

District I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6181 Fax (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1283 Fax (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone (505) 334-6178 Fax (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax (505) 476-3462

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 70-029-4296		² Pool Code 96556	³ Pool Name Cotton Draw; Bone Spring, East
⁴ Property Code 314752	⁵ Property Name REBEL 20 FED		⁶ Well Number 7H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.		⁹ Elevation 3556.9

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	20	24 S	32 E		250	NORTH	1980	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	20	24 S	32 E		330	SOUTH	2200	EAST	LEA

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
160.00			

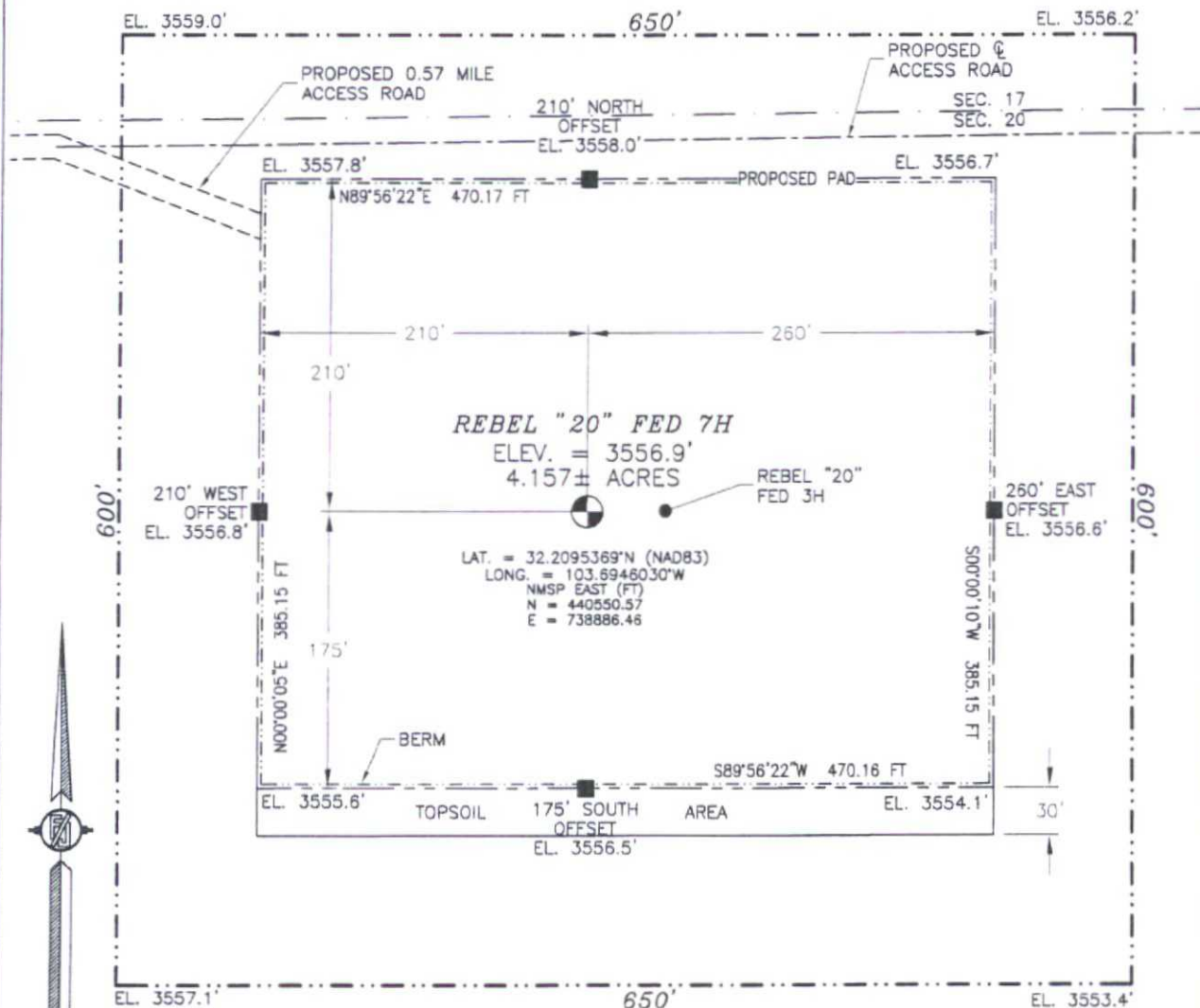
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

N89°19'12"E 2643.68 FT NW CORNER SEC. 20 LAT. = 32.2101731°N LONG. = 103.7052886°W NMSP EAST (FT) N = 440762.51 E = 735580.15 N Q CORNER SEC. 20 LAT. = 32.2102165°N LONG. = 103.6867431°W NMSP EAST (FT) N = 440793.88 E = 738213.07 SURFACE LOCATION REBEL "20" FED 7H ELEV. = 3556.9' LAT. = 32.2085369°N (NAD83) LONG. = 103.6946030°W NMSP EAST (FT) N = 440550.57 E = 738886.46 NE CORNER SEC. 20 LAT. = 32.2102463°N LONG. = 103.6882040°W NMSP EAST (FT) N = 440820.46 E = 740864.04 E Q CORNER SEC. 20 LAT. = 32.2029993°N LONG. = 103.6881898°W NMSP EAST (FT) N = 438184.10 E = 740884.26 SE CORNER SEC. 20 LAT. = 32.1957312°N LONG. = 103.6881767°W NMSP EAST (FT) N = 435540.07 E = 740904.17 SW CORNER SEC. 20 LAT. = 32.1956460°N LONG. = 103.7052343°W NMSP EAST (FT) N = 435477.84 E = 735627.83 S Q CORNER SEC. 20 LAT. = 32.1956896°N LONG. = 103.6967212°W NMSP EAST (FT) N = 435509.26 E = 738261.15 NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. BOTTOM OF HOLE LAT. = 32.1966037°N LONG. = 103.6852887°W NMSP EAST (FT) N = 435844.36 E = 738702.28 BOTTOM OF HOLE LAT. = 32.1966037°N LONG. = 103.6852887°W NMSP EAST (FT) N = 435844.36 E = 738702.28		" OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or is a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Linda Good</i> 6/9/2015 Signature Date Linda Good Printed Name linda.good@dmv.com Email Address "SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. APRIL 21, 2015 Date of Survey <i>[Signature]</i> Signature and Seal of Professional Surveyor Certificate Number FILIMON F. JARAMILLO, PLS 12797 SURVEY NO. 3835
--	--	---

JAN 04 2016

SECTION 20, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE



0 10 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HIGHWAY 128 AND BUCK JACKSON ROAD GO SOUTHWEST ON BUCK JACKSON ROAD 0.43 MILE TO CALICHE LEASE ROAD, WEST OF CALICHE PIT ON LEFT, GO SOUTH ON CALICHE LEASE ROAD 1.45 MILES TO EXISTING 2-TRACK ROAD ON LEFT. GO EAST ON 2-TRACK ROAD ALONG THE SOUTH SIDE OF THE NORTH LINE OF SECTION 19, 1.0 MILE TO THE NORTHEAST CORNER OF SECTION 19, FOLLOW PROPOSED FLAGGED ROAD LINE ALONG THE SOUTH SIDE OF THE NORTH LINE OF SECTION 20, GO EAST 0.57 MILE TO NORTHWEST CORNER OF PAD.

DEVON ENERGY PRODUCTION COMPANY, L.P.

REBEL "20" FED 7H

LOCATED 250 FT. FROM THE NORTH LINE
AND 1980 FT. FROM THE EAST LINE OF
SECTION 20, TOWNSHIP 24 SOUTH,
RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

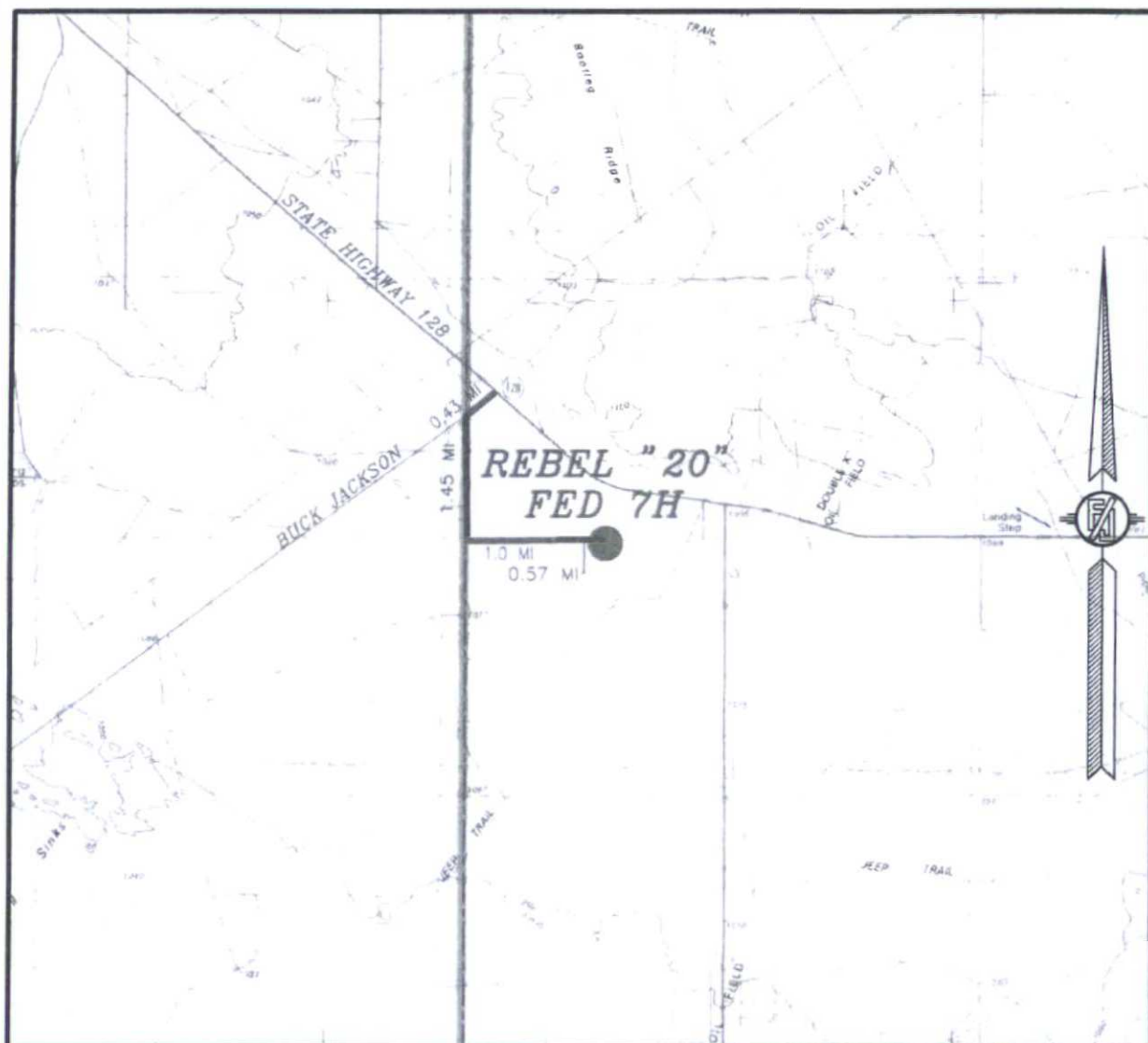
APRIL 21, 2015

SURVEY NO. 3835

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

CARLSBAD, NEW MEXICO

SECTION 20, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

REBEL "20" FED 7H

LOCATED 250 FT. FROM THE NORTH LINE
AND 1980 FT. FROM THE EAST LINE OF
SECTION 20, TOWNSHIP 24 SOUTH,
RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

DIRECTIONS TO LOCATION

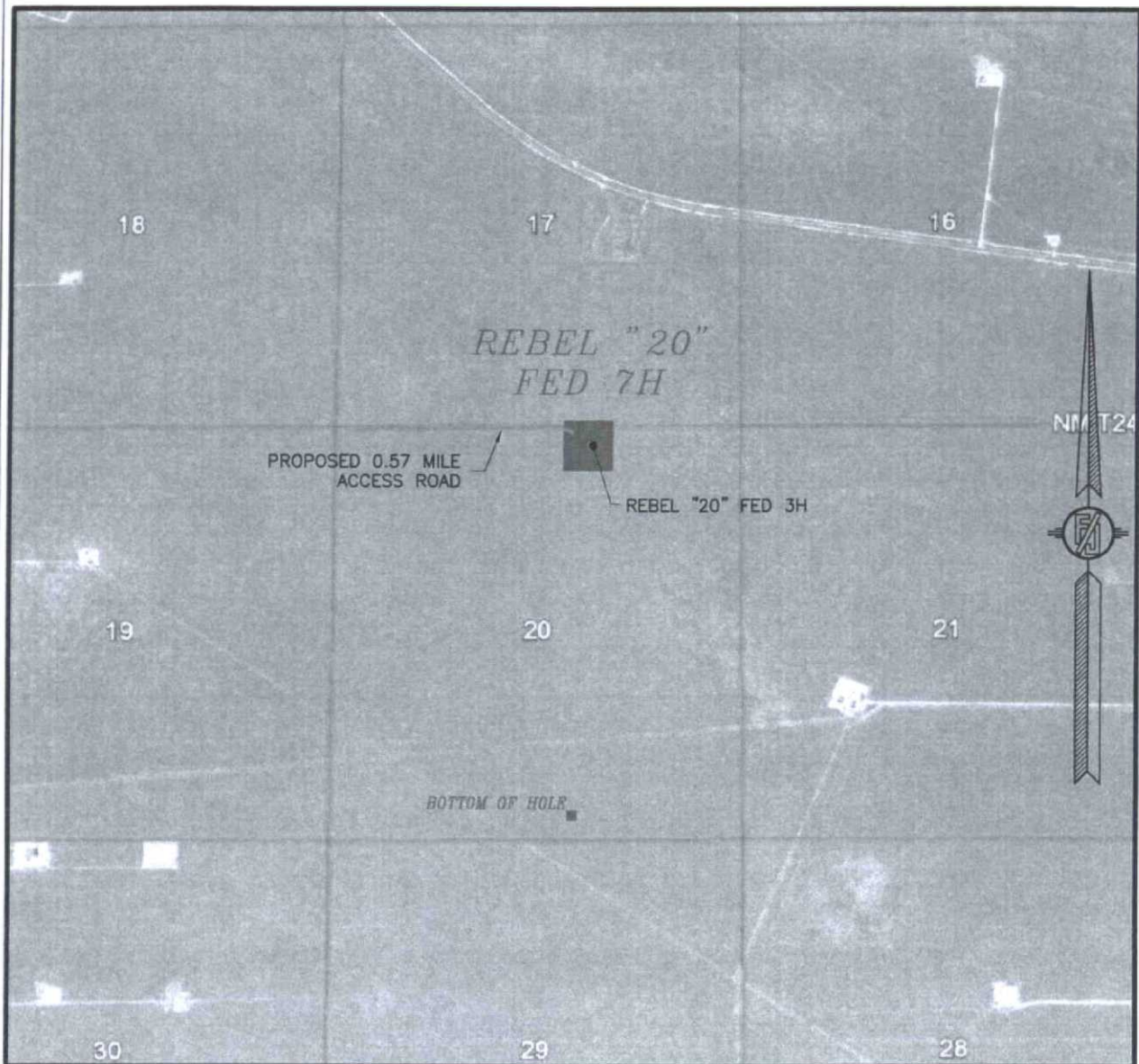
FROM THE INTERSECTION OF STATE HIGHWAY 128 AND BUCK JACKSON ROAD GO SOUTHWEST ON BUCK JACKSON ROAD 0.43 MILE TO CALICHE LEASE ROAD, WEST OF CALICHE PIT ON LEFT, GO SOUTH ON CALICHE LEASE ROAD 1.45 MILES TO EXISTING 2-TRACK ROAD ON LEFT, GO EAST ON 2-TRACK ROAD ALONG THE SOUTH SIDE OF THE NORTH LINE OF SECTION 19, 1.0 MILE TO THE NORTHEAST CORNER OF SECTION 19, FOLLOW PROPOSED FLAGGED ROAD LINE ALONG THE SOUTH SIDE OF THE NORTH LINE OF SECTION 20, GO EAST 0.57 MILE TO NORTHWEST CORNER OF PAD.

APRIL 21, 2015

SURVEY NO. 3835

MADRON SURVEYING, INC. 301 SOUTH CANAL (S.75) 234-3341 CARLSBAD, NEW MEXICO

SECTION 20, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
FEBRUARY 2014

DEVON ENERGY PRODUCTION COMPANY, L.P.

REBEL "20" FED 7H

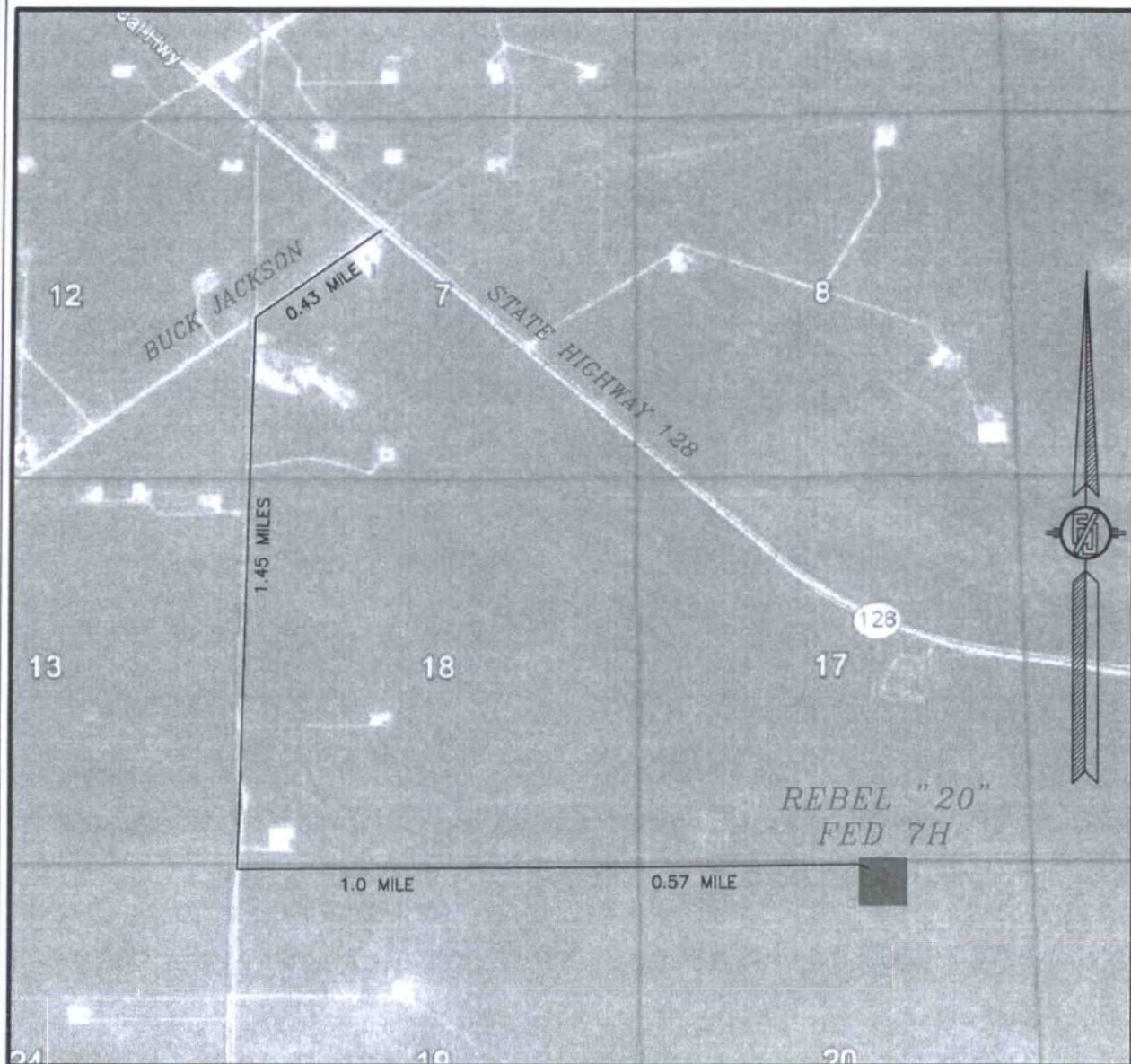
LOCATED 250 FT. FROM THE NORTH LINE
AND 1980 FT. FROM THE EAST LINE OF
SECTION 20, TOWNSHIP 24 SOUTH,
RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

APRIL 21, 2015

SURVEY NO. 3835

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

SECTION 20, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
ACCESS AERIAL ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
FEBRUARY 2014

DEVON ENERGY PRODUCTION COMPANY, L.P.

REBEL "20" FED 7H

LOCATED 250 FT. FROM THE NORTH LINE
AND 1980 FT. FROM THE EAST LINE OF
SECTION 20, TOWNSHIP 24 SOUTH,
RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

APRIL 21, 2015

SURVEY NO. 3835

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

One Mile Radius Map

Estimated distances to nearest wellbores:

*From SHL: Azores Federal 2H 5320 ft S
 Azores Federal 2H 730 ft SW
 *From BHL: Corvo Federal 2H 715 ft S

24S 32E



18

17

16

19

20

21

KING TUT FEDERAL
4H

WINDWARD FEDERAL
4H

REBEL 20 FED
7H

SHL

1 MILE

BHL

1 MILE

devon

Rebel 20 Fed 7H

1 Mile Radius Map

0 1.956
FEET

WELL SYMBOLS
 DRY AND ABANDONED WELL
 OIL PRODUCING WELL
 PROPOSED

May 14, 2015

30

29

28

PAYNE

CORVO FEDERAL
3H

CORVO FEDERAL
4H

AZORES FEDERAL
3H

AZORES FEDERAL
3H

AZORES FEDERAL
2H

CORVO FEDERAL
2H

BOMBAY DSB FEDERAL COM
1H

5D Plan Report

Devon Energy

Field Name: *Lea Co, NM Nad 83 NMEZ*

Site Name: *Rebel 20 Fed 3H, 7H Pad*

Well Name: *Rebel 20 Fed 7H*

Plan: *P1:V1*

21 May 2015



Rebel 20 Fed 7H

Field Name Lea Co, NM Nad 83 NMEZ	Map Units : US ft		Company Name : Devon Energy	
	Vertical Reference Datum (VRD) : Mean Sea Level			
	Projected Coordinate System : NAD83 / New Mexico East (ftUS)			
	Comment :			
Site Name Rebel 20 Fed 3H, 7H Pad	Units : US ft	North Reference : Grid	Convergence Angle : 0.34	
	Position	Northing : 440551.05 US ft	Latitude : 32° 12' 34.33"	
		Easting : 738936.42 US ft	Longitude : -103° 41' 39.99"	
	Elevation above Mean Sea Level:3558.00 US ft			
Comment :				
Slot Name Rebel 20 Fed 7H	Position (Offsets relative to Site Centre)			
	+N / -S : -0.48 US ft	Northing :440550.57 US ft	Latitude : 32°12'34.33"	
	+E / -W : -49.96 US ft	Easting :738886.46 US ft	Longitude : -103°41'40.57"	
	Slot TVD Reference : Ground Elevation			
Elevation above Mean Sea Level : 3557.00 US ft				
Comment :				
Well Name Rebel 20 Fed 7H	Type : Main well		UWI :	Plan : P1:V1
	Rig Height <i>Kelly Bushing</i> : 25.00 US ft		Comment :	
	Relative to Mean Sea Level: 3582.00 US ft			
	Closure Distance : 4709.81 US ft		Closure Azimuth : 182.241°	
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az :181.02°
	Magnetic Parameters			
	Model : BGGM	Field Strength :	Dec : 7.32°	Dip : 60.10°
	48206.4nT		Date :	
	15/Aug/2015			

Target Set

Name : Rebel 20 Fed 7H **Number of Targets :** 1

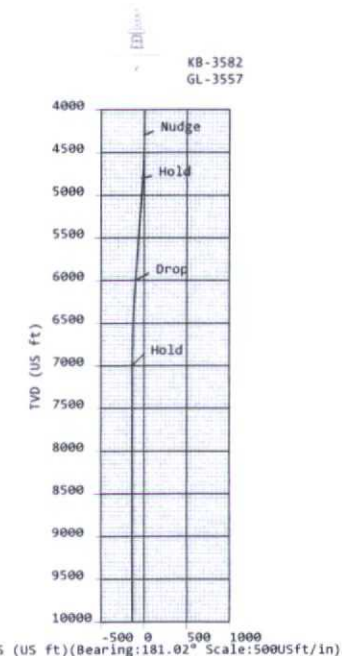
Comment :

Target Name: PBHL 7H	Position (Relative to Slot centre)		
	+N / -S : -4706.21US ft	Northing : 435844.36 US ft	Latitude : 32°11'47.77"
	+E / -W : -184.18 US ft	Easting : 738702.28US ft	Longitude : -103°41'43.04"
Shape: Cuboid	TVD (Kelly Bushing) : 10727.00 US ft		
	Orientation	Azimuth : 181.02°	Inclination : 0.55°
	Dimensions	Length : 8640.00 US ft	Breadth : 100.00 US ft Height : 20.00 US ft

Well path created using minimum curvature



Rebel 20 Fed 7H
Lea Co, NM



Plan Data for Rebel 20 Fed 7H

Plan Point Information:

Dogleg Severity Unit: °/100.00ft Position offsets from Slot centre

MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	VSec	DLS
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)
0.00	0.00	0.00	0.00	0.00	0.00	440550.57	738886.46	0.00	0.00
4300.00	0.00	0.00	4300.00	0.00	0.00	440550.57	738886.46	0.00	0.00
4800.00	5.00	325.00	4799.37	17.86	-12.51	440568.43	738873.95	-17.63	1.00
6000.00	5.00	325.00	5994.80	103.53	-72.49	440654.10	738813.97	-102.23	0.00
7000.00	0.00	0.00	6993.53	139.25	-97.51	440689.82	738788.95	-137.49	0.50
10254.47	0.00	0.00	10248.00	139.25	-97.51	440689.82	738788.95	-137.49	0.00
11077.70	90.55	181.02	10768.85	-386.58	-106.91	440163.99	738779.55	388.42	11.00
15398.22	90.55	181.02	10727.00	-4706.21	-184.18	435844.36	738702.28	4708.74	0.00

Plan Data for Rebel 20 Fed 7H

Slot: Rebel 20 Fed 7H

Position:

Offset is from Site centre

+N/-S: -0.48USft Northing: 440550.57USft Latitude: 32°12'34.3"

+E/-W: -49.96USft Easting: 738886.46USft Longitude: -103°41'40.6"

Elevation Above VRD: 3557.00USft

Plan Data for Rebel 20 Fed 7H

Target Set Information:

Name: Rebel 20 Fed 7H

Position offsets from Slot centre

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape	Comment
(USft)	(USft)	(USft)	(USft)	(USft)	(USft)		
PBHL 7H	10727.00	-4706.21	-184.18	435844.36	738702.28	Cuboid	

Plan Data for Rebel 20 Fed 7H

Well: Rebel 20 Fed 7H

Type: Main-Well

File Number:

Plan Folder: P1 Plan: P1:V1

Vertical Section: Position offset of origin from Slot centre:

+N/-S: 0.00USft Azimuth: 181.02°

+E/-W: 0.00USft

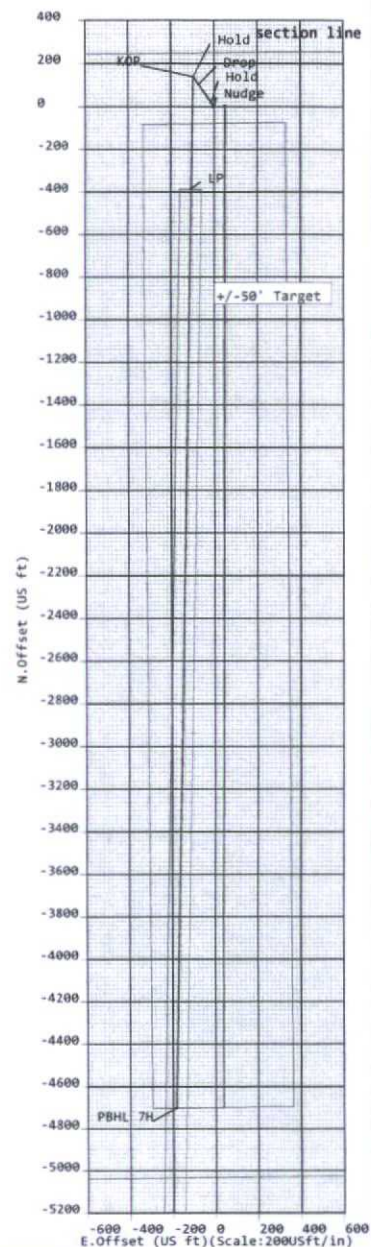
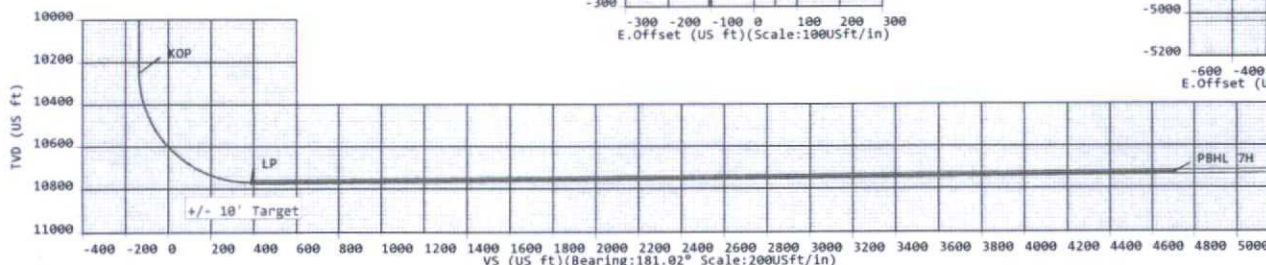
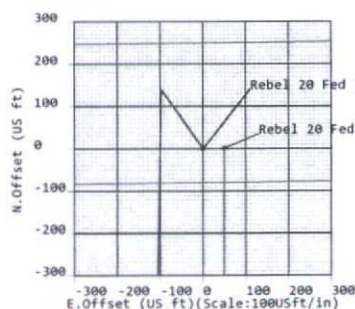
Magnetic Parameters:

Model: Field Strength: Declination: Dip: Date:

80GM 48206(nT) 7.32° 60.10° 2015-08-15

Rebel 20 Fed 7H

Rebel 20 Fed 3H



Sign Off: Russell Joyner

SD Plan Report

Salient Points (Relative to Slot centre, TVD relative to Kelly Bushing)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	B.Rate (%/100 US ft)	T.Rate (%/100 US ft)	T.Face (°)	Comment
0.00	0.00	0.00	25.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00	
4300.00	0.00	0.00	4325.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00	Nudge
4800.00	5.00	325.00	4824.37	17.86	-12.51	-17.63	1.00	1.00	0.00	325.00	Hold
6000.00	5.00	325.00	6019.80	103.53	-72.49	-102.23	0.00	0.00	0.00	0.00	Drop
7000.00	0.00	0.00	7018.53	139.25	-97.51	-137.49	0.50	-0.50	0.00	180.00	Hold
10254.47	0.00	0.00	10273.00	139.25	-97.51	-137.49	0.00	0.00	0.00	0.00	KOP
11077.70	90.55	181.02	10793.85	-386.58	-106.91	388.42	11.00	11.00	0.00	181.02	LP
15398.22	90.55	181.02	10752.00	-4706.21	-184.18	4708.74	0.00	0.00	0.00	0.00	PBHL 7H

Interpolated Points (Relative to Slot centre, TVD relative to Kelly Bushing)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Northing (US ft)	Easting (US ft)		Comment
4325.00	0.00	0.00	4325.00	0.00	0.00	-0.00	0.00	440550.57	738886.46		Nudge
4425.00	1.00	325.00	4424.99	0.71	-0.50	-0.71	1.00	440551.28	738885.96		
4525.00	2.00	325.00	4524.96	2.86	-2.00	-2.82	1.00	440553.43	738884.46		
4625.00	3.00	325.00	4624.86	6.43	-4.50	-6.35	1.00	440557.00	738881.96		
4725.00	4.00	325.00	4724.68	11.43	-8.01	-11.29	1.00	440562.00	738878.45		
4825.00	5.00	325.00	4824.37	17.86	-12.51	-17.63	1.00	440568.43	738873.95		Hold
4925.00	5.00	325.00	4923.99	25.00	-17.50	-24.68	0.00	440575.57	738868.96		
5025.00	5.00	325.00	5023.60	32.14	-22.50	-31.73	0.00	440582.71	738863.96		
5125.00	5.00	325.00	5123.22	39.28	-27.50	-38.78	0.00	440589.85	738858.96		
5225.00	5.00	325.00	5222.84	46.42	-32.50	-45.83	0.00	440596.99	738853.96		
5325.00	5.00	325.00	5322.46	53.56	-37.50	-52.88	0.00	440604.13	738848.96		
5425.00	5.00	325.00	5422.08	60.70	-42.50	-59.93	0.00	440611.27	738843.96		
5525.00	5.00	325.00	5521.70	67.84	-47.50	-66.98	0.00	440618.41	738838.96		
5625.00	5.00	325.00	5621.32	74.97	-52.50	-74.03	0.00	440625.54	738833.96		
5725.00	5.00	325.00	5720.94	82.11	-57.50	-81.08	0.00	440632.68	738828.96		
5825.00	5.00	325.00	5820.56	89.25	-62.50	-88.13	0.00	440639.82	738823.96		
5925.00	5.00	325.00	5920.18	96.39	-67.50	-95.18	0.00	440646.96	738818.96		
6025.00	5.00	325.00	6019.80	103.53	-72.49	-102.23	0.00	440654.10	738813.97		Drop
6125.00	4.50	325.00	6119.46	110.32	-77.24	-108.92	0.50	440660.89	738809.22		
6225.00	4.00	325.00	6219.18	116.39	-81.49	-114.92	0.50	440666.96	738804.97		
6325.00	3.50	325.00	6318.97	121.74	-85.25	-120.21	0.50	440672.31	738801.21		
6425.00	3.00	325.00	6418.80	126.39	-88.50	-124.79	0.50	440676.96	738797.96		
6525.00	2.50	325.00	6518.69	130.32	-91.25	-128.67	0.50	440680.89	738795.21		
6625.00	2.00	325.00	6618.61	133.53	-93.50	-131.85	0.50	440684.10	738792.96		
6725.00	1.50	325.00	6718.56	136.04	-95.25	-134.32	0.50	440686.61	738791.21		
6825.00	1.00	325.00	6818.54	137.82	-96.50	-136.08	0.50	440688.39	738789.96		
6925.00	0.50	325.00	6918.53	138.89	-97.25	-137.14	0.50	440689.46	738789.21		
7025.00	0.00	0.00	7018.53	139.25	-97.51	-137.49	0.50	440689.82	738788.95		Hold
7125.00	0.00	0.00	7118.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
7225.00	0.00	0.00	7218.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
7325.00	0.00	0.00	7318.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
7425.00	0.00	0.00	7418.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
7525.00	0.00	0.00	7518.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
7625.00	0.00	0.00	7618.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
7725.00	0.00	0.00	7718.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
7825.00	0.00	0.00	7818.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
7925.00	0.00	0.00	7918.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
8025.00	0.00	0.00	8018.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
8125.00	0.00	0.00	8118.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
8225.00	0.00	0.00	8218.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
8325.00	0.00	0.00	8318.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
8425.00	0.00	0.00	8418.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
8525.00	0.00	0.00	8518.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
8625.00	0.00	0.00	8618.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
8725.00	0.00	0.00	8718.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
8825.00	0.00	0.00	8818.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		
8925.00	0.00	0.00	8918.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95		

SD Plan Report

Interpolated Points (Relative to Slot centre, TVD relative to Kelly Bushing)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
9025.00	0.00	0.00	9018.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95	
9125.00	0.00	0.00	9118.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95	
9225.00	0.00	0.00	9218.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95	
9325.00	0.00	0.00	9318.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95	
9425.00	0.00	0.00	9418.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95	
9525.00	0.00	0.00	9518.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95	
9625.00	0.00	0.00	9618.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95	
9725.00	0.00	0.00	9718.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95	
9825.00	0.00	0.00	9818.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95	
9925.00	0.00	0.00	9918.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95	
10025.00	0.00	0.00	10018.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95	
10125.00	0.00	0.00	10118.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95	
10225.00	0.00	0.00	10218.53	139.25	-97.51	-137.49	0.00	440689.82	738788.95	
10279.47	0.00	0.00	10273.00	139.25	-97.51	-137.49	0.00	440689.82	738788.95	KOP
10325.00	5.01	181.02	10318.47	137.26	-97.54	-135.51	11.00	440687.83	738788.92	
10425.00	16.01	181.02	10416.64	119.06	-97.87	-117.30	11.00	440669.63	738788.59	
10525.00	27.01	181.02	10509.54	82.46	-98.52	-80.69	11.00	440633.03	738787.94	
10625.00	38.01	181.02	10593.74	28.80	-99.48	-27.03	11.00	440579.37	738786.98	
10725.00	49.01	181.02	10666.16	-39.93	-100.71	41.71	11.00	440510.64	738785.75	
10825.00	60.01	181.02	10724.13	-121.21	-102.16	123.01	11.00	440429.36	738784.30	
10925.00	71.01	181.02	10765.52	-212.06	-103.79	213.87	11.00	440338.51	738782.67	
11025.00	82.01	181.02	10788.81	-309.13	-105.53	310.96	11.00	440241.44	738780.93	
11102.70	90.55	181.02	10793.85	-386.58	-106.91	388.42	11.00	440163.99	738779.55	LP
11125.00	90.55	181.02	10793.63	-408.88	-107.31	410.72	0.00	440141.69	738779.15	
11225.00	90.55	181.02	10792.66	-508.86	-109.10	510.72	0.00	440041.71	738777.36	
11325.00	90.55	181.02	10791.69	-608.84	-110.89	610.71	0.00	439941.73	738775.57	
11425.00	90.55	181.02	10790.72	-708.82	-112.68	710.71	0.00	439841.75	738773.78	
11525.00	90.55	181.02	10789.76	-808.80	-114.46	810.71	0.00	439741.77	738772.00	
11625.00	90.55	181.02	10788.79	-908.78	-116.25	910.70	0.00	439641.79	738770.21	
11725.00	90.55	181.02	10787.82	-1008.75	-118.04	1010.70	0.00	439541.82	738768.42	
11825.00	90.55	181.02	10786.85	-1108.73	-119.83	1110.69	0.00	439441.84	738766.63	
11925.00	90.55	181.02	10785.88	-1208.71	-121.62	1210.69	0.00	439341.86	738764.84	
12025.00	90.55	181.02	10784.91	-1308.69	-123.41	1310.68	0.00	439241.88	738763.05	
12125.00	90.55	181.02	10783.94	-1408.67	-125.19	1410.68	0.00	439141.90	738761.27	
12225.00	90.55	181.02	10782.98	-1508.65	-126.98	1510.67	0.00	439041.92	738759.48	
12325.00	90.55	181.02	10782.01	-1608.63	-128.77	1610.67	0.00	438941.94	738757.69	
12425.00	90.55	181.02	10781.04	-1708.61	-130.56	1710.66	0.00	438841.96	738755.90	
12525.00	90.55	181.02	10780.07	-1808.59	-132.35	1810.66	0.00	438741.98	738754.11	
12625.00	90.55	181.02	10779.10	-1908.57	-134.14	1910.65	0.00	438642.00	738752.32	
12725.00	90.55	181.02	10778.13	-2008.55	-135.92	2010.65	0.00	438542.02	738750.54	
12825.00	90.55	181.02	10777.16	-2108.53	-137.71	2110.64	0.00	438442.04	738748.75	
12925.00	90.55	181.02	10776.20	-2208.51	-139.50	2210.64	0.00	438342.06	738746.96	
13025.00	90.55	181.02	10775.23	-2308.49	-141.29	2310.64	0.00	438242.08	738745.17	
13125.00	90.55	181.02	10774.26	-2408.46	-143.08	2410.63	0.00	438142.11	738743.38	
13225.00	90.55	181.02	10773.29	-2508.44	-144.87	2510.63	0.00	438042.13	738741.59	
13325.00	90.55	181.02	10772.32	-2608.42	-146.66	2610.62	0.00	437942.15	738739.80	
13425.00	90.55	181.02	10771.35	-2708.40	-148.44	2710.62	0.00	437842.17	738738.02	
13525.00	90.55	181.02	10770.39	-2808.38	-150.23	2810.61	0.00	437742.19	738736.23	
13625.00	90.55	181.02	10769.42	-2908.36	-152.02	2910.61	0.00	437642.21	738734.44	
13725.00	90.55	181.02	10768.45	-3008.34	-153.81	3010.60	0.00	437542.23	738732.65	
13825.00	90.55	181.02	10767.48	-3108.32	-155.60	3110.60	0.00	437442.25	738730.86	
13925.00	90.55	181.02	10766.51	-3208.30	-157.39	3210.59	0.00	437342.27	738729.07	
14025.00	90.55	181.02	10765.54	-3308.28	-159.17	3310.59	0.00	437242.29	738727.29	
14125.00	90.55	181.02	10764.57	-3408.26	-160.96	3410.58	0.00	437142.31	738725.50	
14225.00	90.55	181.02	10763.61	-3508.24	-162.75	3510.58	0.00	437042.33	738723.71	
14325.00	90.55	181.02	10762.64	-3608.22	-164.54	3610.57	0.00	436942.35	738721.92	
14425.00	90.55	181.02	10761.67	-3708.20	-166.33	3710.57	0.00	436842.37	738720.13	
14525.00	90.55	181.02	10760.70	-3808.18	-168.12	3810.56	0.00	436742.39	738718.34	
14625.00	90.55	181.02	10759.73	-3908.15	-169.90	3910.56	0.00	436642.42	738716.56	

SD Plan Report

Interpolated Points (Relative to Slot centre, TVD relative to Kelly Bushing)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
14725.00	90.55	181.02	10758.76	-4008.13	-171.69	4010.56	0.00	436542.44	738714.77	
14825.00	90.55	181.02	10757.79	-4108.11	-173.48	4110.55	0.00	436442.46	738712.98	
14925.00	90.55	181.02	10756.83	-4208.09	-175.27	4210.55	0.00	436342.48	738711.19	
15025.00	90.55	181.02	10755.86	-4308.07	-177.06	4310.54	0.00	436242.50	738709.40	
15125.00	90.55	181.02	10754.89	-4408.05	-178.85	4410.54	0.00	436142.52	738707.61	
15225.00	90.55	181.02	10753.92	-4508.03	-180.64	4510.53	0.00	436042.54	738705.82	
15325.00	90.55	181.02	10752.95	-4608.01	-182.42	4610.53	0.00	435942.56	738704.04	
15423.22	90.55	181.02	10752.00	-4706.21	-184.18	4708.74	0.00	435844.36	738702.28	PBHL 7H

5D Anti-Collision Report**Devon Energy****Field Name:** *Lea Co, NM Nad 83 NMEZ***Site Name:** *Rebel 20 Fed 3H, 7H Pad***Well Name:** *Rebel 20 Fed 7H*

21 May 2015

**Weatherford®**


Weatherford®

Rebel 20 Fed 7H

Field Name Lea Co, NM Nad 83 NMEZ	Map Units : US ft		Company Name : Devon Energy	
	Vertical Reference Datum (VRD) : Mean Sea Level			
	Projected Coordinate System : NAD83 / New Mexico East (ftUS)			
	Comment :			
Site Name Rebel 20 Fed 3H, 7H Pad	Units : US ft	North Reference : Grid	Convergence Angle : 0.34	
	Position	Northing : 440551.05 US ft	Latitude : 32° 12' 34.33"	
		Easting : 738936.42 US ft	Longitude : -103° 41' 39.99"	
	Elevation above Mean Sea Level:3558.00 US ft			
Comment :				
Slot Name Rebel 20 Fed 7H	Position (Offsets relative to Site Centre)			
	+N / -S : -0.48 US ft	Northing :440550.57 US ft	Latitude : 32°12'34.33"	
	+E / -W : -49.96 US ft	Easting :738886.46 US ft	Longitude : -103°41'40.57"	
	Slot TVD Reference : Ground Elevation			
Elevation above Mean Sea Level : 3557.00 US ft				
Comment :				
Well Name Rebel 20 Fed 7H	Type : Main well	UWI :	Plan : Working Plan	
	Rig Height <i>Kelly Bushing</i> : 25.00 US ft	Comment :		
	Relative to Mean Sea Level: 3582.00 US ft			
	Closure Distance : 4709.81 US ft	Closure Azimuth : 182.241°		
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft	+E / -W : 0.00 US ft	Az :181.02°	
	Magnetic Parameters			
	Model : BGGM	Field Strength : 48206.4nT	Dec : 7.32°	Dip : 60.10°

Collision / Uncertainty Analysis

Primary Well	Start MD (US ft)	End MD (US ft)	Collision Risk Interval	No. of Std Deviations in Error Computation
Rebel 20 Fed 7H (p)	0.00	15398.22	100.00	2

Secondary Well Names

Rebel 20 Fed 3H (p)

Anti Collision Report Terminology

S.Minor, S.Major : Radii of the ellipse of uncertainty at the current location as seen in the along hole direction.

PHI : Angle between high-side vector and semi-minor axis

TVD Spread : Total TVD range of the ellipsoid of uncertainty at the current location

ES : Distance between the extremities of the primary and secondary uncertainty ellipsoids in the direction Cr-Cr

T.Face to Sec : Angle between the HI-Side vector of the primary well at the current location and line of closest approach between the two wells

Separation factors calculated using Pedal Curve (Independent Uncertainty). Well path created using minimum curvature.

Anti Collision Proximity Summary (TVD relative to Kelly Bushing)

SF							
Secondary Well Name	Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	CC (US ft)	ES (US ft)	SF	Risk
Rebel 20 Fed 3H (p)	4412.11	4413.10	4412.10	50.59	30.42	2.51	

Primary Well : Rebel 20 Fed 7H (p) (TVD Relative to Kelly Bushing ; All Azimuth Relative to GRID NORTH)

MD (US ft)	TVD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	Nearest Well	CC (US ft)	ES (US ft)	SF	Risk
0.00	0.00	89.45	0.00	0.00	Rebel 20 Fed 3H (p)	49.96	49.39	86.74	
100.00	100.00	89.45	0.11	0.11	Rebel 20 Fed 3H (p)	49.96	49.17	63.11	
200.00	200.00	89.45	0.34	0.34	Rebel 20 Fed 3H (p)	49.96	48.72	40.30	
300.00	300.00	89.45	0.56	0.56	Rebel 20 Fed 3H (p)	49.96	48.27	29.58	
400.00	400.00	89.45	0.79	0.79	Rebel 20 Fed 3H (p)	49.96	47.82	23.36	
500.00	500.00	89.45	1.01	1.01	Rebel 20 Fed 3H (p)	49.96	47.37	19.30	
600.00	600.00	89.45	1.24	1.24	Rebel 20 Fed 3H (p)	49.96	46.92	16.45	
700.00	700.00	89.45	1.46	1.46	Rebel 20 Fed 3H (p)	49.96	46.48	14.33	
800.00	800.00	89.45	1.69	1.69	Rebel 20 Fed 3H (p)	49.96	46.03	12.69	
900.00	900.00	89.45	1.91	1.91	Rebel 20 Fed 3H (p)	49.96	45.58	11.39	
1000.00	1000.00	89.45	2.14	2.14	Rebel 20 Fed 3H (p)	49.96	45.13	10.33	
1100.00	1100.00	89.45	2.36	2.36	Rebel 20 Fed 3H (p)	49.96	44.68	9.45	
1200.00	1200.00	89.45	2.59	2.59	Rebel 20 Fed 3H (p)	49.96	44.23	8.71	
1300.00	1300.00	89.45	2.81	2.81	Rebel 20 Fed 3H (p)	49.96	43.78	8.08	
1400.00	1400.00	89.45	3.03	3.03	Rebel 20 Fed 3H (p)	49.96	43.33	7.53	
1500.00	1500.00	89.45	3.26	3.26	Rebel 20 Fed 3H (p)	49.96	42.88	7.05	
1600.00	1600.00	89.45	3.48	3.48	Rebel 20 Fed 3H (p)	49.96	42.43	6.63	
1700.00	1700.00	89.45	3.71	3.71	Rebel 20 Fed 3H (p)	49.96	41.98	6.26	
1800.00	1800.00	89.45	3.93	3.93	Rebel 20 Fed 3H (p)	49.96	41.53	5.92	
1900.00	1900.00	89.45	4.16	4.16	Rebel 20 Fed 3H (p)	49.96	41.08	5.63	
2000.00	2000.00	89.45	4.38	4.38	Rebel 20 Fed 3H (p)	49.96	40.63	5.35	
2100.00	2100.00	89.45	4.61	4.61	Rebel 20 Fed 3H (p)	49.96	40.18	5.11	
2200.00	2200.00	89.45	4.83	4.83	Rebel 20 Fed 3H (p)	49.96	39.73	4.88	
2300.00	2300.00	89.45	5.06	5.06	Rebel 20 Fed 3H (p)	49.96	39.28	4.68	
2400.00	2400.00	89.45	5.28	5.28	Rebel 20 Fed 3H (p)	49.96	38.83	4.49	
2500.00	2500.00	89.45	5.51	5.51	Rebel 20 Fed 3H (p)	49.96	38.38	4.31	
2600.00	2600.00	89.45	5.73	5.73	Rebel 20 Fed 3H (p)	49.96	37.93	4.15	
2700.00	2700.00	89.45	5.96	5.96	Rebel 20 Fed 3H (p)	49.96	37.48	4.00	
2800.00	2800.00	89.45	6.18	6.18	Rebel 20 Fed 3H (p)	49.96	37.03	3.86	
2900.00	2900.00	89.45	6.41	6.41	Rebel 20 Fed 3H (p)	49.96	36.58	3.73	
3000.00	3000.00	89.45	6.63	6.63	Rebel 20 Fed 3H (p)	49.96	36.13	3.61	
3100.00	3100.00	89.45	6.86	6.86	Rebel 20 Fed 3H (p)	49.96	35.69	3.50	

SD Anti-Collision Report

Primary Well : Rebel 20 Fed 7H (p) (TVD Relative to Kelly Bushing ; All Azimuth Relative to GRID NORTH)									
MD (US ft)	TVD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	Nearest Well	CC (US ft)	ES (US ft)	SF	Risk
3200.00	3200.00	89.45	7.08	7.08	Rebel 20 Fed 3H (p)	49.96	35.24	3.39	
3300.00	3300.00	89.45	7.31	7.31	Rebel 20 Fed 3H (p)	49.96	34.79	3.29	
3400.00	3400.00	89.45	7.53	7.53	Rebel 20 Fed 3H (p)	49.96	34.34	3.20	
3500.00	3500.00	89.45	7.76	7.76	Rebel 20 Fed 3H (p)	49.96	33.89	3.11	
3600.00	3600.00	89.45	7.98	7.98	Rebel 20 Fed 3H (p)	49.96	33.44	3.02	
3700.00	3700.00	89.45	8.21	8.21	Rebel 20 Fed 3H (p)	49.96	32.99	2.94	
3800.00	3800.00	89.45	8.43	8.43	Rebel 20 Fed 3H (p)	49.96	32.54	2.87	
3900.00	3900.00	89.45	8.65	8.65	Rebel 20 Fed 3H (p)	49.96	32.09	2.80	
4000.00	4000.00	89.45	8.88	8.88	Rebel 20 Fed 3H (p)	49.96	31.64	2.73	
4100.00	4100.00	89.45	9.10	9.10	Rebel 20 Fed 3H (p)	49.96	31.19	2.66	
4200.00	4200.00	89.45	9.33	9.33	Rebel 20 Fed 3H (p)	49.96	30.74	2.60	
4300.00	4300.00	89.45	9.55	9.55	Rebel 20 Fed 3H (p)	49.96	30.29	2.54	
4400.00	4399.99	125.26	9.78	9.77	Rebel 20 Fed 3H (p)	50.46	30.35	2.51	
4500.00	4499.96	127.60	10.00	9.99	Rebel 20 Fed 3H (p)	52.02	31.46	2.53	
4600.00	4599.86	131.20	10.22	10.20	Rebel 20 Fed 3H (p)	54.79	33.80	2.61	
4700.00	4699.68	135.63	10.44	10.41	Rebel 20 Fed 3H (p)	58.99	37.54	2.75	
4800.00	4799.37	140.44	10.66	10.62	Rebel 20 Fed 3H (p)	64.84	42.98	2.97	
4900.00	4898.99	144.87	10.89	10.84	Rebel 20 Fed 3H (p)	71.78	49.47	3.22	
5000.00	4998.60	148.50	11.11	11.06	Rebel 20 Fed 3H (p)	79.08	56.36	3.48	
5100.00	5098.22	151.51	11.34	11.28	Rebel 20 Fed 3H (p)	86.64	63.46	3.74	
5200.00	5197.84	154.04	11.57	11.50	Rebel 20 Fed 3H (p)	94.39	70.75	3.99	
5300.00	5297.46	156.17	11.81	11.72	Rebel 20 Fed 3H (p)	102.31	78.22	4.25	
5400.00	5397.08	158.00	12.04	11.95	Rebel 20 Fed 3H (p)	110.34	85.82	4.50	
5500.00	5496.70	159.58	12.28	12.17	Rebel 20 Fed 3H (p)	118.47	93.53	4.75	
5600.00	5596.32	160.95	12.52	12.39	Rebel 20 Fed 3H (p)	126.68	101.28	4.99	
5700.00	5695.94	162.16	12.76	12.62	Rebel 20 Fed 3H (p)	134.95	109.10	5.22	
5800.00	5795.56	163.23	13.00	12.84	Rebel 20 Fed 3H (p)	143.27	116.97	5.45	
5900.00	5895.18	164.18	13.24	13.06	Rebel 20 Fed 3H (p)	151.64	124.89	5.67	
6000.00	5994.80	165.03	13.48	13.29	Rebel 20 Fed 3H (p)	160.05	132.84	5.88	
6100.00	6094.46	165.77	13.70	13.50	Rebel 20 Fed 3H (p)	168.06	140.44	6.08	
6200.00	6194.18	166.37	13.89	13.68	Rebel 20 Fed 3H (p)	175.26	147.22	6.25	
6300.00	6293.97	166.86	14.08	13.86	Rebel 20 Fed 3H (p)	181.62	153.18	6.39	
6400.00	6393.80	167.27	14.26	14.04	Rebel 20 Fed 3H (p)	187.14	158.30	6.49	
6500.00	6493.69	167.59	14.45	14.23	Rebel 20 Fed 3H (p)	191.83	162.58	6.56	
6600.00	6593.61	167.84	14.64	14.41	Rebel 20 Fed 3H (p)	195.66	166.01	6.60	
6700.00	6693.56	168.03	14.82	14.59	Rebel 20 Fed 3H (p)	198.65	168.59	6.61	

5D Anti-Collision Report

Primary Well : Rebel 20 Fed 7H (p) (TVD Relative to Kelly Bushing ; All Azimuth Relative to GRID NORTH)									
MD (US ft)	TVD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	Nearest Well	CC (US ft)	ES (US ft)	SF	Risk
6800.00	6793.54	168.16	15.01	14.77	Rebel 20 Fed 3H (p)	200.79	170.32	6.59	
6900.00	6893.53	168.23	15.19	14.95	Rebel 20 Fed 3H (p)	202.07	171.20	6.55	
7000.00	6993.53	133.26	15.37	15.13	Rebel 20 Fed 3H (p)	202.49	171.22	6.47	
7100.00	7093.53	133.26	15.57	15.33	Rebel 20 Fed 3H (p)	202.49	170.79	6.39	
7200.00	7193.53	133.26	15.79	15.55	Rebel 20 Fed 3H (p)	202.49	170.34	6.30	
7300.00	7293.53	133.26	16.01	15.78	Rebel 20 Fed 3H (p)	202.49	169.90	6.21	
7400.00	7393.53	133.26	16.23	16.00	Rebel 20 Fed 3H (p)	202.49	169.45	6.13	
7500.00	7493.53	133.26	16.45	16.22	Rebel 20 Fed 3H (p)	202.49	169.01	6.05	
7600.00	7593.53	133.26	16.67	16.45	Rebel 20 Fed 3H (p)	202.49	168.56	5.97	
7700.00	7693.53	133.26	16.89	16.67	Rebel 20 Fed 3H (p)	202.49	168.11	5.89	
7800.00	7793.53	133.26	17.11	16.89	Rebel 20 Fed 3H (p)	202.49	167.67	5.81	
7900.00	7893.53	133.54	17.33	17.12	Rebel 20 Fed 3H (p)	203.67	168.46	5.79	
8000.00	7993.53	135.69	17.55	17.34	Rebel 20 Fed 3H (p)	213.41	178.23	6.07	
8100.00	8093.53	139.26	17.77	17.56	Rebel 20 Fed 3H (p)	233.58	198.47	6.65	
8200.00	8193.53	143.28	17.99	17.78	Rebel 20 Fed 3H (p)	264.71	230.14	7.66	
8300.00	8293.53	147.08	18.21	18.01	Rebel 20 Fed 3H (p)	306.48	272.55	9.03	
8400.00	8393.53	150.34	18.43	18.23	Rebel 20 Fed 3H (p)	357.84	324.74	10.81	
8500.00	8493.53	153.01	18.66	18.45	Rebel 20 Fed 3H (p)	417.32	385.09	12.95	
8600.00	8593.53	155.15	18.88	18.68	Rebel 20 Fed 3H (p)	483.48	452.03	15.37	
8700.00	8693.53	156.88	19.10	18.90	Rebel 20 Fed 3H (p)	555.05	524.29	18.05	
8800.00	8793.53	158.27	19.32	19.12	Rebel 20 Fed 3H (p)	630.97	600.72	20.86	
8900.00	8893.53	159.40	19.54	19.35	Rebel 20 Fed 3H (p)	710.41	680.63	23.85	
9000.00	8993.53	160.33	19.76	19.57	Rebel 20 Fed 3H (p)	792.71	763.34	26.99	
9100.00	9093.53	161.10	19.98	19.80	Rebel 20 Fed 3H (p)	877.35	848.28	30.18	
9200.00	9193.53	161.76	20.20	20.02	Rebel 20 Fed 3H (p)	963.91	935.03	33.37	
9300.00	9293.53	162.31	20.43	20.24	Rebel 20 Fed 3H (p)	1052.08	1023.37	36.64	
9400.00	9393.53	162.79	20.65	20.47	Rebel 20 Fed 3H (p)	1141.60	1113.02	39.95	
9500.00	9493.53	163.20	20.87	20.69	Rebel 20 Fed 3H (p)	1232.25	1203.72	43.18	
9600.00	9593.53	163.55	21.09	20.91	Rebel 20 Fed 3H (p)	1323.87	1295.37	46.44	
9700.00	9693.53	163.87	21.31	21.14	Rebel 20 Fed 3H (p)	1416.32	1387.78	49.62	
9800.00	9793.53	164.15	21.54	21.36	Rebel 20 Fed 3H (p)	1509.49	1480.89	52.78	
9900.00	9893.53	164.40	21.76	21.58	Rebel 20 Fed 3H (p)	1603.28	1574.61	55.93	
10000.00	9993.53	164.62	21.98	21.81	Rebel 20 Fed 3H (p)	1697.61	1668.86	59.06	
10100.00	10093.53	164.82	22.20	22.03	Rebel 20 Fed 3H (p)	1792.41	1763.54	62.09	
10200.00	10193.53	165.00	22.42	22.26	Rebel 20 Fed 3H (p)	1887.63	1858.62	65.06	
10300.00	10293.47	347.63	22.60	22.38	Rebel 20 Fed 3H (p)	1982.62	1953.46	68.00	

SD Anti-Collision Report

Primary Well : Rebel 20 Fed 7H (p) (TVD Relative to Kelly Bushing ; All Azimuth Relative to GRID NORTH)									
MD (US ft)	TVD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	Nearest Well	CC (US ft)	ES (US ft)	SF	Risk
10400.00	10391.64	351.68	22.70	22.19	Rebel 20 Fed 3H (p)	2072.01	2042.78	70.88	
10500.00	10484.54	353.65	22.81	21.57	Rebel 20 Fed 3H (p)	2152.58	2123.30	73.54	
10600.00	10568.74	354.76	22.88	20.63	Rebel 20 Fed 3H (p)	2222.23	2192.95	75.90	
10700.00	10641.16	355.43	23.00	19.50	Rebel 20 Fed 3H (p)	2279.29	2250.00	77.84	
10800.00	10699.13	355.84	23.22	18.36	Rebel 20 Fed 3H (p)	2322.45	2293.17	79.31	
10900.00	10740.52	356.08	23.51	17.47	Rebel 20 Fed 3H (p)	2350.78	2321.52	80.33	
11000.00	10763.81	356.17	23.85	17.04	Rebel 20 Fed 3H (p)	2363.67	2334.37	80.66	
11100.00	10768.63	356.16	24.40	17.07	Rebel 20 Fed 3H (p)	2361.33	2331.95	80.38	
11200.00	10767.66	356.15	25.01	17.21	Rebel 20 Fed 3H (p)	2356.61	2327.08	79.81	
11300.00	10766.69	356.12	25.71	17.38	Rebel 20 Fed 3H (p)	2354.85	2325.00	78.90	
11400.00	10765.72	356.09	26.51	17.59	Rebel 20 Fed 3H (p)	2353.50	2323.17	77.59	
11500.00	10764.76	356.05	27.40	17.84	Rebel 20 Fed 3H (p)	2352.15	2321.27	76.16	
11600.00	10763.79	356.01	28.43	18.13	Rebel 20 Fed 3H (p)	2350.81	2319.31	74.63	
11700.00	10762.82	355.97	29.54	18.43	Rebel 20 Fed 3H (p)	2349.46	2317.29	73.04	
11800.00	10761.85	355.93	30.71	18.76	Rebel 20 Fed 3H (p)	2348.12	2315.22	71.38	
11900.00	10760.88	355.89	31.94	19.11	Rebel 20 Fed 3H (p)	2346.78	2313.11	69.70	
12000.00	10759.91	355.85	33.23	19.47	Rebel 20 Fed 3H (p)	2345.43	2310.95	68.02	
12100.00	10758.94	355.82	34.56	19.84	Rebel 20 Fed 3H (p)	2344.09	2308.77	66.36	
12200.00	10757.98	355.78	35.94	20.20	Rebel 20 Fed 3H (p)	2342.75	2306.57	64.74	
12300.00	10757.01	355.74	37.35	20.63	Rebel 20 Fed 3H (p)	2341.42	2304.24	62.99	
12400.00	10756.04	355.70	38.80	21.11	Rebel 20 Fed 3H (p)	2340.08	2301.89	61.28	
12500.00	10755.07	355.66	40.27	21.54	Rebel 20 Fed 3H (p)	2338.74	2299.57	59.71	
12600.00	10754.10	355.62	41.78	22.00	Rebel 20 Fed 3H (p)	2337.41	2297.22	58.16	
12700.00	10753.13	355.58	43.30	22.49	Rebel 20 Fed 3H (p)	2336.07	2294.84	56.66	
12800.00	10752.16	355.54	44.85	23.01	Rebel 20 Fed 3H (p)	2334.74	2292.38	55.11	
12900.00	10751.20	355.50	46.42	23.49	Rebel 20 Fed 3H (p)	2333.41	2289.91	53.64	
13000.00	10750.23	355.46	48.01	23.97	Rebel 20 Fed 3H (p)	2332.08	2287.45	52.26	
13100.00	10749.26	355.42	49.61	24.57	Rebel 20 Fed 3H (p)	2330.75	2284.92	50.86	
13200.00	10748.29	355.39	51.23	25.03	Rebel 20 Fed 3H (p)	2329.42	2282.52	49.67	
13300.00	10747.32	355.35	52.86	25.66	Rebel 20 Fed 3H (p)	2328.09	2279.88	48.29	
13400.00	10746.35	355.31	54.50	26.20	Rebel 20 Fed 3H (p)	2326.77	2277.33	47.07	
13500.00	10745.39	355.27	56.16	26.70	Rebel 20 Fed 3H (p)	2325.44	2274.82	45.94	
13600.00	10744.42	355.23	57.82	27.32	Rebel 20 Fed 3H (p)	2324.12	2272.22	44.79	
13700.00	10743.45	355.19	59.50	27.93	Rebel 20 Fed 3H (p)	2322.79	2269.59	43.66	
13800.00	10742.48	355.15	61.18	28.54	Rebel 20 Fed 3H (p)	2321.47	2266.97	42.60	
13900.00	10741.51	355.11	62.87	29.13	Rebel 20 Fed 3H (p)	2320.15	2264.36	41.59	

SD Anti-Collision Report

Primary Well : Rebel 20 Fed 7H (p) (TVD Relative to Kelly Bushing ; All Azimuth Relative to GRID NORTH)									
MD (US ft)	TVD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	Nearest Well	CC (US ft)	ES (US ft)	SF	Risk
14000.00	10740.54	355.07	64.56	29.73	Rebel 20 Fed 3H (p)	2318.83	2261.74	40.62	
14100.00	10739.57	355.03	66.27	30.33	Rebel 20 Fed 3H (p)	2317.51	2259.12	39.69	
14200.00	10738.61	354.99	67.98	30.93	Rebel 20 Fed 3H (p)	2316.19	2256.49	38.79	
14300.00	10737.64	354.95	69.69	31.53	Rebel 20 Fed 3H (p)	2314.88	2253.86	37.94	
14400.00	10736.67	354.91	71.41	32.14	Rebel 20 Fed 3H (p)	2313.56	2251.22	37.11	
14500.00	10735.70	354.87	73.14	32.75	Rebel 20 Fed 3H (p)	2312.25	2248.57	36.31	
14600.00	10734.73	354.83	74.87	33.36	Rebel 20 Fed 3H (p)	2310.94	2245.92	35.54	
14700.00	10733.76	354.79	76.60	33.98	Rebel 20 Fed 3H (p)	2309.62	2243.26	34.80	
14800.00	10732.79	354.75	78.34	34.61	Rebel 20 Fed 3H (p)	2308.31	2240.60	34.09	
14900.00	10731.83	354.71	80.08	35.27	Rebel 20 Fed 3H (p)	2307.00	2237.93	33.40	
15000.00	10730.86	354.67	81.83	35.92	Rebel 20 Fed 3H (p)	2305.69	2235.23	32.72	
15100.00	10729.89	354.63	83.58	36.58	Rebel 20 Fed 3H (p)	2304.39	2232.53	32.07	
15200.00	10728.92	354.59	85.33	37.25	Rebel 20 Fed 3H (p)	2303.08	2229.82	31.44	
15300.00	10727.95	354.55	87.08	37.91	Rebel 20 Fed 3H (p)	2301.78	2227.11	30.83	
15398.22	10727.00	354.52	88.81	38.56	Rebel 20 Fed 3H (p)	2300.54	2224.57	30.28	

Secondary Well : Rebel 20 Fed 3H (p) (TVD Relative to Kelly Bushing (Primary) ; All Azimuth Relative to GRID NORTH)									
Pri MD (US ft)	TVD (US ft)	Sec MD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	CC (US ft)	ES (US ft)	SF	Risk
0.00	0.00	1.00	89.45	0.01	0.01	49.96	49.39	86.74	
100.00	100.00	101.00	89.45	0.12	0.12	49.96	49.17	63.11	
200.00	200.00	201.00	89.45	0.34	0.34	49.96	48.72	40.30	
300.00	300.00	301.00	89.45	0.56	0.56	49.96	48.27	29.58	
400.00	400.00	401.00	89.45	0.79	0.79	49.96	47.82	23.36	
500.00	500.00	501.00	89.45	1.01	1.01	49.96	47.37	19.30	
600.00	600.00	601.00	89.45	1.24	1.24	49.96	46.92	16.45	
700.00	700.00	701.00	89.45	1.46	1.46	49.96	46.48	14.33	
800.00	800.00	801.00	89.45	1.69	1.69	49.96	46.03	12.69	
900.00	900.00	901.00	89.45	1.91	1.91	49.96	45.58	11.39	
1000.00	1000.00	1001.00	89.45	2.14	2.14	49.96	45.13	10.33	
1100.00	1100.00	1101.00	89.45	2.36	2.36	49.96	44.68	9.45	
1200.00	1200.00	1201.00	89.45	2.59	2.59	49.96	44.23	8.71	
1300.00	1300.00	1301.00	89.45	2.81	2.81	49.96	43.78	8.08	
1400.00	1400.00	1401.00	89.45	3.04	3.04	49.96	43.33	7.53	
1500.00	1500.00	1501.00	89.45	3.26	3.26	49.96	42.88	7.05	
1600.00	1600.00	1601.00	89.45	3.49	3.49	49.96	42.43	6.63	
1700.00	1700.00	1701.00	89.45	3.71	3.71	49.96	41.98	6.26	
1800.00	1800.00	1801.00	89.45	3.94	3.94	49.96	41.53	5.92	
1900.00	1900.00	1901.00	89.45	4.16	4.16	49.96	41.08	5.63	
2000.00	2000.00	2001.00	89.45	4.39	4.39	49.96	40.63	5.35	
2100.00	2100.00	2101.00	89.45	4.61	4.61	49.96	40.18	5.11	
2200.00	2200.00	2201.00	89.45	4.84	4.84	49.96	39.73	4.88	
2300.00	2300.00	2301.00	89.45	5.06	5.06	49.96	39.28	4.68	
2400.00	2400.00	2401.00	89.45	5.29	5.29	49.96	38.83	4.49	
2500.00	2500.00	2501.00	89.45	5.51	5.51	49.96	38.38	4.31	
2600.00	2600.00	2601.00	89.45	5.73	5.73	49.96	37.93	4.15	
2700.00	2700.00	2701.00	89.45	5.96	5.96	49.96	37.48	4.00	
2800.00	2800.00	2801.00	89.45	6.18	6.18	49.96	37.03	3.86	
2900.00	2900.00	2901.00	89.45	6.41	6.41	49.96	36.58	3.73	

Secondary Well : Rebel 20 Fed 3H (p) (TVD Relative to Kelly Bushing (Primary) ; All Azimuth Relative to GRID NORTH)									
Pri MD (US ft)	TVD (US ft)	Sec MD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	CC (US ft)	ES (US ft)	SF	Risk
3000.00	3000.00	3001.00	89.45	6.63	6.63	49.96	36.13	3.61	
3100.00	3100.00	3101.00	89.45	6.86	6.86	49.96	35.69	3.50	
3200.00	3200.00	3201.00	89.45	7.08	7.08	49.96	35.24	3.39	
3300.00	3300.00	3301.00	89.45	7.31	7.31	49.96	34.79	3.29	
3400.00	3400.00	3401.00	89.45	7.53	7.53	49.96	34.34	3.20	
3500.00	3500.00	3501.00	89.45	7.76	7.76	49.96	33.89	3.11	
3600.00	3600.00	3601.00	89.45	7.98	7.98	49.96	33.44	3.02	
3700.00	3700.00	3701.00	89.45	8.21	8.21	49.96	32.99	2.94	
3800.00	3800.00	3801.00	89.45	8.43	8.43	49.96	32.54	2.87	
3900.00	3900.00	3901.00	89.45	8.66	8.66	49.96	32.09	2.80	
4000.00	4000.00	4001.00	89.45	8.88	8.88	49.96	31.64	2.73	
4100.00	4100.00	4101.00	89.45	9.11	9.11	49.96	31.19	2.66	
4200.00	4200.00	4201.00	89.45	9.33	9.33	49.96	30.74	2.60	
4300.00	4300.00	4301.00	89.45	9.56	9.56	49.96	30.29	2.54	
4400.00	4399.99	4400.99	125.26	9.78	9.78	50.46	30.35	2.51	
4500.00	4499.96	4500.96	127.60	10.01	10.01	52.02	31.46	2.53	
4600.00	4599.86	4600.86	131.20	10.23	10.23	54.79	33.80	2.61	
4700.00	4699.68	4700.68	135.63	10.45	10.45	58.99	37.54	2.75	
4800.00	4799.37	4800.37	140.44	10.68	10.68	64.84	42.98	2.97	
4900.00	4898.99	4899.99	144.87	10.90	10.90	71.78	49.47	3.22	
5000.00	4998.60	4999.60	148.50	11.13	11.13	79.08	56.36	3.48	
5100.00	5098.22	5099.22	151.51	11.35	11.35	86.64	63.46	3.74	
5200.00	5197.84	5198.84	154.04	11.57	11.57	94.39	70.75	3.99	
5300.00	5297.46	5298.46	156.17	11.80	11.80	102.31	78.22	4.25	
5400.00	5397.08	5398.08	158.00	12.02	12.02	110.34	85.82	4.50	
5500.00	5496.70	5497.70	159.58	12.25	12.25	118.47	93.53	4.75	
5600.00	5596.32	5597.32	160.95	12.47	12.47	126.68	101.28	4.99	
5700.00	5695.94	5696.94	162.16	12.69	12.69	134.95	109.10	5.22	
5800.00	5795.56	5796.56	163.23	12.92	12.92	143.27	116.97	5.45	
5900.00	5895.18	5896.18	164.18	13.14	13.14	151.64	124.89	5.67	
6000.00	5994.80	5995.80	165.03	13.37	13.37	160.05	132.84	5.88	
6100.00	6094.46	6095.46	165.77	13.59	13.59	168.06	140.44	6.08	
6200.00	6194.18	6195.18	166.37	13.81	13.81	175.26	147.22	6.25	
6300.00	6293.97	6294.97	166.86	14.04	14.04	181.62	153.18	6.39	
6400.00	6393.80	6394.80	167.27	14.26	14.26	187.14	158.30	6.49	
6500.00	6493.69	6494.69	167.59	14.49	14.49	191.83	162.58	6.56	
6600.00	6593.61	6594.61	167.84	14.71	14.71	195.66	166.01	6.60	
6700.00	6693.56	6694.56	168.03	14.94	14.94	198.65	168.59	6.61	
6800.00	6793.54	6794.54	168.16	15.16	15.16	200.79	170.32	6.59	
6900.00	6893.53	6894.53	168.23	15.39	15.39	202.07	171.20	6.55	
7000.00	6993.53	6994.53	133.26	15.61	15.61	202.49	171.22	6.47	
7100.00	7093.53	7094.53	133.26	15.84	15.84	202.49	170.79	6.39	
7200.00	7193.53	7194.53	133.26	16.06	16.06	202.49	170.34	6.30	
7300.00	7293.53	7294.53	133.26	16.29	16.29	202.49	169.90	6.21	
7400.00	7393.53	7394.53	133.26	16.51	16.51	202.49	169.45	6.13	
7500.00	7493.53	7494.53	133.26	16.74	16.74	202.49	169.01	6.05	
7600.00	7593.53	7594.53	133.26	16.96	16.96	202.49	168.56	5.97	
7700.00	7693.53	7694.53	133.26	17.19	17.19	202.49	168.11	5.89	
7800.00	7793.53	7794.53	133.26	17.41	17.41	202.49	167.67	5.81	
7900.00	7883.81	7884.84	133.54	17.60	17.56	203.67	168.46	5.79	
8000.00	7961.89	7963.73	135.69	17.73	17.47	213.41	178.23	6.07	
8100.00	8033.69	8038.33	139.26	17.84	17.20	233.58	198.47	6.65	
8200.00	8096.71	8106.72	143.28	17.96	16.78	264.71	230.14	7.66	
8300.00	8150.13	8167.95	147.08	18.08	16.32	306.48	272.55	9.03	
8400.00	8194.32	8221.92	150.34	18.20	15.78	357.84	324.74	10.81	
8500.00	8230.39	8269.05	153.01	18.32	15.35	417.32	385.09	12.95	
8600.00	8259.64	8310.03	155.15	18.44	14.90	483.48	452.03	15.37	
8700.00	8283.35	8345.65	156.88	18.57	14.49	555.05	524.29	18.05	

SD Anti-Collision Report

Secondary Well : Rebel 20 Fed 3H (p) (TVD Relative to Kelly Bushing (Primary) ; All Azimuth Relative to GRID NORTH)									
Pri MD (US ft)	TVD (US ft)	Sec MD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	CC (US ft)	ES (US ft)	SF	Risk
8800.00	8302.61	8376.67	158.27	18.68	14.18	630.97	600.72	20.86	
8900.00	8318.34	8403.78	159.40	18.78	13.88	710.41	680.63	23.85	
9000.00	8331.27	8427.56	160.33	18.90	13.59	792.71	763.34	26.99	
9100.00	8341.98	8448.54	161.10	19.00	13.38	877.35	848.28	30.18	
9200.00	8350.91	8467.12	161.76	19.09	13.21	963.91	935.03	33.37	
9300.00	8358.41	8483.67	162.31	19.17	13.04	1052.08	1023.37	36.64	
9400.00	8364.76	8498.48	162.79	19.24	12.89	1141.60	1113.02	39.95	
9500.00	8370.18	8511.78	163.20	19.32	12.74	1232.25	1203.72	43.18	
9600.00	8374.82	8523.80	163.55	19.40	12.64	1323.87	1295.37	46.44	
9700.00	8378.82	8534.69	163.87	19.46	12.56	1416.32	1387.78	49.62	
9800.00	8382.30	8544.60	164.15	19.53	12.49	1509.49	1480.89	52.78	
9900.00	8385.34	8553.65	164.40	19.58	12.42	1603.28	1574.61	55.93	
10000.00	8388.00	8561.95	164.62	19.63	12.36	1697.61	1668.86	59.06	
10100.00	8390.35	8569.58	164.82	19.68	12.29	1792.41	1763.54	62.09	
10200.00	8392.43	8576.62	165.00	19.72	12.23	1887.63	1858.62	65.06	
10300.00	8394.40	8583.55	165.17	19.77	12.17	1982.62	1953.46	68.00	
10400.00	8397.02	8593.28	165.31	19.83	12.09	2072.01	2042.78	70.88	
10500.00	8400.18	8605.84	165.43	19.91	12.04	2152.58	2123.30	73.54	
10600.00	8403.57	8620.70	165.54	20.03	11.98	2222.23	2192.95	75.90	
10700.00	8406.91	8637.34	165.63	20.15	11.90	2279.29	2250.00	77.84	
10800.00	8410.00	8655.32	165.71	20.29	11.80	2322.45	2293.17	79.31	
10900.00	8412.63	8674.21	165.78	20.43	11.75	2350.78	2321.52	80.33	
11000.00	8414.70	8693.60	165.84	20.57	11.73	2363.67	2334.37	80.66	
11100.00	8416.12	8713.12	165.89	20.73	11.70	2361.33	2331.95	80.38	
11200.00	8416.87	8732.68	165.93	20.90	11.68	2356.61	2327.08	79.81	
11300.00	8417.25	8793.26	165.96	21.43	11.82	2354.85	2325.00	78.90	
11400.00	8417.73	8893.24	165.99	22.41	12.06	2353.50	2323.17	77.59	
11500.00	8418.22	8993.22	166.01	23.49	12.35	2352.15	2321.27	76.16	
11600.00	8418.70	9093.19	166.01	24.66	12.67	2350.81	2319.31	74.63	
11700.00	8419.18	9193.17	166.01	25.90	13.02	2349.46	2317.29	73.04	
11800.00	8419.67	9293.15	166.01	27.21	13.41	2348.12	2315.22	71.38	
11900.00	8420.15	9393.13	166.01	28.58	13.82	2346.78	2313.11	69.70	
12000.00	8420.63	9493.11	166.01	29.99	14.26	2345.43	2310.95	68.02	
12100.00	8421.12	9593.09	166.01	31.45	14.71	2344.09	2308.77	66.36	
12200.00	8421.60	9693.06	166.01	32.94	15.19	2342.75	2306.57	64.74	
12300.00	8422.08	9793.04	166.01	34.47	15.69	2341.42	2304.24	62.99	
12400.00	8422.57	9893.02	166.01	36.02	16.19	2340.08	2301.89	61.28	
12500.00	8423.05	9993.00	166.01	37.60	16.75	2338.74	2299.57	59.71	
12600.00	8423.54	10092.98	166.01	39.20	17.33	2337.41	2297.22	58.16	
12700.00	8424.02	10192.96	166.01	40.82	17.90	2336.07	2294.84	56.66	
12800.00	8424.50	10292.93	166.01	42.46	18.44	2334.74	2292.38	55.11	
12900.00	8424.99	10392.91	166.01	44.11	19.07	2333.41	2289.91	53.64	
13000.00	8425.47	10492.89	166.01	45.77	19.66	2332.08	2287.45	52.26	
13100.00	8425.95	10592.87	166.01	47.45	20.24	2330.75	2284.92	50.86	
13200.00	8426.44	10692.85	166.01	49.13	20.82	2329.42	2282.52	49.67	
13300.00	8426.92	10792.83	166.01	50.83	21.47	2328.09	2279.88	48.29	
13400.00	8427.40	10892.81	166.01	52.53	22.11	2326.77	2277.33	47.07	
13500.00	8427.89	10992.78	166.01	54.25	22.75	2325.44	2274.82	45.94	
13600.00	8428.37	11092.76	166.01	55.97	23.40	2324.12	2272.22	44.79	
13700.00	8428.86	11192.74	166.01	57.69	24.05	2322.79	2269.59	43.66	
13800.00	8429.34	11292.72	166.01	59.43	24.70	2321.47	2266.97	42.60	
13900.00	8429.82	11392.70	166.01	61.16	25.36	2320.15	2264.36	41.59	
14000.00	8430.31	11492.68	166.01	62.91	26.02	2318.83	2261.74	40.62	
14100.00	8430.79	11592.65	166.01	64.65	26.68	2317.51	2259.12	39.69	
14200.00	8431.27	11692.63	166.01	66.41	27.35	2316.19	2256.49	38.79	
14300.00	8431.76	11792.61	166.01	68.16	28.02	2314.88	2253.86	37.94	
14400.00	8432.24	11892.59	166.01	69.92	28.69	2313.56	2251.22	37.11	
14500.00	8432.72	11992.57	166.01	71.68	29.37	2312.25	2248.57	36.31	

5D Anti-Collision Report

Secondary Well : Rebel 20 Fed 3H (p) (TVD Relative to Kelly Bushing (Primary) ; All Azimuth Relative to GRID NORTH)									
Pri MD (US ft)	TVD (US ft)	Sec MD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	CC (US ft)	ES (US ft)	SF	Risk
14600.00	8433.21	12092.55	354.83	73.45	30.05	2310.94	2245.92	35.54	
14700.00	8433.69	12192.52	354.79	75.22	30.73	2309.62	2243.26	34.80	
14800.00	8434.18	12292.50	354.75	76.99	31.41	2308.31	2240.60	34.09	
14900.00	8434.66	12392.48	354.71	78.76	32.10	2307.00	2237.93	33.40	
15000.00	8435.14	12492.46	354.67	80.54	32.79	2305.69	2235.23	32.72	
15100.00	8435.63	12592.44	354.63	82.32	33.48	2304.39	2232.53	32.07	
15200.00	8436.11	12692.42	354.59	84.10	34.17	2303.08	2229.82	31.44	
15300.00	8436.59	12792.39	354.55	85.88	34.86	2301.78	2227.11	30.83	
15398.22	8437.00	12876.29	354.52	87.38	35.44	2300.54	2224.57	30.28	



Weatherford

Weatherford Drilling Services

GeoDec4 v2.1.0.0

Report Date: May 20, 2015
Job Number: _____
Customer: Devon Energy
Well Name: Rebel 20 Fed 7H
API Number: _____
Rig Name: _____
Location: Lea Co, NM Nad83 NME
Block: _____
Engineer: RWJ

NAD83 / New Mexico East (ftUS)	NAD83 (1986)
Projected Coordinate System	Geodetic Coordinate System
Datum: North American Datum 1983 (1986)	Datum: North American Datum 1983 (1986)
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
EPSG: 2257	EPSG: 4269
North: 440550.57 US Survey Foot	Latitude: 32.209537 Degree
East: 738886.46 US Survey Foot	Longitude: -103.694603 Degree
Convergence: 0.34°	
Declination: 7.32°	
Total Correction: 6.98°	
Datum Transformation: none	

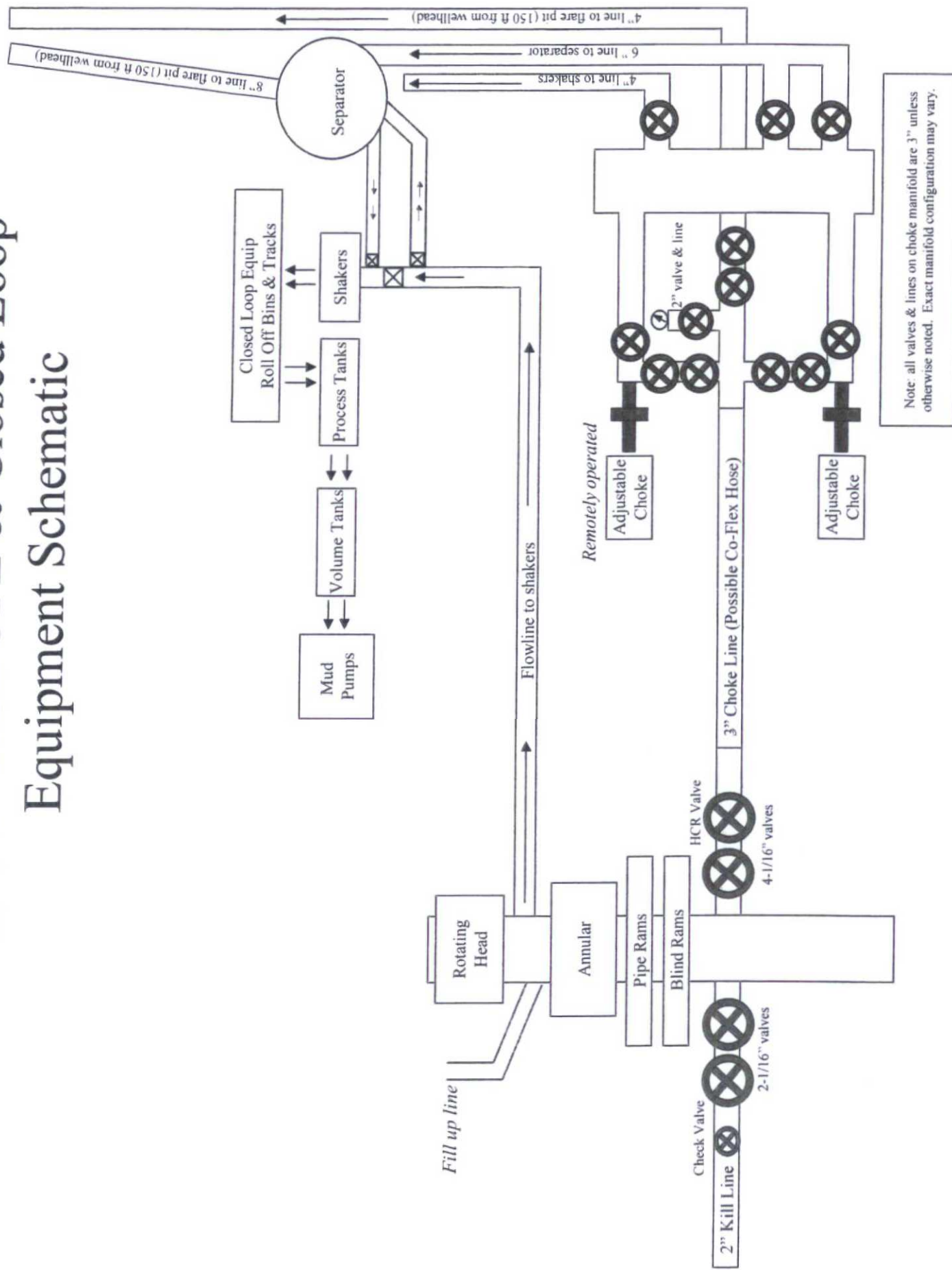
Geodetic Location WGS84

MSL Elevation = 0 m
Latitude = 32° 12' 34.33" N
Longitude = 103° 41' 40.57" W

Magnetic Declination = 7.32 deg	[True North Offset]
Local Gravity = .9988 g	Checksum = 6558
Local Field Strength = 48206 nT	Magnetic Vector X = 23834 nT
Magnetic Dip = 60.10 deg	Magnetic Vector Y = 3060 nT
Magnetic Model = bggm2015.dat	Magnetic Vector Z = 41790 nT
Run Date = August 15, 2015	Magnetic Vector H = 24030 nT

Signed: _____ Date: _____

13-5/8" 3M BOPE & Closed Loop Equipment Schematic



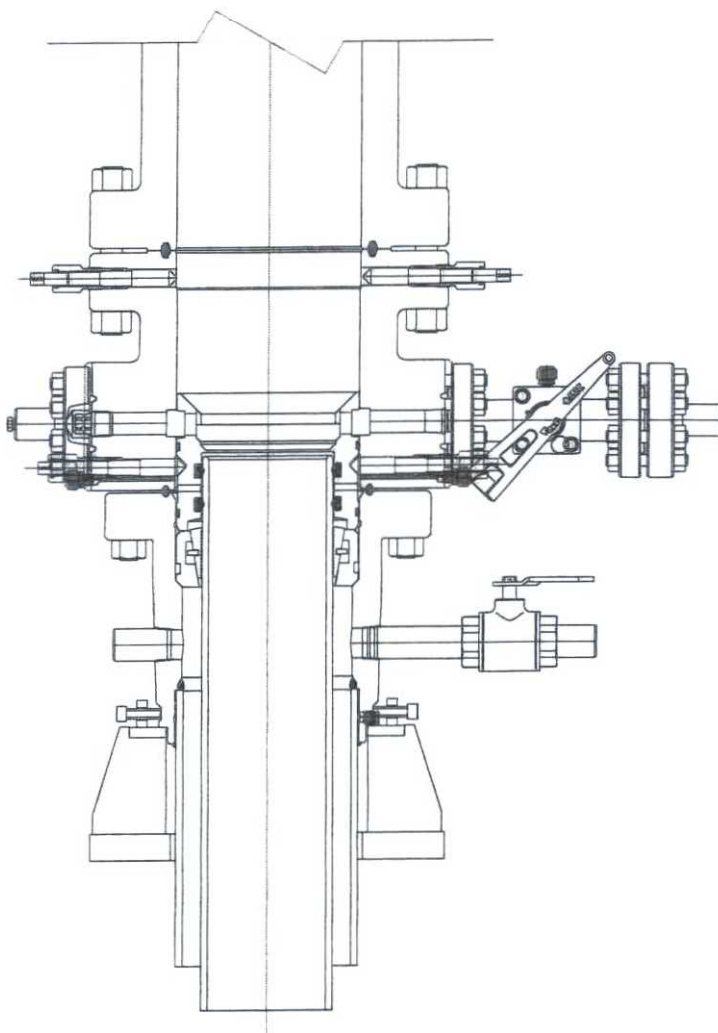
NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, L.P.

REBEL 20 FED 7H

1. Drilling Nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated filings will be in operable condition to withstand a minimum of 3000psi working pressure.
4. All fittings will be flanged.
5. A fill bore safety valve tested to a minimum of 3000psi WP with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

PRIVATE AND CONFIDENTIAL THIS DOCUMENT AND ALL THE INFORMATION CONTAINED HEREIN ARE THE CONFIDENTIAL AND EXCLUSIVE PROPERTY OF FMC TECHNOLOGIES AND MAY NOT BE REPRODUCED, USED, DISCLOSED, OR MADE PUBLIC IN ANY MANNER PRIOR TO EXPRESS WRITTEN AUTHORIZATION BY FMC TECHNOLOGIES. THIS DOCUMENT IS ACCEPTED BY RECIPIENT PURSUANT TO AGREEMENT TO THE FOREGOING, AND MUST BE RETURNED UPON DEMAND.		REVISIONS A 05-08-13 B 1-22-14 C 5-13-14	DESCRIPTION SURFACE WELLHEAD LAYOUT UNIHEAD, UH-1,SOW, DEVON ENERGY, ODESSA	DRAWN BY K. VU DRAFTING REVIEW Z. MARQUEZ DESIGN REVIEW K. TAHA APPROVED BY R. HAMILTON	05-08-13 05-08-13 05-08-13 05-08-13	 DRAWING NUMBER DM100161771-2A
---	--	--	---	--	--	--



CONTINGENCY MODE

DEVON ENERGY

ARTESIA

S.E.N.M

13 3/8 X 9 5/8

QUOTE LAYOUT
F18648
REF: DM100161737
DM100151315

PRIVATE AND CONFIDENTIAL THIS DOCUMENT AND ALL THE INFORMATION CONTAINED HEREIN ARE THE CONFIDENTIAL AND EXCLUSIVE PROPERTY OF FMC TECHNOLOGIES AND MAY NOT BE REPRODUCED, USED, DISCLOSED, OR MADE PUBLIC IN ANY MANNER PRIOR TO EXPRESS WRITTEN AUTHORIZATION BY FMC TECHNOLOGIES. THIS DOCUMENT IS ACCEPTED BY RECIPIENT PURSUANT TO AGREEMENT TO THE FOREGOING, AND MUST BE RETURNED UPON DEMAND. MANUFACTURER AGREES THAT ARTICLES MADE IN ACCORDANCE WITH THIS DOCUMENT SHALL BE CONSIDERED FMC TECHNOLOGIES' DESIGN AND THAT IDENTICAL ARTICLES OR PARTS THEREOF SHALL NOT BE MANUFACTURED FOR THE USE OR SALE BY MANUFACTURER OR ANY OTHER PERSON WITHOUT THE PRIOR EXPRESS WRITTEN AUTHORIZATION BY FMC TECHNOLOGIES	REVISIONS		DESCRIPTION	DRAWN BY		FMC Technologies DRAWING NUMBER
	A	05-08-13		K. VU	05-08-13	
	B	1-22-14		Z. MARQUEZ	05-08-13	
	C	5-13-14		K. TAHA	05-08-13	
			SURFACE WELLHEAD LAYOUT UNIHEAD, UH-1, SOW, DEVON ENERGY, ODESSA	APPROVED BY		DM100161771-2B
				R. HAMILTON	05-08-13	



Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly. It is good practice to use lifting & safety equipment but not mandatory.

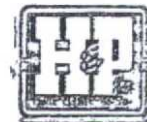
Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com





QUALITY DOCUMENT

*6728 Szeged, Budaörsi út 10, Hungary • H-6701 Szeged, P. O. Box 152
home: (3662) 566-737 • Fax: (3662) 566-738

SALES & MARKETING: H-1092 Budapest, Ráday u. 42-44. Hungary • H-1440 Budapest, P. O. Box 26
Phone: (361) 458-4200 • Fax: (361) 217-2972, 458-4273 • www.takusemerge.hu

**PHOENIX RUBBER
INDUSTRIAL LTD.**

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 552	
PURCHASER: Phoenix Beattie Co.				P.O. N° 1519FA-871	
PHOENIX RUBBER order N° 170466		HOSE TYPE: 3" ID		Choke and Kill Hose	
HOSE SERIAL N° 34128		NOMINAL / ACTUAL LENGTH:		11,43 m	
W.P. 68,96 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature See attachment. (1 page)					
↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS					
Type	Serial N°	Quality	Heat N°		
3" coupling with 4 1/16" Flange end	720 719	AISI 4130	C7626		
		AISI 4130	47357		
API Spec 16 C Temperature rate: "B"					
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
Date:	Inspector	Quality Control			
29. April. 2002.		PHOENIX RUBBER Industrial Ltd. <i>Hase</i> Hose Inspection and VERIFIED TRUE COPY			

40920-0-00015 N800L 14094-65

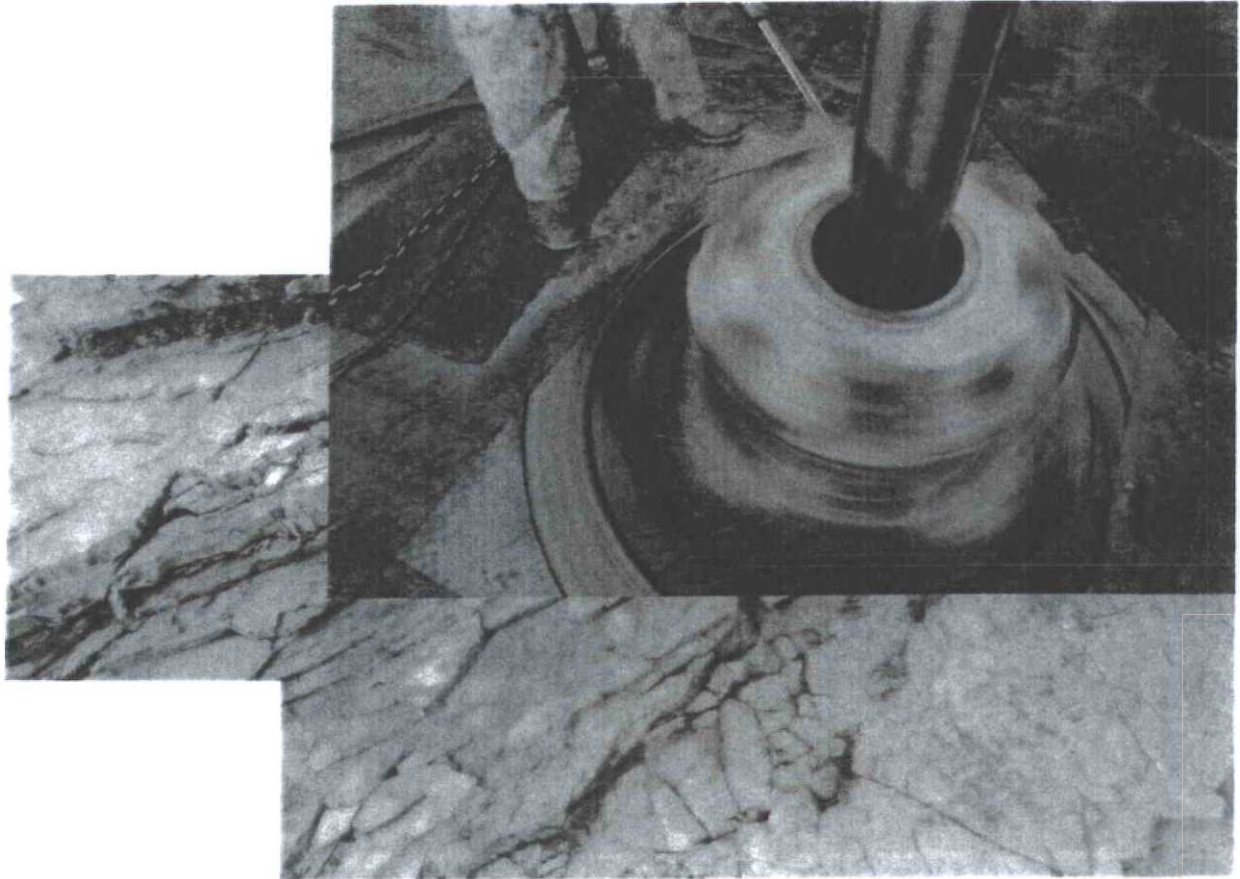
8	CL	+0.000	0.00	14.00		
	RDL	+0.000	0.00	14.00		
	SL	+0.000	0.00	14.00		
7	CL	+0.000	0.00	13.40	40	60
	RDL	+0.000	0.00	13.40		
	SL	+0.000	0.00	13.40		
6	CL	+0.000	0.00	13.20		
	RDL	+0.000	0.00	13.20		
	SL	+0.000	0.00	13.20		
5	CL	+0.000	0.00	13.00		
	RDL	+0.000	0.00	13.00		
	SL	+0.000	0.00	13.00		
4	CL	+0.000	0.00	12.80		
	RDL	+0.000	0.00	12.80		
	SL	+0.000	0.00	12.80		
3	CL	+0.000	0.00	12.60		
	RDL	+0.000	0.00	12.60		
	SL	+0.000	0.00	12.60		
2	CL	+0.000	0.00	12.40		
	RDL	+0.000	0.00	12.40		
	SL	+0.000	0.00	12.40		

[Signature]
PHOENIX RUBBER
 Industrial Ltd.
 Hose Inspection and
 Certification Dept.

VERIFIED TRUE CO.
 PHOENIX RUBBER CO.



Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems
June 2010

I. Design Plan

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

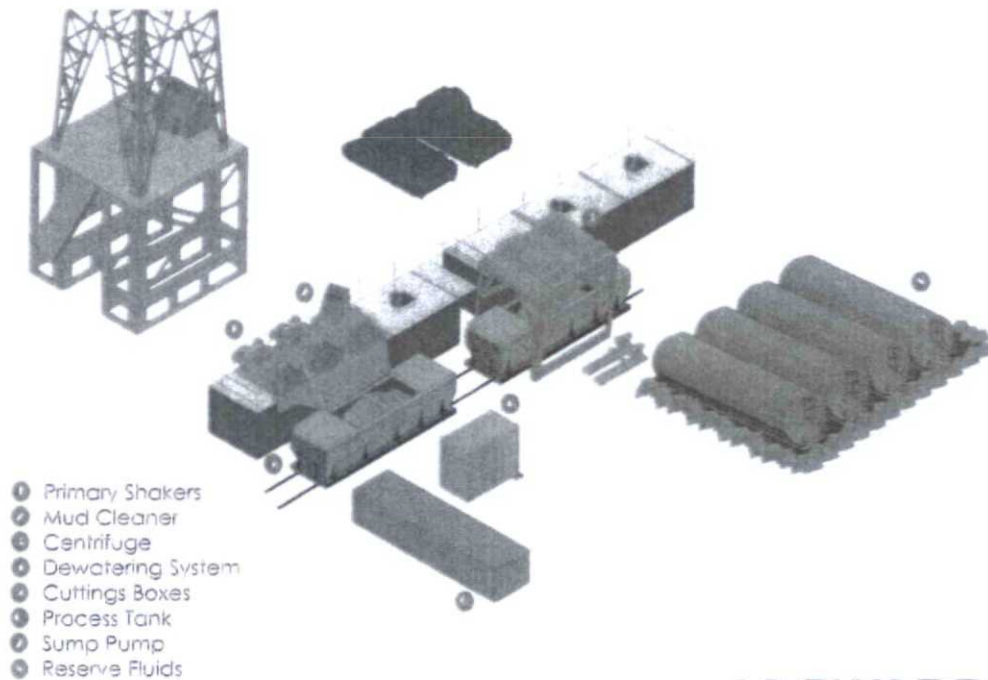
II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.

devon

Closed Loop Schematic



Mi SWACO

Centrifuges: The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The

dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

III. Closure Plan

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.

H&P Flex Rig Location Layout

2 Well Pad

REBEL 20 FEB 7H

