

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
511 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-42331	² Pool Code 96641	³ Pool Name Paduca; Bone Spring, Oil
⁴ Property Code	⁵ Property Name COTTON DRAW UNIT	⁶ Well Number 244H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation 3505.1

¹⁰ Surface Location

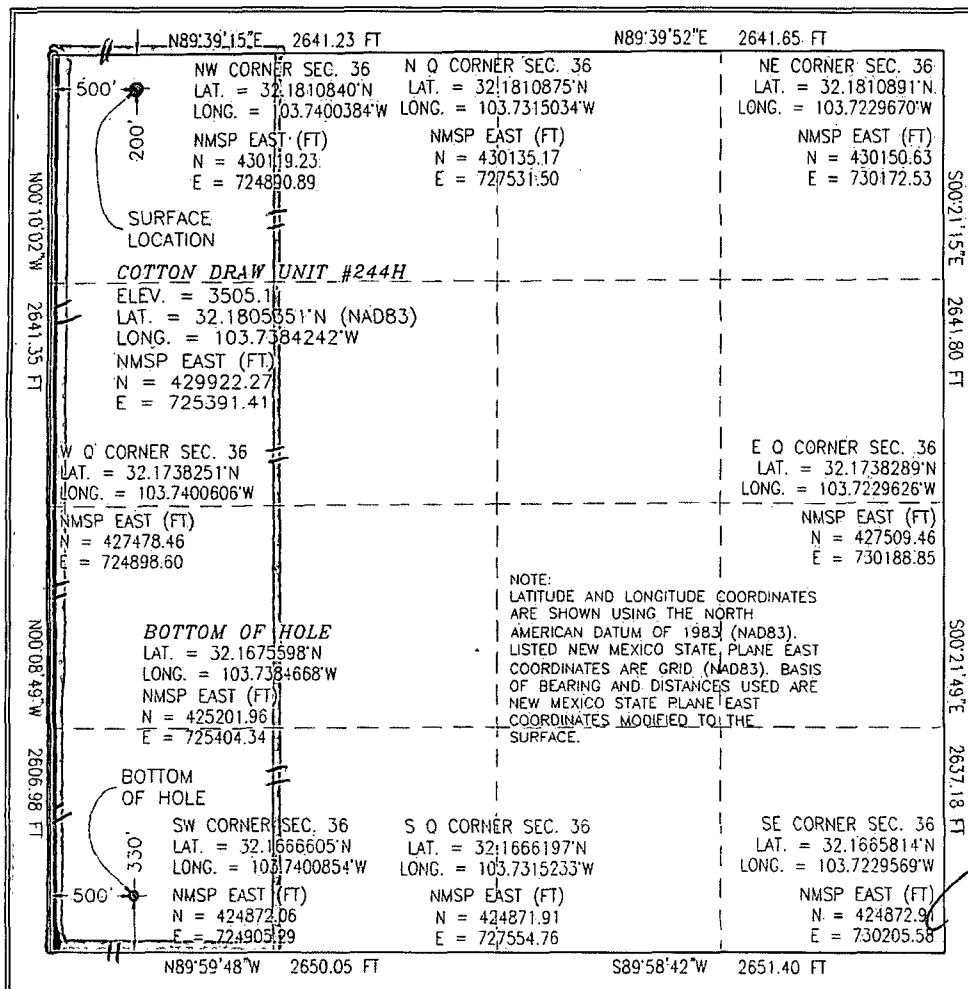
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	36	24 S	31 E		200	NORTH	500	WEST	EDDY

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	36	24 S	31 E		330	SOUTH	500	WEST	EDDY

¹² Dedicated Acres 159.11	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.

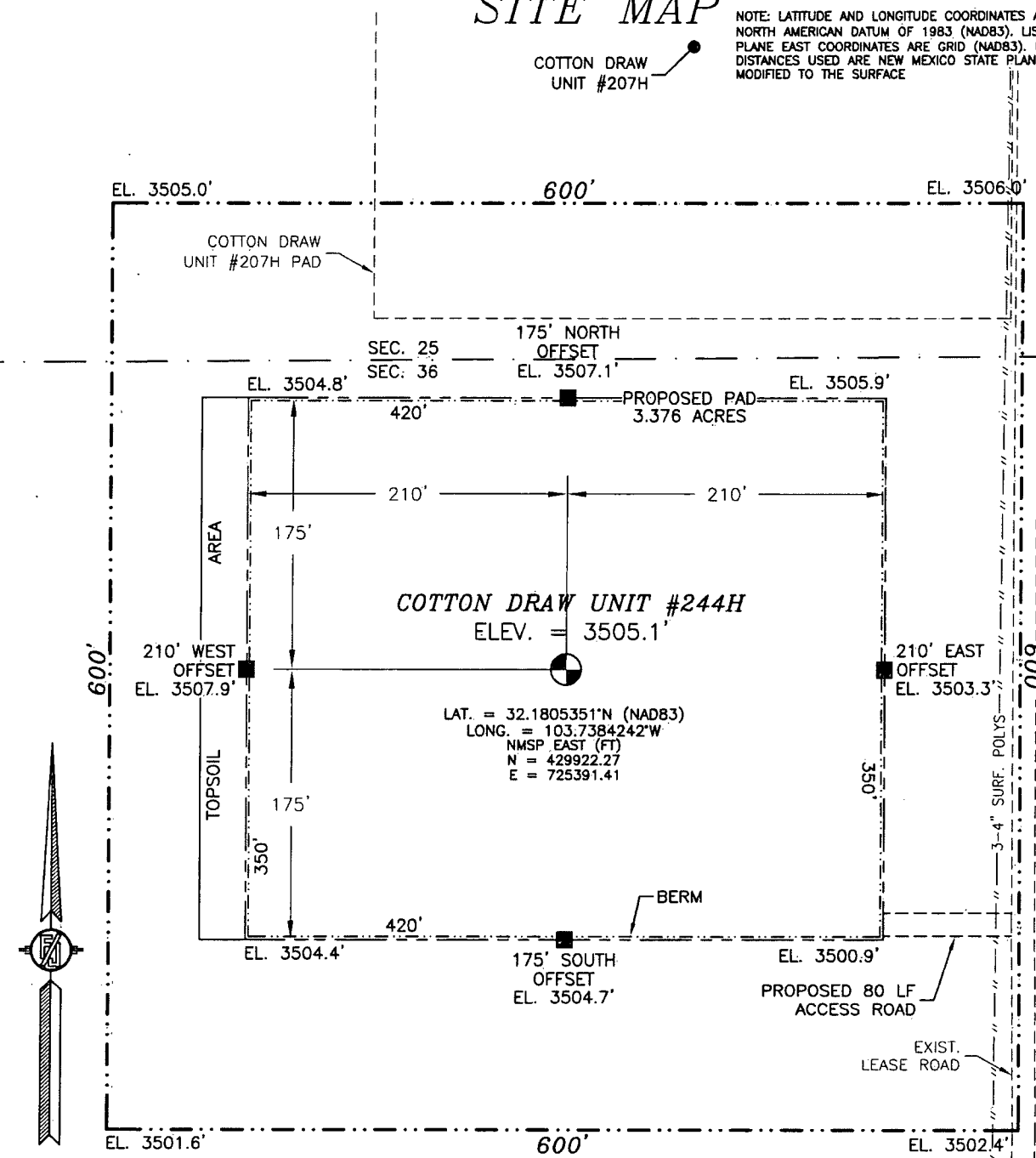
	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to 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. <i>Linda Good</i> 4/23/2014 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 4, 2014 Date of Survey <i>FELIMON F. JARAMILLO</i> Signature and Seal of Professional Surveyor Certificate Number: FELIMON F. JARAMILLO, PLS 12797 SURVEY NO. 2898
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SECTION 36, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

SITE MAP

COTTON DRAW
UNIT #207H

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 CR 1 AND MONSANTO ROAD GO WEST 2.1 MILES, TURN RIGHT (NORTH) GO 0.9 MILES, TURN LEFT (WEST) GO 2.0 MILES, TURN RIGHT (NORTH) GO 1.8 MILES, TURN LEFT (WEST) GO 0.3 MILES, TURN RIGHT (NORTH) GO 0.4 MILES, TURN RIGHT (EAST) GO 0.7 MILES, TURN LEFT (NORTH) GO 0.84 MILES, TURN LEFT (WEST) GO 0.25 MILES, TURN RIGHT (NORTH) GO 395', TURN LEFT (WEST) GO 80' TO THE SOUTHEAST CORNER FOR THIS LOCATION.

DEVON ENERGY PRODUCTION COMPANY, L.P.
COTTON DRAW UNIT #244H
LOCATED 200 FT. FROM THE NORTH LINE
AND 500 FT. FROM THE WEST LINE OF
SECTION 36, TOWNSHIP 24 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

APRIL 4, 2014

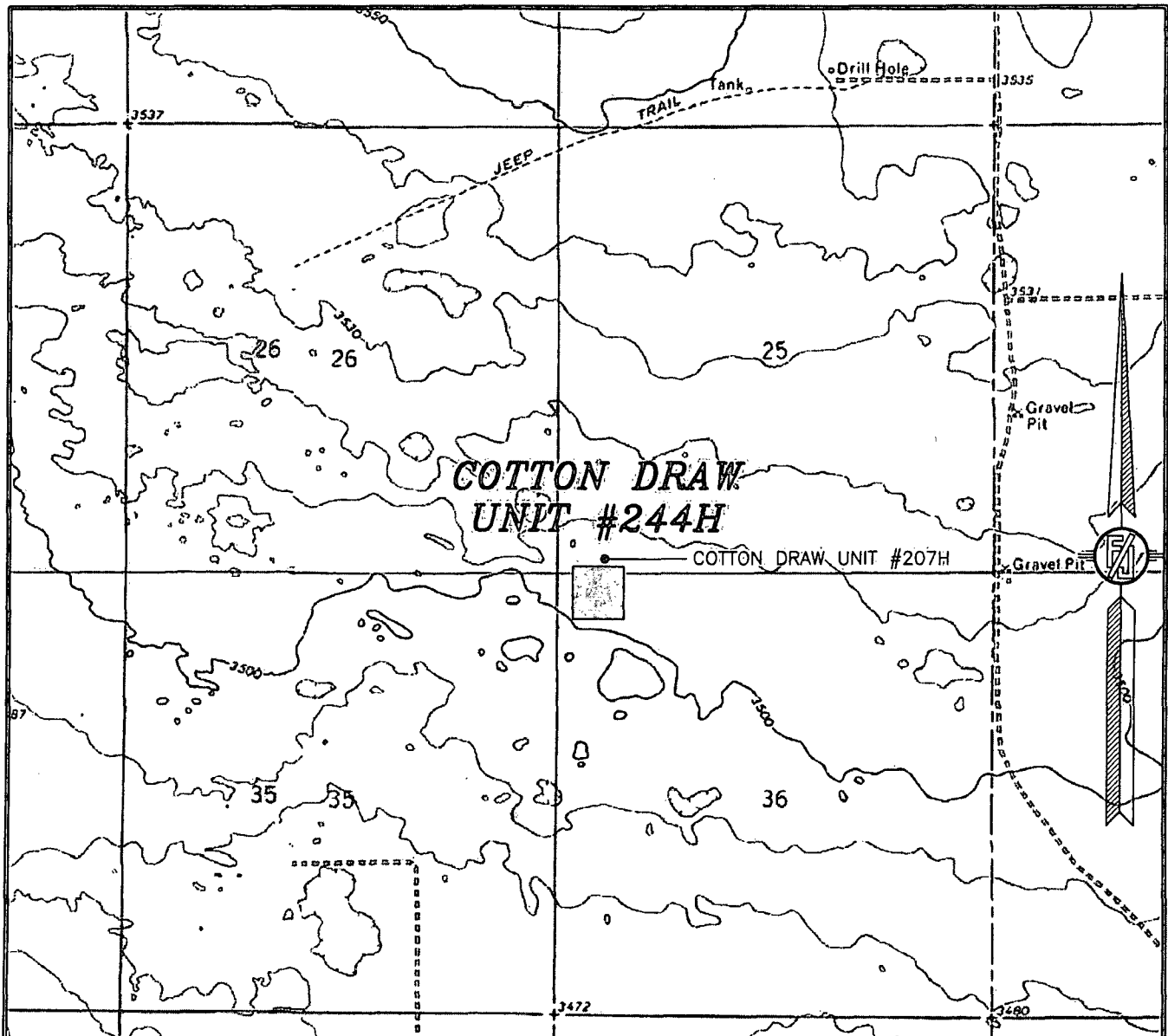
SURVEY NO. 2898

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

36, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
PADUCA BREAKS NW

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

COTTON DRAW UNIT #244H

LOCATED 200 FT. FROM THE NORTH LINE

AND 500 FT. FROM THE WEST LINE OF

SECTION 36, TOWNSHIP 24 SOUTH,

RANGE 31 EAST, N.M.P.M.

EDDY COUNTY, STATE OF NEW MEXICO

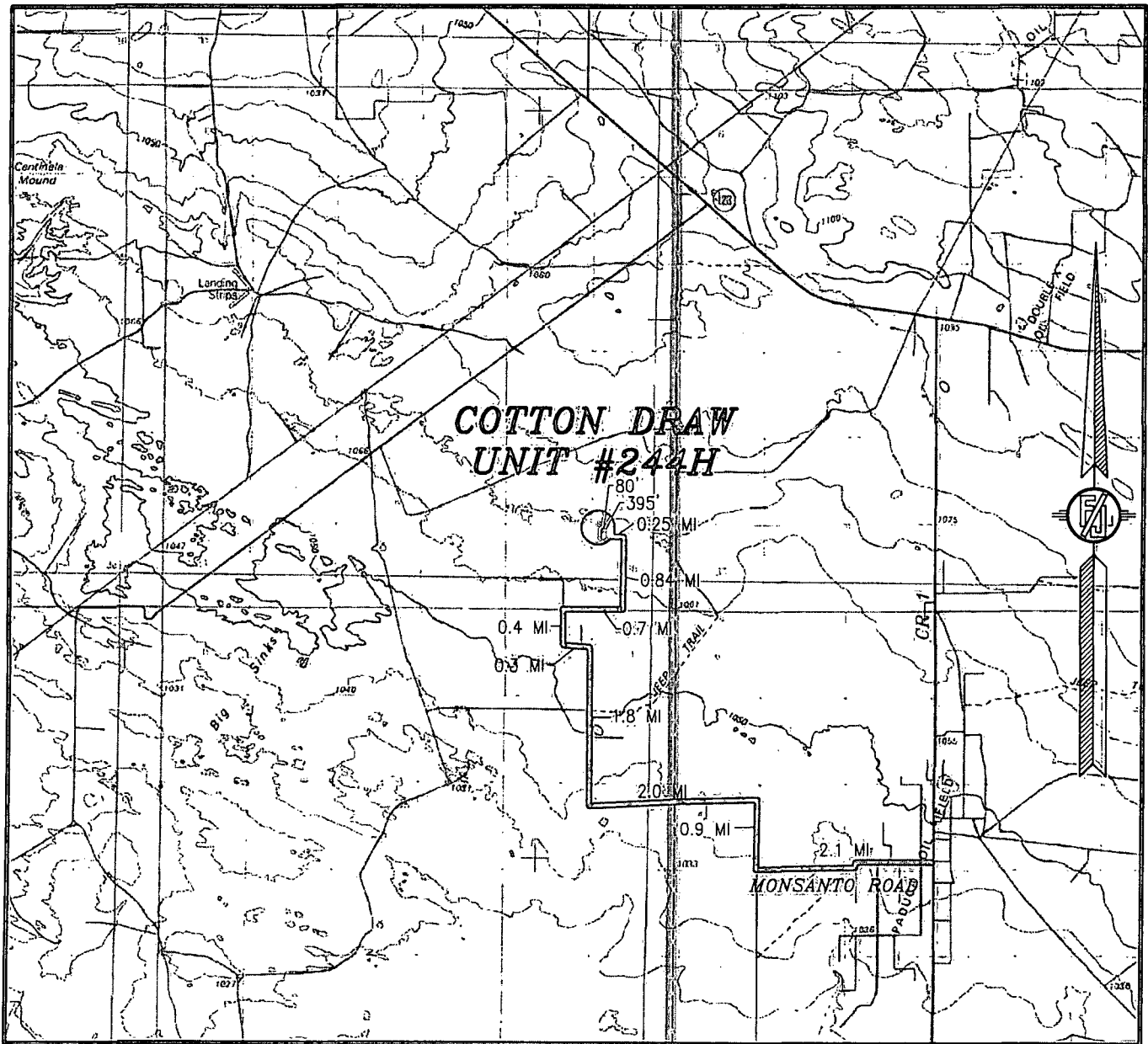
APRIL 4, 2014

SURVEY NO. 2898.

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

301 SOUTH CANAL
(575) 234-3341

SECTION 36, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

COTTON DRAW UNIT #244H

LOCATED 200 FT. FROM THE NORTH LINE
AND 500 FT. FROM THE WEST LINE OF
SECTION 36, TOWNSHIP 24 SOUTH,
RANGE 31 EAST, N.M.P.M.

EDDY COUNTY, STATE OF NEW MEXICO

DIRECTIONS TO LOCATION

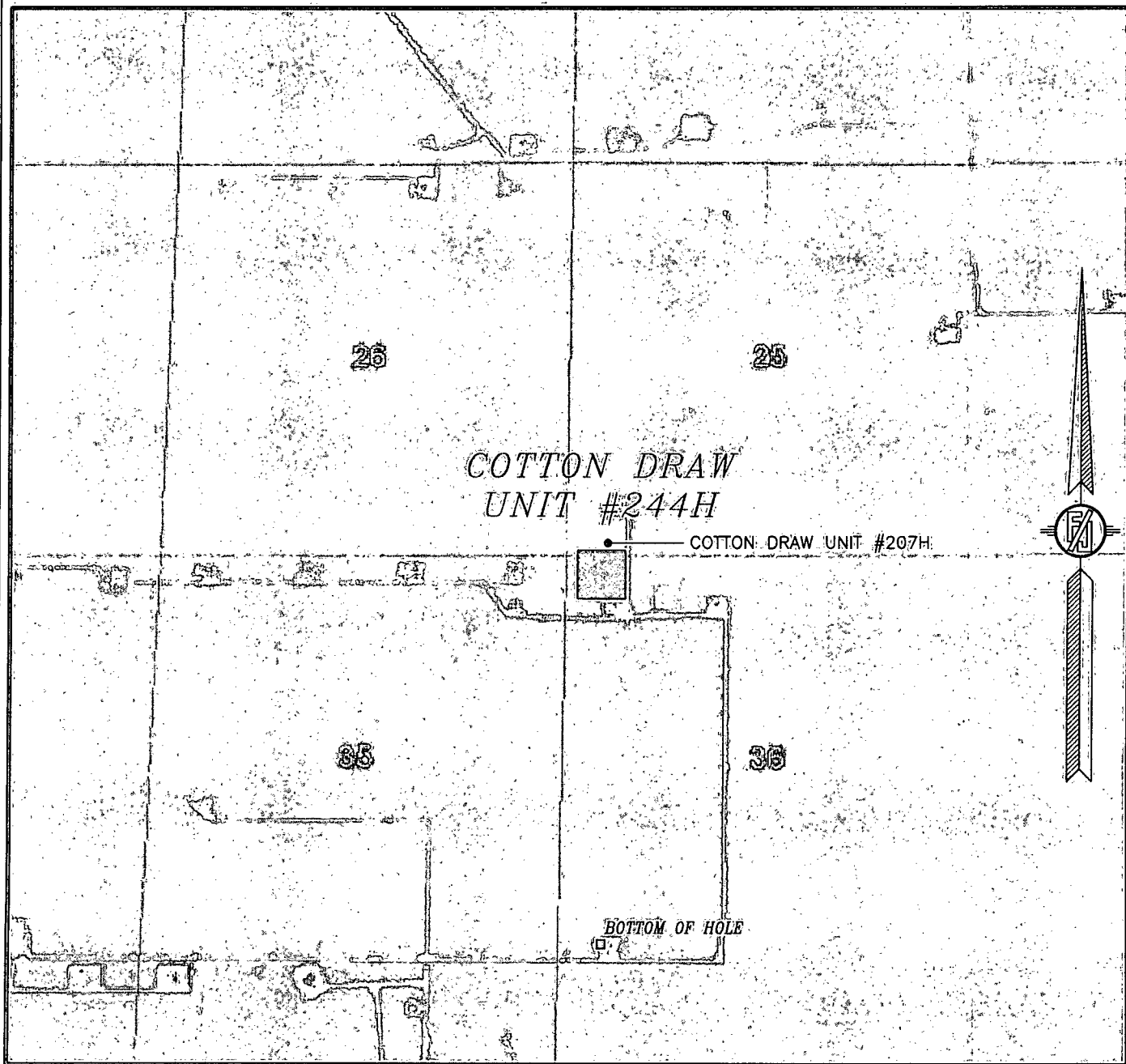
FROM THE INTERSECTION OF CR 1 AND MONSANTO ROAD GO WEST
2.1 MILES, TURN RIGHT (NORTH) GO 0.9 MILES, TURN LEFT (WEST)
GO 2.0 MILES, TURN RIGHT (NORTH) GO 1.8 MILES, TURN LEFT
(WEST) GO 0.3 MILES, TURN RIGHT (NORTH) GO 0.4 MILES, TURN
RIGHT (EAST) GO 0.7 MILES, TURN LEFT (NORTH) GO 0.84 MILES,
TURN LEFT (WEST) GO 0.25 MILES, TURN RIGHT (NORTH) GO 395',
TURN LEFT (WEST) GO 80' TO THE SOUTHEAST CORNER FOR THIS
LOCATION.

APRIL 4, 2014

SURVEY NO. 2898

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

SECTION 36, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
APRIL 2013

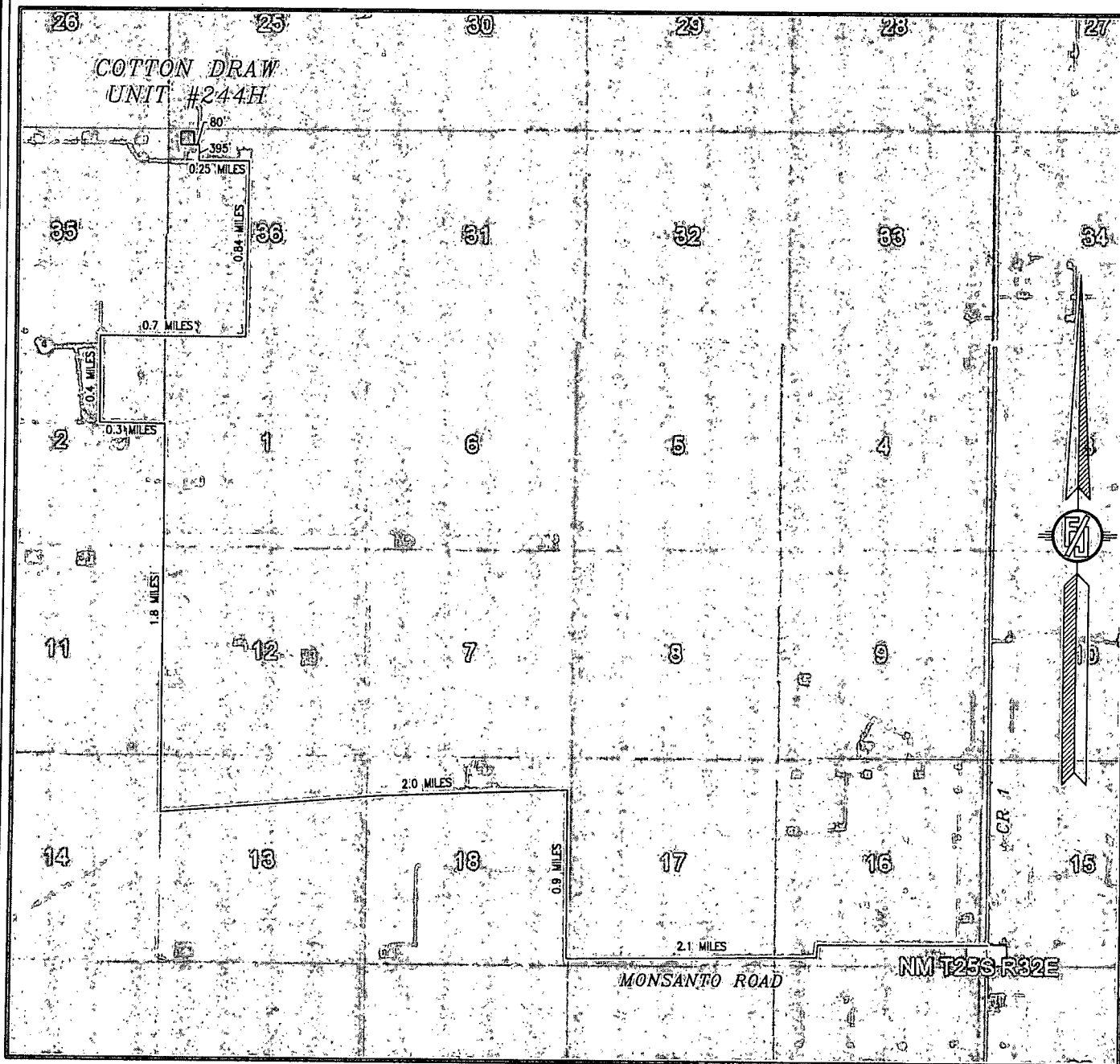
DEVON ENERGY PRODUCTION COMPANY, L.P.
COTTON DRAW UNIT #244H
LOCATED 200 FT. FROM THE NORTH LINE
AND 500 FT. FROM THE WEST LINE OF
SECTION 36, TOWNSHIP 24 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

APRIL 4, 2014

SURVEY NO. 2898

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

SECTION 36, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 ACCESS AERIAL ROUTE MAP



NOT TO SCALE
 AERIAL PHOTO:
 GOOGLE EARTH
 APRIL 2013

DEVON ENERGY PRODUCTION COMPANY, L.P.
COTTON DRAW UNIT #244H
 LOCATED 200 FT. FROM THE NORTH LINE
 AND 500 FT. FROM THE WEST LINE OF
 SECTION 36, TOWNSHIP 24 SOUTH,
 RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

APRIL 4, 2014

SURVEY NO. 2898

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

Drilling Program
Cotton Draw Unit 244H
RJC 4.22.14

1. Casing Program:

Hole Size	Hole Interval	Casing OD	Casing Interval	Weight	Collar	Grade
17-1/2"	0 – 800'	13-3/8"	0 – 800'	48#	STC	H-40
12-1/4"	800' - 4,300'	9-5/8"	0 - 4,300'	40#	LTC	J-55
8-3/4"	4,300' – 11,800'	7"	0-11,800'	29#	BTC	P-110
6-1/8"	11,800'-16,185'	4-1/2"	10,930'-16,185'	13.5#	BTC	P-110

Maximum TVD in lateral: 11,670 ft

2. Design Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
13-3/8"	2.15	4.84	14.09
9-5/8"	1.15	1.77	3.02
7"	1.21	1.48	2.03
4-1/2"	1.95	2.27	2.81

3. Cement Program:

Cementing Program (cement volumes based on at least 25% excess)

String	Number of sx	Weight lbs/gal	Water Volume g/sx	Yield cf/sx	Stage; Lead/Tail	Slurry Description
13-3/8" Surface	870	14.8	6.32	1.33	Tail	Class C Cement + 63.5% Fresh Water
9-5/8" Intermediate #1	910	12.9	9.81	1.85	Lead	(65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 71.4 % Fresh Water
	430	14.8	6.32	1.33	Tail	Class C Cement + 63.5% Fresh Water
9-5/8" Intermediate #1 Two Stage Option	790	12.9	9.81	1.85	Lead	(65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 71.4 % Fresh Water
	220	14.8	6.32	1.33	Tail	Class C Cement + 63.5% Fresh Water
	DV Tool at 1150ft					
	140	12.9	9.81	1.85	Lead	(65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 71.4 % Fresh Water

Drilling Program
Cotton Draw Unit 244H
RJC 4.22.14

	190	14.8	6.32	1.33	Tail	Class C Cement + 63.5% Fresh Water
7" Intermediate #2 Two Stage Option	550	11.0	14.94	2.66	Lead	Tuned Light Blend + 0.125 lb/sk Pol-E-Flake + 76.3% Fresh Water
	190	14.4	5.69	1.25	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 0.3% bwoc HALAD-9 + 0.2% bwoc HR-800 + 1lb/sk KolSeal + 2% bwoc Bentonite + 62.3 % Fresh Water
	DV Tool at 4350ft					
	230	11.0	14.94	2.66	Lead	Tuned Light Blend + 0.125 lb/sk Pol-E-Flake + 76.3% Fresh Water
	70	14.8	6.32	1.33	Tail	Class C Cement + 0.2% HR-800 + 63.5% Fresh Water

String	Number of sx	Weight lbs/gal	Water Volume g/sx	Yield cf/sx	Stage; Lead/Tail	Slurry Description
7" Intermediate #2 Single Stage Option	810	11.0	14.94	2.66	Lead	Tuned Light Blend + 0.125 lb/sk Pol-E-Flake + 76.3% Fresh Water
	190	14.4	5.69	1.25	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 0.3% bwoc HALAD-9 + 0.2% bwoc HR-800 + 1lb/sk KolSeal + 2% bwoc Bentonite + 62.3 % Fresh Water
4-1/2" Production Liner	510	14.5	5.32	1.21	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.25% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water

TOC for all Strings:

13-3/8" Surface 0ft

9-5/8" Intermediate 0ft

9-5/8" Two Stage Option Stage #1 = 1150ft
Stage #2 = 0ft

7" Intermediate Two Stage Option	Stage #1 = 4150ft Stage #2 = 0ft
7" Intermediate Single Stage Option	0ft
4-1/2" Production Liner	10930ft

Notes:

- Cement volumes Surface 100%, Intermediate #1 75%, Intermediate #2 50% and Production Liner based on at least 25% excess.
- Actual cement volumes will be adjusted based on fluid caliper and caliper log data.
- If lost circulation is encountered while drilling the production and/or the intermediate wellbores, a DV tool will be installed a minimum of 50' below the previous casing shoe and a minimum of 200' above the current shoe. If the DV tool has to be moved, the cement volumes will be adjusted proportionately. Both single and double stage proposals are listed in the cement table.

4. Pressure Control Equipment

The BOP system used to drill the 17-1/2" hole will consist of a 20" 2M Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order 2 as a 2M system prior to drilling out the casing shoe.

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the surface casing shoe. The BOP system used to drill the intermediate hole will be tested per BLM Onshore Oil and Gas Order 2.

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the intermediate casing shoe. The BOP system used to drill the production hole will be tested per BLM Onshore Oil and Gas Order 2.

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 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.

5. Proposed Mud Circulation System:

Depth Range	Mud Weight	Viscosity	Fluid Loss	Type System
0 - 800'	8.3-9.6	30-34	N/C	FW
800' - 4,300'	10-10.2	28-32	N/C	Brine
4,300' - 11,800'	8.4-9.0	28-32	N/C	FW
11,800' - 16,185'	9 -10	28-32	N/C	FW

The necessary mud products for weight addition and fluid loss control will be on location at all times.

6. Auxiliary Well Control and Monitoring Equipment:

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- c. Hydrogen Sulfide detection equipment will be in operation after drilling out the 13-3/8" casing shoe until the 4-1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13-3/8" shoe until total depth is reached.



Azimuths to Grid North
True North: -0.32°
Magnetic North: 7.11°

Magnetic Field
Strength: 48262.7snT
Dip Angle: 60.03°
Date: 4/21/2014
Model: BGGM2013

devon

PROJECT DETAILS: Eddy County, NM (NAD-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

DESIGN TARGET DETAILS

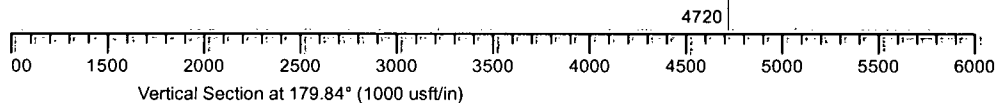
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	429922.27	725391.41	32° 10' 49.926 N	103° 44' 18.327 W
-4720.31	12.93	425201.96	725404.34	32° 10' 3.215 N	103° 44' 18.480 W

SECTION DETAILS

Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	11192.58	0.00	0.00	0.00	0.00	0.00	
179.84	11670.00	-483.66	1.32	12.00	179.84	483.66	
179.84	11615.00	-4720.31	12.93	0.00	0.00	4720.33	

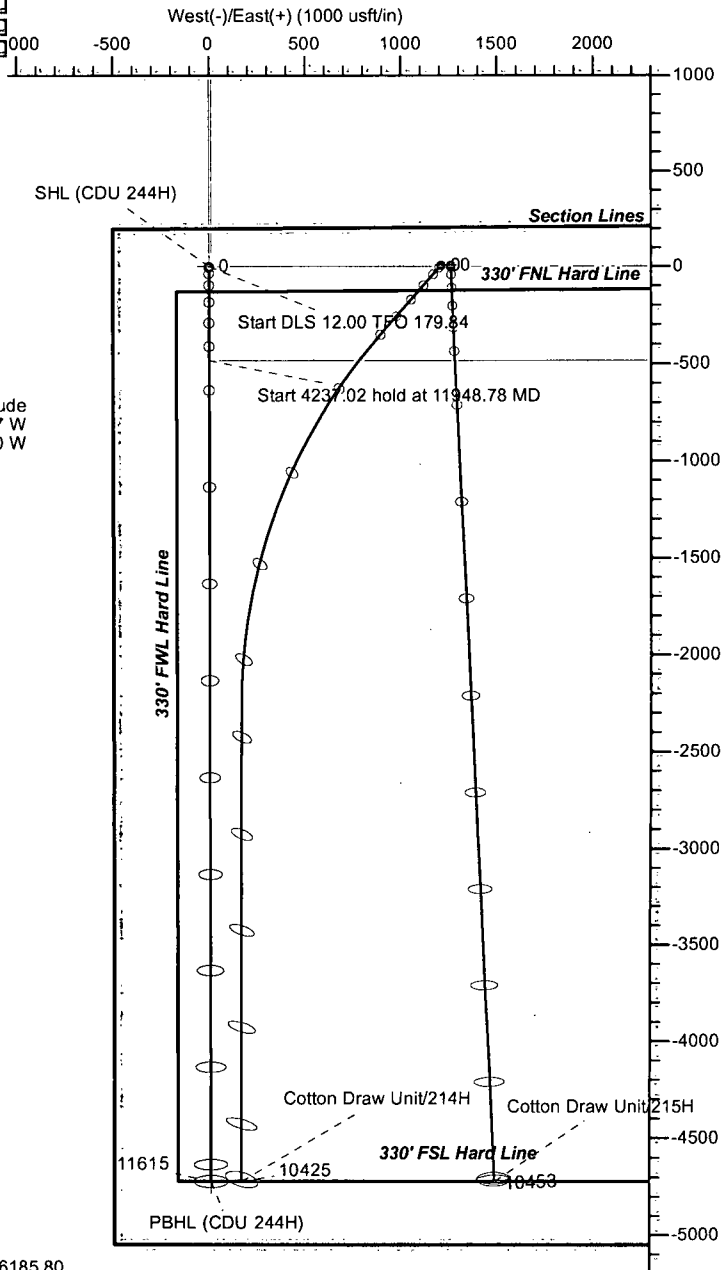
FO 179.84

2 hold at 11948.78 MD



LEAM DRILLING SYSTEMS LLC
2010 East Davis, Conroe, Texas 77301
Phone: 936/756-7577, Fax 936/756-7595

Plan: Plan #1 (244H/OH)
Cotton Draw Unit
Created By: Brady Deaver Date: 16:20, April 21 2014
Date: _____
Approved: _____ Date: _____



LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 244H
Company:	DEVON ENERGY	TVD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Project:	Eddy County, NM (NAD-83)	MD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	244H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Eddy County, NM (NAD-83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Cotton Draw Unit			
Site Position:		Northing:	419,194.51 usft	Latitude:	32° 9' 3.901 N
From:	Map	Easting:	722,955.98 usft	Longitude:	103° 44' 47.345 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.31

Well	244H, Bone Spring, Third Bone Spring Sand					
Well Position	+N/-S	10,727.76 usft	Northing:	429,922.27 usft	Latitude:	32° 10' 49.926 N
	+E/-W	2,435.43 usft	Easting:	725,391.41 usft	Longitude:	103° 44' 18.327 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	3,533.10 usft	Ground Level:	3,505.10 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	4/21/2014	7.42	60.03	48,263

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.84

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11,192.58	0.00	0.00	11,192.58	0.00	0.00	0.00	0.00	0.00	0.00	
11,948.78	90.74	179.84	11,670.00	-483.66	1.32	12.00	12.00	23.78	179.84	
16,185.80	90.74	179.84	11,615.00	-4,720.31	12.93	0.00	0.00	0.00	0.00	PBHL (CDU 244H)

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 244H
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Project:	Eddy County, NM (NAD-83)	MD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	244H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHL (CDU 244H)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,070.00	0.00	0.00	1,070.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,790.00	0.00	0.00	2,790.00	0.00	0.00	0.00	0.00	0.00	0.00
Castile									
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,385.00	0.00	0.00	4,385.00	0.00	0.00	0.00	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 244H
Company:	DEVON ENERGY	TVD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft.(Original Well Elev)
Project:	Eddy County, NM (NAD-83)	MD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	244H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Delaware									
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,415.00	0.00	0.00	4,415.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon									
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,755.00	0.00	0.00	6,755.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon									
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,360.00	0.00	0.00	8,360.00	0.00	0.00	0.00	0.00	0.00	0.00
Bone Sping									
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 244H
Company:	DEVON ENERGY	TVD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Project:	Eddy County, NM (NAD-83)	MD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	244H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,055.00	0.00	0.00	10,055.00	0.00	0.00	0.00	0.00	0.00	0.00
Second Bone Spring									
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.00	0.00	0.00
10,500.00	0.00	0.00	10,500.00	0.00	0.00	0.00	0.00	0.00	0.00
10,600.00	0.00	0.00	10,600.00	0.00	0.00	0.00	0.00	0.00	0.00
10,700.00	0.00	0.00	10,700.00	0.00	0.00	0.00	0.00	0.00	0.00
10,800.00	0.00	0.00	10,800.00	0.00	0.00	0.00	0.00	0.00	0.00
10,900.00	0.00	0.00	10,900.00	0.00	0.00	0.00	0.00	0.00	0.00
11,000.00	0.00	0.00	11,000.00	0.00	0.00	0.00	0.00	0.00	0.00
11,100.00	0.00	0.00	11,100.00	0.00	0.00	0.00	0.00	0.00	0.00
11,192.58	0.00	0.00	11,192.58	0.00	0.00	0.00	0.00	0.00	0.00
11,200.00	0.89	179.84	11,200.00	-0.06	0.00	0.06	12.00	12.00	0.00
11,225.00	3.89	179.84	11,224.98	-1.10	0.00	1.10	12.00	12.00	0.00
11,250.00	6.89	179.84	11,249.86	-3.45	0.01	3.45	12.00	12.00	0.00
11,270.26	9.32	179.84	11,269.92	-6.31	0.02	6.31	12.00	12.00	0.00
Third Bone Spring									
11,275.00	9.89	179.84	11,274.59	-7.10	0.02	7.10	12.00	12.00	0.00
11,300.00	12.89	179.84	11,299.10	-12.03	0.03	12.03	12.00	12.00	0.00
11,325.00	15.89	179.84	11,323.31	-18.25	0.05	18.25	12.00	12.00	0.00
11,350.00	18.89	179.84	11,347.16	-25.72	0.07	25.72	12.00	12.00	0.00
11,375.00	21.89	179.84	11,370.59	-34.43	0.09	34.43	12.00	12.00	0.00
11,400.00	24.89	179.84	11,393.54	-44.35	0.12	44.35	12.00	12.00	0.00
11,425.00	27.89	179.84	11,415.93	-55.46	0.15	55.46	12.00	12.00	0.00
11,450.00	30.89	179.84	11,437.71	-67.73	0.19	67.73	12.00	12.00	0.00
11,475.00	33.89	179.84	11,458.82	-81.12	0.22	81.12	12.00	12.00	0.00
11,500.00	36.89	179.84	11,479.20	-95.60	0.26	95.60	12.00	12.00	0.00
11,525.00	39.89	179.84	11,498.79	-111.12	0.30	111.12	12.00	12.00	0.00
11,550.00	42.89	179.84	11,517.54	-127.65	0.35	127.65	12.00	12.00	0.00
11,575.00	45.89	179.84	11,535.40	-145.13	0.40	145.13	12.00	12.00	0.00
11,600.00	48.89	179.84	11,552.33	-163.53	0.45	163.53	12.00	12.00	0.00
11,625.00	51.89	179.84	11,568.26	-182.79	0.50	182.79	12.00	12.00	0.00
11,650.00	54.89	179.84	11,583.17	-202.85	0.56	202.85	12.00	12.00	0.00
11,675.00	57.89	179.84	11,597.01	-223.67	0.61	223.67	12.00	12.00	0.00
11,700.00	60.89	179.84	11,609.74	-245.19	0.67	245.19	12.00	12.00	0.00
11,725.00	63.89	179.84	11,621.32	-267.34	0.73	267.34	12.00	12.00	0.00

LEAM Drilling Systems LLC

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Project:	Eddy County, NM (NAD-83)	MD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	244H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,750.00	66.89	179.84	11,631.73	-290.06	0.79	290.06	12.00	12.00	0.00
11,775.00	69.89	179.84	11,640.94	-313.30	0.86	313.30	12.00	12.00	0.00
11,800.00	72.89	179.84	11,648.91	-336.99	0.92	336.99	12.00	12.00	0.00
11,825.00	75.89	179.84	11,655.64	-361.07	0.99	361.07	12.00	12.00	0.00
11,850.00	78.89	179.84	11,661.10	-385.46	1.06	385.46	12.00	12.00	0.00
11,875.00	81.89	179.84	11,665.27	-410.11	1.12	410.11	12.00	12.00	0.00
11,900.00	84.89	179.84	11,668.15	-434.94	1.19	434.94	12.00	12.00	0.00
11,925.00	87.89	179.84	11,669.72	-459.89	1.26	459.89	12.00	12.00	0.00
11,948.78	90.74	179.84	11,670.00	-483.66	1.32	483.66	12.00	12.00	0.00
12,000.00	90.74	179.84	11,669.34	-534.88	1.47	534.88	0.00	0.00	0.00
12,100.00	90.74	179.84	11,668.04	-634.87	1.74	634.87	0.00	0.00	0.00
12,200.00	90.74	179.84	11,666.74	-734.86	2.01	734.86	0.00	0.00	0.00
12,300.00	90.74	179.84	11,665.45	-834.85	2.29	834.86	0.00	0.00	0.00
12,400.00	90.74	179.84	11,664.15	-934.84	2.56	934.85	0.00	0.00	0.00
12,500.00	90.74	179.84	11,662.85	-1,034.83	2.83	1,034.84	0.00	0.00	0.00
12,600.00	90.74	179.84	11,661.55	-1,134.83	3.11	1,134.83	0.00	0.00	0.00
12,700.00	90.74	179.84	11,660.25	-1,234.82	3.38	1,234.82	0.00	0.00	0.00
12,800.00	90.74	179.84	11,658.95	-1,334.81	3.66	1,334.81	0.00	0.00	0.00
12,900.00	90.74	179.84	11,657.66	-1,434.80	3.93	1,434.80	0.00	0.00	0.00
13,000.00	90.74	179.84	11,656.36	-1,534.79	4.20	1,534.80	0.00	0.00	0.00
13,100.00	90.74	179.84	11,655.06	-1,634.78	4.48	1,634.79	0.00	0.00	0.00
13,200.00	90.74	179.84	11,653.76	-1,734.77	4.75	1,734.78	0.00	0.00	0.00
13,300.00	90.74	179.84	11,652.46	-1,834.76	5.03	1,834.77	0.00	0.00	0.00
13,400.00	90.74	179.84	11,651.17	-1,934.76	5.30	1,934.76	0.00	0.00	0.00
13,500.00	90.74	179.84	11,649.87	-2,034.75	5.57	2,034.75	0.00	0.00	0.00
13,600.00	90.74	179.84	11,648.57	-2,134.74	5.85	2,134.75	0.00	0.00	0.00
13,700.00	90.74	179.84	11,647.27	-2,234.73	6.12	2,234.74	0.00	0.00	0.00
13,800.00	90.74	179.84	11,645.97	-2,334.72	6.40	2,334.73	0.00	0.00	0.00
13,900.00	90.74	179.84	11,644.67	-2,434.71	6.67	2,434.72	0.00	0.00	0.00
14,000.00	90.74	179.84	11,643.38	-2,534.70	6.94	2,534.71	0.00	0.00	0.00
14,100.00	90.74	179.84	11,642.08	-2,634.69	7.22	2,634.70	0.00	0.00	0.00
14,200.00	90.74	179.84	11,640.78	-2,734.68	7.49	2,734.70	0.00	0.00	0.00
14,300.00	90.74	179.84	11,639.48	-2,834.68	7.76	2,834.69	0.00	0.00	0.00
14,400.00	90.74	179.84	11,638.18	-2,934.67	8.04	2,934.68	0.00	0.00	0.00
14,500.00	90.74	179.84	11,636.89	-3,034.66	8.31	3,034.67	0.00	0.00	0.00
14,600.00	90.74	179.84	11,635.59	-3,134.65	8.59	3,134.66	0.00	0.00	0.00
14,700.00	90.74	179.84	11,634.29	-3,234.64	8.86	3,234.65	0.00	0.00	0.00
14,800.00	90.74	179.84	11,632.99	-3,334.63	9.13	3,334.64	0.00	0.00	0.00
14,900.00	90.74	179.84	11,631.69	-3,434.62	9.41	3,434.64	0.00	0.00	0.00
15,000.00	90.74	179.84	11,630.39	-3,534.61	9.68	3,534.63	0.00	0.00	0.00
15,100.00	90.74	179.84	11,629.10	-3,634.61	9.96	3,634.62	0.00	0.00	0.00
15,200.00	90.74	179.84	11,627.80	-3,734.60	10.23	3,734.61	0.00	0.00	0.00
15,300.00	90.74	179.84	11,626.50	-3,834.59	10.50	3,834.60	0.00	0.00	0.00
15,400.00	90.74	179.84	11,625.20	-3,934.58	10.78	3,934.59	0.00	0.00	0.00
15,500.00	90.74	179.84	11,623.90	-4,034.57	11.05	4,034.59	0.00	0.00	0.00
15,600.00	90.74	179.84	11,622.61	-4,134.56	11.33	4,134.58	0.00	0.00	0.00
15,700.00	90.74	179.84	11,621.31	-4,234.55	11.60	4,234.57	0.00	0.00	0.00
15,800.00	90.74	179.84	11,620.01	-4,334.54	11.87	4,334.56	0.00	0.00	0.00
15,900.00	90.74	179.84	11,618.71	-4,434.54	12.15	4,434.55	0.00	0.00	0.00
16,000.00	90.74	179.84	11,617.41	-4,534.53	12.42	4,534.54	0.00	0.00	0.00
16,100.00	90.74	179.84	11,616.11	-4,634.52	12.69	4,634.53	0.00	0.00	0.00
16,185.80	90.74	179.84	11,615.00	-4,720.31	12.93	4,720.33	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well: 244H
Company:	DEVON ENERGY	TVD Reference:	Cactus 105 - 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Project:	Eddy County, NM (NAD-83)	MD Reference:	Cactus 105 - 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	244H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
PBHL (CDU 244H)									

Design Targets									
Target Name	hit/miss target	Dip Angle	Dip Dir	TVD	+N/-S	+E/-W	Northing	Easting	
Shape		(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	
									Latitude Longitude
SHL (CDU 244H)		0.00	0.00	0.00	0.00	0.00	429,922.27	725,391.41	32° 10' 49.926 N 103° 44' 18.327 W
- plan hits target center									
- Point									
PBHL (CDU 244H)		0.00	0.00	11,615.00	-4,720.31	12.93	425,201.96	725,404.34	32° 10' 3.215 N 103° 44' 18.480 W
- plan hits target center									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
700.00	700.00	Rustler		-0.74	179.84	
1,070.00	1,070.00	Salado		-0.74	179.84	
2,790.00	2,790.00	Castile		-0.74	179.84	
4,385.00	4,385.00	Delaware		-0.74	179.84	
4,415.00	4,415.00	Bell Canyon		-0.74	179.84	
5,400.00	5,400.00	Cherry Canyon		-0.74	179.84	
6,755.00	6,755.00	Brushy Canyon		-0.74	179.84	
8,360.00	8,360.00	Bone Sping		-0.74	179.84	
10,055.00	10,055.00	Second Bone Spring		-0.74	179.84	
11,270.26	11,269.92	Third Bone Spring		-0.74	179.84	

DEVON ENERGY

Eddy County, NM (NAD-83)

Cotton Draw Unit

244H

OH

Plan #1

Anticollision Report

21 April, 2014

LEAM Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 244H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Reference Site:	Cotton Draw Unit	MD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	244H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date: 4/21/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	16,185.80	Plan #1 (OH)	LEAM MWD-ADJ	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Cotton Draw Unit						
214H - OH - Plan #1	10,475.31	11,000.00	915.64	863.47	17.550	CC, ES
214H - OH - Plan #1	16,186.23	15,288.19	1,200.37	1,111.08	13.444	SF
215H - OH - Plan #1	10,000.00	10,002.90	1,259.84	1,215.17	28.202	CC
215H - OH - Plan #1	10,100.00	10,092.67	1,260.21	1,215.16	27.973	ES
215H - OH - Plan #1	16,186.23	14,935.97	1,878.87	1,721.25	11.920	SF

Offset Design										Cotton Draw Unit - 214H - OH - Plan #1			Offset Site Error: 0.00 usft	
Survey Program: 0-LEAM MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)						
0.00	0.00	2.90	2.90	0.00	0.00	89.66	7.22	1,209.83	1,209.85					
100.00	100.00	102.90	102.90	0.08	0.09	89.66	7.22	1,209.83	1,209.85	1,209.68	0.17	7,186.526		
200.00	200.00	202.90	202.90	0.31	0.31	89.66	7.22	1,209.83	1,209.85	1,209.23	0.62	1,958.062		
300.00	300.00	302.90	302.90	0.53	0.54	89.66	7.22	1,209.83	1,209.85	1,208.78	1.07	1,133.442		
400.00	400.00	402.90	402.90	0.76	0.76	89.66	7.22	1,209.83	1,209.85	1,208.33	1.52	797.557		
500.00	500.00	502.90	502.90	0.98	0.99	89.66	7.22	1,209.83	1,209.85	1,207.89	1.97	615.238		
600.00	600.00	602.90	602.90	1.20	1.21	89.66	7.22	1,209.83	1,209.85	1,207.44	2.42	500.764		
700.00	700.00	702.90	702.90	1.43	1.44	89.66	7.22	1,209.83	1,209.85	1,206.99	2.87	422.207		
800.00	800.00	802.90	802.90	1.65	1.66	89.66	7.22	1,209.83	1,209.85	1,206.54	3.32	364.955		
900.00	900.00	902.90	902.90	1.88	1.89	89.66	7.22	1,209.83	1,209.85	1,206.09	3.76	321.375		
1,000.00	1,000.00	1,002.90	1,002.90	2.10	2.11	89.66	7.22	1,209.83	1,209.85	1,205.64	4.21	287.093		
1,100.00	1,100.00	1,102.90	1,102.90	2.33	2.34	89.66	7.22	1,209.83	1,209.85	1,205.19	4.66	259.420		
1,200.00	1,200.00	1,202.90	1,202.90	2.55	2.56	89.66	7.22	1,209.83	1,209.85	1,204.74	5.11	236.613		
1,300.00	1,300.00	1,302.90	1,302.90	2.78	2.78	89.66	7.22	1,209.83	1,209.85	1,204.29	5.56	217.492		
1,400.00	1,400.00	1,402.90	1,402.90	3.00	3.01	89.66	7.22	1,209.83	1,209.85	1,203.84	6.01	201.231		
1,500.00	1,500.00	1,502.90	1,502.90	3.23	3.23	89.66	7.22	1,209.83	1,209.85	1,203.39	6.46	187.231		
1,600.00	1,600.00	1,602.90	1,602.90	3.45	3.46	89.66	7.22	1,209.83	1,209.85	1,202.94	6.91	175.053		
1,700.00	1,700.00	1,702.90	1,702.90	3.68	3.68	89.66	7.22	1,209.83	1,209.85	1,202.49	7.36	164.363		
1,800.00	1,800.00	1,802.90	1,802.90	3.90	3.91	89.66	7.22	1,209.83	1,209.85	1,202.04	7.81	154.903		
1,900.00	1,900.00	1,902.90	1,902.90	4.13	4.13	89.66	7.22	1,209.83	1,209.85	1,201.59	8.26	146.472		
2,000.00	2,000.00	2,002.90	2,002.90	4.35	4.36	89.66	7.22	1,209.83	1,209.85	1,201.14	8.71	138.912		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 244H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Reference Site:	Cotton Draw Unit	MD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	244H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OH	Database:	EDM-5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Cotton Draw Unit - 214H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD												Offset Well Error:	0.00 usft
Reference:	Offset												
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre N-S (usft)	Offset Wellbore Centre E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,100.00	2,100.00	2,102.90	2,102.90	4.58	4.58	89.66	7.22	1,209.83	1,209.85	1,200.69	9.16	132.094	
2,200.00	2,200.00	2,202.90	2,202.90	4.80	4.81	89.66	7.22	1,209.83	1,209.85	1,200.24	9.61	125.914	
2,300.00	2,300.00	2,302.90	2,302.90	5.03	5.03	89.66	7.22	1,209.83	1,209.85	1,199.79	10.06	120.287	
2,400.00	2,400.00	2,402.90	2,402.90	5.25	5.26	89.66	7.22	1,209.83	1,209.85	1,199.34	10.51	115.141	
2,500.00	2,500.00	2,502.90	2,502.90	5.48	5.48	89.66	7.22	1,209.83	1,209.85	1,198.89	10.96	110.417	
2,600.00	2,600.00	2,602.90	2,602.90	5.70	5.71	89.66	7.22	1,209.83	1,209.85	1,198.44	11.41	106.065	
2,700.00	2,700.00	2,702.90	2,702.90	5.92	5.93	89.66	7.22	1,209.83	1,209.85	1,198.00	11.86	102.044	
2,800.00	2,800.00	2,802.90	2,802.90	6.15	6.16	89.66	7.22	1,209.83	1,209.85	1,197.55	12.31	98.316	
2,900.00	2,900.00	2,902.90	2,902.90	6.37	6.38	89.66	7.22	1,209.83	1,209.85	1,197.10	12.76	94.851	
3,000.00	3,000.00	3,002.90	3,002.90	6.60	6.61	89.66	7.22	1,209.83	1,209.85	1,196.65	13.20	91.622	
3,100.00	3,100.00	3,102.90	3,102.90	6.82	6.83	89.66	7.22	1,209.83	1,209.85	1,196.20	13.65	88.606	
3,200.00	3,200.00	3,202.90	3,202.90	7.05	7.06	89.66	7.22	1,209.83	1,209.85	1,195.75	14.10	85.782	
3,300.00	3,300.00	3,302.90	3,302.90	7.27	7.28	89.66	7.22	1,209.83	1,209.85	1,195.30	14.55	83.132	
3,400.00	3,400.00	3,402.90	3,402.90	7.50	7.50	89.66	7.22	1,209.83	1,209.85	1,194.85	15.00	80.641	
3,500.00	3,500.00	3,502.90	3,502.90	7.72	7.73	89.66	7.22	1,209.83	1,209.85	1,194.40	15.45	78.295	
3,600.00	3,600.00	3,602.90	3,602.90	7.95	7.95	89.66	7.22	1,209.83	1,209.85	1,193.95	15.90	76.082	
3,700.00	3,700.00	3,702.90	3,702.90	8.17	8.18	89.66	7.22	1,209.83	1,209.85	1,193.50	16.35	73.990	
3,800.00	3,800.00	3,802.90	3,802.90	8.40	8.40	89.66	7.22	1,209.83	1,209.85	1,193.05	16.80	72.011	
3,900.00	3,900.00	3,902.90	3,902.90	8.62	8.63	89.66	7.22	1,209.83	1,209.85	1,192.60	17.25	70.134	
4,000.00	4,000.00	4,002.90	4,002.90	8.85	8.85	89.66	7.22	1,209.83	1,209.85	1,192.15	17.70	68.353	
4,100.00	4,100.00	4,102.90	4,102.90	9.07	9.08	89.66	7.22	1,209.83	1,209.85	1,191.70	18.15	66.660	
4,200.00	4,200.00	4,202.90	4,202.90	9.30	9.30	89.66	7.22	1,209.83	1,209.85	1,191.25	18.60	65.049	
4,300.00	4,300.00	4,302.90	4,302.90	9.52	9.53	89.66	7.22	1,209.83	1,209.85	1,190.80	19.05	63.514	
4,400.00	4,400.00	4,402.90	4,402.90	9.75	9.75	89.66	7.22	1,209.83	1,209.85	1,190.35	19.50	62.049	
4,500.00	4,500.00	4,502.90	4,502.90	9.97	9.98	89.66	7.22	1,209.83	1,209.85	1,189.90	19.95	60.651	
4,600.00	4,600.00	4,602.90	4,602.90	10.20	10.20	89.66	7.22	1,209.83	1,209.85	1,189.45	20.40	59.314	
4,700.00	4,700.00	4,702.90	4,702.90	10.42	10.43	89.66	7.22	1,209.83	1,209.85	1,189.00	20.85	58.035	
4,800.00	4,800.00	4,802.90	4,802.90	10.64	10.65	89.66	7.22	1,209.83	1,209.85	1,188.56	21.30	56.810	
4,900.00	4,900.00	4,902.90	4,902.90	10.87	10.88	89.66	7.22	1,209.83	1,209.85	1,188.11	21.75	55.636	
5,000.00	5,000.00	5,002.90	5,002.90	11.09	11.10	89.66	7.22	1,209.83	1,209.85	1,187.66	22.20	54.509	
5,100.00	5,100.00	5,102.90	5,102.90	11.32	11.33	89.66	7.22	1,209.83	1,209.85	1,187.21	22.64	53.427	
5,200.00	5,200.00	5,202.90	5,202.90	11.54	11.55	89.66	7.22	1,209.83	1,209.85	1,186.76	23.09	52.387	
5,300.00	5,300.00	5,302.90	5,302.90	11.77	11.78	89.66	7.22	1,209.83	1,209.85	1,186.31	23.54	51.387	
5,400.00	5,400.00	5,402.90	5,402.90	11.99	12.00	89.66	7.22	1,209.83	1,209.85	1,185.86	23.99	50.424	
5,500.00	5,500.00	5,502.90	5,502.90	12.22	12.22	89.66	7.22	1,209.83	1,209.85	1,185.41	24.44	49.497	
5,600.00	5,600.00	5,602.90	5,602.90	12.44	12.45	89.66	7.22	1,209.83	1,209.85	1,184.96	24.89	48.603	
5,700.00	5,700.00	5,702.90	5,702.90	12.67	12.67	89.66	7.22	1,209.83	1,209.85	1,184.51	25.34	47.741	
5,800.00	5,800.00	5,802.90	5,802.90	12.89	12.90	89.66	7.22	1,209.83	1,209.85	1,184.06	25.79	46.909	
5,900.00	5,900.00	5,902.90	5,902.90	13.12	13.12	89.66	7.22	1,209.83	1,209.85	1,183.61	26.24	46.105	
6,000.00	6,000.00	6,002.90	6,002.90	13.34	13.35	89.66	7.22	1,209.83	1,209.85	1,183.16	26.69	45.329	
6,100.00	6,100.00	6,102.90	6,102.90	13.57	13.57	89.66	7.22	1,209.83	1,209.85	1,182.71	27.14	44.578	
6,200.00	6,200.00	6,202.90	6,202.90	13.79	13.80	89.66	7.22	1,209.83	1,209.85	1,182.26	27.59	43.851	
6,300.00	6,300.00	6,302.90	6,302.90	14.02	14.02	89.66	7.22	1,209.83	1,209.85	1,181.81	28.04	43.148	
6,400.00	6,400.00	6,402.90	6,402.90	14.24	14.25	89.66	7.22	1,209.83	1,209.85	1,181.36	28.49	42.468	
6,500.00	6,500.00	6,502.90	6,502.90	14.47	14.47	89.66	7.22	1,209.83	1,209.85	1,180.91	28.94	41.808	
6,600.00	6,600.00	6,602.90	6,602.90	14.69	14.70	89.66	7.22	1,209.83	1,209.85	1,180.46	29.39	41.168	
6,700.00	6,700.00	6,702.90	6,702.90	14.92	14.92	89.66	7.22	1,209.83	1,209.85	1,180.01	29.84	40.548	
6,800.00	6,800.00	6,802.90	6,802.90	15.14	15.15	89.66	7.22	1,209.83	1,209.85	1,179.56	30.29	39.946	
6,900.00	6,900.00	6,902.90	6,902.90	15.37	15.37	89.66	7.22	1,209.83	1,209.85	1,179.12	30.74	39.362	
7,000.00	7,000.00	7,002.90	7,002.90	15.59	15.60	89.66	7.22	1,209.83	1,209.85	1,178.67	31.19	38.795	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 244H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Reference Site:	Cotton Draw Unit	MD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	244H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OH	Database:	EDM-5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum:

Offset Design Cotton Draw Unit - 214H - OH - Plan #1												Offset Site Error: 0.00 usft	
Survey Program: 0-LEAM.MWD												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance					Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre N-S (usft)	E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		
7,100.00	7,100.00	7,102.90	7,102.90	15.81	15.82	89.66	7.22	1,209.83	1,209.85	1,178.22	31.64	38.243	
7,200.00	7,200.00	7,202.90	7,202.90	16.04	16.05	89.66	7.22	1,209.83	1,209.85	1,177.77	32.09	37.708	
7,300.00	7,300.00	7,302.90	7,302.90	16.26	16.27	89.66	7.22	1,209.83	1,209.85	1,177.32	32.53	37.187	
7,400.00	7,400.00	7,402.90	7,402.90	16.49	16.50	89.66	7.22	1,209.83	1,209.85	1,176.87	32.98	36.680	
7,500.00	7,500.00	7,502.90	7,502.90	16.71	16.72	89.66	7.22	1,209.83	1,209.85	1,176.42	33.43	36.187	
7,600.00	7,600.00	7,602.90	7,602.90	16.94	16.94	89.66	7.22	1,209.83	1,209.85	1,175.97	33.88	35.706	
7,700.00	7,700.00	7,702.90	7,702.90	17.16	17.17	89.66	7.22	1,209.83	1,209.85	1,175.52	34.33	35.239	
7,800.00	7,800.00	7,802.90	7,802.90	17.39	17.39	89.66	7.22	1,209.83	1,209.85	1,175.07	34.78	34.784	
7,900.00	7,900.00	7,902.90	7,902.90	17.61	17.62	89.66	7.22	1,209.83	1,209.85	1,174.62	35.23	34.340	
8,000.00	8,000.00	8,002.90	8,002.90	17.84	17.84	89.66	7.22	1,209.83	1,209.85	1,174.17	35.68	33.907	
8,100.00	8,100.00	8,102.90	8,102.90	18.06	18.07	89.66	7.22	1,209.83	1,209.85	1,173.72	36.13	33.485	
8,200.00	8,200.00	8,202.90	8,202.90	18.29	18.29	89.66	7.22	1,209.83	1,209.85	1,173.27	36.58	33.074	
8,300.00	8,300.00	8,302.90	8,302.90	18.51	18.52	89.66	7.22	1,209.83	1,209.85	1,172.82	37.03	32.672	
8,400.00	8,400.00	8,402.90	8,402.90	18.74	18.74	89.66	7.22	1,209.83	1,209.85	1,172.37	37.48	32.280	
8,500.00	8,500.00	8,502.90	8,502.90	18.96	18.97	89.66	7.22	1,209.83	1,209.85	1,171.92	37.93	31.898	
8,600.00	8,600.00	8,602.90	8,602.90	19.19	19.19	89.66	7.22	1,209.83	1,209.85	1,171.47	38.38	31.524	
8,700.00	8,700.00	8,702.90	8,702.90	19.41	19.42	89.66	7.22	1,209.83	1,209.85	1,171.02	38.83	31.159	
8,800.00	8,800.00	8,802.90	8,802.90	19.64	19.64	89.66	7.22	1,209.83	1,209.85	1,170.57	39.28	30.803	
8,900.00	8,900.00	8,902.90	8,902.90	19.86	19.87	89.66	7.22	1,209.83	1,209.85	1,170.12	39.73	30.454	
9,000.00	9,000.00	9,002.90	9,002.90	20.09	20.09	89.66	7.22	1,209.83	1,209.85	1,169.67	40.18	30.113	
9,100.00	9,100.00	9,102.90	9,102.90	20.31	20.32	89.66	7.22	1,209.83	1,209.85	1,169.23	40.63	29.780	
9,200.00	9,200.00	9,202.90	9,202.90	20.53	20.54	89.66	7.22	1,209.83	1,209.85	1,168.78	41.08	29.454	
9,300.00	9,300.00	9,302.90	9,302.90	20.76	20.77	89.66	7.22	1,209.83	1,209.85	1,168.33	41.53	29.135	
9,400.00	9,400.00	9,402.90	9,402.90	20.98	20.99	89.66	7.22	1,209.83	1,209.85	1,167.88	41.97	28.823	
9,500.00	9,500.00	9,502.90	9,502.90	21.21	21.22	89.66	7.22	1,209.83	1,209.85	1,167.43	42.42	28.518	
9,600.00	9,600.00	9,602.90	9,602.90	21.43	21.44	89.66	7.22	1,209.83	1,209.85	1,166.98	42.87	28.219	
9,700.00	9,700.00	11,000.00	10,478.21	21.66	27.01	126.27	-541.67	738.23	1,199.79	1,149.36	50.43	23.791	
9,800.00	9,800.00	11,000.00	10,478.21	21.88	27.01	126.27	-541.67	738.23	1,137.73	1,087.08	50.65	22.461	
9,900.00	9,900.00	11,000.00	10,478.21	22.11	27.01	126.27	-541.67	738.23	1,081.38	1,030.50	50.88	21.254	
10,000.00	10,000.00	11,000.00	10,478.21	22.33	27.01	126.27	-541.67	738.23	1,031.66	980.55	51.10	20.187	
10,100.00	10,100.00	11,000.00	10,478.21	22.56	27.01	126.27	-541.67	738.23	989.57	938.24	51.33	19.279	
10,200.00	10,200.00	11,000.00	10,478.21	22.78	27.01	126.27	-541.67	738.23	956.13	904.58	51.55	18.546	
10,300.00	10,300.00	11,000.00	10,478.21	23.01	27.01	126.27	-541.67	738.23	932.27	880.49	51.78	18.005	
10,400.00	10,400.00	11,000.00	10,478.21	23.23	27.01	126.27	-541.67	738.23	918.73	866.73	52.00	17.667	
10,475.31	10,475.31	11,000.00	10,478.21	23.40	27.01	126.27	-541.67	738.23	915.64	863.47	52.17	17.550	CC, ES
10,500.00	10,500.00	11,000.00	10,478.21	23.46	27.01	126.27	-541.67	738.23	915.97	863.74	52.23	17.538	
10,600.00	10,600.00	11,000.00	10,478.21	23.68	27.01	126.27	-541.67	738.23	924.09	871.64	52.45	17.618	
10,700.00	10,700.00	11,000.00	10,478.21	23.91	27.01	126.27	-541.67	738.23	942.81	890.13	52.68	17.898	
10,800.00	10,800.00	11,000.00	10,478.21	24.13	27.01	126.27	-541.67	738.23	971.50	918.60	52.90	18.364	
10,900.00	10,900.00	11,000.00	10,478.21	24.36	27.01	126.27	-541.67	738.23	1,009.34	956.21	53.13	18.999	
11,000.00	11,000.00	11,000.00	10,478.21	24.58	27.01	126.27	-541.67	738.23	1,055.32	1,001.97	53.35	19.780	
11,100.00	11,100.00	11,000.00	10,478.21	24.81	27.01	126.27	-541.67	738.23	1,108.44	1,054.86	53.58	20.689	
11,192.58	11,192.58	11,000.00	10,478.21	25.01	27.01	126.27	-541.67	738.23	1,163.13	1,109.35	53.78	21.626	
11,200.00	11,200.00	11,000.00	10,478.21	25.03	27.01	-53.02	-541.67	738.23	1,167.69	1,115.71	51.99	22.462	
11,225.00	11,224.98	11,000.00	10,478.21	25.07	27.01	-51.21	-541.67	738.23	1,182.88	1,130.87	52.01	22.743	
11,250.00	11,249.86	11,000.00	10,478.21	25.11	27.01	-49.50	-541.67	738.23	1,197.74	1,145.77	51.98	23.043	
11,275.00	11,274.59	11,000.00	10,478.21	25.15	27.01	-47.89	-541.67	738.23	1,212.26	1,160.38	51.88	23.367	
11,300.00	11,299.10	11,000.00	10,478.21	25.20	27.01	-46.38	-541.67	738.23	1,226.41	1,174.66	51.75	23.697	
11,325.00	11,323.31	11,000.00	10,478.21	25.24	27.01	-44.97	-541.67	738.23	1,240.16	1,188.14	52.02	23.842	
11,350.00	11,347.16	11,012.50	10,478.06	25.28	27.14	-43.01	-551.72	730.79	1,253.40	1,201.10	52.30	23.965	
11,375.00	11,370.59	11,017.61	10,478.00	25.32	27.19	-41.55	-555.84	727.76	1,266.21	1,213.74	52.47	24.132	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 244H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Reference Site:	Cotton Draw Unit	MD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	244H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Cotton Draw Unit - 214H - OH - Plan #1													Offset Well Error:	0.00 usft
Survey Program: 0-LEAM MWD														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
11,400.00	11,393.54	11,023.49	10,477.93	25.36	27.25	-40.15	-560.58	724.28	1,278.50	1,225.93	52.57	24.320		
11,425.00	11,415.93	11,030.13	10,477.85	25.40	27.32	-38.83	-565.94	720.37	1,290.25	1,237.65	52.60	24.531		
11,450.00	11,437.71	11,037.51	10,477.77	25.44	27.39	-37.57	-571.91	716.04	1,301.43	1,248.88	52.55	24.765		
11,475.00	11,458.82	11,045.62	10,477.67	25.47	27.47	-36.38	-578.48	711.29	1,312.00	1,259.57	52.43	25.024		
11,500.00	11,479.20	11,054.45	10,477.57	25.51	27.56	-35.26	-585.66	706.15	1,321.94	1,269.70	52.23	25.309		
11,525.00	11,498.79	11,063.98	10,477.45	25.55	27.66	-34.20	-593.42	700.62	1,331.21	1,279.24	51.96	25.618		
11,550.00	11,517.54	11,074.20	10,477.33	25.60	27.76	-33.21	-601.76	694.72	1,339.78	1,288.15	51.63	25.952		
11,575.00	11,535.40	11,085.08	10,477.20	25.65	27.88	-32.28	-610.67	688.47	1,347.63	1,296.41	51.22	26.310		
11,600.00	11,552.33	11,100.00	10,477.03	25.71	28.03	-31.30	-622.92	679.95	1,354.73	1,303.96	50.76	26.687		
11,625.00	11,568.26	11,100.00	10,477.03	25.77	28.03	-30.89	-622.92	679.95	1,361.07	1,310.83	50.24	27.092		
11,650.00	11,583.17	11,121.54	10,476.77	25.84	28.26	-29.86	-640.69	667.77	1,366.54	1,316.84	49.70	27.498		
11,675.00	11,597.01	11,134.88	10,476.61	25.91	28.41	-29.16	-651.73	660.30	1,371.21	1,322.10	49.11	27.922		
11,700.00	11,609.74	11,148.77	10,476.45	25.98	28.56	-28.53	-663.27	652.57	1,375.02	1,326.53	48.50	28.353		
11,725.00	11,621.32	11,163.18	10,476.28	26.06	28.72	-27.96	-675.29	644.61	1,377.96	1,330.09	47.87	28.783		
11,750.00	11,631.73	11,178.08	10,476.10	26.15	28.89	-27.44	-687.75	636.44	1,380.00	1,332.75	47.25	29.205		
11,775.00	11,640.94	11,200.00	10,475.84	26.24	29.13	-26.80	-706.16	624.55	1,381.14	1,334.50	46.64	29.616		
11,800.00	11,648.91	11,200.00	10,475.84	26.34	29.13	-26.79	-706.16	624.55	1,381.34	1,335.26	46.08	29.976		
11,825.00	11,655.64	11,225.39	10,475.53	26.45	29.42	-26.21	-727.59	610.95	1,380.54	1,335.00	45.54	30.312		
11,850.00	11,661.10	11,241.90	10,475.33	26.56	29.62	-25.91	-741.59	602.20	1,378.81	1,333.73	45.08	30.585		
11,875.00	11,665.27	11,258.71	10,475.13	26.68	29.81	-25.67	-755.91	593.38	1,376.11	1,331.42	44.70	30.787		
11,900.00	11,668.15	11,275.79	10,474.93	26.80	30.01	-25.49	-770.50	584.51	1,372.43	1,328.02	44.41	30.905		
11,925.00	11,669.72	11,300.00	10,474.64	26.93	30.30	-25.23	-791.27	572.08	1,367.78	1,323.57	44.21	30.937		
11,948.78	11,670.00	11,309.70	10,474.52	27.06	30.42	-25.32	-799.63	567.15	1,362.39	1,318.22	44.17	30.844		
12,000.00	11,669.34	11,345.90	10,474.08	27.35	30.86	-24.60	-830.94	549.00	1,350.20	1,305.97	44.23	30.530		
12,100.00	11,668.04	11,418.10	10,473.21	28.02	31.75	-23.19	-894.07	513.99	1,328.21	1,283.84	44.37	29.934		
12,200.00	11,666.74	11,500.00	10,472.22	28.78	32.79	-21.63	-966.74	476.21	1,308.61	1,264.04	44.57	29.362		
12,300.00	11,665.45	11,568.55	10,471.38	29.63	33.68	-20.37	-1,028.36	446.20	1,291.21	1,246.37	44.85	28.793		
12,400.00	11,664.15	11,646.76	10,470.43	30.57	34.71	-18.98	-1,099.53	413.78	1,275.98	1,230.81	45.17	28.248		
12,500.00	11,662.85	11,726.91	10,469.45	31.59	35.78	-17.62	-1,173.34	382.58	1,262.74	1,217.19	45.56	27.719		
12,600.00	11,661.55	11,808.94	10,468.45	32.68	36.89	-16.30	-1,249.76	352.80	1,251.37	1,205.36	46.00	27.202		
12,700.00	11,660.25	11,892.77	10,467.42	33.83	38.03	-15.04	-1,328.72	324.63	1,241.69	1,195.17	46.52	26.693		
12,800.00	11,658.95	11,978.32	10,466.38	35.04	39.20	-13.85	-1,410.10	298.28	1,233.55	1,186.44	47.10	26.189		
12,900.00	11,657.66	12,065.49	10,465.32	36.30	40.40	-12.73	-1,493.79	273.95	1,226.78	1,179.02	47.76	25.688		
13,000.00	11,656.36	12,154.15	10,464.24	37.61	41.62	-11.71	-1,579.64	251.83	1,221.23	1,172.74	48.48	25.189		
13,100.00	11,655.06	12,244.18	10,463.15	38.96	42.86	-10.79	-1,667.46	232.09	1,216.73	1,167.46	49.28	24.691		
13,200.00	11,653.76	12,335.41	10,462.05	40.35	44.11	-9.98	-1,757.05	214.91	1,213.16	1,163.01	50.15	24.193		
13,300.00	11,652.46	12,427.69	10,460.95	41.77	45.38	-9.29	-1,848.18	200.45	1,210.37	1,159.29	51.08	23.696		
13,400.00	11,651.17	12,520.83	10,459.84	43.22	46.65	-8.74	-1,940.59	188.84	1,208.26	1,156.18	52.08	23.201		
13,500.00	11,649.87	12,614.67	10,458.74	44.70	47.93	-8.32	-2,034.01	180.18	1,206.73	1,153.59	53.14	22.708		
13,600.00	11,648.57	12,708.98	10,457.64	46.21	49.21	-8.05	-2,128.15	174.57	1,205.71	1,151.45	54.26	22.220		
13,700.00	11,647.27	12,803.59	10,456.55	47.73	50.48	-7.92	-2,222.71	172.06	1,205.16	1,149.72	55.45	21.736		
13,800.00	11,645.97	12,901.98	10,455.42	49.28	51.78	-7.90	-2,321.09	171.91	1,204.95	1,148.25	56.70	21.250		
13,900.00	11,644.67	13,001.98	10,454.28	50.85	53.05	-7.88	-2,421.09	171.90	1,204.76	1,146.77	57.99	20.776		
14,000.00	11,643.38	13,101.98	10,453.14	52.43	54.36	-7.87	-2,521.08	171.90	1,204.56	1,145.28	59.29	20.318		
14,100.00	11,642.08	13,201.98	10,451.99	54.03	55.70	-7.86	-2,621.07	171.89	1,204.37	1,143.78	60.60	19.875		
14,200.00	11,640.78	13,301.98	10,450.85	55.64	57.06	-7.85	-2,721.06	171.88	1,204.18	1,142.26	61.92	19.448		
14,300.00	11,639.48	13,401.98	10,449.71	57.26	58.44	-7.84	-2,821.06	171.88	1,203.99	1,140.74	63.25	19.035		
14,400.00	11,638.18	13,501.98	10,448.57	58.90	59.85	-7.82	-2,921.05	171.87	1,203.80	1,139.20	64.60	18.636		
14,500.00	11,636.89	13,601.98	10,447.42	60.55	61.27	-7.81	-3,021.04	171.87	1,203.60	1,137.66	65.95	18.251		
14,600.00	11,635.59	13,701.98	10,446.28	62.21	62.72	-7.80	-3,121.04	171.86	1,203.41	1,136.10	67.31	17.879		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 244H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Reference Site:	Cotton Draw Unit	MD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site Error:	0.00' usft	North Reference:	Grid
Reference Well:	244H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00' usft	Output errors are at	2.00' sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Cotton Draw Unit - 214H - OH - Plan #1													Offset Site Error:	0.00' usft
Survey Program: O-LEAM MWD													Offset Well Error:	0.00' usft
Reference Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
14,700.00	11,634.29	13,801.98	10,445.14	63.87	64.19	-7.79	-3,221.03	171.86	1,203.22	1,134.54	68.68	17.519		
14,800.00	11,632.99	13,901.98	10,444.00	65.55	65.67	-7.78	-3,321.02	171.85	1,203.03	1,132.97	70.06	17.172		
14,900.00	11,631.69	14,001.97	10,442.85	67.23	67.17	-7.76	-3,421.02	171.84	1,202.84	1,131.39	71.44	16.836		
15,000.00	11,630.39	14,101.97	10,441.71	68.92	68.68	-7.75	-3,521.01	171.84	1,202.64	1,129.81	72.83	16.512		
15,100.00	11,629.10	14,201.97	10,440.57	70.62	70.21	-7.74	-3,621.00	171.83	1,202.45	1,128.22	74.23	16.198		
15,200.00	11,627.80	14,301.97	10,439.43	72.33	71.76	-7.73	-3,720.99	171.83	1,202.26	1,126.62	75.64	15.895		
15,300.00	11,626.50	14,401.97	10,438.28	74.04	73.31	-7.71	-3,820.99	171.82	1,202.07	1,125.02	77.05	15.602		
15,400.00	11,625.20	14,501.97	10,437.14	75.75	74.88	-7.70	-3,920.98	171.82	1,201.88	1,123.42	78.46	15.318		
15,500.00	11,623.90	14,601.97	10,436.00	77.47	76.46	-7.69	-4,020.97	171.81	1,201.68	1,121.81	79.88	15.044		
15,600.00	11,622.61	14,701.97	10,434.86	79.20	78.05	-7.68	-4,120.97	171.80	1,201.49	1,120.19	81.30	14.778		
15,700.00	11,621.31	14,801.97	10,433.71	80.93	79.65	-7.67	-4,220.96	171.80	1,201.30	1,118.57	82.73	14.521		
15,800.00	11,620.01	14,901.97	10,432.57	82.66	81.26	-7.65	-4,320.95	171.79	1,201.11	1,116.95	84.16	14.272		
15,900.00	11,618.71	15,001.97	10,431.43	84.40	82.87	-7.64	-4,420.94	171.79	1,200.92	1,115.32	85.60	14.030		
16,000.00	11,617.41	15,101.97	10,430.29	86.14	84.50	-7.63	-4,520.94	171.78	1,200.73	1,113.69	87.04	13.796		
16,100.00	11,616.11	15,201.97	10,429.14	87.88	86.13	-7.62	-4,620.93	171.78	1,200.54	1,112.07	88.47	13.570		
16,185.80	11,615.00	15,287.77	10,428.16	89.38	87.44	-7.61	-4,706.72	171.77	1,200.37	1,111.09	89.28	13.444		
16,186.23	11,614.99	15,288.19	10,428.16	89.39	87.44	-7.61	-4,707.15	171.77	1,200.37	1,111.08	89.29	13.444 SF		

LEAM Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 244H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Reference Site:	Cotton Draw Unit	MD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	244H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00' sigma
Reference Wellbore:	OH	Database:	EDM-5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Cotton Draw Unit - 215H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD													Offset Well Error:	0.00 usft
Reference	Offset	Semi-Major Axis		Distance		Minimum Separation		Separation Factor		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre N-S (usft)	Offset Wellbore Centre E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	2.90	2.90	0.00	0.00	89.66	7.52	1,259.82	1,259.84					
100.00	100.00	102.90	102.90	0.08	0.09	89.66	7.52	1,259.82	1,259.84	1,259.67	0.17	7,483.472		
200.00	200.00	202.90	202.90	0.31	0.31	89.66	7.52	1,259.82	1,259.84	1,259.22	0.62	2,038.969		
300.00	300.00	302.90	302.90	0.53	0.54	89.66	7.52	1,259.82	1,259.84	1,258.78	1.07	1,180.275		
400.00	400.00	402.90	402.90	0.76	0.76	89.66	7.52	1,259.82	1,259.84	1,258.33	1.52	830.512		
500.00	500.00	502.90	502.90	0.98	0.99	89.66	7.52	1,259.82	1,259.84	1,257.88	1.97	640.659		
600.00	600.00	602.90	602.90	1.20	1.21	89.66	7.52	1,259.82	1,259.84	1,257.43	2.42	521.456		
700.00	700.00	702.90	702.90	1.43	1.44	89.66	7.52	1,259.82	1,259.84	1,256.98	2.87	439.652		
800.00	800.00	802.90	802.90	1.65	1.66	89.66	7.52	1,259.82	1,259.84	1,256.53	3.32	380.034		
900.00	900.00	902.90	902.90	1.88	1.89	89.66	7.52	1,259.82	1,259.84	1,256.08	3.76	334.654		
1,000.00	1,000.00	1,002.90	1,002.90	2.10	2.11	89.66	7.52	1,259.82	1,259.84	1,255.63	4.21	298.956		
1,100.00	1,100.00	1,102.90	1,102.90	2.33	2.34	89.66	7.52	1,259.82	1,259.84	1,255.18	4.66	270.140		
1,200.00	1,200.00	1,202.90	1,202.90	2.55	2.56	89.66	7.52	1,259.82	1,259.84	1,254.73	5.11	246.390		
1,300.00	1,300.00	1,302.90	1,302.90	2.78	2.78	89.66	7.52	1,259.82	1,259.84	1,254.28	5.56	226.479		
1,400.00	1,400.00	1,402.90	1,402.90	3.00	3.01	89.66	7.52	1,259.82	1,259.84	1,253.83	6.01	209.545		
1,500.00	1,500.00	1,502.90	1,502.90	3.23	3.23	89.66	7.52	1,259.82	1,259.84	1,253.38	6.46	194.968		
1,600.00	1,600.00	1,602.90	1,602.90	3.45	3.46	89.66	7.52	1,259.82	1,259.84	1,252.93	6.91	182.287		
1,700.00	1,700.00	1,702.90	1,702.90	3.68	3.68	89.66	7.52	1,259.82	1,259.84	1,252.48	7.36	171.154		
1,800.00	1,800.00	1,802.90	1,802.90	3.90	3.91	89.66	7.52	1,259.82	1,259.84	1,252.03	7.81	161.303		
1,900.00	1,900.00	1,902.90	1,902.90	4.13	4.13	89.66	7.52	1,259.82	1,259.84	1,251.58	8.26	152.525		
2,000.00	2,000.00	2,002.90	2,002.90	4.35	4.36	89.66	7.52	1,259.82	1,259.84	1,251.13	8.71	144.652		
2,100.00	2,100.00	2,102.90	2,102.90	4.58	4.58	89.66	7.52	1,259.82	1,259.84	1,250.68	9.16	137.553		
2,200.00	2,200.00	2,202.90	2,202.90	4.80	4.81	89.66	7.52	1,259.82	1,259.84	1,250.23	9.61	131.117		
2,300.00	2,300.00	2,302.90	2,302.90	5.03	5.03	89.66	7.52	1,259.82	1,259.84	1,249.78	10.06	125.257		
2,400.00	2,400.00	2,402.90	2,402.90	5.25	5.26	89.66	7.52	1,259.82	1,259.84	1,249.33	10.51	119.898		
2,500.00	2,500.00	2,502.90	2,502.90	5.48	5.48	89.66	7.52	1,259.82	1,259.84	1,248.89	10.96	114.979		
2,600.00	2,600.00	2,602.90	2,602.90	5.70	5.71	89.66	7.52	1,259.82	1,259.84	1,248.44	11.41	110.448		
2,700.00	2,700.00	2,702.90	2,702.90	5.92	5.93	89.66	7.52	1,259.82	1,259.84	1,247.99	11.86	106.260		
2,800.00	2,800.00	2,802.90	2,802.90	6.15	6.16	89.66	7.52	1,259.82	1,259.84	1,247.54	12.31	102.379		
2,900.00	2,900.00	2,902.90	2,902.90	6.37	6.38	89.66	7.52	1,259.82	1,259.84	1,247.09	12.76	98.771		
3,000.00	3,000.00	3,002.90	3,002.90	6.60	6.61	89.66	7.52	1,259.82	1,259.84	1,246.64	13.20	95.408		
3,100.00	3,100.00	3,102.90	3,102.90	6.82	6.83	89.66	7.52	1,259.82	1,259.84	1,246.19	13.65	92.267		
3,200.00	3,200.00	3,202.90	3,202.90	7.05	7.06	89.66	7.52	1,259.82	1,259.84	1,245.74	14.10	89.326		
3,300.00	3,300.00	3,302.90	3,302.90	7.27	7.28	89.66	7.52	1,259.82	1,259.84	1,245.29	14.55	86.567		
3,400.00	3,400.00	3,402.90	3,402.90	7.50	7.50	89.66	7.52	1,259.82	1,259.84	1,244.84	15.00	83.973		
3,500.00	3,500.00	3,502.90	3,502.90	7.72	7.73	89.66	7.52	1,259.82	1,259.84	1,244.39	15.45	81.530		
3,600.00	3,600.00	3,602.90	3,602.90	7.95	7.95	89.66	7.52	1,259.82	1,259.84	1,243.94	15.90	79.226		
3,700.00	3,700.00	3,702.90	3,702.90	8.17	8.18	89.66	7.52	1,259.82	1,259.84	1,243.49	16.35	77.047		
3,800.00	3,800.00	3,802.90	3,802.90	8.40	8.40	89.66	7.52	1,259.82	1,259.84	1,243.04	16.80	74.986		
3,900.00	3,900.00	3,902.90	3,902.90	8.62	8.63	89.66	7.52	1,259.82	1,259.84	1,242.59	17.25	73.032		
4,000.00	4,000.00	4,002.90	4,002.90	8.85	8.85	89.66	7.52	1,259.82	1,259.84	1,242.14	17.70	71.177		
4,100.00	4,100.00	4,102.90	4,102.90	9.07	9.08	89.66	7.52	1,259.82	1,259.84	1,241.69	18.15	69.414		
4,200.00	4,200.00	4,202.90	4,202.90	9.30	9.30	89.66	7.52	1,259.82	1,259.84	1,241.24	18.60	67.737		
4,300.00	4,300.00	4,302.90	4,302.90	9.52	9.53	89.66	7.52	1,259.82	1,259.84	1,240.79	19.05	66.138		
4,400.00	4,400.00	4,402.90	4,402.90	9.75	9.75	89.66	7.52	1,259.82	1,259.84	1,240.34	19.50	64.613		
4,500.00	4,500.00	4,502.90	4,502.90	9.97	9.98	89.66	7.52	1,259.82	1,259.84	1,239.89	19.95	63.157		
4,600.00	4,600.00	4,602.90	4,602.90	10.20	10.20	89.66	7.52	1,259.82	1,259.84	1,239.45	20.40	61.765		
4,700.00	4,700.00	4,702.90	4,702.90	10.42	10.43	89.66	7.52	1,259.82	1,259.84	1,239.00	20.85	60.433		
4,800.00	4,800.00	4,802.90	4,802.90	10.64	10.65	89.66	7.52	1,259.82	1,259.84	1,238.55	21.30	59.158		
4,900.00	4,900.00	4,902.90	4,902.90	10.87	10.88	89.66	7.52	1,259.82	1,259.84	1,238.10	21.75	57.935		
5,000.00	5,000.00	5,002.90	5,002.90	11.09	11.10	89.66	7.52	1,259.82	1,259.84	1,237.65	22.20	56.761		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 244H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	Cactus 105- 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Reference Site:	Cotton Draw Unit	MD Reference:	Cactus 105- 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	244H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db.
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Cotton Draw Unit - 215H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi-Major Axis Reference (usft)	Semi-Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre N-S (usft)	Offset Wellbore Centre E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,100.00	5,102.90	5,102.90	11.32	11.33	89.66	7.52	1,259.82	1,259.84	1,237.20	22.64	55.635	
5,200.00	5,200.00	5,202.90	5,202.90	11.54	11.55	89.66	7.52	1,259.82	1,259.84	1,236.75	23.09	54.552	
5,300.00	5,300.00	5,302.90	5,302.90	11.77	11.78	89.66	7.52	1,259.82	1,259.84	1,236.30	23.54	53.510	
5,400.00	5,400.00	5,402.90	5,402.90	11.99	12.00	89.66	7.52	1,259.82	1,259.84	1,235.85	23.99	52.508	
5,500.00	5,500.00	5,502.90	5,502.90	12.22	12.22	89.66	7.52	1,259.82	1,259.84	1,235.40	24.44	51.542	
5,600.00	5,600.00	5,602.90	5,602.90	12.44	12.45	89.66	7.52	1,259.82	1,259.84	1,234.95	24.89	50.611	
5,700.00	5,700.00	5,702.90	5,702.90	12.67	12.67	89.66	7.52	1,259.82	1,259.84	1,234.50	25.34	49.713	
5,800.00	5,800.00	5,802.90	5,802.90	12.89	12.90	89.66	7.52	1,259.82	1,259.84	1,234.05	25.79	48.847	
5,900.00	5,900.00	5,902.90	5,902.90	13.12	13.12	89.66	7.52	1,259.82	1,259.84	1,233.60	26.24	48.010	
6,000.00	6,000.00	6,002.90	6,002.90	13.34	13.35	89.66	7.52	1,259.82	1,259.84	1,233.15	26.69	47.201	
6,100.00	6,100.00	6,102.90	6,102.90	13.57	13.57	89.66	7.52	1,259.82	1,259.84	1,232.70	27.14	46.420	
6,200.00	6,200.00	6,202.90	6,202.90	13.79	13.80	89.66	7.52	1,259.82	1,259.84	1,232.25	27.59	45.663	
6,300.00	6,300.00	6,302.90	6,302.90	14.02	14.02	89.66	7.52	1,259.82	1,259.84	1,231.80	28.04	44.931	
6,400.00	6,400.00	6,402.90	6,402.90	14.24	14.25	89.66	7.52	1,259.82	1,259.84	1,231.35	28.49	44.222	
6,500.00	6,500.00	6,502.90	6,502.90	14.47	14.47	89.66	7.52	1,259.82	1,259.84	1,230.90	28.94	43.535	
6,600.00	6,600.00	6,602.90	6,602.90	14.69	14.70	89.66	7.52	1,259.82	1,259.84	1,230.45	29.39	42.869	
6,700.00	6,700.00	6,702.90	6,702.90	14.92	14.92	89.66	7.52	1,259.82	1,259.84	1,230.01	29.84	42.224	
6,800.00	6,800.00	6,802.90	6,802.90	15.14	15.15	89.66	7.52	1,259.82	1,259.84	1,229.56	30.29	41.597	
6,900.00	6,900.00	6,902.90	6,902.90	15.37	15.37	89.66	7.52	1,259.82	1,259.84	1,229.11	30.74	40.988	
7,000.00	7,000.00	7,002.90	7,002.90	15.59	15.60	89.66	7.52	1,259.82	1,259.84	1,228.66	31.19	40.398	
7,100.00	7,100.00	7,102.90	7,102.90	15.81	15.82	89.66	7.52	1,259.82	1,259.84	1,228.21	31.64	39.824	
7,200.00	7,200.00	7,202.90	7,202.90	16.04	16.05	89.66	7.52	1,259.82	1,259.84	1,227.76	32.09	39.266	
7,300.00	7,300.00	7,302.90	7,302.90	16.26	16.27	89.66	7.52	1,259.82	1,259.84	1,227.31	32.53	38.723	
7,400.00	7,400.00	7,402.90	7,402.90	16.49	16.50	89.66	7.52	1,259.82	1,259.84	1,226.86	32.98	38.195	
7,500.00	7,500.00	7,502.90	7,502.90	16.71	16.72	89.66	7.52	1,259.82	1,259.84	1,226.41	33.43	37.682	
7,600.00	7,600.00	7,602.90	7,602.90	16.94	16.94	89.66	7.52	1,259.82	1,259.84	1,225.96	33.88	37.182	
7,700.00	7,700.00	7,702.90	7,702.90	17.16	17.17	89.66	7.52	1,259.82	1,259.84	1,225.51	34.33	36.695	
7,800.00	7,800.00	7,802.90	7,802.90	17.39	17.39	89.66	7.52	1,259.82	1,259.84	1,225.06	34.78	36.221	
7,900.00	7,900.00	7,902.90	7,902.90	17.61	17.62	89.66	7.52	1,259.82	1,259.84	1,224.61	35.23	35.759	
8,000.00	8,000.00	8,002.90	8,002.90	17.84	17.84	89.66	7.52	1,259.82	1,259.84	1,224.16	35.68	35.308	
8,100.00	8,100.00	8,102.90	8,102.90	18.06	18.07	89.66	7.52	1,259.82	1,259.84	1,223.71	36.13	34.869	
8,200.00	8,200.00	8,202.90	8,202.90	18.29	18.29	89.66	7.52	1,259.82	1,259.84	1,223.26	36.58	34.440	
8,300.00	8,300.00	8,302.90	8,302.90	18.51	18.52	89.66	7.52	1,259.82	1,259.84	1,222.81	37.03	34.022	
8,400.00	8,400.00	8,402.90	8,402.90	18.74	18.74	89.66	7.52	1,259.82	1,259.84	1,222.36	37.48	33.614	
8,500.00	8,500.00	8,502.90	8,502.90	18.96	18.97	89.66	7.52	1,259.82	1,259.84	1,221.91	37.93	33.216	
8,600.00	8,600.00	8,602.90	8,602.90	19.19	19.19	89.66	7.52	1,259.82	1,259.84	1,221.46	38.38	32.827	
8,700.00	8,700.00	8,702.90	8,702.90	19.41	19.42	89.66	7.52	1,259.82	1,259.84	1,221.01	38.83	32.447	
8,800.00	8,800.00	8,802.90	8,802.90	19.64	19.64	89.66	7.52	1,259.82	1,259.84	1,220.56	39.28	32.075	
8,900.00	8,900.00	8,902.90	8,902.90	19.86	19.87	89.66	7.52	1,259.82	1,259.84	1,220.12	39.73	31.712	
9,000.00	9,000.00	9,002.90	9,002.90	20.09	20.09	89.66	7.52	1,259.82	1,259.84	1,219.67	40.18	31.358	
9,100.00	9,100.00	9,102.90	9,102.90	20.31	20.32	89.66	7.52	1,259.82	1,259.84	1,219.22	40.63	31.011	
9,200.00	9,200.00	9,202.90	9,202.90	20.53	20.54	89.66	7.52	1,259.82	1,259.84	1,218.77	41.08	30.671	
9,300.00	9,300.00	9,302.90	9,302.90	20.76	20.77	89.66	7.52	1,259.82	1,259.84	1,218.32	41.53	30.339	
9,400.00	9,400.00	9,402.90	9,402.90	20.98	20.99	89.66	7.52	1,259.82	1,259.84	1,217.87	41.97	30.014	
9,500.00	9,500.00	9,502.90	9,502.90	21.21	21.22	89.66	7.52	1,259.82	1,259.84	1,217.42	42.42	29.696	
9,600.00	9,600.00	9,602.90	9,602.90	21.43	21.44	89.66	7.52	1,259.82	1,259.84	1,216.97	42.87	29.385	
9,700.00	9,700.00	9,702.90	9,702.90	21.66	21.66	89.66	7.52	1,259.82	1,259.84	1,216.52	43.32	29.080	
9,800.00	9,800.00	9,802.90	9,802.90	21.88	21.89	89.66	7.52	1,259.82	1,259.84	1,216.07	43.77	28.781	
9,900.00	9,900.00	9,902.90	9,902.90	22.11	22.11	89.66	7.52	1,259.82	1,259.84	1,215.62	44.22	28.489	
10,000.00	10,000.00	10,002.90	10,002.90	22.33	22.34	89.66	7.52	1,259.82	1,259.84	1,215.17	44.67	28.202 CC	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 244H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Reference Site:	Cotton Draw Unit	MD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	244H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Cotton Draw Unit - 215H - OH - Plan #1														Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,100.00	10,100.00	10,092.67	10,092.26	22.56	22.50	89.98		0.48	1,260.17	1,260.21	1,215.16	45.05	27.973 ES		
10,200.00	10,200.00	10,175.00	10,171.77	22.78	22.64	90.93		-20.49	1,261.19	1,261.74	1,216.34	45.40	27.790		
10,300.00	10,300.00	10,250.00	10,240.09	23.01	22.76	92.32		-51.20	1,262.70	1,265.30	1,219.55	45.75	27.659		
10,400.00	10,400.00	10,314.10	10,294.06	23.23	22.86	93.88		-85.65	1,264.39	1,271.95	1,225.87	46.08	27.601		
10,500.00	10,500.00	10,367.23	10,334.97	23.46	22.96	95.39		-119.47	1,266.05	1,282.71	1,236.30	46.41	27.637		
10,600.00	10,600.00	10,411.30	10,365.88	23.68	23.06	96.79		-150.83	1,267.59	1,298.35	1,251.61	46.74	27.779		
10,700.00	10,700.00	10,450.00	10,390.53	23.91	23.16	98.10		-180.61	1,269.05	1,319.34	1,272.28	47.06	28.034		
10,800.00	10,800.00	10,475.00	10,405.14	24.13	23.23	98.99		-200.86	1,270.04	1,345.94	1,298.58	47.36	28.421		
10,900.00	10,900.00	10,500.00	10,418.67	24.36	23.31	99.90		-221.86	1,271.07	1,378.16	1,330.50	47.66	28.918		
11,000.00	11,000.00	10,525.00	10,431.08	24.58	23.40	100.84		-243.53	1,272.13	1,415.84	1,367.88	47.96	29.520		
11,100.00	11,100.00	10,550.00	10,442.34	24.81	23.49	101.79		-265.82	1,273.22	1,458.80	1,410.53	48.27	30.220		
11,192.58	11,192.58	10,559.17	10,446.17	25.01	23.53	102.15		-274.15	1,273.63	1,502.92	1,454.40	48.51	30.979		
11,200.00	11,200.00	10,560.30	10,446.64	25.03	23.53	-77.15		-275.18	1,273.68	1,506.62	1,458.01	48.61	30.994		
11,225.00	11,224.98	10,564.30	10,448.25	25.07	23.55	-75.32		-278.83	1,273.86	1,519.10	1,470.29	48.81	31.122		
11,250.00	11,249.86	10,575.00	10,452.41	25.11	23.59	-73.28		-288.67	1,274.35	1,531.62	1,482.54	49.07	31.212		
11,275.00	11,274.59	10,575.00	10,452.41	25.15	23.59	-71.64		-288.67	1,274.35	1,544.00	1,494.70	49.31	31.314		
11,300.00	11,299.10	10,575.00	10,452.41	25.20	23.59	-70.04		-288.67	1,274.35	1,556.34	1,506.78	49.56	31.406		
11,325.00	11,323.31	10,575.00	10,452.41	25.24	23.59	-68.46		-288.67	1,274.35	1,568.59	1,518.78	49.81	31.493		
11,350.00	11,347.16	10,588.11	10,457.21	25.28	23.64	-66.55		-300.86	1,274.94	1,580.56	1,530.45	50.12	31.537		
11,375.00	11,370.59	10,600.00	10,461.28	25.32	23.69	-64.76		-312.02	1,275.49	1,592.43	1,542.02	50.41	31.591		
11,400.00	11,393.54	10,600.00	10,461.28	25.36	23.69	-63.35		-312.02	1,275.49	1,603.98	1,553.35	50.62	31.685		
11,425.00	11,415.93	10,600.00	10,461.28	25.40	23.69	-62.00		-312.02	1,275.49	1,615.31	1,564.50	50.81	31.791		
11,450.00	11,437.71	10,610.75	10,464.71	25.44	23.74	-60.47		-322.19	1,275.99	1,626.29	1,575.28	51.01	31.880		
11,475.00	11,458.82	10,625.00	10,468.90	25.47	23.81	-58.95		-335.80	1,276.66	1,637.02	1,585.83	51.19	31.980		
11,500.00	11,479.20	10,625.00	10,468.90	25.51	23.81	-57.81		-335.80	1,276.66	1,647.25	1,595.98	51.27	32.131		
11,525.00	11,498.79	10,625.00	10,468.90	25.55	23.81	-56.72		-335.80	1,276.66	1,657.17	1,605.86	51.31	32.299		
11,550.00	11,517.54	10,635.68	10,471.78	25.60	23.86	-55.52		-346.06	1,277.16	1,666.83	1,615.28	51.35	32.459		
11,575.00	11,535.40	10,650.00	10,475.27	25.65	23.93	-54.37		-359.94	1,277.84	1,675.72	1,624.36	51.36	32.630		
11,600.00	11,552.33	10,650.00	10,475.27	25.71	23.93	-53.49		-359.94	1,277.84	1,684.22	1,632.94	51.28	32.843		
11,625.00	11,568.26	10,650.00	10,475.27	25.77	23.93	-52.67		-359.94	1,277.84	1,692.32	1,641.15	51.18	33.069		
11,650.00	11,583.17	10,662.25	10,477.93	25.84	23.99	-51.79		-371.88	1,278.43	1,699.85	1,648.77	51.08	33.275		
11,675.00	11,597.01	10,675.00	10,480.37	25.91	24.05	-50.98		-384.38	1,279.04	1,706.92	1,655.94	50.97	33.486		
11,700.00	11,609.74	10,675.00	10,480.37	25.98	24.05	-50.36		-384.38	1,279.04	1,713.37	1,662.56	50.81	33.721		
11,725.00	11,621.32	10,675.00	10,480.37	26.06	24.05	-49.79		-384.38	1,279.04	1,719.35	1,668.71	50.64	33.953		
11,750.00	11,631.73	10,689.95	10,482.81	26.15	24.13	-49.20		-399.11	1,279.76	1,724.63	1,674.11	50.53	34.134		
11,775.00	11,640.94	10,700.00	10,484.18	26.24	24.19	-48.72		-409.06	1,280.25	1,729.40	1,678.99	50.41	34.309		
11,800.00	11,648.91	10,700.00	10,484.18	26.34	24.19	-48.34		-409.06	1,280.25	1,733.56	1,683.29	50.27	34.486		
11,825.00	11,655.64	10,711.19	10,485.47	26.45	24.25	-47.98		-420.16	1,280.79	1,737.09	1,686.89	50.20	34.600		
11,850.00	11,661.10	10,725.00	10,486.69	26.56	24.33	-47.69		-433.90	1,281.47	1,740.07	1,689.88	50.19	34.669		
11,875.00	11,665.27	10,725.00	10,486.69	26.68	24.33	-47.49		-433.90	1,281.47	1,742.34	1,692.18	50.15	34.741		
11,900.00	11,668.15	10,725.00	10,486.69	26.80	24.33	-47.34		-433.90	1,281.47	1,744.08	1,693.92	50.16	34.773		
11,925.00	11,669.72	10,739.80	10,487.56	26.93	24.41	-47.25		-448.66	1,282.19	1,745.07	1,694.78	50.29	34.699		
11,948.78	11,670.00	10,750.00	10,487.90	27.06	24.47	-47.23		-458.84	1,282.69	1,745.50	1,695.05	50.45	34.600		
12,000.00	11,669.34	10,764.14	10,488.00	27.35	24.56	-47.26		-472.96	1,283.38	1,746.30	1,695.56	50.74	34.414		
12,100.00	11,668.04	10,854.18	10,487.32	28.02	25.17	-47.36		-562.88	1,287.79	1,749.30	1,697.50	51.80	33.769		
12,200.00	11,666.74	10,954.07	10,486.57	28.78	25.94	-47.48		-662.65	1,292.69	1,752.34	1,699.27	53.08	33.016		
12,300.00	11,665.45	11,053.96	10,485.82	29.63	26.81	-47.59		-762.42	1,297.58	1,755.39	1,700.88	54.51	32.205		
12,400.00	11,664.15	11,153.85	10,485.07	30.57	27.78	-47.71		-862.19	1,302.47	1,758.44	1,702.36	56.08	31.354		
12,500.00	11,662.85	11,253.74	10,484.32	31.59	28.83	-47.82		-961.96	1,307.36	1,761.50	1,703.71	57.79	30.480		
12,600.00	11,661.55	11,353.64	10,483.57	32.68	29.95	-47.93		-1,061.73	1,312.26	1,764.57	1,704.95	59.62	29.596		
12,700.00	11,660.25	11,453.53	10,482.81	33.83	31.14	-48.05		-1,161.50	1,317.15	1,767.64	1,706.08	61.56	28.715		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 244H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Reference Site:	Cotton Draw Unit	MD Reference:	Cactus 105: 3505.1' GL + 28' RKB @ 3533.10usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	244H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single-User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Cotton Draw Unit - 215H - OH - Plan #1													Offset Site Error:
Survey Program: 0-LEAM.MWD													Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,800.00	11,658.95	11,553.42	10,482.06	35.04	32.40	-48.16	-1,261.27	1,322.04	1,770.72	1,707.13	63.60	27.843	
12,900.00	11,657.66	11,653.31	10,481.31	36.30	33.70	-48.27	-1,361.04	1,326.93	1,773.81	1,708.09	65.72	26.990	
13,000.00	11,656.36	11,753.20	10,480.56	37.61	35.05	-48.39	-1,460.80	1,331.83	1,776.90	1,708.97	67.93	26.159	
13,100.00	11,655.06	11,853.09	10,479.81	38.96	36.45	-48.50	-1,560.57	1,336.72	1,780.00	1,709.80	70.21	25.353	
13,200.00	11,653.76	11,952.99	10,479.06	40.35	37.88	-48.61	-1,660.34	1,341.61	1,783.11	1,710.56	72.55	24.576	
13,300.00	11,652.46	12,052.88	10,478.31	41.77	39.34	-48.72	-1,760.11	1,346.50	1,786.23	1,711.26	74.96	23.829	
13,400.00	11,651.17	12,152.77	10,477.55	43.22	40.84	-48.83	-1,859.88	1,351.40	1,789.35	1,711.92	77.42	23.111	
13,500.00	11,649.87	12,252.66	10,476.80	44.70	42.36	-48.94	-1,959.65	1,356.29	1,792.48	1,712.54	79.94	22.424	
13,600.00	11,648.57	12,352.55	10,476.05	46.21	43.90	-49.05	-2,059.42	1,361.18	1,795.61	1,713.12	82.49	21.766	
13,700.00	11,647.27	12,452.44	10,475.30	47.73	45.47	-49.16	-2,159.19	1,366.08	1,798.75	1,713.66	85.09	21.138	
13,800.00	11,645.97	12,552.33	10,474.55	49.28	47.05	-49.27	-2,258.95	1,370.97	1,801.90	1,714.16	87.73	20.538	
13,900.00	11,644.67	12,652.23	10,473.80	50.85	48.66	-49.38	-2,358.72	1,375.86	1,805.05	1,714.64	90.41	19.965	
14,000.00	11,643.38	12,752.12	10,473.04	52.43	50.27	-49.49	-2,458.49	1,380.75	1,808.21	1,715.10	93.12	19.418	
14,100.00	11,642.08	12,852.01	10,472.29	54.03	51.91	-49.59	-2,558.26	1,385.65	1,811.38	1,715.52	95.86	18.897	
14,200.00	11,640.78	12,951.90	10,471.54	55.64	53.55	-49.70	-2,658.03	1,390.54	1,814.55	1,715.93	98.63	18.398	
14,300.00	11,639.48	13,051.79	10,470.79	57.26	55.21	-49.81	-2,757.80	1,395.43	1,817.73	1,716.31	101.42	17.923	
14,400.00	11,638.18	13,151.68	10,470.04	58.90	56.87	-49.92	-2,857.57	1,400.32	1,820.92	1,716.68	104.24	17.468	
14,500.00	11,636.89	13,251.58	10,469.29	60.55	58.55	-50.02	-2,957.34	1,405.22	1,824.11	1,717.03	107.08	17.034	
14,600.00	11,635.59	13,351.47	10,468.53	62.21	60.24	-50.13	-3,057.11	1,410.11	1,827.31	1,717.36	109.95	16.619	
14,700.00	11,634.29	13,451.36	10,467.78	63.87	61.93	-50.24	-3,156.87	1,415.00	1,830.52	1,717.68	112.84	16.223	
14,800.00	11,632.99	13,551.25	10,467.03	65.55	63.63	-50.34	-3,256.64	1,419.89	1,833.73	1,717.98	115.74	15.843	
14,900.00	11,631.69	13,651.14	10,466.28	67.23	65.34	-50.45	-3,356.41	1,424.79	1,836.95	1,718.28	118.67	15.480	
15,000.00	11,630.39	13,751.03	10,465.53	68.92	67.06	-50.55	-3,456.18	1,429.68	1,840.17	1,718.56	121.61	15.132	
15,100.00	11,629.10	13,850.92	10,464.78	70.62	68.78	-50.65	-3,555.95	1,434.57	1,843.40	1,718.83	124.57	14.798	
15,200.00	11,627.80	13,950.82	10,464.02	72.33	70.51	-50.76	-3,655.72	1,439.47	1,846.64	1,719.09	127.55	14.478	
15,300.00	11,626.50	14,050.71	10,463.27	74.04	72.24	-50.86	-3,755.49	1,444.36	1,849.88	1,719.34	130.54	14.171	
15,400.00	11,625.20	14,150.60	10,462.52	75.75	73.97	-50.97	-3,855.26	1,449.25	1,853.12	1,719.58	133.54	13.877	
15,500.00	11,623.90	14,250.49	10,461.77	77.47	75.72	-51.07	-3,955.02	1,454.14	1,856.38	1,719.82	136.56	13.594	
15,600.00	11,622.61	14,350.38	10,461.02	79.20	77.46	-51.17	-4,054.79	1,459.04	1,859.64	1,720.04	139.59	13.322	
15,700.00	11,621.31	14,450.27	10,460.27	80.93	79.21	-51.27	-4,154.56	1,463.93	1,862.90	1,720.26	142.64	13.060	
15,800.00	11,620.01	14,550.17	10,459.52	82.66	80.96	-51.37	-4,254.33	1,468.82	1,866.18	1,720.48	145.70	12.809	
15,900.00	11,618.71	14,650.06	10,458.76	84.40	82.72	-51.48	-4,354.10	1,473.71	1,869.45	1,720.69	148.77	12.566	
16,000.00	11,617.41	14,749.95	10,458.01	86.14	84.48	-51.58	-4,453.87	1,478.61	1,872.74	1,720.89	151.85	12.333	
16,100.00	11,616.11	14,849.84	10,457.26	87.88	86.24	-51.68	-4,553.64	1,483.50	1,876.03	1,721.08	154.94	12.108	
16,185.80	11,615.00	14,935.55	10,456.62	89.38	87.76	-51.76	-4,639.24	1,487.70	1,878.85	1,721.25	157.61	11.921	
16,186.23	11,614.99	14,935.97	10,456.61	89.39	87.76	-51.76	-4,639.66	1,487.72	1,878.87	1,721.25	157.62	11.920 SF	

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

MD	INCL	AZIMUTH	TVD	VS	N(+)	E(+)	DL/100'	BUILD/100	TURN/100'
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	0.00
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	0.00
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	0.00
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	0.00	0.00
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	0.00
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00	0.00
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	0.00	0.00
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	0.00	0.00
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	0.00	0.00
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	0.00
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	0.00
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	0.00	0.00
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	0.00	0.00
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	0.00
2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00	0.00
2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	0.00	0.00
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	0.00	0.00
2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	0.00	0.00
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	0.00
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	0.00	0.00
3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	0.00	0.00	0.00
3300.00	0.00	0.00	3300.00	0.00	0.00	0.00	0.00	0.00	0.00
3400.00	0.00	0.00	3400.00	0.00	0.00	0.00	0.00	0.00	0.00
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	0.00	0.00
3600.00	0.00	0.00	3600.00	0.00	0.00	0.00	0.00	0.00	0.00
3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	0.00	0.00	0.00
3800.00	0.00	0.00	3800.00	0.00	0.00	0.00	0.00	0.00	0.00
3900.00	0.00	0.00	3900.00	0.00	0.00	0.00	0.00	0.00	0.00
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00
4100.00	0.00	0.00	4100.00	0.00	0.00	0.00	0.00	0.00	0.00
4200.00	0.00	0.00	4200.00	0.00	0.00	0.00	0.00	0.00	0.00
4300.00	0.00	0.00	4300.00	0.00	0.00	0.00	0.00	0.00	0.00
4400.00	0.00	0.00	4400.00	0.00	0.00	0.00	0.00	0.00	0.00
4500.00	0.00	0.00	4500.00	0.00	0.00	0.00	0.00	0.00	0.00
4600.00	0.00	0.00	4600.00	0.00	0.00	0.00	0.00	0.00	0.00

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9600.00	0.00	0.00	9600.00	0.00	0.00	0.00	0.00	0.00	0.00
9700.00	0.00	0.00	9700.00	0.00	0.00	0.00	0.00	0.00	0.00
9800.00	0.00	0.00	9800.00	0.00	0.00	0.00	0.00	0.00	0.00
9900.00	0.00	0.00	9900.00	0.00	0.00	0.00	0.00	0.00	0.00
10000.00	0.00	0.00	10000.00	0.00	0.00	0.00	0.00	0.00	0.00
10100.00	0.00	0.00	10100.00	0.00	0.00	0.00	0.00	0.00	0.00
10200.00	0.00	0.00	10200.00	0.00	0.00	0.00	0.00	0.00	0.00
10300.00	0.00	0.00	10300.00	0.00	0.00	0.00	0.00	0.00	0.00
10400.00	0.00	0.00	10400.00	0.00	0.00	0.00	0.00	0.00	0.00
10500.00	0.00	0.00	10500.00	0.00	0.00	0.00	0.00	0.00	0.00
10600.00	0.00	0.00	10600.00	0.00	0.00	0.00	0.00	0.00	0.00
10700.00	0.00	0.00	10700.00	0.00	0.00	0.00	0.00	0.00	0.00
10800.00	0.00	0.00	10800.00	0.00	0.00	0.00	0.00	0.00	0.00
10900.00	0.00	0.00	10900.00	0.00	0.00	0.00	0.00	0.00	0.00
11000.00	0.00	0.00	11000.00	0.00	0.00	0.00	0.00	0.00	0.00
11100.00	0.00	0.00	11100.00	0.00	0.00	0.00	0.00	0.00	0.00
11192.58	0.00	0.00	11192.58	0.00	0.00	0.00	0.00	0.00	0.00
11200.00	0.89	179.84	11200.00	0.06	-0.06	0.00	12.00	12.00	0.00
11225.00	3.89	179.84	11224.98	1.10	-1.10	0.00	12.00	12.00	0.00
11250.00	6.89	179.84	11249.86	3.45	-3.45	0.01	12.00	12.00	0.00
11275.00	9.89	179.84	11274.59	7.10	-7.10	0.02	12.00	12.00	0.00
11300.00	12.89	179.84	11299.10	12.03	-12.03	0.03	12.00	12.00	0.00
11325.00	15.89	179.84	11323.31	18.25	-18.25	0.05	12.00	12.00	0.00
11350.00	18.89	179.84	11347.16	25.72	-25.72	0.07	12.00	12.00	0.00
11375.00	21.89	179.84	11370.59	34.43	-34.43	0.09	12.00	12.00	0.00
11400.00	24.89	179.84	11393.54	44.35	-44.35	0.12	12.00	12.00	0.00
11425.00	27.89	179.84	11415.93	55.46	-55.46	0.15	12.00	12.00	0.00
11450.00	30.89	179.84	11437.71	67.73	-67.73	0.19	12.00	12.00	0.00
11475.00	33.89	179.84	11458.82	81.12	-81.12	0.22	12.00	12.00	0.00
11500.00	36.89	179.84	11479.20	95.60	-95.60	0.26	12.00	12.00	0.00
11525.00	39.89	179.84	11498.79	111.12	-111.12	0.30	12.00	12.00	0.00
11550.00	42.89	179.84	11517.54	127.65	-127.65	0.35	12.00	12.00	0.00
11575.00	45.89	179.84	11535.40	145.13	-145.13	0.40	12.00	12.00	0.00
11600.00	48.89	179.84	11552.33	163.53	-163.53	0.45	12.00	12.00	0.00
11625.00	51.89	179.84	11568.26	182.79	-182.79	0.50	12.00	12.00	0.00
11650.00	54.89	179.84	11583.17	202.85	-202.85	0.56	12.00	12.00	0.00
11675.00	57.89	179.84	11597.01	223.67	-223.67	0.61	12.00	12.00	0.00
11700.00	60.89	179.84	11609.74	245.19	-245.19	0.67	12.00	12.00	0.00
11725.00	63.89	179.84	11621.32	267.34	-267.34	0.73	12.00	12.00	0.00
11750.00	66.89	179.84	11631.73	290.06	-290.06	0.79	12.00	12.00	0.00
11775.00	69.89	179.84	11640.94	313.30	-313.30	0.86	12.00	12.00	0.00
11800.00	72.89	179.84	11648.91	336.99	-336.99	0.92	12.00	12.00	0.00
11825.00	75.89	179.84	11655.64	361.07	-361.07	0.99	12.00	12.00	0.00
11850.00	78.89	179.84	11661.10	385.46	-385.46	1.06	12.00	12.00	0.00
11875.00	81.89	179.84	11665.27	410.11	-410.11	1.12	12.00	12.00	0.00
11900.00	84.89	179.84	11668.15	434.94	-434.94	1.19	12.00	12.00	0.00
11925.00	87.89	179.84	11669.72	459.89	-459.89	1.26	12.00	12.00	0.00
11948.78	90.74	179.84	11670.00	483.66	-483.66	1.32	12.00	12.00	0.00
12000.00	90.74	179.84	11669.34	534.88	-534.88	1.47	0.00	0.00	0.00

12100.00	90.74	179.84	11668.04	634.87	-634.87	1.74	0.00	0.00	0.00
12200.00	90.74	179.84	11666.74	734.86	-734.86	2.01	0.00	0.00	0.00
12300.00	90.74	179.84	11665.45	834.86	-834.85	2.29	0.00	0.00	0.00
12400.00	90.74	179.84	11664.15	934.85	-934.84	2.56	0.00	0.00	0.00
12500.00	90.74	179.84	11662.85	1034.84	-1034.83	2.83	0.00	0.00	0.00
12600.00	90.74	179.84	11661.55	1134.83	-1134.83	3.11	0.00	0.00	0.00
12700.00	90.74	179.84	11660.25	1234.82	-1234.82	3.38	0.00	0.00	0.00
12800.00	90.74	179.84	11658.95	1334.81	-1334.81	3.66	0.00	0.00	0.00
12900.00	90.74	179.84	11657.66	1434.80	-1434.80	3.93	0.00	0.00	0.00
13000.00	90.74	179.84	11656.36	1534.80	-1534.79	4.20	0.00	0.00	0.00
13100.00	90.74	179.84	11655.06	1634.79	-1634.78	4.48	0.00	0.00	0.00
13200.00	90.74	179.84	11653.76	1734.78	-1734.77	4.75	0.00	0.00	0.00
13300.00	90.74	179.84	11652.46	1834.77	-1834.76	5.03	0.00	0.00	0.00
13400.00	90.74	179.84	11651.16	1934.76	-1934.76	5.30	0.00	0.00	0.00
13500.00	90.74	179.84	11649.87	2034.75	-2034.75	5.57	0.00	0.00	0.00
13600.00	90.74	179.84	11648.57	2134.75	-2134.74	5.85	0.00	0.00	0.00
13700.00	90.74	179.84	11647.27	2234.74	-2234.73	6.12	0.00	0.00	0.00
13800.00	90.74	179.84	11645.97	2334.73	-2334.72	6.40	0.00	0.00	0.00
13900.00	90.74	179.84	11644.67	2434.72	-2434.71	6.67	0.00	0.00	0.00
14000.00	90.74	179.84	11643.38	2534.71	-2534.70	6.94	0.00	0.00	0.00
14100.00	90.74	179.84	11642.08	2634.70	-2634.69	7.22	0.00	0.00	0.00
14200.00	90.74	179.84	11640.78	2734.69	-2734.68	7.49	0.00	0.00	0.00
14300.00	90.74	179.84	11639.48	2834.69	-2834.68	7.76	0.00	0.00	0.00
14400.00	90.74	179.84	11638.18	2934.68	-2934.67	8.04	0.00	0.00	0.00
14500.00	90.74	179.84	11636.88	3034.67	-3034.66	8.31	0.00	0.00	0.00
14600.00	90.74	179.84	11635.59	3134.66	-3134.65	8.59	0.00	0.00	0.00
14700.00	90.74	179.84	11634.29	3234.65	-3234.64	8.86	0.00	0.00	0.00
14800.00	90.74	179.84	11632.99	3334.64	-3334.63	9.13	0.00	0.00	0.00
14900.00	90.74	179.84	11631.69	3434.64	-3434.62	9.41	0.00	0.00	0.00
15000.00	90.74	179.84	11630.39	3534.63	-3534.61	9.68	0.00	0.00	0.00
15100.00	90.74	179.84	11629.10	3634.62	-3634.61	9.96	0.00	0.00	0.00
15200.00	90.74	179.84	11627.80	3734.61	-3734.60	10.23	0.00	0.00	0.00
15300.00	90.74	179.84	11626.50	3834.60	-3834.59	10.50	0.00	0.00	0.00
15400.00	90.74	179.84	11625.20	3934.59	-3934.58	10.78	0.00	0.00	0.00
15500.00	90.74	179.84	11623.90	4034.59	-4034.57	11.05	0.00	0.00	0.00
15600.00	90.74	179.84	11622.60	4134.58	-4134.56	11.33	0.00	0.00	0.00
15700.00	90.74	179.84	11621.31	4234.57	-4234.55	11.60	0.00	0.00	0.00
15800.00	90.74	179.84	11620.01	4334.56	-4334.54	11.87	0.00	0.00	0.00
15900.00	90.74	179.84	11618.71	4434.55	-4434.54	12.15	0.00	0.00	0.00
16000.00	90.74	179.84	11617.41	4534.54	-4534.53	12.42	0.00	0.00	0.00
16100.00	90.74	179.84	11616.11	4634.53	-4634.52	12.69	0.00	0.00	0.00
16185.80	90.74	179.84	11615.00	4720.33	-4720.31	12.93	0.00	0.00	0.00