

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) 748-1383 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1226 S. St. Francis Dr., Santa Fe, NM 87305
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 30-029-43274	² Pool Code 49490	³ Pool Name Paduca; Delaware, North
⁴ Property Code 39237	⁵ Property Name COTTON DRAW 32 STATE FED COM	⁶ Well Number 5H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation 3474.9

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	32	24 S	32 E		2400	SOUTH	1980	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	5	25 S	32 E		336 \	SOUTH	1980	EAST	LEA

¹² Dedicated Acres 240.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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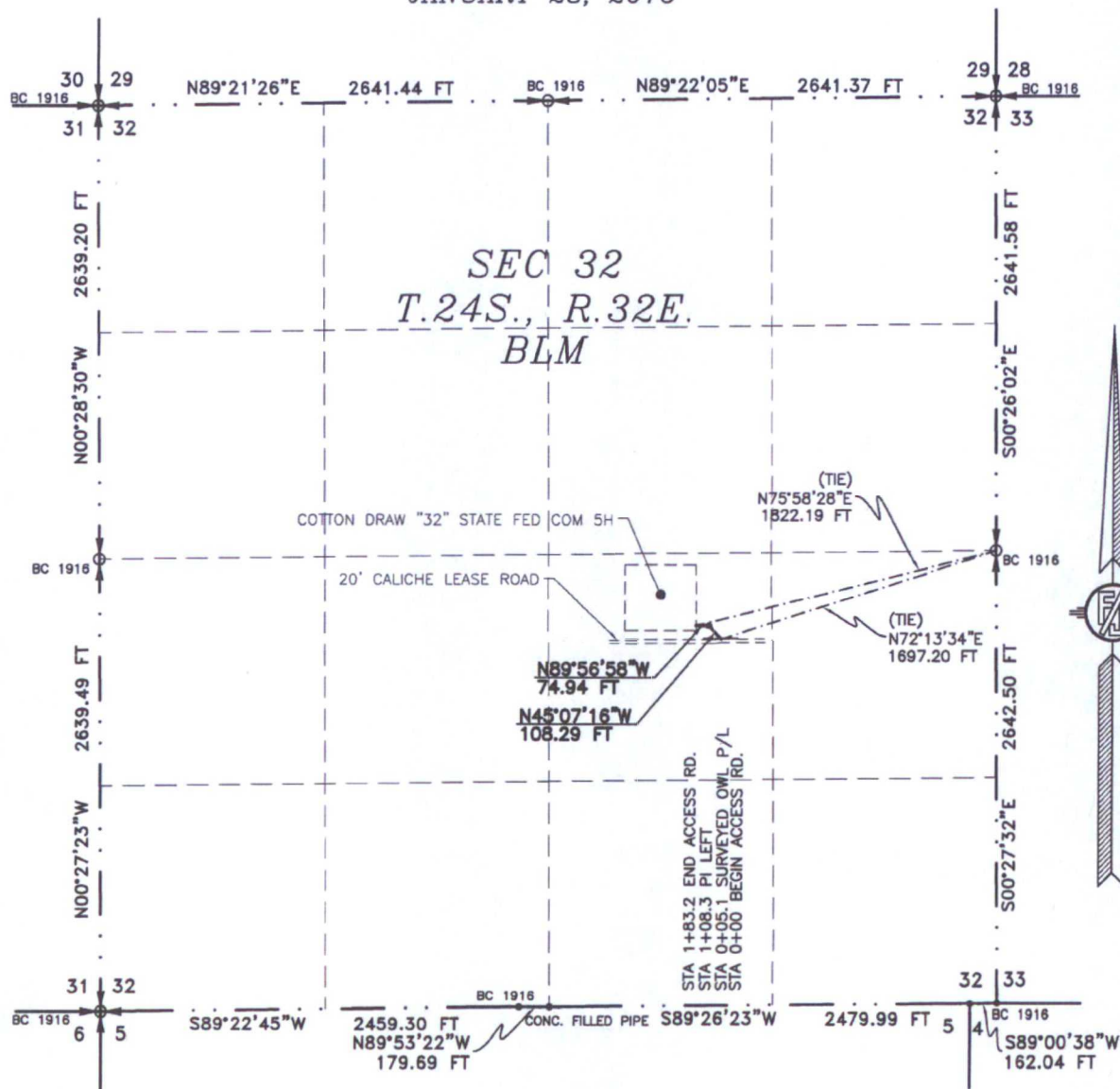
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	" OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <i>Linda Good</i> Date: <i>12/14/2015</i> Printed Name: Linda Good E-mail Address: linda.good@dmv.com
	"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. NOVEMBER 12, 2015 Date of Survey: <i>12/14/2015</i> Signature: <i>[Surveyor Signature]</i> Certificate Number: FILIMON T. JOGAMILLO, PLS 12797 SURVEY NO. 4301

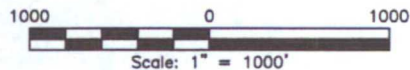
ACCESS ROAD PLAT

ACCESS ROAD TO THE COTTON DRAW "32" STATE FED COM 5H

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 32, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
JANUARY 28, 2016



SEE NEXT SHEET (2-4) FOR DESCRIPTION

**GENERAL NOTES**

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING IS NMSP EAST MODIFIED TO SURFACE COORDINATES.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 28 DAY OF JANUARY 2016

Filimon F. Jaramillo
 FILIMON F. JARAMILLO, PLS. 12797
 301 SOUTH CANAL
 (575) 234-3341

MADRON SURVEYING, INC.
 301 SOUTH CANAL
 CARLSBAD, NEW MEXICO 88220
 Phone (575) 234-3341

SHEET: 1-4

MADRON SURVEYING, INC.

SURVEY NO. 4503

CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD TO THE COTTON DRAW "32" STATE FED COM 5H

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 32, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
JANUARY 28, 2016

DESCRIPTION

A STRIP OF LAND 20 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 32, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, STATE OF NEW MEXICO AND BEING 10 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NW/4 SE/4 OF SAID SECTION 32, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M., WHENCE THE EAST QUARTER CORNER OF SAID SECTION 32, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M. BEARS N72°13'34"E, A DISTANCE OF 1697.20 FEET;
THENCE N45°07'16"W A DISTANCE OF 108.29 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N89°56'58"W A DISTANCE OF 74.94 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE EAST QUARTER CORNER OF SAID SECTION 32, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M. BEARS N75°58'28"E, A DISTANCE OF 1822.19 FEET;

SAID STRIP OF LAND BEING 183.23 FEET OR 11.10 RODS IN LENGTH, CONTAINING 0.084 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NW/4 SE/4 183.23 L.F. 11.10 RODS 0.084 ACRES

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 28 DAY OF JANUARY 2016

GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING IS NMSP EAST MODIFIED TO SURFACE COORDINATES.


FILIMON F. JARAMILLO, P.E.S. 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SHEET: 2-4

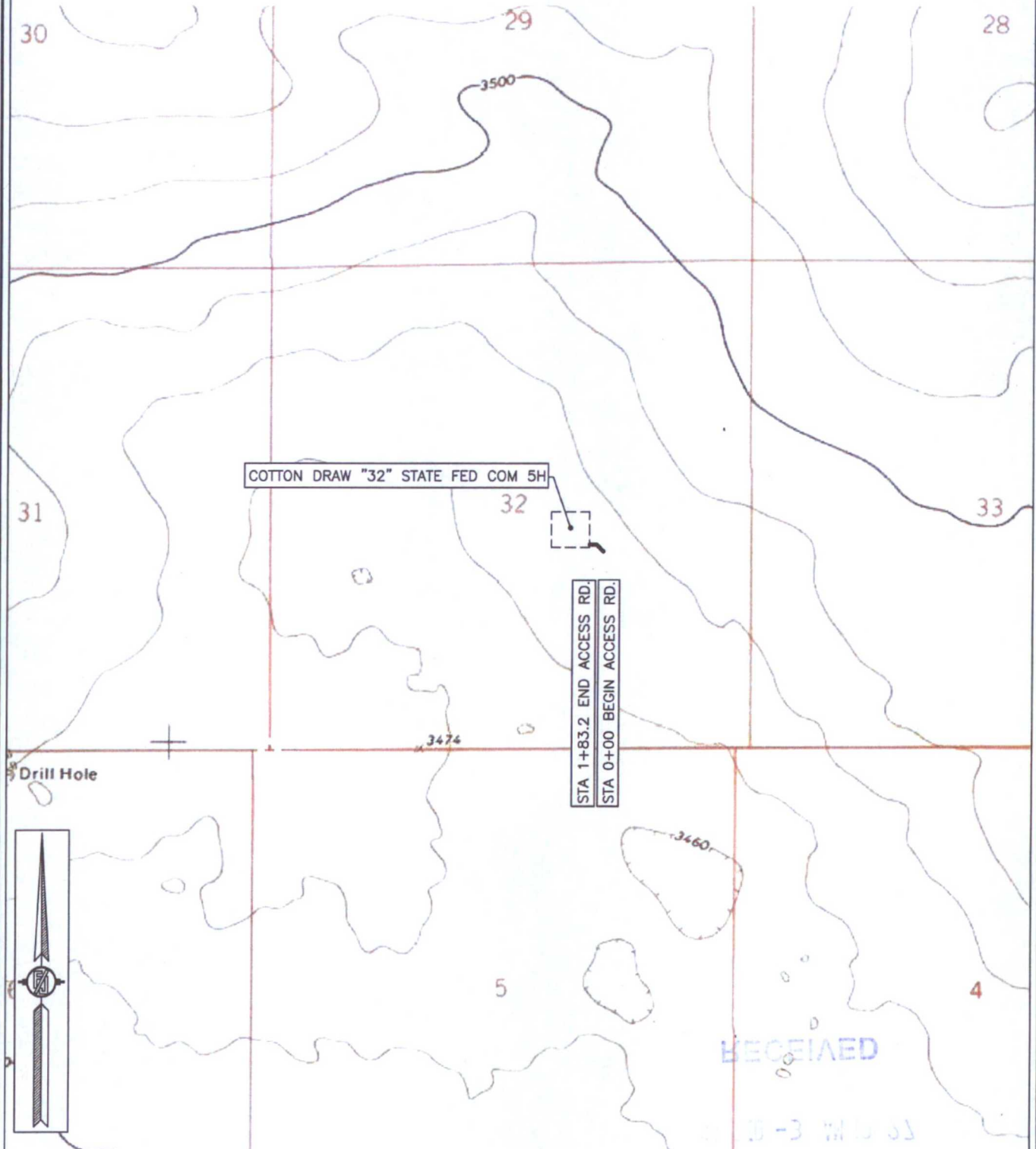
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SURVEY NO. 4503

ACCESS ROAD PLAT

ACCESS ROAD TO THE COTTON DRAW "32" STATE FED COM 5H

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 32, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
JANUARY 28, 2016



SHEET: 3-4

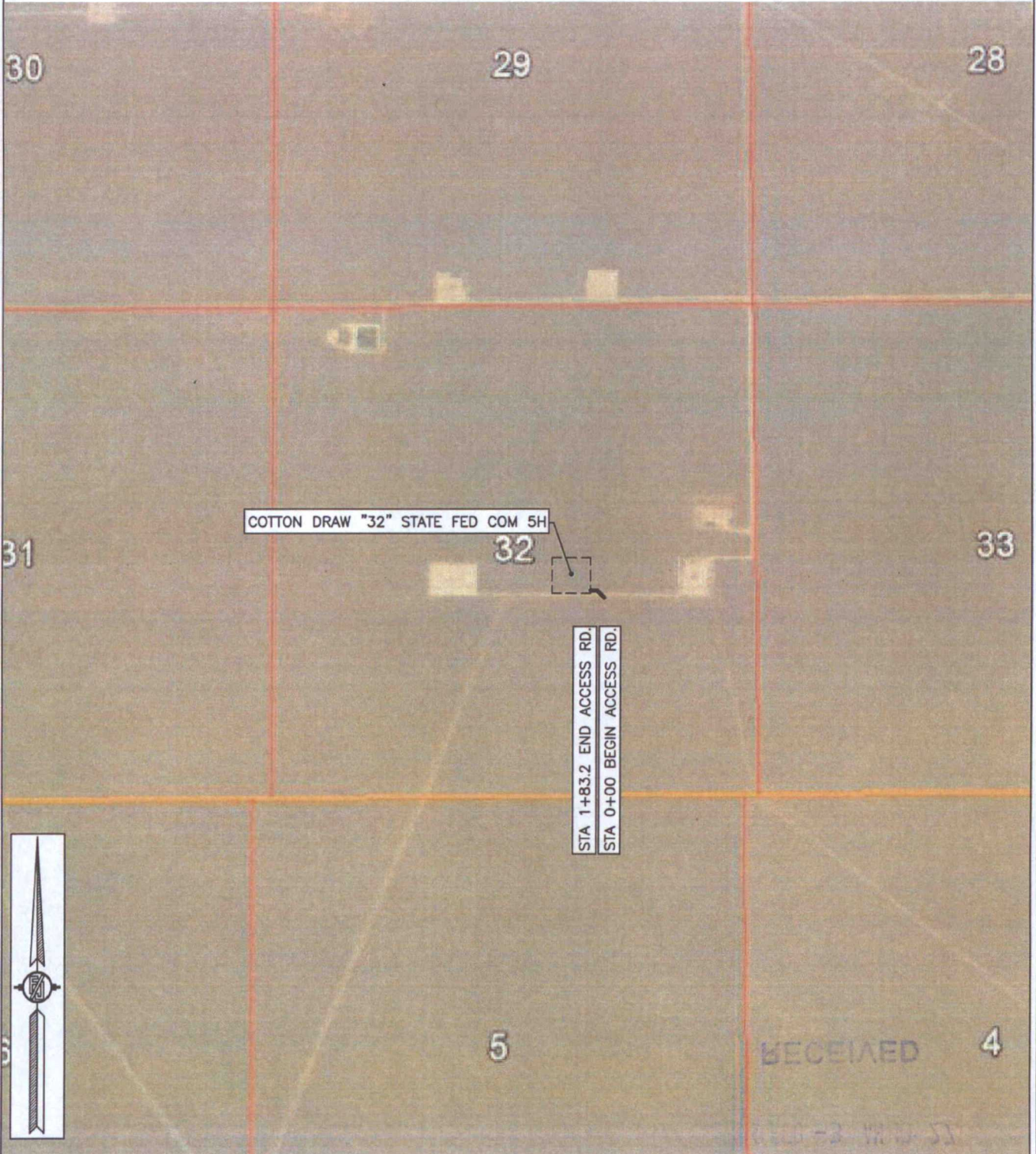
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

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ACCESS ROAD PLAT

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DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 32, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
JANUARY 28, 2016



SHEET: 4-4

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

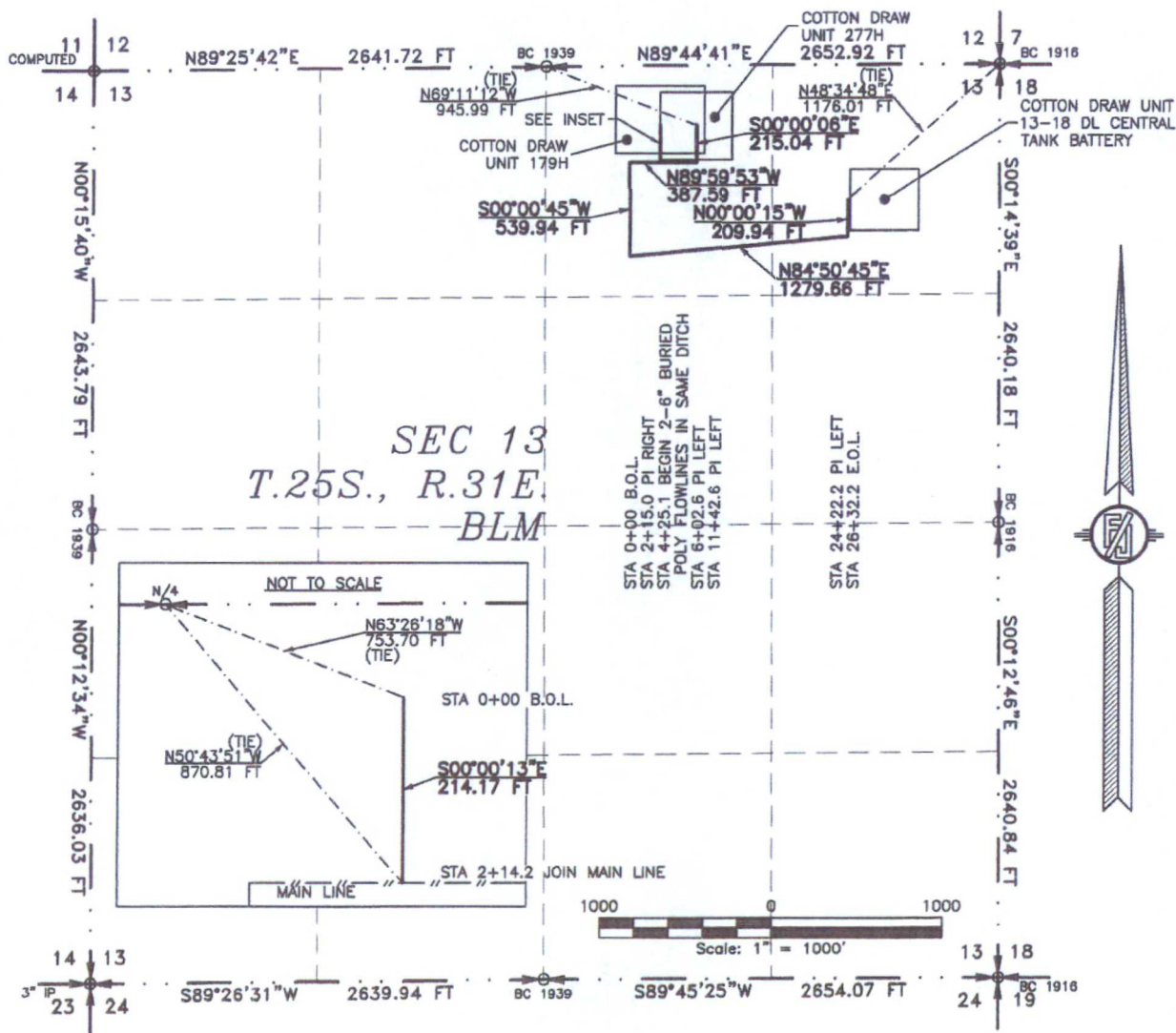
SURVEY NO. 4503

RECEIVED

FLOWLINE PLAT (400509)

TWO (2)- 6" BURIED FIBER FLOW LINES AND TWO (2)- 6" BURIED FIBER GAS LINES (IN SAME TRENCH) FROM THE CDU #277H & #179H TO THE CDU 13-18 (DL) CENTRAL TANK BATTERY

DEVON ENERGY PRODUCTION COMPANY, L.P. CENTERLINE SURVEY OF A PIPELINE CROSSING SECTION 13, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO JANUARY 21, 2016



SEE NEXT SHEET (2-4) FOR DESCRIPTION

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 21 DAY OF JANUARY 2016

FILMON F. JARAMILLO, P.E.S. 12797
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING IS NMSP EAST MODIFIED TO SURFACE COORDINATES.

SHEET: 1-4

MADRON SURVEYING, INC.

SURVEY NO. 3893A

CARLSBAD, NEW MEXICO

FLOWLINE PLAT (400509)

TWO (2)- 6" BURIED FIBER FLOW LINES AND TWO (2)- 6" BURIED FIBER GAS LINES (IN SAME TRENCH) FROM THE CDU #277H & #179H TO THE CDU 13-18 (DL) CENTRAL TANK BATTERY

**DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 13, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
JANUARY 21, 2016**

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 13, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

MAIN LINE FROM COTTON DRAW UNIT 277H

BEGINNING AT A POINT WITHIN THE NW/4 NE/4 OF SAID SECTION 13, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE NORTH QUARTER CORNER OF SAID SECTION 13, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N69°11'12"W, A DISTANCE OF 945.99 FEET;
THENCE S00°00'06"E A DISTANCE OF 215.04 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N89°59'53"W A DISTANCE OF 387.59 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S00°00'45"W A DISTANCE OF 539.94 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N84°50'45"E A DISTANCE OF 1279.66 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N00°00'15"W A DISTANCE OF 209.94 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHEAST CORNER OF SAID SECTION 13, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N48°34'48"E, A DISTANCE OF 1176.01 FEET;

SAID STRIP OF LAND BEING 2632.17 FEET OR 159.53 RODS IN LENGTH, CONTAINING 1.813 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NW/4 NE/4	1979.82 L.F.	119.99 RODS	1.364 ACRES
NE/4 NE/4	652.35 L.F.	39.54 RODS	0.449 ACRES

LINE FROM COTTON DRAW UNIT 179H

BEGINNING AT A POINT WITHIN THE NW/4 NE/4 OF SAID SECTION 13, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE NORTH QUARTER CORNER OF SAID SECTION 13, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N63°26'18"W, A DISTANCE OF 753.70 FEET;
THENCE S00°00'13"E A DISTANCE OF 214.17 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTH QUARTER CORNER OF SAID SECTION 13, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N50°43'51"W, A DISTANCE OF 870.81 FEET;

SAID STRIP OF LAND BEING 214.17 FEET OR 12.98 RODS IN LENGTH, CONTAINING 0.147 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NW/4 NE/4	214.17 L.F.	12.98 RODS	0.147 ACRES
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GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING IS NMSP EAST MODIFIED TO SURFACE COORDINATES.

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 21 DAY OF JANUARY 2016

FILMON F. JARAMILLO PLS 12797

301 SOUTH CANAL
(575) 234-3341

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 3893A

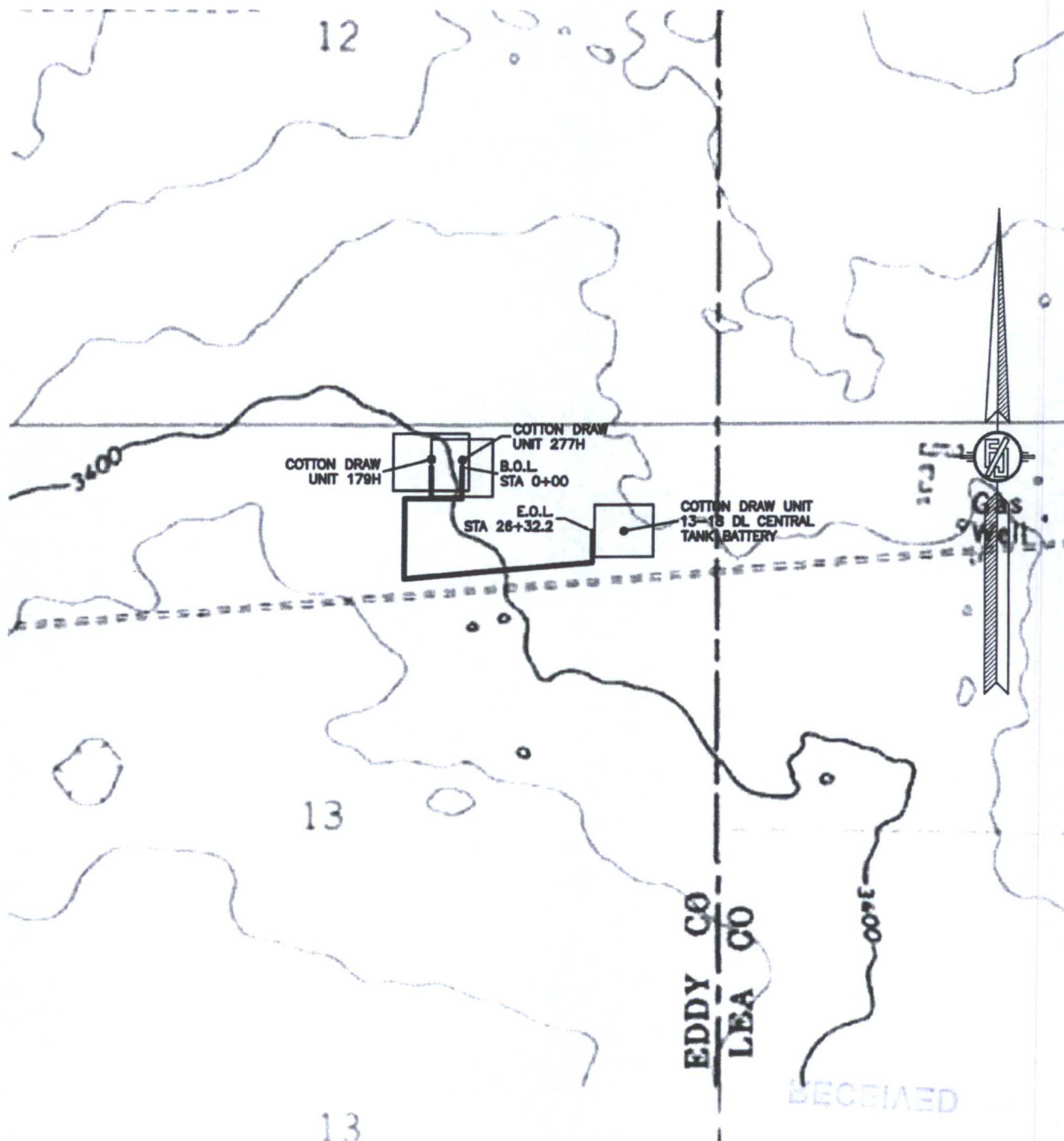
SHEET: 2-4

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

FLOWLINE PLAT (400509)

TWO (2)- 6" BURIED FIBER FLOW LINES AND TWO (2)- 6" BURIED FIBER GAS LINES (IN SAME TRENCH) FROM THE CDU #277H & #179H TO THE CDU 13-18 (DL) CENTRAL TANK BATTERY

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 13, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
JANUARY 21, 2016



SHEET: 3-4

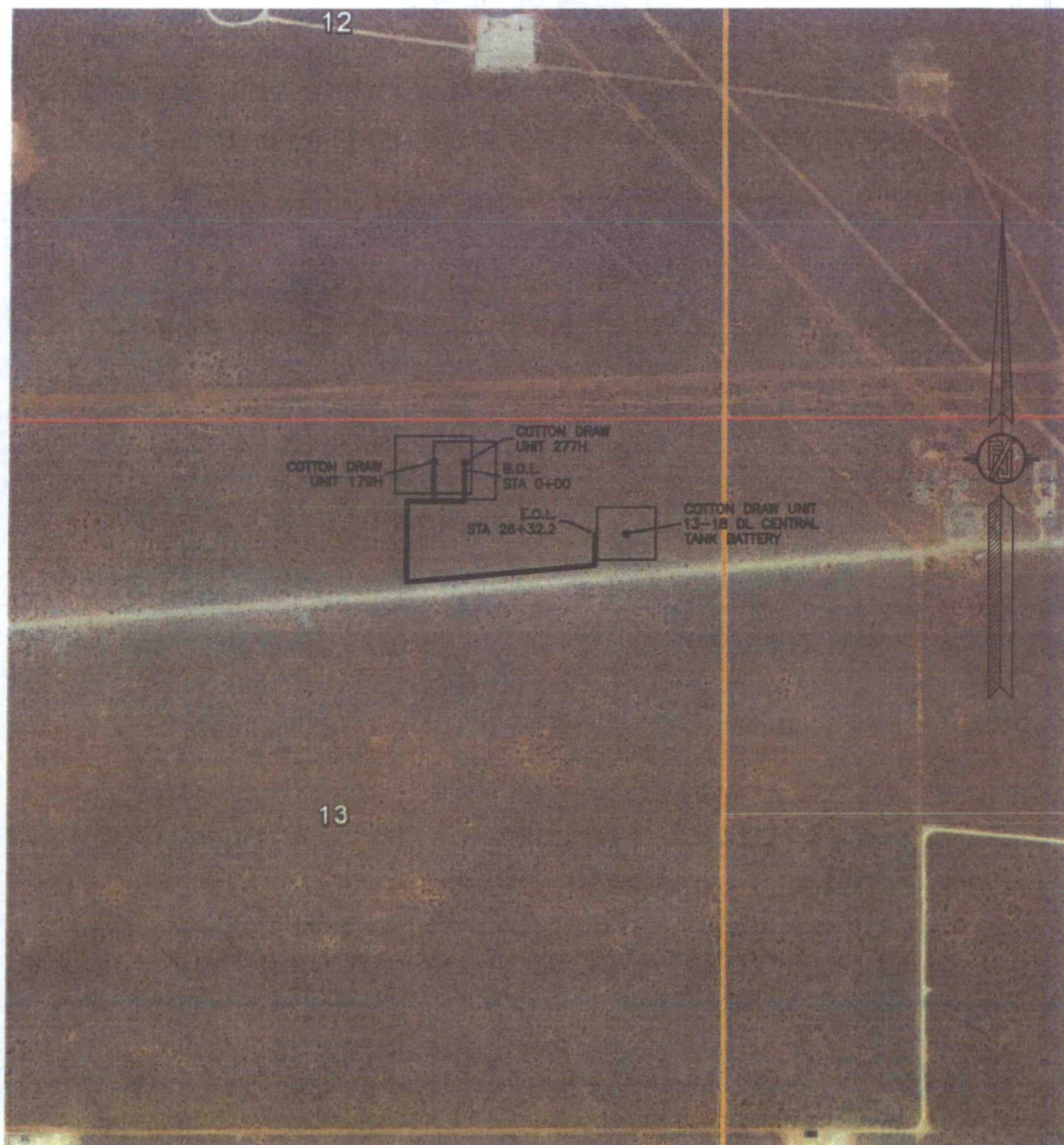
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SURVEY NO. 3893A

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SECTION 13, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
JANUARY 21, 2016

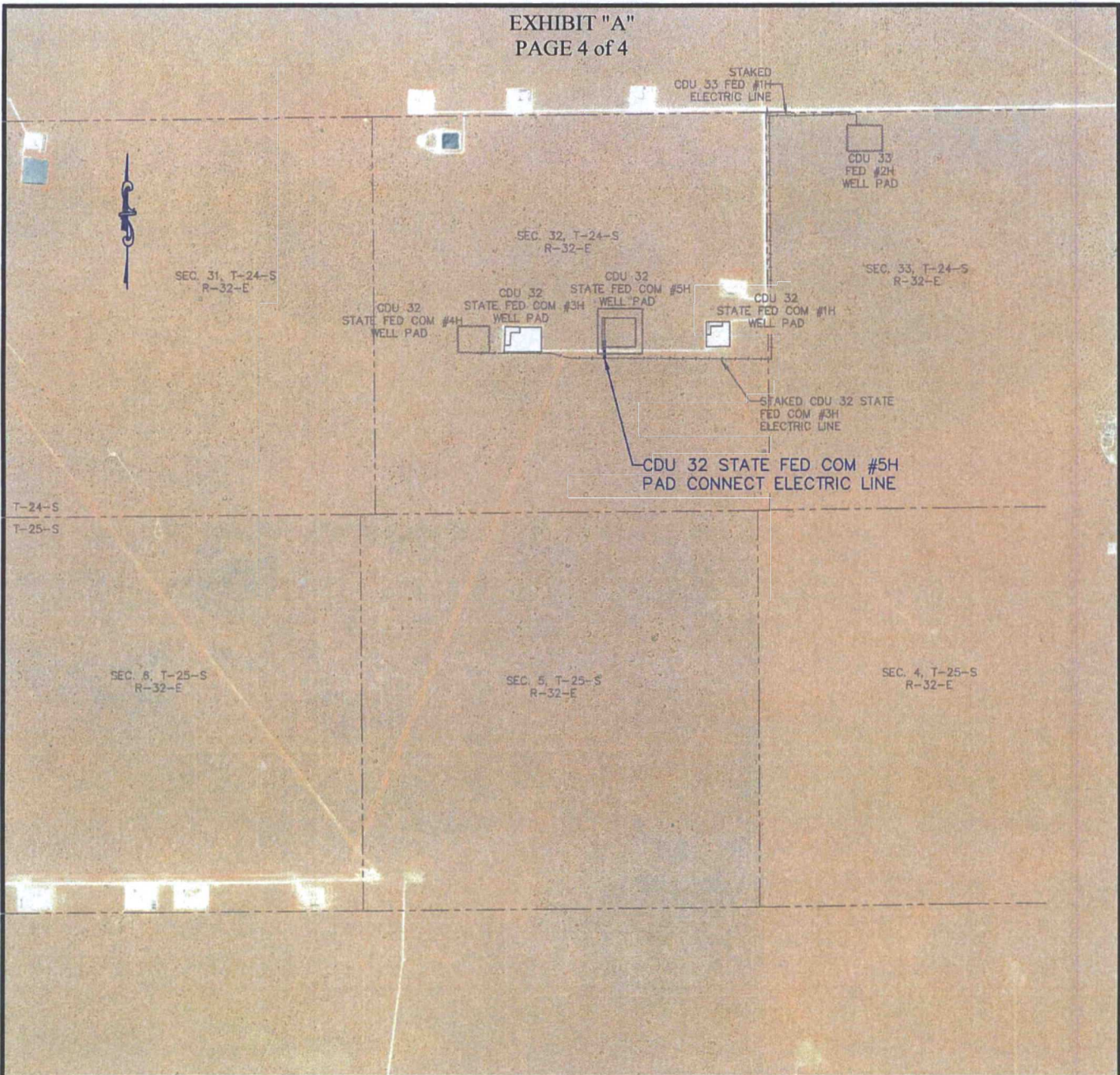


SHEET: 3-4

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

SURVEY NO. 3893A

EXHIBIT "A"
PAGE 4 of 4



AERIAL MAP

SECTION 32, T24S-R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

HORIZON ROW LLC

PROPOSED 30' EASEMENT
ON THE PROPERTY OF
BUREAU OF LAND MANAGEMENT

Drawn by:
CHRIS MAAS

Date: 12/06/2015

Drawn for:



LINE NUMBER:
EL7751

WBS NUMBER:
CC-112971.AL

SCALE:
1" = 2000'

REVISIONS:

SHEET:
4 OF 4

SITE MAP

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

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



USGS QUAD MAP:
PADUCA BREAKS NW

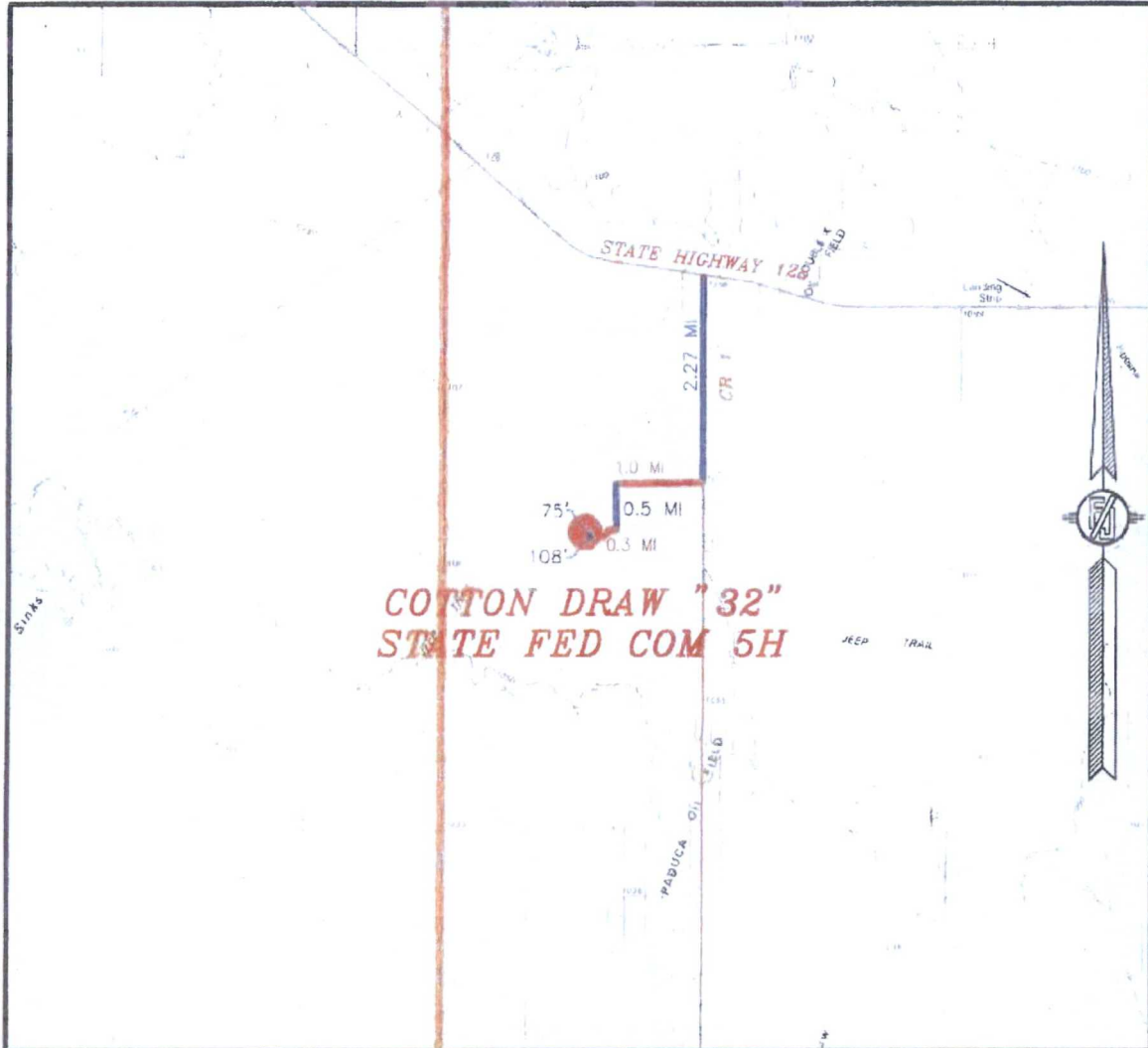
NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.
COTTON DRAW "32" STATE FED COM 5H
LOCATED 2400 FT. FROM THE SOUTH LINE
AND 1980 FT. FROM THE EAST LINE OF
SECTION 32, TOWNSHIP 24 SOUTH,
RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

NOVEMBER 12, 2015

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO SURVEY NO. 4301

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



DISTANCES IN MILES

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.
COTTON DRAW "32" STATE FED COM 5H
LOCATED 2400 FT. FROM THE SOUTH LINE
AND 1980 FT. FROM THE EAST LINE OF
SECTION 32, TOWNSHIP 24 SOUTH,
RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

DIRECTIONS TO LOCATION

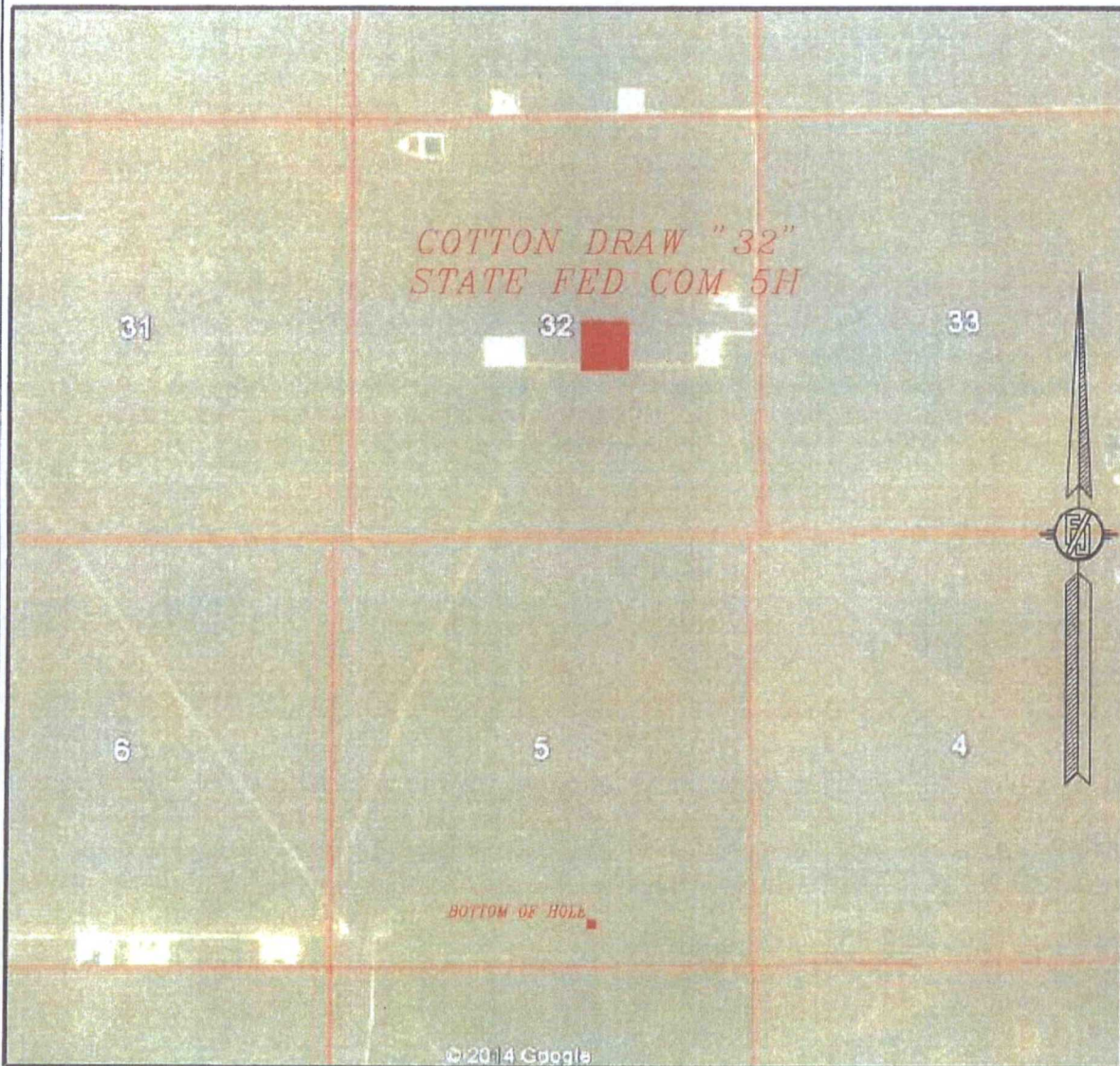
FROM THE INTERSECTION OF STATE HIGHWAY 128 AND CR 1 (ORLA HIGHWAY) GO SOUTH ON CR 1 FOR APPROX. 2.27 MILES. GO WEST ON 25' CALICHE LEASE ROAD FOR APPROX. 1.0 MILE. GO SOUTH ON 20' CALICHE LEASE ROAD FOR APPROX. 0.5 OF A MILE. TURN WEST ON 20' CALICHE LEASE ROAD FOR APPROX. 0.3 OF A MILE TO BEGIN ROAD SURVEY. GO NORTHWEST APPROX. 108', THEN WEST APPROX. 75' (TOTAL OF 183') TO THE SOUTHEAST PAD CORNER FOR THIS LOCATION.

NOVEMBER 12, 2015

SURVEY NO. 4301

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

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



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
FEBRUARY 2014

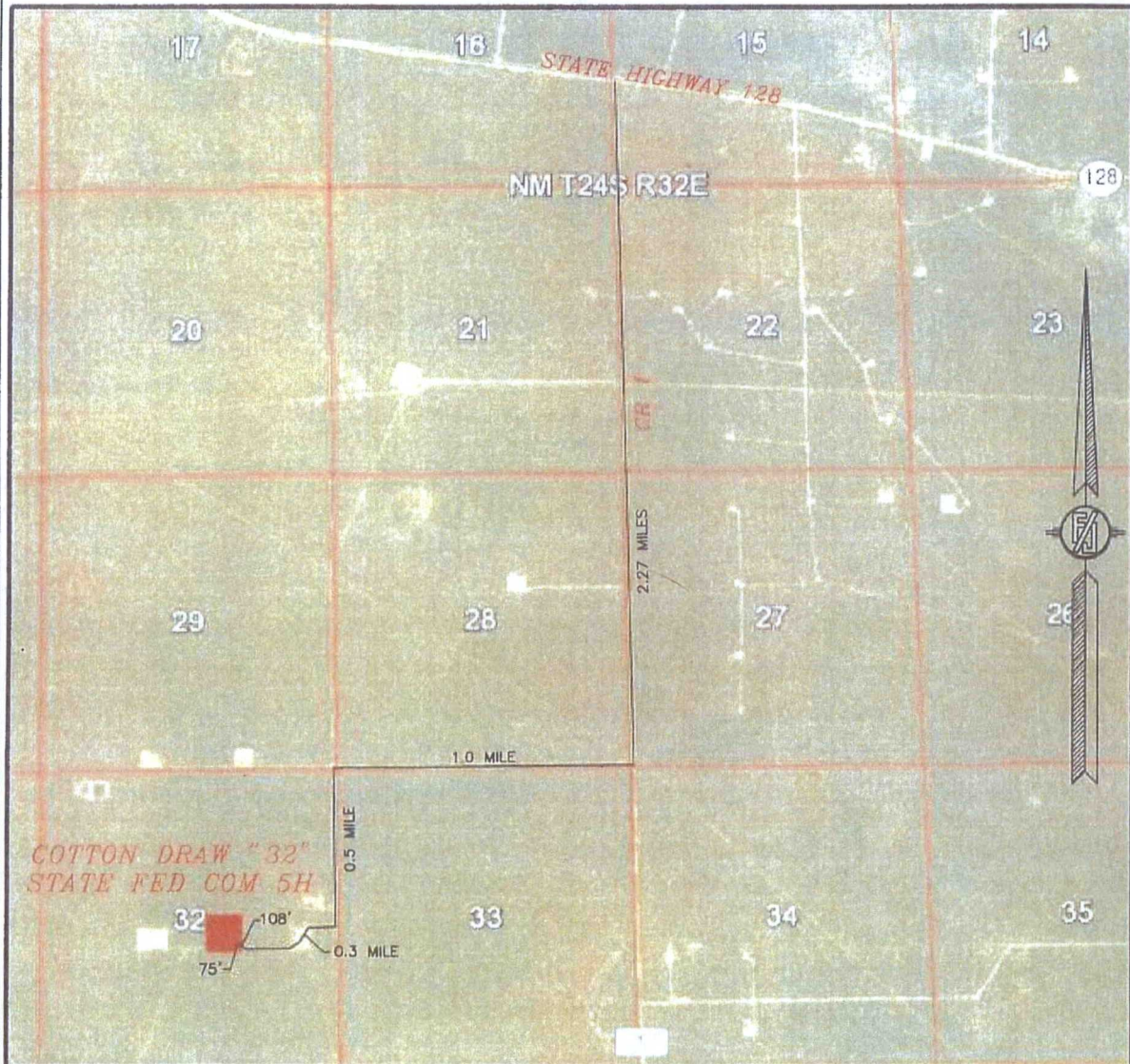
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LEA COUNTY, STATE OF NEW MEXICO

NOVEMBER 12, 2015

SURVEY NO. 4301

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

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



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
FEBRUARY 2014

DEVON ENERGY PRODUCTION COMPANY, L.P.
COTTON DRAW "32" STATE FED COM 5H
LOCATED 2400 FT. FROM THE SOUTH LINE
AND 1980 FT. FROM THE EAST LINE OF
SECTION 32, TOWNSHIP 24 SOUTH,
RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

NOVEMBER 12, 2015

SURVEY NO. 4301

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

One Mile Radius Map

Estimated distances to nearest wellbores:

*From SHL: Cotton Draw 32 State Fed Com 3H 1051 ft WSW
Cotton Draw 32 State SWD 1000 ft E
*From BHL: Cotton Draw 32 Fed Com 1H 1265 ft E

25S 32E

devon

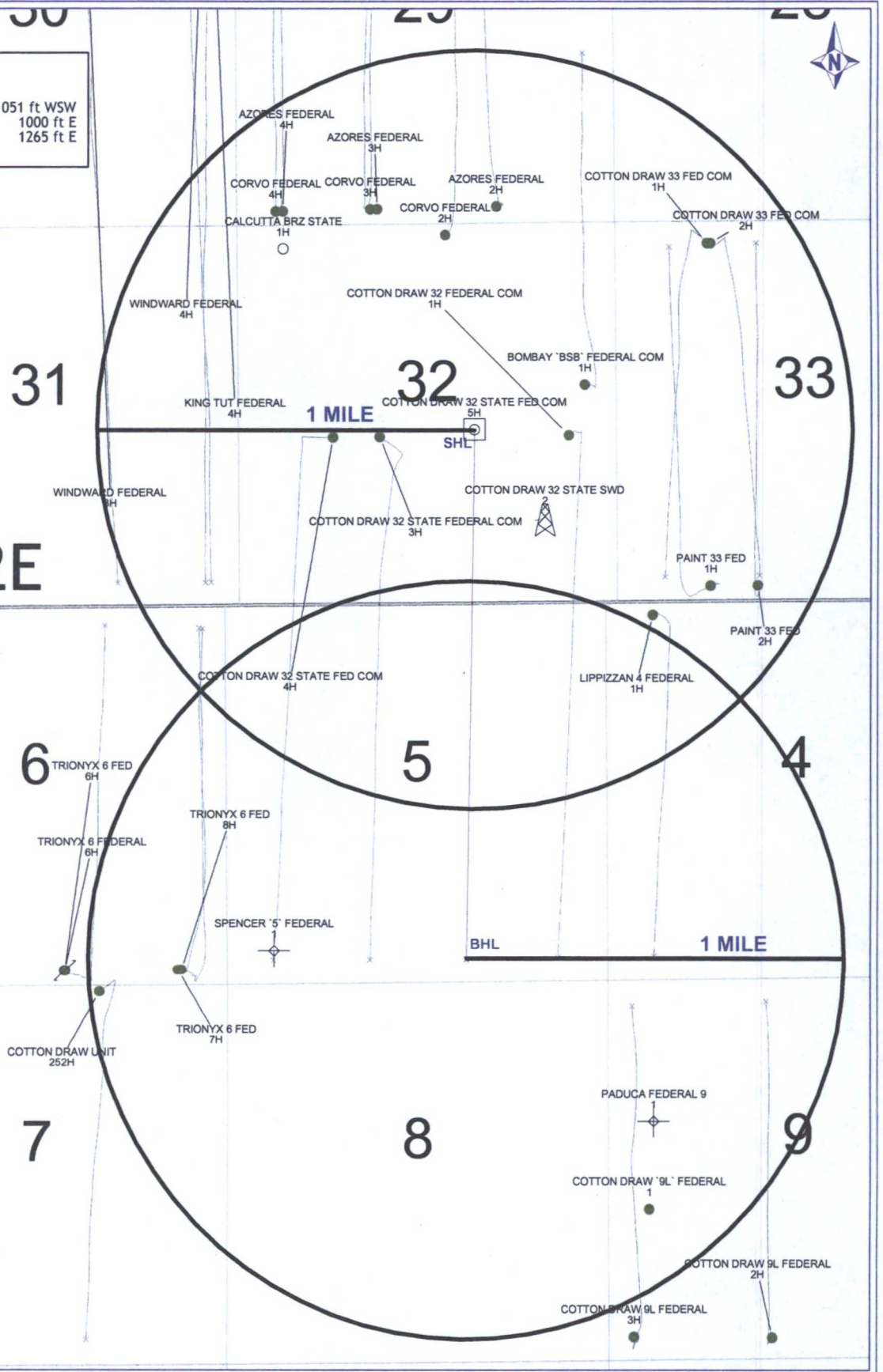
Cotton Draw 32 State Fed Com 5H

One Mile Radius Map

0 2,003
FEET

WELL SYMBOLS
DRY AND ABANDONED WELL
DRILLING WELL
JUNKED AND ABANDONED
OIL PRODUCING WELL
PROPOSED

December 10, 2015



Devon Cotton Draw 32 State Fed Com 5H Rev0_ALS_01DEC15 Proposal

Geodetic Report

(Non-Def Plan)

Report Date: December 01, 2015 - 03:06 PM
Client: Devon
Field: NM Lea County (NAD 83)
Structure / Slot: Devon Cotton Draw 32 State Fed Com 5H / Devon Cotton Draw 32 State Fed Com 5H
Well: Devon Cotton Draw 32 State Fed Com 5H
Borehole: Devon Cotton Draw 32 State Fed Com 5H
UWI / API#: Unknown / Unknown
Survey Name: Devon Cotton Draw 32 State Fed Com 5H Rev0_ALS_01DEC15
Survey Date: December 01, 2015
Tort / AHD / DDI / ERD Ratio: 90.000 ° / 7359.406 ft / 6.089 / 0.883
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 10' 23.73151" W 103° 41' 40.32768"
Location Grid N/E Y/X: N 427353.100 RUS, E 738985.730 RUS
CRS Grid Convergence Angle: 0.3402 °
Grid Scale Factor: 0.99995383
Version / Patch: 2.8.572.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 0.000 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3499.900 ft above MSL
Seabed / Ground Elevation: 3474.900 ft above MSL
Magnetic Declination: 7.283 °
Total Gravity Field Strength: 998.4316mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48056.538 nT
Magnetic Dip Angle: 59.997 °
Declination Date: December 01, 2015
Magnetic Declination Model: BGGM 2014
North Reference: Grid North
Grid Convergence Used: 0.3402 °
Total Corr Mag North->Grid North: 6.9425 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL [2400' FSL, 1980' FEL]	0.00	0.00	180.86	0.00	-3499.90	0.00	0.00	0.00	N/A	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
KOP - 10°/100'	7757.04	0.00	180.86	7757.04	4257.14	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
DLS Landing Point	8657.04	90.00	180.86	8330.00	4830.10	-572.89	-572.89	-8.61	10.00	426780.23	738977.12	N 32 10 18.06	W 103 41 40.47
Devon Cotton Draw 32 State Fed Com 5H - PBHL [330' FSL, 1980' FEL]	15443.49	90.00	180.86	8330.00	4830.10	-7358.57	-7358.57	-110.65	0.00	419994.88	738875.09	N 32 9 10.92	W 103 41 42.12

Survey Type: Non-Def Plan

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

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	25.000	1/100.000	30.000	30.000	SLB_UNKNOWN-Depth Only	Devon Cotton Draw 32 State Fed Com 5H / Devon Cotton Draw 32
	1	25.000	15443.488	1/100.000	30.000	30.000	SLB_UNKNOWN	Devon Cotton Draw 32 State Fed Com 5H / Devon Cotton Draw 32

Devon Cotton Draw 32 State Fed Com 5H Rev0_ALS_01DEC15 Proposal

Geodetic Report

(Non-Def Plan)

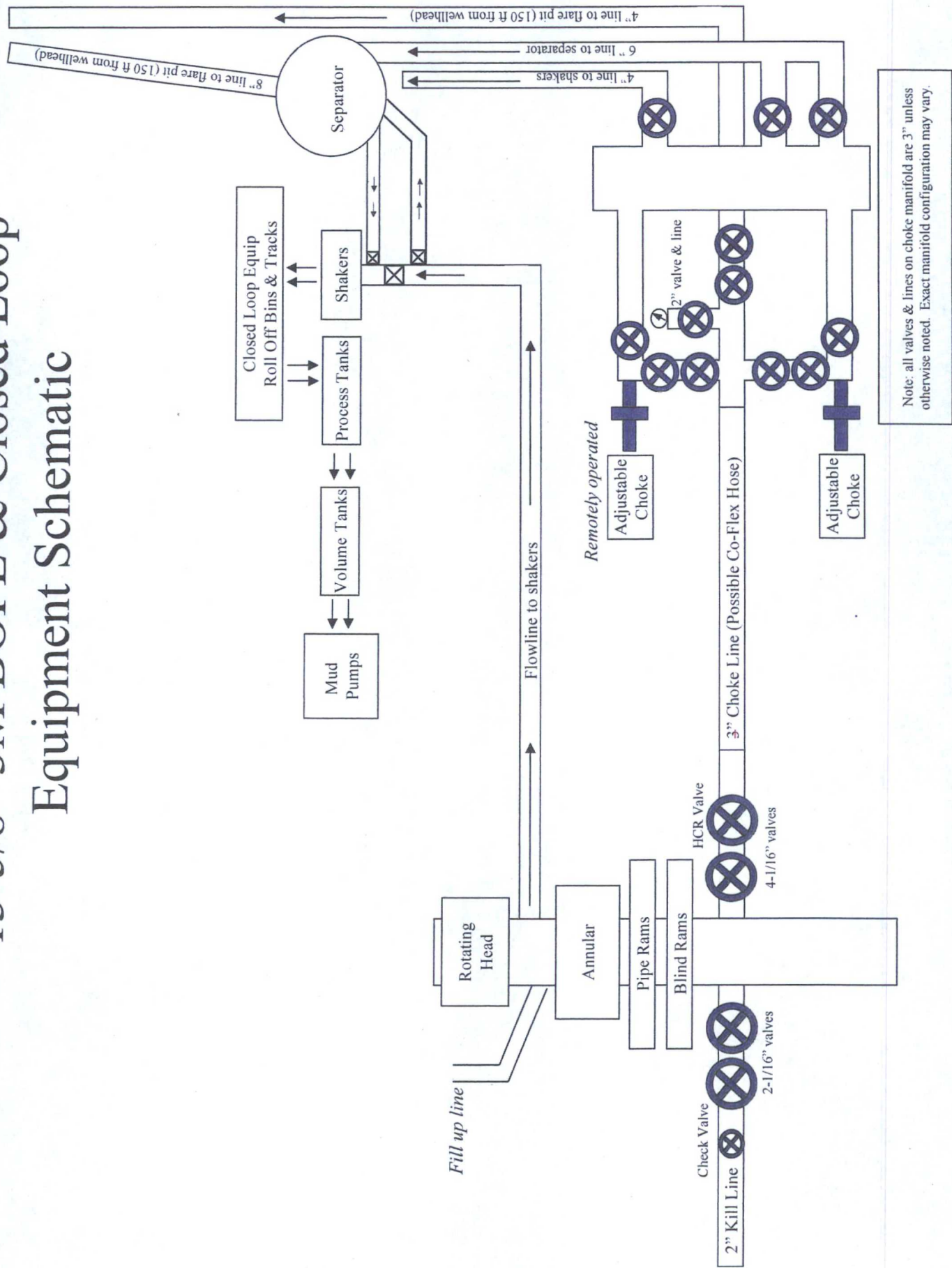
Report Date: December 01, 2015 - 03:07 PM
 Client: Devon
 Field: NM Lea County (NAD 83)
 Structure / Slot: Devon Cotton Draw 32 State Fed Com 5H / Devon Cotton Draw 32 State Fed Com 5H
 Well: Devon Cotton Draw 32 State Fed Com 5H
 Borehole: Devon Cotton Draw 32 State Fed Com 5H
 UWI / API#: Unknown / Unknown
 Survey Name: Devon Cotton Draw 32 State Fed Com 5H Rev0_ALS_01DEC15
 Survey Date: December 01, 2015
 Tort / AHD / DDI / ERD Ratio: 90.000 * / 7359.406 ft / 6.089 / 0.883
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 10' 23.7315" W 103° 41' 40.32768"
 Location Grid N/E Y/X: N 427353.100 RUS, E 738985.730 RUS
 CRS Grid Convergence Angle: 0.3402 *
 Grid Scale Factor: 0.9995383
 Version / Patch: 2.8.572.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 0.000 * (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3499.900 ft above MSL
 Seabed / Ground Elevation: 3474.900 ft above MSL
 Magnetic Declination: 7.283 *
 Total Gravity Field Strength: 998.4316mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48056.538 nT
 Magnetic Dip Angle: 59.997 *
 Declination Date: December 01, 2015
 Magnetic Declination Model: BGGM 2014
 North Reference: Grid North
 Grid Convergence Used: 0.3402 *
 Total Corr Mag North->Grid North: 6.9425 *
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL [2400' FSL, 1980' FEL]	0.00	0.00	180.86	0.00	-3499.90	0.00	0.00	0.00	N/A	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	100.00	0.00	180.86	100.00	-3399.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	200.00	0.00	180.86	200.00	-3299.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	300.00	0.00	180.86	300.00	-3199.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	400.00	0.00	180.86	400.00	-3099.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	500.00	0.00	180.86	500.00	-2999.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	600.00	0.00	180.86	600.00	-2899.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	700.00	0.00	180.86	700.00	-2799.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	800.00	0.00	180.86	800.00	-2699.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	900.00	0.00	180.86	900.00	-2599.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	1000.00	0.00	180.86	1000.00	-2499.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	1100.00	0.00	180.86	1100.00	-2399.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	1200.00	0.00	180.86	1200.00	-2299.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	1300.00	0.00	180.86	1300.00	-2199.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	1400.00	0.00	180.86	1400.00	-2099.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	1500.00	0.00	180.86	1500.00	-1999.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	1600.00	0.00	180.86	1600.00	-1899.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	1700.00	0.00	180.86	1700.00	-1799.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	1800.00	0.00	180.86	1800.00	-1699.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	1900.00	0.00	180.86	1900.00	-1599.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	2000.00	0.00	180.86	2000.00	-1499.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	2100.00	0.00	180.86	2100.00	-1399.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	2200.00	0.00	180.86	2200.00	-1299.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	2300.00	0.00	180.86	2300.00	-1199.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	2400.00	0.00	180.86	2400.00	-1099.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	2500.00	0.00	180.86	2500.00	-999.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	2600.00	0.00	180.86	2600.00	-899.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	2700.00	0.00	180.86	2700.00	-799.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	2800.00	0.00	180.86	2800.00	-699.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	2900.00	0.00	180.86	2900.00	-599.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	3000.00	0.00	180.86	3000.00	-499.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	3100.00	0.00	180.86	3100.00	-399.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	3200.00	0.00	180.86	3200.00	-299.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	3300.00	0.00	180.86	3300.00	-199.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	3400.00	0.00	180.86	3400.00	-99.90	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	3500.00	0.00	180.86	3500.00	0.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	3600.00	0.00	180.86	3600.00	100.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	3700.00	0.00	180.86	3700.00	200.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	3800.00	0.00	180.86	3800.00	300.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	3900.00	0.00	180.86	3900.00	400.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	4000.00	0.00	180.86	4000.00	500.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	4100.00	0.00	180.86	4100.00	600.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	4200.00	0.00	180.86	4200.00	700.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	4300.00	0.00	180.86	4300.00	800.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	4400.00	0.00	180.86	4400.00	900.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	4500.00	0.00	180.86	4500.00	1000.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	4600.00	0.00	180.86	4600.00	1100.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	4700.00	0.00	180.86	4700.00	1200.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	4800.00	0.00	180.86	4800.00	1300.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	4900.00	0.00	180.86	4900.00	1400.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	5000.00	0.00	180.86	5000.00	1500.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	5100.00	0.00	180.86	5100.00	1600.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	5200.00	0.00	180.86	5200.00	1700.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	5300.00	0.00	180.86	5300.00	1800.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	5400.00	0.00	180.86	5400.00	1900.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	5500.00	0.00	180.86	5500.00	2000.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	5600.00	0.00	180.86	5600.00	2100.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	5700.00	0.00	180.86	5700.00	2200.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	5800.00	0.00	180.86	5800.00	2300.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	5900.00	0.00	180.86	5900.00	2400.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	6000.00	0.00	180.86	6000.00	2500.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	6100.00	0.00	180.86	6100.00	2600.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	6200.00	0.00	180.86	6200.00	2700.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	6300.00	0.00	180.86	6300.00	2800.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	6400.00	0.00	180.86	6400.00	2900.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	6500.00	0.00	180.86	6500.00	3000.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	6600.00	0.00	180.86	6600.00	3100.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	6700.00	0.00	180.86	6700.00	3200.10	0.00	0.00	0.00	0.00	427353.10	738985.73	N 32 10 23.73	W 103 41 40.33
	6800.00	0.00	180.86	6800.00	3300.10	0.00	0.00	0.00	0.00	427353.10	738985		

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	8100.00	34.30	180.86	8079.88	4579.98	-99.60	-99.60	-1.50	10.00	427253.50	738984.23	N 32 10 22.75	W 103 41 40.35
	8200.00	44.30	180.86	8157.17	4657.27	-162.85	-162.85	-2.45	10.00	427150.26	738983.28	N 32 10 22.12	W 103 41 40.37
	8300.00	54.30	180.86	8222.31	4722.41	-238.55	-238.55	-3.59	10.00	427114.56	738982.14	N 32 10 21.37	W 103 41 40.39
	8400.00	64.30	180.86	8273.30	4773.40	-324.42	-324.42	-4.88	10.00	427028.70	738980.85	N 32 10 20.52	W 103 41 40.41
	8500.00	74.30	180.86	8308.61	4808.71	-417.83	-417.83	-6.28	10.00	426935.29	738979.45	N 32 10 19.60	W 103 41 40.43
	8600.00	84.30	180.86	8327.16	4827.26	-515.95	-515.95	-7.76	10.00	426837.17	738977.97	N 32 10 18.63	W 103 41 40.45
Landing Point	8657.04	90.00	180.86	8330.00	4830.10	-572.89	-572.89	-8.61	10.00	426780.23	738977.12	N 32 10 18.06	W 103 41 40.47
	8700.00	90.00	180.86	8330.00	4830.10	-615.85	-615.85	-9.26	0.00	426737.28	738976.47	N 32 10 17.64	W 103 41 40.48
	8800.00	90.00	180.86	8330.00	4830.10	-715.84	-715.84	-10.76	0.00	426637.30	738974.97	N 32 10 16.85	W 103 41 40.50
	8900.00	90.00	180.86	8330.00	4830.10	-815.83	-815.83	-12.27	0.00	426537.31	738973.46	N 32 10 15.66	W 103 41 40.53
	9000.00	90.00	180.86	8330.00	4830.10	-915.81	-915.81	-13.77	0.00	426437.33	738971.96	N 32 10 14.67	W 103 41 40.55
	9100.00	90.00	180.86	8330.00	4830.10	-1015.80	-1015.80	-15.27	0.00	426337.35	738970.46	N 32 10 13.68	W 103 41 40.58
	9200.00	90.00	180.86	8330.00	4830.10	-1115.79	-1115.79	-16.78	0.00	426237.36	738968.95	N 32 10 12.69	W 103 41 40.60
	9300.00	90.00	180.86	8330.00	4830.10	-1215.78	-1215.78	-18.28	0.00	426137.38	738967.45	N 32 10 11.70	W 103 41 40.62
	9400.00	90.00	180.86	8330.00	4830.10	-1315.77	-1315.77	-19.78	0.00	426037.39	738965.95	N 32 10 10.71	W 103 41 40.65
	9500.00	90.00	180.86	8330.00	4830.10	-1415.76	-1415.76	-21.29	0.00	425937.41	738964.44	N 32 10 9.72	W 103 41 40.67
	9600.00	90.00	180.86	8330.00	4830.10	-1515.75	-1515.75	-22.79	0.00	425837.43	738962.94	N 32 10 8.73	W 103 41 40.70
	9700.00	90.00	180.86	8330.00	4830.10	-1615.74	-1615.74	-24.29	0.00	425737.44	738961.44	N 32 10 7.75	W 103 41 40.72
	9800.00	90.00	180.86	8330.00	4830.10	-1715.72	-1715.72	-25.80	0.00	425637.46	738959.93	N 32 10 6.76	W 103 41 40.75
	9900.00	90.00	180.86	8330.00	4830.10	-1815.71	-1815.71	-27.30	0.00	425537.47	738958.43	N 32 10 5.77	W 103 41 40.77
	10000.00	90.00	180.86	8330.00	4830.10	-1915.70	-1915.70	-28.80	0.00	425437.49	738956.93	N 32 10 4.78	W 103 41 40.80
	10100.00	90.00	180.86	8330.00	4830.10	-2015.69	-2015.69	-30.31	0.00	425337.51	738955.42	N 32 10 3.79	W 103 41 40.82
	10200.00	90.00	180.86	8330.00	4830.10	-2115.68	-2115.68	-31.81	0.00	425237.52	738953.92	N 32 10 2.80	W 103 41 40.84
	10300.00	90.00	180.86	8330.00	4830.10	-2215.67	-2215.67	-33.32	0.00	425137.54	738952.42	N 32 10 1.81	W 103 41 40.87
	10400.00	90.00	180.86	8330.00	4830.10	-2315.66	-2315.66	-34.82	0.00	425037.56	738950.91	N 32 10 0.82	W 103 41 40.89
	10500.00	90.00	180.86	8330.00	4830.10	-2415.64	-2415.64	-36.32	0.00	424937.57	738949.41	N 32 9 59.83	W 103 41 40.92
	10600.00	90.00	180.86	8330.00	4830.10	-2515.63	-2515.63	-37.83	0.00	424837.59	738947.91	N 32 9 58.84	W 103 41 40.94
	10700.00	90.00	180.86	8330.00	4830.10	-2615.62	-2615.62	-39.33	0.00	424737.60	738946.40	N 32 9 57.85	W 103 41 40.97
	10800.00	90.00	180.86	8330.00	4830.10	-2715.61	-2715.61	-40.83	0.00	424637.62	738944.90	N 32 9 56.86	W 103 41 40.99
	10900.00	90.00	180.86	8330.00	4830.10	-2815.60	-2815.60	-42.34	0.00	424537.64	738943.40	N 32 9 55.87	W 103 41 41.01
	11000.00	90.00	180.86	8330.00	4830.10	-2915.59	-2915.59	-43.84	0.00	424437.65	738941.89	N 32 9 54.88	W 103 41 41.04
	11100.00	90.00	180.86	8330.00	4830.10	-3015.58	-3015.58	-45.34	0.00	424337.67	738940.39	N 32 9 53.89	W 103 41 41.06
	11200.00	90.00	180.86	8330.00	4830.10	-3115.57	-3115.57	-46.85	0.00	424237.68	738938.89	N 32 9 52.91	W 103 41 41.09
	11300.00	90.00	180.86	8330.00	4830.10	-3215.55	-3215.55	-48.35	0.00	424137.70	738937.38	N 32 9 51.92	W 103 41 41.11
	11400.00	90.00	180.86	8330.00	4830.10	-3315.54	-3315.54	-49.85	0.00	424037.72	738935.88	N 32 9 50.93	W 103 41 41.14
	11500.00	90.00	180.86	8330.00	4830.10	-3415.53	-3415.53	-51.36	0.00	423937.73	738934.38	N 32 9 49.94	W 103 41 41.16
	11600.00	90.00	180.86	8330.00	4830.10	-3515.52	-3515.52	-52.86	0.00	423837.75	738932.87	N 32 9 48.95	W 103 41 41.19
	11700.00	90.00	180.86	8330.00	4830.10	-3615.51	-3615.51	-54.36	0.00	423737.77	738931.37	N 32 9 47.96	W 103 41 41.21
	11800.00	90.00	180.86	8330.00	4830.10	-3715.50	-3715.50	-55.87	0.00	423637.78	738929.87	N 32 9 46.97	W 103 41 41.23
	11900.00	90.00	180.86	8330.00	4830.10	-3815.49	-3815.49	-57.37	0.00	423537.80	738928.36	N 32 9 45.98	W 103 41 41.26
	12000.00	90.00	180.86	8330.00	4830.10	-3915.48	-3915.48	-58.87	0.00	423437.81	738926.86	N 32 9 44.99	W 103 41 41.28
	12100.00	90.00	180.86	8330.00	4830.10	-4015.46	-4015.46	-60.38	0.00	423337.83	738925.36	N 32 9 44.00	W 103 41 41.31
	12200.00	90.00	180.86	8330.00	4830.10	-4115.45	-4115.45	-61.88	0.00	423237.85	738923.85	N 32 9 43.01	W 103 41 41.33
	12300.00	90.00	180.86	8330.00	4830.10	-4215.44	-4215.44	-63.38	0.00	423137.86	738922.35	N 32 9 42.02	W 103 41 41.36
	12400.00	90.00	180.86	8330.00	4830.10	-4315.43	-4315.43	-64.89	0.00	423037.88	738920.85	N 32 9 41.03	W 103 41 41.38
	12500.00	90.00	180.86	8330.00	4830.10	-4415.42	-4415.42	-66.39	0.00	422937.89	738919.34	N 32 9 40.04	W 103 41 41.40
	12600.00	90.00	180.86	8330.00	4830.10	-4515.41	-4515.41	-67.89	0.00	422837.91	738917.84	N 32 9 39.06	W 103 41 41.43
	12700.00	90.00	180.86	8330.00	4830.10	-4615.40	-4615.40	-69.40	0.00	422737.93	738916.34	N 32 9 38.07	W 103 41 41.45
	12800.00	90.00	180.86	8330.00	4830.10	-4715.38	-4715.38	-70.90	0.00	422637.94	738914.83	N 32 9 37.08	W 103 41 41.48
	12900.00	90.00	180.86	8330.00	4830.10	-4815.37	-4815.37	-72.41	0.00	422537.96	738913.33	N 32 9 36.09	W 103 41 41.50
	13000.00	90.00	180.86	8330.00	4830.10	-4915.36	-4915.36	-73.91	0.00	422437.97	738911.82	N 32 9 35.10	W 103 41 41.53
	13100.00	90.00	180.86	8330.00	4830.10	-5015.35	-5015.35	-75.41	0.00	422337.99	738910.32	N 32 9 34.11	W 103 41 41.55
	13200.00	90.00	180.86	8330.00	4830.10	-5115.34	-5115.34	-76.92	0.00	422238.01	738908.82	N 32 9 33.12	W 103 41 41.58
	13300.00	90.00	180.86	8330.00	4830.10	-5215.33	-5215.33	-78.42	0.00	422138.02	738907.31	N 32 9 32.13	W 103 41 41.60
	13400.00	90.00	180.86	8330.00	4830.10	-5315.32	-5315.32	-79.92	0.00	422038.04	738905.81	N 32 9 31.14	W 103 41 41.62
	13500.00	90.00	180.86	8330.00	4830.10	-5415.31	-5415.31	-81.43	0.00	421938.06	738904.31	N 32 9 30.15	W 103 41 41.65
	13600.00	90.00	180.86	8330.00	4830.10	-5515.29	-5515.29	-82.93	0.00	421838.07	738902.80	N 32 9 29.16	W 103 41 41.67
	13700.00	90.00	180.86	8330.00	4830.10	-5615.28	-5615.28	-84.43	0.00	421738.09	738901.30	N 32 9 28.17	W 103 41 41.70
	13800.00	90.00	180.86	8330.00	4830.10	-5715.27	-5715.27	-85.94	0.00	421638.10	738899.80	N 32 9 27.18	W 103 41 41.72
	13900.00	90.00	180.86	8330.00	4830.10	-5815.26	-5815.26	-87.44	0.00	421538.12	738898.29	N 32 9 26.19	W 103 41 41.75
	14000.00	90.00	180.86	8330.00	4830.10	-5915.25	-5915.25	-88.94	0.00	421438.14	738896.79	N 32 9 25.20	W 103 41 41.77
	14100.00	90.00	180.86	8330.00	4830.10	-6015.24	-6015.24	-90.45	0.00	421338.15	738895.29	N 32 9 24.22	W 103 41 41.80
	14200.00	90.00	180.86	8330.00	4830.10	-6115.23	-6115.23	-91.95	0.00	421238.17	738893.78	N 32 9 23.23	W 103 41 41.82
	14300.00	90.00	180.86	8330.00	4830.10	-6215.22	-6215.22	-93.45	0.00	421138.18	738892.28	N 32 9 22.24	W 103 41 41.84
	14400.00	90.00	180.86	8330.00	4830.10	-6315.20	-6315.20	-94.96	0.00	421038.20	738890.78	N 32 9 21.25	W 103 41 41.87
	14500.00	90.00	180.86	8330.00	4830.10	-6415.19	-6415.19	-96.46	0.00	420938.22	738889.27	N 32 9 20.26	W 103 41 41.89
	14600.00	90.00	180.86	8330.00	4830.10	-6515.18	-6515.18	-97.96	0.00	420838.23	738887.77	N 32 9 19.27	W 103 41 41.92
	14700.00	90.00	180.86	8330.00	4830.10	-6615.17	-6615.17	-99.47	0.00	420738.25	738886.27	N 32 9 18.28	W 103 41 41.94
	14800.00	90.00	180.86	8330.00	4830.10	-6715.16	-6715.16	-100.97	0.00	420638.26	738884.76	N 32 9 17.29	W 103 41 41.97
	14900.00	90.00	180.86	8330.00	4830.10	-6815.15	-6815.15	-102.47	0.00	420538.28	738883.26	N 32 9 16.30	W 103 41 41.99
	15000.00	90.00	180.86	8330.00	4830.10	-6915.14	-6915.14	-103.98	0.00	4			

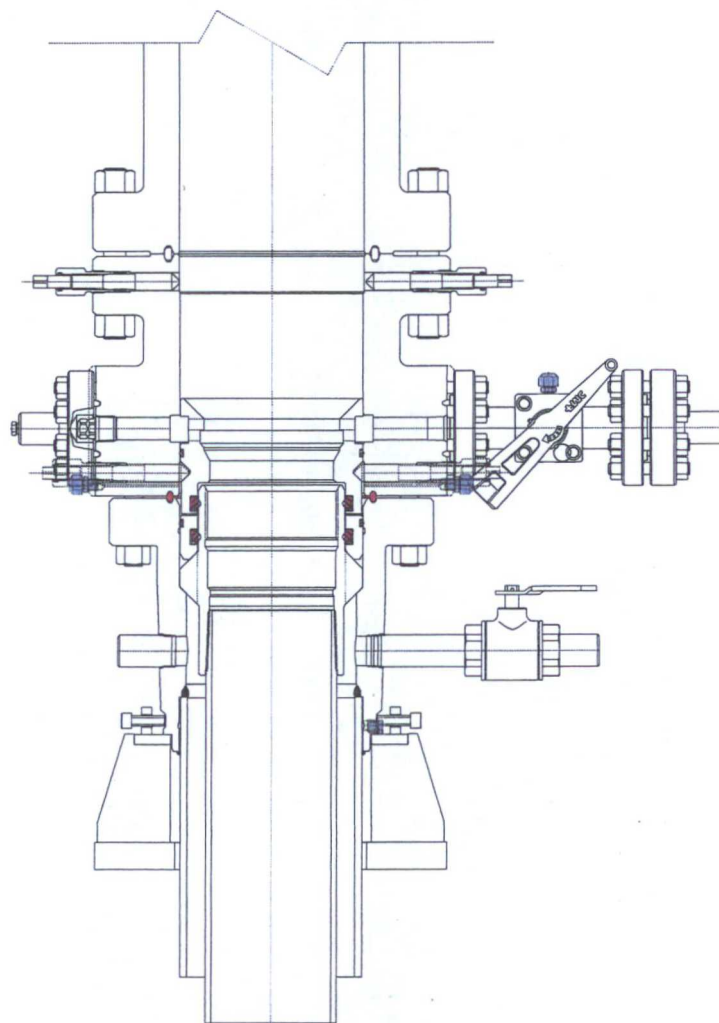
13-5/8" 3M BOPE & Closed Loop Equipment Schematic



NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, L.P.
COTTON DRAW 32 STATE FED COM 5H

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



PRIMARY MODE

DEVON ENERGY

ARTESIA

S.E.N.M

13 3/8 X 9 5/8

QUOTE LAYOUT
F18648
REF: DM100161737
DM100151315

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REVISIONS

A	05-08-13
B	1-22-14
C	5-13-14

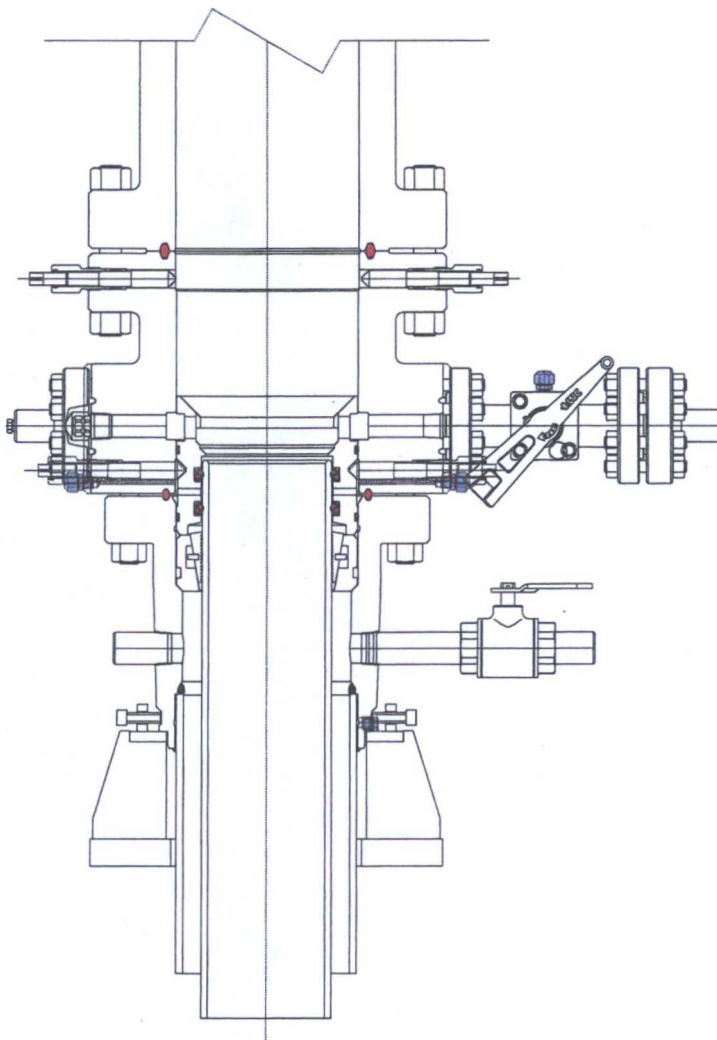
DESCRIPTION

SURFACE WELLHEAD LAYOUT
UNIHEAD, UH-1, SOW,
DEVON ENERGY, ODESSA

DRAWN BY	K. VU	05-08-13
DRAFTING REVIEW	Z. MARQUEZ	05-08-13
DESIGN REVIEW	K. TAHA	05-08-13
APPROVED BY	R. HAMILTON	05-08-13

FMC Technologies

DRAWING NUMBER
DM100161771-2A



CONTINGENCY MODE

DEVON ENERGY
ARTESIA
S.E.N.M
13 3/8 X 9 5/8

QUOTE LAYOUT
F18648
REF: DM100161737
DM100151315

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	A	05-08-13	SURFACE WELLHEAD LAYOUT UNIHEAD, UH-1, SOW, DEVON ENERGY, ODESSA	05-08-13	
	B	1-22-14		05-08-13	
	C	5-13-14		05-08-13	
				05-08-13	

DRAWN BY
K. VU
 DRAFTING REVIEW
Z. MARQUEZ
 DESIGN REVIEW
K. TAHA
 APPROVED BY
R. HAMILTON



Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

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

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

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

Best regards,

Robin Hodgson
Sales Manager
ContiTech Beattie Corp

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





QUALITY DOCUMENT

• 6728 Szeged, Budapesti út 10. Hungary • H-6701 Szeged, P. O. Box 152
phone: (3662) 556-737 • Fax: (3662) 556-738

SALES & MARKETING: H-1092 Budapest, Ráday u. 42-44. Hungary • H-1440 Budapest, P. O. Box 26
Phone: (361) 456-4200 • Fax: (361) 217-2972, 456-4273 • www.taurusemerge.hu

**PHOENIX RUBBER
INDUSTRIAL LTD. ■**

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

40920-0-00015 N800C

8	GN	+0.000	°C	14:00		
	RD	+0.000	°C	14:00		
	DL	+1014	gpa	14:00		
7	GN	+0.000	°C	13:40	40	60
	RD	+0.000	°C	13:40		
	DL	+1017	gpa	13:40		
6	GN	+0.000	°C	13:20		
	RD	+0.000	°C	13:20		
	DL	+1050	gpa	13:20		
5	GN	+0.000	°C	13:00		
	RD	+0.000	°C	13:00		
	DL	+1055	gpa	13:00		
4						
3						
2						

GEMIX RUBBER
Industrial Ltd.
Hose Inspection and
Certification Dept.

VERIFIED TRUE CO.
PHOENIX RUBBER CO.

COTTON DRAW 32 STATE FED COM 5H

