

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

HOBBS OCD

FEB 17 2020

RECEIVED

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. MNM136226
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator MATADOR PRODUCTION COMPANY (228977)		8. Lease Name and Well No. LESLIE FED COM 133H (720549)
3a. Address 5400 LBJ Freeway, Suite 1500 Dallas TX 75240	3b. Phone No. (include area code) (972)371-5200	9. API-Well No. 70-025-46885 (97088)
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSE / 300 FSL / 2055 FEL / LAT 32.1239584 / LONG -103.3876612 At proposed prod. zone NWNE / 60 FNL / 1653 FEL / LAT 32.1519856 / LONG -103.386364		10. Field and Pool, or Exploratory WC-025 G-08 S2535340; BONE SPRING
14. Distance in miles and direction from nearest town or post office* 11.4 miles		12. County or Parish LEA
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 300 feet		13. State NM
16. No of acres in lease 799.2		17. Spacing Unit dedicated to this well 320
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 60 feet		20. BLM/BIA Bond No. in file FED: NMB001079
19. Proposed Depth 12320 feet / 22551 feet		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3279 feet
22. Approximate date work will start* 08/03/2020		23. Estimated duration 60 days
24. Attachments		

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

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature (Electronic Submission)	Name (Printed/Typed) Nicky Fitzgerald / Ph: (972)371-5448	Date 07/17/2019
Title Regulatory		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 02/12/2020
Title Assistant Field Manager Lands & Minerals		
Office CARLSBAD		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

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

BCL Rec 02/17/2020

KE 02/22/2020

APPROVED WITH CONDITIONS



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

Operator Certification Data Report

02/12/2020

Operator 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.

NAME: Nicky Fitzgerald

Signed on: 07/17/2019

Title: Regulatory

Street Address: 5400 LBJ FREEWAY STE 1500

City: DALLAS

State: TX

Zip: 75240

Phone: (972)371-5448

Email address: nicky.fitzgerald@matadorresources.com

Field Representative

Representative Name:

Street Address:

City:

State:

Zip:

Phone: (972)371-5440

Email address:



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

Application Data Report

02/12/2020

APD ID: 10400043594

Submission Date: 07/17/2019

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LESLIE FED COM

Well Number: 133H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data
reflects the most
recent changes

[Show Final Text](#)

Section 1 - General

APD ID: 10400043594

Tie to previous NOS? N

Submission Date: 07/17/2019

BLM Office: CARLSBAD

User: Nicky Fitzgerald

Title: Regulatory

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM136226

Lease Acres: 799.2

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO

APD Operator: MATADOR PRODUCTION COMPANY

Operator letter of designation:

Operator Info

Operator Organization Name: MATADOR PRODUCTION COMPANY

Operator Address: 5400 LBJ Freeway, Suite 1500

Zip: 75240

Operator PO Box:

Operator City: Dallas

State: TX

Operator Phone: (972)371-5200

Operator Internet Address: amonroe@matadorresources.com

Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: LESLIE FED COM

Well Number: 133H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: WC-025 G-08
S2535340; BONE SPRING

Pool Name: WC-025 G-08
S2535340; BONE SPRING

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,CO2,OIL

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LESLIE FED COM

Well Number: 133H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,CO2,OIL

Is the proposed well in a Helium production area? N

Use Existing Well Pad? YES

New surface disturbance? N

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name: LESLIE Number: 3

Well Class: HORIZONTAL

SLOT

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 11.4 Miles

Distance to nearest well: 60 FT

Distance to lease line: 300 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: LO_LESLIE_FED_COM_133H_REV3_Signed_C_102_20200114164532.pdf

Well work start Date: 08/03/2020

Duration: 60 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

Reference Datum:

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	300	FSL	2055	FEL	25S	35E	17	Aliquot SWSE	32.1239584	-103.3876612	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 136226	3279	0	0	
KOP Leg #1	100	FSL	1651	FEL	25S	35E	17	Aliquot SWSE	32.1234053	-103.3863557	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 136226	-8468	11778	11747	
PPP Leg #1-1	5280	FSL	1653	FEL	25S	35E	8	Aliquot NWNE	32.137592	-103.38636	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 125658	-9041	17400	12320	

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LESLIE FED COM

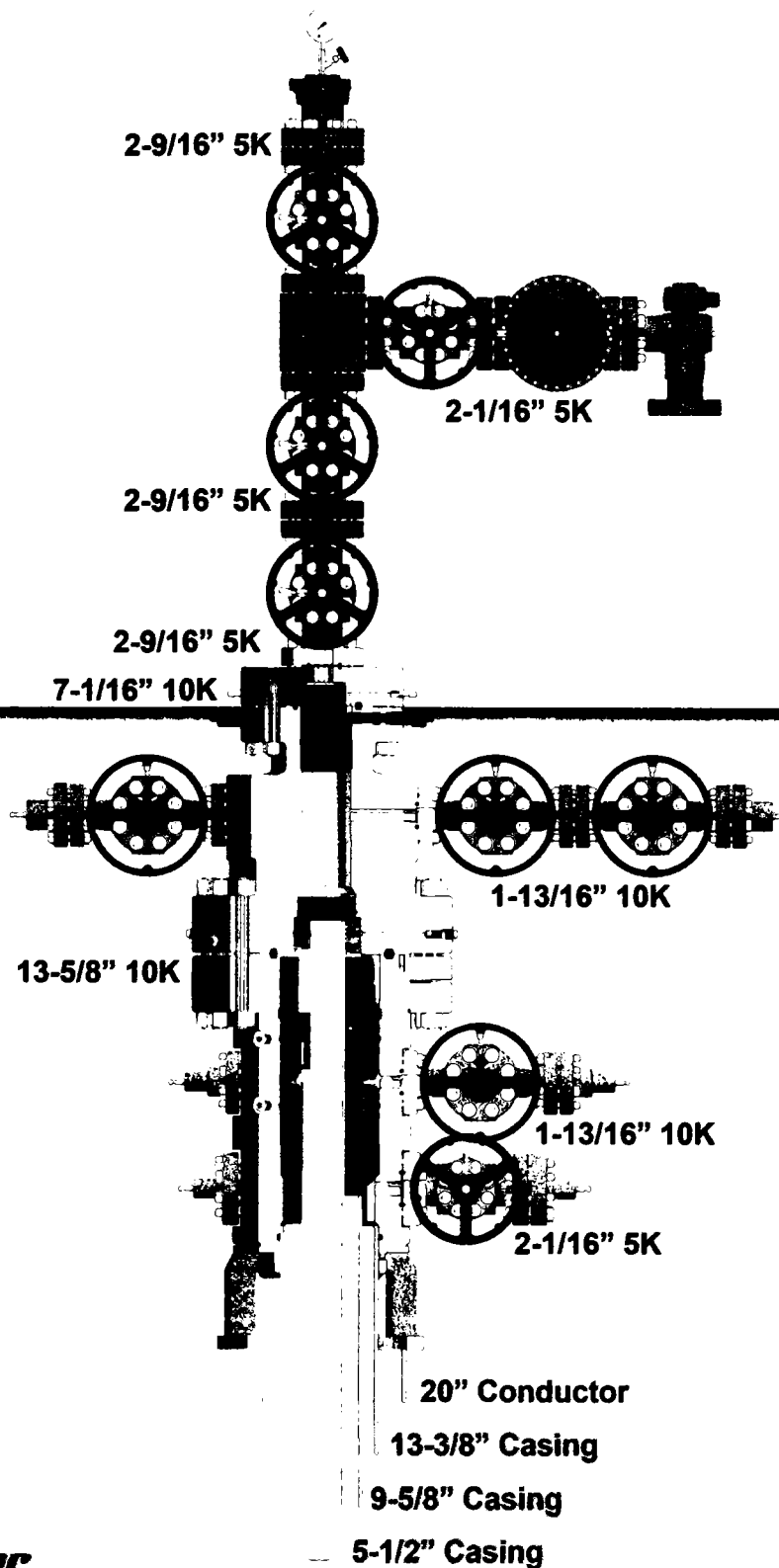
Well Number: 133H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-2	100	FSL	165 1	FEL	25S	35E	17	Aliquot SWSE	32.12340 53	- 103.3863 557	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 136226	- 877 5	121 02	120 54	
EXIT Leg #1	100	FNL	165 3	FEL	25S	35E	8	Aliquot NWNE	32.15187 56	- 103.3863 639	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	- 904 1	225 11	123 20	
BHL Leg #1	60	FNL	165 3	FEL	25S	35E	8	Aliquot NWNE	32.15198 56	- 103.3863 64	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	- 904 1	225 51	123 20	

CAMERON

A Schlumberger Company

13-5/8" 10K MN-DS Wellhead 13-3/8 x 9-5/8 x 5-1/2 Casing Program



2018-147-03

Rev: 01

NOTE: All dimensions on this drawing are estimated measurements and should be evaluated by engineering.



SURVEY PROGRAM

Depth From 0.0
Depth To 22551.5
Survey/Plan BLM Plan #1 (Wellbore #1)
Tool MWD

WELL DETAILS: Leslie Fed Com #133H

GL @ 3279.0 KB @ 3307.5usft
Northing 410058.74 Easting 792908.57 Latitude 32° 7' 25.797 N 103° 23' 13.905 W Longitude 103° 23' 9.205 W Slot

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
VP - Leslie Fed Com #133H	11747.0	-247.4	466.4	409811.00	793315.00	32° 7' 23.310 N	103° 23' 9.205 W
BHL - Leslie Fed Com #133H	12320.0	10198.5	372.4	420258.00	793221.00	32° 9' 6.693 N	103° 23' 9.229 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Annotation
0.0	0.00	0.00	0.0	0.3	60.0	0.00	0.00	0.0	Start Build 1.00
2100.0	0.00	0.00	2100.0	0.3	60.0	0.00	0.00	0.0	Start 2752.4 hold at 2900.0 MD
2900.0	8.00	121.36	2897.4	-28.7	107.6	1.00	121.36	-29.5	Start Drop -1.50
5652.4	8.00	121.36	5623.0	-228.1	434.7	0.00	0.00	-231.8	Start 5592.4 hold at 6185.8 MD
6185.8	0.00	0.00	6154.6	-247.4	466.4	1.50	180.00	-251.4	Start DLS 10.00 TFO 359.48
11778.1	0.00	0.00	11747.0	-247.4	466.4	0.00	0.00	-251.4	Start 9873.4 hold at 12678.1 MD
12678.1	90.00	359.48	12320.0	325.5	461.3	10.00	359.48	321.5	TD at 22551.5
22551.5	90.00	359.48	12320.0	10198.5	372.4	0.00	0.00	10194.9	

Company: Matador Production Company
Well: Leslie Fed Com #133H
County:
Wellbore: Wellbore #1
Plan: BLM Plan #1
Date:

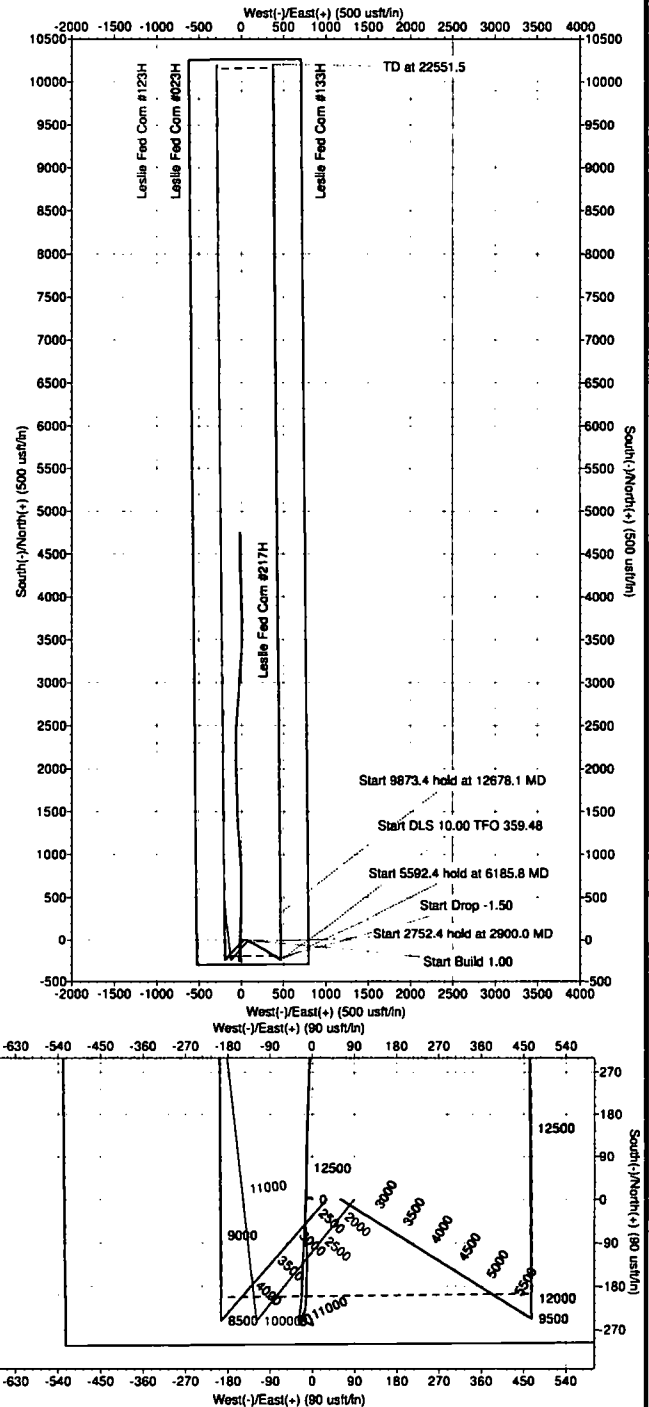
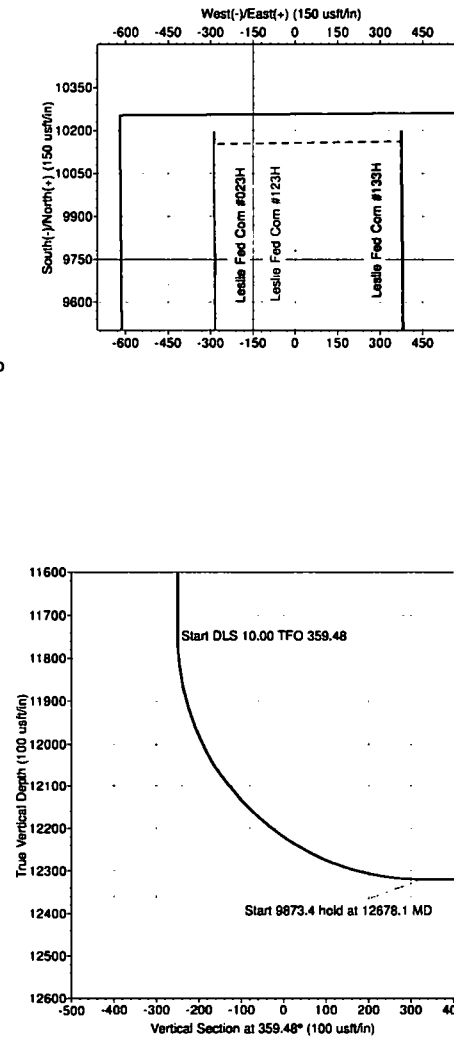
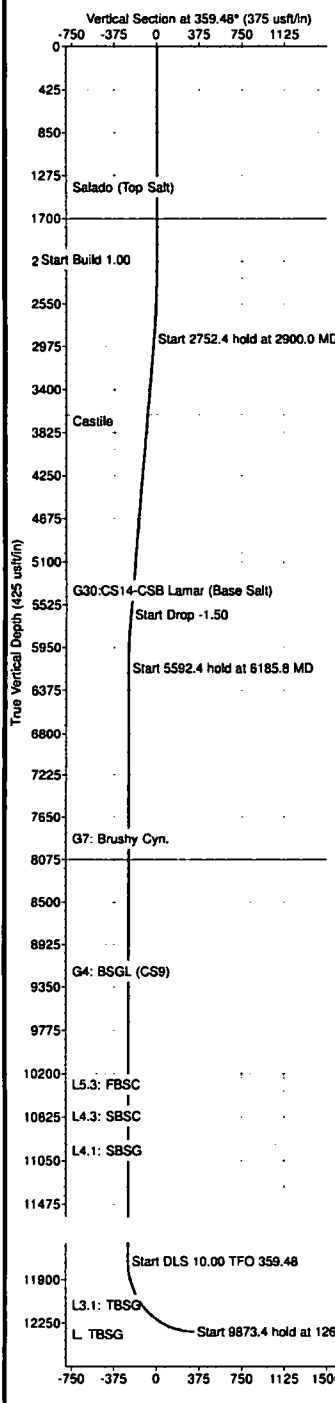
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

To convert a Magnetic Direction to a Grid Direction, Add 7.15°
To convert a Magnetic Direction to a True Direction, Add 7.68° East
To convert a True Direction to a Grid Direction, Subtract 0.50°



Azimuths to Grid North
True North: -0.50°
Magnetic North: 7.15°

Magnetic Field
Strength: 48753.8nT
Dip Angle: 60.18°
Date: 12/31/2009
Model: IGRF200510





Matador Production Company

Antelope Ridge

Leslie

Leslie Fed Com #133H

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

20 June, 2019



Planning Report

Database: EDM 5000.14 Single User Db
Company: Matador Production Company
Project: Antelope Ridge
Site: Leslie
Well: Leslie Fed Com #133H
Wellbore: Wellbore #1
Design: BLM Plan #1

Local Co-ordinate Reference: Site Leslie
TVD Reference: KB @ 3307.5usft
MD Reference: KB @ 3307.5usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Antelope Ridge		
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		Using geodetic scale factor

Site	Leslie				
Site Position:		Northing:	410,058.43 usft	Latitude:	32° 7' 25.799 N
From:	Lat/Long	Easting:	792,848.60 usft	Longitude:	103° 23' 14.602 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.50 °

Well	Leslie Fed Com #133H					
Well Position	+N/-S	0.3 usft	Northing:	410,058.74 usft	Latitude:	32° 7' 25.797 N
	+E/-W	60.0 usft	Easting:	792,908.57 usft	Longitude:	103° 23' 13.905 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,279.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.66	60.18	48,753.76092076

Design	BLM Plan #1				
Audit Notes:					
Version:	1	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.0	0.3	60.0	359.48	

Plan Survey Tool Program		Date	6/20/2019		
Depth From	Depth To	Survey (Wellbore)	Tool Name	Remarks	
(usft)	(usft)				
1	0.0	22,551.5 BLM Plan #1 (Wellbore #1)	MWD		
			OWSG MWD - Standard		

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.0	0.00	0.00	0.0	0.3	60.0	0.00	0.00	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	0.3	60.0	0.00	0.00	0.00	0.00	
2,900.0	8.00	121.36	2,897.4	-28.7	107.6	1.00	1.00	0.00	121.36	
5,652.4	8.00	121.36	5,623.0	-228.1	434.7	0.00	0.00	0.00	0.00	
6,185.8	0.00	0.00	6,154.6	-247.4	466.4	1.50	-1.50	0.00	180.00	
11,778.1	0.00	0.00	11,747.0	-247.4	466.4	0.00	0.00	0.00	0.00	0.00 VP - Leslie Fed Com
12,678.1	90.00	359.48	12,320.0	325.5	461.3	10.00	10.00	-0.06	359.48	
22,551.5	90.00	359.48	12,320.0	10,198.5	372.4	0.00	0.00	0.00	0.00	0.00 BHL - Leslie Fed Corr



Planning Report

Database: EDM 5000.14 Single User Db
 Company: Matador Production Company
 Project: Antelope Ridge
 Site: Leslie
 Well: Leslie Fed Com #133H
 Wellbore: Wellbore #1
 Design: BLM Plan #1

Local Co-ordinate Reference: Site Leslie
 TVD Reference: KB @ 3307.5usft
 MD Reference: KB @ 3307.5usft
 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)
0.0	0.00	0.00	0.0	0.3	60.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.3	60.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.3	60.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.3	60.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.3	60.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.3	60.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.3	60.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.3	60.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.3	60.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.3	60.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.3	60.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.3	60.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.3	60.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.3	60.0	0.0	0.00	0.00	0.00
1,327.5	0.00	0.00	1,327.5	0.3	60.0	0.0	0.00	0.00	0.00
Salado (Top Salt)									
1,400.0	0.00	0.00	1,400.0	0.3	60.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.3	60.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.3	60.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.3	60.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.3	60.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.3	60.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.3	60.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.3	60.0	0.0	0.00	0.00	0.00
Start Build 1.00									
2,200.0	1.00	121.36	2,200.0	-0.1	60.7	-0.5	1.00	1.00	0.00
2,300.0	2.00	121.36	2,300.0	-1.5	63.0	-1.8	1.00	1.00	0.00
2,400.0	3.00	121.36	2,399.9	-3.8	66.7	-4.1	1.00	1.00	0.00
2,500.0	4.00	121.36	2,499.7	-7.0	71.9	-7.4	1.00	1.00	0.00
2,600.0	5.00	121.36	2,599.4	-11.0	78.6	-11.5	1.00	1.00	0.00
2,700.0	6.00	121.36	2,698.9	-16.0	86.8	-16.6	1.00	1.00	0.00
2,800.0	7.00	121.36	2,798.3	-21.9	96.4	-22.6	1.00	1.00	0.00
2,900.0	8.00	121.36	2,897.4	-28.7	107.6	-29.5	1.00	1.00	0.00
Start 2752.4 hold at 2900.0 MD									
3,000.0	8.00	121.36	2,996.4	-36.0	119.5	-36.8	0.00	0.00	0.00
3,100.0	8.00	121.36	3,095.5	-43.2	131.3	-44.2	0.00	0.00	0.00
3,200.0	8.00	121.36	3,194.5	-50.4	143.2	-51.5	0.00	0.00	0.00
3,300.0	8.00	121.36	3,293.5	-57.7	155.1	-58.9	0.00	0.00	0.00
3,400.0	8.00	121.36	3,392.5	-64.9	167.0	-66.2	0.00	0.00	0.00
3,500.0	8.00	121.36	3,491.6	-72.2	178.9	-73.6	0.00	0.00	0.00
3,600.0	8.00	121.36	3,590.6	-79.4	190.8	-80.9	0.00	0.00	0.00
3,658.5	8.00	121.36	3,648.5	-83.7	197.7	-85.2	0.00	0.00	0.00
Castile									
3,700.0	8.00	121.36	3,689.6	-86.7	202.7	-88.3	0.00	0.00	0.00
3,800.0	8.00	121.36	3,788.6	-93.9	214.5	-95.6	0.00	0.00	0.00
3,900.0	8.00	121.36	3,887.7	-101.1	226.4	-103.0	0.00	0.00	0.00
4,000.0	8.00	121.36	3,986.7	-108.4	238.3	-110.3	0.00	0.00	0.00
4,100.0	8.00	121.36	4,085.7	-115.6	250.2	-117.7	0.00	0.00	0.00
4,200.0	8.00	121.36	4,184.8	-122.9	262.1	-125.0	0.00	0.00	0.00
4,300.0	8.00	121.36	4,283.8	-130.1	274.0	-132.4	0.00	0.00	0.00
4,400.0	8.00	121.36	4,382.8	-137.4	285.8	-139.7	0.00	0.00	0.00
4,500.0	8.00	121.36	4,481.8	-144.6	297.7	-147.1	0.00	0.00	0.00
4,600.0	8.00	121.36	4,580.9	-151.9	309.6	-154.4	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14 Single User Db
Company: Matador Production Company
Project: Antelope Ridge
Site: Leslie
Well: Leslie Fed Com #133H
Wellbore: Wellbore #1
Design: BLM Plan #1

Local Co-ordinate Reference: Site Leslie
TVD Reference: KB @ 3307.5usft
MD Reference: KB @ 3307.5usft
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)
4,700.0	8.00	121.36	4,679.9	-159.1	321.5	-161.8	0.00	0.00	0.00
4,800.0	8.00	121.36	4,778.9	-166.3	333.4	-169.1	0.00	0.00	0.00
4,900.0	8.00	121.36	4,877.9	-173.6	345.3	-176.5	0.00	0.00	0.00
5,000.0	8.00	121.36	4,977.0	-180.8	357.1	-183.8	0.00	0.00	0.00
5,100.0	8.00	121.36	5,076.0	-188.1	369.0	-191.2	0.00	0.00	0.00
5,200.0	8.00	121.36	5,175.0	-195.3	380.9	-198.5	0.00	0.00	0.00
5,300.0	8.00	121.36	5,274.0	-202.6	392.8	-205.9	0.00	0.00	0.00
5,345.9	8.00	121.36	5,319.5	-205.9	398.2	-209.3	0.00	0.00	0.00
G30:CS14-CSB Lamar (Base Salt)									
5,400.0	8.00	121.36	5,373.1	-209.8	404.7	-213.2	0.00	0.00	0.00
5,426.7	8.00	121.36	5,399.5	-211.7	407.8	-215.2	0.00	0.00	0.00
G26: Bell Cyn.									
5,500.0	8.00	121.36	5,472.1	-217.0	416.6	-220.6	0.00	0.00	0.00
5,600.0	8.00	121.36	5,571.1	-224.3	428.4	-227.9	0.00	0.00	0.00
5,652.4	8.00	121.36	5,623.0	-228.1	434.7	-231.8	0.00	0.00	0.00
Start Drop -1.50									
5,700.0	7.29	121.36	5,670.2	-231.4	440.1	-235.1	1.50	-1.50	0.00
5,800.0	5.79	121.36	5,769.5	-237.3	449.8	-241.1	1.50	-1.50	0.00
5,900.0	4.29	121.36	5,869.2	-241.9	457.3	-245.8	1.50	-1.50	0.00
6,000.0	2.79	121.36	5,969.0	-245.1	462.6	-249.0	1.50	-1.50	0.00
6,100.0	1.29	121.36	6,068.9	-246.9	465.6	-250.9	1.50	-1.50	0.00
6,185.8	0.00	0.00	6,154.6	-247.4	466.4	-251.4	1.50	-1.50	0.00
Start 5592.4 hold at 6185.8 MD									
6,200.0	0.00	0.00	6,168.9	-247.4	466.4	-251.4	0.00	0.00	0.00
6,300.0	0.00	0.00	6,268.9	-247.4	466.4	-251.4	0.00	0.00	0.00
6,400.0	0.00	0.00	6,368.9	-247.4	466.4	-251.4	0.00	0.00	0.00
6,500.0	0.00	0.00	6,468.9	-247.4	466.4	-251.4	0.00	0.00	0.00
6,600.0	0.00	0.00	6,568.9	-247.4	466.4	-251.4	0.00	0.00	0.00
6,700.0	0.00	0.00	6,668.9	-247.4	466.4	-251.4	0.00	0.00	0.00
6,800.0	0.00	0.00	6,768.9	-247.4	466.4	-251.4	0.00	0.00	0.00
6,900.0	0.00	0.00	6,868.9	-247.4	466.4	-251.4	0.00	0.00	0.00
7,000.0	0.00	0.00	6,968.9	-247.4	466.4	-251.4	0.00	0.00	0.00
7,100.0	0.00	0.00	7,068.9	-247.4	466.4	-251.4	0.00	0.00	0.00
7,200.0	0.00	0.00	7,168.9	-247.4	466.4	-251.4	0.00	0.00	0.00
7,300.0	0.00	0.00	7,268.9	-247.4	466.4	-251.4	0.00	0.00	0.00
7,400.0	0.00	0.00	7,368.9	-247.4	466.4	-251.4	0.00	0.00	0.00
7,500.0	0.00	0.00	7,468.9	-247.4	466.4	-251.4	0.00	0.00	0.00
7,600.0	0.00	0.00	7,568.9	-247.4	466.4	-251.4	0.00	0.00	0.00
7,700.0	0.00	0.00	7,668.9	-247.4	466.4	-251.4	0.00	0.00	0.00
7,800.0	0.00	0.00	7,768.9	-247.4	466.4	-251.4	0.00	0.00	0.00
7,834.7	0.00	0.00	7,803.6	-247.4	466.4	-251.4	0.00	0.00	0.00
G7: Brushy Cyn.									
7,900.0	0.00	0.00	7,868.9	-247.4	466.4	-251.4	0.00	0.00	0.00
8,000.0	0.00	0.00	7,968.9	-247.4	466.4	-251.4	0.00	0.00	0.00
8,100.0	0.00	0.00	8,068.9	-247.4	466.4	-251.4	0.00	0.00	0.00
8,200.0	0.00	0.00	8,168.9	-247.4	466.4	-251.4	0.00	0.00	0.00
8,300.0	0.00	0.00	8,268.9	-247.4	466.4	-251.4	0.00	0.00	0.00
8,400.0	0.00	0.00	8,368.9	-247.4	466.4	-251.4	0.00	0.00	0.00
8,500.0	0.00	0.00	8,468.9	-247.4	466.4	-251.4	0.00	0.00	0.00
8,600.0	0.00	0.00	8,568.9	-247.4	466.4	-251.4	0.00	0.00	0.00
8,700.0	0.00	0.00	8,668.9	-247.4	466.4	-251.4	0.00	0.00	0.00
8,800.0	0.00	0.00	8,768.9	-247.4	466.4	-251.4	0.00	0.00	0.00
8,900.0	0.00	0.00	8,868.9	-247.4	466.4	-251.4	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14 Single User Db
 Company: Matador Production Company
 Project: Antelope Ridge
 Site: Leslie
 Well: Leslie Fed Com #133H
 Wellbore: Wellbore #1
 Design: BLM Plan #1

Local Co-ordinate Reference: Site Leslie
 TVD Reference: KB @ 3307.5usft
 MD Reference: KB @ 3307.5usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,000.0	0.00	0.00	8,968.9	-247.4	466.4	-251.4	0.00	0.00	0.00
9,100.0	0.00	0.00	9,068.9	-247.4	466.4	-251.4	0.00	0.00	0.00
9,164.6	0.00	0.00	9,133.5	-247.4	466.4	-251.4	0.00	0.00	0.00
G4: BSG (CS9)									
9,200.0	0.00	0.00	9,168.9	-247.4	466.4	-251.4	0.00	0.00	0.00
9,300.0	0.00	0.00	9,268.9	-247.4	466.4	-251.4	0.00	0.00	0.00
9,400.0	0.00	0.00	9,368.9	-247.4	466.4	-251.4	0.00	0.00	0.00
9,500.0	0.00	0.00	9,468.9	-247.4	466.4	-251.4	0.00	0.00	0.00
9,600.0	0.00	0.00	9,568.9	-247.4	466.4	-251.4	0.00	0.00	0.00
9,700.0	0.00	0.00	9,668.9	-247.4	466.4	-251.4	0.00	0.00	0.00
9,800.0	0.00	0.00	9,768.9	-247.4	466.4	-251.4	0.00	0.00	0.00
9,900.0	0.00	0.00	9,868.9	-247.4	466.4	-251.4	0.00	0.00	0.00
10,000.0	0.00	0.00	9,968.9	-247.4	466.4	-251.4	0.00	0.00	0.00
10,100.0	0.00	0.00	10,068.9	-247.4	466.4	-251.4	0.00	0.00	0.00
10,200.0	0.00	0.00	10,168.9	-247.4	466.4	-251.4	0.00	0.00	0.00
10,275.6	0.00	0.00	10,244.5	-247.4	466.4	-251.4	0.00	0.00	0.00
L5.3: FBSC									
10,300.0	0.00	0.00	10,268.9	-247.4	466.4	-251.4	0.00	0.00	0.00
10,400.0	0.00	0.00	10,368.9	-247.4	466.4	-251.4	0.00	0.00	0.00
10,406.7	0.00	0.00	10,375.6	-247.4	466.4	-251.4	0.00	0.00	0.00
L5.1: FBSC									
10,500.0	0.00	0.00	10,468.9	-247.4	466.4	-251.4	0.00	0.00	0.00
10,585.3	0.00	0.00	10,554.2	-247.4	466.4	-251.4	0.00	0.00	0.00
L4.3: SBSC									
10,600.0	0.00	0.00	10,568.9	-247.4	466.4	-251.4	0.00	0.00	0.00
10,700.0	0.00	0.00	10,668.9	-247.4	466.4	-251.4	0.00	0.00	0.00
10,800.0	0.00	0.00	10,768.9	-247.4	466.4	-251.4	0.00	0.00	0.00
10,900.0	0.00	0.00	10,868.9	-247.4	466.4	-251.4	0.00	0.00	0.00
10,921.0	0.00	0.00	10,889.9	-247.4	466.4	-251.4	0.00	0.00	0.00
L4.1: SBSC									
11,000.0	0.00	0.00	10,968.9	-247.4	466.4	-251.4	0.00	0.00	0.00
11,039.6	0.00	0.00	11,008.5	-247.4	466.4	-251.4	0.00	0.00	0.00
L3.3: TBSC									
11,100.0	0.00	0.00	11,068.9	-247.4	466.4	-251.4	0.00	0.00	0.00
11,200.0	0.00	0.00	11,168.9	-247.4	466.4	-251.4	0.00	0.00	0.00
11,300.0	0.00	0.00	11,268.9	-247.4	466.4	-251.4	0.00	0.00	0.00
11,400.0	0.00	0.00	11,368.9	-247.4	466.4	-251.4	0.00	0.00	0.00
11,500.0	0.00	0.00	11,468.9	-247.4	466.4	-251.4	0.00	0.00	0.00
11,600.0	0.00	0.00	11,568.9	-247.4	466.4	-251.4	0.00	0.00	0.00
11,700.0	0.00	0.00	11,668.9	-247.4	466.4	-251.4	0.00	0.00	0.00
11,778.1	0.00	0.00	11,747.0	-247.4	466.4	-251.4	0.00	0.00	0.00
Start DLS 10.00 TFO 359.48 - VP - Leslie Fed Com #133H									
11,800.0	2.19	359.48	11,768.9	-247.0	466.4	-251.0	10.00	10.00	0.00
11,900.0	12.19	359.48	11,868.0	-234.5	466.3	-238.5	10.00	10.00	0.00
12,000.0	22.19	359.48	11,963.4	-205.0	466.0	-209.0	10.00	10.00	0.00
12,100.0	32.19	359.48	12,052.2	-159.4	465.6	-163.4	10.00	10.00	0.00
12,102.9	32.48	359.48	12,054.7	-157.8	465.6	-161.8	10.00	10.00	0.00
L3.1: TBSC									
12,200.0	42.19	359.48	12,131.8	-99.0	465.1	-103.0	10.00	10.00	0.00
12,300.0	52.19	359.48	12,199.7	-25.7	464.4	-29.7	10.00	10.00	0.00
12,400.0	62.19	359.48	12,253.8	58.2	463.7	54.2	10.00	10.00	0.00
12,496.3	71.81	359.48	12,291.3	146.7	462.9	142.7	10.00	10.00	0.00
L. TBSC									



Planning Report

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 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)
12,500.0	72.19	359.48	12,292.5	150.2	462.8	146.3	10.00	10.00	0.00
12,600.0	82.19	359.48	12,314.6	247.6	462.0	243.7	10.00	10.00	0.00
12,678.1	90.00	359.48	12,320.0	325.5	461.3	321.5	10.00	10.00	0.00
Start 9873.4 hold at 12678.1 MD									
12,700.0	90.00	359.48	12,320.0	347.4	461.1	343.4	0.00	0.00	0.00
12,800.0	90.00	359.48	12,320.0	447.4	460.2	443.4	0.00	0.00	0.00
12,900.0	90.00	359.48	12,320.0	547.4	459.3	543.4	0.00	0.00	0.00
13,000.0	90.00	359.48	12,320.0	647.4	458.4	643.4	0.00	0.00	0.00
13,100.0	90.00	359.48	12,320.0	747.4	457.5	743.4	0.00	0.00	0.00
13,200.0	90.00	359.48	12,320.0	847.4	456.6	843.4	0.00	0.00	0.00
13,300.0	90.00	359.48	12,320.0	947.4	455.7	943.4	0.00	0.00	0.00
13,400.0	90.00	359.48	12,320.0	1,047.4	454.8	1,043.4	0.00	0.00	0.00
13,500.0	90.00	359.48	12,320.0	1,147.4	453.9	1,143.4	0.00	0.00	0.00
13,600.0	90.00	359.48	12,320.0	1,247.3	453.0	1,243.4	0.00	0.00	0.00
13,700.0	90.00	359.48	12,320.0	1,347.3	452.1	1,343.4	0.00	0.00	0.00
13,800.0	90.00	359.48	12,320.0	1,447.3	451.2	1,443.4	0.00	0.00	0.00
13,900.0	90.00	359.48	12,320.0	1,547.3	450.3	1,543.4	0.00	0.00	0.00
14,000.0	90.00	359.48	12,320.0	1,647.3	449.4	1,643.4	0.00	0.00	0.00
14,100.0	90.00	359.48	12,320.0	1,747.3	448.5	1,743.4	0.00	0.00	0.00
14,200.0	90.00	359.48	12,320.0	1,847.3	447.6	1,843.4	0.00	0.00	0.00
14,300.0	90.00	359.48	12,320.0	1,947.3	446.7	1,943.4	0.00	0.00	0.00
14,400.0	90.00	359.48	12,320.0	2,047.3	445.8	2,043.4	0.00	0.00	0.00
14,500.0	90.00	359.48	12,320.0	2,147.3	444.9	2,143.4	0.00	0.00	0.00
14,600.0	90.00	359.48	12,320.0	2,247.3	444.0	2,243.4	0.00	0.00	0.00
14,700.0	90.00	359.48	12,320.0	2,347.3	443.0	2,343.4	0.00	0.00	0.00
14,800.0	90.00	359.48	12,320.0	2,447.3	442.1	2,443.4	0.00	0.00	0.00
14,900.0	90.00	359.48	12,320.0	2,547.3	441.2	2,543.4	0.00	0.00	0.00
15,000.0	90.00	359.48	12,320.0	2,647.3	440.3	2,643.4	0.00	0.00	0.00
15,100.0	90.00	359.48	12,320.0	2,747.3	439.4	2,743.4	0.00	0.00	0.00
15,200.0	90.00	359.48	12,320.0	2,847.3	438.5	2,843.4	0.00	0.00	0.00
15,300.0	90.00	359.48	12,320.0	2,947.3	437.6	2,943.4	0.00	0.00	0.00
15,400.0	90.00	359.48	12,320.0	3,047.3	436.7	3,043.4	0.00	0.00	0.00
15,500.0	90.00	359.48	12,320.0	3,147.3	435.8	3,143.4	0.00	0.00	0.00
15,600.0	90.00	359.48	12,320.0	3,247.3	434.9	3,243.4	0.00	0.00	0.00
15,700.0	90.00	359.48	12,320.0	3,347.3	434.0	3,343.4	0.00	0.00	0.00
15,800.0	90.00	359.48	12,320.0	3,447.3	433.1	3,443.4	0.00	0.00	0.00
15,900.0	90.00	359.48	12,320.0	3,547.3	432.2	3,543.4	0.00	0.00	0.00
16,000.0	90.00	359.48	12,320.0	3,647.2	431.3	3,643.4	0.00	0.00	0.00
16,100.0	90.00	359.48	12,320.0	3,747.2	430.4	3,743.4	0.00	0.00	0.00
16,200.0	90.00	359.48	12,320.0	3,847.2	429.5	3,843.4	0.00	0.00	0.00
16,300.0	90.00	359.48	12,320.0	3,947.2	428.6	3,943.4	0.00	0.00	0.00
16,400.0	90.00	359.48	12,320.0	4,047.2	427.7	4,043.4	0.00	0.00	0.00
16,500.0	90.00	359.48	12,320.0	4,147.2	426.8	4,143.4	0.00	0.00	0.00
16,600.0	90.00	359.48	12,320.0	4,247.2	425.9	4,243.4	0.00	0.00	0.00
16,700.0	90.00	359.48	12,320.0	4,347.2	425.0	4,343.4	0.00	0.00	0.00
16,800.0	90.00	359.48	12,320.0	4,447.2	424.1	4,443.4	0.00	0.00	0.00
16,900.0	90.00	359.48	12,320.0	4,547.2	423.2	4,543.4	0.00	0.00	0.00
17,000.0	90.00	359.48	12,320.0	4,647.2	422.3	4,643.4	0.00	0.00	0.00
17,100.0	90.00	359.48	12,320.0	4,747.2	421.4	4,743.4	0.00	0.00	0.00
17,200.0	90.00	359.48	12,320.0	4,847.2	420.5	4,843.4	0.00	0.00	0.00
17,300.0	90.00	359.48	12,320.0	4,947.2	419.6	4,943.4	0.00	0.00	0.00
17,400.0	90.00	359.48	12,320.0	5,047.2	418.7	5,043.4	0.00	0.00	0.00
17,500.0	90.00	359.48	12,320.0	5,147.2	417.8	5,143.4	0.00	0.00	0.00
17,600.0	90.00	359.48	12,320.0	5,247.2	416.9	5,243.4	0.00	0.00	0.00



Planning Report

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Site: Leslie
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Local Co-ordinate Reference: Site Leslie
TVD Reference: KB @ 3307.5usft
MD Reference: KB @ 3307.5usft
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)
17,700.0	90.00	359.48	12,320.0	5,347.2	416.0	5,343.4	0.00	0.00	0.00
17,800.0	90.00	359.48	12,320.0	5,447.2	415.1	5,443.4	0.00	0.00	0.00
17,900.0	90.00	359.48	12,320.0	5,547.2	414.2	5,543.4	0.00	0.00	0.00
18,000.0	90.00	359.48	12,320.0	5,647.2	413.3	5,643.4	0.00	0.00	0.00
18,100.0	90.00	359.48	12,320.0	5,747.2	412.4	5,743.4	0.00	0.00	0.00
18,200.0	90.00	359.48	12,320.0	5,847.2	411.5	5,843.4	0.00	0.00	0.00
18,300.0	90.00	359.48	12,320.0	5,947.2	410.6	5,943.4	0.00	0.00	0.00
18,400.0	90.00	359.48	12,320.0	6,047.2	409.7	6,043.4	0.00	0.00	0.00
18,500.0	90.00	359.48	12,320.0	6,147.1	408.8	6,143.4	0.00	0.00	0.00
18,600.0	90.00	359.48	12,320.0	6,247.1	407.9	6,243.4	0.00	0.00	0.00
18,700.0	90.00	359.48	12,320.0	6,347.1	407.0	6,343.4	0.00	0.00	0.00
18,800.0	90.00	359.48	12,320.0	6,447.1	406.1	6,443.4	0.00	0.00	0.00
18,900.0	90.00	359.48	12,320.0	6,547.1	405.2	6,543.4	0.00	0.00	0.00
19,000.0	90.00	359.48	12,320.0	6,647.1	404.3	6,643.4	0.00	0.00	0.00
19,100.0	90.00	359.48	12,320.0	6,747.1	403.4	6,743.4	0.00	0.00	0.00
19,200.0	90.00	359.48	12,320.0	6,847.1	402.5	6,843.4	0.00	0.00	0.00
19,300.0	90.00	359.48	12,320.0	6,947.1	401.6	6,943.4	0.00	0.00	0.00
19,400.0	90.00	359.48	12,320.0	7,047.1	400.7	7,043.4	0.00	0.00	0.00
19,500.0	90.00	359.48	12,320.0	7,147.1	399.8	7,143.4	0.00	0.00	0.00
19,600.0	90.00	359.48	12,320.0	7,247.1	398.9	7,243.4	0.00	0.00	0.00
19,700.0	90.00	359.48	12,320.0	7,347.1	398.0	7,343.4	0.00	0.00	0.00
19,800.0	90.00	359.48	12,320.0	7,447.1	397.1	7,443.4	0.00	0.00	0.00
19,900.0	90.00	359.48	12,320.0	7,547.1	396.2	7,543.4	0.00	0.00	0.00
20,000.0	90.00	359.48	12,320.0	7,647.1	395.3	7,643.4	0.00	0.00	0.00
20,100.0	90.00	359.48	12,320.0	7,747.1	394.4	7,743.4	0.00	0.00	0.00
20,200.0	90.00	359.48	12,320.0	7,847.1	393.5	7,843.4	0.00	0.00	0.00
20,300.0	90.00	359.48	12,320.0	7,947.1	392.6	7,943.4	0.00	0.00	0.00
20,400.0	90.00	359.48	12,320.0	8,047.1	391.7	8,043.4	0.00	0.00	0.00
20,500.0	90.00	359.48	12,320.0	8,147.1	390.8	8,143.4	0.00	0.00	0.00
20,600.0	90.00	359.48	12,320.0	8,247.1	389.9	8,243.4	0.00	0.00	0.00
20,700.0	90.00	359.48	12,320.0	8,347.1	389.0	8,343.4	0.00	0.00	0.00
20,800.0	90.00	359.48	12,320.0	8,447.1	388.1	8,443.4	0.00	0.00	0.00
20,900.0	90.00	359.48	12,320.0	8,547.1	387.2	8,543.4	0.00	0.00	0.00
21,000.0	90.00	359.48	12,320.0	8,647.0	386.3	8,643.4	0.00	0.00	0.00
21,100.0	90.00	359.48	12,320.0	8,747.0	385.4	8,743.4	0.00	0.00	0.00
21,200.0	90.00	359.48	12,320.0	8,847.0	384.5	8,843.4	0.00	0.00	0.00
21,300.0	90.00	359.48	12,320.0	8,947.0	383.6	8,943.4	0.00	0.00	0.00
21,400.0	90.00	359.48	12,320.0	9,047.0	382.7	9,043.4	0.00	0.00	0.00
21,500.0	90.00	359.48	12,320.0	9,147.0	381.8	9,143.4	0.00	0.00	0.00
21,600.0	90.00	359.48	12,320.0	9,247.0	380.9	9,243.4	0.00	0.00	0.00
21,700.0	90.00	359.48	12,320.0	9,347.0	380.0	9,343.4	0.00	0.00	0.00
21,800.0	90.00	359.48	12,320.0	9,447.0	379.1	9,443.4	0.00	0.00	0.00
21,900.0	90.00	359.48	12,320.0	9,547.0	378.2	9,543.4	0.00	0.00	0.00
22,000.0	90.00	359.48	12,320.0	9,647.0	377.3	9,643.4	0.00	0.00	0.00
22,100.0	90.00	359.48	12,320.0	9,747.0	376.4	9,743.4	0.00	0.00	0.00
22,200.0	90.00	359.48	12,320.0	9,847.0	375.5	9,843.4	0.00	0.00	0.00
22,300.0	90.00	359.48	12,320.0	9,947.0	374.6	9,943.4	0.00	0.00	0.00
22,400.0	90.00	359.48	12,320.0	10,047.0	373.7	10,043.4	0.00	0.00	0.00
22,500.0	90.00	359.48	12,320.0	10,147.0	372.8	10,143.4	0.00	0.00	0.00
22,551.5	90.00	359.48	12,320.0	10,198.5	372.4	10,194.9	0.00	0.00	0.00

TD at 22551.5 - BHL - Leslie Fed Com #133H



Planning Report

Database: EDM 5000.14 Single User Db
Company: Matador Production Company
Project: Antelope Ridge
Site: Leslie
Well: Leslie Fed Com #133H
Wellbore: Wellbore #1
Design: BLM Plan #1

Local Co-ordinate Reference: Site Leslie
TVD Reference: KB @ 3307.5usft
MD Reference: KB @ 3307.5usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
VP - Leslie Fed Com #1:	0.00	0.00	11,747.0	-247.4	466.4	409,811.00	793,315.00	32° 7' 23.310 N	103° 23' 9.205 W
- plan hits target center									
- Point									
BHL - Leslie Fed Com #	0.00	0.00	12,320.0	10,198.5	372.4	420,258.00	793,221.00	32° 9' 6.693 N	103° 23' 9.229 W
- plan hits target center									
- Point									

Formations

Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(usft)	(usft)			(°)	(°)
1,327.5	1,327.5	Salado (Top Salt)			
3,658.5	3,648.5	Castile			
5,345.9	5,319.5	G30:CS14-CSB Lamar (Base Salt)			
5,426.7	5,399.5	G26: Bell Cyn.			
7,834.7	7,803.6	G7: Brushy Cyn.			
9,164.6	9,133.5	G4: BSG (CS9)			
10,275.6	10,244.5	L5.3: FBSC			
10,406.7	10,375.6	L5.1: FBSC			
10,585.3	10,554.2	L4.3: SBSC			
10,921.0	10,889.9	L4.1: SBSC			
11,039.6	11,008.5	L3.3: TBSC			
12,102.9	12,054.7	L3.1: TBSC			
12,496.3	12,291.3	L. TBSC			

Plan Annotations

Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S	+E/-W	
		(usft)	(usft)	
2,100.0	2,100.0	0.3	60.0	Start Build 1.00
2,900.0	2,897.4	-28.7	107.6	Start 2752.4 hold at 2900.0 MD
5,652.4	5,623.0	-228.1	434.7	Start Drop -1.50
6,185.8	6,154.6	-247.4	466.4	Start 5592.4 hold at 6185.8 MD
11,778.1	11,747.0	-247.4	466.4	Start DLS 10.00 TFO 359.48
12,678.1	12,320.0	325.5	461.3	Start 9873.4 hold at 12678.1 MD
22,551.5	12,320.0	10,198.5	372.4	TD at 22551.5

Hydrogen Sulfide Drilling
Operations Plan
Matador Resources

1 H2S safety instructions to the following:

- Characteristics of H2S
- Physical effects and hazards
- Principal and operation of H2S detectors, warning system and briefing areas
- Evacuation procedures, routes and first aid
- Proper use of safety equipment & life support systems
- Essential personnel meeting medical evaluation criteria will receive additional training on the proper use of 30min 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, 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
- Windssock 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 Exhibit E-1

6 Communication:

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

7 Drilling Stem Testing:

- No DST cores are planned at this time

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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 exhibit E-6

HYDROGEN SULFIDE CONTINGENCY PLAN
Drilling, Testing, & Completion

MRC ENERGY CO.

Reviewers

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

H2S Contingency Plan # 0165

Revision# 0

This H2S Contingency Plan is subject to updating

Effective date: July 8, 2015

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INTRODUCTION

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

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

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

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

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

II. PURPOSE

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

MRC ENERGY CO.'S

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

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

A. OPERATING PROCEDURES

DEFINITIONS:

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

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

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

GENERAL:

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

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

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

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

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

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

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

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

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

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

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

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

C. DRILLING BELOW CONTINGENCY PLAN DEPTH

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

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

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

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

D. PROCEDURES PROGRAM

1. Drill Site

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

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

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

General

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

III. CONDITIONS AND EMERGENCY PROCEDURES

A. DEFINITION OF OPERATIONAL "CONDITIONS"

CONDITION I	"POSSIBLE DANGER"
Warning Flags	Green
Alarms	No Alarm. Less than 10 ppm
Characterized By:	Drilling operations in zones that may contain hydrogen sulfide. This condition remains in effect unless H ₂ S is detected and it becomes necessary to go to Condition II.
General Action:	<ul style="list-style-type: none">a. Be alert for a condition changeb. Check all safety equipment for availability and proper functioning.c. Perform all drills for familiarization and proficiency.
CONDITION II	"MODERATE DANGER"
Warning Flags	Yellow
Alarms:	Actuates at 10 ppm. Continuous flashing light.
Characterized By:	Drilling operations in zones containing hydrogen sulfide. This condition will remain in effect until adding chemicals to the mud system neutralizes the hydrogen sulfide or it becomes necessary to go to Condition III.
General Action:	<ul style="list-style-type: none">a. Be alert for a condition changeb. WHEN DRILLING AHEAD - Driller and designated crewmember will don 30 min SCBA, shut-in the well and immediately proceed to the Safe Briefing Area. WHEN TRIPPING - Driller and two designated crewmembers will don 30 min SCBA, shut in the well and immediately proceed to the Safe Briefing Area. The Derrickman will

- don a 5-minute escape pack, descend to the rig floor, don a 30-min SCBA (if necessary) and immediately proceed to the Safe Briefing Area.
- c. All In Scope Personnel will proceed directly to the appropriate Safe Briefing Area.
- d. Remain in safe briefing area, take roll call and wait for instructions
- e. Contact the Total H2S Technician if not on location.
- f. Personnel shall ensure that their breathing apparatus is properly fitted and operational before entering an H₂S contaminated area to provide assistance to anyone who may be injured or overcome by toxic gases.
- g. All Out of Scope Personnel will report to the appropriate Safe Briefing Area.

CONDITION III "EXTREME DANGER"

Warning Flags

Red

Alarms

Actuate at 15 ppm. Continuous Sirens and Flashing Lights

Characterized by:

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

General Action:

- a. **WHEN DRILLING AHEAD -**
Driller and designated crewmember will don 30 min SCBA, shut-in the well and immediately proceed to the Safe Briefing Area.

WHEN TRIPPING – Driller and two designated crewmembers will don 30

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

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

H₂S EMERGENCY PROCEDURES; IN SCOPE PERSONNEL

A. Day To Day Drilling Operations

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

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

Do Not Panic!

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

B. RESPONSIBILITIES OF WELL-SITE PERSONNEL

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

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

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

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

2. Toolpusher

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

3. Mud Engineer

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

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

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

5. General Personnel & Visitors

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

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

C. INSTRUCTIONS FOR IGNITING THE WELL

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

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

- a. Human life and property are endangered, or
 - b. There is no hope of controlling the well under current conditions.
- 2. Once the decision has been made, the following procedures should be followed:
 - a. Two people wearing self-contained breathing apparatus will be needed for the actual lighting of the well. They must first establish the flammable perimeter by using an explosimeter. This should be established at 30% to 40% of the lower flammable limits.
 - b. After the flammable perimeter has been established and everyone removed from the area, the ignition team should select a site upwind of the well from which to ignite the well. This site should offer the maximum protection and have a clear path for retreat from the area.

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

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

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

D. CORING PROCEDURES

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

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

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

Cores will be appropriately marked and sealed for transportation.

Normal Operations

1. Responsibilities of well-site personnel

a. Well-site Representative

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

B. Toolpusher

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

C. In Scope Personnel

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

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

D. Total Safety H₂S Safety Technician or MRC Designee

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

OUT OF SCOPE PERSONNEL

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

SAFETY EQUIPMENT

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

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

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

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

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

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

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

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

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

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

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

V – TOXICITY OF VARIOUS GASES

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

¹ Air = 1.0

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

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

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

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

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

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

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

VI. PROPERTIES OF GASES

A. CARBON DIOXIDE

1. Carbon Dioxide (CO₂) is usually considered inert and is commonly used to extinguish fires. It is 1.52 times heavier than air and will concentrate in low areas of still air. Humans cannot breathe air containing more than 10% CO₂ without losing conscience or becoming disorientation in a few minutes. Continued exposure to CO₂ after being affected will cause convulsions, coma, and respiratory failure.

2. The threshold limit of CO₂ is 5000 ppm. Short-term exposure to 50,000 ppm (5%) is reasonable. This gas is colorless, odorless, and can be tolerated in relatively high concentrations.

B. HYDROGEN SULFIDE

1. Hydrogen Sulfide (H₂S) is a colorless, transparent, flammable gas. It is heavier than air and, hence, may accumulate in low places.

2. Although the slightest presence of H₂S in the air is normally detectable by its characteristic "rotten egg" odor, it is dangerous to rely on the odor as a means of detecting excessive concentrations because the sense of smell is rapidly lost, allowing lethal concentrations to be accumulated without warning. The following table indicates the poisonous nature of H₂S.

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

¹ Grains per 100 Cubic Feet

VII. Treatment Procedures for Hydrogen Sulfide Poisoning

- A. Remove the victim to fresh air.
- B. If breathing has ceased or is labored, begin resuscitation immediately.
 Note: This is the quickest and preferred method of clearing victim's lungs of contaminated air; however, under disaster conditions, it may not be practical to move the victim to fresh air. In such instances, where those rendering first aid must continue to wear masks, a resuscitator should be used.
- C. Apply resuscitator to help purge H_2S from the blood stream.
- D. Keep the victim at rest and prevent chilling.
- E. Get victim under physician's care as soon as possible.

C. SULPHUR DIOXIDE

1. Sulfur Dioxide (SO_2) is a colorless, non-flammable, transparent gas.
2. SO_2 is produced during the burning of H_2S . Although SO_2 is heavier than air, it can be picked up by a breeze and carried downwind at elevated temperatures. Since SO_2 is extremely irritating to the eyes and mucous membranes of the upper respiratory tract, it has exceptionally good warning powers in this respect. The following table indicates the toxic nature of SO_2 :

CONCENTRATION		EFFECTS
% SO_2	PPM	
0.0005	3 to 5	Pungent odor, normally a person can detect SO_2 in this range.
0.0012	12	Throat irritation, coughing, constriction of the chest, tearing and smarting of eyes.
0.015	150	So irritating that it can only be endured for a few minutes.
.05	500	Causes a sense of suffocation, event with the first breath.

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

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

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

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

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

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

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

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

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

IX. HYDROGEN SULFIDE TRAINING CURRICULUM

(FOR EMPLOYERS, VISITORS, AND CONTRACTORS)

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

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

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

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

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

3. **H2S Protection**

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

4. **Cascade System**

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

5. **H2S Rescue and First Aid**

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

6. **Hands on Training**

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

7. **Certification**

- A. Testing on material covered

TOTAL SAFETY US INC., FIT TEST

X. EMPLOYEE INFORMATION

Employee Name: _____ Date: _____

Date of Employee Medical Evaluation: _____

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

RESPIRATOR INFORMATION

Respirator Type (Dustmask, SCBA, etc): _____

Brand: _____

Size: (circle): XS S M L XL

FIT TEST INFORMATION

Type of Fit Test Performed:

Quantitative

Porta Count
Fittester 3000

Fit Factor: _____
Fit Factor: _____

Qualitative

Irritant Smoke
Isoamyl Acetate (Banana Oil)
Saccharin
Bitrex

Passed / Failed
Passed / Failed
Passed / Failed
Passed / Failed

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

Fit Tester Name (Print): _____

Signature: _____ Date: _____

XI. H₂S SAFETY SERVICES

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

RESPIRATORY SAFETY SYSTEMS

QTY	DESCRIPTION
------------	--------------------

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

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

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

DETECTION AND ALARM SAFETY SYSTEM

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

ADDITIONAL SAFETY RELATED EQUIPMENT

QTY DESCRIPTION

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

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

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

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

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

MRC Energy Co. Emergency Phone #

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

MRC Energy Co. Production

113 Daw Rd

Mansfield LA 71052

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

Hydrogen Sulfide Safety Consultants

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

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

MEDICAL COORDINATOR # -----

Emergency Numbers & Directions

Hospitals (911)

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

State Police (911)

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

Local Law Enforcement (911) (Sheriff)

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

Federal & State Agencies

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

Rig Company

XIII. EVACUATION OF THE GENERAL PUBLIC

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

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

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

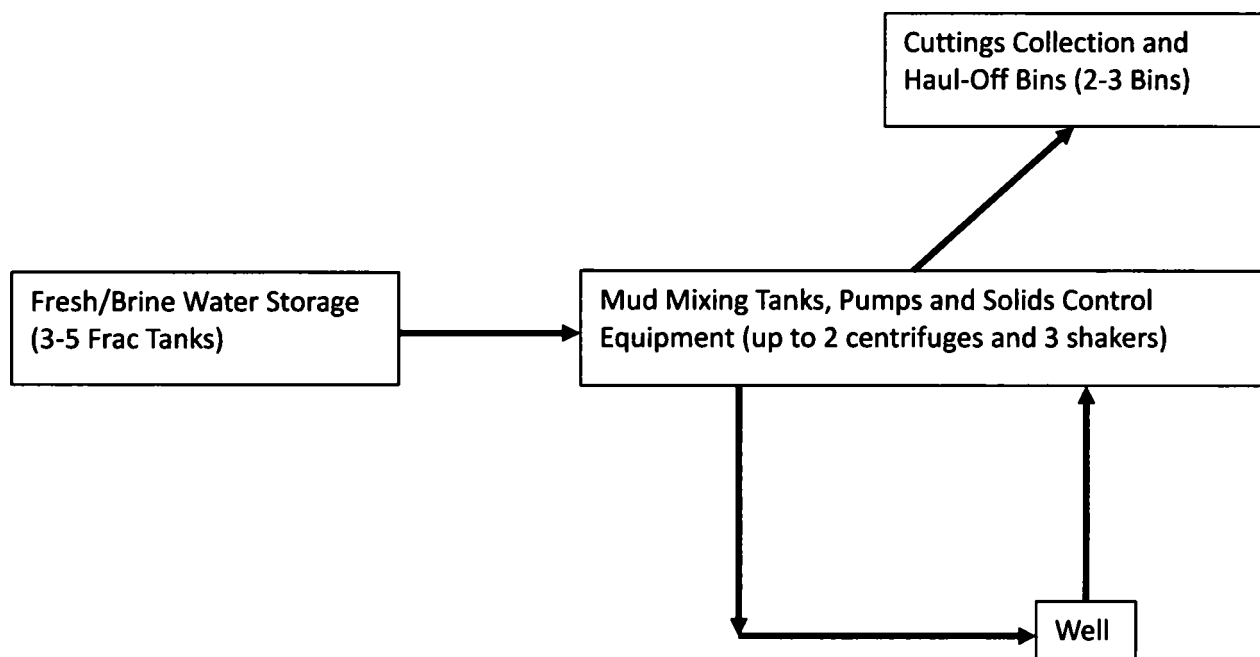
will cooperate with and provide such information to civil authorities as they might require.

- D. One of the products of the combustion of hydrogen sulfide is sulfur dioxide (SO_2). Under certain conditions this gas may be equally as dangerous as H_2S . A pump type detector device, which determines the percent of SO_2 in air through concentrations in ppm, will be available. Although normal air movement is sufficient to dissipate this material to safe levels, the SO_2 detector should be utilized to check concentrations in the proximity of the well once every hour, or as necessary and the situation warrants. Also, if any low areas are suspected of having high concentrations, personnel should be made aware of these areas, and steps should be taken to determine whether or not these low areas are hazardous.

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

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

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.

Leslie Fed Com #133H
SHL: 300' FSL & 2055' FEL Section 17
BHL: 60' FNL & 1653' FEL Section 8
Township/Range: 25S 35E
Elevation Above Sea Level: 3279

Drilling Operation Plan

Proposed Drilling Depth: 22551' MD / 12320' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation: Quaternary Deposits

KOP Lat/Long (NAD83): 32.1232671675 N / -103.3863553260 W

TD Lat/Long (NAD83): 32.1519841652 N / -103.3863652310 W

1. Estimated Tops

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	910	910	418	Anhydrite	Barren
Top of Salt	1,328	1,328	2,321	Salt	Barren
Castile	3,649	3,649	1,671	Salt	Barren
Base of Salt	5,320	5,320	80	Salt	Barren
Bell Canyon	5,400	5,400	2,404	Sandstone	Oil/Natural Gas
Brushy Canyon	7,804	7,804	1,329	Sandstone	Oil/Natural Gas
Bone Spring Lime	9,133	9,133	1,243	Limestone	Oil/Natural Gas
1st Bone Spring Sand	10,376	10,376	178	Sandstone	Oil/Natural Gas
2nd Bone Spring Carbonate	10,554	10,554	336	Carbonate	Oil/Natural Gas
2nd Bone Spring Sand	10,890	10,890	118	Sandstone	Oil/Natural Gas
3rd Bone Spring Carbonate	11,008	11,008	1,046	Carbonate	Oil/Natural Gas
KOP	11,778	11,747		Carbonate	Oil/Natural Gas
3rd Bone Spring Sand	12,102	12,054		Sandstone	Oil/Natural Gas
TD	22,551	12,320		Sandstone	Oil/Natural Gas

2. Notable Zones

3rd Bone Spring is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 175'.

3. Pressure Control**Equipment**

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

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

Testing Procedure

Drill Plan

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

A third party company will test the BOPs.

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

Variance Request

Matador requests a variance to have the option of running a multi-bowl wellhead assembly for setting the Intermediate 1 and Production Strings. The BOPs will not be tested again unless any flanges are separated.

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

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

4. Casing & Cement

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

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	17.5	0 - 935	0 - 935	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	12.25	0 - 5425	0 - 5425	9.625	40	J-55	BUTT	1.125	1.125	1.8
Production	8.75	0 - 22551	0 - 12320	5.5	20	P-110	DWC/C-IS HT Plus	1.125	1.125	1.8

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

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

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	430	1.72	734	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	635	C	5% NaCl + LCM
Intermediate 1	Lead	990	2.13	2108	12.6	50%	0	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	390	1.38	544	14.8	50%	4340	C	5% NaCl + LCM
Production	Lead	860	2.22	1900	11.5	25%	5225	H	Fluid Loss + Dispersant + Retarder + LCM
	Tail	2640	1.35	3570	13.2	25%	11278	H	Fluid Loss + Dispersant + Retarder + LCM

5. Mud Program

Drill Plan

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

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	17.5	Spud Mud	0 - 935	8.4 - 8.8	28-30	NC
Intermediate 1	12.25	Brine Water	935 - 5425	9.5 - 10.2	28-30	NC
Production	8.75	Cut Brine/OBM	5425 - 22551	8.6 - 9.4	28-30	NC

6. Cores, Test, & Logs

No core or drill stem test is planned.

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

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

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum anticipated surface pressure is 3312 psi. Expected bottom hole temperature is 155° F.

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



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

PWD Data Report

02/12/2020

APD ID: 10400043594

Submission Date: 07/17/2019

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LESLIE FED COM

Well Number: 133H

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LESLIE FED COM

Well Number: 133H

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD disturbance (acres):

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LESLIE FED COM

Well Number: 133H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LESLIE FED COM

Well Number: 133H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



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

Bond Info Data Report

02/12/2020

APD ID: 10400043594

Submission Date: 07/17/2019

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: LESLIE FED COM

Well Number: 133H

Well Type: OIL WELL

Well Work Type: Drill

Report ID: 10400043594
Well ID: 133H
Well Name: LESLIE FED COM

[Show Final Text](#)

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001079

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: