

ARTESIA DISTRICT

Revised August 1, 2011

District Office

☒ AMENDED REPORT

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
111 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Río 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

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-43042	² Pool Code 96403 97860	³ Pool Name Wildcat, Bone Spring Jennings: BS: WEST
⁴ Property Code 38600	⁵ Property Name SNAPPING 2 STATE	⁶ Well Number 12H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation 3292.2

¹⁰ Surface Location

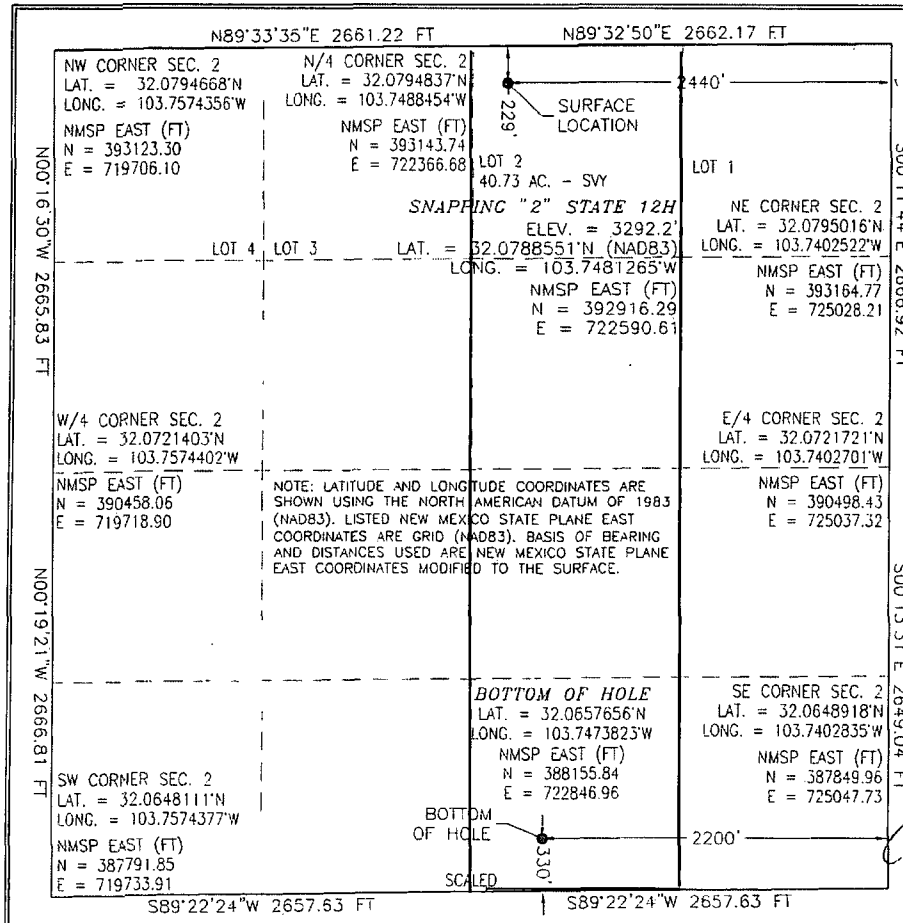
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	2	26 S	31 E		229	NORTH	2440	EAST	EDDY

" 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	2	26 S	31 E		330	SOUTH	2200	EAST	EDDY

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.



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 unless 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.

Linda Good 4/14/2015
Signature Date

Linda Good

Printed Name _____

linda.good@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.

APRIL 6, 2015

Date of Survey: 11/11/2011

100

100

1. DATE

[Handwritten signature]

Continued next page of Disaffirmed Statement.

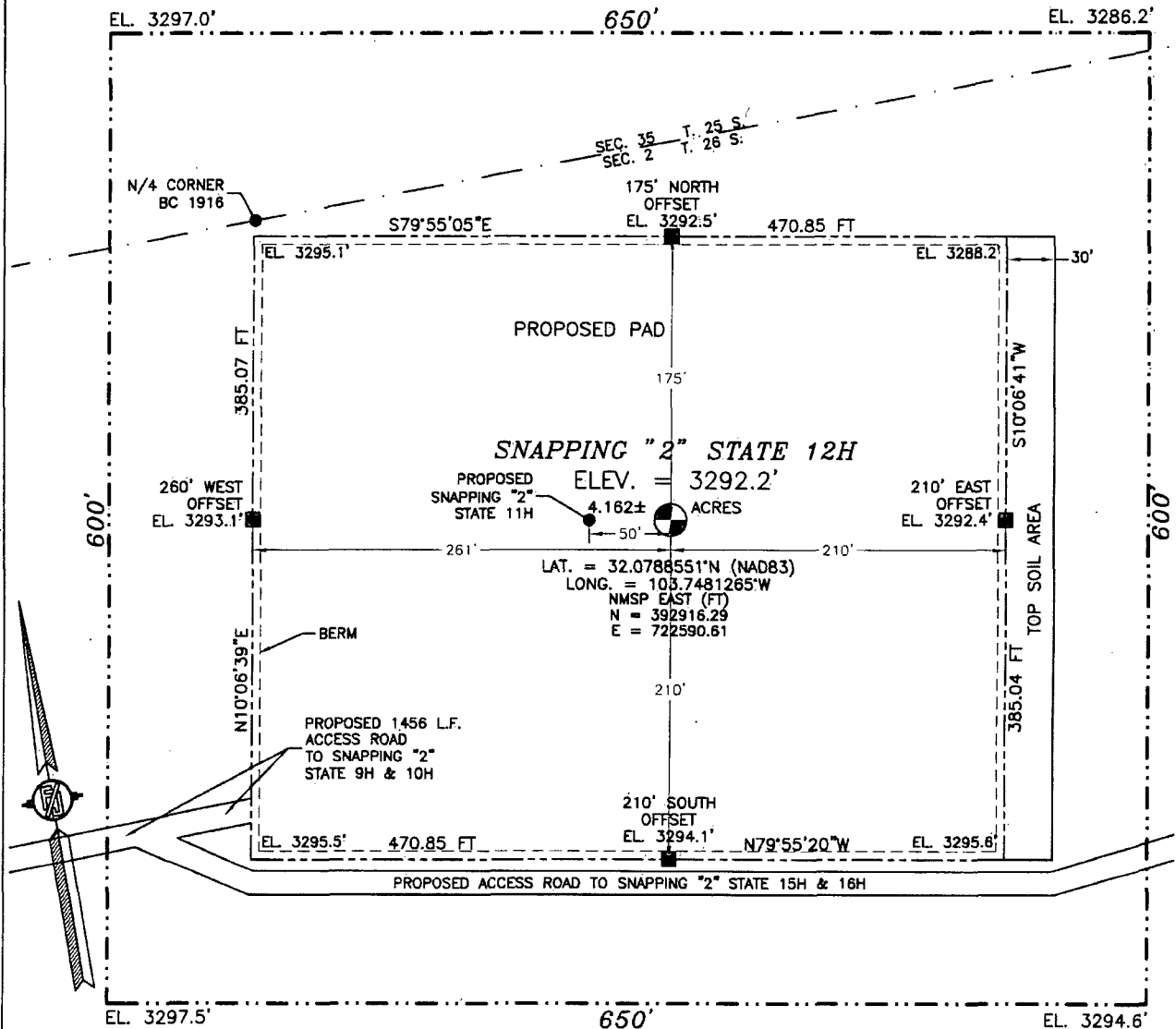
Signature and Seal of Professional Surveyor.

Certificate Number: EDMON F. JARAMI

SUR

SECTION 2, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY 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.



010 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF COUNTY ROAD #1 (ORLA HWY) AND ROSS ROAD GO WEST ON ROSS ROAD APPROX. 4.9 MILES TO A LEASE ROAD TO THE RIGHT (NORTH) TURN NORTH GO APPROX. 1.0 MILE TO A ROAD LATH WITH RED AND WHITE FLAGGING ON RIGHT (EAST) OF LEASE ROAD GO EAST FOLLOW ROAD LATHS APPROX. 0.12 MILE TO SOUTHWEST PAD CORNER FOR SNAPPING "2" STATE 9H & 10H; FROM SOUTHEAST PAD CORNER FOLLOW ROAD LATHS APPROX. 0.3 MILE TO LOCATION

DEVON ENERGY PRODUCTION COMPANY, L.P.

SNAPPING "2" STATE 12H

LOCATED 229 FT. FROM THE NORTH LINE
AND 2440 FT. FROM THE EAST LINE OF
SECTION 2, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.

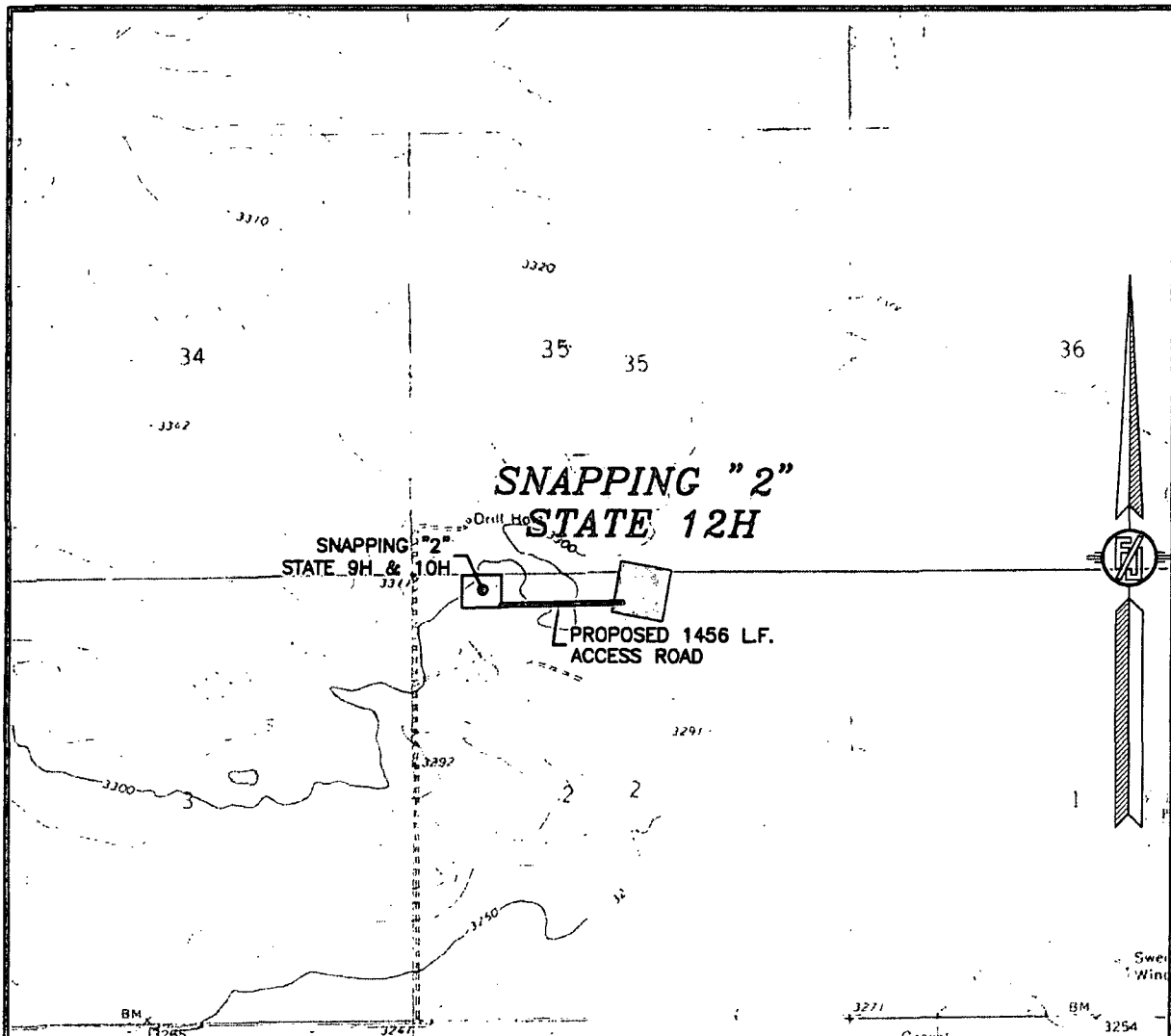
EDDY COUNTY, STATE OF NEW MEXICO

APRIL 6, 2015

SURVEY NO. 2162B

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

SECTION 2, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
PADUCA BREAKS WEST

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

SNAPPING "2" STATE 12H

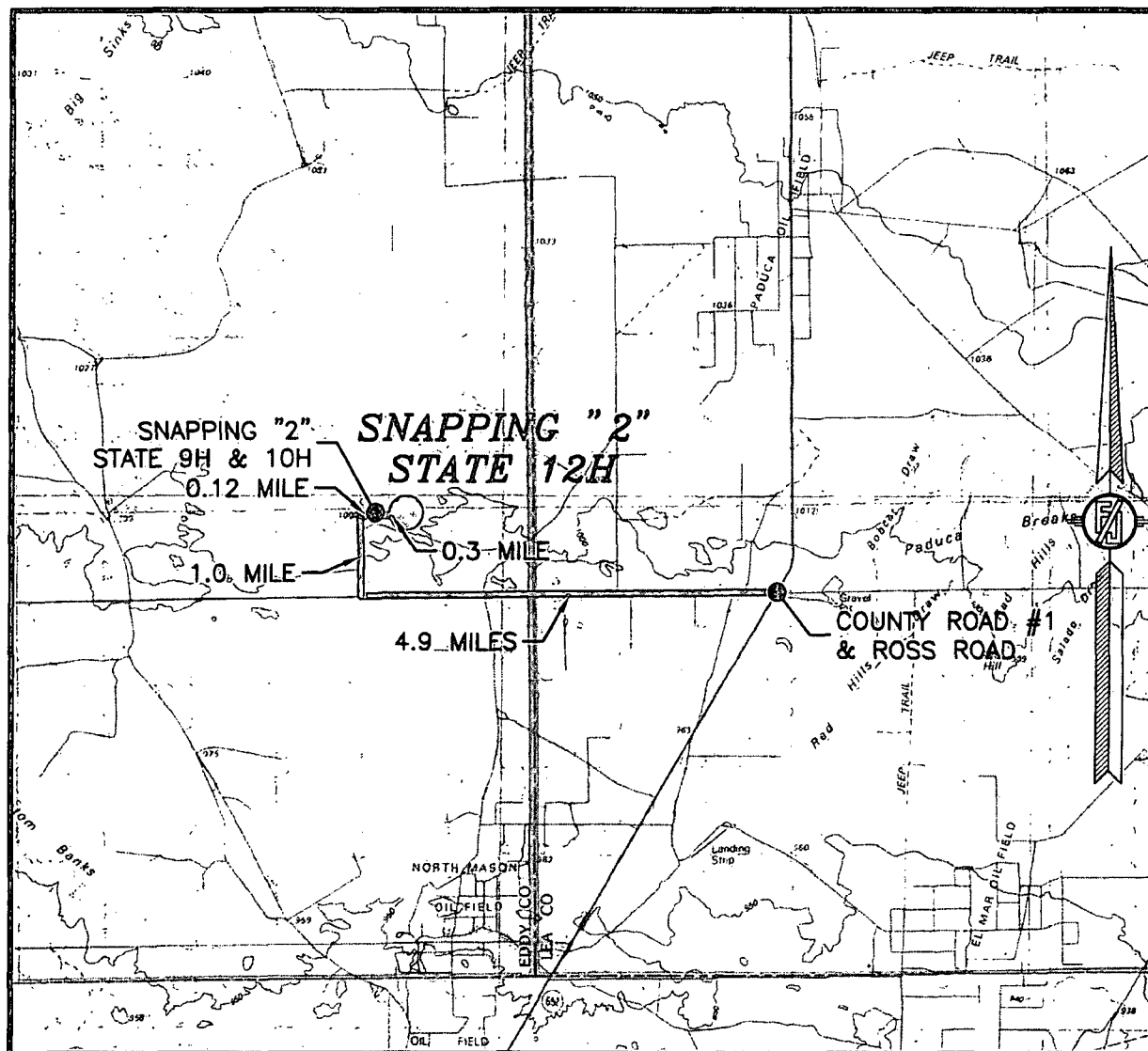
LOCATED 229 FT. FROM THE NORTH LINE
AND 2440 FT. FROM THE EAST LINE OF
SECTION 2, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

APRIL 6, 2015

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

SURVEY NO. 2162B

SECTION 2, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF COUNTY ROAD #1 (ORLA HWY) AND ROSS ROAD GO WEST ON ROSS ROAD APPROX. 4.9 MILES TO A LEASE ROAD TO THE RIGHT (NORTH) TURN NORTH GO APPROX. 1.0 MILE TO A ROAD LATH WITH RED AND WHITE FLAGGING ON RIGHT (EAST) OF LEASE ROAD GO EAST FOLLOW ROAD LATHS APPROX. 0.12 MILE TO SOUTHWEST PAD CORNER FOR SNAPPING "2" STATE 9H & 10H, FROM SOUTHWEST PAD CORNER FOLLOW ROAD LATHS APPROX. 0.3 MILE TO LOCATION

DEVON ENERGY PRODUCTION COMPANY, L.P.

SNAPPING "2" STATE 12H

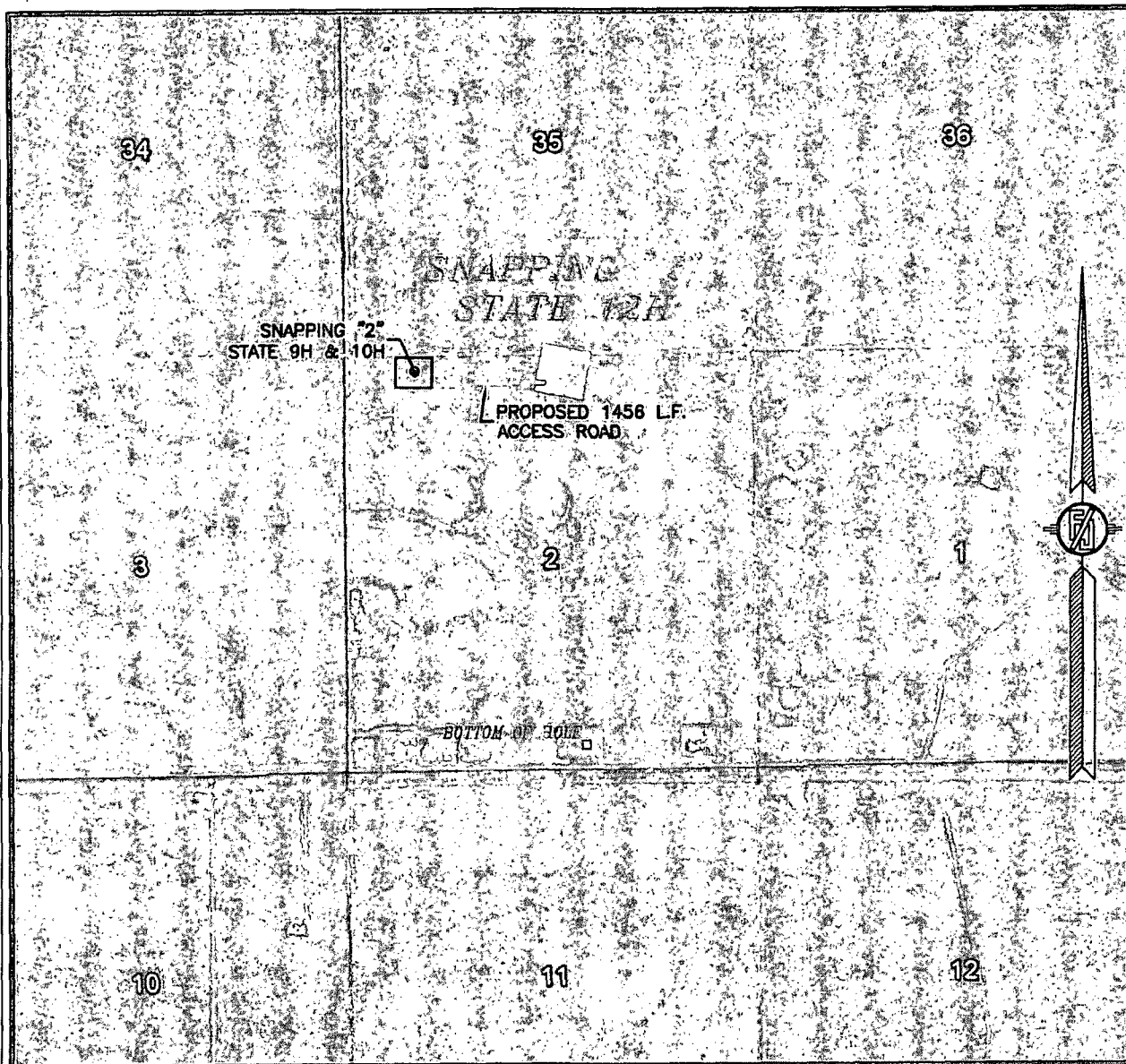
LOCATED 229 FT. FROM THE NORTH LINE
AND 2440 FT. FROM THE EAST LINE OF
SECTION 2, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

APRIL 6, 2015

SURVEY NO. 2162B

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

SECTION 2, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
APR. 2013

DEVON ENERGY PRODUCTION COMPANY, L.P.

SNAPPING "2" STATE 12H

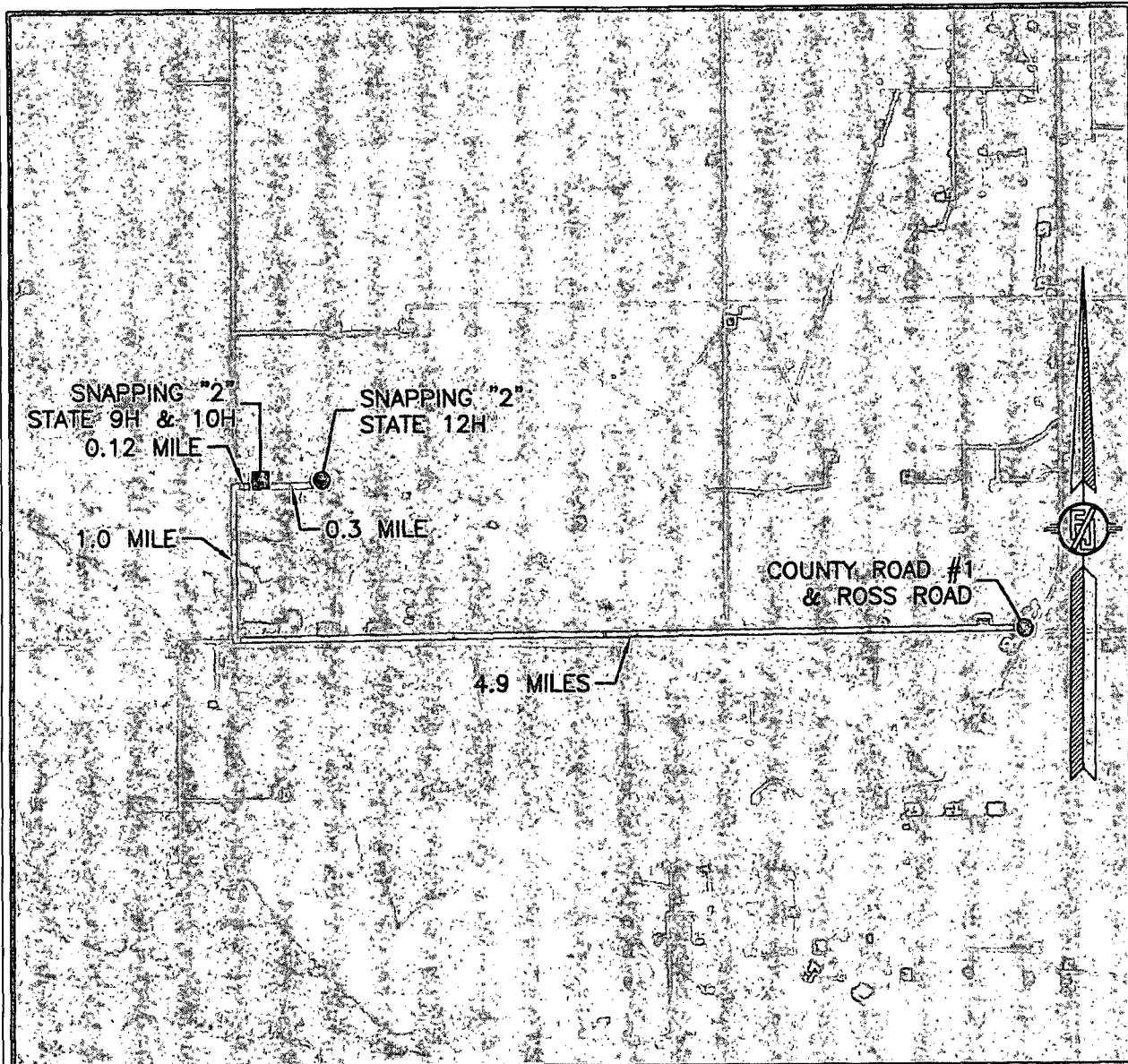
LOCATED 229 FT. FROM THE NORTH LINE
AND 2440 FT. FROM THE EAST LINE OF
SECTION 2, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

APRIL 6, 2015

SURVEY NO. 2162B

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

SECTION 2, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL ACCESS ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
APR. 2013

DEVON ENERGY PRODUCTION COMPANY, L.P.

SNAPPING "2" STATE 12H

LOCATED 229 FT. FROM THE NORTH LINE
AND 2440 FT. FROM THE EAST LINE OF
SECTION 2, TOWNSHIP 26 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

APRIL 6, 2015

SURVEY NO. 2162B

MADRON SURVEYING, INC. 501 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

Devon Energy, Snapping 2 State 12H

1. Geologic Formations

TVD of target	10,239'	Pilot hole depth	N/A
MD at TD:	14,762'	Deepest expected fresh water:	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	922	Barren	
Salado	1,272	Barren	
Base of Salt	4,017	Barren	
Delaware	4,237	Oil	
Bell Canyon	4,267	Oil	
Cherry Canyon	5,252	Oil	
Brushy Canyon	6,592	Oil	
1 st Bone Spring Lime	8,267	Oil	
1 st Bone Spring Sand	9,172	Oil	
2 nd Bone Spring Lime	9,492	Oil	
2 nd Bone Spring Sand	9,842	Oil	
3 rd Bone Spring Lime	10,387	Oil	

*H₂S, water flows, loss of circulation, abnormal pressures, etc.

Devon Energy, Snapping 2 State 12H

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn .	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	960'	13.375"	54.5	J-55	BTC	1.78	3.20	5.87
12.25"	0	4,100'	9.625"	40	J-55	LTC	1.75	1.49	2.60
8.75"	0	11,657'	7"	29	P-110	BTC	1.27	2.43	2.66
8.75"	9,500'	14,762'	5.5"	17	P-110	BTC	1.20	1.46	3.08
BLM Minimum Safety Factor							1.125	1.00	1.6 Dry 1.8 Wet

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

Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Devon Energy, Snapping 2 State 12H

3. Cementing Program

Casing	# Sk	Wt. lb/ gal	H ₂ O gal/sk	Yld ft ³ / sack	500# Comp. Strength (hours)	Slurry Description
13-3/8" Surface	1030	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
9-5/8" Inter.	810	12.9	9.81	1.85	14	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	430	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
7 x 5- 1/2" Combo Prod.	370	10.4	16.9	3.17	16	Lead: Tuned Light ® + 0.125 lb/sk Pol-E-Flake
	1350	14.5	5.31	1.2	25	Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite

Casing String	TOC	% Excess
13-3/8" Surface	0'	100%
9-5/8" Intermediate	0'	75%
7 x 5-1/2" Production Casing	3600'	25%

Devon Energy, Snapping 2 State 12H

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
---	--

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	x	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other *		
			Annular		50% testing pressure
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other *		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
---	---

Devon Energy, Snapping 2 State 12H

Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
Y	Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. Devon proposes using a multi-bowl wellhead assembly (FMC Uni-head). This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi. • Wellhead will be installed by FMC's representatives. • If the welding is performed by a third party, the FMC's representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal. • FMC representative will install the test plug for the initial BOP test. • FMC will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 3M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time. • If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted. • Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating. • Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2. After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the FMC Uni-head wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2. After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the FMC Uni-head. The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

Devon Energy, Snapping 2 State 12H

	Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns
	See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	960'	FW Gel	8.6-8.8	28-34	N/C
960'	4,100'	Saturated Brine	10.0-10.2	28-34	N/C
4,100'	14,762'	Cut Brine	8.5-9.3	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing	
x	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned		Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

Devon Energy, Snapping 2 State 12H

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	2699 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N H₂S is present

Y H₂S Plan attached

8. Other facets of operation

Is this a walking operation? No.

Will be pre-setting casing? No.

Attachments

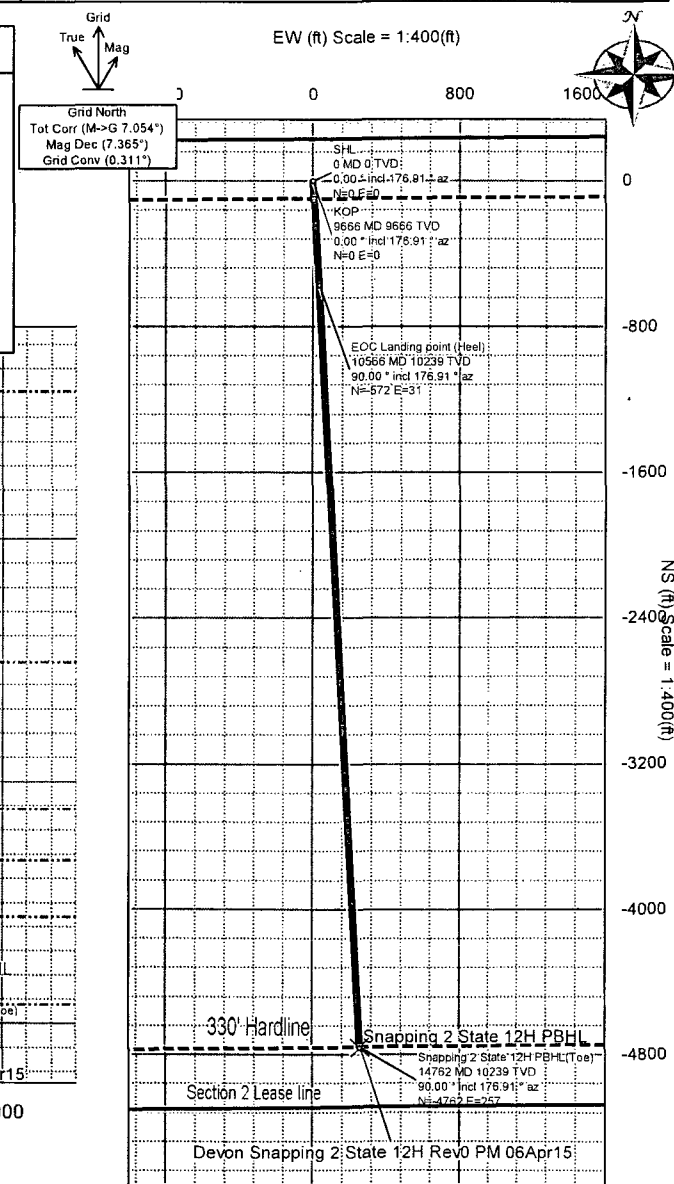
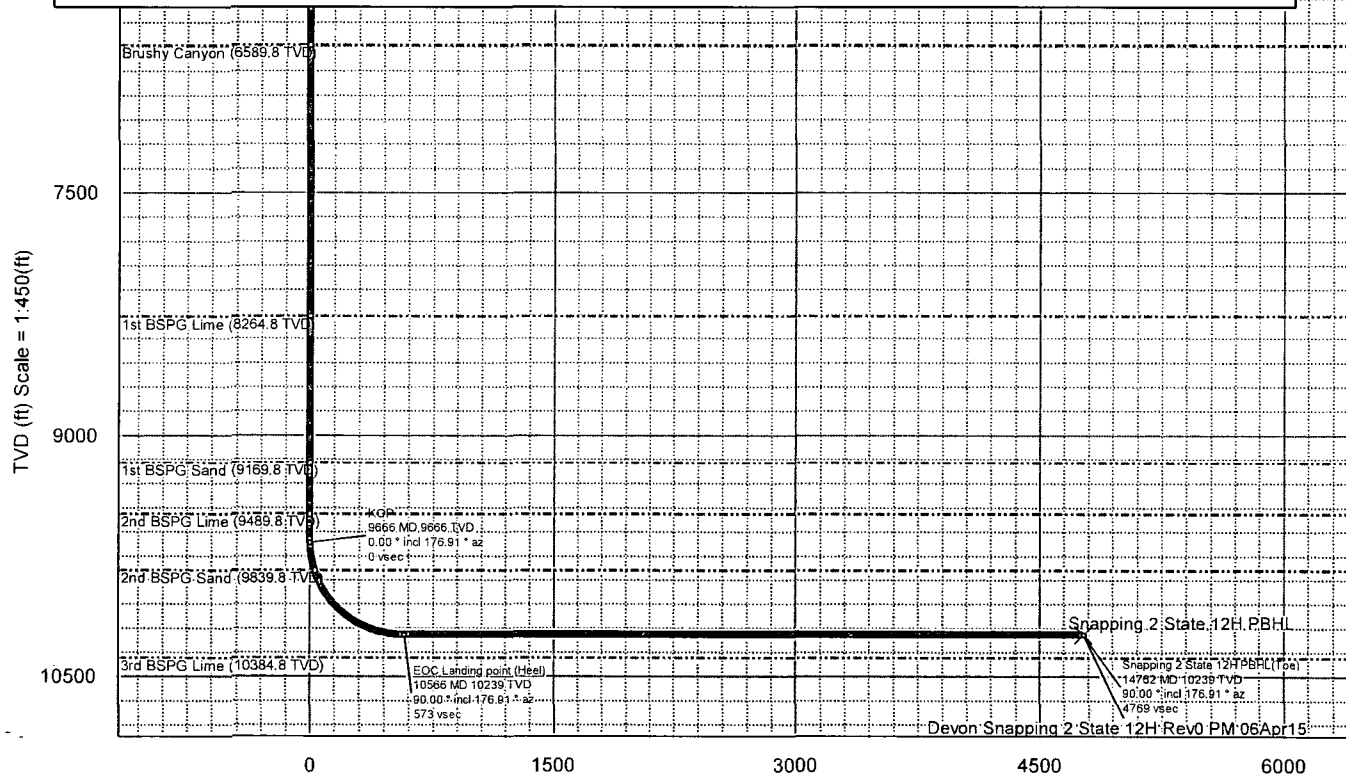
☒ Directional Plan

☐ Other, describe

Borehole:	Well:	Field:	Structure:
Original Borehole	Snapping 2 State 12H	Eddy County (NAD83)	Devon Snapping 2 State 12H

Gravity & Magnetic Parameters	Surface Location	Miscellaneous
Model: BGGM 2014 Dip: 59.917° Date: 06-Apr-2015	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Slot: Snapping 2 TVD Ref: Cactus 105 RKB=28'(3320.2ft above Mean Sea Level)
MagDec: 7.365° FS: 48075.131nT Gravity FS: 998.424mgn (9.80665 Based)	Lat: N 32 4 43.88 Northing: 392916.29ftUS Grid Conv: 0.3108°	Plan: Devon Snapping 2 State 12H Rev0 PM 06Apr15
	Lon: W 103 44 53.26 Easting: 722590.61ftUS Scale Fact: 0.99994672	

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)S(-)	E(+)W(-)	DLS
SHL	0.00	0.00	176.91	0.00	0.00	0.00	0.00	
Marker MudLine	28.00	0.00	176.91	28.00	0.00	0.00	0.00	0.00
KOP	9666.00	0.00	176.91	9666.00	0.00	0.00	0.00	0.00
EOC Landing point (Heel)	10565.99	90.00	176.91	10238.96	572.95	-572.12	30.93	10.00
Snapping 2 State 12H PBHL(Toe)	14762.02	90.00	176.91	10239.00	4768.98	-4762.02	257.47	0.00



Devon Snapping 2 State 12H Rev0 PM 06Apr15 Proposal Geodetic Report



(Def Plan)

Report Date: April 06, 2015 - 03:55 PM
 Client: Devon
 Field: Eddy County (NAD83)
 Structure / Slot: Devon Snapping 2 State 12H / Devon Snapping 2 State 12H
 Well: Snapping 2 State 12H
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Devon Snapping 2 State 12H Rev0 PM 06Apr15
 Survey Date: April 06, 2015
 Tort / AHD / DDI / ERD Ratio: 89.999 ° / 4768.979 ft / 5.792 / 0.468
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 4' 43.87843", W 103° 44' 53.25517"
 Location Grid N/E Y/X: N 392916.290 ftUS, E 722590.610 ftUS
 CRS Grid Convergence Angle: 0.3108 °
 Grid Scale Factor: 0.99994672
 Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 176.905 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: Cactus 105 RKB=28'
 TVD Reference Elevation: 3320.200 ft above Mean Sea Level
 Seabed / Ground Elevation: 3292.200 ft above Mean Sea Level
 Magnetic Declination: 7.365 °
 Total Gravity Field Strength: 998.4244mgm (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48075.131 nT
 Magnetic Dip Angle: 59.917 °
 Declination Date: April 06, 2015
 Magnetic Declination Model: BGGM 2014
 North Reference: Grid North
 Grid Convergence Used: 0.3108 °
 Total Corr Mag North->Grid North: 7.0539 °
 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	176.91	0.00	0.00	0.00	0.00	N/A	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
KOP	9666.00	0.00	176.91	9666.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
EOC Landing point (Heel)	10565.99	90.00	176.91	10238.96	572.95	-572.12	30.93	10.00	392344.21	722621.54	N 32 4 38.22	W 103 44 52.93
Snapping 2 State 12H PBHL(Toe)	14762.02	90.00	176.91	10239.00	4768.98	-4762.02	257.47	0.00	388154.53	722848.07	N 32 3 56.74	W 103 44 50.56

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
 Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	28.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Original Borehole / Devon Snapping 2 State 12H Rev0 PM
	1	28.000	14762.021	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Devon Snapping 2 State 12H Rev0 PM

Devon Snapping 2 State 12H Rev0 PM 06Apr15 Proposal Geodetic Report



(Def Plan)

Report Date:	April 06, 2015 - 03:54 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Devon	Vertical Section Azimuth:	178.905 ° (Grid North)
Field:	Eddy County (NAD83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Devon Snapping 2 State 12H / Devon Snapping 2 State 12H	TVD Reference Datum:	Cactus 105 RKB=28'
Well:	Snapping 2 State 12H	TVD Reference Elevation:	3320.200 ft above Mean Sea Level
Borehole:	Original Borehole	Seabed / Ground Elevation:	3292.200 ft above Mean Sea Level
UWI / API#:	Unknown / Unknown	Magnetic Declination:	7.365 °
Survey Name:	Devon Snapping 2 State 12H Rev0 PM 06Apr15	Total Gravity Field Strength:	998.4244mgm (9.80665 Based)
Survey Date:	April 06, 2015	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	89.999 ° / 4768.979 ft / 5.792 / 0.466	Total Magnetic Field Strength:	48075.131 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	59.917 °
Location Lat / Long:	N 32° 4' 43.87843", W 103° 44' 53.25517"	Declination Date:	April 06, 2015
Location Grid N/E Y/X:	N 392916.290 ftUS, E 722590.610 ftUS	Magnetic Declination Model:	BGGM 2014
CRS Grid Convergence Angle:	0.3108 °	North Reference:	Grid North
Grid Scale Factor:	0.99994872	Grid Convergence Used:	0.3108 °
Version / Patch:	2.7.1043.0	Total Corr Mag North->Grid:	7.0539 °
		North:	
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	176.91	0.00	0.00	0.00	0.00	N/A	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
Marker MudLine	28.00	0.00	176.91	28.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	100.00	0.00	176.91	100.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	200.00	0.00	176.91	200.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	300.00	0.00	176.91	300.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	400.00	0.00	176.91	400.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	500.00	0.00	176.91	500.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	600.00	0.00	176.91	600.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	700.00	0.00	176.91	700.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	800.00	0.00	176.91	800.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	900.00	0.00	176.91	900.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	1000.00	0.00	176.91	1000.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	1100.00	0.00	176.91	1100.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	1200.00	0.00	176.91	1200.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	1300.00	0.00	176.91	1300.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	1400.00	0.00	176.91	1400.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	1500.00	0.00	176.91	1500.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	1600.00	0.00	176.91	1600.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	1700.00	0.00	176.91	1700.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	1800.00	0.00	176.91	1800.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	1900.00	0.00	176.91	1900.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	2000.00	0.00	176.91	2000.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	2100.00	0.00	176.91	2100.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	2200.00	0.00	176.91	2200.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	2300.00	0.00	176.91	2300.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	2400.00	0.00	176.91	2400.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	2500.00	0.00	176.91	2500.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	2600.00	0.00	176.91	2600.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	2700.00	0.00	176.91	2700.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	2800.00	0.00	176.91	2800.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	2900.00	0.00	176.91	2900.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	3000.00	0.00	176.91	3000.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	3100.00	0.00	176.91	3100.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	3200.00	0.00	176.91	3200.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	3300.00	0.00	176.91	3300.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	3400.00	0.00	176.91	3400.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	3500.00	0.00	176.91	3500.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	3600.00	0.00	176.91	3600.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	3700.00	0.00	176.91	3700.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	3800.00	0.00	176.91	3800.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	3900.00	0.00	176.91	3900.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	4000.00	0.00	176.91	4000.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	4100.00	0.00	176.91	4100.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	4200.00	0.00	176.91	4200.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	4300.00	0.00	176.91	4300.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	4400.00	0.00	176.91	4400.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	4500.00	0.00	176.91	4500.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	4600.00	0.00	176.91	4600.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	4700.00	0.00	176.91	4700.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	4800.00	0.00	176.91	4800.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	4900.00	0.00	176.91	4900.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	5000.00	0.00	176.91	5000.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	5100.00	0.00	176.91	5100.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	5200.00	0.00	176.91	5200.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	5300.00	0.00	176.91	5300.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	5400.00	0.00	176.91	5400.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	5500.00	0.00	176.91	5500.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	5600.00	0.00	176.91	5600.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	5700.00	0.00	176.91	5700.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	5800.00	0.00	176.91	5800.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	5900.00	0.00	176.91	5900.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	6000.00	0.00	176.91	6000.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	6100.00	0.00	176.91	6100.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	6200.00	0.00	176.91	6200.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	6300.00	0.00	176.91	6300.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	6400.00	0.00	176.91	6400.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	6500.00	0.00	176.91	6500.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	6600.00	0.00	176.91	6600.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	6700.00	0.00	176.91	6700.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	6800.00	0.00	176.91	6800.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	6900.00	0.00	176.91	6900.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	7000.00	0.00	176.91	7000.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	7100.00	0.00	176.91	7100.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	7200.00	0.00	176.91	7200.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	7300.00	0.00	176.91	7300.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	7400.00	0.00	176.91	7400.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88	W 103 44 53.26
	7500.00	0.00	176.91	7500.00	0.00							

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
KOP	7600.00	0.00	176.91	7600.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	7700.00	0.00	176.91	7700.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	7800.00	0.00	176.91	7800.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	7900.00	0.00	176.91	7900.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	8000.00	0.00	176.91	8000.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	8100.00	0.00	176.91	8100.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	8200.00	0.00	176.91	8200.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	8300.00	0.00	176.91	8300.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	8400.00	0.00	176.91	8400.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	8500.00	0.00	176.91	8500.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	8600.00	0.00	176.91	8600.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	8700.00	0.00	176.91	8700.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	8800.00	0.00	176.91	8800.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	8900.00	0.00	176.91	8900.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	9000.00	0.00	176.91	9000.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	9100.00	0.00	176.91	9100.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	9200.00	0.00	176.91	9200.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	9300.00	0.00	176.91	9300.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	9400.00	0.00	176.91	9400.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	9500.00	0.00	176.91	9500.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	9600.00	0.00	176.91	9600.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	9666.00	0.00	176.91	9666.00	0.00	0.00	0.00	0.00	392916.29	722590.61	N 32 4 43.88 W	103 44 53.26
	9700.00	3.40	176.91	9699.98	1.01	-1.01	0.05	10.00	392915.28	722590.66	N 32 4 43.87 W	103 44 53.25
	9800.00	13.40	176.91	9798.78	15.60	-15.58	0.84	10.00	392900.72	722591.45	N 32 4 43.72 W	103 44 53.25
	9900.00	23.40	176.91	9893.55	47.12	-47.05	2.54	10.00	392869.24	722593.15	N 32 4 43.41 W	103 44 53.23
	10000.00	33.40	176.91	9981.40	94.63	-94.49	5.11	10.00	392821.81	722595.72	N 32 4 42.94 W	103 44 53.20
	10100.00	43.40	176.91	10059.67	156.66	-156.43	8.46	10.00	392759.87	722599.07	N 32 4 42.33 W	103 44 53.17
	10200.00	53.40	176.91	10125.98	231.35	-231.01	12.49	10.00	392685.29	722603.10	N 32 4 41.59 W	103 44 53.12
	10300.00	63.40	176.91	10178.31	316.41	-315.95	17.08	10.00	392600.36	722607.69	N 32 4 40.75 W	103 44 53.08
	10400.00	73.40	176.91	10215.08	409.27	-408.67	22.10	10.00	392507.64	722612.71	N 32 4 39.83 W	103 44 53.02
	10500.00	83.40	176.91	10235.16	507.10	-506.36	27.38	10.00	392409.95	722617.99	N 32 4 38.87 W	103 44 52.97
	EOC Landing point (Heel)	10565.99	90.00	176.91	10238.96	572.95	-572.12	30.93	10.00	392344.21	722621.54	N 32 4 38.22 W
10600.00	90.00	176.91	10238.96	606.96	-606.07	32.77	0.00	392310.25	722623.38	N 32 4 37.88 W	103 44 52.91	
10700.00	90.00	176.91	10238.96	706.96	-705.93	38.17	0.00	392210.40	722628.78	N 32 4 36.89 W	103 44 52.86	
10800.00	90.00	176.91	10238.96	806.96	-805.78	43.57	0.00	392110.55	722634.17	N 32 4 35.90 W	103 44 52.80	
10900.00	90.00	176.91	10238.96	906.96	-905.64	48.97	0.00	392010.71	722639.57	N 32 4 34.91 W	103 44 52.74	
11000.00	90.00	176.91	10238.96	1006.96	-1005.49	54.37	0.00	391910.86	722644.97	N 32 4 33.93 W	103 44 52.69	
11100.00	90.00	176.91	10238.96	1106.96	-1105.34	59.76	0.00	391811.01	722650.37	N 32 4 32.94 W	103 44 52.63	
11200.00	90.00	176.91	10238.96	1206.96	-1205.20	65.16	0.00	391711.16	722655.77	N 32 4 31.95 W	103 44 52.57	
11300.00	90.00	176.91	10238.97	1306.96	-1305.05	70.56	0.00	391611.31	722661.17	N 32 4 30.96 W	103 44 52.52	
11400.00	90.00	176.91	10238.97	1406.96	-1404.91	75.96	0.00	391511.46	722666.57	N 32 4 29.97 W	103 44 52.46	
11500.00	90.00	176.91	10238.97	1506.96	-1504.76	81.36	0.00	391411.61	722671.97	N 32 4 28.98 W	103 44 52.40	
11600.00	90.00	176.91	10238.97	1606.96	-1604.61	86.76	0.00	391311.76	722677.36	N 32 4 28.00 W	103 44 52.35	
11700.00	90.00	176.91	10238.97	1706.96	-1704.47	92.16	0.00	391211.92	722682.76	N 32 4 27.01 W	103 44 52.29	
11800.00	90.00	176.91	10238.97	1806.96	-1804.32	97.56	0.00	391112.07	722688.16	N 32 4 26.02 W	103 44 52.24	
11900.00	90.00	176.91	10238.97	1906.96	-1904.18	102.96	0.00	391012.22	722693.56	N 32 4 25.03 W	103 44 52.18	
12000.00	90.00	176.91	10238.97	2006.96	-2004.03	108.35	0.00	390912.37	722698.96	N 32 4 24.04 W	103 44 52.12	
12100.00	90.00	176.91	10238.97	2106.96	-2103.88	113.75	0.00	390812.52	722704.36	N 32 4 23.05 W	103 44 52.07	
12200.00	90.00	176.91	10238.97	2206.96	-2203.74	119.15	0.00	390712.67	722709.76	N 32 4 22.07 W	103 44 52.01	
12300.00	90.00	176.91	10238.98	2306.96	-2303.59	124.55	0.00	390612.82	722715.15	N 32 4 21.08 W	103 44 51.95	
12400.00	90.00	176.91	10238.98	2406.96	-2403.45	129.95	0.00	390512.98	722720.55	N 32 4 20.09 W	103 44 51.90	
12500.00	90.00	176.91	10238.98	2506.96	-2503.30	135.35	0.00	390413.13	722725.95	N 32 4 19.10 W	103 44 51.84	
12600.00	90.00	176.91	10238.98	2606.96	-2603.16	140.75	0.00	390313.28	722731.35	N 32 4 18.11 W	103 44 51.78	
12700.00	90.00	176.91	10238.98	2706.96	-2703.01	146.15	0.00	390213.43	722736.75	N 32 4 17.12 W	103 44 51.73	
12800.00	90.00	176.91	10238.98	2806.96	-2802.86	151.55	0.00	390113.58	722742.15	N 32 4 16.14 W	103 44 51.67	
12900.00	90.00	176.91	10238.98	2906.96	-2902.72	156.94	0.00	390013.73	722747.55	N 32 4 15.15 W	103 44 51.61	
13000.00	90.00	176.91	10238.98	3006.96	-3002.57	162.34	0.00	389913.88	722752.94	N 32 4 14.16 W	103 44 51.56	
13100.00	90.00	176.91	10238.98	3106.96	-3102.43	167.74	0.00	389814.04	722758.34	N 32 4 13.17 W	103 44 51.50	
13200.00	90.00	176.91	10238.98	3206.96	-3202.28	173.14	0.00	389714.19	722763.74	N 32 4 12.18 W	103 44 51.44	
13300.00	90.00	176.91	10238.99	3306.96	-3302.13	178.54	0.00	389614.34	722769.14	N 32 4 11.19 W	103 44 51.39	
13400.00	90.00	176.91	10238.99	3406.96	-3401.99	183.94	0.00	389514.49	722774.54	N 32 4 10.21 W	103 44 51.33	
13500.00	90.00	176.91	10238.99	3506.96	-3501.84	189.34	0.00	389414.64	722779.94	N 32 4 9.22 W	103 44 51.28	
13600.00	90.00	176.91	10238.99	3606.96	-3601.70	194.74	0.00	389314.79	722785.34	N 32 4 8.23 W	103 44 51.22	
13700.00	90.00	176.91	10238.99	3706.96	-3701.55	200.14	0.00	389214.94	722790.74	N 32 4 7.24 W	103 44 51.16	
13800.00	90.00	176.91	10238.99	3806.96	-3801.41	205.54	0.00	389115.09	722796.13	N 32 4 6.25 W	103 44 51.11	
13900.00	90.00	176.91	10238.99	3906.96	-3901.26	210.93	0.00	389015.25	722801.53	N 32 4 5.26 W	103 44 51.05	
14000.00	90.00	176.91	10238.99	4006.96	-4001.11	216.33	0.00	388915.40	722806.93	N 32 4 4.27 W	103 44 50.99	
14100.00	90.00	176.91	10238.99	4106.96	-4100.97	221.73	0.00	388815.55	722812.33	N 32 4 3.29 W	103 44 50.94	
14200.00	90.00	176.91	10238.99	4206.96	-4200.82	227.13	0.00	388715.70	722817.73	N 32 4 2.30 W	103 44 50.88	
14300.00	90.00	176.91	10239.00	4306.96	-4300.68	232.53	0.00	388615.85	722823.13	N 32 4 1		

Devon Snapping 2 State 12H Rev0 PM 06Apr15 Proposal Report

(Def Plan)

Report Date: April 06, 2015 - 03:54 PM
Client: Devon
Field: Eddy County (NAD83)
Structure / Slot: Devon Snapping 2 State 12H / Devon Snapping 2 State 12H
Well: Snapping 2 State 12H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Devon Snapping 2 State 12H Rev0 PM 06Apr15
Survey Date: April 06, 2015
Tort / AHD / DDI / ERD Ratio: 89.999 ° / 4768.979 ft / 5.792 / 0.466
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 4' 43.87843", W 103° 44' 53.25517"
Location Grid N/E Y/X: N 392916.290 ftUS, E 722590.610 ftUS
CRS Grid Convergence Angle: 0.3108 °
Grid Scale Factor: 0.99994672
Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 176.905 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Cactus 105 RKB=28'
TVD Reference Elevation: 3320.200 ft above Mean Sea Level
Seabed / Ground Elevation: 3292.200 ft above Mean Sea Level
Magnetic Declination: 7.365 °
Total Gravity Field Strength: 998.4244mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48075.131 nT
Magnetic Dip Angle: 59.917 °
Declination Date: April 06, 2015
Magnetic Declination Model: BGGM 2014
North Reference: Grid North
Grid Convergence Used: 0.3108 °
Total Corr Mag North->Grid North: 7.0539 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
SHL	0.00	0.00	176.91	0.00	0.00	0.00	0.00	0.00	0.00	N/A	176.91M
Marker MudLine	28.00	0.00	176.91	28.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	100.00	0.00	176.91	100.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	200.00	0.00	176.91	200.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	300.00	0.00	176.91	300.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	400.00	0.00	176.91	400.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	500.00	0.00	176.91	500.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	600.00	0.00	176.91	600.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	700.00	0.00	176.91	700.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	800.00	0.00	176.91	800.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	900.00	0.00	176.91	900.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	1000.00	0.00	176.91	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	1100.00	0.00	176.91	1100.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	1200.00	0.00	176.91	1200.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	1300.00	0.00	176.91	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	1400.00	0.00	176.91	1400.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	1500.00	0.00	176.91	1500.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	1600.00	0.00	176.91	1600.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	1700.00	0.00	176.91	1700.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	1800.00	0.00	176.91	1800.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	1900.00	0.00	176.91	1900.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	2000.00	0.00	176.91	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	2100.00	0.00	176.91	2100.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	2200.00	0.00	176.91	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	2300.00	0.00	176.91	2300.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	2400.00	0.00	176.91	2400.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	2500.00	0.00	176.91	2500.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	2600.00	0.00	176.91	2600.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	2700.00	0.00	176.91	2700.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	2800.00	0.00	176.91	2800.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	2900.00	0.00	176.91	2900.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	3000.00	0.00	176.91	3000.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	3100.00	0.00	176.91	3100.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	3200.00	0.00	176.91	3200.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	3300.00	0.00	176.91	3300.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	3400.00	0.00	176.91	3400.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	3500.00	0.00	176.91	3500.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	3600.00	0.00	176.91	3600.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	3700.00	0.00	176.91	3700.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	3800.00	0.00	176.91	3800.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	3900.00	0.00	176.91	3900.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	4000.00	0.00	176.91	4000.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	4100.00	0.00	176.91	4100.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	4200.00	0.00	176.91	4200.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	4300.00	0.00	176.91	4300.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	4400.00	0.00	176.91	4400.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	4500.00	0.00	176.91	4500.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	4600.00	0.00	176.91	4600.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	4700.00	0.00	176.91	4700.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	4800.00	0.00	176.91	4800.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	4900.00	0.00	176.91	4900.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	5000.00	0.00	176.91	5000.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	5100.00	0.00	176.91	5100.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	5200.00	0.00	176.91	5200.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	5300.00	0.00	176.91	5300.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	5400.00	0.00	176.91	5400.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	5500.00	0.00	176.91	5500.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	5600.00	0.00	176.91	5600.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	5700.00	0.00	176.91	5700.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	5800.00	0.00	176.91	5800.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	5900.00	0.00	176.91	5900.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	6000.00	0.00	176.91	6000.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	6100.00	0.00	176.91	6100.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	6200.00	0.00	176.91	6200.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	6300.00	0.00	176.91	6300.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	6400.00	0.00	176.91	6400.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	6500.00	0.00	176.91	6500.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
	6600.00	0.00	176.91	6600.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	6700.00	0.00	176.91	6700.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	6800.00	0.00	176.91	6800.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	6900.00	0.00	176.91	6900.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	7000.00	0.00	176.91	7000.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	7100.00	0.00	176.91	7100.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	7200.00	0.00	176.91	7200.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	7300.00	0.00	176.91	7300.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	7400.00	0.00	176.91	7400.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	7500.00	0.00	176.91	7500.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	7600.00	0.00	176.91	7600.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	7700.00	0.00	176.91	7700.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	7800.00	0.00	176.91	7800.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	7900.00	0.00	176.91	7900.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	8000.00	0.00	176.91	8000.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	8100.00	0.00	176.91	8100.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	8200.00	0.00	176.91	8200.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	8300.00	0.00	176.91	8300.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	8400.00	0.00	176.91	8400.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	8500.00	0.00	176.91	8500.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	8600.00	0.00	176.91	8600.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	8700.00	0.00	176.91	8700.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	8800.00	0.00	176.91	8800.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	8900.00	0.00	176.91	8900.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	9000.00	0.00	176.91	9000.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	9100.00	0.00	176.91	9100.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	9200.00	0.00	176.91	9200.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	9300.00	0.00	176.91	9300.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	9400.00	0.00	176.91	9400.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	9500.00	0.00	176.91	9500.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	9600.00	0.00	176.91	9600.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
KOP	9666.00	0.00	176.91	9666.00	0.00	0.00	0.00	0.00	0.00	0.00	176.91M
	9700.00	3.40	176.91	9699.98	1.01	-1.01	0.05	1.01	176.91	10.00	176.91M
	9800.00	13.40	176.91	9798.78	15.60	-15.58	0.84	15.60	176.91	10.00	HS
	9900.00	23.40	176.91	9893.55	47.12	-47.05	2.54	47.12	176.91	10.00	HS
	10000.00	33.40	176.91	9981.40	94.63	-94.49	5.11	94.63	176.91	10.00	HS
	10100.00	43.40	176.91	10059.67	156.66	-156.43	8.46	156.66	176.91	10.00	HS
	10200.00	53.40	176.91	10125.98	231.35	-231.01	12.49	231.35	176.91	10.00	HS
	10300.00	63.40	176.91	10178.31	316.41	-315.95	17.08	316.41	176.91	10.00	HS
	10400.00	73.40	176.91	10215.08	409.27	-408.67	22.10	409.27	176.91	10.00	HS
	10500.00	83.40	176.91	10235.16	507.10	-506.36	27.38	507.10	176.91	10.00	HS
EOC Landing point (Heel)	10565.99	90.00	176.91	10238.96	572.95	-572.12	30.93	572.95	176.91	10.00	HS
	10600.00	90.00	176.91	10238.96	606.96	-606.07	32.77	606.96	176.91	0.00	HS
	10700.00	90.00	176.91	10238.96	706.96	-705.93	38.17	706.96	176.91	0.00	HS
	10800.00	90.00	176.91	10238.96	806.96	-805.78	43.57	806.96	176.91	0.00	HS
	10900.00	90.00	176.91	10238.96	906.96	-905.64	48.97	906.96	176.91	0.00	HS
	11000.00	90.00	176.91	10238.96	1006.96	-1005.49	54.37	1006.96	176.91	0.00	HS
	11100.00	90.00	176.91	10238.96	1106.96	-1105.34	59.76	1106.96	176.91	0.00	HS
	11200.00	90.00	176.91	10238.96	1206.96	-1205.20	65.16	1206.96	176.91	0.00	HS
	11300.00	90.00	176.91	10238.97	1306.96	-1305.05	70.56	1306.96	176.91	0.00	HS
	11400.00	90.00	176.91	10238.97	1406.96	-1404.91	75.96	1406.96	176.91	0.00	HS
	11500.00	90.00	176.91	10238.97	1506.96	-1504.76	81.36	1506.96	176.91	0.00	HS
	11600.00	90.00	176.91	10238.97	1606.96	-1604.61	86.76	1606.96	176.91	0.00	HS
	11700.00	90.00	176.91	10238.97	1706.96	-1704.47	92.16	1706.96	176.91	0.00	HS
	11800.00	90.00	176.91	10238.97	1806.96	-1804.32	97.56	1806.96	176.91	0.00	HS
	11900.00	90.00	176.91	10238.97	1906.96	-1904.18	102.96	1906.96	176.91	0.00	HS
	12000.00	90.00	176.91	10238.97	2006.96	-2004.03	108.35	2006.96	176.91	0.00	HS
	12100.00	90.00	176.91	10238.97	2106.96	-2103.88	113.75	2106.96	176.91	0.00	HS
	12200.00	90.00	176.91	10238.97	2206.96	-2203.74	119.15	2206.96	176.91	0.00	HS
	12300.00	90.00	176.91	10238.98	2306.96	-2303.59	124.55	2306.96	176.91	0.00	HS
	12400.00	90.00	176.91	10238.98	2406.96	-2403.45	129.95	2406.96	176.91	0.00	HS
	12500.00	90.00	176.91	10238.98	2506.96	-2503.30	135.35	2506.96	176.91	0.00	HS
	12600.00	90.00	176.91	10238.98	2606.96	-2603.16	140.75	2606.96	176.91	0.00	HS
	12700.00	90.00	176.91	10238.98	2706.96	-2703.01	146.15	2706.96	176.91	0.00	HS
	12800.00	90.00	176.91	10238.98	2806.96	-2802.86	151.55	2806.96	176.91	0.00	HS
	12900.00	90.00	176.91	10238.98	2906.96	-2902.72	156.94	2906.96	176.91	0.00	HS
	13000.00	90.00	176.91	10238.98	3006.96	-3002.57	162.34	3006.96	176.91	0.00	HS
	13100.00	90.00	176.91	10238.98	3106.96	-3102.43	167.74	3106.96	176.91	0.00	HS
	13200.00	90.00	176.91	10238.98	3206.96	-3202.28	173.14	3206.96	176.91	0.00	HS
	13300.00	90.00	176.91	10238.99	3306.96	-3302.13	178.54	3306.96	176.91	0.00	HS
	13400.00	90.00	176.91	10238.99	3406.96	-3401.99	183.94	3406.96	176.91	0.00	HS
	13500.00	90.00	176.91	10238.99	3506.96	-3501.84	189.34	3506.96	176.91	0.00	HS
	13600.00	90.00	176.91	10238.99	3606.96	-3601.70	194.74	3606.96	176.91	0.00	HS
	13700.00	90.00	176.91	10238.99	3706.96	-3701.55	200.14	3706.96	176.91	0.00	HS
	13800.00	90.00	176.91	10238.99	3806.96	-3801.41	205.54	3806.96	176.91	0.00	HS
	13900.00	90.00	176.91	10238.99	3906.96	-3901.26	210.93	3906.96	176.91	0.00	HS
	14000.00	90.00	176.91	10238.99	4006.96	-4001.11	216.33	4006.96	176.91	0.00	HS
	14100.00	90.00	176.91	10238.99	4106.96	-4100.97	221.73	4106.96	176.91	0.00	HS
	14200.00	90.00	176.91	10238.99	4206.96	-4200.82	227.13	4206.96	176.91	0.00	HS
	14300.00	90.00	176.91	10239.00	4306.96	-4300.68	232.53	4306.96	176.91	0.00	HS
	14400.00	90.00	176.91	10239.00	4406.96	-4400.53	237.93	4406.96	176.91	0.00	HS
	14500.00	90.00	176.91	10239.00	4506.96	-4500.38	243.33	4506.96	176.91	0.00	HS
	14600.00	90.00	176.91	10239.00	4606.96	-4600.24	248.73	4606.96	176.91	0.00	HS
	14700.00	90.00	176.91	10239.00	4706.96	-4700.09	254.13	4706.96	176.91	0.00	HS
Snapping 2 State 12H PBHL(Toe)	14762.02	90.00	176.91	10239.00	4768.98	-4762.02	257.47	4768.98	176.91	0.00	

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey			
	1	0.000	28.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Original Borehole / Devon Snapping 2 State 12H Rev0 PM			
	1	28.000	14762.021	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Devon Snapping 2 State 12H Rev0 PM			