

HOBBS OCD

JAN 24 2014

RECEIVED

State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

HOBBS OCD

JAN 24 2014

RECEIVED

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

District I

1625 N. French Dr., Hobbs, NM 88240

Phone: (505) 393-6161 Fax: (505) 393-0720

District II

811 S. First St., Artesia, NM 88210

Phone: (505) 748-1283 Fax: (505) 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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-41625	² Pool Code 59900	³ Pool Name TRIPLE X; BONE SPRING
⁴ Property Code 40329 ✓	⁵ Property Name SEA SNAKE 35 STATE	⁶ Well Number 1H
⁷ OGRID No. 6137 ✓	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation 3657.0

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
M	26	23 S	33 E		315	SOUTH	1300	WEST	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
M	35	23 S	33 E		330	SOUTH	660	WEST	LEA

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

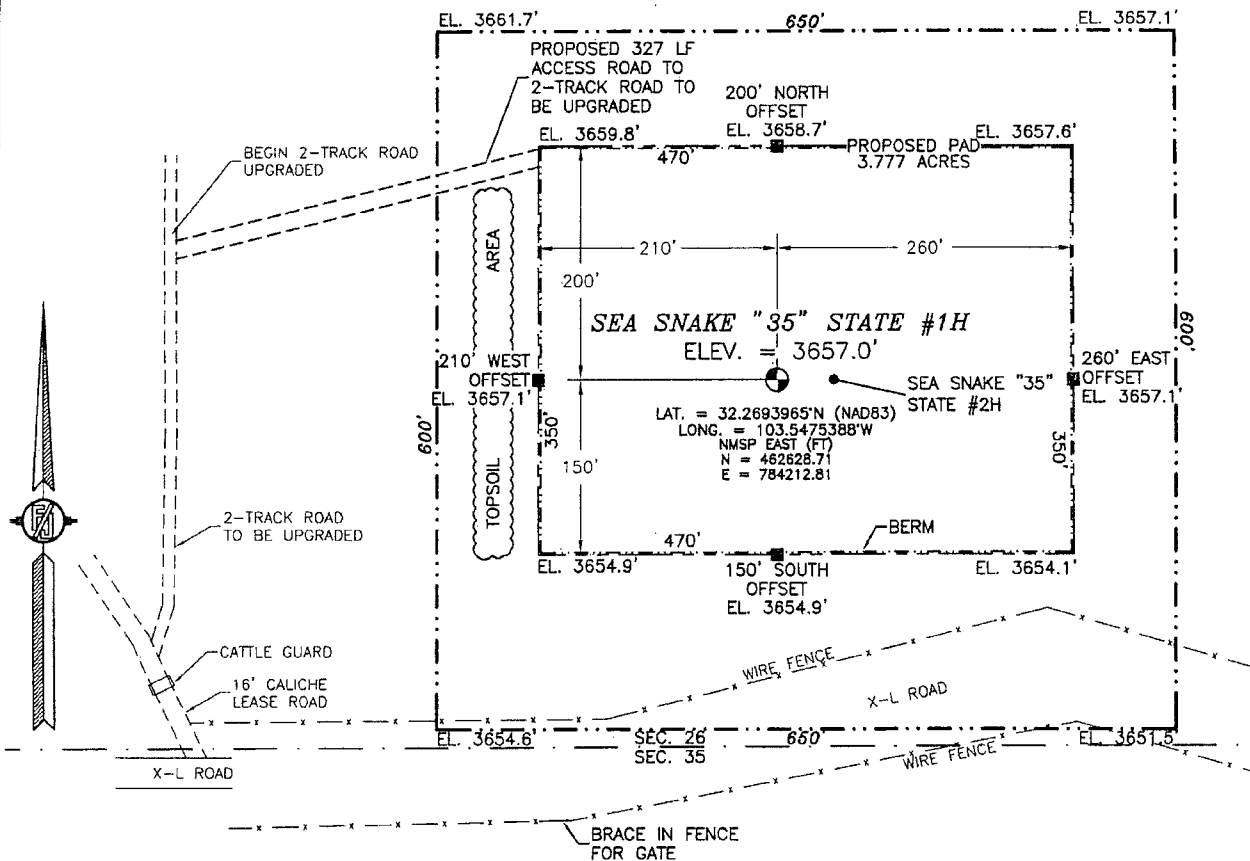
		¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or leased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <i>[Signature]</i> Date: 1/24/2014 David H. Cook Regulatory Specialist Printed Name: david.cook@dvn.com E-mail Address:
¹⁸ 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. OCTOBER 2, 2013 Date of Survey: Signature and Seal of Professional Surveyor: <i>[Signature]</i> Certificate Number: FIRMOR A. BARAHUELO, PLS 12797 SURVEY NO. 2295		

PP: 200 FNL & 1300 FWL; 35-23S-33E

FEB 20 2014

SECTION 26, TOWNSHIP 23 SOUTH, RANGE 33 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 15 75 150 300

SCALE 1" = 150'
DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HIGHWAY 128 (JAL HIGHWAY) AND CR 21 (DELAWARE BASIN ROAD) GO NORTH ON CR 21 3.98 MILES TO X-L ROAD ON LEFT, GO WEST ON X-L ROAD 2.25 MILES TO TURNOUT ON RIGHT TO CIMAREX "WEST BELL LAKE BATTERY", GO NORTH JUST PAST FIRST CATTLE GUARD ON RIGHT, TURN TO 2-TRACK ROAD, GO NORTH 355'± ON RIGHT FOLLOW FLAGS 327' TO NORTHWEST CORNER OF PAD.

DEVON ENERGY PRODUCTION COMPANY, L.P.

SEA SNAKE "35" STATE #1H

LOCATED 315 FT. FROM THE SOUTH LINE
AND 1300 FT. FROM THE WEST LINE OF

SECTION 26, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.

LEA COUNTY, STATE OF NEW MEXICO

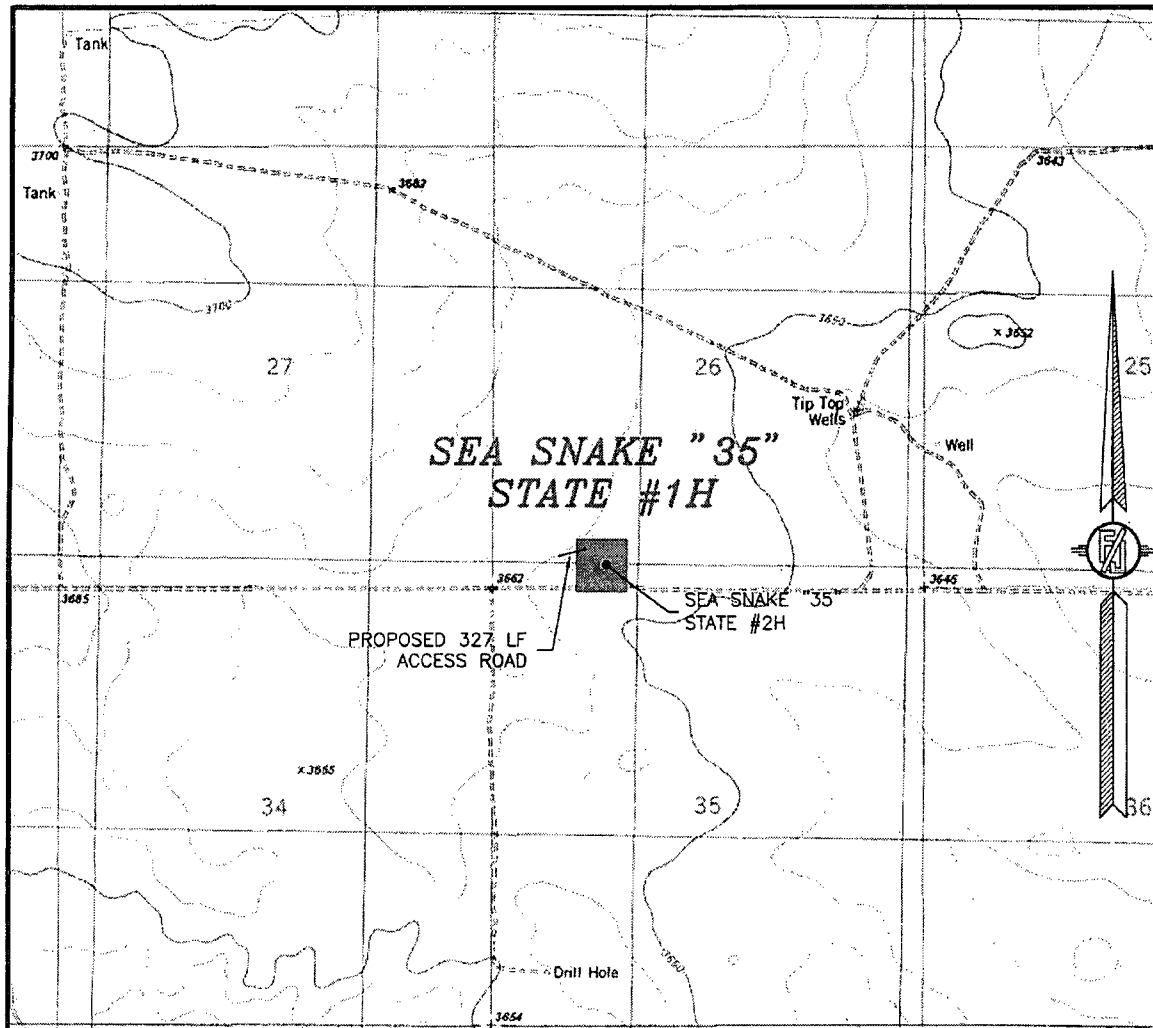
OCTOBER 2, 2013

SURVEY NO. 2295

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

CARLSBAD, NEW MEXICO

SECTION 26, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
TIP TOP WELLS

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

SEA SNAKE "35" STATE #1H

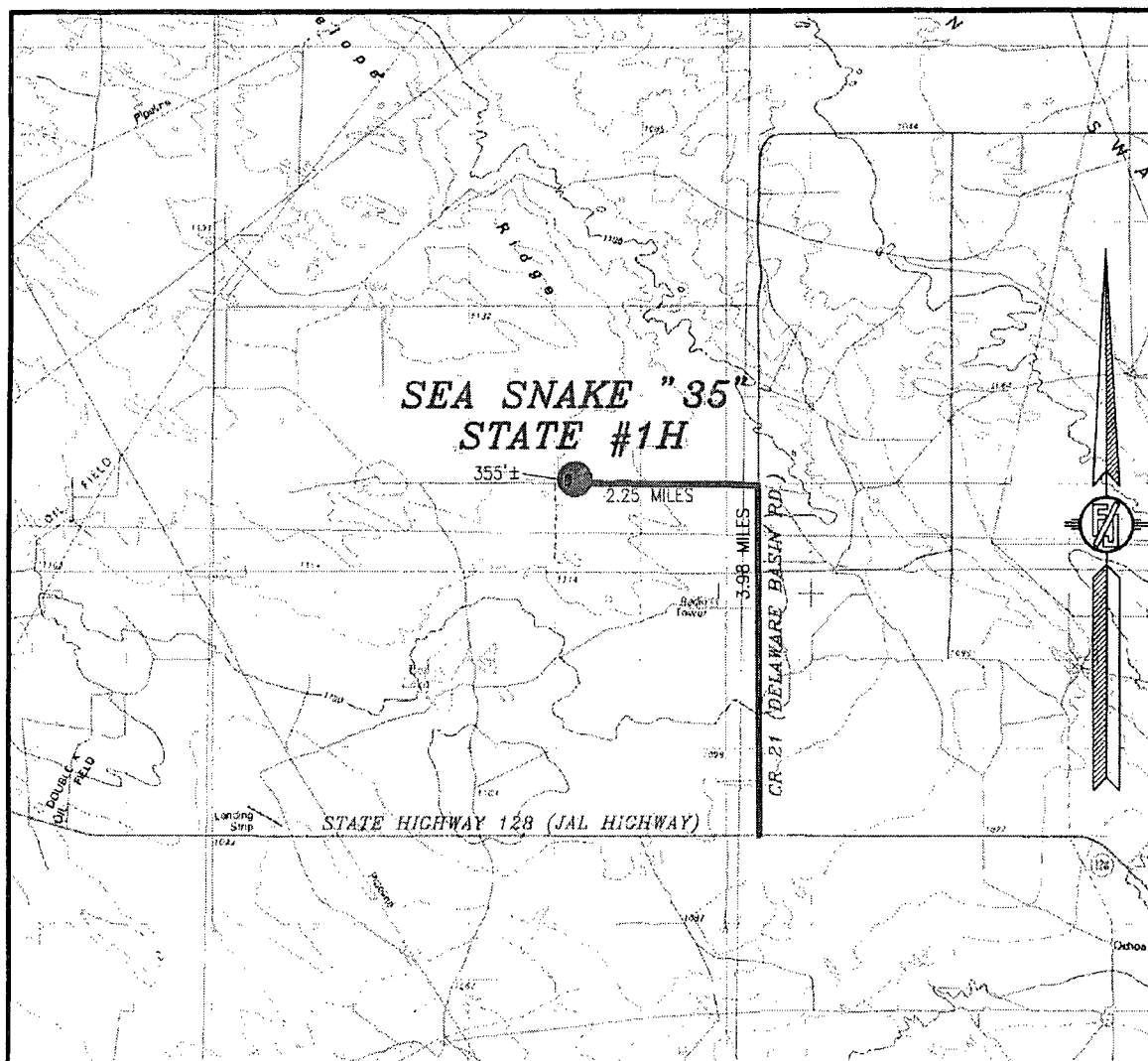
LOCATED 315 FT. FROM THE SOUTH LINE
AND 1300 FT. FROM THE WEST LINE OF
SECTION 26, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

OCTOBER 2, 2013

SURVEY NO. 2295

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

SECTION 26, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
VICINITY MAP



NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

SEA SNAKE "35" STATE #1H

LOCATED 315 FT. FROM THE SOUTH LINE
AND 1300 FT. FROM THE WEST LINE OF
SECTION 26, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

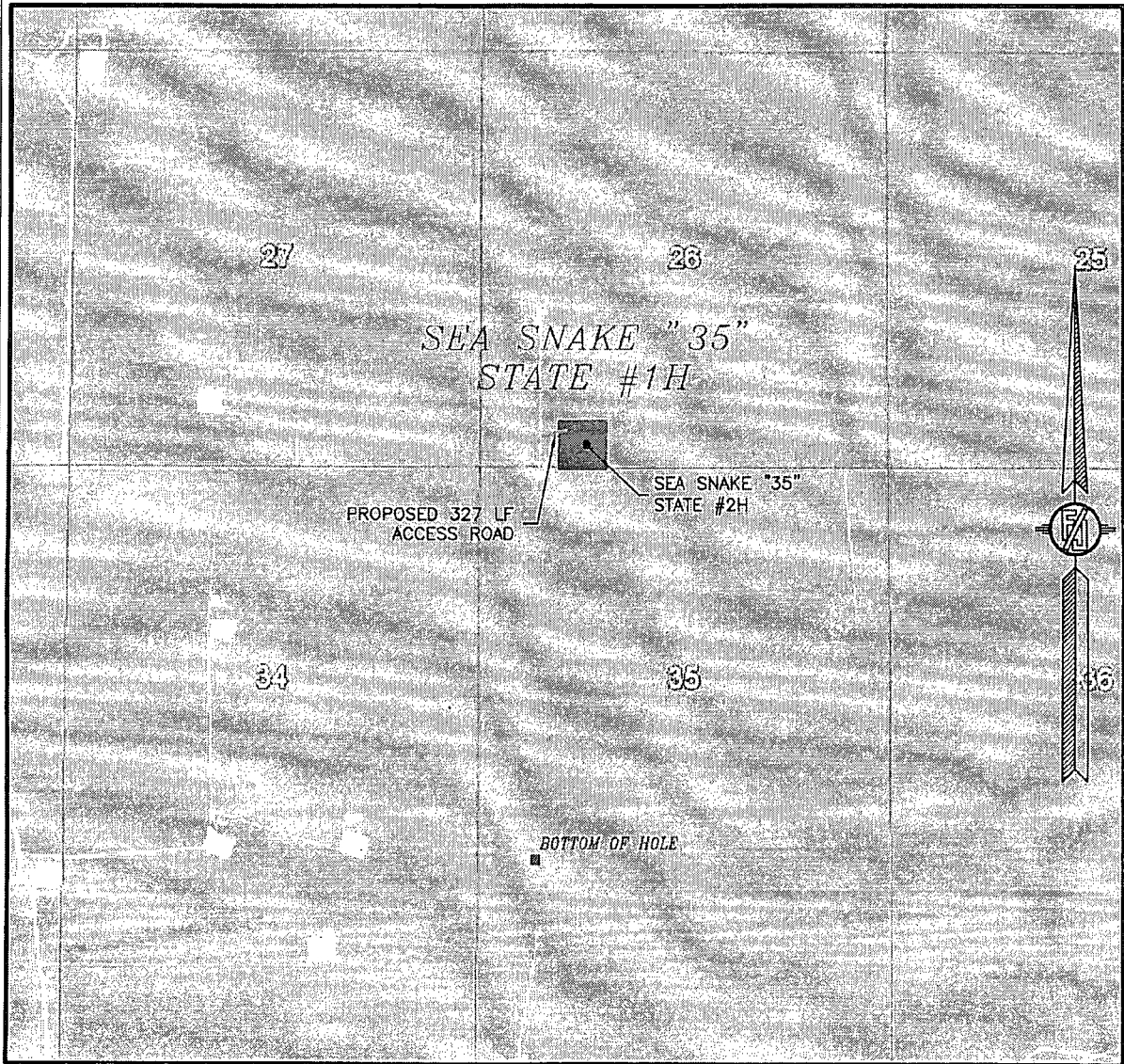
OCTOBER 2, 2013

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HIGHWAY 128 (JAL HIGHWAY) AND
CR 21 (DELAWARE BASIN ROAD) GO NORTH ON CR 21 3.98 MILES
TO X-L ROAD ON LEFT, GO WEST ON X-L ROAD 2.25 MILES TO
TURNOUT ON RIGHT TO CIMAREX "WEST BELL LAKE BATTERY", GO
NORTH JUST PAST FIRST CATTLE GUARD ON RIGHT, TURN TO
2-TRACK ROAD, GO NORTH 355'± ON RIGHT FOLLOW FLAGS 327' TO
NORTHWEST CORNER OF PAD.

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 SURVEY NO. 2295
CARLSBAD, NEW MEXICO

SECTION 26, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
MARCH 2012

DEVON ENERGY PRODUCTION COMPANY, L.P.

SEA SNAKE "35" STATE #1H

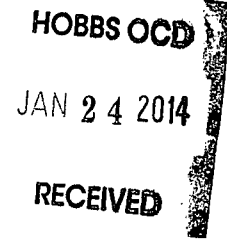
LOCATED 315 FT. FROM THE SOUTH LINE
AND 1300 FT. FROM THE WEST LINE OF
SECTION 26, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

OCTOBER 2, 2013

SURVEY NO. 2295

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

5D Plan Report



5D Plan Report

Devon Energy

Field Name: *Lea Co, NM Nad 83 NM*
Site Name: *Sea Snake 35 State 1,2H Pad*
Well Name: *Sea Snake 35 State 1H*
Plan: *P1:V1*

10 December 2013



Weatherford®

devon

Sea Snake 35 State 1H
Lea Co, NM

Plan Data for Sea Snake 35 State 1H

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	462581.44	784236.68	0.00	0.00
10737.85	0.00	0.00	10737.86	0.00	0.00	462581.44	784236.68	0.00	0.00
11463.55	87.08	237.29	11214.71	-244.91	-381.28	462336.53	783855.40	244.91	12.00
11941.33	90.00	180.00	11228.00	-646.85	-600.63	461934.59	783636.05	646.85	12.00
16571.00	90.00	180.00	11228.00	-5276.52	-600.63	457304.92	783636.05	5276.52	0.00

Plan Data for Sea Snake 35 State 1H

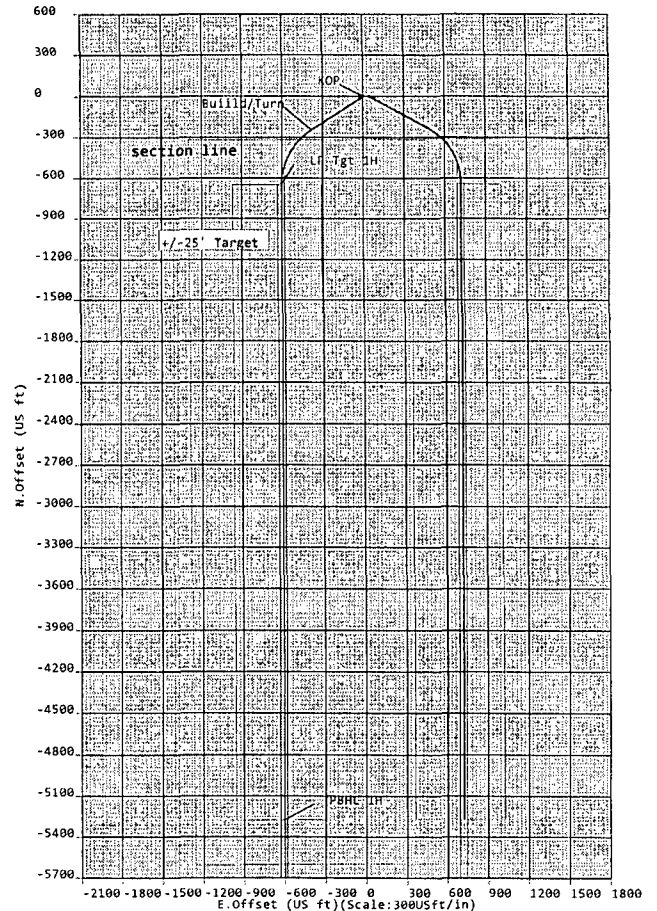
Target Set Information:						
Name: Sea Snake 35 State 1H						
Position offsets from Slot centre						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape Comment
(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	
LP Tgt 1H	11228.00	-646.85	-600.63	461934.59	783636.05	Cuboid
PBHL 1H	11228.00	-5276.52	-600.63	457304.92	783636.05	Cuboid

Plan Data for Sea Snake 35 State 1H

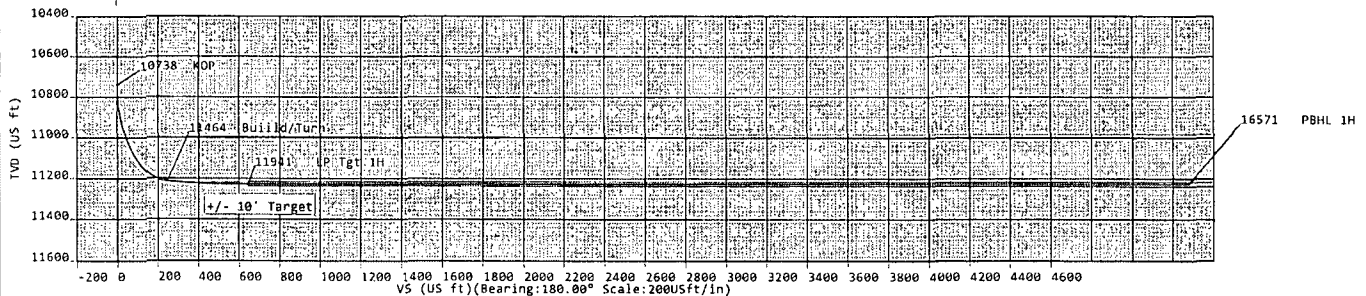
Slot: Sea Snake 35 State 1H	
Position:	
Offset is from Site centre	
+N/-S: 0.00USft	Northing: 462581.44USft Latitude: 32°16'9.4"
+E/-W: 0.00USft	Easting: 784236.68USft Longitude: -103°32'50.9"
Elevation Above VRD: 3659.00USft	

Sea Snake 35 State 1H
Sea Snake 35 State 2H

Weatherford



KB-3684
GL-3659



Sign Off: Russell Joyner


Weatherford

Sea Snake 35 State 1H

Field Name	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	Units : US ft	North Reference : Grid	Convergence Angle : 0.42
Sea Snake 35 State 1,2H Pad	Position	Northing : 462581.44 US ft	Latitude : 32° 16' 9.36"
	Easting : 784236.68 US ft	Longitude : -103° 32' 50.87"	
	Elevation above Mean Sea Level: 3659.00 US ft		
	Comment :		
Slot Name	Position (Offsets relative to Site Centre)		
Sea Snake 35 State 1H	+N / -S : 0.00 US ft	Northing : 462581.44 US ft	Latitude : 32° 16' 9.36"
	+E / -W : 0.00 US ft	Easting : 784236.68 US ft	Longitude : -103° 32' 50.87"
	Slot TVD Reference : Ground Elevation		
	Elevation above Mean Sea Level : 3659.00 US ft		
	Comment :		
Well Name	Type : Main well	UWI :	Plan : P1:V1
Sea Snake 35 State 1H	Rig Height Drill Floor : 25.00 US ft	Comment :	
	Relative to Mean Sea Level: 3684.00 US ft		
	Closure Distance : 5310.6 US ft	Closure Azimuth : 186.494°	
	Vertical Section (Position of Origin Relative to Slot)		
	+N / -S : 0.00 US ft	+E / -W : 0.00 US ft	Az : 180.00°
	Magnetic Parameters		
	Model : BGGM	Field Strength : 48377.3nT	Dec : 7.35°
		Dip : 60.15°	Date : 17/Mar/2014

Target Set

Name : Sea Snake 35 State **Number of Targets :** 2

1H

Comment :

Target Name:	Position (Relative to Slot centre)		
LP-Tgt-1H	+N / -S : -646.85US ft	Northing : 461934.59 US ft	Latitude : 32° 16' 3.00"
	+E / -W : -600.63 US ft	Easting : 783636.05US ft	Longitude : -103° 32' 57.92"
Shape:	TVD (Drill Floor) : 11228.00 US ft		
Cuboid	Orientation Azimuth : 0.00°	Inclination : 0.00°	
	Dimensions Length : 20.00 US ft	Breadth : 20.00 US ft	Height : 20.00 US ft

5D Plan Report

Target Name:	Position (Relative to Slot centre)		
PBHL 1H	+N / -S : -5276.52US ft	Northing : 457304.92 US ft	Latitude : 32°15'17.19"
	+E / -W : -600.63 US ft	Easting : 783636.05US ft	Longitude : -103°32'58.31"
Shape:	TVD (Drill Floor) : 11228.00 US ft		
Cuboid	Orientation Azimuth : 0.00°	Inclination : 0.00°	
	Dimensions Length : 20.00 US ft	Breadth : 20.00 US ft	Height : 20.00 US ft

Well path created using minimum curvature

Salient Points (Relative to Slot centre, TVD relative to Drill Floor)										
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
0.00	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	462581.44	784236.68	
10737.86	0.00	0.00	10737.86	0.00	0.00	-0.00	0.00	462581.44	784236.68	KOP
11463.55	87.08	237.29	11214.71	-244.91	-381.28	244.91	12.00	462336.53	783855.40	Build/Turn
11941.33	90.00	180.00	11228.00	-646.85	-600.63	646.85	12.00	461934.59	783636.05	Sea Snake 35 State 1H LP Tgt 1H
16571.00	90.00	180.00	11228.00	-5276.52	-600.63	5276.52	0.00	457304.92	783636.05	Sea Snake 35 State 1H PBHL 1H

Interpolated Points (Relative to Slot centre, TVD relative to Drill Floor)										
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
10700.00	0.00	0.00	10700.00	0.00	0.00	-0.00	0.00	462581.44	784236.68	
10737.86	0.00	0.00	10737.86	0.00	0.00	-0.00	0.00	462581.44	784236.68	KOP
10800.00	7.46	237.29	10799.82	-2.18	-3.40	2.18	12.00	462579.26	784233.28	
10900.00	19.46	237.29	10896.90	-14.74	-22.94	14.74	12.00	462566.70	784213.74	
11000.00	31.46	237.29	10987.03	-37.92	-59.04	37.92	12.00	462543.52	784177.64	
11100.00	43.46	237.29	11066.26	-70.73	-110.11	70.73	12.00	462510.71	784126.57	
11200.00	55.46	237.29	11131.15	-111.72	-173.93	111.72	12.00	462469.72	784062.75	
11300.00	67.46	237.29	11178.84	-159.11	-247.71	159.11	12.00	462422.33	783988.97	
11400.00	79.46	237.29	11207.27	-210.82	-328.22	210.82	12.00	462370.62	783908.46	
11463.55	87.08	237.29	11214.71	-244.91	-381.28	244.91	12.00	462336.53	783855.40	Build/Turn
11500.00	87.23	232.91	11216.52	-265.73	-411.13	265.73	12.00	462315.71	783825.55	
11600.00	87.73	220.91	11220.93	-333.86	-483.95	333.86	12.00	462247.58	783752.73	
11700.00	88.32	208.91	11224.39	-415.67	-541.04	415.67	12.00	462165.77	783695.64	
11800.00	88.99	196.93	11226.74	-507.58	-579.90	507.58	12.00	462073.86	783656.78	
11900.00	89.70	184.95	11227.89	-605.57	-598.85	605.57	12.00	461975.87	783637.83	
11941.33	90.00	180.00	11228.00	-646.85	-600.63	646.85	12.00	461934.59	783636.05	Sea Snake 35 State 1H LP Tgt 1H
12000.00	90.00	180.00	11228.00	-705.52	-600.63	705.52	0.00	461875.92	783636.05	
12100.00	90.00	180.00	11228.00	-805.52	-600.63	805.52	0.00	461775.92	783636.05	
12200.00	90.00	180.00	11228.00	-905.52	-600.63	905.52	0.00	461675.92	783636.05	
12300.00	90.00	180.00	11228.00	-1005.52	-600.63	1005.52	0.00	461575.92	783636.05	
12400.00	90.00	180.00	11228.00	-1105.52	-600.63	1105.52	0.00	461475.92	783636.05	
12500.00	90.00	180.00	11228.00	-1205.52	-600.63	1205.52	0.00	461375.92	783636.05	
12600.00	90.00	180.00	11228.00	-1305.52	-600.63	1305.52	0.00	461275.92	783636.05	
12700.00	90.00	180.00	11228.00	-1405.52	-600.63	1405.52	0.00	461175.92	783636.05	
12800.00	90.00	180.00	11228.00	-1505.52	-600.63	1505.52	0.00	461075.92	783636.05	
12900.00	90.00	180.00	11228.00	-1605.52	-600.63	1605.52	0.00	460975.92	783636.05	
13000.00	90.00	180.00	11228.00	-1705.52	-600.63	1705.52	0.00	460875.92	783636.05	
13100.00	90.00	180.00	11228.00	-1805.52	-600.63	1805.52	0.00	460775.92	783636.05	
13200.00	90.00	180.00	11228.00	-1905.52	-600.63	1905.52	0.00	460675.92	783636.05	
13299.99	90.00	180.00	11228.00	-2005.52	-600.63	2005.52	0.00	460575.92	783636.05	
13399.99	90.00	180.00	11228.00	-2105.52	-600.63	2105.52	0.00	460475.92	783636.05	
13499.99	90.00	180.00	11228.00	-2205.52	-600.63	2205.52	0.00	460375.92	783636.05	

5D Plan Report

Interpolated Points (Relative to Slot centre, TVD relative to Drill Floor)											
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	
13599.99	90.00	180.00	11228.00	-2305.52	-600.63	2305.52	0.00	460275.92	783636.05		
13699.99	90.00	180.00	11228.00	-2405.52	-600.63	2405.52	0.00	460175.92	783636.05		
13799.99	90.00	180.00	11228.00	-2505.52	-600.63	2505.52	0.00	460075.92	783636.05		
13899.99	90.00	180.00	11228.00	-2605.52	-600.63	2605.52	0.00	459975.92	783636.05		
13999.99	90.00	180.00	11228.00	-2705.52	-600.63	2705.52	0.00	459875.92	783636.05		
14099.99	90.00	180.00	11228.00	-2805.52	-600.63	2805.52	0.00	459775.92	783636.05		
14199.99	90.00	180.00	11228.00	-2905.52	-600.63	2905.52	0.00	459675.92	783636.05		
14299.99	90.00	180.00	11228.00	-3005.52	-600.63	3005.52	0.00	459575.92	783636.05		
14399.99	90.00	180.00	11228.00	-3105.52	-600.63	3105.52	0.00	459475.92	783636.05		
14499.99	90.00	180.00	11228.00	-3205.52	-600.63	3205.52	0.00	459375.92	783636.05		
14599.99	90.00	180.00	11228.00	-3305.52	-600.63	3305.52	0.00	459275.92	783636.05		
14699.99	90.00	180.00	11228.00	-3405.52	-600.63	3405.52	0.00	459175.92	783636.05		
14799.99	90.00	180.00	11228.00	-3505.52	-600.63	3505.52	0.00	459075.92	783636.05		
14899.99	90.00	180.00	11228.00	-3605.51	-600.63	3605.51	0.00	458975.93	783636.05		
14999.99	90.00	180.00	11228.00	-3705.51	-600.63	3705.51	0.00	458875.93	783636.05		
15099.99	90.00	180.00	11228.00	-3805.51	-600.63	3805.51	0.00	458775.93	783636.05		
15199.99	90.00	180.00	11228.00	-3905.51	-600.63	3905.51	0.00	458675.93	783636.05		
15299.99	90.00	180.00	11228.00	-4005.51	-600.63	4005.51	0.00	458575.93	783636.05		
15399.99	90.00	180.00	11228.00	-4105.51	-600.63	4105.51	0.00	458475.93	783636.05		
15499.99	90.00	180.00	11228.00	-4205.51	-600.63	4205.51	0.00	458375.93	783636.05		
15599.99	90.00	180.00	11228.00	-4305.51	-600.63	4305.51	0.00	458275.93	783636.05		
15699.99	90.00	180.00	11228.00	-4405.51	-600.63	4405.51	0.00	458175.93	783636.05		
15799.99	90.00	180.00	11228.00	-4505.51	-600.63	4505.51	0.00	458075.93	783636.05		
15899.99	90.00	180.00	11228.00	-4605.51	-600.63	4605.51	0.00	457975.93	783636.05		
15999.99	90.00	180.00	11228.00	-4705.51	-600.63	4705.51	0.00	457875.93	783636.05		
16099.99	90.00	180.00	11228.00	-4805.51	-600.63	4805.51	0.00	457775.93	783636.05		
16199.99	90.00	180.00	11228.00	-4905.51	-600.63	4905.51	0.00	457675.93	783636.05		
16299.99	90.00	180.00	11228.00	-5005.51	-600.63	5005.51	0.00	457575.93	783636.05		
16399.99	90.00	180.00	11228.00	-5105.51	-600.63	5105.51	0.00	457475.93	783636.05		
16499.99	90.00	180.00	11228.00	-5205.51	-600.63	5205.51	0.00	457375.93	783636.05		
16571.00	90.00	180.00	11228.00	-5276.52	-600.63	5276.52	0.00	457304.92	783636.05	Sea Snake 35 State 1H PBHL 1H	

5D Anti-Collision Report

Anti Collision Proximity Summary (TVD relative to)

Secondary Well Name	Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	CC (US ft)	ES (US ft)	SF	Risk
Sea Snake 35 State 2H (p)	10737.50	10737.50	10737.50	49.99	1.21	1.02	SF (Med)

Secondary Well : Sea Snake 35 State 2H (p) (TVD Relative to Drill Floor (Primary)) ; All Azimuth Relative to GRID NORTH

Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	CC (US ft)	SF	ES (US ft)	T.Face to Sec (°)	Survey Tool	Risk
0.00	0.00	0.00	0.00	0.00	0.00	49.99	68.17	49.26	89.79	MWD	
100.00	100.00	100.00	0.12	0.12	4.60	49.99	51.85	49.03	89.79	MWD	
200.00	200.00	200.00	0.34	0.34	4.62	49.99	35.42	48.58	89.79	MWD	
300.00	300.00	300.00	0.57	0.57	4.65	49.99	26.87	48.13	89.79	MWD	
400.00	400.00	400.00	0.79	0.79	4.70	49.99	21.64	47.68	89.79	MWD	
500.00	500.00	500.00	1.02	1.02	4.75	49.99	18.12	47.23	89.79	MWD	
600.00	600.00	600.00	1.24	1.24	4.82	49.99	15.58	46.78	89.79	MWD	
700.00	700.00	700.00	1.46	1.46	4.90	49.99	13.67	46.33	89.79	MWD	
800.00	800.00	800.00	1.69	1.69	4.98	49.99	12.17	45.88	89.79	MWD	
900.00	900.00	900.00	1.91	1.91	5.07	49.99	10.97	45.43	89.79	MWD	
1000.00	1000.00	1000.00	2.14	2.14	5.18	49.99	9.98	44.98	89.79	MWD	
1100.00	1100.00	1100.00	2.36	2.36	5.28	49.99	9.16	44.53	89.79	MWD	
1200.00	1200.00	1200.00	2.59	2.59	5.40	49.99	8.46	44.08	89.79	MWD	
1300.00	1300.00	1300.00	2.81	2.81	5.52	49.99	7.87	43.64	89.79	MWD	
1400.00	1400.00	1400.00	3.04	3.04	5.65	49.99	7.35	43.19	89.79	MWD	
1500.00	1500.00	1500.00	3.26	3.26	5.78	49.99	6.89	42.74	89.79	MWD	
1600.00	1600.00	1600.00	3.49	3.49	5.91	49.99	6.49	42.29	89.79	MWD	
1700.00	1700.00	1700.00	3.71	3.71	6.06	49.99	6.13	41.84	89.79	MWD	
1800.00	1800.00	1800.00	3.94	3.94	6.20	49.99	5.81	41.39	89.79	MWD	
1900.00	1900.00	1900.00	4.16	4.16	6.35	49.99	5.52	40.94	89.79	MWD	
2000.00	2000.00	2000.00	4.39	4.39	6.50	49.99	5.26	40.49	89.79	MWD	
2100.00	2100.00	2100.00	4.61	4.61	6.65	49.99	5.02	40.04	89.79	MWD	
2200.00	2200.00	2200.00	4.84	4.84	6.81	49.99	4.81	39.59	89.79	MWD	
2300.00	2300.00	2300.00	5.06	5.06	6.97	49.99	4.61	39.14	89.79	MWD	
2400.00	2400.00	2400.00	5.29	5.29	7.13	49.99	4.42	38.69	89.79	MWD	
2500.00	2500.00	2500.00	5.51	5.51	7.30	49.99	4.25	38.24	89.79	MWD	
2600.00	2600.00	2600.00	5.73	5.73	7.47	49.99	4.10	37.79	89.79	MWD	
2700.00	2700.00	2700.00	5.96	5.96	7.64	49.99	3.95	37.34	89.79	MWD	
2800.00	2800.00	2800.00	6.18	6.18	7.81	49.99	3.82	36.89	89.79	MWD	
2900.00	2900.00	2900.00	6.41	6.41	7.99	49.99	3.69	36.44	89.79	MWD	
3000.00	3000.00	3000.00	6.63	6.63	8.16	49.99	3.57	35.99	89.79	MWD	
3100.00	3100.00	3100.00	6.86	6.86	8.34	49.99	3.46	35.54	89.79	MWD	
3200.00	3200.00	3200.00	7.08	7.08	8.53	49.99	3.36	35.09	89.79	MWD	
3300.00	3300.00	3300.00	7.31	7.31	8.71	49.99	3.26	34.64	89.79	MWD	
3400.00	3400.00	3400.00	7.53	7.53	8.90	49.99	3.16	34.20	89.79	MWD	
3500.00	3500.00	3500.00	7.76	7.76	9.09	49.99	3.08	33.75	89.79	MWD	
3600.00	3600.00	3600.00	7.98	7.98	9.28	49.99	2.99	33.30	89.79	MWD	
3700.00	3700.00	3700.00	8.21	8.21	9.48	49.99	2.92	32.85	89.79	MWD	
3800.00	3800.00	3800.00	8.43	8.43	9.67	49.99	2.84	32.40	89.79	MWD	
3900.00	3900.00	3900.00	8.66	8.66	9.87	49.99	2.77	31.95	89.79	MWD	
4000.00	4000.00	4000.00	8.88	8.88	10.08	49.99	2.70	31.50	89.79	MWD	
4100.00	4100.00	4100.00	9.11	9.11	10.28	49.99	2.64	31.05	89.79	MWD	
4200.00	4200.00	4200.00	9.33	9.33	10.49	49.99	2.58	30.60	89.79	MWD	
4300.00	4300.00	4300.00	9.56	9.56	10.70	49.99	2.52	30.15	89.79	MWD	
4400.00	4400.00	4400.00	9.78	9.78	10.92	49.99	2.46	29.70	89.79	MWD	
4500.00	4500.00	4500.00	10.01	10.01	11.13	49.99	2.41	29.25	89.79	MWD	
4600.00	4600.00	4600.00	10.23	10.23	11.35	49.99	2.36	28.80	89.79	MWD	
4700.00	4700.00	4700.00	10.45	10.45	11.58	49.99	2.31	28.35	89.79	MWD	
4800.00	4800.00	4800.00	10.68	10.68	11.81	49.99	2.26	27.90	89.79	MWD	
4900.00	4900.00	4900.00	10.90	10.90	12.04	49.99	2.22	27.45	89.79	MWD	
5000.00	5000.00	5000.00	11.13	11.13	12.27	49.99	2.17	27.00	89.79	MWD	
5100.00	5100.00	5100.00	11.35	11.35	12.51	49.99	2.13	26.55	89.79	MWD	

5D Anti-Collision Report**Devon Energy****Field Name:** *Lea Co, NM Nad 83 NM***Site Name:** *Sea Snake 35 State 1,2H Pad***Well Name:** *Sea Snake 35 State 1H*

10 December 2013




Weatherford®

Sea Snake 35 State 1H

Field Name Lea Co, NM Nad 83 NM	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 Sea Snake 35 State 1,2H Pad	Units : US ft	North Reference : Grid	Convergence Angle : 0.42	
	Position	Northing : 462581.44 US ft	Latitude : 32° 16' 9.36"	
		Easting : 784236.68 US ft	Longitude : -103° 32' 50.87"	
		Elevation above Mean Sea Level:3659.00 US ft		
	Comment :			
Slot Name Sea Snake 35 State 1H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing :462581.44 US ft	Latitude : 32°16'9.36"	
	+E / -W : 0.00 US ft	Easting :784236.68 US ft	Longitude : -103°32'50.87"	
	Slot TVD Reference : Ground Elevation			
	Elevation above Mean Sea Level : 3659.00 US ft			
	Comment :			
Well Name Sea Snake 35 State 1H	Type : Main well	UWI :	Plan : Working Plan	
	Rig Height	Drill Floor : 25.00 US ft	Comment :	
	Relative to Mean Sea Level: 3684.00 US ft			
	Closure Distance : 5310.6 US ft	Closure Azimuth : 186.494°		
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft	+E / -W : 0.00 US ft	Az :180.00°	
	Magnetic Parameters			
	Model : BGGM	Field Strength : 48377.3nT	Dec : 7.35°	Dip : 60.15°

Collision / Uncertainty Analysis				
Primary Well	Start MD (US ft)	End MD (US ft)	Collision Risk Interval	No. of Std Deviations in Error Computation
Sea Snake 35 State 1H (p)	0.00	16571.00	100.00	2

Secondary Well Names
Sea Snake 35 State 2H (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.

5D Anti-Collision Report

Secondary Well : Sea Snake 35 State 2H (p) (TVD Relative to Drill Floor (Primary) ; All Azimuth Relative to GRID NORTH)											
Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	S. Major (US ft)	S. Minor (US ft)	TVD Spread (US ft)	CC (US ft)	SF	ES (US ft)	T. Face to Sec (°)	Survey Tool	Risk
5200.00	5200.00	5200.00	11.58	11.58	12.75	49.99	2.09	26.10	89.79	MWD	
5300.00	5300.00	5300.00	11.80	11.80	13.00	49.99	2.05	25.65	89.79	MWD	
5400.00	5400.00	5400.00	12.03	12.03	13.24	49.99	2.02	25.21	89.79	MWD	
5500.00	5500.00	5500.00	12.25	12.25	13.50	49.99	1.98	24.76	89.79	MWD	SF (Lo)
5600.00	5600.00	5600.00	12.48	12.48	13.75	49.99	1.95	24.31	89.79	MWD	SF (Lo)
5700.00	5700.00	5700.00	12.70	12.70	14.01	49.99	1.91	23.86	89.79	MWD	SF (Lo)
5800.00	5800.00	5800.00	12.93	12.93	14.28	49.99	1.88	23.41	89.79	MWD	SF (Lo)
5900.00	5900.00	5900.00	13.15	13.15	14.55	49.99	1.85	22.96	89.79	MWD	SF (Lo)
6000.00	6000.00	6000.00	13.38	13.38	14.82	49.99	1.82	22.51	89.79	MWD	SF (Lo)
6100.00	6100.00	6100.00	13.60	13.60	15.10	49.99	1.79	22.06	89.79	MWD	SF (Lo)
6200.00	6200.00	6200.00	13.83	13.83	15.38	49.99	1.76	21.61	89.79	MWD	SF (Lo)
6300.00	6300.00	6300.00	14.05	14.05	15.67	49.99	1.73	21.16	89.79	MWD	SF (Lo)
6400.00	6400.00	6400.00	14.28	14.28	15.96	49.99	1.71	20.71	89.79	MWD	SF (Lo)
6500.00	6500.00	6500.00	14.50	14.50	16.25	49.99	1.68	20.26	89.79	MWD	SF (Lo)
6600.00	6600.00	6600.00	14.73	14.73	16.56	49.99	1.66	19.81	89.79	MWD	SF (Lo)
6700.00	6700.00	6700.00	14.95	14.95	16.86	49.99	1.63	19.36	89.79	MWD	SF (Lo)
6800.00	6800.00	6800.00	15.17	15.17	17.17	49.99	1.61	18.91	89.79	MWD	SF (Lo)
6900.00	6900.00	6900.00	15.40	15.40	17.49	49.99	1.59	18.46	89.79	MWD	SF (Lo)
7000.00	7000.00	7000.00	15.62	15.62	17.81	49.99	1.56	18.01	89.79	MWD	SF (Lo)
7100.00	7100.00	7100.00	15.85	15.85	18.13	49.99	1.54	17.56	89.79	MWD	SF (Lo)
7200.00	7200.00	7200.00	16.07	16.07	18.46	49.99	1.52	17.11	89.79	MWD	SF (Lo)
7300.00	7300.00	7300.00	16.30	16.30	18.79	49.99	1.50	16.66	89.79	MWD	SF (Med)
7400.00	7400.00	7400.00	16.52	16.52	19.13	49.99	1.48	16.21	89.79	MWD	SF (Med)
7500.00	7500.00	7500.00	16.75	16.75	19.48	49.99	1.46	15.76	89.79	MWD	SF (Med)
7600.00	7600.00	7600.00	16.97	16.97	19.83	49.99	1.44	15.31	89.79	MWD	SF (Med)
7700.00	7700.00	7700.00	17.20	17.20	20.19	49.99	1.42	14.87	89.79	MWD	SF (Med)
7800.00	7800.00	7800.00	17.42	17.42	20.55	49.99	1.41	14.42	89.79	MWD	SF (Med)
7900.00	7900.00	7900.00	17.65	17.65	20.91	49.99	1.39	13.97	89.79	MWD	SF (Med)
8000.00	8000.00	8000.00	17.87	17.87	21.28	49.99	1.37	13.52	89.79	MWD	SF (Med)
8100.00	8100.00	8100.00	18.10	18.10	21.66	49.99	1.35	13.07	89.79	MWD	SF (Med)
8200.00	8200.00	8200.00	18.32	18.32	22.04	49.99	1.34	12.62	89.79	MWD	SF (Med)
8300.00	8300.00	8300.00	18.55	18.55	22.43	49.99	1.32	12.17	89.79	MWD	SF (Med)
8400.00	8400.00	8400.00	18.77	18.77	22.83	49.99	1.31	11.72	89.79	MWD	SF (Med)
8500.00	8500.00	8500.00	19.00	19.00	23.22	49.99	1.29	11.27	89.79	MWD	SF (Med)
8600.00	8600.00	8600.00	19.22	19.22	23.63	49.99	1.28	10.82	89.79	MWD	SF (Med)
8700.00	8700.00	8700.00	19.45	19.45	24.04	49.99	1.26	10.37	89.79	MWD	SF (Med)
8800.00	8800.00	8800.00	19.67	19.67	24.45	49.99	1.25	9.92	89.79	MWD	SF (Med)
8900.00	8900.00	8900.00	19.90	19.90	24.88	49.99	1.23	9.47	89.79	MWD	SF (Med)
9000.00	9000.00	9000.00	20.12	20.12	25.30	49.99	1.22	9.02	89.79	MWD	SF (Med)
9100.00	9100.00	9100.00	20.35	20.35	25.74	49.99	1.21	8.57	89.79	MWD	SF (Med)
9200.00	9200.00	9200.00	20.57	20.57	26.17	49.99	1.19	8.12	89.79	MWD	SF (Med)
9300.00	9300.00	9300.00	20.79	20.79	26.62	49.99	1.18	7.67	89.79	MWD	SF (Med)
9400.00	9400.00	9400.00	21.02	21.02	27.07	49.99	1.17	7.22	89.79	MWD	SF (Med)
9500.00	9500.00	9500.00	21.24	21.24	27.53	49.99	1.16	6.77	89.79	MWD	SF (Med)
9600.00	9600.00	9600.00	21.47	21.47	27.99	49.99	1.14	6.32	89.79	MWD	SF (Med)
9700.00	9700.00	9700.00	21.69	21.69	28.45	49.99	1.13	5.87	89.79	MWD	SF (Med)
9800.00	9800.00	9800.00	21.92	21.92	28.93	49.99	1.12	5.42	89.79	MWD	SF (Med)
9900.00	9900.00	9900.00	22.14	22.14	29.41	49.99	1.11	4.97	89.79	MWD	SF (Med)
10000.00	10000.00	10000.00	22.37	22.37	29.89	49.99	1.10	4.52	89.79	MWD	SF (Med)
10100.00	10100.00	10100.00	22.59	22.59	30.38	49.99	1.09	4.08	89.79	MWD	SF (Med)
10200.00	10200.00	10200.00	22.82	22.82	30.88	49.99	1.08	3.63	89.79	MWD	SF (Med)
10300.00	10300.00	10300.00	23.04	23.04	31.38	49.99	1.07	3.18	89.79	MWD	SF (Med)
10400.00	10400.00	10400.00	23.27	23.27	31.89	49.99	1.06	2.73	89.79	MWD	SF (Med)
10500.00	10500.00	10500.00	23.49	23.49	32.41	49.99	1.05	2.28	89.79	MWD	SF (Med)
10600.00	10600.00	10600.00	23.72	23.72	32.93	49.99	1.04	1.83	89.79	MWD	SF (Med)
10700.00	10700.00	10700.00	23.94	23.94	33.45	49.99	1.03	1.38	89.79	MWD	SF (Med)
10800.00	10795.00	10794.92	24.15	24.02	33.96	55.76	1.14	6.99	212.02	MWD	SF (Med)
10900.00	10877.44	10875.82	24.30	23.84	34.37	91.31	1.88	42.68	212.44	MWD	SF (Lo)

5D Anti-Collision Report

Secondary Well: Sea Snake 35 State 2H (p) (TVD Relative to Drill Floor (Primary) : All Azimuth Relative to GRID NORTH)											
Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	CC (US ft)	SF	ES (US ft)	T.Face to Sec (°)	Survey Tool	Risk
11000.00	10941.59	10936.24	24.43	23.39	34.67	153.60	3.19	105.48	215.47	MWD	
11100.00	10985.29	10975.50	24.51	23.02	34.86	234.31	4.89	186.44	222.82	MWD	
11200.00	11010.88	10997.63	24.57	22.71	34.96	325.91	6.80	277.95	240.23	MWD	
11300.00	11021.75	11006.81	24.59	22.57	35.01	422.46	8.79	374.40	279.31	MWD	
11400.00	11020.82	11006.03	24.59	22.57	35.01	519.45	10.76	471.18	320.10	MWD	
11500.00	11011.22	10997.91	24.57	22.70	34.97	613.59	12.65	565.09	325.68	MWD	
11600.00	11004.37	10992.06	24.55	22.79	34.94	704.48	14.42	655.63	309.15	MWD	
11700.00	11002.74	10990.66	24.55	22.81	34.93	790.62	16.11	741.55	299.24	MWD	
11800.00	11006.10	10993.55	24.56	22.77	34.94	870.24	17.60	820.81	293.00	MWD	
11900.00	11014.61	11000.79	24.58	22.66	34.98	941.83	18.96	892.16	288.69	MWD	
12000.00	11027.95	11011.99	24.61	22.51	35.03	1006.74	20.16	956.81	286.66	MWD	
12100.00	11043.00	11024.37	24.66	22.37	35.09	1075.51	21.47	1025.43	285.60	MWD	
12200.00	11059.49	11037.62	24.71	22.20	35.14	1148.51	22.84	1098.23	284.47	MWD	
12300.00	11077.62	11051.79	24.76	21.97	35.20	1224.91	24.26	1174.43	283.26	MWD	
12400.00	11097.57	11066.87	24.81	21.69	35.27	1304.08	25.76	1253.46	281.98	MWD	
12500.00	12570.15	11228.00	33.74	20.79	41.58	1319.97	19.71	1253.01	270.00	MWD	
12600.00	12670.15	11228.00	35.00	21.19	42.38	1319.97	19.02	1250.59	270.00	MWD	
12700.00	12770.15	11228.00	36.26	21.61	43.21	1319.97	18.38	1248.15	270.00	MWD	
12800.00	12870.15	11228.00	37.53	22.04	44.07	1319.97	17.77	1245.69	270.00	MWD	
12900.00	12970.15	11228.00	38.81	22.48	44.94	1319.97	17.20	1243.21	270.00	MWD	
13000.00	13070.15	11228.00	40.10	22.92	45.79	1319.97	16.63	1240.62	270.00	MWD	
13100.00	13170.15	11228.00	41.48	23.30	46.59	1319.97	16.07	1237.82	270.00	MWD	
13200.00	13270.15	11228.00	42.95	23.86	47.69	1319.97	15.52	1234.93	270.00	MWD	
13300.00	13370.15	11228.00	44.43	24.36	48.66	1319.97	15.01	1232.02	270.00	MWD	
13400.00	13470.15	11228.00	45.90	24.85	49.62	1319.97	14.53	1229.12	270.00	MWD	
13500.00	13570.15	11228.00	47.37	25.38	50.60	1319.97	14.08	1226.22	270.00	MWD	
13600.00	13670.15	11228.00	48.89	25.88	51.73	1319.97	13.65	1223.25	270.00	MWD	
13700.00	13770.15	11228.00	50.41	26.42	52.83	1319.97	13.24	1220.29	270.00	MWD	
13800.00	13870.15	11228.00	51.95	27.03	53.86	1319.97	12.86	1217.32	270.00	MWD	
13900.00	13970.15	11228.00	53.58	27.45	54.93	1319.97	12.47	1214.13	270.00	MWD	
14000.00	14070.15	11228.00	55.20	28.07	56.10	1319.97	12.10	1210.87	270.00	MWD	
14100.00	14170.15	11228.00	56.81	28.64	57.27	1319.97	11.75	1207.64	270.00	MWD	
14200.00	14270.15	11228.00	58.43	29.15	58.30	1319.97	11.42	1204.40	270.00	MWD	
14300.00	14370.15	11228.00	60.05	29.75	59.43	1319.97	11.11	1201.15	270.00	MWD	
14400.00	14470.15	11228.00	61.67	30.38	60.71	1319.97	10.81	1197.86	270.00	MWD	
14500.00	14570.15	11228.00	63.30	30.99	61.95	1319.97	10.52	1194.56	270.00	MWD	
14600.00	14670.15	11228.00	64.94	31.59	63.17	1319.97	10.25	1191.22	270.00	MWD	
14700.00	14770.15	11228.00	66.64	32.20	64.38	1319.97	9.99	1187.84	270.00	MWD	
14800.00	14870.15	11228.00	68.34	32.80	65.59	1319.97	9.74	1184.45	270.00	MWD	
14900.00	14970.15	11228.00	70.05	33.41	66.80	1319.97	9.50	1181.05	270.00	MWD	
15000.00	15070.15	11228.00	71.76	34.01	68.01	1319.97	9.27	1177.64	270.00	MWD	
15100.00	15170.15	11228.00	73.48	34.62	69.24	1319.97	9.06	1174.21	270.00	MWD	
15200.00	15270.15	11228.00	75.20	35.23	70.46	1319.97	8.85	1170.78	270.00	MWD	
15300.00	15370.15	11228.00	76.93	35.85	71.70	1319.97	8.65	1167.34	270.00	MWD	
15400.00	15470.15	11228.00	78.65	36.47	72.94	1319.97	8.46	1163.89	270.00	MWD	
15500.00	15570.15	11228.00	80.39	37.09	74.18	1319.97	8.27	1160.43	270.00	MWD	
15600.00	15670.15	11228.00	82.12	37.72	75.44	1319.97	8.10	1156.96	270.00	MWD	
15700.00	15770.15	11228.00	83.86	38.38	76.74	1319.97	7.93	1153.49	270.00	MWD	
15800.00	15870.15	11228.00	85.61	39.04	78.06	1319.97	7.77	1150.01	270.00	MWD	
15900.00	15970.15	11228.00	87.35	39.70	79.39	1319.97	7.61	1146.52	270.00	MWD	
16000.00	16070.15	11228.00	89.10	40.37	80.72	1319.97	7.46	1143.03	270.00	MWD	
16100.00	16170.15	11228.00	90.86	41.03	82.05	1319.97	7.32	1139.53	270.00	MWD	
16200.00	16270.15	11228.00	92.61	41.70	83.39	1319.97	7.18	1136.03	270.00	MWD	
16300.00	16370.15	11228.00	94.37	42.37	84.73	1319.97	7.04	1132.52	270.00	MWD	
16400.00	16470.15	11228.00	96.13	43.04	86.07	1319.97	6.91	1129.00	270.00	MWD	
16500.00	16570.15	11228.00	97.89	43.72	87.42	1319.97	6.79	1125.48	270.00	MWD	
16571.00	16632.55	11228.00	98.99	44.14	88.26	1320.00	6.71	1123.16	270.00	MWD	

SD Anti-Collision Report

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: December 10, 2013
Job Number: _____
Customer: Devon Energy
Well Name: Sea Snake 35 State 1H
API Number: _____
Rig Name: _____
Location: Lea County, NM
Block: _____
Engineer: RWJ

US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 462581.440 USFT	Latitude 32.2692661 DEG
East/West 784236.680 USFT	Longitude -103.5474627 DEG
Grid Convergence: 42°	
Total Correction: +6.93°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.26927° N	32° 16 min 9.358 sec
Longitude =	103.54746° W	103° 32 min 50.866 sec

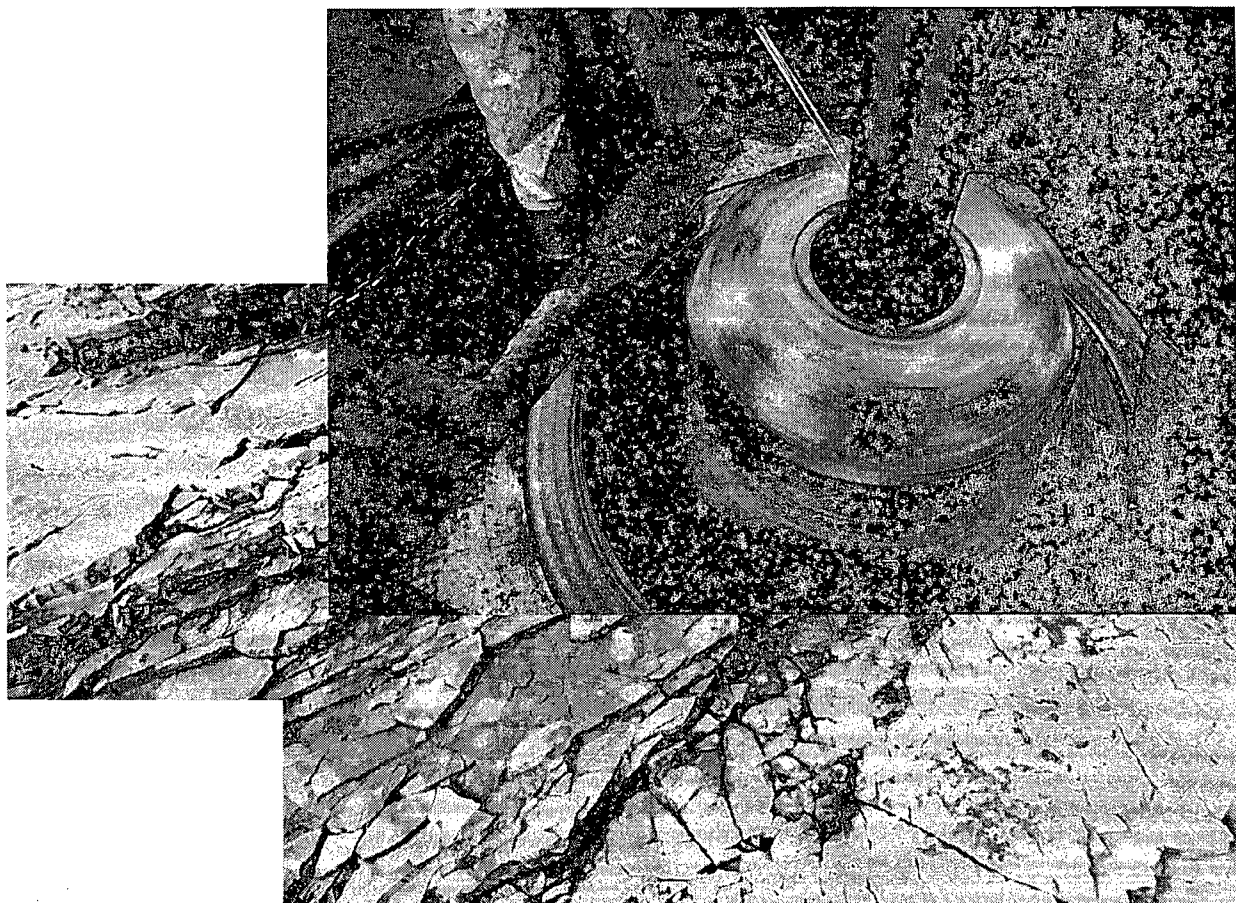
Magnetic Declination =	7.35°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6629
Local Field Strength =	48378 nT	Magnetic Vector X = 23881 nT
Magnetic Dip =	60.15°	Magnetic Vector Y = 3081 nT
Magnetic Model =	bggm2013	Magnetic Vector Z = 41959 nT
Spud Date =	Mar 17, 2014	Magnetic Vector H = 24079 nT

Signed: _____

Date: _____



Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems
November 2013

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.

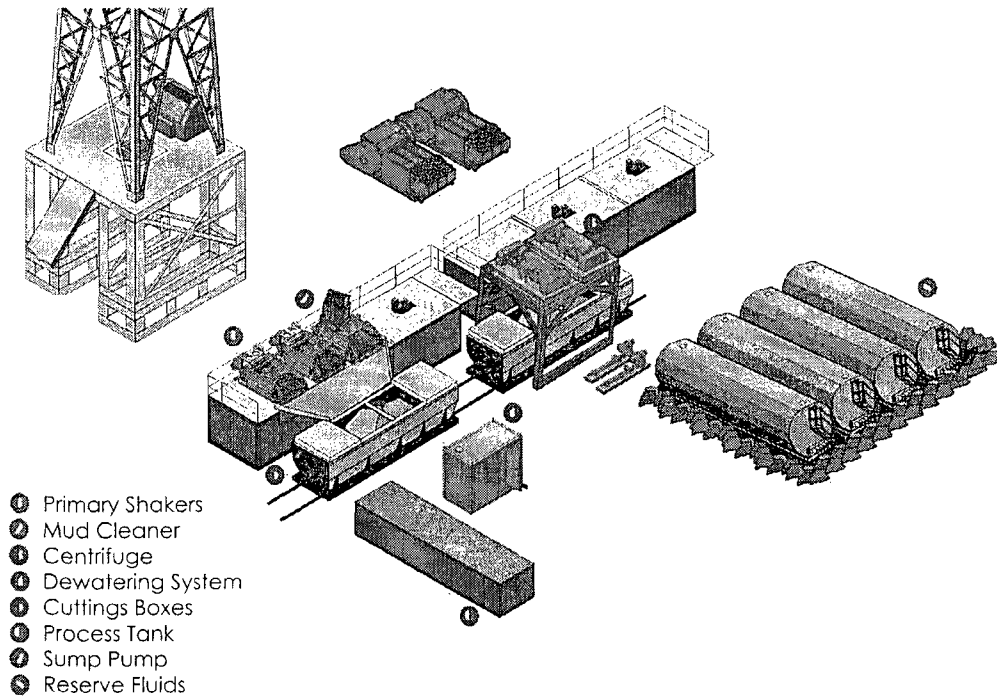
II. Operations and Maintenance Plan

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.



Closed Loop Schematic



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.