30.228	
10,300.00	8,340.00	11,684.73	9,745.00	61.70	64.12	166.80	73.85	2,436.66	1,445.48	1,396.10	49.39	29.268	
10,400.00	8,340.00	11,784.73	9,745.00	63.82	66.17	166.80	73.81	2,536.66	1,445.48	1,394.50	50.98	28.354	
10,500.00	8,340.00	11,884.73	9,745.00	65.96	68.24	166.80	73.77	2,636.66	1,445.48	1,392.89	52.59	27.486	
10,600.00	8,340.00	11,984.73	9,745.00	68.12	70.33	166.80	73.72	2,736.66	1,445.48	1,391.26	54.22	26.660	
10,700.00	8,340.00	12,084.73	9,745.00	70.30	72.44	166.80	73.68	2,836.66	1,445.48	1,389.62	55.86	25.875	
10,800.00	8,340.00	12,184.73	9,745.00	72.49	74.57	166.80	73.64	2,936.66	1,445.48	1,387.96	57.52	25.128	
10,900.00	8,340.00	12,284.73	9,745.00	74.69	76.72	166.80	73.59	3,036.66	1,445.48	1,386.28	59.20	24.418	
11,000.00	8,340.00	12,384.73	9,745.00	76.91	78.89	166.80	73.55	3,136.66	1,445.48	1,384.60	60.89	23.741	
11,100.00	8,340.00	12,484.73	9,745.00	79.14	81.07	166.80	73.51	3,236.66	1,445.48	1,382.90	62.58	23.097	
11,200.00	8,340.00	12,584.73	9,745.00	81.39	83.26	166.80	73.46	3,336.66	1,445.48	1,381.19	64.29	22.483	
11,300.00	8,340.00	12,684.73	9,745.00	83.64	85.47	166.80	73.42	3,436.66	1,445.48	1,379.47	66.01	21.897	
11,400.00	8,340.00	12,784.73	9,745.00	85.90	87.68	166.80	73.38	3,536.66	1,445.48	1,377.74	67.74	21.338	
11,500.00	8,340.00	12,884.73	9,745.00	88.17	89.91	166.80	73.33	3,636.66	1,445.48	1,376.00	69.48	20.805	
11,600.00	8,340.00	12,984.73	9,745.00	90.45	92.15	166.80	73.29	3,736.66	1,445.48	1,374.26	71.22	20.295	
11,700.00	8,340.00	13,084.73	9,745.00	92.74	94.40	166.80	73.25	3,836.66	1,445.48	1,372.51	72.98	19.808	
11,800.00	8,340.00	13,184.73	9,745.00	95.03	96.65	166.80	73.20	3,936.66	1,445.48	1,370.75	74.73	19.341	
11,900.00	8,340.00	13,284.73	9,745.00	97.33	98.92	166.80	73.16	4,036.66	1,445.48	1,368.98	76.50	18.895	
12,000.00	8,340.00	13,384.73	9,745.00	99.63	101.19	166.80	73.12	4,136.66	1,445.48	1,367.21	78.27	18.468	
12,100.00	8,340.00	13,484.73	9,745.00	101.94	103.46	166.80	73.08	4,236.66	1,445.48	1,365.43	80.05	18.058	
12,200.00	8,340.00	13,584.73	9,745.00	104.26	105.75	166.80	73.03	4,336.66	1,445.48	1,363.65	81.83	17.664	
12,300.00	8,340.00	13,684.73	9,745.00	106.58	108.04	166.80	72.99	4,436.66	1,445.48	1,361.87	83.62	17.287	
12,400.00	8,340.00	13,784.73	9,745.00	108.90	110.33	166.80	72.95	4,536.66	1,445.48	1,360.07	85.41	16.924	
12,500.00	8,340.00	13,884.73	9,745.00	111.23	112.64	166.80	72.90	4,636.66	1,445.48	1,358.28	87.20	16.576	
12,600.00	8,340.00	13,984.73	9,745.00	113.57	114.94	166.80	72.86	4,736.66	1,445.48	1,356.48	89.00	16.241	
12,700.00	8,340.00	14,084.73	9,745.00	115.90	117.25	166.80	72.82	4,836.66	1,445.48	1,354.68	90.81	15.918	
12,800.00	8,340.00	14,184.73	9,745.00	118.24	119.57	166.80	72.77	4,936.66	1,445.48	1,352.87	92.61	15.608	
12,900.00	8,340.00	14,284.73	9,745.00	120.59	121.89	166.80	72.73	5,036.66	1,445.48	1,351.06	94.42	15.308	
13,000.00	8,340.00	14,384.73	9,745.00	122.93	124.21	166.80	72.69	5,136.66	1,445.48	1,349.25	96.24	15.020	
13,100.00	8,340.00	14,484.73	9,745.00	125.28	126.54	166.80	72.64	5,236.66	1,445.48	1,347.43	98.05	14.742	
13,200.00	8,340.00	14,584.73	9,745.00	127.64	128.87	166.80	72.60	5,336.66	1,445.48	1,345.61	99.87	14.473	
13,223.16	8,340.00	14,607.89	9,745.00	128.18	129.41	166.80	72.59	5,359.82	1,445.48	1,345.19	100.29	14.412	

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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)				
0.00	0.00	3.45	-3.45	0.00	0.00	19.52	1,673.67	593.45	1,775.77			
100.00	100.00	103.45	96.55	0.13	0.14	19.52	1,673.67	593.45	1,775.77	0.27	6,653.749	
200.00	200.00	203.45	196.55	0.49	0.50	19.52	1,673.67	593.45	1,775.77	0.98	1,804.963	
300.00	300.00	303.45	296.55	0.84	0.86	19.52	1,673.67	593.45	1,775.77	1.70	1,044.098	
400.00	400.00	403.45	396.55	1.20	1.22	19.52	1,673.67	593.45	1,775.77	2.42	734.483	
500.00	500.00	503.45	496.55	1.56	1.57	19.52	1,673.67	593.45	1,775.77	3.13	566.496	
600.00	600.00	603.45	596.55	1.92	1.93	19.52	1,673.67	593.45	1,775.77	3.85	461.047	
700.00	700.00	703.45	696.55	2.28	2.29	19.52	1,673.67	593.45	1,775.77	4.57	388.695	
800.00	800.00	803.45	796.55	2.64	2.65	19.52	1,673.67	593.45	1,775.77	5.29	335.971	
900.00	900.00	903.45	896.55	3.00	3.01	19.52	1,673.67	593.45	1,775.77	6.00	295.842	
1,000.00	1,000.00	996.55	996.55	3.35	3.34	19.52	1,673.67	593.45	1,775.77	6.69	265.252	
1,100.00	1,099.99	1,086.43	1,086.42	3.71	3.66	-13.12	1,674.22	592.64	1,774.77	7.37	240.781	
1,200.00	1,199.91	1,175.80	1,175.73	4.07	3.98	-13.25	1,675.94	590.10	1,771.81	8.04	220.287	
1,266.67	1,266.45	1,235.21	1,235.07	4.31	4.19	-13.39	1,677.73	587.45	1,768.77	8.49	208.283	
1,300.00	1,299.70	1,268.68	1,264.44	4.43	4.31	-13.46	1,678.80	585.86	1,767.07	8.73	202.408	
1,400.00	1,399.46	1,364.18	1,363.72	4.79	4.65	-13.74	1,682.69	580.11	1,762.10	9.43	186.872	
1,500.00	1,499.22	1,463.70	1,463.01	5.15	5.01	-14.01	1,686.58	574.36	1,757.17	10.15	173.189	
1,600.00	1,598.97	1,563.23	1,562.29	5.51	5.37	-14.28	1,690.47	568.61	1,752.28	10.86	161.278	
1,700.00	1,698.73	1,662.76	1,661.57	5.87	5.73	-14.56	1,694.36	562.86	1,747.44	11.59	150.824	
1,800.00	1,798.48	1,762.28	1,760.86	6.24	6.09	-14.83	1,698.25	557.11	1,742.63	12.31	141.579	
1,900.00	1,898.24	1,861.81	1,860.14	6.61	6.46	-15.11	1,702.14	551.35	1,737.86	13.03	133.349	
2,000.00	1,998.00	1,961.33	1,959.42	6.97	6.82	-15.39	1,706.03	545.60	1,733.14	13.76	125.977	
2,100.00	2,097.75	2,080.86	2,058.71	7.34	7.19	-15.67	1,709.92	539.85	1,728.46	14.48	119.339	
2,200.00	2,197.51	2,160.39	2,157.99	7.71	7.55	-15.96	1,713.81	534.10	1,723.82	15.21	113.330	
2,300.00	2,297.27	2,259.91	2,257.27	8.08	7.92	-16.24	1,717.70	528.35	1,719.22	15.94	107.868	
2,400.00	2,397.02	2,359.44	2,356.56	8.45	8.29	-16.53	1,721.59	522.60	1,714.67	16.67	102.881	
2,500.00	2,496.78	2,458.96	2,455.84	8.82	8.66	-16.82	1,725.48	516.85	1,710.16	17.40	98.311	
2,600.00	2,596.54	2,558.49	2,555.13	9.19	9.03	-17.10	1,729.37	511.10	1,705.69	18.12	94.108	
2,700.00	2,696.29	2,658.01	2,654.41	9.56	9.39	-17.40	1,733.26	505.35	1,701.26	18.85	90.231	
2,800.00	2,796.05	2,757.54	2,753.69	9.93	9.76	-17.69	1,737.15	499.60	1,696.88	19.58	86.643	
2,850.00	2,845.93	2,807.31	2,803.34	10.11	9.95	-17.83	1,739.09	496.72	1,694.71	19.95	84.948	
2,900.00	2,895.78	2,856.14	2,852.05	10.30	10.13	-17.99	1,741.00	493.90	1,692.24	20.31	83.311	
3,000.00	2,995.32	2,942.50	2,938.11	10.67	10.45	-18.34	1,745.00	487.98	1,685.90	21.00	80.280	
3,100.00	3,094.57	3,028.27	3,023.41	11.06	10.78	-18.78	1,750.05	480.52	1,677.94	21.69	77.353	
3,116.67	3,111.08	3,042.50	3,037.54	11.13	10.84	-18.86	1,750.99	479.13	1,676.45	21.81	76.873	
3,200.00	3,193.60	3,120.41	3,107.36	11.45	11.14	-19.26	1,756.08	471.60	1,669.26	22.41	74.476	
3,300.00	3,292.63	3,211.03	3,204.52	11.85	11.50	-19.86	1,763.73	460.29	1,661.14	23.14	71.797	
3,400.00	3,391.65	3,309.14	3,301.68	12.24	11.89	-20.46	1,771.38	448.98	1,653.20	23.89	69.197	
3,500.00	3,490.68	3,407.25	3,398.84	12.64	12.28	-21.07	1,779.03	437.67	1,645.45	24.65	66.758	
3,600.00	3,589.71	3,505.36	3,495.99	13.03	12.67	-21.68	1,786.68	426.36	1,637.90	25.41	64.468	
3,700.00	3,688.73	3,603.48	3,593.15	13.43	13.06	-22.30	1,794.33	415.05	1,630.54	26.17	62.314	
3,800.00	3,787.76	3,701.59	3,690.31	13.83	13.46	-22.92	1,801.98	403.74	1,623.37	26.93	60.285	
3,900.00	3,886.79	3,800.30	3,787.47	14.23	13.85	-23.55	1,809.63	392.43	1,616.41	27.69	58.367	
4,000.00	3,985.82	3,902.18	3,884.63	14.64	14.26	-24.19	1,817.28	381.12	1,609.65	28.47	56.532	
4,100.00	4,084.84	4,004.07	3,981.78	15.04	14.68	-24.83	1,824.93	369.81	1,603.09	29.25	54.799	
4,200.00	4,183.87	4,105.96	4,078.94	15.44	15.09	-25.47	1,832.58	358.50	1,596.74	30.04	53.162	
4,300.00	4,282.90	4,207.85	4,176.10	15.85	15.50	-26.12	1,840.23	347.19	1,590.60	30.82	51.613	
4,400.00	4,381.92	4,290.27	4,273.26	16.25	15.84	-26.77	1,847.88	335.87	1,584.67	31.52	50.269	
4,500.00	4,480.95	4,388.38	4,370.42	16.66	16.24	-27.43	1,855.53	324.56	1,578.96	32.29	48.895	
4,600.00	4,579.98	4,486.49	4,467.57	17.06	16.64	-28.10	1,863.18	313.25	1,573.46	33.06	47.590	
4,700.00	4,679.00	4,584.61	4,564.73	17.47	17.04	-28.76	1,870.83	301.94	1,568.18	33.83	46.350	
4,800.00	4,778.03	4,682.72	4,661.89	17.88	17.44	-29.44	1,878.48	290.63	1,563.13	34.61	45.170	

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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 (°)	Offset Wellbore Centre		Distances		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)				
4,900.00	4,877.06	4,788.41	4,766.57	18.28	17.88	-30.16	1,886.63	278.58	1,558.23	1,522.82	35.41	44.006		
5,000.00	4,976.08	4,914.10	4,891.44	18.69	18.37	-30.93	1,894.63	266.74	1,552.27	1,515.98	36.28	42.782		
5,100.00	5,075.11	5,040.57	5,017.50	19.10	18.85	-31.59	1,900.36	258.27	1,544.70	1,507.57	37.13	41.601		
5,200.00	5,174.14	5,167.56	5,144.33	19.51	19.31	-32.13	1,903.76	253.25	1,535.46	1,497.51	37.95	40.458		
5,241.35	5,215.09	5,220.16	5,196.91	19.68	19.50	-32.31	1,904.48	252.19	1,531.13	1,492.85	38.28	39.993		
5,300.00	5,273.22	5,294.86	5,271.61	19.92	19.75	-32.48	1,904.80	251.72	1,524.85	1,486.11	38.74	39.360		
5,400.00	5,372.60	5,407.60	5,369.15	20.31	20.13	-32.62	1,904.80	251.71	1,515.48	1,475.98	39.50	38.368		
5,500.00	5,472.24	5,507.96	5,468.79	20.69	20.46	-32.74	1,904.80	251.71	1,508.33	1,468.12	40.21	37.514		
5,600.00	5,572.06	5,608.14	5,568.61	21.06	20.80	-32.82	1,904.80	251.71	1,503.38	1,462.47	40.91	36.749		
5,700.00	5,672.01	5,708.20	5,668.56	21.41	21.14	-32.86	1,904.80	251.71	1,500.64	1,459.03	41.61	36.068		
5,774.69	5,746.69	5,766.49	5,743.24	21.66	21.33	-0.27	1,904.80	251.71	1,500.03	1,457.96	42.06	35.660		
5,800.00	5,772.00	5,808.20	5,768.55	21.74	21.47	-0.27	1,904.80	251.71	1,500.03	1,457.73	42.29	35.466		
5,900.00	5,872.00	5,908.20	5,868.55	22.08	21.81	-0.27	1,904.80	251.71	1,500.03	1,457.05	42.98	34.899		
6,000.00	5,972.00	6,008.20	5,968.55	22.41	22.15	-0.27	1,904.80	251.71	1,500.03	1,456.36	43.67	34.349		
6,100.00	6,072.00	6,108.20	6,068.55	22.75	22.49	-0.27	1,904.80	251.71	1,500.03	1,455.67	44.36	33.815		
6,200.00	6,172.00	6,208.20	6,168.55	23.09	22.83	-0.27	1,904.80	251.71	1,500.03	1,454.98	45.05	33.297		
6,300.00	6,272.00	6,308.20	6,268.55	23.42	23.17	-0.27	1,904.80	251.71	1,500.03	1,454.29	45.74	32.794		
6,400.00	6,372.00	6,408.20	6,368.55	23.76	23.51	-0.27	1,904.80	251.71	1,500.03	1,453.59	46.43	32.306		
6,500.00	6,472.00	6,508.20	6,468.55	24.10	23.85	-0.27	1,904.80	251.71	1,500.03	1,452.90	47.12	31.831		
6,600.00	6,572.00	6,608.20	6,568.55	24.44	24.20	-0.27	1,904.80	251.71	1,500.03	1,452.21	47.82	31.370		
6,700.00	6,672.00	6,708.20	6,668.55	24.78	24.54	-0.27	1,904.80	251.71	1,500.03	1,451.52	48.51	30.921		
6,800.00	6,772.00	6,808.20	6,768.55	25.12	24.88	-0.27	1,904.80	251.71	1,500.03	1,450.82	49.21	30.484		
6,900.00	6,872.00	6,908.20	6,868.55	25.46	25.22	-0.27	1,904.80	251.71	1,500.03	1,450.13	49.90	30.060		
7,000.00	6,972.00	7,008.20	6,968.55	25.80	25.57	-0.27	1,904.80	251.71	1,500.03	1,449.43	50.60	29.646		
7,100.00	7,072.00	7,108.20	7,068.55	26.14	25.91	-0.27	1,904.80	251.71	1,500.03	1,448.73	51.29	29.244		
7,200.00	7,172.00	7,208.20	7,168.55	26.48	26.26	-0.27	1,904.80	251.71	1,500.03	1,448.04	51.99	28.852		
7,300.00	7,272.00	7,308.20	7,268.55	26.82	26.60	-0.27	1,904.80	251.71	1,500.03	1,447.34	52.69	28.470		
7,400.00	7,372.00	7,408.20	7,368.55	27.17	26.95	-0.27	1,904.80	251.71	1,500.03	1,446.64	53.39	28.098		
7,500.00	7,472.00	7,508.20	7,468.55	27.51	27.29	-0.27	1,904.80	251.71	1,500.03	1,445.94	54.08	27.735		
7,600.00	7,572.00	7,608.20	7,568.55	27.85	27.64	-0.27	1,904.80	251.71	1,500.03	1,445.24	54.78	27.381		
7,700.00	7,672.00	7,708.20	7,668.55	28.20	27.99	-0.27	1,904.80	251.71	1,500.03	1,444.54	55.48	27.036		
7,795.04	7,767.04	7,786.84	7,763.59	28.52	28.26	-0.27	1,904.80	251.71	1,500.03	1,443.94	56.09	26.743 CC		
7,800.00	7,772.00	7,808.20	7,768.55	28.54	28.33	-90.30	1,904.80	251.71	1,500.03	1,443.84	56.18	26.699		
7,850.00	7,821.92	7,841.72	7,818.47	28.71	28.45	-90.40	1,904.80	251.71	1,500.04	1,443.57	56.48	26.561		
7,900.00	7,871.42	7,908.79	7,867.97	28.89	28.68	-90.65	1,904.80	251.71	1,500.11	1,443.21	56.90	26.365		
7,950.00	7,920.12	7,939.92	7,916.67	29.08	28.79	-91.05	1,904.80	251.71	1,500.28	1,443.08	57.20	26.228 ES		
8,000.00	7,967.66	7,987.46	7,964.21	29.28	28.95	-91.58	1,904.80	251.71	1,500.65	1,443.08	57.58	26.064		
8,050.00	8,013.67	8,033.47	8,010.22	29.48	29.11	-92.19	1,904.80	251.71	1,501.36	1,443.40	57.95	25.906		
8,100.00	8,057.81	8,077.60	8,054.36	29.70	29.27	-92.86	1,904.80	251.71	1,502.53	1,444.19	58.34	25.755		
8,150.00	8,099.73	8,119.53	8,096.28	29.92	29.41	-93.55	1,904.80	251.71	1,504.36	1,445.62	58.73	25.614		
8,200.00	8,139.12	8,158.92	8,135.67	30.15	29.55	-94.21	1,904.80	251.71	1,507.01	1,447.87	59.13	25.484		
8,250.00	8,175.68	8,204.53	8,172.23	30.40	29.71	-94.79	1,904.80	251.71	1,510.67	1,451.09	59.58	25.355		
8,300.00	8,209.13	8,228.92	8,205.68	30.67	29.79	-95.24	1,904.80	251.71	1,515.52	1,455.55	59.97	25.269		
8,350.00	8,239.21	8,259.01	8,235.76	30.97	29.90	-95.53	1,904.80	251.71	1,521.73	1,461.32	60.42	25.188		
8,400.00	8,265.70	8,285.50	8,262.25	31.30	29.99	-95.60	1,904.80	251.71	1,529.44	1,468.57	60.87	25.126		
8,450.00	8,288.40	8,308.19	8,284.95	31.66	30.07	-95.42	1,904.80	251.71	1,538.75	1,477.41	61.34	25.085		
8,500.00	8,307.12	8,326.92	8,303.67	32.05	30.13	-94.95	1,904.80	251.71	1,549.75	1,487.92	61.82	25.067		
8,550.00	8,321.74	8,341.54	8,318.29	32.48	30.19	-94.18	1,904.80	251.71	1,562.44	1,500.13	62.31	25.074		
8,600.00	8,332.14	8,351.93	8,328.69	32.94	30.22	-93.06	1,904.80	251.71	1,576.83	1,514.02	62.80	25.107		
8,650.00	8,338.23	8,358.03	8,334.78	33.43	30.24	-91.61	1,904.80	251.71	1,592.82	1,529.53	63.29	25.166		
8,695.04	8,340.00	8,359.80	8,336.55	33.89	30.25	-90.00	1,904.80	251.71	1,608.51	1,544.79	63.72	25.244		
8,700.00	8,340.00	8,359.80	8,336.55	33.95	30.25	-90.00	1,904.80	251.71	1,610.31	1,546.55	63.77	25.253		

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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 ush	
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)	Between Centres (usft)				Between Ellipses (usft)		
8,800.00	8,340.00	8,359.80	8,336.55	35.07	30.25	-90.00	1,904.80	251.71	1,649.32	1,584.60	64.72	25.483		
8,900.00	8,340.00	8,359.80	8,336.55	36.32	30.25	-90.00	1,904.80	251.71	1,693.34	1,627.65	65.69	25.778		
9,000.00	8,340.00	8,359.80	8,336.55	37.69	30.25	-90.00	1,904.80	251.71	1,742.00	1,675.35	66.64	26.138		
9,100.00	8,340.00	8,359.80	8,336.55	39.16	30.25	-90.00	1,904.80	251.71	1,794.91	1,727.34	67.57	26.564		
9,200.00	8,340.00	8,359.80	8,336.55	40.72	30.25	-90.00	1,904.80	251.71	1,851.71	1,783.26	68.45	27.051		
9,300.00	8,340.00	8,359.80	8,336.55	42.37	30.25	-90.00	1,904.80	251.71	1,912.06	1,842.78	69.29	27.597		
9,400.00	8,340.00	8,359.80	8,336.55	44.08	30.25	-90.00	1,904.80	251.71	1,975.64	1,905.57	70.06	28.197		
9,500.00	8,340.00	8,359.80	8,336.55	45.86	30.25	-90.00	1,904.80	251.71	2,042.13	1,971.34	70.79	28.848		
9,600.00	8,340.00	8,359.80	8,336.55	47.70	30.25	-90.00	1,904.80	251.71	2,111.26	2,039.80	71.46	29.545		
9,700.00	8,340.00	8,359.80	8,336.55	49.58	30.25	-90.00	1,904.80	251.71	2,182.79	2,110.71	72.08	30.284		
9,800.00	8,340.00	8,359.80	8,336.55	51.52	30.25	-90.00	1,904.80	251.71	2,256.49	2,183.84	72.65	31.061		
9,900.00	8,340.00	8,359.80	8,336.55	53.49	30.25	-90.00	1,904.80	251.71	2,332.14	2,258.97	73.17	31.873		
10,000.00	8,340.00	8,359.80	8,336.55	55.50	30.25	-90.00	1,904.80	251.71	2,409.57	2,335.92	73.65	32.716		
10,100.00	8,340.00	8,359.80	8,336.55	57.54	30.25	-90.00	1,904.80	251.71	2,488.61	2,414.51	74.09	33.587		
10,200.00	8,340.00	8,359.80	8,336.55	59.61	30.25	-90.00	1,904.80	251.71	2,569.11	2,494.61	74.50	34.485		
10,300.00	8,340.00	8,359.80	8,336.55	61.70	30.25	-90.00	1,904.80	251.71	2,650.94	2,576.06	74.87	35.406		
10,400.00	8,340.00	8,359.80	8,336.55	63.82	30.25	-90.00	1,904.80	251.71	2,733.97	2,658.76	75.22	36.347		
10,500.00	8,340.00	12,720.37	10,550.00	65.96	65.34	-143.30	2,053.61	2,637.42	2,760.68	2,676.88	83.80	32.945		
10,600.00	8,340.00	12,820.37	10,550.00	68.12	67.32	-143.30	2,053.57	2,737.42	2,760.68	2,674.19	86.50	31.917		
10,700.00	8,340.00	12,920.37	10,550.00	70.30	69.34	-143.30	2,053.53	2,837.42	2,760.68	2,671.46	89.23	30.940		
10,800.00	8,340.00	13,020.37	10,550.00	72.49	71.37	-143.30	2,053.49	2,937.42	2,760.69	2,668.70	91.98	30.013		
10,900.00	8,340.00	13,120.37	10,550.00	74.69	73.44	-143.30	2,053.46	3,037.42	2,760.69	2,665.93	94.77	29.132		
11,000.00	8,340.00	13,220.37	10,550.00	76.91	75.52	-143.30	2,053.42	3,137.42	2,760.69	2,663.13	97.57	28.295		
11,100.00	8,340.00	13,320.37	10,550.00	79.14	77.62	-143.30	2,053.38	3,237.42	2,760.70	2,660.30	100.39	27.499		
11,200.00	8,340.00	13,420.37	10,550.00	81.39	79.75	-143.30	2,053.34	3,337.42	2,760.70	2,657.46	103.24	26.741		
11,300.00	8,340.00	13,520.37	10,550.00	83.64	81.89	-143.30	2,053.31	3,437.42	2,760.70	2,654.61	106.10	26.020		
11,400.00	8,340.00	13,620.37	10,550.00	85.90	84.04	-143.30	2,053.27	3,537.42	2,760.71	2,651.73	108.97	25.333		
11,500.00	8,340.00	13,720.37	10,550.00	88.17	86.21	-143.30	2,053.23	3,637.42	2,760.71	2,648.85	111.87	24.679		
11,600.00	8,340.00	13,820.37	10,550.00	90.45	88.39	-143.30	2,053.19	3,737.42	2,760.71	2,645.94	114.77	24.054		
11,700.00	8,340.00	13,920.37	10,550.00	92.74	90.58	-143.30	2,053.16	3,837.42	2,760.72	2,643.03	117.69	23.458		
11,800.00	8,340.00	14,020.37	10,550.00	95.03	92.79	-143.30	2,053.12	3,937.42	2,760.72	2,640.10	120.62	22.888		
11,900.00	8,340.00	14,120.37	10,550.00	97.33	95.00	-143.30	2,053.08	4,037.42	2,760.72	2,637.16	123.56	22.343		
12,000.00	8,340.00	14,220.37	10,550.00	99.63	97.23	-143.30	2,053.04	4,137.42	2,760.73	2,634.22	126.51	21.822		
12,100.00	8,340.00	14,320.37	10,550.00	101.94	99.47	-143.30	2,053.01	4,237.42	2,760.73	2,631.26	129.47	21.323		
12,200.00	8,340.00	14,420.37	10,550.00	104.26	101.71	-143.30	2,052.97	4,337.42	2,760.74	2,628.29	132.44	20.845		
12,300.00	8,340.00	14,520.37	10,550.00	106.58	103.96	-143.30	2,052.93	4,437.42	2,760.74	2,625.32	135.42	20.387		
12,400.00	8,340.00	14,620.37	10,550.00	108.90	106.22	-143.30	2,052.89	4,537.42	2,760.74	2,622.34	138.40	19.947		
12,500.00	8,340.00	14,720.37	10,550.00	111.23	108.49	-143.30	2,052.86	4,637.42	2,760.75	2,619.35	141.40	19.525		
12,600.00	8,340.00	14,820.37	10,550.00	113.57	110.76	-143.30	2,052.82	4,737.42	2,760.75	2,616.35	144.39	19.119		
12,700.00	8,340.00	14,920.37	10,550.00	115.90	113.04	-143.30	2,052.78	4,837.42	2,760.75	2,613.35	147.40	18.730		
12,800.00	8,340.00	15,020.37	10,550.00	118.24	115.33	-143.30	2,052.74	4,937.42	2,760.76	2,610.34	150.41	18.355		
12,900.00	8,340.00	15,120.37	10,550.00	120.59	117.62	-143.30	2,052.71	5,037.42	2,760.76	2,607.33	153.43	17.994		
13,000.00	8,340.00	15,220.37	10,550.00	122.93	119.91	-143.30	2,052.67	5,137.42	2,760.76	2,604.31	156.45	17.646		
13,100.00	8,340.00	15,320.37	10,550.00	125.28	122.21	-143.30	2,052.63	5,237.42	2,760.77	2,601.29	159.48	17.311		
13,200.00	8,340.00	15,420.37	10,550.00	127.64	124.52	-143.30	2,052.59	5,337.42	2,760.77	2,598.26	162.51	16.988		
13,201.02	8,340.00	15,421.39	10,550.00	127.66	124.54	-143.30	2,052.59	5,338.44	2,760.77	2,598.23	162.54	16.985		
13,223.16	8,340.00	15,431.68	10,550.00	128.18	124.78	-143.30	2,052.59	5,348.73	2,760.79	2,597.73	163.07	16.930 SF		

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.56	-0.56	0.00	0.00	0.08	30.03	0.04	30.03					
100.00	100.00	100.56	99.44	0.13	0.13	0.08	30.03	0.04	30.03	29.77	0.26	117.066		
200.00	200.00	200.56	199.44	0.49	0.49	0.08	30.03	0.04	30.03	29.06	0.97	30.849		
300.00	300.00	300.56	299.44	0.84	0.85	0.08	30.03	0.04	30.03	28.34	1.69	17.765		
400.00	400.00	400.56	399.44	1.20	1.20	0.08	30.03	0.04	30.03	27.62	2.41	12.474		
500.00	500.00	500.56	499.44	1.56	1.56	0.08	30.03	0.04	30.03	26.91	3.12	9.612		
600.00	600.00	600.56	599.44	1.92	1.92	0.08	30.03	0.04	30.03	26.19	3.84	7.818		
700.00	700.00	700.56	699.44	2.28	2.28	0.08	30.03	0.04	30.03	25.47	4.56	6.588		
800.00	800.00	800.56	799.44	2.64	2.64	0.08	30.03	0.04	30.03	24.75	5.28	5.693		
900.00	900.00	900.56	899.44	3.00	3.00	0.08	30.03	0.04	30.03	24.04	5.99	5.012		
1,000.00	1,000.00	999.44	999.44	3.35	3.35	0.08	30.03	0.04	30.03	23.33	6.70	4.479 CC		
1,100.00	1,099.99	1,098.74	1,098.72	3.71	3.71	-32.83	31.19	0.58	30.09	22.68	7.42	4.058		
1,200.00	1,199.91	1,198.03	1,197.94	4.07	4.06	-33.73	34.68	2.20	30.31	22.19	8.12	3.731		
1,266.67	1,266.45	1,264.22	1,264.01	4.31	4.30	-34.63	38.31	3.89	30.55	21.96	8.59	3.555 ES		
1,300.00	1,299.70	1,297.31	1,297.01	4.43	4.42	-35.02	40.52	4.92	30.82	21.99	8.83	3.491		
1,400.00	1,399.46	1,403.48	1,395.81	4.79	4.80	-34.73	48.67	8.71	33.17	23.61	9.56	3.471		
1,500.00	1,499.22	1,496.46	1,495.20	5.15	5.14	-33.50	58.15	13.11	36.78	26.51	10.25	3.586		
1,600.00	1,598.97	1,603.61	1,594.58	5.51	5.54	-32.49	67.62	17.52	40.37	29.37	11.00	3.671		
1,700.00	1,698.73	1,703.68	1,693.97	5.87	5.91	-31.64	77.09	21.92	43.99	32.27	11.72	3.753		
1,800.00	1,798.48	1,796.25	1,793.35	6.24	6.26	-30.93	86.56	26.33	47.62	35.20	12.42	3.835		
1,900.00	1,898.24	1,903.81	1,892.74	6.61	6.66	-30.31	96.03	30.73	51.25	38.08	13.17	3.892		
2,000.00	1,998.00	2,003.88	1,992.12	6.97	7.04	-29.78	105.50	35.14	54.89	40.99	13.89	3.950		
2,100.00	2,097.75	2,103.95	2,091.51	7.34	7.42	-29.31	114.98	39.54	58.53	43.91	14.62	4.003		
2,200.00	2,197.51	2,204.02	2,190.89	7.71	7.80	-28.90	124.45	43.95	62.18	46.83	15.35	4.051		
2,300.00	2,297.27	2,304.08	2,290.28	8.08	8.18	-28.53	133.92	48.35	65.83	49.75	16.08	4.095		
2,400.00	2,397.02	2,404.15	2,389.66	8.45	8.57	-28.20	143.39	52.76	69.48	52.67	16.80	4.135		
2,500.00	2,496.78	2,504.22	2,489.05	8.82	8.95	-27.91	152.86	57.16	73.13	55.60	17.53	4.171		
2,600.00	2,596.54	2,604.29	2,588.43	9.19	9.34	-27.64	162.33	61.57	76.78	58.53	18.26	4.205		
2,700.00	2,696.29	2,704.35	2,687.82	9.56	9.72	-27.40	171.81	65.97	80.44	61.45	18.99	4.236		
2,800.00	2,796.05	2,804.42	2,787.20	9.93	10.11	-27.17	181.28	70.38	84.10	64.38	19.72	4.265		
2,850.00	2,845.93	2,845.55	2,836.90	10.11	10.26	-27.07	186.01	72.58	85.93	65.88	20.05	4.286		
2,900.00	2,895.78	2,895.52	2,886.60	10.30	10.46	-27.06	190.75	74.78	87.47	67.05	20.41	4.285		
3,000.00	2,995.32	2,993.56	2,983.98	10.67	10.84	-27.38	200.96	79.53	89.78	68.67	21.12	4.252		
3,100.00	3,094.57	3,091.34	3,080.80	11.06	11.23	-27.89	213.39	85.31	92.18	70.37	21.81	4.226		
3,116.67	3,111.08	3,107.63	3,096.89	11.13	11.30	-27.99	215.68	86.37	92.59	70.66	21.93	4.222		
3,200.00	3,193.60	3,189.04	3,177.14	11.45	11.64	-28.33	228.05	92.13	95.47	72.97	22.50	4.243		
3,300.00	3,292.63	3,286.90	3,273.21	11.85	12.05	-28.25	244.95	99.98	101.09	77.90	23.19	4.360		
3,400.00	3,391.65	3,386.69	3,371.00	12.24	12.48	-28.00	262.99	108.37	107.57	83.63	23.94	4.494		
3,500.00	3,490.68	3,486.48	3,468.78	12.64	12.91	-27.78	281.03	116.76	114.05	89.37	24.69	4.620		
3,600.00	3,589.71	3,586.26	3,566.57	13.03	13.35	-27.58	299.07	125.15	120.54	95.10	25.44	4.738		
3,700.00	3,688.73	3,686.05	3,664.35	13.43	13.79	-27.41	317.10	133.54	127.03	100.83	26.19	4.850		
3,800.00	3,787.76	3,785.84	3,762.14	13.83	14.23	-27.25	335.14	141.93	133.51	106.56	26.95	4.955		
3,900.00	3,886.79	3,885.63	3,859.93	14.23	14.67	-27.11	353.18	150.32	140.00	112.30	27.70	5.054		
4,000.00	3,985.82	3,985.42	3,957.71	14.64	15.12	-26.97	371.22	158.71	146.49	118.03	28.46	5.147		
4,100.00	4,084.84	4,085.21	4,055.50	15.04	15.56	-26.85	389.26	167.09	152.98	123.76	29.22	5.236		
4,200.00	4,183.87	4,185.00	4,153.28	15.44	16.01	-26.74	407.30	175.48	159.47	129.49	29.98	5.320		
4,300.00	4,282.90	4,284.79	4,251.07	15.85	16.46	-26.64	425.34	183.87	165.96	135.23	30.73	5.400		
4,400.00	4,381.92	4,384.57	4,348.85	16.25	16.91	-26.55	443.38	192.26	172.45	140.96	31.49	5.476		
4,500.00	4,480.95	4,484.36	4,446.64	16.66	17.36	-26.46	461.42	200.65	178.94	146.69	32.25	5.548		
4,600.00	4,579.98	4,584.15	4,544.42	17.06	17.81	-26.38	479.46	209.04	185.43	152.42	33.01	5.617		
4,700.00	4,679.00	4,683.94	4,642.21	17.47	18.26	-26.30	497.50	217.43	191.93	158.15	33.78	5.682		
4,800.00	4,778.03	4,783.81	4,740.07	17.88	18.72	-26.23	515.55	225.82	198.42	163.88	34.54	5.745		

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: #122H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
 TVD Reference: WELL @ 2985.38usft (Patterson 297)
 MD Reference: WELL @ 2985.38usft (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		Minimum		Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.00	4,877.06	4,888.92	4,843.36	18.28	19.19	-26.30	533.23	234.04	203.57	168.17	35.40	5.751	
5,000.00	4,976.08	4,994.23	4,947.33	18.69	19.64	-26.62	548.34	241.07	206.12	169.88	36.24	5.687	
5,100.00	5,075.11	5,099.57	5,051.77	19.10	20.07	-27.20	560.86	246.89	206.07	169.01	37.06	5.560	
5,200.00	5,174.14	5,204.80	5,156.43	19.51	20.48	-28.06	570.75	251.49	203.46	165.60	37.86	5.374	
5,241.35	5,215.09	5,248.24	5,199.71	19.68	20.64	-28.51	574.07	253.04	201.64	163.46	38.19	5.280	
5,300.00	5,273.22	5,309.78	5,261.10	19.92	20.87	-29.16	578.01	254.87	198.73	160.09	38.64	5.143	
5,400.00	5,372.60	5,414.57	5,365.76	20.31	21.24	-30.25	582.65	257.03	193.60	154.21	39.39	4.915	
5,500.00	5,472.24	5,519.18	5,470.34	20.69	21.59	-31.31	584.69	257.97	188.27	148.17	40.10	4.695	
5,600.00	5,572.06	5,620.34	5,571.50	21.06	21.91	-32.22	584.79	258.02	183.37	142.55	40.82	4.492	
5,700.00	5,672.01	5,720.29	5,671.45	21.41	22.23	-32.75	584.79	258.02	180.62	139.08	41.54	4.348	
5,774.69	5,746.69	5,805.03	5,746.13	21.66	22.50	-0.27	584.79	258.02	180.00	137.91	42.10	4.276	
5,800.00	5,772.00	5,820.28	5,771.44	21.74	22.55	-0.27	584.79	258.02	180.00	137.77	42.24	4.262	
5,900.00	5,872.00	5,920.28	5,871.44	22.08	22.87	-0.27	584.79	258.02	180.00	137.08	42.92	4.193	
6,000.00	5,972.00	6,020.28	5,971.44	22.41	23.20	-0.27	584.79	258.02	180.00	136.39	43.61	4.127	
6,100.00	6,072.00	6,120.28	6,071.44	22.75	23.52	-0.27	584.79	258.02	180.00	135.70	44.30	4.063	
6,200.00	6,172.00	6,220.28	6,171.44	23.09	23.85	-0.27	584.79	258.02	180.00	135.01	45.00	4.000	
6,300.00	6,272.00	6,320.28	6,271.44	23.42	24.17	-0.27	584.79	258.02	180.00	134.31	45.69	3.940	
6,400.00	6,372.00	6,420.28	6,371.44	23.76	24.50	-0.27	584.79	258.02	180.00	133.62	46.38	3.881	
6,500.00	6,472.00	6,520.28	6,471.44	24.10	24.83	-0.27	584.79	258.02	180.00	132.93	47.07	3.824	
6,600.00	6,572.00	6,620.28	6,571.44	24.44	25.16	-0.27	584.79	258.02	180.00	132.23	47.77	3.768	
6,700.00	6,672.00	6,720.28	6,671.44	24.78	25.49	-0.27	584.79	258.02	180.00	131.54	48.46	3.714	
6,800.00	6,772.00	6,820.28	6,771.44	25.12	25.82	-0.27	584.79	258.02	180.00	130.84	49.16	3.662	
6,900.00	6,872.00	6,920.28	6,871.44	25.46	26.15	-0.27	584.79	258.02	180.00	130.15	49.86	3.610	
7,000.00	6,972.00	7,020.28	6,971.44	25.80	26.48	-0.27	584.79	258.02	180.00	129.45	50.55	3.561	
7,100.00	7,072.00	7,120.28	7,071.44	26.14	26.81	-0.27	584.79	258.02	180.00	128.75	51.25	3.512	
7,200.00	7,172.00	7,220.28	7,171.44	26.48	27.14	-0.27	584.79	258.02	180.00	128.05	51.95	3.465	
7,300.00	7,272.00	7,320.28	7,271.44	26.82	27.48	-0.27	584.79	258.02	180.00	127.36	52.65	3.419	
7,400.00	7,372.00	7,420.28	7,371.44	27.17	27.81	-0.27	584.79	258.02	180.00	126.66	53.35	3.374	
7,500.00	7,472.00	7,520.28	7,471.44	27.51	28.15	-0.27	584.79	258.02	180.00	125.96	54.04	3.331	
7,600.00	7,572.00	7,620.28	7,571.44	27.85	28.48	-0.27	584.79	258.02	180.00	125.26	54.74	3.288	
7,700.00	7,672.00	7,720.28	7,671.44	28.20	28.82	-0.27	584.79	258.02	180.00	124.56	55.44	3.247	
7,795.04	7,767.04	7,815.32	7,766.48	28.52	29.14	-0.27	584.79	258.02	180.00	123.89	56.11	3.208	
7,800.00	7,772.00	7,820.28	7,771.44	28.54	29.16	-90.31	584.79	258.02	180.00	123.86	56.15	3.206	
7,850.00	7,821.92	7,870.20	7,821.36	28.71	29.32	-91.13	584.79	258.02	180.04	123.51	56.52	3.185	
7,900.00	7,871.42	7,919.70	7,870.86	28.89	29.49	-93.29	584.79	258.02	180.31	123.35	56.96	3.166	
7,950.00	7,920.12	7,968.40	7,919.56	29.08	29.66	-96.65	584.79	258.02	181.31	123.87	57.44	3.156 SF	
8,000.00	7,967.66	8,015.94	7,967.10	29.28	29.82	-100.96	584.79	258.02	183.81	125.82	57.99	3.170	
8,050.00	8,013.67	8,061.95	8,013.11	29.48	29.97	-105.88	584.79	258.02	188.73	130.15	58.58	3.222	
8,100.00	8,057.81	8,106.09	8,057.25	29.70	30.12	-111.00	584.79	258.02	197.06	137.87	59.19	3.329	
8,150.00	8,099.73	8,148.01	8,099.17	29.92	30.26	-115.91	584.79	258.02	209.62	149.84	59.78	3.507	
8,200.00	8,139.12	8,187.40	8,138.56	30.15	30.40	-120.28	584.79	258.02	226.93	166.61	60.31	3.762	
8,250.00	8,175.68	8,223.96	8,175.12	30.40	30.52	-123.86	584.79	258.02	249.16	188.38	60.77	4.100	
8,300.00	8,209.13	8,257.41	8,208.57	30.67	30.63	-126.51	584.79	258.02	276.15	215.00	61.15	4.516	
8,350.00	8,239.21	8,287.49	8,238.65	30.97	30.74	-128.12	584.79	258.02	307.52	246.08	61.44	5.005	
8,400.00	8,265.70	8,313.98	8,265.14	31.30	30.93	-128.60	584.79	258.02	342.79	281.12	61.67	5.558	
8,450.00	8,288.40	8,336.68	8,287.84	31.66	30.90	-127.77	584.79	258.02	381.40	319.56	61.85	6.167	
8,500.00	8,307.12	8,355.40	8,306.56	32.05	30.97	-125.36	584.79	258.02	422.83	360.85	61.97	6.823	
8,550.00	8,321.74	8,370.02	8,321.18	32.48	31.02	-120.92	584.79	258.02	466.52	404.46	62.06	7.517	
8,600.00	8,332.14	8,380.42	8,331.58	32.94	31.05	-113.73	584.79	258.02	511.98	449.86	62.12	8.242	
8,650.00	8,338.23	8,386.51	8,337.67	33.43	31.07	-102.99	584.79	258.02	558.69	496.54	62.15	8.990	
8,695.04	8,340.00	8,388.28	8,339.44	33.89	31.08	-90.00	584.79	258.02	601.46	539.31	62.15	9.677	
8,700.00	8,340.00	8,388.28	8,339.44	33.95	31.08	-90.00	584.79	258.02	606.20	544.04	62.15	9.753	

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: #122H
Well Error: 0.00 usft
Reference Wellbore Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,800.00	8,340.00	8,388.28	8,339.44	35.07	31.08	-90.00	584.79	258.02	702.31	640.17	62.14	11.302	
8,900.00	8,340.00	8,388.28	8,339.44	36.32	31.08	-90.00	584.79	258.02	799.39	737.26	62.13	12.867	
9,000.00	8,340.00	8,388.28	8,339.44	37.69	31.08	-90.00	584.79	258.02	897.10	834.98	62.12	14.442	
9,100.00	8,340.00	8,388.28	8,339.44	39.16	31.08	-90.00	584.79	258.02	995.27	933.16	62.11	16.024	
9,200.00	8,340.00	8,388.28	8,339.44	40.72	31.08	-90.00	584.79	258.02	1,093.77	1,031.66	62.11	17.610	
9,300.00	8,340.00	8,388.28	8,339.44	42.37	31.08	-90.00	584.79	258.02	1,192.52	1,130.41	62.11	19.201	
9,400.00	8,340.00	8,388.28	8,339.44	44.08	31.08	-90.00	584.79	258.02	1,291.46	1,229.35	62.11	20.793	
9,500.00	8,340.00	8,388.28	8,339.44	45.86	31.08	-90.00	584.79	258.02	1,390.56	1,328.44	62.11	22.387	
9,600.00	8,340.00	8,388.28	8,339.44	47.70	31.08	-90.00	584.79	258.02	1,489.77	1,427.65	62.12	23.982	
9,700.00	8,340.00	8,388.28	8,339.44	49.58	31.08	-90.00	584.79	258.02	1,589.08	1,526.96	62.13	25.578	
9,800.00	8,340.00	8,388.28	8,339.44	51.52	31.08	-90.00	584.79	258.02	1,688.48	1,626.34	62.14	27.173	
9,900.00	8,340.00	8,388.28	8,339.44	53.49	31.08	-90.00	584.79	258.02	1,787.94	1,725.79	62.15	28.769	
10,000.00	8,340.00	8,388.28	8,339.44	55.50	31.08	-90.00	584.79	258.02	1,887.46	1,825.30	62.16	30.364	
10,100.00	8,340.00	8,388.28	8,339.44	57.54	31.08	-90.00	584.79	258.02	1,987.03	1,924.85	62.18	31.958	
10,200.00	8,340.00	8,388.28	8,339.44	59.61	31.08	-90.00	584.79	258.02	2,086.63	2,024.44	62.19	33.552	
10,300.00	8,340.00	8,388.28	8,339.44	61.70	31.08	-90.00	584.79	258.02	2,186.28	2,124.07	62.21	35.144	
10,400.00	8,340.00	12,639.15	10,550.00	63.82	68.16	-171.51	733.64	2,536.92	2,235.03	2,189.93	45.10	49.559	
10,500.00	8,340.00	12,739.15	10,550.00	65.96	70.16	-171.51	733.60	2,636.92	2,235.03	2,188.51	46.53	48.038	
10,600.00	8,340.00	12,839.15	10,550.00	68.12	72.18	-171.51	733.57	2,736.92	2,235.03	2,187.06	47.97	46.591	
10,700.00	8,340.00	12,939.15	10,550.00	70.30	74.22	-171.51	733.53	2,836.92	2,235.03	2,185.60	49.43	45.214	
10,800.00	8,340.00	13,039.15	10,550.00	72.49	76.29	-171.51	733.49	2,936.92	2,235.04	2,184.13	50.91	43.903	
10,900.00	8,340.00	13,139.15	10,550.00	74.69	78.38	-171.51	733.45	3,036.92	2,235.04	2,182.64	52.40	42.654	
11,000.00	8,340.00	13,239.15	10,550.00	76.91	80.48	-171.51	733.42	3,136.92	2,235.04	2,181.14	53.90	41.466	
11,100.00	8,340.00	13,339.15	10,550.00	79.14	82.61	-171.51	733.38	3,236.92	2,235.04	2,179.62	55.41	40.333	
11,200.00	8,340.00	13,439.15	10,550.00	81.39	84.75	-171.51	733.34	3,336.92	2,235.04	2,178.10	56.94	39.253	
11,300.00	8,340.00	13,539.15	10,550.00	83.64	86.90	-171.51	733.31	3,436.92	2,235.04	2,176.57	58.47	38.223	
11,400.00	8,340.00	13,639.15	10,550.00	85.90	89.07	-171.51	733.27	3,536.92	2,235.04	2,175.02	60.02	37.240	
11,500.00	8,340.00	13,739.15	10,550.00	88.17	91.25	-171.51	733.23	3,636.92	2,235.04	2,173.47	61.57	36.301	
11,600.00	8,340.00	13,839.15	10,550.00	90.45	93.45	-171.51	733.19	3,736.92	2,235.04	2,171.91	63.13	35.405	
11,700.00	8,340.00	13,939.15	10,550.00	92.74	95.65	-171.51	733.16	3,836.92	2,235.04	2,170.35	64.70	34.547	
11,800.00	8,340.00	14,039.15	10,550.00	95.03	97.87	-171.51	733.12	3,936.92	2,235.04	2,168.77	66.27	33.727	
11,900.00	8,340.00	14,139.15	10,550.00	97.33	100.09	-171.51	733.08	4,036.92	2,235.04	2,167.20	67.85	32.942	
12,000.00	8,340.00	14,239.15	10,550.00	99.63	102.33	-171.51	733.04	4,136.92	2,235.05	2,165.61	69.43	32.189	
12,100.00	8,340.00	14,339.15	10,550.00	101.94	104.57	-171.51	733.01	4,236.92	2,235.05	2,164.02	71.03	31.468	
12,200.00	8,340.00	14,439.15	10,550.00	104.26	106.82	-171.51	732.97	4,336.92	2,235.05	2,162.43	72.62	30.776	
12,300.00	8,340.00	14,539.15	10,550.00	106.58	109.08	-171.51	732.93	4,436.92	2,235.05	2,160.82	74.22	30.112	
12,400.00	8,340.00	14,639.15	10,550.00	108.90	111.34	-171.51	732.90	4,536.92	2,235.05	2,159.22	75.83	29.475	
12,500.00	8,340.00	14,739.15	10,550.00	111.23	113.61	-171.51	732.86	4,636.92	2,235.05	2,157.61	77.44	28.862	
12,600.00	8,340.00	14,839.15	10,550.00	113.57	115.89	-171.51	732.82	4,736.92	2,235.05	2,156.00	79.05	28.273	
12,700.00	8,340.00	14,939.15	10,550.00	115.90	118.18	-171.51	732.78	4,836.92	2,235.05	2,154.38	80.67	27.706	
12,800.00	8,340.00	15,039.15	10,550.00	118.24	120.47	-171.51	732.75	4,936.92	2,235.05	2,152.76	82.29	27.160	
12,900.00	8,340.00	15,139.15	10,550.00	120.59	122.76	-171.51	732.71	5,036.92	2,235.05	2,151.14	83.92	26.634	
13,000.00	8,340.00	15,239.15	10,550.00	122.93	125.06	-171.51	732.67	5,136.92	2,235.05	2,149.51	85.54	26.128	
13,100.00	8,340.00	15,339.15	10,550.00	125.28	127.36	-171.51	732.63	5,236.92	2,235.05	2,147.88	87.17	25.639	
13,200.00	8,340.00	15,439.15	10,550.00	127.64	129.40	-171.51	732.60	5,336.92	2,235.06	2,146.39	88.66	25.209	
13,223.16	8,340.00	15,462.32	10,550.00	128.18	129.77	-171.51	732.59	5,360.08	2,235.06	2,146.10	88.95	25.126	

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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 - #225H - 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	3.43	-3.43	0.00	0.00	19.85	1,643.59	593.46	1,747.45					
100.00	100.00	103.43	96.57	0.13	0.14	19.85	1,643.59	593.46	1,747.45	1,747.16	0.27	6,549.401		
200.00	200.00	203.43	196.57	0.49	0.50	19.85	1,643.59	593.46	1,747.45	1,746.47	0.98	1,776.309		
300.00	300.00	303.43	296.57	0.84	0.86	19.85	1,643.59	593.46	1,747.45	1,745.75	1.70	1,027.491		
400.00	400.00	403.43	396.57	1.20	1.21	19.85	1,643.59	593.46	1,747.45	1,745.03	2.42	722.792		
500.00	500.00	503.43	496.57	1.56	1.57	19.85	1,643.59	593.46	1,747.45	1,744.32	3.13	557.475		
600.00	600.00	603.43	596.57	1.92	1.93	19.85	1,643.59	593.46	1,747.45	1,743.60	3.85	453.703		
700.00	700.00	703.43	696.57	2.28	2.29	19.85	1,643.59	593.46	1,747.45	1,742.88	4.57	382.502		
800.00	800.00	803.43	796.57	2.64	2.65	19.85	1,643.59	593.46	1,747.45	1,742.17	5.29	330.618		
900.00	900.00	903.43	896.57	3.00	3.01	19.85	1,643.59	593.46	1,747.45	1,741.45	6.00	291.127		
1,000.00	1,000.00	996.57	996.57	3.35	3.34	19.85	1,643.59	593.46	1,747.45	1,740.76	6.69	261.020		
1,100.00	1,099.99	1,132.04	1,132.01	3.71	3.81	-12.83	1,642.95	591.27	1,745.19	1,737.67	7.52	232.061		
1,200.00	1,199.91	1,268.06	1,267.84	4.07	4.28	-13.08	1,640.97	584.43	1,738.30	1,729.96	8.34	208.414		
1,266.67	1,266.45	1,333.85	1,333.47	4.31	4.51	-13.26	1,639.69	580.02	1,731.63	1,722.82	8.81	196.591		
1,300.00	1,299.70	1,366.90	1,366.44	4.43	4.62	-13.34	1,639.04	577.81	1,728.01	1,718.97	9.04	191.095		
1,400.00	1,399.46	1,466.05	1,465.35	4.79	4.97	-13.58	1,637.11	571.17	1,717.19	1,707.45	9.75	176.211		
1,500.00	1,499.22	1,565.20	1,564.25	5.15	5.32	-13.83	1,635.18	564.53	1,706.40	1,695.95	10.45	163.269		
1,600.00	1,598.97	1,664.34	1,663.16	5.51	5.68	-14.07	1,633.25	557.89	1,695.65	1,684.49	11.16	151.930		
1,700.00	1,698.73	1,763.49	1,762.06	5.87	6.04	-14.33	1,631.32	551.24	1,684.92	1,673.05	11.87	141.920		
1,800.00	1,798.48	1,862.64	1,860.97	6.24	6.40	-14.58	1,629.39	544.60	1,674.23	1,661.65	12.59	133.023		
1,900.00	1,898.24	1,961.78	1,959.87	6.61	6.76	-14.84	1,627.46	537.96	1,663.57	1,650.27	13.30	125.066		
2,000.00	1,998.00	2,060.93	2,058.78	6.97	7.12	-15.10	1,625.53	531.32	1,652.95	1,638.93	14.02	117.911		
2,100.00	2,097.75	2,160.08	2,157.69	7.34	7.48	-15.37	1,623.60	524.68	1,642.36	1,627.62	14.74	111.444		
2,200.00	2,197.51	2,259.23	2,256.59	7.71	7.85	-15.63	1,621.68	518.04	1,631.80	1,616.35	15.46	105.573		
2,300.00	2,297.27	2,358.37	2,355.50	8.08	8.21	-15.91	1,619.75	511.40	1,621.29	1,605.11	16.18	100.219		
2,400.00	2,397.02	2,457.52	2,454.40	8.45	8.58	-16.18	1,617.82	504.75	1,610.80	1,593.90	16.90	95.319		
2,500.00	2,496.78	2,556.67	2,553.31	8.82	8.94	-16.46	1,615.89	498.11	1,600.36	1,582.74	17.62	90.818		
2,600.00	2,596.54	2,655.81	2,652.21	9.19	9.31	-16.74	1,613.96	491.47	1,589.95	1,571.61	18.34	86.670		
2,700.00	2,696.29	2,754.96	2,751.12	9.56	9.68	-17.03	1,612.03	484.83	1,579.59	1,560.52	19.07	82.835		
2,800.00	2,796.05	2,854.24	2,851.15	9.93	10.05	-17.32	1,610.07	478.11	1,569.26	1,549.46	19.80	79.265		
2,850.00	2,845.93	2,918.28	2,914.00	10.11	10.29	-17.53	1,608.68	473.31	1,563.86	1,543.66	20.20	77.406		
2,900.00	2,895.78	2,980.96	2,976.39	10.30	10.52	-17.80	1,607.00	467.54	1,557.74	1,537.13	20.61	75.584		
3,000.00	2,995.32	3,104.84	3,099.36	10.67	11.01	-18.49	1,602.85	453.27	1,542.48	1,521.06	21.42	72.006		
3,100.00	3,094.57	3,204.29	3,197.85	11.06	11.40	-19.18	1,599.00	439.99	1,523.95	1,501.78	22.17	68.735		
3,116.67	3,111.08	3,220.41	3,213.81	11.13	11.46	-19.30	1,598.37	437.84	1,520.64	1,498.35	22.30	68.201		
3,200.00	3,193.60	3,300.91	3,293.53	11.45	11.78	-19.82	1,595.25	427.08	1,504.00	1,481.08	22.92	65.633		
3,300.00	3,292.63	3,397.51	3,389.19	11.85	12.17	-20.46	1,591.49	414.17	1,484.19	1,460.53	23.66	62.726		
3,400.00	3,391.65	3,505.88	3,494.86	12.24	12.61	-21.11	1,587.74	401.26	1,464.58	1,440.12	24.46	59.883		
3,500.00	3,490.68	3,609.27	3,580.52	12.64	13.02	-21.79	1,583.99	388.35	1,445.15	1,419.92	25.24	57.263		
3,600.00	3,589.71	3,687.33	3,676.19	13.03	13.34	-22.48	1,580.24	375.44	1,425.94	1,400.02	25.92	55.013		
3,700.00	3,688.73	3,783.94	3,771.86	13.43	13.73	-23.19	1,576.49	362.52	1,406.93	1,380.25	26.66	52.734		
3,800.00	3,787.76	3,880.54	3,867.52	13.83	14.12	-23.92	1,572.74	349.61	1,388.14	1,360.70	27.44	50.584		
3,900.00	3,886.79	3,977.15	3,963.19	14.23	14.52	-24.66	1,568.99	336.70	1,369.58	1,341.38	28.21	48.552		
4,000.00	3,985.82	4,073.75	4,058.85	14.64	14.91	-25.43	1,565.23	323.79	1,351.27	1,322.29	28.98	46.631		
4,100.00	4,084.84	4,170.36	4,154.52	15.04	15.31	-26.22	1,561.48	310.88	1,333.20	1,303.45	29.75	44.812		
4,200.00	4,183.87	4,266.97	4,250.18	15.44	15.70	-27.02	1,557.73	297.97	1,315.39	1,284.86	30.53	43.090		
4,300.00	4,282.90	4,360.19	4,342.51	15.85	16.08	-27.82	1,554.14	285.60	1,297.89	1,266.59	31.30	41.471		
4,400.00	4,381.92	4,446.68	4,428.37	16.25	16.43	-28.51	1,551.22	275.56	1,281.26	1,249.22	32.04	39.986		
4,500.00	4,480.95	4,534.03	4,515.29	16.66	16.77	-29.15	1,548.82	267.31	1,265.63	1,232.85	32.78	38.608		
4,600.00	4,579.98	4,622.17	4,603.18	17.06	17.10	-29.71	1,546.97	260.93	1,250.95	1,217.43	33.51	37.328		
4,700.00	4,679.00	4,711.00	4,691.89	17.47	17.43	-30.20	1,545.67	256.47	1,237.15	1,202.91	34.23	36.139		
4,800.00	4,778.03	4,800.45	4,781.30	17.88	17.74	-30.61	1,544.95	253.98	1,224.19	1,189.25	34.94	35.033		

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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 - #225H - 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)	Minimum Separation (usft)	Separation Factor	
4,900.00	4,877.06	4,907.22	4,873.63	18.28	18.10	-30.95	1,544.79	253.43	1,212.00	1,176.31	35.69	33.958	
5,000.00	4,976.08	5,008.19	4,972.65	18.69	18.43	-31.29	1,544.79	253.43	1,200.06	1,163.65	36.41	32.960	
5,100.00	5,075.11	5,109.16	5,071.68	19.10	18.76	-31.64	1,544.79	253.43	1,188.16	1,151.03	37.13	32.001	
5,200.00	5,174.14	5,189.87	5,170.71	19.51	19.03	-31.99	1,544.79	253.43	1,176.30	1,138.51	37.78	31.132	
5,241.35	5,215.09	5,230.82	5,211.66	19.68	19.16	-32.14	1,544.79	253.43	1,171.41	1,133.33	38.08	30.762	
5,300.00	5,273.22	5,288.95	5,269.79	19.92	19.35	-32.29	1,544.79	253.43	1,164.86	1,126.36	38.50	30.257	
5,400.00	5,372.60	5,388.33	5,369.17	20.31	19.68	-32.51	1,544.79	253.43	1,155.48	1,116.27	39.21	29.469	
5,500.00	5,472.24	5,487.97	5,468.81	20.69	20.01	-32.67	1,544.79	253.43	1,148.32	1,108.40	39.92	28.768	
5,600.00	5,572.06	5,587.79	5,568.63	21.06	20.35	-32.79	1,544.79	253.43	1,143.37	1,102.75	40.62	28.151	
5,700.00	5,672.01	5,687.74	5,668.58	21.41	20.68	-32.86	1,544.79	253.43	1,140.63	1,099.32	41.31	27.613	
5,774.69	5,746.69	5,762.42	5,743.26	21.66	20.93	-0.27	1,544.79	253.43	1,140.01	1,098.19	41.82	27.261	
5,800.00	5,772.00	5,787.73	5,768.57	21.74	21.01	-0.27	1,544.79	253.43	1,140.01	1,098.02	41.99	27.149	
5,900.00	5,872.00	5,887.73	5,868.57	22.08	21.35	-0.27	1,544.79	253.43	1,140.01	1,097.34	42.67	26.715	
6,000.00	5,972.00	5,987.73	5,968.57	22.41	21.69	-0.27	1,544.79	253.43	1,140.01	1,096.66	43.36	26.294	
6,100.00	6,072.00	6,087.73	6,068.57	22.75	22.02	-0.27	1,544.79	253.43	1,140.01	1,095.97	44.04	25.885	
6,200.00	6,172.00	6,187.73	6,168.57	23.09	22.36	-0.27	1,544.79	253.43	1,140.01	1,095.29	44.73	25.488	
6,300.00	6,272.00	6,287.73	6,268.57	23.42	22.70	-0.27	1,544.79	253.43	1,140.01	1,094.60	45.41	25.103	
6,400.00	6,372.00	6,387.73	6,368.57	23.76	23.04	-0.27	1,544.79	253.43	1,140.01	1,093.91	46.10	24.728	
6,500.00	6,472.00	6,487.73	6,468.57	24.10	23.38	-0.27	1,544.79	253.43	1,140.01	1,093.22	46.79	24.365	
6,600.00	6,572.00	6,587.73	6,568.57	24.44	23.72	-0.27	1,544.79	253.43	1,140.01	1,092.53	47.48	24.011	
6,700.00	6,672.00	6,687.73	6,668.57	24.78	24.06	-0.27	1,544.79	253.43	1,140.01	1,091.84	48.17	23.667	
6,800.00	6,772.00	6,787.73	6,768.57	25.12	24.40	-0.27	1,544.79	253.43	1,140.01	1,091.15	48.86	23.332	
6,900.00	6,872.00	6,887.73	6,868.57	25.46	24.74	-0.27	1,544.79	253.43	1,140.01	1,090.46	49.55	23.007	
7,000.00	6,972.00	6,987.73	6,968.57	25.80	25.08	-0.27	1,544.79	253.43	1,140.01	1,089.77	50.24	22.690	
7,100.00	7,072.00	7,087.73	7,068.57	26.14	25.42	-0.27	1,544.79	253.43	1,140.01	1,089.08	50.94	22.381	
7,200.00	7,172.00	7,187.73	7,168.57	26.48	25.77	-0.27	1,544.79	253.43	1,140.01	1,088.38	51.63	22.080	
7,300.00	7,272.00	7,287.73	7,268.57	26.82	26.11	-0.27	1,544.79	253.43	1,140.01	1,087.69	52.32	21.788	
7,400.00	7,372.00	7,387.73	7,368.57	27.17	26.45	-0.27	1,544.79	253.43	1,140.01	1,086.99	53.02	21.502	
7,500.00	7,472.00	7,487.73	7,468.57	27.51	26.80	-0.27	1,544.79	253.43	1,140.01	1,086.30	53.71	21.224	
7,600.00	7,572.00	7,587.73	7,568.57	27.85	27.14	-0.27	1,544.79	253.43	1,140.01	1,085.60	54.41	20.952	
7,700.00	7,672.00	7,687.73	7,668.57	28.20	27.49	-0.27	1,544.79	253.43	1,140.01	1,084.91	55.11	20.687	
7,795.04	7,767.04	7,782.77	7,763.61	28.52	27.81	-0.27	1,544.79	253.43	1,140.01	1,084.24	55.77	20.442 CC	
7,800.00	7,772.00	7,787.73	7,768.57	28.54	27.83	-90.30	1,544.79	253.43	1,140.01	1,084.21	55.80	20.429	
7,850.00	7,821.92	7,837.65	7,818.49	28.71	28.00	-90.43	1,544.79	253.43	1,140.03	1,083.88	56.15	20.302	
7,900.00	7,871.42	7,887.15	7,867.99	28.89	28.17	-90.77	1,544.79	253.43	1,140.10	1,083.58	56.52	20.172	
7,950.00	7,920.12	7,935.85	7,916.69	29.08	28.34	-91.30	1,544.79	253.43	1,140.31	1,083.42	56.89	20.043 ES	
8,000.00	7,967.66	7,983.39	7,964.23	29.28	28.51	-91.99	1,544.79	253.43	1,140.78	1,083.50	57.28	19.916	
8,050.00	8,013.67	8,029.40	8,010.24	29.48	28.67	-92.80	1,544.79	253.43	1,141.67	1,084.00	57.67	19.796	
8,100.00	8,057.81	8,073.53	8,054.38	29.70	28.82	-93.68	1,544.79	253.43	1,143.18	1,085.10	58.08	19.684	
8,150.00	8,099.73	8,115.46	8,096.30	29.92	28.96	-94.59	1,544.79	253.43	1,145.53	1,087.04	58.49	19.585	
8,200.00	8,139.12	8,154.85	8,135.69	30.15	29.10	-95.46	1,544.79	253.43	1,148.96	1,090.04	58.92	19.501	
8,250.00	8,175.68	8,208.59	8,172.25	30.40	29.29	-96.22	1,544.79	253.43	1,153.70	1,094.29	59.41	19.418	
8,300.00	8,209.13	8,224.85	8,205.70	30.67	29.34	-96.82	1,544.79	253.43	1,159.99	1,100.18	59.81	19.396	
8,350.00	8,239.21	8,254.94	8,235.78	30.97	29.45	-97.20	1,544.79	253.43	1,168.03	1,107.75	60.27	19.379	
8,400.00	8,265.70	8,281.43	8,262.27	31.30	29.54	-97.30	1,544.79	253.43	1,177.98	1,117.23	60.75	19.391	
8,450.00	8,288.40	8,304.12	8,284.97	31.66	29.62	-97.08	1,544.79	253.43	1,189.98	1,128.75	61.23	19.433	
8,500.00	8,307.12	8,322.85	8,303.69	32.05	29.68	-96.48	1,544.79	253.43	1,204.09	1,142.37	61.72	19.508	
8,550.00	8,321.74	8,337.47	8,318.31	32.48	29.73	-95.46	1,544.79	253.43	1,220.32	1,158.11	62.21	19.616	
8,600.00	8,332.14	8,347.86	8,328.71	32.94	29.77	-94.01	1,544.79	253.43	1,238.60	1,175.92	62.69	19.759	
8,650.00	8,338.23	8,353.96	8,334.80	33.43	29.79	-92.11	1,544.79	253.43	1,258.83	1,195.68	63.14	19.936	
8,695.04	8,340.00	8,355.73	8,336.57	33.89	29.80	-90.00	1,544.79	253.43	1,278.56	1,215.02	63.54	20.123	
8,700.00	8,340.00	8,355.73	8,336.57	33.95	29.80	-90.00	1,544.79	253.43	1,280.82	1,217.24	63.58	20.145	

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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 - #225H - 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		
8,800.00	8,340.00	8,355.73	8,336.57	35.07	29.80	-90.00	1,544.79	253.43	1,329.38	1,264.97	64.41	20.638		
8,900.00	8,340.00	8,355.73	8,336.57	36.32	29.80	-90.00	1,544.79	253.43	1,383.49	1,318.27	65.21	21.216		
9,000.00	8,340.00	8,355.73	8,336.57	37.69	29.80	-90.00	1,544.79	253.43	1,442.50	1,376.54	65.96	21.871		
9,100.00	8,340.00	8,355.73	8,336.57	39.16	29.80	-90.00	1,544.79	253.43	1,505.85	1,439.21	66.64	22.597		
9,200.00	8,340.00	8,355.73	8,336.57	40.72	29.80	-90.00	1,544.79	253.43	1,573.01	1,505.75	67.26	23.387		
9,300.00	8,340.00	8,355.73	8,336.57	42.37	29.80	-90.00	1,544.79	253.43	1,643.51	1,575.69	67.82	24.235		
9,400.00	8,340.00	8,355.73	8,336.57	44.08	29.80	-90.00	1,544.79	253.43	1,716.94	1,648.63	68.32	25.132		
9,500.00	8,340.00	8,355.73	8,336.57	45.86	29.80	-90.00	1,544.79	253.43	1,792.95	1,724.19	68.76	26.074		
9,600.00	8,340.00	8,355.73	8,336.57	47.70	29.80	-90.00	1,544.79	253.43	1,871.21	1,802.05	69.16	27.056		
9,700.00	8,340.00	8,355.73	8,336.57	49.58	29.80	-90.00	1,544.79	253.43	1,951.46	1,881.95	69.52	28.072		
9,800.00	8,340.00	8,355.73	8,336.57	51.52	29.80	-90.00	1,544.79	253.43	2,033.47	1,963.63	69.84	29.118		
9,900.00	8,340.00	8,355.73	8,336.57	53.49	29.80	-90.00	1,544.79	253.43	2,117.02	2,046.90	70.12	30.191		
10,000.00	8,340.00	8,355.73	8,336.57	55.50	29.80	-90.00	1,544.79	253.43	2,201.94	2,131.56	70.37	31.289		
10,100.00	8,340.00	8,355.73	8,336.57	57.54	29.80	-90.00	1,544.79	253.43	2,288.08	2,217.47	70.60	32.407		
10,200.00	8,340.00	8,355.73	8,336.57	59.61	29.80	-90.00	1,544.79	253.43	2,375.30	2,304.49	70.81	33.544		
10,300.00	8,340.00	12,514.47	10,550.00	61.70	61.48	-155.91	1,393.41	2,437.07	2,424.56	2,362.74	61.82	39.221		
10,400.00	8,340.00	12,614.47	10,550.00	63.82	63.42	-155.91	1,393.38	2,537.07	2,424.56	2,360.72	63.85	37.975		
10,500.00	8,340.00	12,714.47	10,550.00	65.96	65.39	-155.91	1,393.35	2,637.07	2,424.57	2,358.67	65.90	36.790		
10,600.00	8,340.00	12,814.47	10,550.00	68.12	67.39	-155.91	1,393.32	2,737.07	2,424.58	2,356.59	67.98	35.663		
10,700.00	8,340.00	12,914.47	10,550.00	70.30	69.42	-155.91	1,393.30	2,837.07	2,424.58	2,354.49	70.09	34.593		
10,800.00	8,340.00	13,014.47	10,550.00	72.49	71.47	-155.91	1,393.27	2,937.07	2,424.59	2,352.38	72.21	33.576		
10,900.00	8,340.00	13,114.47	10,550.00	74.69	73.54	-155.91	1,393.24	3,037.07	2,424.60	2,350.24	74.36	32.608		
11,000.00	8,340.00	13,214.47	10,550.00	76.91	75.64	-155.91	1,393.21	3,137.07	2,424.60	2,348.09	76.52	31.687		
11,100.00	8,340.00	13,314.47	10,550.00	79.14	77.75	-155.91	1,393.18	3,237.07	2,424.61	2,345.92	78.69	30.811		
11,200.00	8,340.00	13,414.47	10,550.00	81.39	79.88	-155.91	1,393.16	3,337.07	2,424.61	2,343.73	80.88	29.976		
11,300.00	8,340.00	13,514.47	10,550.00	83.64	82.03	-155.91	1,393.13	3,437.07	2,424.62	2,341.53	83.09	29.181		
11,400.00	8,340.00	13,614.47	10,550.00	85.90	84.19	-155.91	1,393.10	3,537.07	2,424.63	2,339.32	85.31	28.423		
11,500.00	8,340.00	13,714.47	10,550.00	88.17	86.37	-155.91	1,393.07	3,637.07	2,424.63	2,337.10	87.54	27.699		
11,600.00	8,340.00	13,814.47	10,550.00	90.45	88.56	-155.91	1,393.04	3,737.07	2,424.64	2,334.86	89.77	27.008		
11,700.00	8,340.00	13,914.47	10,550.00	92.74	90.76	-155.91	1,393.02	3,837.07	2,424.65	2,332.62	92.02	26.348		
11,800.00	8,340.00	14,014.47	10,550.00	95.03	92.97	-155.91	1,392.99	3,937.07	2,424.65	2,330.37	94.28	25.717		
11,900.00	8,340.00	14,114.47	10,550.00	97.33	95.19	-155.91	1,392.96	4,037.07	2,424.66	2,328.11	96.55	25.113		
12,000.00	8,340.00	14,214.47	10,550.00	99.63	97.42	-155.91	1,392.93	4,137.07	2,424.66	2,325.84	98.83	24.535		
12,100.00	8,340.00	14,314.47	10,550.00	101.94	99.67	-155.91	1,392.90	4,237.07	2,424.67	2,323.56	101.11	23.981		
12,200.00	8,340.00	14,414.47	10,550.00	104.26	101.92	-155.91	1,392.88	4,337.07	2,424.68	2,321.28	103.40	23.450		
12,300.00	8,340.00	14,514.47	10,550.00	106.58	104.17	-155.91	1,392.85	4,437.07	2,424.68	2,318.99	105.69	22.940		
12,400.00	8,340.00	14,614.47	10,550.00	108.90	106.44	-155.91	1,392.82	4,537.07	2,424.69	2,316.69	108.00	22.451		
12,500.00	8,340.00	14,714.47	10,550.00	111.23	108.71	-155.90	1,392.79	4,637.07	2,424.70	2,314.39	110.31	21.982		
12,600.00	8,340.00	14,814.47	10,550.00	113.57	110.99	-155.90	1,392.76	4,737.07	2,424.70	2,312.08	112.62	21.530		
12,700.00	8,340.00	14,914.47	10,550.00	115.90	113.27	-155.90	1,392.73	4,837.07	2,424.71	2,309.77	114.94	21.096		
12,800.00	8,340.00	15,014.47	10,550.00	118.24	115.56	-155.90	1,392.71	4,937.07	2,424.71	2,307.45	117.26	20.678		
12,900.00	8,340.00	15,114.47	10,550.00	120.59	117.86	-155.90	1,392.68	5,037.07	2,424.72	2,305.13	119.59	20.275		
13,000.00	8,340.00	15,214.47	10,550.00	122.93	120.16	-155.90	1,392.65	5,137.07	2,424.73	2,302.80	121.92	19.887		
13,100.00	8,340.00	15,314.47	10,550.00	125.28	122.46	-155.90	1,392.62	5,237.07	2,424.73	2,300.47	124.26	19.513		
13,200.00	8,340.00	15,414.47	10,550.00	127.64	124.66	-155.90	1,392.59	5,337.07	2,424.74	2,298.20	126.54	19.163		
13,200.00	8,340.00	15,414.47	10,550.00	127.64	124.66	-155.90	1,392.59	5,337.07	2,424.74	2,298.20	126.54	19.163		
13,223.16	8,340.00	15,430.62	10,550.00	128.18	124.92	-155.90	1,392.59	5,353.22	2,424.75	2,297.82	126.93	19.103 SF		

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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		Separation Factor		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	2.29	-2.29	0.00	0.00	179.94	-29.90	0.03	29.90					
100.00	100.00	102.29	97.71	0.13	0.14	179.94	-29.90	0.03	29.90	29.64	0.26	113.808		
200.00	200.00	202.29	197.71	0.49	0.49	179.94	-29.90	0.03	29.90	28.92	0.98	30.521		
300.00	300.00	302.29	297.71	0.84	0.85	179.94	-29.90	0.03	29.90	28.20	1.70	17.623		
400.00	400.00	402.29	397.71	1.20	1.21	179.94	-29.90	0.03	29.90	27.49	2.41	12.388		
500.00	500.00	502.29	497.71	1.56	1.57	179.94	-29.90	0.03	29.90	26.77	3.13	9.551		
600.00	600.00	602.29	597.71	1.92	1.93	179.94	-29.90	0.03	29.90	26.05	3.85	7.771		
700.00	700.00	702.29	697.71	2.28	2.29	179.94	-29.90	0.03	29.90	25.34	4.56	6.551		
800.00	800.00	802.29	797.71	2.64	2.64	179.94	-29.90	0.03	29.90	24.62	5.28	5.661		
900.00	900.00	902.29	897.71	3.00	3.00	179.94	-29.90	0.03	29.90	23.90	6.00	4.985		
1,000.00	1,000.00	1,002.29	997.71	3.35	3.36	179.94	-29.90	0.03	29.90	23.18	6.72	4.453 CC, ES		
1,100.00	1,099.99	1,102.30	1,097.70	3.71	3.72	148.64	-29.90	0.03	31.01	23.58	7.43	4.173		
1,200.00	1,199.91	1,202.38	1,197.62	4.07	4.08	152.02	-29.90	0.03	34.42	26.28	8.15	4.225		
1,266.67	1,266.45	1,264.16	1,264.16	4.31	4.30	154.87	-29.90	0.03	38.07	29.46	8.61	4.423		
1,300.00	1,299.70	1,302.59	1,297.41	4.43	4.44	156.28	-29.90	0.03	40.18	31.32	8.86	4.533		
1,400.00	1,399.46	1,402.83	1,397.17	4.79	4.80	159.72	-29.90	0.03	46.66	37.08	9.58	4.870		
1,500.00	1,499.22	1,503.07	1,496.93	5.15	5.16	162.32	-29.90	0.03	53.26	42.96	10.30	5.172		
1,600.00	1,598.97	1,603.32	1,596.68	5.51	5.52	164.35	-29.90	0.03	59.94	48.93	11.01	5.442		
1,700.00	1,698.73	1,703.56	1,696.44	5.87	5.88	165.97	-29.90	0.03	66.69	54.95	11.73	5.684		
1,800.00	1,798.48	1,803.81	1,796.19	6.24	6.23	167.28	-29.90	0.03	73.47	61.02	12.45	5.902		
1,900.00	1,898.24	1,904.05	1,895.95	6.61	6.59	168.38	-29.90	0.03	80.29	67.13	13.17	6.098		
2,000.00	1,998.00	1,995.71	1,995.71	6.97	6.92	169.30	-29.90	0.03	87.14	73.28	13.86	6.289		
2,100.00	2,097.75	2,097.66	2,097.65	7.34	7.29	169.81	-29.03	0.92	92.88	78.30	14.58	6.371		
2,200.00	2,197.51	2,199.93	2,199.84	7.71	7.65	169.63	-26.24	3.76	96.17	80.87	15.29	6.288		
2,300.00	2,297.27	2,302.29	2,301.98	8.08	8.01	168.82	-21.53	8.57	97.01	81.01	16.00	6.062		
2,400.00	2,397.02	2,404.59	2,403.84	8.45	8.38	167.32	-14.91	15.31	95.44	78.74	16.71	5.713		
2,500.00	2,496.78	2,506.68	2,505.20	8.82	8.74	165.01	-6.40	23.99	91.57	74.16	17.40	5.261		
2,600.00	2,596.54	2,606.98	2,604.53	9.19	9.11	161.88	3.30	33.89	86.18	68.06	18.13	4.755		
2,700.00	2,696.29	2,706.71	2,703.29	9.56	9.48	158.33	13.02	43.80	81.01	62.15	18.86	4.295		
2,800.00	2,796.05	2,806.44	2,802.06	9.93	9.85	154.31	22.74	53.71	76.19	56.58	19.61	3.886		
2,850.00	2,845.93	2,856.31	2,851.44	10.11	10.04	152.11	27.60	58.66	73.93	53.95	19.98	3.700		
2,900.00	2,895.78	2,906.20	2,900.84	10.30	10.23	149.92	32.46	63.62	72.07	51.71	20.36	3.540		
3,000.00	2,995.32	3,006.06	2,999.73	10.67	10.61	146.10	42.19	73.54	70.32	49.20	21.12	3.330		
3,021.04	3,016.23	3,027.09	3,020.55	10.76	10.69	145.42	44.24	75.63	70.27	48.99	21.28	3.302		
3,100.00	3,094.57	3,106.00	3,098.70	11.06	10.99	143.37	51.93	83.47	70.99	49.10	21.88	3.244		
3,116.67	3,111.08	3,122.66	3,115.20	11.13	11.06	143.05	53.56	85.13	71.32	49.31	22.01	3.240		
3,200.00	3,193.60	3,205.95	3,197.68	11.45	11.38	141.56	61.67	93.41	73.14	50.49	22.85	3.229		
3,300.00	3,292.63	3,305.90	3,296.65	11.85	11.77	139.87	71.41	103.34	75.39	51.97	23.42	3.219		
3,400.00	3,391.65	3,405.86	3,395.63	12.24	12.16	138.27	81.15	113.27	77.70	53.50	24.20	3.211		
3,500.00	3,490.68	3,505.81	3,494.61	12.64	12.55	136.77	90.89	123.20	80.07	55.09	24.97	3.206		
3,600.00	3,589.71	3,605.76	3,593.59	13.03	12.94	135.36	100.63	133.13	82.48	56.73	25.76	3.202		
3,700.00	3,688.73	3,705.71	3,692.57	13.43	13.33	134.03	110.37	143.06	84.95	58.41	26.54	3.200		
3,800.00	3,787.76	3,805.66	3,791.54	13.83	13.73	132.77	120.11	153.00	87.46	60.13	27.33	3.200		
3,900.00	3,886.79	3,905.61	3,890.52	14.23	14.13	131.59	129.85	162.93	90.01	61.88	28.13	3.200		
4,000.00	3,985.82	4,005.56	3,989.50	14.64	14.53	130.47	139.59	172.86	92.59	63.67	28.92	3.202		
4,100.00	4,084.84	4,105.51	4,088.48	15.04	14.93	129.41	149.33	182.79	95.21	65.49	29.72	3.204		
4,200.00	4,183.87	4,205.46	4,187.46	15.44	15.33	128.41	159.07	192.72	97.86	67.34	30.52	3.207		
4,300.00	4,282.90	4,305.41	4,286.43	15.85	15.73	127.46	168.81	202.65	100.54	69.22	31.32	3.210		
4,400.00	4,381.92	4,405.36	4,385.41	16.25	16.13	126.56	178.55	212.59	103.24	71.12	32.13	3.214		
4,500.00	4,480.95	4,505.31	4,484.39	16.66	16.53	125.71	188.29	222.52	105.97	73.04	32.93	3.218		
4,600.00	4,579.98	4,605.26	4,583.37	17.06	16.94	124.90	198.03	232.45	108.72	74.98	33.74	3.222		
4,700.00	4,679.00	4,704.23	4,681.51	17.47	17.33	124.66	206.91	241.51	111.90	77.36	34.53	3.240		

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.00	4,778.03	4,803.01	4,779.77	17.88	17.71	125.61		214.01	248.74	116.05	80.76	35.29	3.288	
4,900.00	4,877.06	4,901.55	4,878.02	18.28	18.08	127.59		219.31	254.15	121.29	85.28	36.01	3.368	
5,000.00	4,976.08	4,999.73	4,976.07	18.69	18.44	130.41		222.83	257.73	127.84	91.15	36.69	3.484	
5,100.00	5,075.11	5,097.42	5,073.72	19.10	18.78	133.87		224.57	259.52	135.97	98.65	37.32	3.643	
5,200.00	5,174.14	5,204.45	5,171.85	19.51	19.15	137.65		224.79	259.74	145.82	107.86	37.96	3.841	
5,241.35	5,215.09	5,236.50	5,212.80	19.68	19.26	139.13		224.79	259.74	150.14	111.95	38.19	3.931	
5,300.00	5,273.22	5,305.37	5,270.93	19.92	19.49	141.03		224.79	259.74	156.08	117.48	38.60	4.044	
5,400.00	5,372.60	5,405.99	5,370.31	20.31	19.83	143.53		224.79	259.74	164.88	125.63	39.25	4.201	
5,500.00	5,472.24	5,506.35	5,469.95	20.69	20.18	145.27		224.79	259.74	171.79	131.88	39.92	4.304	
5,600.00	5,572.06	5,606.53	5,569.77	21.06	20.52	146.40		224.79	259.74	178.66	136.07	40.60	4.352	
5,700.00	5,672.01	5,706.58	5,669.72	21.41	20.86	147.00		224.79	259.74	179.39	138.11	41.28	4.345	
5,774.69	5,746.69	5,768.10	5,744.40	21.66	21.07	179.73		224.79	259.74	180.00	138.25	41.75	4.311	
5,800.00	5,772.00	5,806.59	5,769.71	21.74	21.21	179.73		224.79	259.74	180.00	138.03	41.97	4.288	
5,900.00	5,872.00	5,906.59	5,869.71	22.08	21.55	179.73		224.79	259.74	180.00	137.33	42.67	4.219	
6,000.00	5,972.00	6,006.59	5,969.71	22.41	21.89	179.73		224.79	259.74	180.00	136.64	43.36	4.151	
6,100.00	6,072.00	6,106.59	6,069.71	22.75	22.24	179.73		224.79	259.74	180.00	135.94	44.06	4.085	
6,200.00	6,172.00	6,206.59	6,169.71	23.09	22.58	179.73		224.79	259.74	180.00	135.25	44.76	4.022	
6,300.00	6,272.00	6,306.59	6,269.71	23.42	22.93	179.73		224.79	259.74	180.00	134.55	45.45	3.960	
6,400.00	6,372.00	6,406.59	6,369.71	23.76	23.28	179.73		224.79	259.74	180.00	133.85	46.15	3.900	
6,500.00	6,472.00	6,506.59	6,469.71	24.10	23.62	179.73		224.79	259.74	180.00	133.15	46.85	3.842	
6,600.00	6,572.00	6,606.59	6,569.71	24.44	23.97	179.73		224.79	259.74	180.00	132.46	47.55	3.786	
6,700.00	6,672.00	6,706.59	6,669.71	24.78	24.32	179.73		224.79	259.74	180.00	131.76	48.25	3.731	
6,800.00	6,772.00	6,806.59	6,769.71	25.12	24.66	179.73		224.79	259.74	180.00	131.06	48.95	3.678	
6,900.00	6,872.00	6,906.59	6,869.71	25.46	25.01	179.73		224.79	259.74	180.00	130.36	49.65	3.626	
7,000.00	6,972.00	7,006.59	6,969.71	25.80	25.36	179.73		224.79	259.74	180.00	129.66	50.35	3.575	
7,100.00	7,072.00	7,106.59	7,069.71	26.14	25.71	179.73		224.79	259.74	180.00	128.95	51.05	3.526	
7,200.00	7,172.00	7,206.59	7,169.71	26.48	26.06	179.73		224.79	259.74	180.00	128.25	51.75	3.478	
7,300.00	7,272.00	7,306.59	7,269.71	26.82	26.40	179.73		224.79	259.74	180.00	127.55	52.45	3.432	
7,400.00	7,372.00	7,406.59	7,369.71	27.17	26.75	179.73		224.79	259.74	180.00	126.85	53.15	3.386	
7,500.00	7,472.00	7,506.59	7,469.71	27.51	27.10	179.73		224.79	259.74	180.00	126.15	53.86	3.342	
7,600.00	7,572.00	7,606.59	7,569.71	27.85	27.45	179.73		224.79	259.74	180.00	125.44	54.56	3.299	
7,700.00	7,672.00	7,706.59	7,669.71	28.20	27.80	179.73		224.79	259.74	180.00	124.74	55.26	3.257	
7,795.04	7,767.04	7,788.45	7,764.75	28.52	28.09	179.73		224.79	259.74	180.00	124.12	55.89	3.221	
7,800.00	7,772.00	7,806.59	7,769.71	28.54	28.15	89.71		224.79	259.74	180.00	124.03	55.97	3.216	
7,827.76	7,799.75	7,821.16	7,797.46	28.64	28.20	90.00		224.79	259.74	180.00	123.89	56.11	3.208	
7,850.00	7,821.92	7,843.33	7,819.63	28.71	28.28	90.54		224.79	259.74	180.01	123.75	56.26	3.200	
7,900.00	7,871.42	7,907.17	7,869.13	28.89	28.50	92.71		224.79	259.74	180.21	123.59	56.62	3.183 SF	
7,950.00	7,920.12	7,941.53	7,917.83	29.08	28.62	96.08		224.79	259.74	181.10	124.24	56.85	3.185	
8,000.00	7,967.66	7,989.07	7,965.37	29.28	28.79	100.42		224.79	259.74	183.44	126.32	57.12	3.212	
8,050.00	8,013.67	8,035.08	8,011.38	29.48	28.95	105.38		224.79	259.74	188.18	130.81	57.36	3.281	
8,100.00	8,057.81	8,079.22	8,055.52	29.70	29.11	110.55		224.79	259.74	196.30	138.71	57.59	3.408	
8,150.00	8,099.73	8,121.14	8,097.44	29.92	29.25	115.52		224.79	259.74	208.66	150.84	57.82	3.609	
8,200.00	8,139.12	8,160.53	8,136.83	30.15	29.39	119.94		224.79	259.74	225.79	167.74	58.05	3.890	
8,250.00	8,175.68	8,202.91	8,173.39	30.40	29.54	123.57		224.79	259.74	247.87	189.57	58.30	4.251	
8,300.00	8,209.13	8,230.54	8,206.84	30.67	29.64	126.26		224.79	259.74	274.73	216.22	58.51	4.696	
8,350.00	8,239.21	8,260.62	8,236.92	30.97	29.74	127.91		224.79	259.74	306.00	247.29	58.72	5.212	
8,400.00	8,265.70	8,287.11	8,263.41	31.30	29.84	128.42		224.79	259.74	341.20	282.29	58.91	5.792	
8,450.00	8,288.40	8,309.81	8,286.11	31.66	29.92	127.61		224.79	259.74	379.76	320.68	59.07	6.428	
8,500.00	8,307.12	8,328.53	8,304.83	32.05	29.98	125.23		224.79	259.74	421.14	361.92	59.21	7.112	
8,550.00	8,321.74	8,343.15	8,319.45	32.48	30.03	120.81		224.79	259.74	464.80	405.48	59.32	7.835	
8,600.00	8,332.14	8,353.55	8,329.85	32.94	30.07	113.65		224.79	259.74	510.23	450.82	59.40	8.589	
8,650.00	8,338.23	8,359.64	8,335.94	33.43	30.09	102.95		224.79	259.74	556.92	497.47	59.45	9.367	

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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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		
8,695.04	8,340.00	8,361.41	8,337.71	33.89	30.10	90.00	224.79	259.74	599.68	540.20	59.48	10.082		
8,700.00	8,340.00	8,361.41	8,337.71	33.95	30.10	90.00	224.79	259.74	604.41	544.93	59.48	10.162		
8,800.00	8,340.00	8,361.41	8,337.71	35.07	30.10	90.00	224.79	259.74	700.51	641.00	59.51	11.772		
8,900.00	8,340.00	8,361.41	8,337.71	36.32	30.10	90.00	224.79	259.74	797.56	738.03	59.53	13.397		
9,000.00	8,340.00	8,361.41	8,337.71	37.69	30.10	90.00	224.79	259.74	895.27	835.71	59.56	15.032		
9,100.00	8,340.00	8,361.41	8,337.71	39.16	30.10	90.00	224.79	259.74	993.43	933.85	59.58	16.673		
9,200.00	8,340.00	8,361.41	8,337.71	40.72	30.10	90.00	224.79	259.74	1,091.92	1,032.32	59.61	18.319		
9,300.00	8,340.00	8,361.41	8,337.71	42.37	30.10	90.00	224.79	259.74	1,190.67	1,131.04	59.63	19.968		
9,400.00	8,340.00	8,361.41	8,337.71	44.08	30.10	90.00	224.79	259.74	1,289.61	1,229.96	59.65	21.620		
9,500.00	8,340.00	8,361.41	8,337.71	45.86	30.10	90.00	224.79	259.74	1,388.70	1,329.03	59.67	23.272		
9,600.00	8,340.00	8,361.41	8,337.71	47.70	30.10	90.00	224.79	259.74	1,487.91	1,428.22	59.69	24.925		
9,700.00	8,340.00	8,361.41	8,337.71	49.58	30.10	90.00	224.79	259.74	1,587.22	1,527.51	59.72	26.579		
9,800.00	8,340.00	8,361.41	8,337.71	51.52	30.10	90.00	224.79	259.74	1,686.62	1,626.88	59.74	28.233		
9,900.00	8,340.00	8,361.41	8,337.71	53.49	30.10	90.00	224.79	259.74	1,786.08	1,726.31	59.76	29.886		
10,000.00	8,340.00	8,361.41	8,337.71	55.50	30.10	90.00	224.79	259.74	1,885.60	1,825.81	59.79	31.538		
10,100.00	8,340.00	8,361.41	8,337.71	57.54	30.10	90.00	224.79	259.74	1,985.16	1,925.35	59.81	33.190		
10,200.00	8,340.00	8,361.41	8,337.71	59.61	30.10	90.00	224.79	259.74	2,084.77	2,024.93	59.84	34.841		
10,300.00	8,340.00	8,361.41	8,337.71	61.70	30.10	90.00	224.79	259.74	2,184.41	2,124.55	59.86	36.490		
10,400.00	8,340.00	12,612.34	10,550.00	63.82	67.79	171.51	73.38	2,536.71	2,236.83	2,189.42	47.41	47.182		
10,500.00	8,340.00	12,712.34	10,550.00	65.96	69.81	171.51	73.35	2,636.71	2,236.83	2,188.00	48.83	45.811		
10,600.00	8,340.00	12,812.34	10,550.00	68.12	71.86	171.51	73.33	2,736.71	2,236.83	2,186.56	50.26	44.501		
10,700.00	8,340.00	12,912.34	10,550.00	70.30	73.93	171.51	73.30	2,836.71	2,236.82	2,185.11	51.72	43.251		
10,800.00	8,340.00	13,012.34	10,550.00	72.49	76.03	171.51	73.27	2,936.71	2,236.82	2,183.64	53.19	42.057		
10,900.00	8,340.00	13,112.34	10,550.00	74.69	78.14	171.51	73.24	3,036.71	2,236.82	2,182.15	54.67	40.917		
11,000.00	8,340.00	13,212.34	10,550.00	76.91	80.27	171.51	73.21	3,136.71	2,236.82	2,180.65	56.16	39.827		
11,100.00	8,340.00	13,312.34	10,550.00	79.14	82.41	171.51	73.19	3,236.71	2,236.81	2,179.14	57.67	38.787		
11,200.00	8,340.00	13,412.34	10,550.00	81.39	84.58	171.51	73.16	3,336.71	2,236.81	2,177.62	59.19	37.792		
11,300.00	8,340.00	13,512.34	10,550.00	83.64	86.75	171.51	73.13	3,436.71	2,236.81	2,176.09	60.72	36.840		
11,400.00	8,340.00	13,612.34	10,550.00	85.90	88.94	171.51	73.10	3,536.71	2,236.81	2,174.55	62.25	35.930		
11,500.00	8,340.00	13,712.34	10,550.00	88.17	91.14	171.51	73.07	3,636.71	2,236.81	2,173.01	63.80	35.059		
11,600.00	8,340.00	13,812.34	10,550.00	90.45	93.35	171.51	73.05	3,736.71	2,236.80	2,171.45	65.35	34.225		
11,700.00	8,340.00	13,912.34	10,550.00	92.74	95.57	171.51	73.02	3,836.71	2,236.80	2,169.88	66.92	33.426		
11,800.00	8,340.00	14,012.34	10,550.00	95.03	97.80	171.51	72.99	3,936.71	2,236.80	2,168.31	68.49	32.660		
11,900.00	8,340.00	14,112.34	10,550.00	97.33	100.04	171.51	72.96	4,036.71	2,236.80	2,166.73	70.06	31.926		
12,000.00	8,340.00	14,212.34	10,550.00	99.63	102.29	171.51	72.93	4,136.71	2,236.79	2,165.15	71.64	31.221		
12,100.00	8,340.00	14,312.34	10,550.00	101.94	104.55	171.51	72.91	4,236.71	2,236.79	2,163.56	73.23	30.544		
12,200.00	8,340.00	14,412.34	10,550.00	104.26	106.81	171.51	72.88	4,336.71	2,236.79	2,161.96	74.83	29.893		
12,300.00	8,340.00	14,512.34	10,550.00	106.58	109.08	171.51	72.85	4,436.71	2,236.79	2,160.36	76.42	29.268		
12,400.00	8,340.00	14,612.34	10,550.00	108.90	111.36	171.51	72.82	4,536.71	2,236.79	2,158.76	78.03	28.667		
12,500.00	8,340.00	14,712.34	10,550.00	111.23	113.64	171.51	72.79	4,636.71	2,236.78	2,157.15	79.63	28.088		
12,600.00	8,340.00	14,812.34	10,550.00	113.57	115.93	171.51	72.77	4,736.71	2,236.78	2,155.53	81.25	27.531		
12,700.00	8,340.00	14,912.34	10,550.00	115.90	118.22	171.51	72.74	4,836.71	2,236.78	2,153.92	82.86	26.994		
12,800.00	8,340.00	15,012.34	10,550.00	118.24	120.52	171.51	72.71	4,936.71	2,236.78	2,152.29	84.48	26.476		
12,900.00	8,340.00	15,112.34	10,550.00	120.59	122.82	171.51	72.68	5,036.71	2,236.77	2,150.67	86.11	25.977		
13,000.00	8,340.00	15,212.34	10,550.00	122.93	125.13	171.52	72.65	5,136.71	2,236.77	2,149.04	87.73	25.496		
13,100.00	8,340.00	15,312.34	10,550.00	125.28	127.45	171.52	72.63	5,236.71	2,236.77	2,147.41	89.36	25.031		
13,200.00	8,340.00	15,412.34	10,550.00	127.64	129.76	171.52	72.60	5,336.71	2,236.77	2,145.77	90.99	24.581		
13,223.16	8,340.00	15,435.50	10,550.00	128.18	130.30	171.52	72.59	5,359.87	2,236.77	2,145.39	91.37	24.480		

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



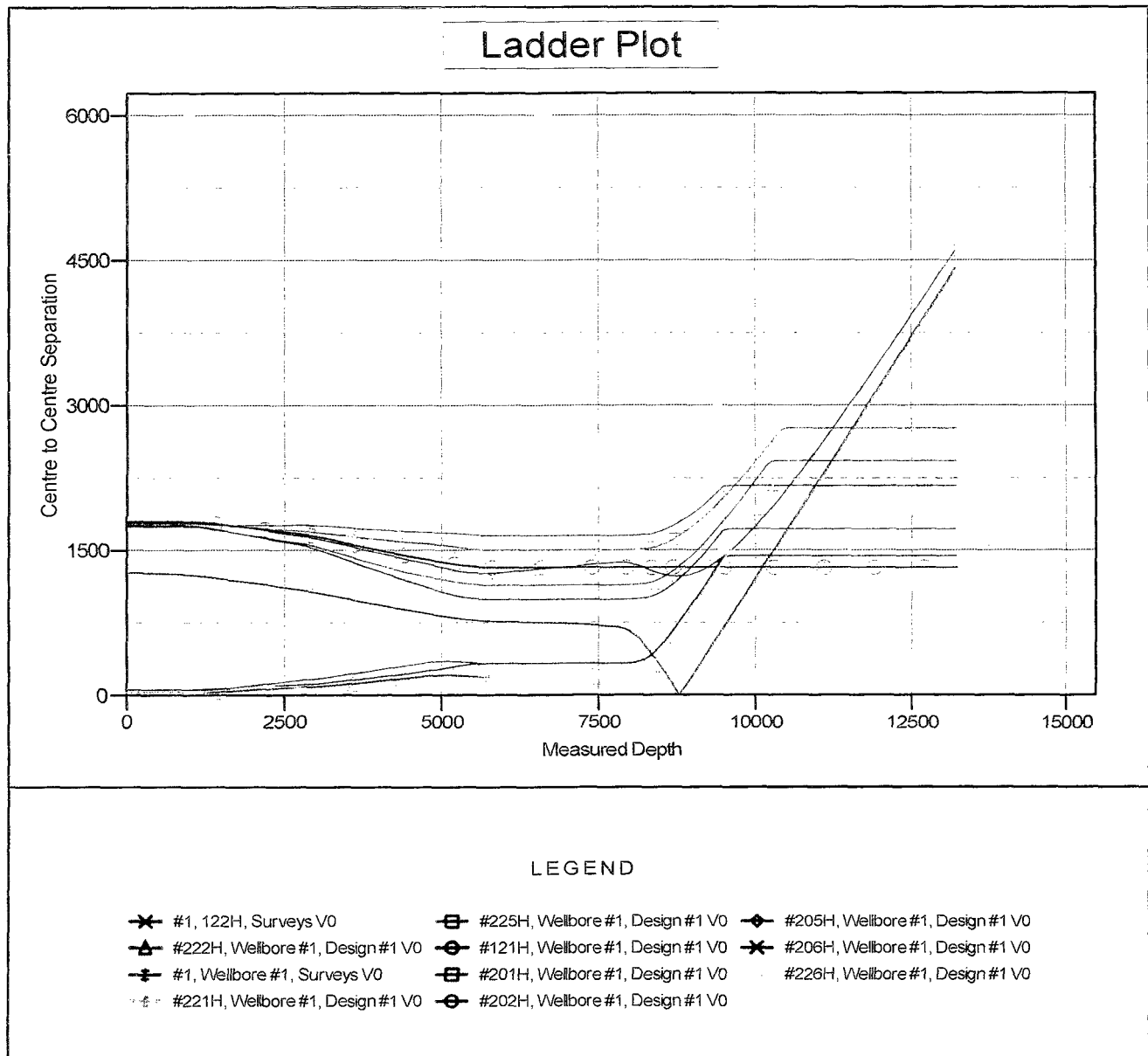
Anticollision Report



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: #122H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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 @ 2985.38usft (Patterson 297) Coordinates are relative to: #122H
 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°



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: #122H
Well Error: 0.00 usft
Reference Wellbore Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference: Well #122H
TVD Reference: WELL @ 2985.38usft (Patterson 297)
MD Reference: WELL @ 2985.38usft (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

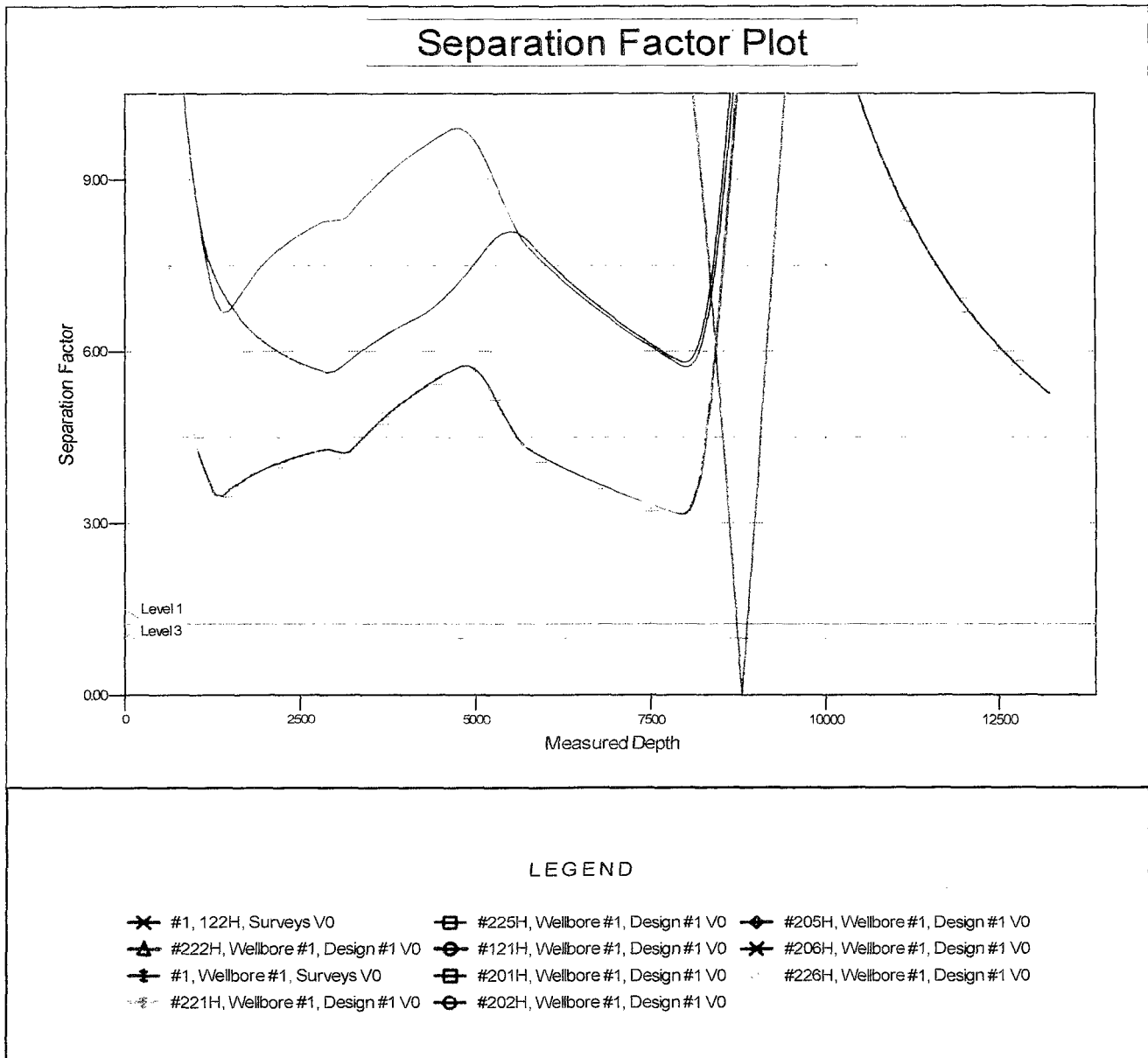
Reference Depths are relative to WELL @ 2985.38usft (Patterson 297) Coordinates are relative to: #122H

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°

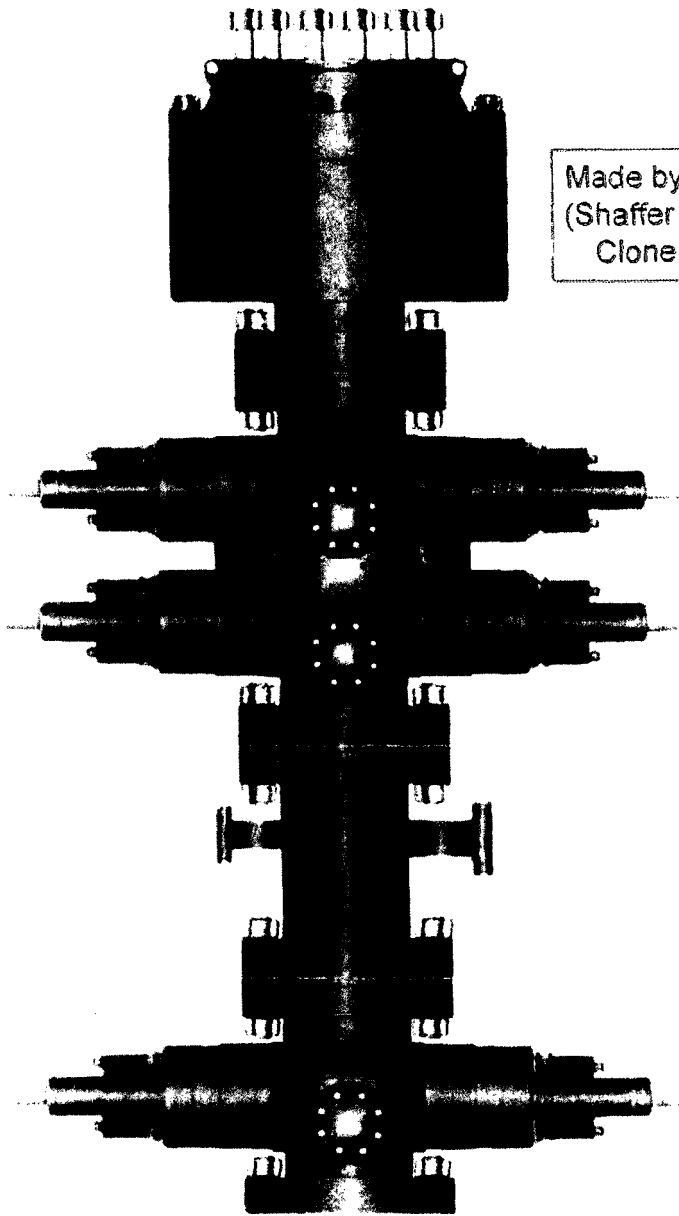
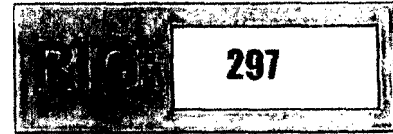


CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



PATTERSON-UTI

Well Control



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



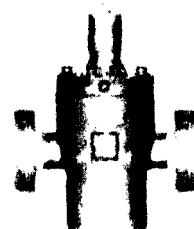
2" Check Valve



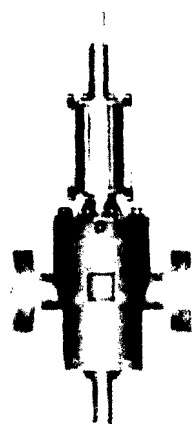
2" Manual Valve



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, pressure tests will be made to 250 psi low and 3000 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 casing. In the case of running a speed head with landing mandrel for 9-5/8" 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.

63.4 EST

37.1 EST

43.0 EST

50.6 EST

25.7 EST

19.0 EST

25.7 EST

CHOKE, ADJUSTABLE
2-1/16 5M

2-9/16 5M

2-1/16 5M

2-1/16 5M ACTUATOR

2-9/16 5M

TUBING HEAD ADAPTER,
SM-EO
7-1/16 10M x 2-9/16 5M

7-1/16 10M

TUBING HANGER, SM-EO
7-1/16 x 2-7/8 EU 8RD
BOX TOP x API MOD BOX BTM

SECONDARY SEAL, SP-H
11 x 5-1/2

CASING HANGER, S-22
13-5/8 x 5-1/2
W/ADDITIONAL CAPACITY
FOR SMB-22

13-5/16 5M

1-13/16 10M

13-5/16 5M

2-1/16 5M

2 LP 5M

25 OD BASEPLATE

13-3/8 CASING

9-5/8 CASING

5-1/2 CASING

2-7/8 TUBING

WEIR

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ISSUED BY	RPL	SCALE	1:13	DATE	17APR15	REV
DESIGNED BY		DRAWING NO.				
APPROVED BY		QD-000475				

December 8, 2014

Internal Hydrostatic Test Graph

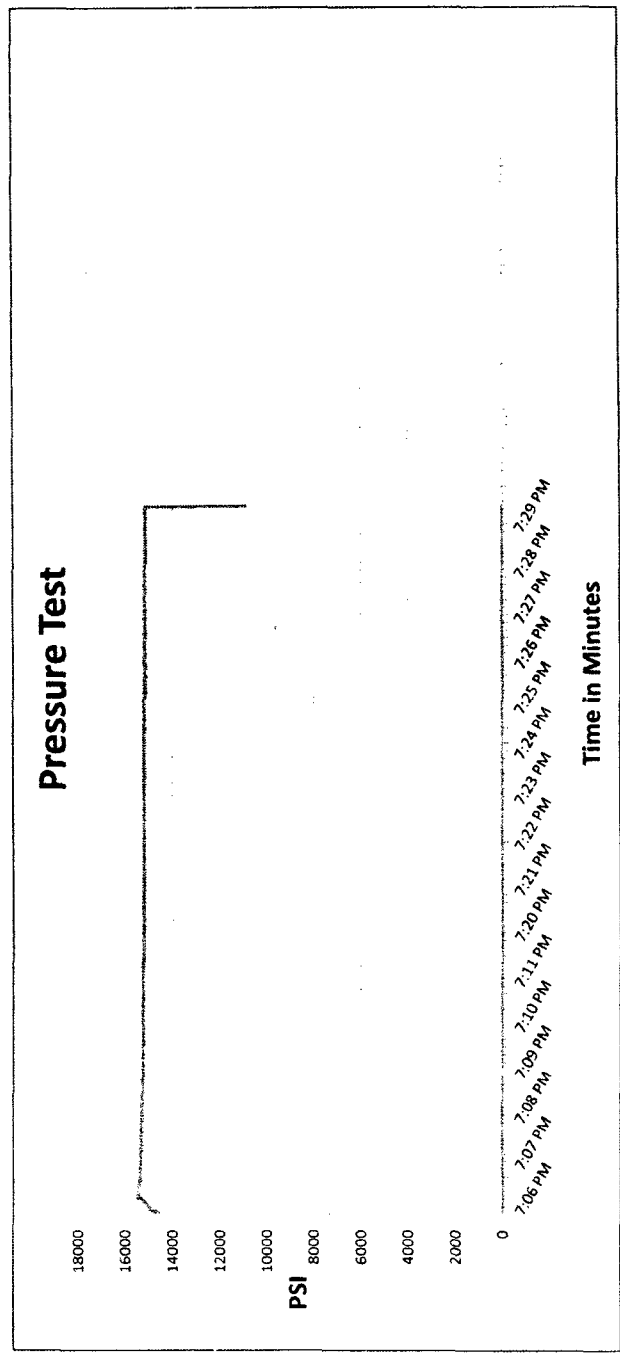


Midwest Hose
& Specialty, Inc.

Customer: Patterson

Pick Ticket #: 284918

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



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]

[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 #)	287918-2	Hose O.D. (Inches)	5.30"
Hose Assembly Length	10'	Armor (yes/no)	YES
Fittings			
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.

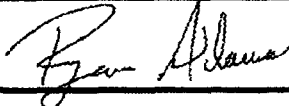
Supplier:

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"

Length

20'

O.D.

4.77"

Verification

Type of Fitting

4-1/16 LOK

Die Size

5.37"

Coupling Method

Swage

Final O.D.

5.40"

Working Pressure

10000 PSI

Burst Pressure

Standard Safety Multiplier Applies

Hose Serial #

10490

Hose Assembly Serial #

284918-1

Pressure Test

18000

16000

14000

12000

10000

PSI

8000

6000

4000

2000

0

2:41 AM 2:42 AM 2:43 AM 2:44 AM 2:45 AM 2:46 AM 2:47 AM 2:48 AM 2:49 AM 2:50 AM 2:51 AM 2:52 AM 2:53 AM 2:54 AM 2:55 AM 2:56 AM

Time in Minutes

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	12/9/2014	Tested By	Approved By



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.

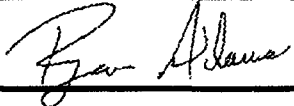
Supplier:

Midwest Hose & Specialty, Inc.

3312 S I-35 Service Rd

Oklahoma City, OK 73129

Comments:

Approved By	Date
	12/9/2014



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

December 9, 2014

Customer: Patterson

Pick Ticket #: 284918

Hose Specifications

Hose Type

Mud

Length

70'

I.D.

3"

O.D.

4.79"

Verification

Type of Fitting

4 1/16 10K

Coupling Method

Swage

Final O.D.

5.37"

Working Pressure

10000 PSI

Burst Pressure

Standard Safety Multiplier Applies

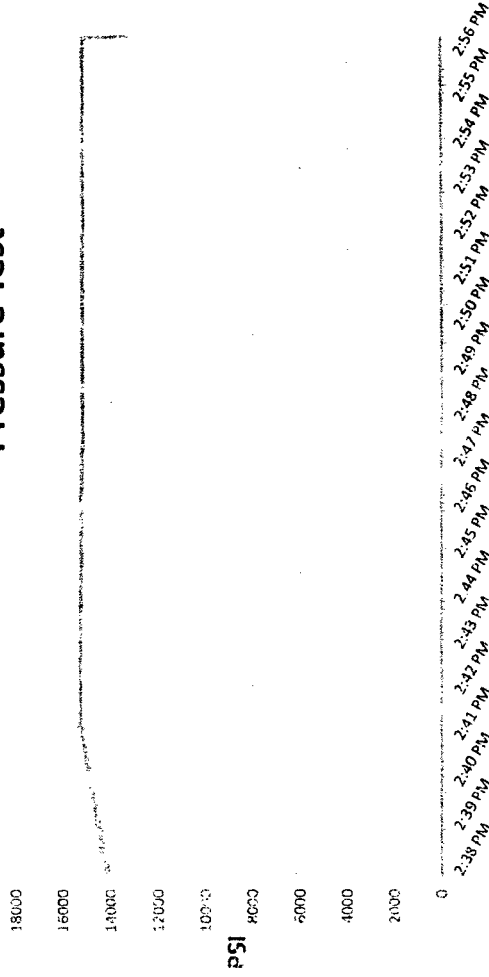
Hose Serial

10490

Hose Assembly Serial

284918-3

Pressure Test



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



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

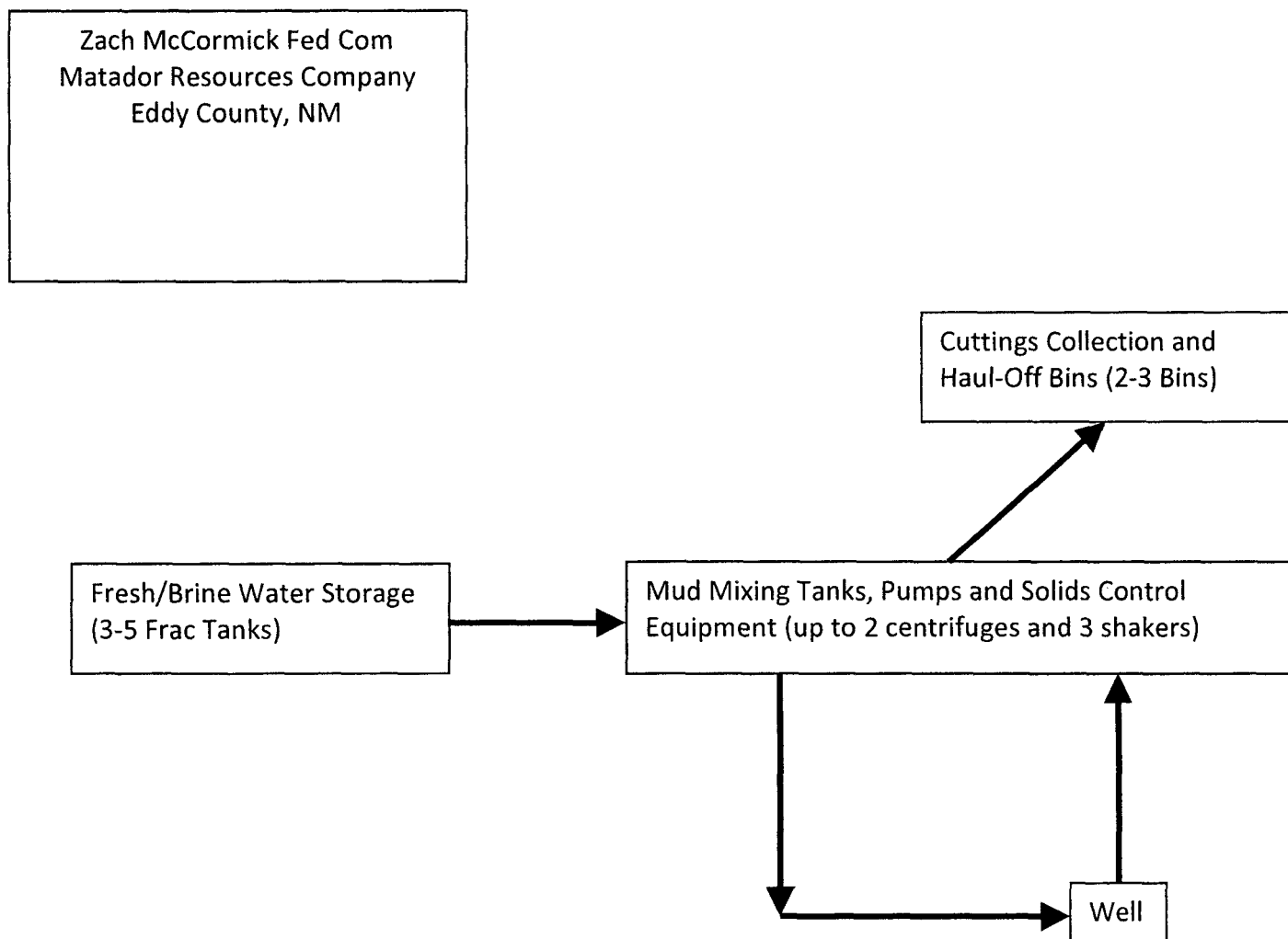
Comments:

Approved By

Date

12/9/2014

Closed-Loop System

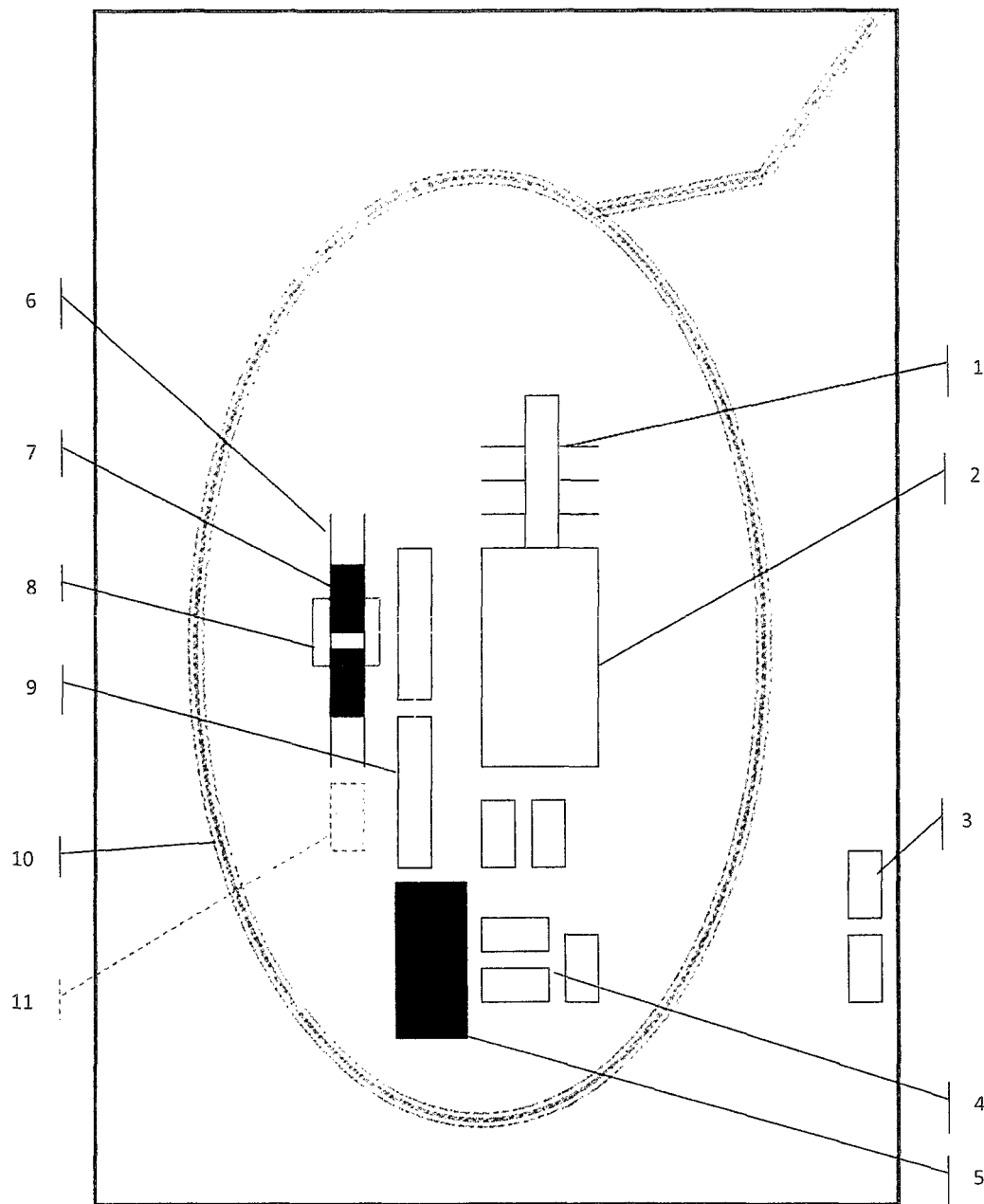


Operating and Maintenance Plan:

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:

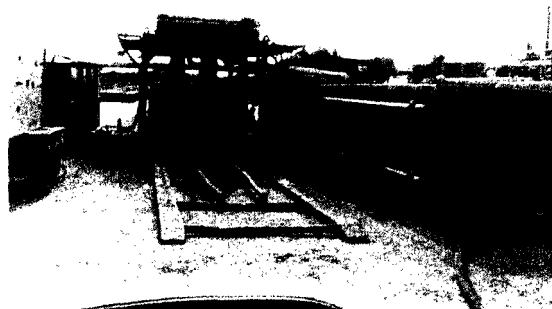
During drilling operations, third party service companies will haul off drill solids and fluids to an approved disposal facility. At the end of the well, all closed loop equipment will be removed from the location.



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.

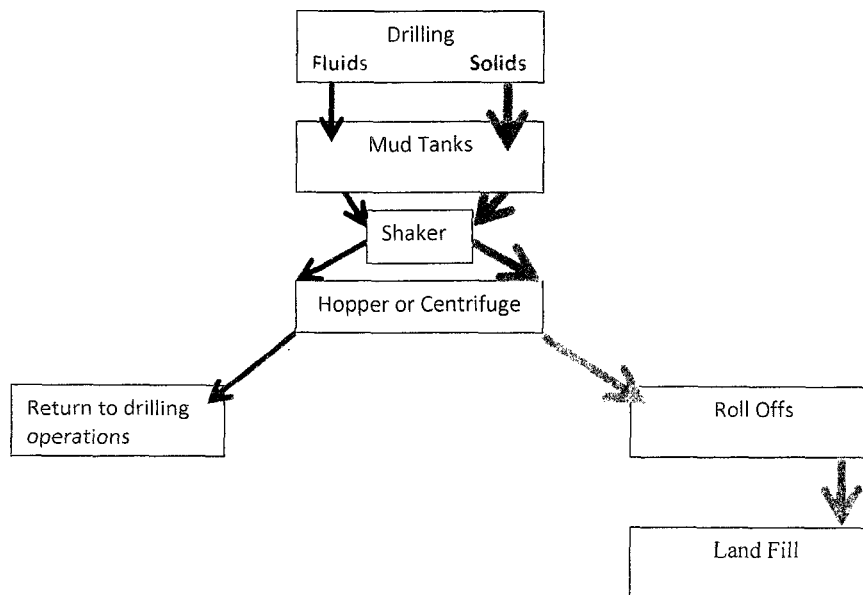
PROVIDING PERMITS for LAND USERS

17 Veterans Loop, Santa Fe, New Mexico 87508 505-466-8120



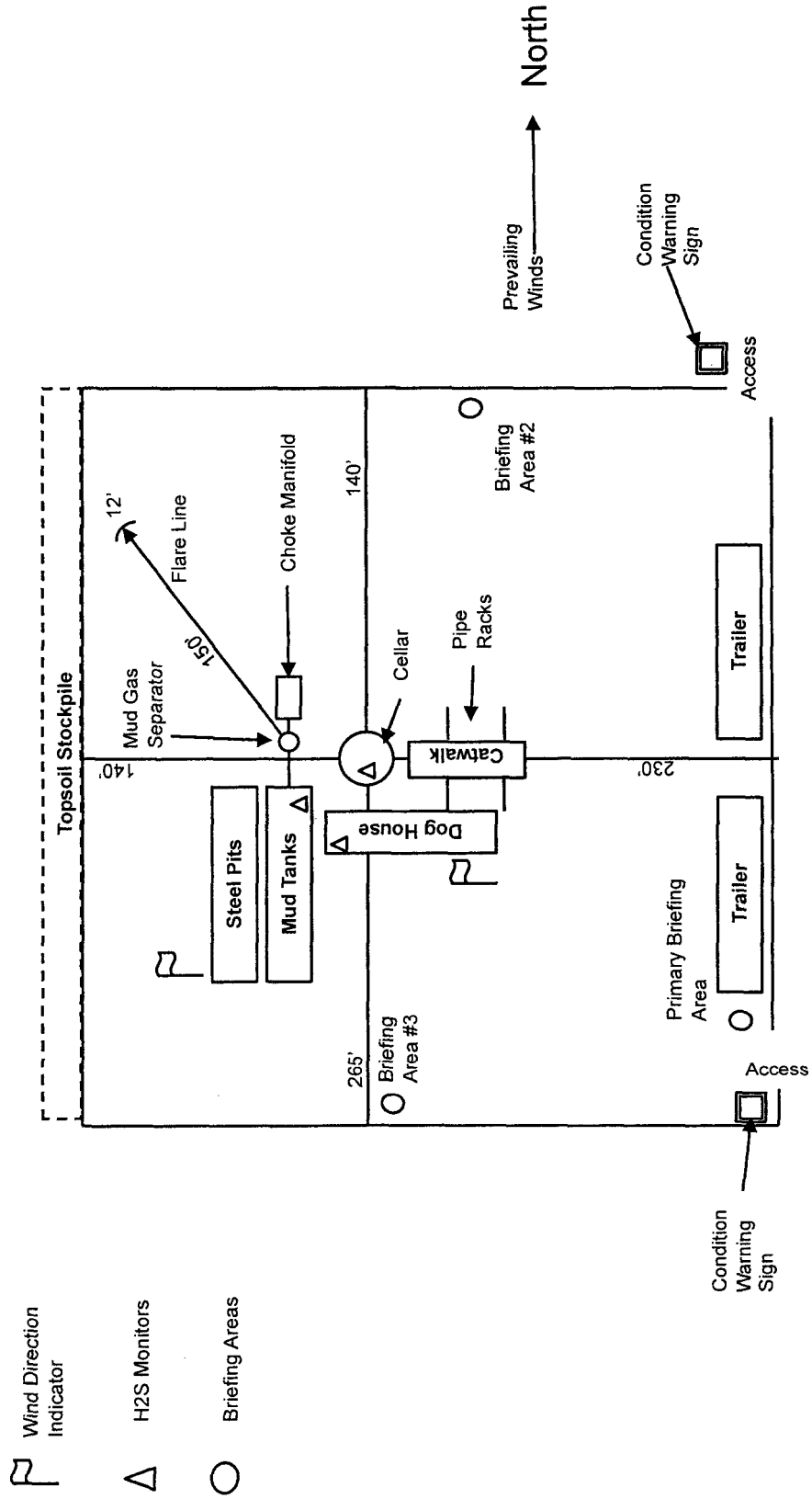
Closed Loop Drilling System: Mud tanks to right (1)
 Hopper in air to settle out solids (2)
 Water return pipe (3)
 Shaker between hopper and mud tanks (4)
 Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Rig Layout

Zach McCormick Fed Com #122H
Eddy County, NM





Hydrogen Sulfide Drilling Operations Plan

Matador Production Company

1 H2S safety instructions to the following:

- 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

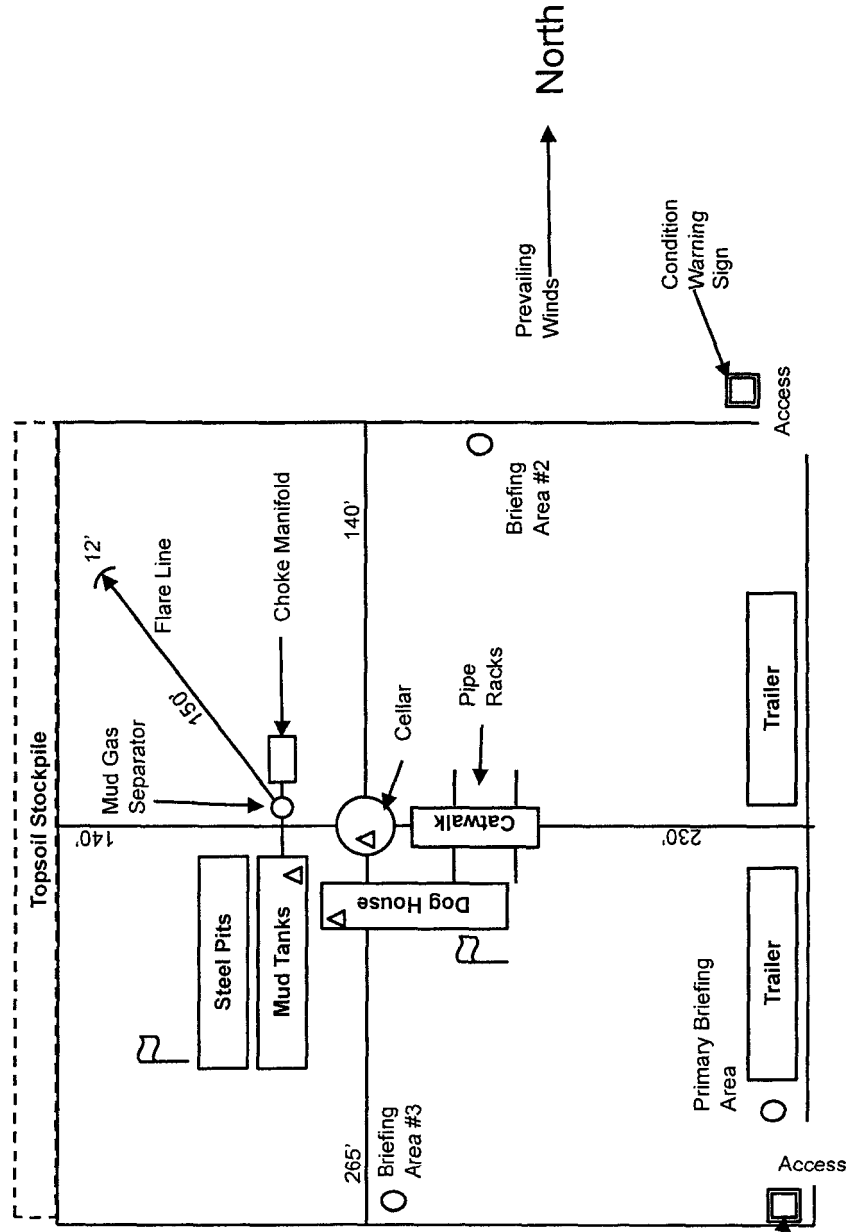
H2S Contingency Plan Emergency Contacts
Matador Production Company
Zach McCormick Fed Com wells, Eddy County, NM

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 Layout

Zach McCormick Fed Com #122H
Eddy County, NM

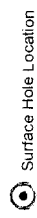
- Wind Direction Indicator
- H2S Monitors
- Briefing Areas



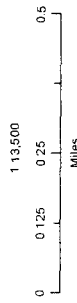
Matador Production Company

Zach McCormick Federal Com
18-24S-29E RB #122H
H2S Contingency Plan:
1 Mile Radius Map

Section 13, Township 24S, Range 28E
Eddy County, New Mexico



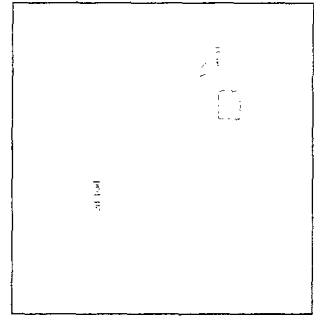
Surface Hole Location



NAD 1927 New Mexico State Plane East
FIPS 3001 Feet

PERMITS
RSTP

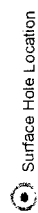
Prepared by Permits West, Inc., June 23, 2016
for Matador Production Company



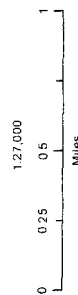
Matador Production Company

Zach McCormick Federal Com
18-24S-29E RB #122H
H&S Contingency Plan:
2 Mile Radius Map

Section 13, Township 24S, Range 28E
Eddy County, New Mexico



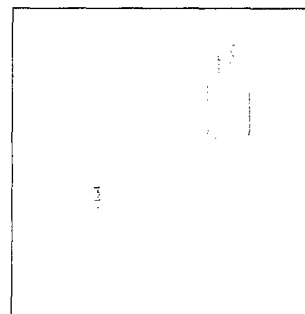
Surface Hole Location



NAD 1927 New Mexico State Plane East
FIPS 3001 Feet

PREPARED BY

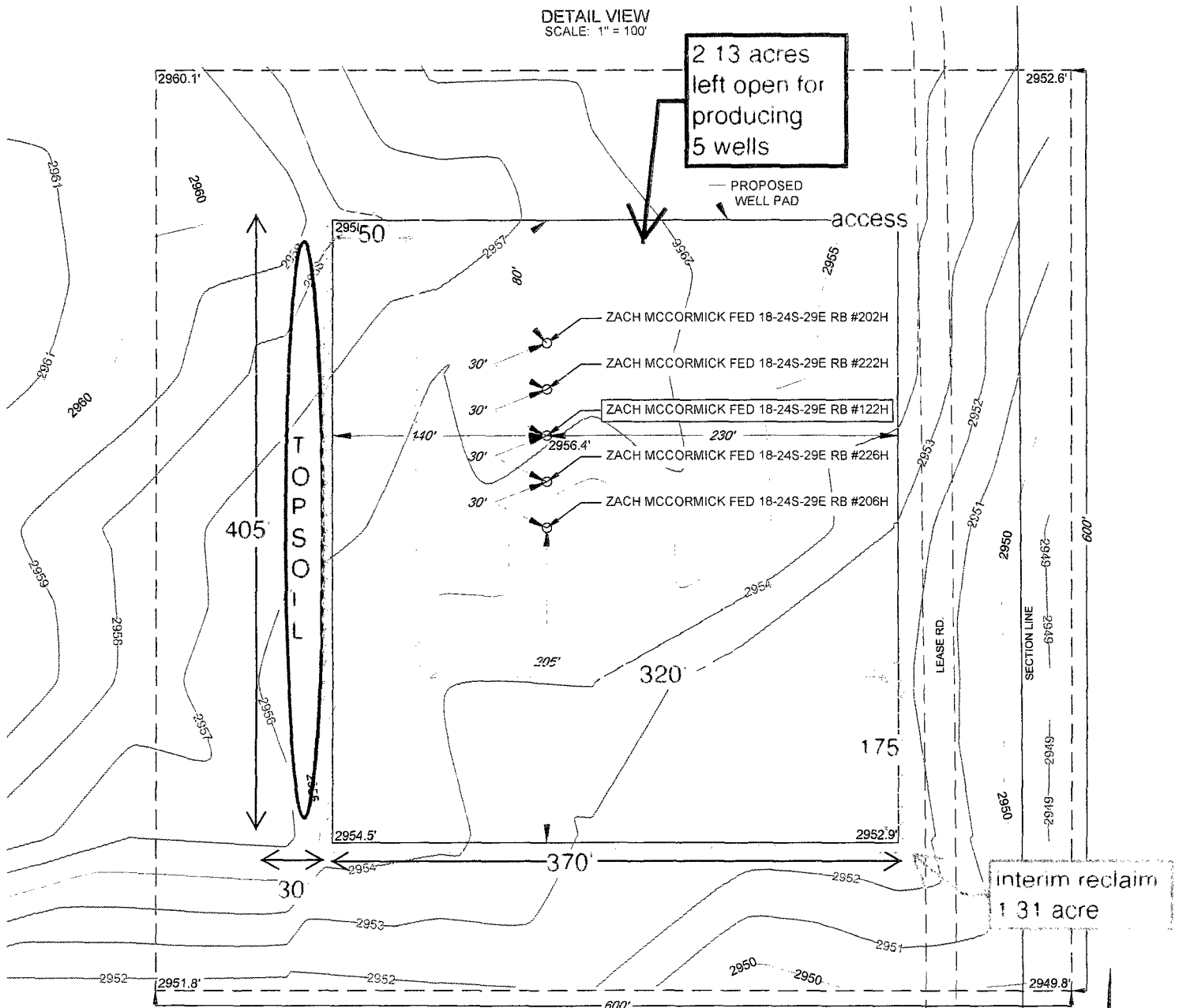
Prepared by Permits West, Inc., June 22, 2016
for Matador Production Company





SECTION 13, TOWNSHIP 24-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



INTERIM RECLAMATION DIAGRAM

LEGEND

- == == == == EXISTING ROAD
- SECTION LINE
- - - - - ARCH SITE

LEASE NAME & WELL NO.: ZACH MCCORMICK FEDERAL 18-24S-29E RB #122H

#122H LATITUDE N 32.2183419 #122H LONGITUDE W 104.0327655

SCALE: 1" = 100'
0' 50' 100'

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

SURFACE PLAN PAGE 1

Zach McCormick Fed Com 122H

SHL 2384' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1981' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

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, then dirt, road and go South 0.4 mile

Then turn right and go Southwest 20' cross-country to the proposed 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 (See MAPS 3 & 4)

Road from County Road 720 to the pad will be upgraded with additional caliche. The new road (20') will be crowned, have a 14' wide driving surface, and be surfaced with caliche. Maximum disturbed width = 20'. Maximum grade = 1%. Maximum cut or fill = 1'. No culvert, cattle guard, or vehicle turn out is needed.

3. EXISTING WELLS (See MAP 2)

Existing oil, gas, injection, water, and P & A wells are within a mile. There are no disposal wells within a mile radius.

4. PROPOSED PRODUCTION FACILITIES (See MAPS 3 & 7-9)

A 190' x 350' (1.53 acre) central production facility will be built 50' north of the well pad. Three to four inch HDPE low-pressure (<125 psi) flow lines will be

Matador Production Company

SURFACE PLAN PAGE 2

Zach McCormick Fed Com 122H

SHL 2384' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1981' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

buried from the well pad 50' north to the facility. Oil tanks, water tanks, meter runs, separators, and a flare will be installed on the west side of the facility. Top ≈6" of topsoil will be stockpiled west of the facility.

Longwood Midstream's Black River Gathering System will serve the facility with ≈6" O. D. steel gas line and ≈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 0.4 mile south to the production facility and well pad.

5. WATER SUPPLY (See MAP 2)

Water will be trucked 0.9 mile via existing roads from an existing water well (C 00464) on private land in NENW 13-24s-28e.

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

NM One Call (811) will be notified before construction starts. Top ≈6" of soil and brush will be stockpiled west of the pad. Pipe racks will be to the east. 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.

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

SURFACE PLAN PAGE 3

Zach McCormick Fed Com 122H

SHL 2384' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1981' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

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 $\approx 38\%$ by removing caliche and reclaiming the south (175') and west (50') sides. This will leave 2.13 acres for five 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 will be 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 Zach McCormick

Matador Production Company

SURFACE PLAN PAGE 4

Zach McCormick Fed Com 122H

SHL 2384' FNL & 311' FEL Sec. 13, T. 24 S., R. 28 E.

BHL 1981' FNL & 240' FEL Sec. 18, T. 24 S., R. 29 E.

Eddy County, NM

Fed Com 18-24s-29e 122H well site, flow lines, production facility, and road in E2NE4 Section 13, T. 24 S., R. 28 E.; Eddy County, NM.

12. OTHER INFORMATION

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

Lone Mountain filed archaeology report NMCRIS-136312 on July 22, 2016.

**PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM117120
WELL NAME & NO.:	122H-Zach McCormick Fed Com
SURFACE HOLE FOOTAGE:	2384'/N & 311'/E
BOTTOM HOLE FOOTAGE:	1981'/N & 240'/E
LOCATION:	Section 13, T.24 S., R.28 E., NMPM
COUNTY:	Eddy County, New Mexico

A. DRILLING OPERATIONS REQUIREMENTS

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

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

☒ **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 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. behind the **5-1/2** inch production casing is:
- ☒ Cement as proposed. Operator shall provide method of verification. **Excess calculates to 22%. Additional cement may be required.**
4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

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

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **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.

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 **3000 (3M)** 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.:	122H-Zach McCormick Fed Com
SURFACE HOLE FOOTAGE:	2384'/N & 311'/E
BOTTOM HOLE FOOTAGE:	1981'/N & 240'/E
LOCATION:	Section 13, T.24 S., R.28 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
 - Closed Loop System
 - 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.

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.
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 - 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).
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 - 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

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

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

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

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

Surfacing

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

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

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

Crowning

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

Ditching

Ditching shall be required on both sides of the road.

Turnouts

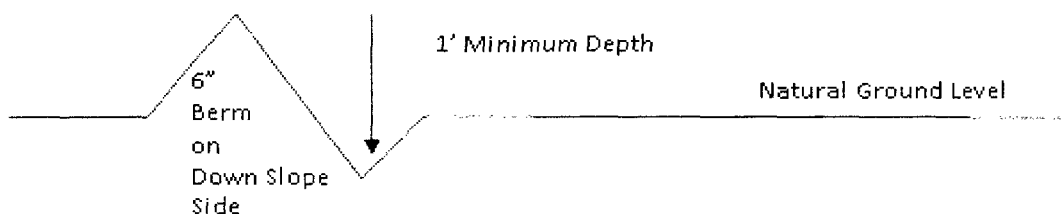
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

Cattle guards

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

Fence Requirement

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

Public Access

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

Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

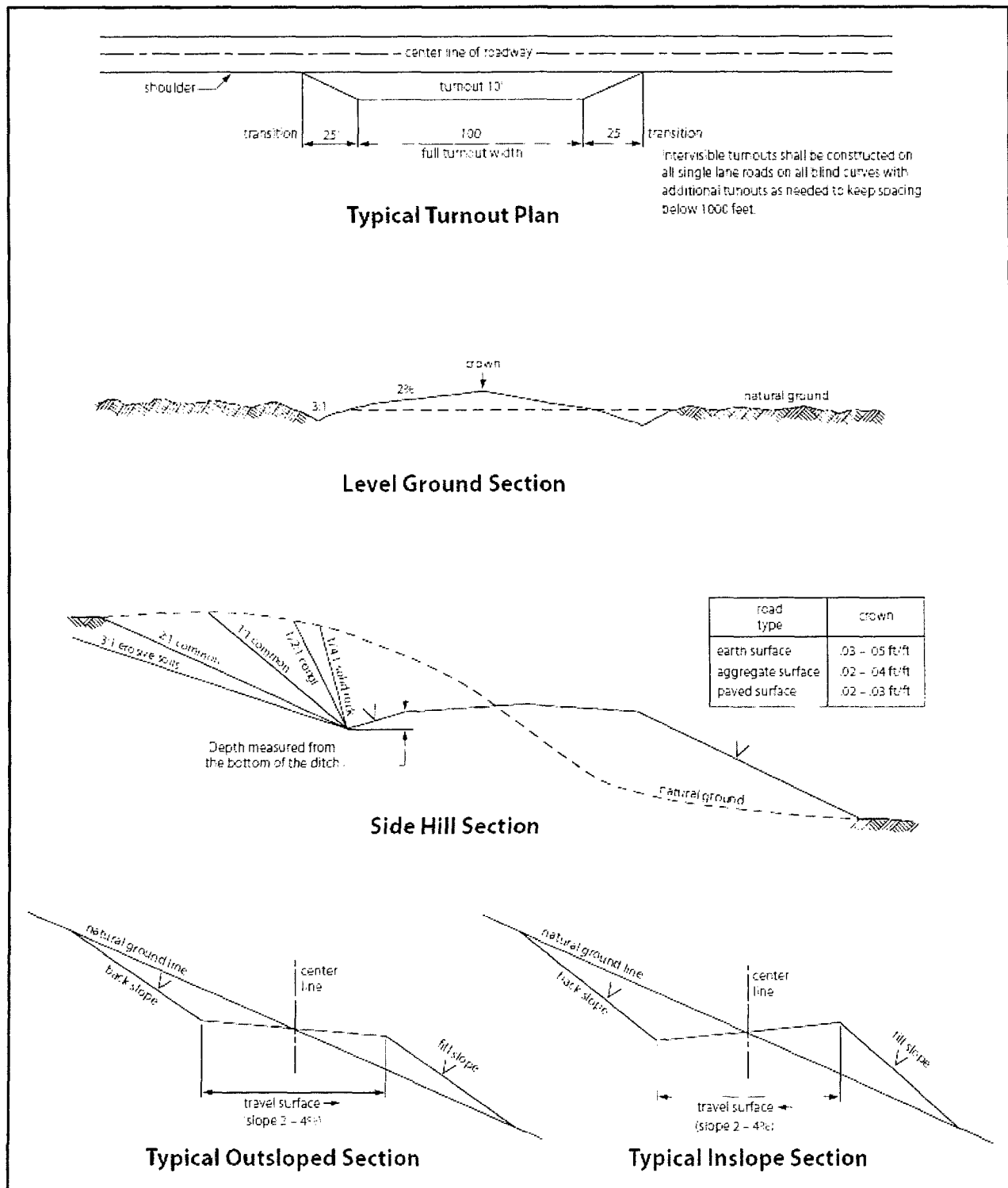


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

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

Exclosure Netting (Open-top Tanks)

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

Chemical and Fuel Secondary Containment and Exclosure Screening

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

Open-Vent Exhaust Stack Exclosures

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

Containment Structures

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

Painting Requirement

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

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