

Well Name: OZZY FEDERAL COM 18C	Well Location: T17S / R28E / SEC 13 / NESE /	County or Parish/State:
Well Number: 002H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM14847	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001548311	Well Status: Approved Application for Permit to Drill	Operator: LONGFELLOW ENERGY LP

Notice of Intent

Type of Submission: Notice of Intent

Date Sundry Submitted: 06/04/2021

Date proposed operation will begin: 06/11/2021

Type of Action Other

Time Sundry Submitted: 11:22

Procedure Description: Request to move SHL from 1590 S 675 E to 1615 S 765 E. See attachment for revised C102, Horizontal Plan, and Anti-Collision Report.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Ozzy_18C_002H_Sundry_Attachment_20210604102514.pdf

Well Name: OZZY FEDERAL COM 18C	Well Location: T17S / R28E / SEC 13 / NESE /	County or Parish/State:
Well Number: 002H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM14847	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001548311	Well Status: Approved Application for Permit to Drill	Operator: LONGFELLOW ENERGY LP

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: BRIAN WOOD	Signed on: JUN 04, 2021 10:25 AM
Name: LONGFELLOW ENERGY LP	
Title: President	
Street Address: 37 VERANO LOOP	
City: SANTA FE	State: NM
Phone: (505) 466-8120	
Email address: AFMSS@PERMITSWEST.COM	

Field Representative

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Approved	Disposition Date: 07/08/2021
Signature: Chris Walls	

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

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

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-48311	² Pool Code 96210	³ Pool Name EMPIRE; GLORIETA-YESO
⁴ Property Code 330802	⁵ Property Name OZZY FEDERAL COM 18C	
⁷ OGRID No. 372210	⁸ Operator Name LONGFELLOW ENERGY, LP	
	⁶ Well Number 002H	
	⁹ Elevation 3698.5	

¹⁰ Surface Location

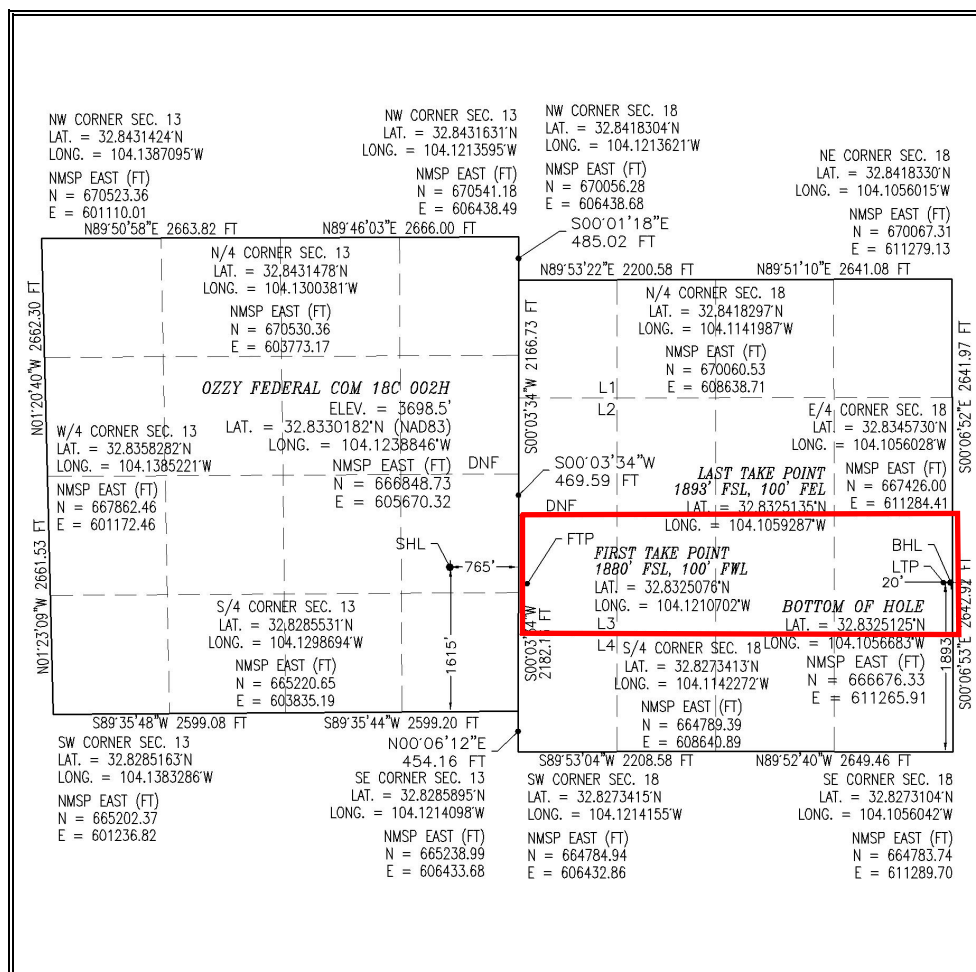
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	13	17 S	28 E		1615	SOUTH	765	EAST	EDDY

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
I	18	17 S	29 E		1893	SOUTH	20	EAST	EDDY

¹² Dedicated Acres 146.92	¹³ Joint or Infill	¹⁴ Consolidation Code C	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.

Signature Cory Walk Date 6/4/2021

Cory Walk

Printed Name _____

corv@permitswest.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.

MAY 26, 2021

Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number: FILE NO. E. JARAMILLO, DLS 12797

SURVEY NO. 8390A

Intent ☐ As Drilled ☐API #

Operator Name:	Property Name:	Well Number
LONGFELLOW ENERGY, LP	OZZY FEDERAL COM 18C	002H

Kick Off Point (KOP)

UL I	Section 13	Township 17S	Range 28E	Lot	Feet 1615	From N/S SOUTH	Feet 765	From E/W EAST	County EDDY
Latitude 32.8330182					Longitude 104.1238846			NAD 83	

First Take Point (FTP)

UL I	Section 18	Township 17S	Range 29E	Lot 3	Feet 1880	From N/S SOUTH	Feet 100	From E/W WEST	County EDDY
Latitude 32.8325076					Longitude 104.1210702			NAD 83	

Last Take Point (LTP)

UL I	Section 18	Township 17S	Range 29E	Lot	Feet 1893	From N/S SOUTH	Feet 100	From E/W EAST	County EDDY
Latitude 32.8325135					Longitude 104.1059287			NAD 83	

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

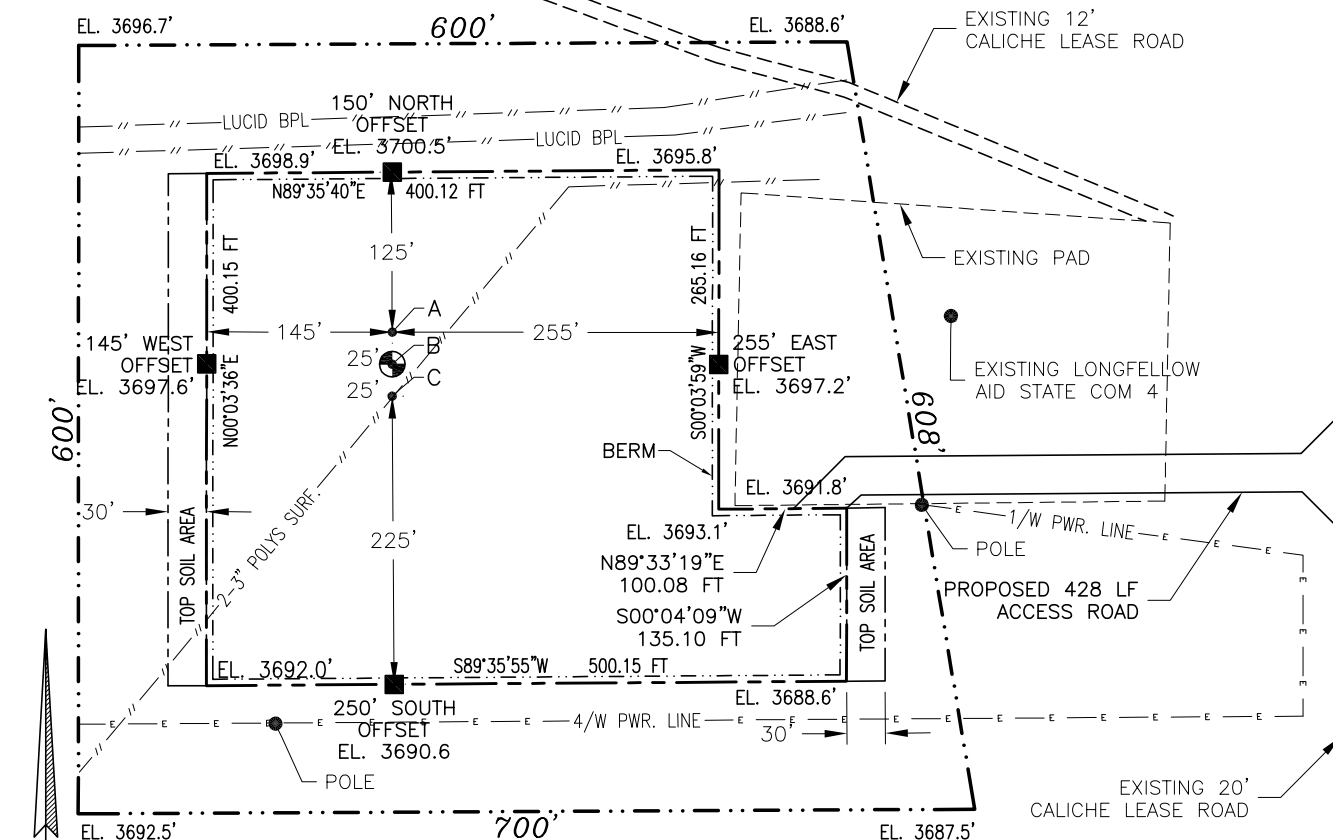
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

SECTION 13, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83) LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. VERTICAL DATUM NAVD88.

SEC. 13
SEC. 18



OZZY FEDERAL COM 18C 002H

ELEV. = 3698.5'

3.986± ACRES

LAT. = 32.8330182°N (NAD83)

LONG. = 104.1238846°W

NMSP EAST (FT)

N = 666848.73

E = 605670.32

- A - OZZY FEDERAL COM 18C 001H
- B - OZZY FEDERAL COM 18C 002H
- C - OZZY FEDERAL COM 18C 003H

015 75 150 300

SCALE 1" = 150'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HIGHWAY 82 AND CR. 211 (OLD LOCO ROAD) GO WEST ON STATE HIGHWAY 82 1.1 MILES, TURN RIGHT ON CALICHE ROAD GO NORTH 0.3 OF A MILE, TURN RIGHT GO NORTH-NORTHEAST 0.31 OF A MILE, TURN LEFT GO NORTHWEST 0.71 OF A MILE, TURN RIGHT GO NORTH 0.60 OF A MILE, TURN LEFT TO PROPOSED ACCESS ROAD FOLLOW FLAGS WEST ABOUT 20' NORTH OF EXISTING SOUTH EDGE OF PAD 428' TO THE PROPOSED PAD FOR THIS LOCATION.

I, FILMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I HAVE DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT I HAVE COMPLIED WITH THE MINIMUM STANDARDS FOR SURVEYING.

FILMON F. JARAMILLO, S. 12797

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

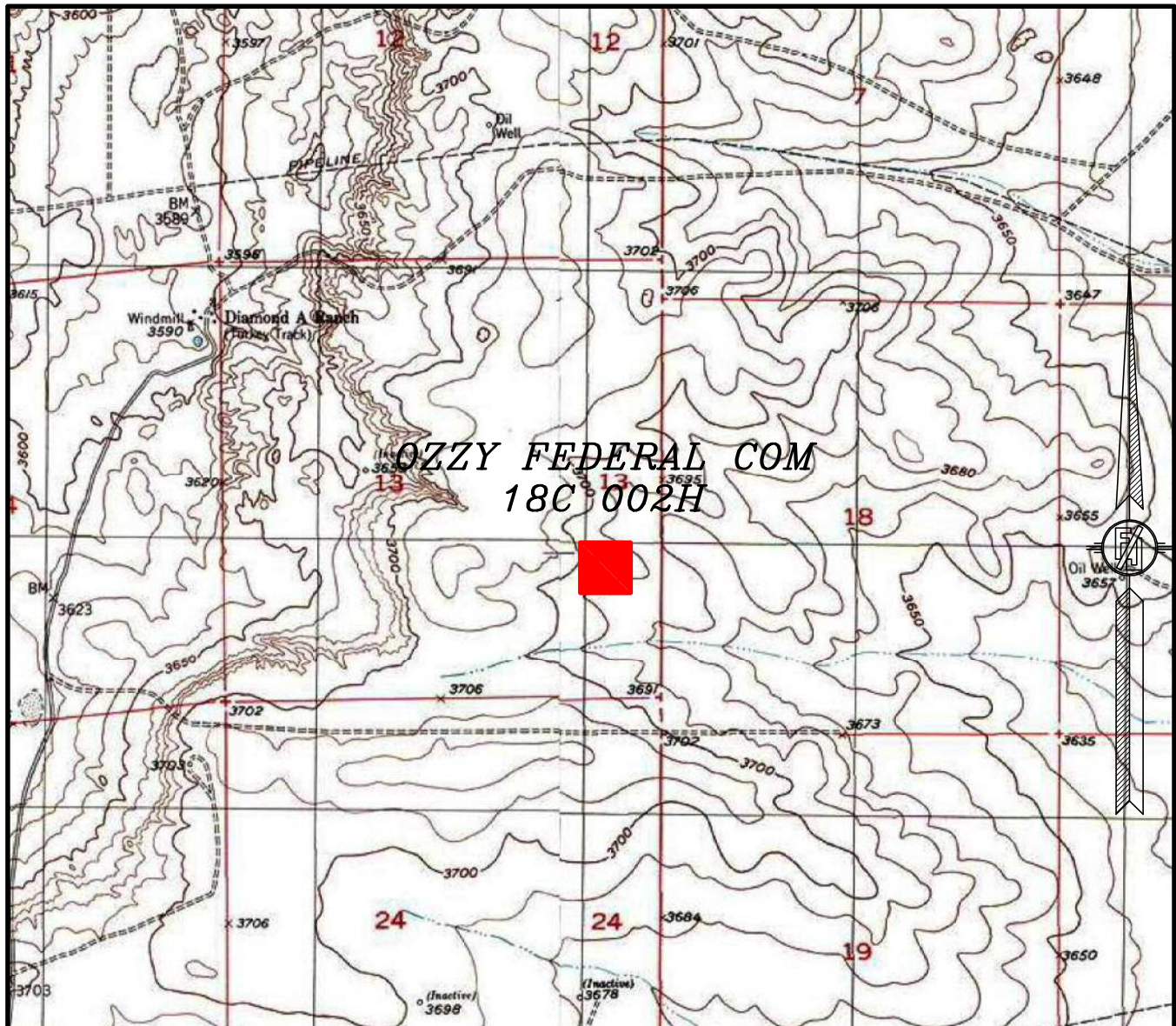
CARLSBAD, NEW MEXICO

LONGFELLOW ENERGY, LP
OZZY FEDERAL COM 18C 002H
LOCATED 1615 FT. FROM THE SOUTH LINE
AND 765 FT. FROM THE EAST LINE OF
SECTION 13, TOWNSHIP 17 SOUTH,
RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 26, 2021

SURVEY NO. 8390A

SECTION 13, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 LOCATION VERIFICATION MAP



USGS QUAD MAP:
 RED LAKE

NOT TO SCALE

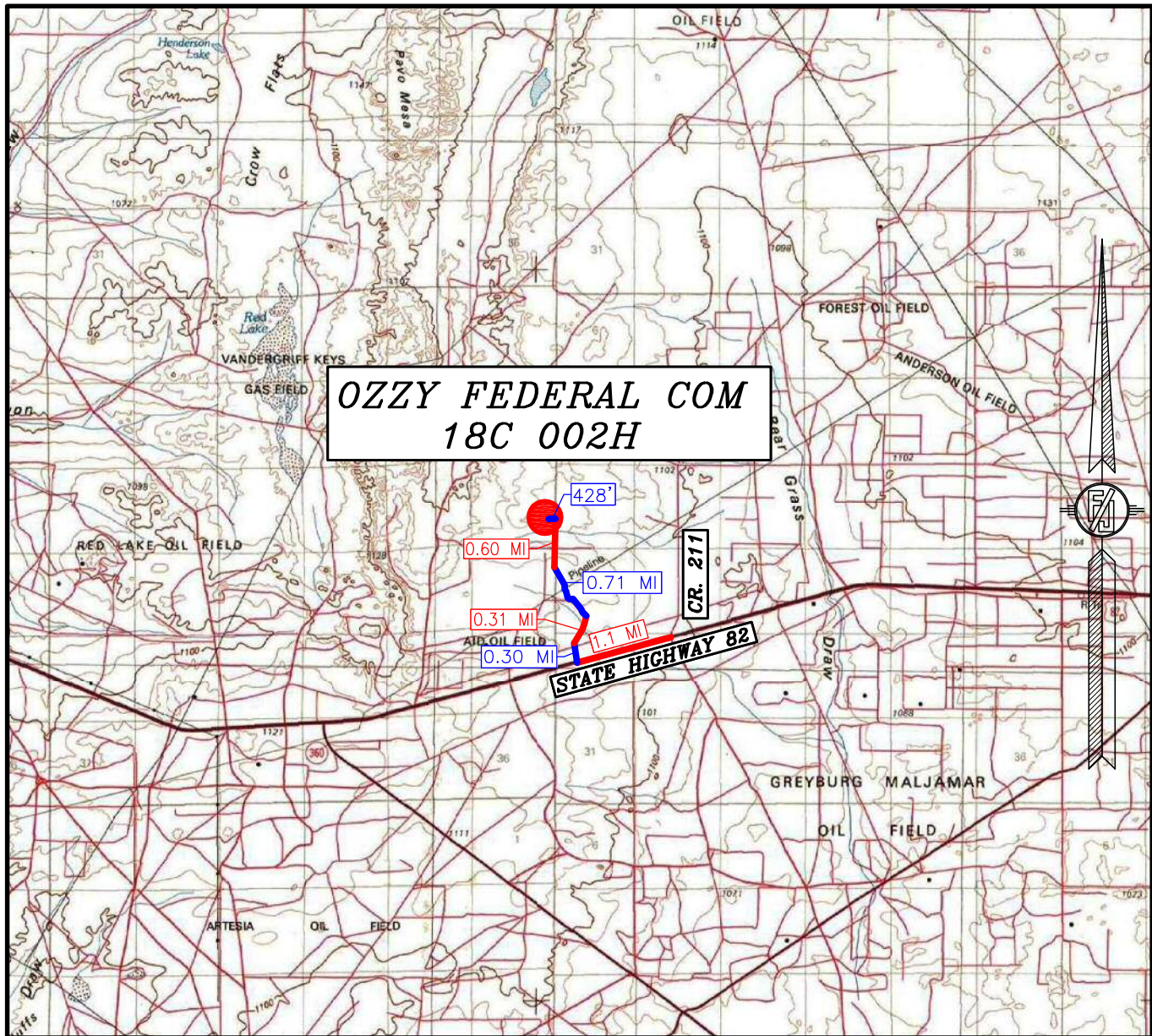
LONGFELLOW ENERGY, LP
OZZY FEDERAL COM 18C 002H
 LOCATED 1615 FT. FROM THE SOUTH LINE
 AND 765 FT. FROM THE EAST LINE OF
 SECTION 13, TOWNSHIP 17 SOUTH,
 RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

MAY 26, 2021

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

SURVEY NO. 8390A
 CARLSBAD, NEW MEXICO

SECTION 13, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

LONGFELLOW ENERGY, LP
OZZY FEDERAL COM 18C 002H
LOCATED 1615 FT. FROM THE SOUTH LINE
AND 765 FT. FROM THE EAST LINE OF
SECTION 13, TOWNSHIP 17 SOUTH,
RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

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FROM THE INTERSECTION OF STATE HIGHWAY 82 AND CR. 211 (OLD LOCO ROAD) GO WEST ON STATE HIGHWAY 82 1.1 MILES, TURN RIGHT ON CALICHE ROAD GO NORTH 0.3 OF A MILE, TURN RIGHT GO NORTH-NORTHEAST 0.31 OF A MILE, TURN LEFT GO NORTHWEST 0.71 OF A MILE, TURN RIGHT GO NORTH 0.60 OF A MILE, TURN LEFT TO PROPOSED ACCESS ROAD FOLLOW FLAGS WEST ABOUT 20' NORTH OF EXISTING SOUTH EDGE OF PAD 428' TO THE PROPOSED PAD FOR THIS LOCATION.

MAY 26, 2021

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

SURVEY NO. 8390A
CARLSBAD, NEW MEXICO

SECTION 13, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 AERIAL PHOTO



NOT TO SCALE
 AERIAL PHOTO:
 GOOGLE EARTH
 DECEMBER 2019

LONGFELLOW ENERGY, LP
OZZY FEDERAL COM 18C 002H
 LOCATED 1615 FT. FROM THE SOUTH LINE
 AND 765 FT. FROM THE EAST LINE OF
 SECTION 13, TOWNSHIP 17 SOUTH,
 RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

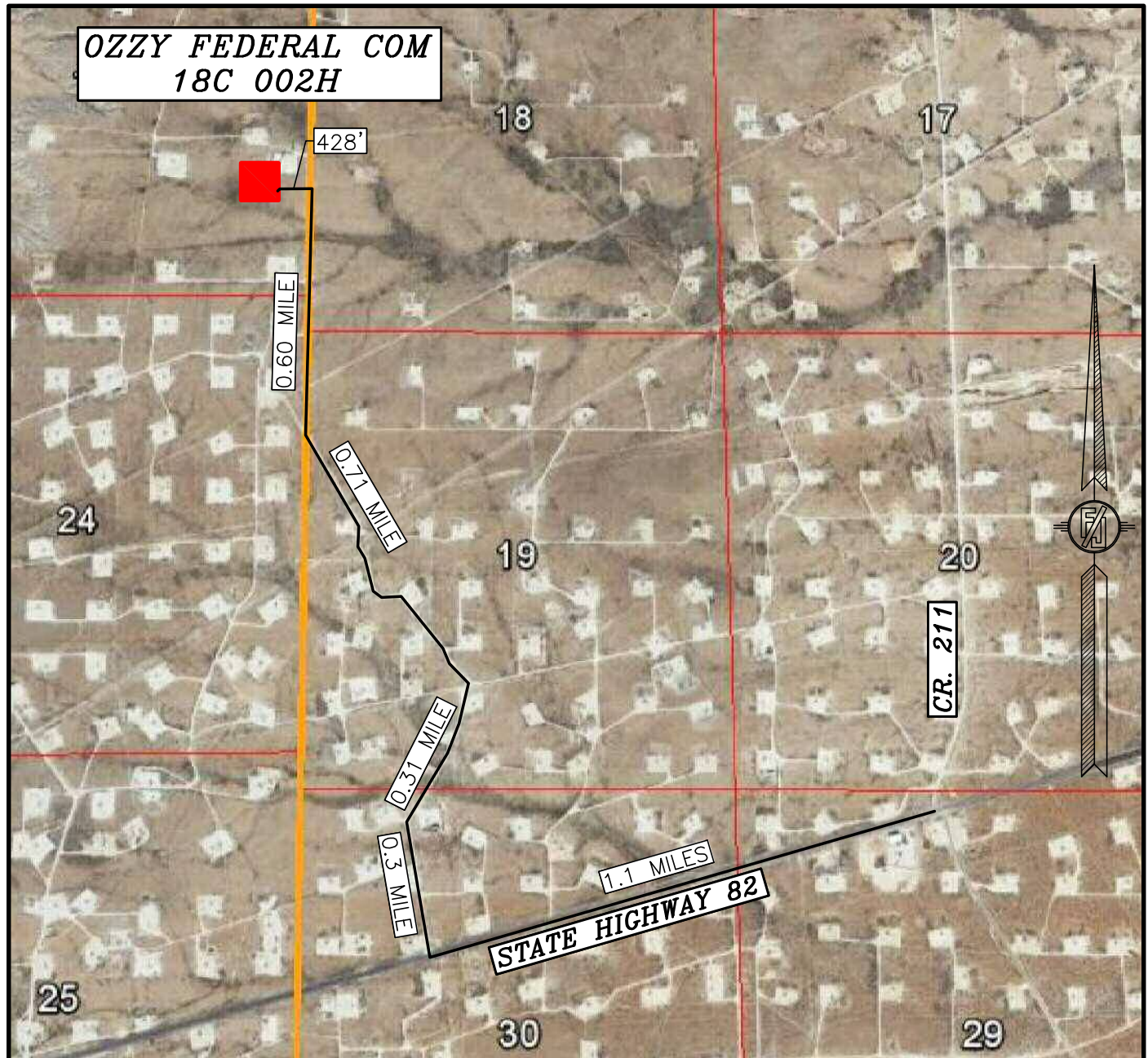
MAY 26, 2021

SURVEY NO. 8390A

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

CARLSBAD, NEW MEXICO

SECTION 13, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 ACCESS AERIAL ROUTE MAP



NOT TO SCALE
 AERIAL PHOTO:
 GOOGLE EARTH
 DECEMBER 2019

LONGFELLOW ENERGY, LP
OZZY FEDERAL COM 18C 002H
 LOCATED 1615 FT. FROM THE SOUTH LINE
 AND 765 FT. FROM THE EAST LINE OF
 SECTION 13, TOWNSHIP 17 SOUTH,
 RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

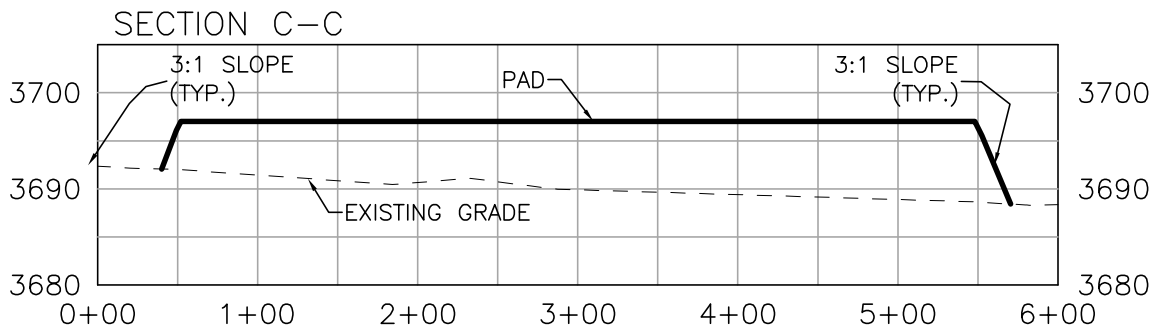
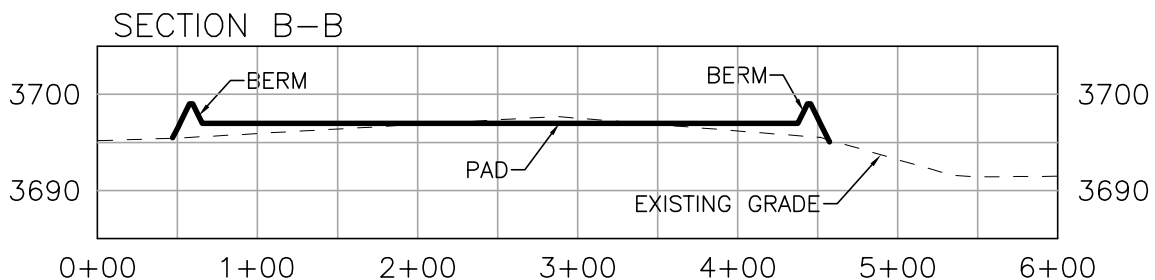
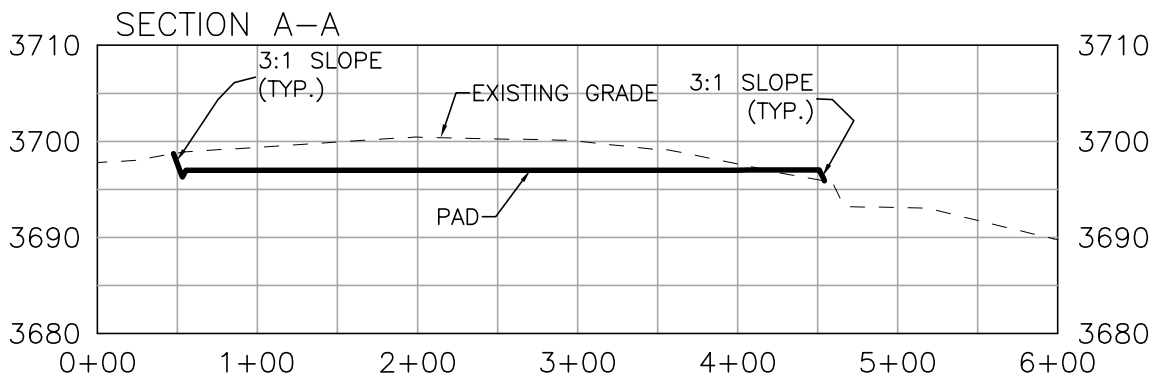
MAY 26, 2021

SURVEY NO. 8390A

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



CROSS-SECTIONS



I, FILIMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

LONGFELLOW ENERGY, LP
GRADING PLAN AND CROSS SECTIONS
FOR OZZY FEDERAL COM 18C 002H
 SECTION 13, TOWNSHIP 17 SOUTH,
 RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

012 60 120 240
 SCALE 1" = 120' - 1" = 20' VER

CUT	FILL	NET
4593 CU. YD	17227 CU. YD	12634 CU. YD (FILL)

EARTHWORK QUANTITIES ARE ESTIMATED

MAY 26, 2021

301 SOUTH CANAL
 (575) 234-3341

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

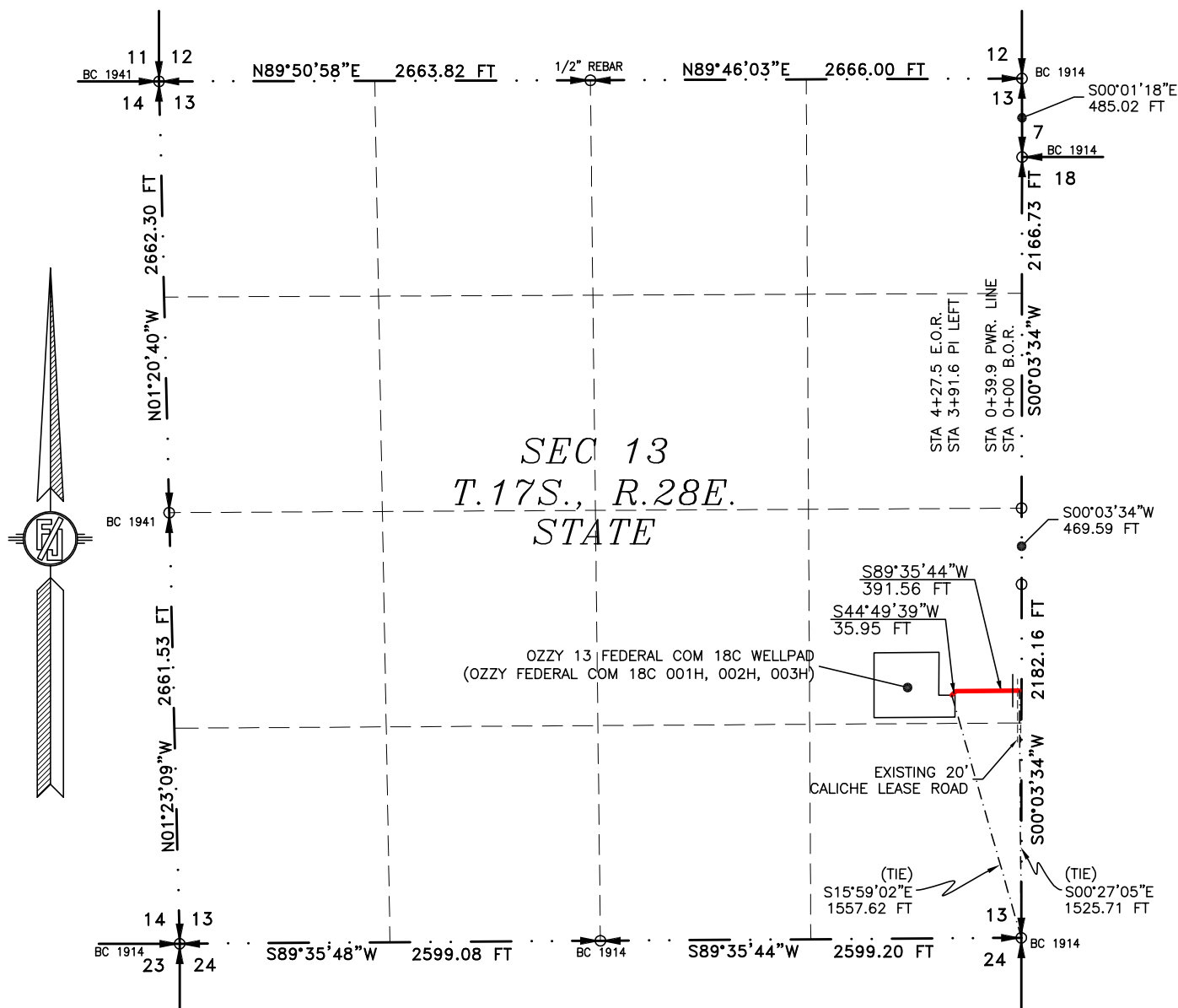
SHEET 2-2
 SURVEY NO. 8390A



ACCESS ROAD PLAT

ACCESS ROAD TO OZZY 13 FEDERAL COM 18C WELLPAD (OZZY FEDERAL COM 18C 001H, 002H, 003H)

LONGFELLOW ENERGY, LP
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 13, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MAY 26, 2021



SEE NEXT SHEET (2-2) FOR DESCRIPTION

**GENERAL NOTES**

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-2

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

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 26th DAY OF MAY 2021

FILIMON F. JARAMILLO PLS. 12797

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

SURVEY NO. 8390A

ACCESS ROAD PLAT

ACCESS ROAD TO OZZY 13 FEDERAL COM 18C WELLPAD (OZZY FEDERAL COM 18C 001H, 002H, 003H)

LONGFELLOW ENERGY, LP
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 13, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MAY 26, 2021

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 13, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NE/4 SE/4 OF SAID SECTION 13, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M., WHENCE THE SOUTHEAST CORNER OF SAID SECTION 13, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS S00°27'05"E, A DISTANCE OF 1525.71 FEET;

THENCE S89°35'44"W A DISTANCE OF 391.56 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;

THENCE S44°49'39"W A DISTANCE OF 35.95 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTHEAST CORNER OF SAID SECTION 13, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS S15°59'02"E, A DISTANCE OF 1557.62 FEET;

SAID STRIP OF LAND BEING 427.51 FEET OR 25.91 RODS IN LENGTH, CONTAINING 0.294 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 SE/4 427.51 L.F. 25.91 RODS 0.294 ACRES

GENERAL NOTES

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

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 2-2

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

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 26th DAY OF MAY 2021

FILIMON F. JARAMILLO PLS. 12797

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

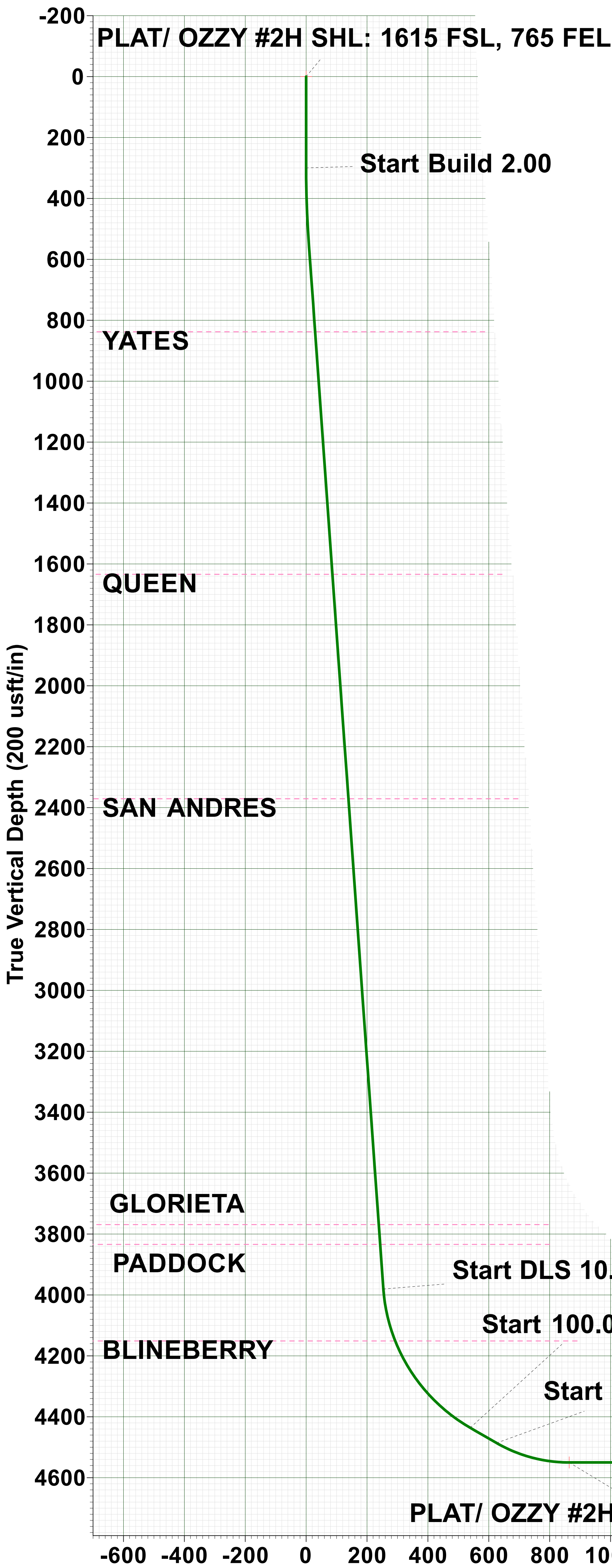
SURVEY NO. 8390A



Company: Longfellow Energy
Project: Eddy Co., NM (Nad-83)
Site: OZZY FED COM 18C
Well: 002H
Wellbore: Wellbore #1
Rig:
Design: Plan #2 / 19:44, June 03 2021

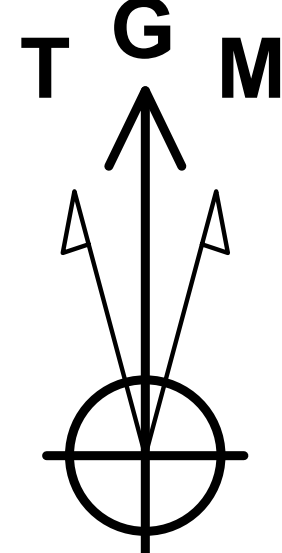


DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PLAT/ OZZY #2H SHL: 1615 FSL, 765 FEL	0.00	0.00	0.00	666848.73	605670.32	32.833018	-104.123885
PLAT/ OZZY #2H BHL: 1893 FSL, 20 FEL	4550.00	-172.40	5595.59	666676.33	611265.91	32.832513	-104.105668
PLAT/ OZZY #2H FTP: 1880 FSL, 100 FWL	4550.00	-184.05	864.82	666664.68	606535.14	32.832508	-104.121070
PLAT/ OZZY #2H LTP: 1893 FSL, 100 FEL	4550.00	-172.23	5515.61	666676.50	611185.93	32.832513	-104.105929



WELL DETAILS: 002H						
EST RKB @ 3715.70usft 3698.70						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	666848.73	605670.32	32.833018	-104.123885	

SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	
3	546.06	4.92	123.92	545.76	-5.89	8.76	2.00	8.75	
4	3993.54	4.92	123.92	3980.52	-170.93	254.18	0.00	253.76	
5	4553.18	60.00	89.86	4436.03	-184.85	539.48	10.00	539.03	
6	4653.18	60.00	89.86	4486.03	-184.64	626.09	0.00	625.63	
7	4903.18	90.00	89.86	4550.00	-184.05	864.82	12.00	864.37	
8	9553.99	90.00	89.86	4550.00	-172.60	5515.61	0.00	5515.17	
9	9633.97	90.00	89.86	4550.00	-172.40	5595.59	0.00	5595.15	



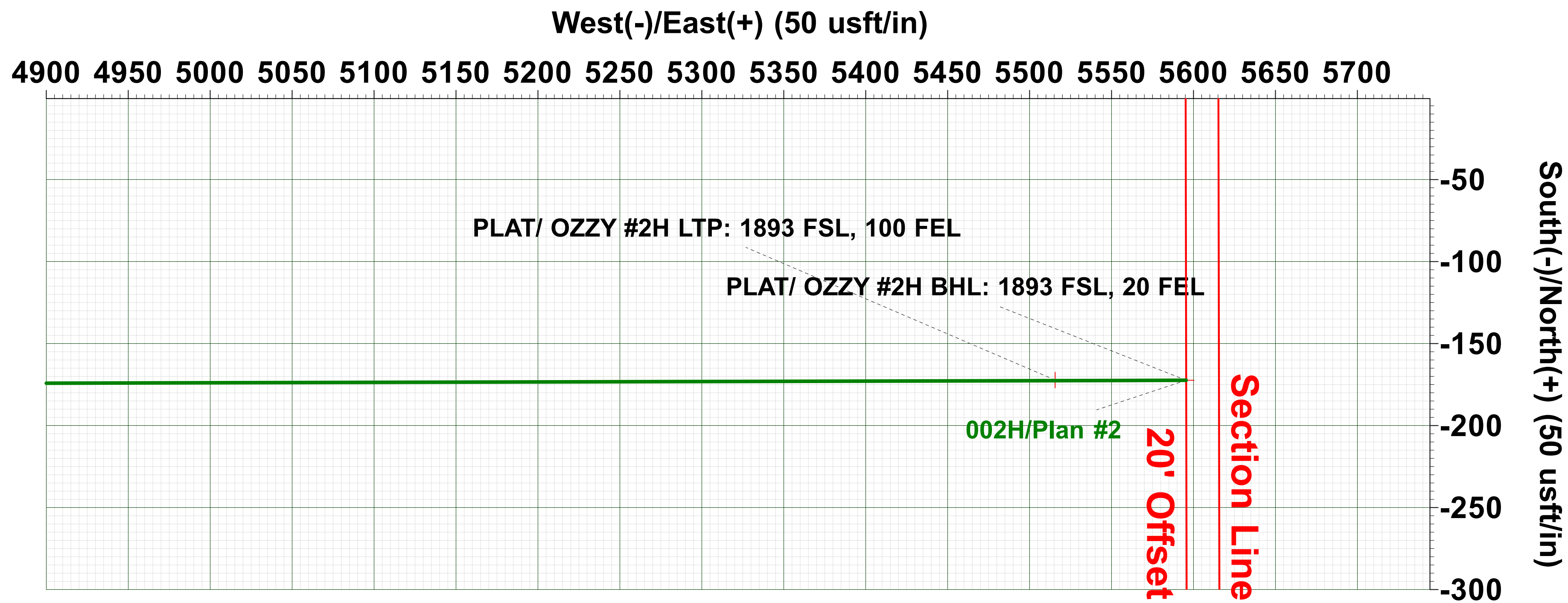
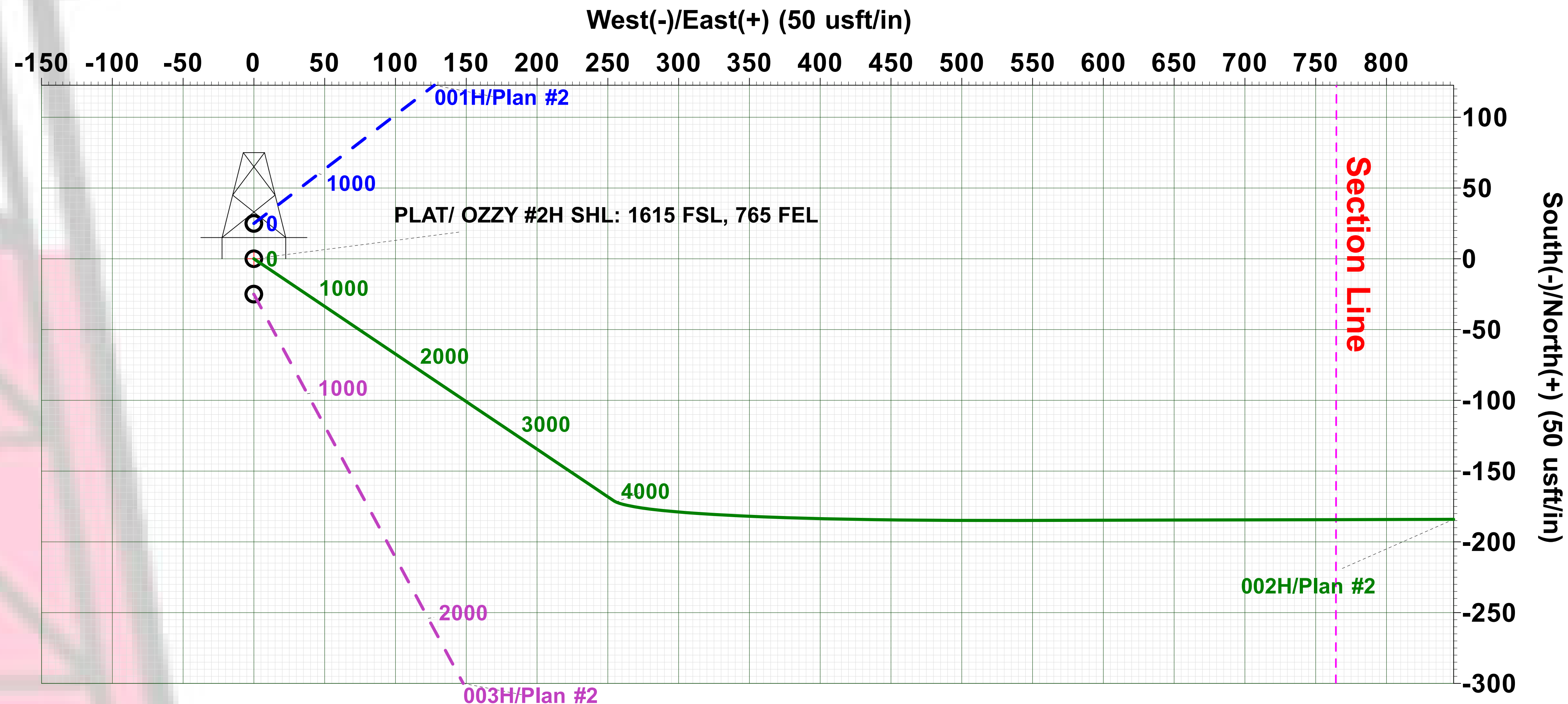
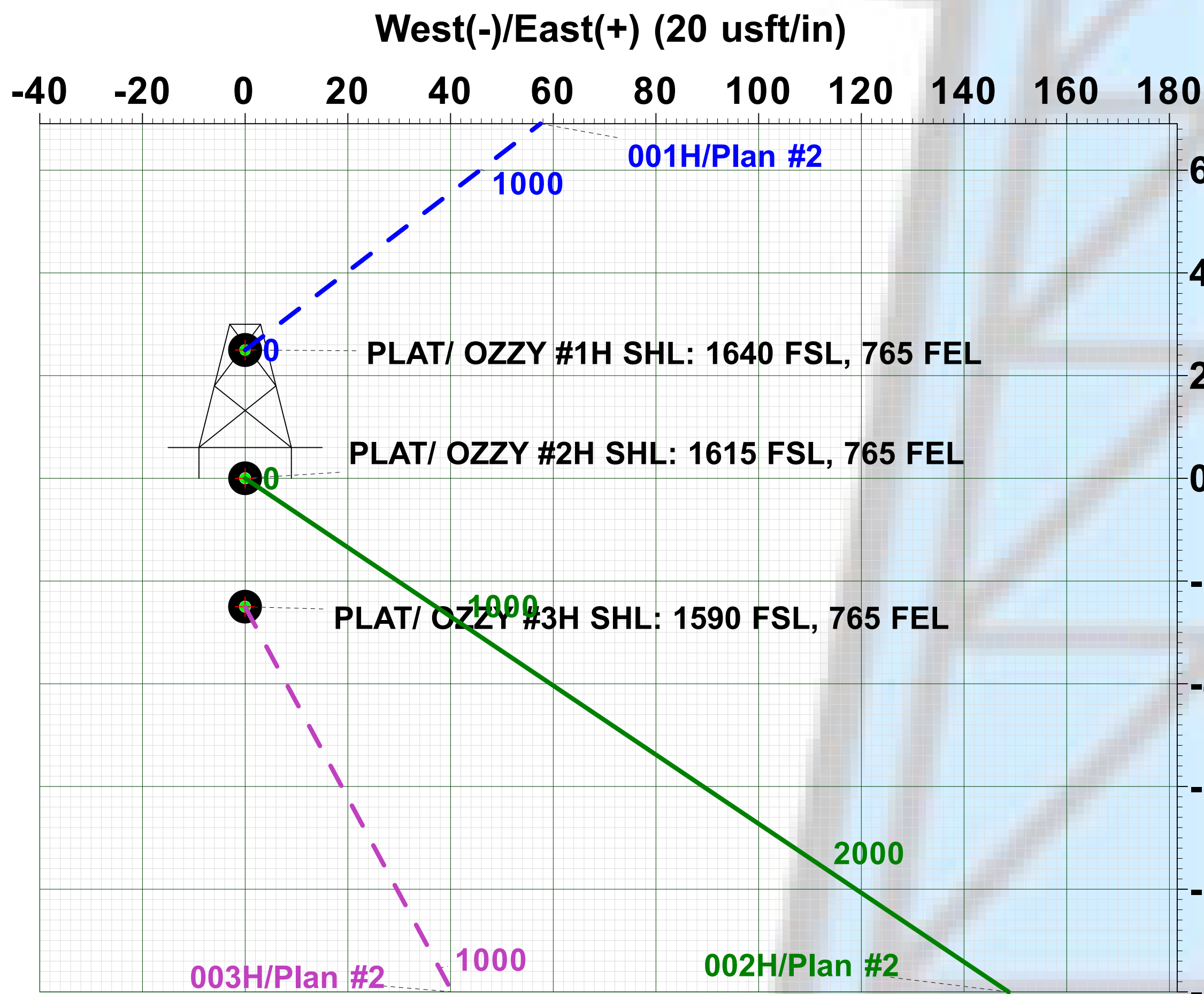
Azimuths to Grid North
True North: -0.11°
Magnetic North: 6.74°

Magnetic Field
Strength: 47797.8snT
Dip Angle: 60.37°
Date: 6/2/2021
Model: IGRF2020

PROJECT DETAILS: Eddy Co., NM (Nad-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

CORRECTION REFERENCE DATA:

To convert a Magnetic Direction to a Grid Direction, Add 6.741°
To convert a True Direction to a Grid Direction, Subtract 0.114°
To convert a Magnetic Direction to a True Direction, Add 6.854° East
Magnetic Declination: 6.854°
Grid Convergence: 0.114° West
Magnetic Dip Angle: 60.372°
Magnetic Field Strength: 47797.83631567nT



Disclaimer:

All Plan Details, boundary lines and offset well location/ survey data is provided by customer and subject to customer approval.

Plan: Plan #2 (002H/Wellbore #1)

Created By: Matthew May Date: 19:44, June 03 2021



Longfellow Energy

Eddy Co., NM (Nad-83)

OZZY FED COM 18C

002H

Wellbore #1

Plan: Plan #2

Standard Planning Report

03 June, 2021

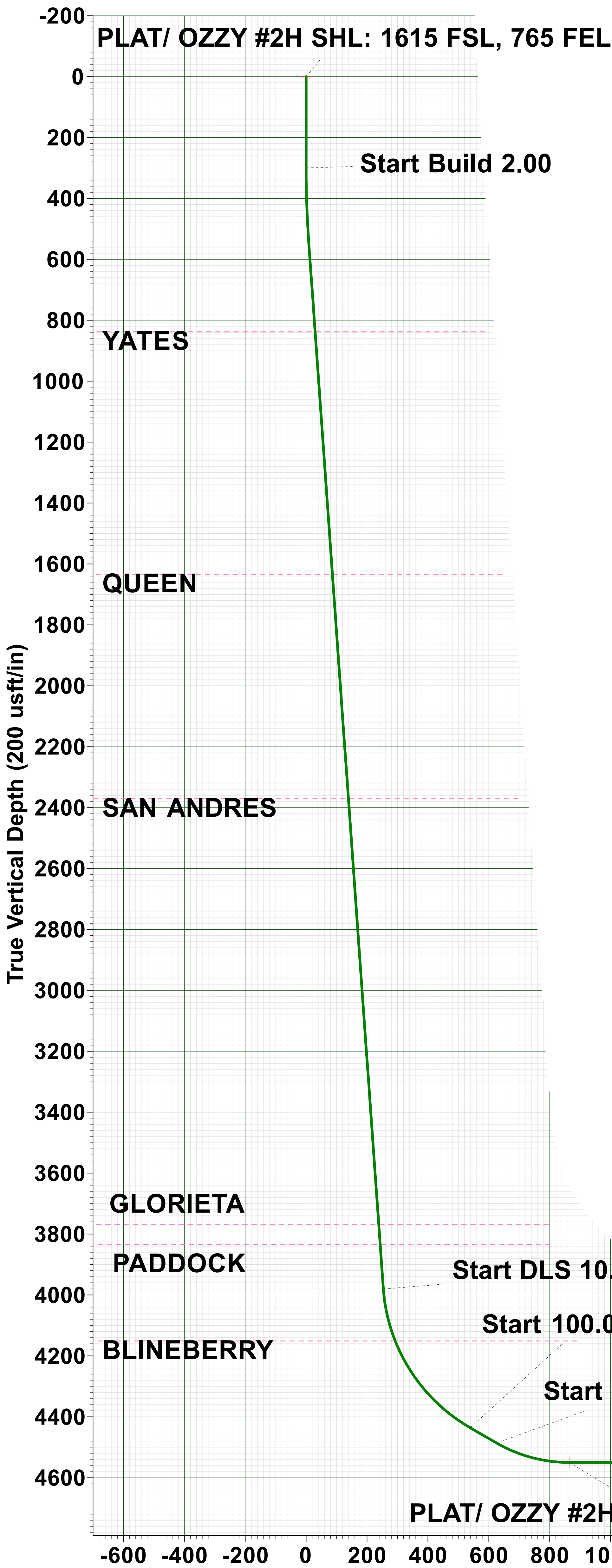




Company: Longfellow Energy
Project: Eddy Co., NM (Nad-83)
Site: OZZY FED COM 18C
Well: 002H
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Rig:
Design: Plan #2 / 19:44, June 03 2021

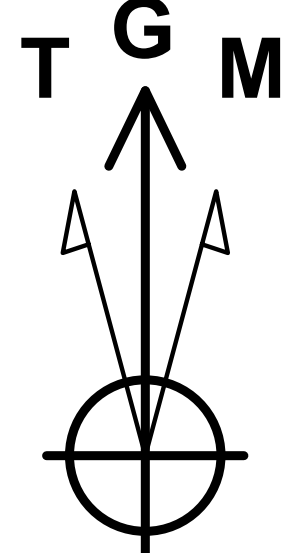


DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PLAT/ OZZY #2H SHL: 1615 FSL, 765 FEL	0.00	0.00	0.00	666848.73	605670.32	32.833018	-104.123885
PLAT/ OZZY #2H BHL: 1893 FSL, 20 FEL	4550.00	-172.40	5595.59	666676.33	611265.91	32.832513	-104.105668
PLAT/ OZZY #2H FTP: 1880 FSL, 100 FWL	4550.00	-184.05	864.82	666664.68	606535.14	32.832508	-104.121070
PLAT/ OZZY #2H LTP: 1893 FSL, 100 FEL	4550.00	-172.23	5515.61	666676.50	611185.93	32.832513	-104.105929



WELL DETAILS: 002H						
EST RKB @ 3715.70usft 3698.70						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	666848.73	605670.32	32.833018	-104.123885	

SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	
3	546.06	4.92	123.92	545.76	-5.89	8.76	2.00	8.75	
4	3993.54	4.92	123.92	3980.52	-170.93	254.18	0.00	253.76	
5	4553.18	60.00	89.86	4436.03	-184.85	539.48	10.00	539.03	
6	4653.18	60.00	89.86	4486.03	-184.64	626.09	0.00	625.63	
7	4903.18	90.00	89.86	4550.00	-184.05	864.82	12.00	864.37	
8	9553.99	90.00	89.86	4550.00	-172.60	5515.61	0.00	5515.17	
9	9633.97	90.00	89.86	4550.00	-172.40	5595.59	0.00	5595.15	



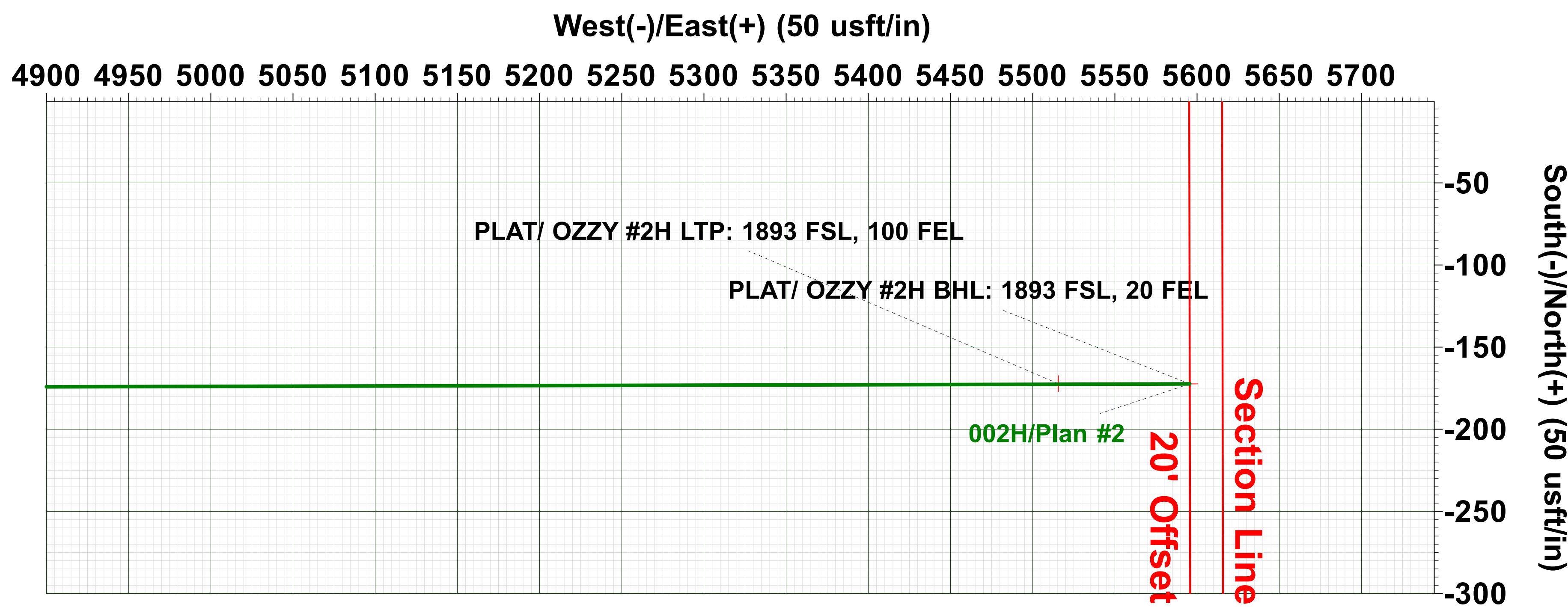
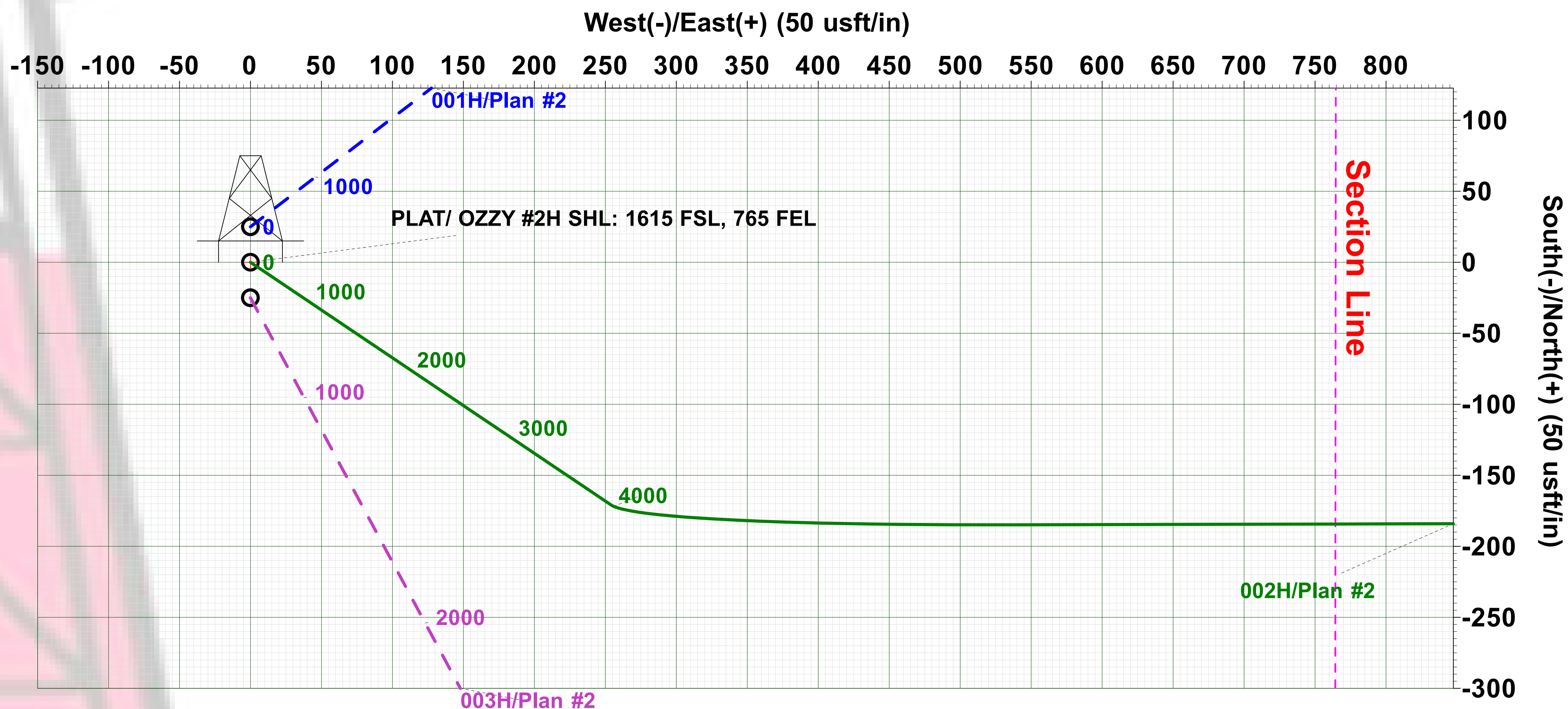
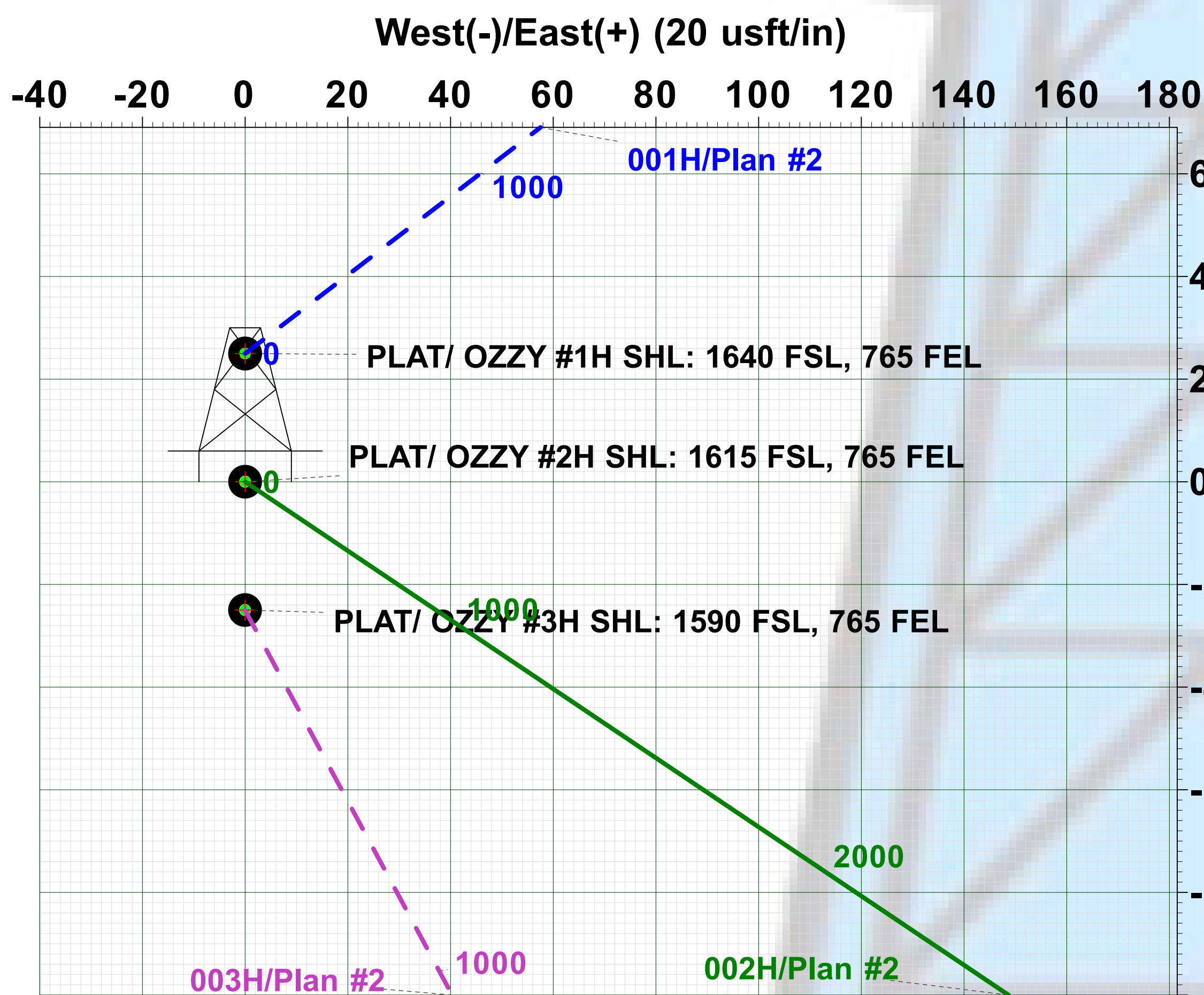
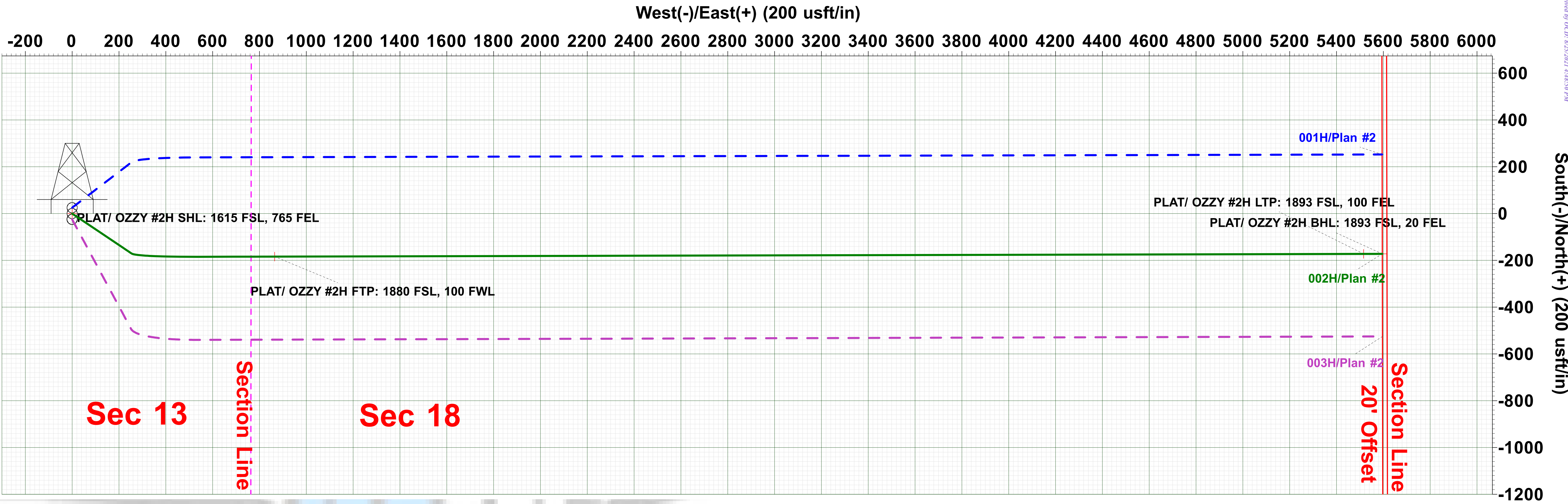
Azimuths to Grid North
True North: -0.11°
Magnetic North: 6.74°

Magnetic Field
Strength: 47797.8snT
Dip Angle: 60.37°
Date: 6/2/2021
Model: IGRF2020

PROJECT DETAILS: Eddy Co., NM (Nad-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

CORRECTION REFERENCE DATA:

To convert a Magnetic Direction to a Grid Direction, Add 6.741°
To convert a True Direction to a Grid Direction, Subtract 0.114°
To convert a Magnetic Direction to a True Direction, Add 6.854° East
Magnetic Declination: 6.854°
Grid Convergence: 0.114° West
Magnetic Dip Angle: 60.372°
Magnetic Field Strength: 47797.83631567nT



PLAT/ OZZY #2H LTP: 1893 FSL, 100 FEL
PLAT/ OZZY #2H BHL: 1893 FSL, 20 FEL
TD at 9633.97

Disclaimer:

All Plan Details, boundary lines and offset well location/ survey data is provided by customer and subject to customer approval.

Plan: Plan #2 (002H/Wellbore #1)

Created By: Matthew May Date: 19:44, June 03 2021

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

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

Form C-102
Revised August 1,
2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code	³ Pool Name
⁴ Property Code	⁵ Property Name OZZY FEDERAL COM 18C	⁶ Well Number 002H
⁷ OGRID No. 372210	⁸ Operator Name LONGFELLOW ENERGY, LP	⁹ Elevation 3698.5

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
I	13	17 S	28 E		1615	SOUTH	765	EAST	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
I	18	17 S	29 E		1893	SOUTH	20	EAST	EDDY

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

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.

NW CORNER SEC. 13 LAT. = 32.8431424°N LONG. = 104.1387095°W NMSP EAST (FT) N = 670523.36 E = 601110.01 N89°50'58"E 2663.82 FT NW CORNER SEC. 13 LAT. = 32.8431631°N LONG. = 104.1213595°W NMSP EAST (FT) N = 670541.18 E = 606438.49 N89°46'03"E 2666.00 FT NW CORNER SEC. 18 LAT. = 32.8418304°N LONG. = 104.1213621°W NMSP EAST (FT) N = 670056.28 E = 606438.68 S00°01'18"E 485.02 FT NE CORNER SEC. 18 LAT. = 32.8418330°N LONG. = 104.1056015°W NMSP EAST (FT) N = 670067.31 E = 611279.13 N/4 CORNER SEC. 13 LAT. = 32.8431478°N LONG. = 104.1300381°W NMSP EAST (FT) N = 670530.36 E = 605773.17 N/4 CORNER SEC. 18 LAT. = 32.8418297°N LONG. = 104.1141987°W NMSP EAST (FT) N = 670060.53 E = 608638.71 W/4 CORNER SEC. 13 LAT. = 32.8330182°N (NAD83) LONG. = 104.1238846°W NMSP EAST (FT) DNF N = 667862.46 E = 601172.46 E/4 CORNER SEC. 18 LAT. = 32.8345730°N LONG. = 104.1056028°W NMSP EAST (FT) N = 667426.00 E = 611284.41 S/4 CORNER SEC. 13 LAT. = 32.8285531°N LONG. = 104.1298694°W NMSP EAST (FT) N = 665220.65 E = 603835.19 S/4 CORNER SEC. 18 LAT. = 32.8273413°N LONG. = 104.1142272°W NMSP EAST (FT) N = 664789.39 E = 608640.89 SW CORNER SEC. 13 LAT. = 32.8285163°N LONG. = 104.1383286°W NMSP EAST (FT) N = 665202.37 E = 601236.82 SE CORNER SEC. 13 LAT. = 32.8285895°N LONG. = 104.1214098°W NMSP EAST (FT) N = 665238.99 E = 606433.68 SW CORNER SEC. 18 LAT. = 32.8273415°N LONG. = 104.1214155°W NMSP EAST (FT) N = 664784.94 E = 606432.86 SE CORNER SEC. 18 LAT. = 32.8273104°N LONG. = 104.1056042°W NMSP EAST (FT) N = 664783.74 E = 611289.70	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. Signature _____ Date _____ Printed Name _____ 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. MAY 26, 2021 Date of Survey _____ Signature and Seal of Professional Surveyor:  Certificate Number: 12797 Survey No. 8390A



Planning Report



Database:	WBDS_SQL_2	Local Co-ordinate Reference:	Well 002H
Company:	Longfellow Energy	TVD Reference:	EST RKB @ 3715.70usft
Project:	Eddy Co., NM (Nad-83)	MD Reference:	EST RKB @ 3715.70usft
Site:	OZZY FED COM 18C	North Reference:	Grid
Well:	002H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Project	Eddy Co., 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		OZZY FED COM 18C			
Site Position:		Northing:	666,873.72 usft	Latitude:	32.833087
From:	Map	Easting:	605,670.34 usft	Longitude:	-104.123885
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.114

Well	002H					
Well Position	+N/-S	-24.99 usft	Northing:	666,848.73 usft	Latitude:	32.833018
	+E/-W	-0.02 usft	Easting:	605,670.32 usft	Longitude:	-104.123885
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,698.70 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/2/2021	6.854	60.372	47,797.83631567

Design	Plan #2			
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	89.86

Plan Survey Tool Program	Date	6/3/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	9,633.97	Plan #2 (Wellbore #1)	MWD+IGRF
				OWSG MWD + IGRF or WM

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.000	
546.06	4.92	123.92	545.76	-5.89	8.76	2.00	2.00	0.00	123.920	
3,993.54	4.92	123.92	3,980.52	-170.93	254.18	0.00	0.00	0.00	0.000	
4,553.18	60.00	89.86	4,436.03	-184.85	539.48	10.00	9.84	-6.09	-35.824	
4,653.18	60.00	89.86	4,486.03	-184.64	626.09	0.00	0.00	0.00	0.000	
4,903.18	90.00	89.86	4,550.00	-184.05	864.82	12.00	12.00	0.00	0.000	PLAT/ OZZY #2H F
9,553.99	90.00	89.86	4,550.00	-172.60	5,515.61	0.00	0.00	0.00	0.000	PLAT/ OZZY #2H L
9,633.97	90.00	89.86	4,550.00	-172.40	5,595.59	0.00	0.00	0.00	0.000	PLAT/ OZZY #2H B



Planning Report



Database:	WBDS_SQL_2	Local Co-ordinate Reference:	Well 002H
Company:	Longfellow Energy	TVD Reference:	EST RKB @ 3715.70usft
Project:	Eddy Co., NM (Nad-83)	MD Reference:	EST RKB @ 3715.70usft
Site:	OZZY FED COM 18C	North Reference:	Grid
Well:	002H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLAT/ OZZY #2H SHL: 1615 FSL, 765 FEL									
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	2.00	123.92	399.98	-0.97	1.45	1.45	2.00	2.00	0.00
500.00	4.00	123.92	499.84	-3.89	5.79	5.78	2.00	2.00	0.00
546.06	4.92	123.92	545.76	-5.89	8.76	8.75	2.00	2.00	0.00
600.00	4.92	123.92	599.50	-8.48	12.60	12.58	0.00	0.00	0.00
700.00	4.92	123.92	699.13	-13.26	19.72	19.69	0.00	0.00	0.00
800.00	4.92	123.92	798.76	-18.05	26.84	26.80	0.00	0.00	0.00
900.00	4.92	123.92	898.39	-22.84	33.96	33.90	0.00	0.00	0.00
1,000.00	4.92	123.92	998.02	-27.62	41.08	41.01	0.00	0.00	0.00
1,100.00	4.92	123.92	1,097.66	-32.41	48.20	48.12	0.00	0.00	0.00
1,200.00	4.92	123.92	1,197.29	-37.20	55.32	55.22	0.00	0.00	0.00
1,300.00	4.92	123.92	1,296.92	-41.99	62.43	62.33	0.00	0.00	0.00
1,400.00	4.92	123.92	1,396.55	-46.77	69.55	69.44	0.00	0.00	0.00
1,500.00	4.92	123.92	1,496.18	-51.56	76.67	76.55	0.00	0.00	0.00
1,600.00	4.92	123.92	1,595.81	-56.35	83.79	83.65	0.00	0.00	0.00
1,700.00	4.92	123.92	1,695.44	-61.13	90.91	90.76	0.00	0.00	0.00
1,800.00	4.92	123.92	1,795.08	-65.92	98.03	97.87	0.00	0.00	0.00
1,900.00	4.92	123.92	1,894.71	-70.71	105.15	104.97	0.00	0.00	0.00
2,000.00	4.92	123.92	1,994.34	-75.49	112.27	112.08	0.00	0.00	0.00
2,100.00	4.92	123.92	2,093.97	-80.28	119.38	119.19	0.00	0.00	0.00
2,200.00	4.92	123.92	2,193.60	-85.07	126.50	126.29	0.00	0.00	0.00
2,300.00	4.92	123.92	2,293.23	-89.86	133.62	133.40	0.00	0.00	0.00
2,400.00	4.92	123.92	2,392.86	-94.64	140.74	140.51	0.00	0.00	0.00
2,500.00	4.92	123.92	2,492.49	-99.43	147.86	147.62	0.00	0.00	0.00
2,600.00	4.92	123.92	2,592.13	-104.22	154.98	154.72	0.00	0.00	0.00
2,700.00	4.92	123.92	2,691.76	-109.00	162.10	161.83	0.00	0.00	0.00
2,800.00	4.92	123.92	2,791.39	-113.79	169.22	168.94	0.00	0.00	0.00
2,900.00	4.92	123.92	2,891.02	-118.58	176.33	176.04	0.00	0.00	0.00
3,000.00	4.92	123.92	2,990.65	-123.37	183.45	183.15	0.00	0.00	0.00
3,100.00	4.92	123.92	3,090.28	-128.15	190.57	190.26	0.00	0.00	0.00
3,200.00	4.92	123.92	3,189.91	-132.94	197.69	197.36	0.00	0.00	0.00
3,300.00	4.92	123.92	3,289.55	-137.73	204.81	204.47	0.00	0.00	0.00
3,400.00	4.92	123.92	3,389.18	-142.51	211.93	211.58	0.00	0.00	0.00
3,500.00	4.92	123.92	3,488.81	-147.30	219.05	218.69	0.00	0.00	0.00
3,600.00	4.92	123.92	3,588.44	-152.09	226.16	225.79	0.00	0.00	0.00
3,700.00	4.92	123.92	3,688.07	-156.88	233.28	232.90	0.00	0.00	0.00
3,800.00	4.92	123.92	3,787.70	-161.66	240.40	240.01	0.00	0.00	0.00
3,900.00	4.92	123.92	3,887.33	-166.45	247.52	247.11	0.00	0.00	0.00
3,993.54	4.92	123.92	3,980.52	-170.93	254.18	253.76	0.00	0.00	0.00
4,000.00	5.46	119.94	3,986.96	-171.24	254.68	254.26	10.00	8.31	-61.58
4,050.00	10.06	104.66	4,036.50	-173.53	260.96	260.54	10.00	9.20	-30.55
4,100.00	14.91	99.08	4,085.30	-175.65	271.55	271.12	10.00	9.72	-11.18
4,150.00	19.84	96.20	4,133.00	-177.58	286.35	285.91	10.00	9.85	-5.74
4,200.00	24.80	94.44	4,179.25	-179.31	305.25	304.81	10.00	9.91	-3.52
4,250.00	29.77	93.24	4,223.67	-180.83	328.11	327.67	10.00	9.94	-2.41
4,300.00	34.74	92.35	4,265.94	-182.12	354.75	354.31	10.00	9.96	-1.77
4,350.00	39.73	91.66	4,305.74	-183.16	384.98	384.53	10.00	9.97	-1.38
4,400.00	44.71	91.11	4,342.75	-183.97	418.56	418.11	10.00	9.97	-1.12
4,450.00	49.70	90.64	4,376.71	-184.52	455.23	454.78	10.00	9.98	-0.93
4,500.00	54.69	90.24	4,407.35	-184.82	494.73	494.27	10.00	9.98	-0.81



Planning Report



Database:	WBDS_SQL_2	Local Co-ordinate Reference:	Well 002H
Company:	Longfellow Energy	TVD Reference:	EST RKB @ 3715.70usft
Project:	Eddy Co., NM (Nad-83)	MD Reference:	EST RKB @ 3715.70usft
Site:	OZZY FED COM 18C	North Reference:	Grid
Well:	002H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,553.18	60.00	89.86	4,436.03	-184.85	539.48	539.03	10.00	9.98	-0.71	
4,600.00	60.00	89.86	4,459.44	-184.75	580.03	579.58	0.00	0.00	0.00	
4,653.18	60.00	89.86	4,486.03	-184.64	626.09	625.63	0.00	0.00	0.00	
4,675.00	62.62	89.86	4,496.51	-184.59	645.23	644.77	12.00	12.00	0.00	
4,700.00	65.62	89.86	4,507.42	-184.54	667.72	667.26	12.00	12.00	0.00	
4,725.00	68.62	89.86	4,517.14	-184.48	690.75	690.29	12.00	12.00	0.00	
4,750.00	71.62	89.86	4,525.64	-184.42	714.25	713.80	12.00	12.00	0.00	
4,775.00	74.62	89.86	4,532.90	-184.36	738.17	737.72	12.00	12.00	0.00	
4,800.00	77.62	89.86	4,538.89	-184.30	762.44	761.99	12.00	12.00	0.00	
4,825.00	80.62	89.86	4,543.61	-184.24	786.99	786.53	12.00	12.00	0.00	
4,850.00	83.62	89.86	4,547.04	-184.18	811.75	811.30	12.00	12.00	0.00	
4,875.00	86.62	89.86	4,549.17	-184.12	836.65	836.20	12.00	12.00	0.00	
4,900.00	89.62	89.86	4,549.99	-184.06	861.64	861.19	12.00	12.00	0.00	
4,903.18	90.00	89.86	4,550.00	-184.05	864.82	864.37	12.00	12.00	0.00	
PLAT/ OZZY #2H FTP: 1880 FSL, 100 FWL										
5,000.00	90.00	89.86	4,550.00	-183.81	961.64	961.19	0.00	0.00	0.00	
5,100.00	90.00	89.86	4,550.00	-183.57	1,061.64	1,061.19	0.00	0.00	0.00	
5,200.00	90.00	89.86	4,550.00	-183.32	1,161.64	1,161.19	0.00	0.00	0.00	
5,300.00	90.00	89.86	4,550.00	-183.07	1,261.64	1,261.19	0.00	0.00	0.00	
5,400.00	90.00	89.86	4,550.00	-182.83	1,361.64	1,361.19	0.00	0.00	0.00	
5,500.00	90.00	89.86	4,550.00	-182.58	1,461.64	1,461.19	0.00	0.00	0.00	
5,600.00	90.00	89.86	4,550.00	-182.33	1,561.64	1,561.19	0.00	0.00	0.00	
5,700.00	90.00	89.86	4,550.00	-182.09	1,661.64	1,661.19	0.00	0.00	0.00	
5,800.00	90.00	89.86	4,550.00	-181.84	1,761.63	1,761.19	0.00	0.00	0.00	
5,900.00	90.00	89.86	4,550.00	-181.60	1,861.63	1,861.19	0.00	0.00	0.00	
6,000.00	90.00	89.86	4,550.00	-181.35	1,961.63	1,961.19	0.00	0.00	0.00	
6,100.00	90.00	89.86	4,550.00	-181.10	2,061.63	2,061.19	0.00	0.00	0.00	
6,200.00	90.00	89.86	4,550.00	-180.86	2,161.63	2,161.19	0.00	0.00	0.00	
6,300.00	90.00	89.86	4,550.00	-180.61	2,261.63	2,261.19	0.00	0.00	0.00	
6,400.00	90.00	89.86	4,550.00	-180.36	2,361.63	2,361.19	0.00	0.00	0.00	
6,500.00	90.00	89.86	4,550.00	-180.12	2,461.63	2,461.19	0.00	0.00	0.00	
6,600.00	90.00	89.86	4,550.00	-179.87	2,561.63	2,561.19	0.00	0.00	0.00	
6,700.00	90.00	89.86	4,550.00	-179.63	2,661.63	2,661.19	0.00	0.00	0.00	
6,800.00	90.00	89.86	4,550.00	-179.38	2,761.63	2,761.19	0.00	0.00	0.00	
6,900.00	90.00	89.86	4,550.00	-179.13	2,861.63	2,861.19	0.00	0.00	0.00	
7,000.00	90.00	89.86	4,550.00	-178.89	2,961.63	2,961.19	0.00	0.00	0.00	
7,100.00	90.00	89.86	4,550.00	-178.64	3,061.63	3,061.19	0.00	0.00	0.00	
7,200.00	90.00	89.86	4,550.00	-178.39	3,161.63	3,161.19	0.00	0.00	0.00	
7,300.00	90.00	89.86	4,550.00	-178.15	3,261.63	3,261.19	0.00	0.00	0.00	
7,400.00	90.00	89.86	4,550.00	-177.90	3,361.63	3,361.19	0.00	0.00	0.00	
7,500.00	90.00	89.86	4,550.00	-177.66	3,461.63	3,461.19	0.00	0.00	0.00	
7,600.00	90.00	89.86	4,550.00	-177.41	3,561.63	3,561.19	0.00	0.00	0.00	
7,700.00	90.00	89.86	4,550.00	-177.16	3,661.63	3,661.19	0.00	0.00	0.00	
7,800.00	90.00	89.86	4,550.00	-176.92	3,761.63	3,761.19	0.00	0.00	0.00	
7,900.00	90.00	89.86	4,550.00	-176.67	3,861.63	3,861.19	0.00	0.00	0.00	
8,000.00	90.00	89.86	4,550.00	-176.42	3,961.63	3,961.19	0.00	0.00	0.00	
8,100.00	90.00	89.86	4,550.00	-176.18	4,061.63	4,061.19	0.00	0.00	0.00	
8,200.00	90.00	89.86	4,550.00	-175.93	4,161.63	4,161.19	0.00	0.00	0.00	
8,300.00	90.00	89.86	4,550.00	-175.69	4,261.63	4,261.19	0.00	0.00	0.00	
8,400.00	90.00	89.86	4,550.00	-175.44	4,361.63	4,361.19	0.00	0.00	0.00	
8,500.00	90.00	89.86	4,550.00	-175.19	4,461.63	4,461.19	0.00	0.00	0.00	
8,600.00	90.00	89.86	4,550.00	-174.95	4,561.63	4,561.19	0.00	0.00	0.00	
8,700.00	90.00	89.86	4,550.00	-174.70	4,661.63	4,661.19	0.00	0.00	0.00	



Planning Report



Database:	WBDS_SQL_2	Local Co-ordinate Reference:	Well 002H
Company:	Longfellow Energy	TVD Reference:	EST RKB @ 3715.70usft
Project:	Eddy Co., NM (Nad-83)	MD Reference:	EST RKB @ 3715.70usft
Site:	OZZY FED COM 18C	North Reference:	Grid
Well:	002H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,800.00	90.00	89.86	4,550.00	-174.45	4,761.63	4,761.19	0.00	0.00	0.00	
8,900.00	90.00	89.86	4,550.00	-174.21	4,861.63	4,861.19	0.00	0.00	0.00	
9,000.00	90.00	89.86	4,550.00	-173.96	4,961.63	4,961.19	0.00	0.00	0.00	
9,100.00	90.00	89.86	4,550.00	-173.71	5,061.62	5,061.19	0.00	0.00	0.00	
9,200.00	90.00	89.86	4,550.00	-173.47	5,161.62	5,161.19	0.00	0.00	0.00	
9,300.00	90.00	89.86	4,550.00	-173.22	5,261.62	5,261.19	0.00	0.00	0.00	
9,400.00	90.00	89.86	4,550.00	-172.98	5,361.62	5,361.19	0.00	0.00	0.00	
9,500.00	90.00	89.86	4,550.00	-172.73	5,461.62	5,461.19	0.00	0.00	0.00	
9,553.99	90.00	89.86	4,550.00	-172.60	5,515.61	5,515.17	0.00	0.00	0.00	
PLAT/ OZZY #2H LTP: 1893 FSL, 100 FEL										
9,600.00	90.00	89.86	4,550.00	-172.48	5,561.62	5,561.19	0.00	0.00	0.00	
9,633.97	90.00	89.86	4,550.00	-172.40	5,595.59	5,595.15	0.00	0.00	0.00	
PLAT/ OZZY #2H BHL: 1893 FSL, 20 FEL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PLAT/ OZZY #2H SHL - hit/miss target - Shape - Point	0.00	0.00	0.00	0.00	0.00	666,848.73	605,670.32	32.833018	-104.123885	
PLAT/ OZZY #2H FTF - plan hits target center - Point	0.00	0.00	4,550.00	-184.05	864.82	666,664.68	606,535.14	32.832508	-104.121070	
PLAT/ OZZY #2H BHL - plan hits target center - Point	0.00	0.00	4,550.00	-172.40	5,595.59	666,676.33	611,265.91	32.832513	-104.105669	
PLAT/ OZZY #2H LTP - plan misses target center by 0.37usft at 9553.99usft MD (4550.00 TVD, -172.60 N, 5515.61 E) - Point	0.00	0.00	4,550.00	-172.23	5,515.61	666,676.51	611,185.93	32.832514	-104.105929	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
839.38	838.00	YATES		0.000		
1,638.33	1,634.00	QUEEN		0.000		
2,378.06	2,371.00	SAN ANDRES		0.000		
3,781.23	3,769.00	GLORIETA		0.000		
3,846.47	3,834.00	PADDOCK		0.000		
4,169.25	4,151.00	BLINEBERRY		0.000		



Longfellow Energy

Eddy Co., NM (Nad-83)

OZZY FED COM 18C

002H

Wellbore #1

Plan #2

Anticollision Report

03 June, 2021





Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Reference	Plan #2
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 30.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum separation factor of 20.00
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program		Date	6/3/2021		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	9,633.97	Plan #2 (Wellbore #1)	MWD+IGRF	OWSG MWD + IGRF or WMM	

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						
OZZY FED COM 18C						
001H - Wellbore #1 - Plan #2	300.00	300.20	24.99	23.26	14.427	CC
001H - Wellbore #1 - Plan #2	330.00	330.04	25.17	23.23	12.958	ES
001H - Wellbore #1 - Plan #2	9,633.97	9,156.28	641.20	440.88	3.201	SF
003H - Wellbore #1 - Plan #2	300.00	299.10	25.00	23.27	14.466	CC
003H - Wellbore #1 - Plan #2	360.00	358.65	25.18	23.04	11.755	ES
003H - Wellbore #1 - Plan #2	9,633.97	9,192.07	595.05	411.09	3.235	SF

Offset Design												Offset Site Error:		0.00 usft
Survey Program: 0-MWD+IGRF												Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance						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)	Separation Factor		
240.00	240.00	240.20	240.00	0.65	0.65	0.046	24.99	0.02	24.99	23.69	1.30	19.194		
270.00	270.00	270.20	270.00	0.76	0.76	0.046	24.99	0.02	24.99	23.47	1.52	16.473		
300.00	300.00	300.20	300.00	0.87	0.87	0.046	24.99	0.02	24.99	23.26	1.73	14.427	CC	
330.00	330.00	330.04	329.84	0.97	0.97	-123.882	25.09	0.15	25.17	23.23	1.94	12.958	ES	
360.00	360.00	359.87	359.67	1.07	1.08	-123.912	25.37	0.52	25.72	23.57	2.15	11.944		
390.00	389.99	389.69	389.48	1.18	1.19	-123.961	25.84	1.13	26.64	24.27	2.36	11.265		
420.00	419.96	419.49	419.26	1.28	1.29	-124.025	26.51	2.00	27.92	25.34	2.58	10.836		
450.00	449.93	449.27	449.00	1.39	1.40	-124.099	27.35	3.11	29.56	26.77	2.79	10.601		
480.00	479.88	479.01	478.69	1.49	1.51	-124.177	28.39	4.46	31.57	28.57	3.00	10.521		
510.00	509.81	508.71	508.33	1.60	1.61	-124.256	29.61	6.05	33.94	30.72	3.21	10.558		
540.00	539.72	538.37	537.89	1.70	1.72	-124.331	31.02	7.89	36.67	33.24	3.43	10.683		
570.00	569.61	567.98	567.39	1.81	1.83	-124.323	32.61	9.96	39.71	36.06	3.65	10.878		
600.00	599.50	602.31	596.79	1.92	1.96	-124.004	34.38	12.27	42.94	39.05	3.89	11.051		
630.00	629.39	627.33	626.44	2.04	2.06	-123.550	36.27	14.75	46.28	42.19	4.09	11.318		
660.00	659.28	657.15	656.09	2.15	2.17	-123.157	38.16	17.22	49.62	45.31	4.31	11.513		
690.00	689.17	686.96	685.73	2.26	2.29	-122.814	40.06	19.69	52.96	48.43	4.53	11.689		
720.00	719.06	716.77	715.38	2.38	2.40	-122.512	41.95	22.17	56.30	51.55	4.75	11.844		
750.00	748.95	746.58	745.03	2.49	2.52	-122.243	43.85	24.64	59.65	54.67	4.98	11.984		
780.00	778.84	776.39	774.68	2.60	2.63	-122.003	45.74	27.11	62.99	57.79	5.20	12.111		
810.00	808.72	806.20	804.33	2.72	2.75	-121.787	47.64	29.59	66.34	60.92	5.43	12.227		
840.00	838.61	836.02	833.98	2.83	2.87	-121.592	49.53	32.06	69.69	64.04	5.65	12.331		

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		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)	Separation Factor		
870.00	868.50	865.83	863.62	2.95	2.99	-121.414	51.43	34.53	73.04	67.16	5.88	12.427		
900.00	898.39	904.36	893.27	3.06	3.14	-121.253	53.32	37.00	76.39	70.25	6.14	12.448		
930.00	928.28	925.45	922.92	3.18	3.22	-121.105	55.21	39.48	79.74	73.41	6.33	12.598		
960.00	958.17	955.26	952.57	3.29	3.34	-120.968	57.11	41.95	83.09	76.53	6.56	12.673		
990.00	988.06	985.07	982.22	3.41	3.46	-120.843	59.00	44.42	86.44	79.66	6.78	12.743		
1,020.00	1,017.95	1,014.89	1,011.87	3.53	3.58	-120.727	60.90	46.90	89.79	82.78	7.01	12.807		
1,050.00	1,047.84	1,044.70	1,041.51	3.64	3.70	-120.619	62.79	49.37	93.14	85.91	7.24	12.868		
1,080.00	1,077.73	1,074.51	1,071.16	3.76	3.81	-120.518	64.69	51.84	96.50	89.03	7.47	12.924		
1,110.00	1,107.62	1,104.32	1,100.81	3.87	3.93	-120.425	66.58	54.32	99.85	92.15	7.69	12.977		
1,140.00	1,137.51	1,134.13	1,130.46	3.99	4.05	-120.337	68.48	56.79	103.20	95.28	7.92	13.026		
1,170.00	1,167.40	1,163.94	1,160.11	4.11	4.17	-120.255	70.37	59.26	106.56	98.40	8.15	13.072		
1,200.00	1,197.29	1,206.24	1,189.76	4.22	4.34	-120.178	72.26	61.74	109.91	101.48	8.43	13.041		
1,230.00	1,227.18	1,223.57	1,219.41	4.34	4.41	-120.105	74.16	64.21	113.26	104.65	8.61	13.157		
1,260.00	1,257.07	1,253.38	1,249.05	4.46	4.53	-120.037	76.05	66.68	116.62	107.78	8.84	13.196		
1,290.00	1,286.96	1,283.19	1,278.70	4.58	4.65	-119.973	77.95	69.16	119.97	110.90	9.07	13.233		
1,320.00	1,316.84	1,313.00	1,308.35	4.69	4.77	-119.912	79.84	71.63	123.32	114.03	9.30	13.267		
1,350.00	1,346.73	1,342.81	1,338.00	4.81	4.89	-119.854	81.74	74.10	126.68	117.15	9.52	13.300		
1,380.00	1,376.62	1,372.63	1,367.65	4.93	5.01	-119.799	83.63	76.58	130.03	120.28	9.75	13.332		
1,410.00	1,406.51	1,402.44	1,397.30	5.04	5.13	-119.747	85.52	79.05	133.38	123.40	9.98	13.362		
1,440.00	1,436.40	1,432.25	1,426.94	5.16	5.25	-119.698	87.42	81.52	136.74	126.53	10.21	13.390		
1,470.00	1,466.29	1,462.06	1,456.59	5.28	5.37	-119.651	89.31	83.99	140.09	129.65	10.44	13.417		
1,500.00	1,496.18	1,508.13	1,486.24	5.39	5.55	-119.606	91.21	86.47	143.45	132.71	10.73	13.364		
1,530.00	1,526.07	1,521.68	1,515.89	5.51	5.61	-119.563	93.10	88.94	146.80	135.90	10.90	13.467		
1,560.00	1,555.96	1,551.50	1,545.54	5.63	5.73	-119.522	95.00	91.41	150.16	139.03	11.13	13.491		
1,590.00	1,585.85	1,581.31	1,575.19	5.75	5.85	-119.483	96.89	93.89	153.51	142.15	11.36	13.513		
1,620.00	1,615.74	1,611.12	1,604.84	5.86	5.97	-119.445	98.79	96.36	156.87	145.28	11.59	13.535		
1,650.00	1,645.63	1,640.93	1,634.48	5.98	6.09	-119.409	100.68	98.83	160.22	148.40	11.82	13.555		
1,680.00	1,675.52	1,670.74	1,664.13	6.10	6.21	-119.375	102.57	101.31	163.58	151.53	12.05	13.575		
1,710.00	1,705.41	1,700.55	1,693.78	6.22	6.33	-119.342	104.47	103.78	166.93	154.65	12.28	13.594		
1,740.00	1,735.30	1,730.37	1,723.43	6.33	6.45	-119.310	106.36	106.25	170.29	157.78	12.51	13.612		
1,770.00	1,765.19	1,760.18	1,753.08	6.45	6.57	-119.280	108.26	108.73	173.64	160.90	12.74	13.630		
1,800.00	1,795.08	1,789.99	1,782.73	6.57	6.69	-119.250	110.15	111.20	177.00	164.03	12.97	13.647		
1,830.00	1,824.96	1,819.80	1,812.37	6.69	6.81	-119.222	112.05	113.67	180.35	167.15	13.20	13.663		
1,860.00	1,854.85	1,849.61	1,842.02	6.80	6.93	-119.195	113.94	116.15	183.71	170.28	13.43	13.679		
1,890.00	1,884.74	1,879.42	1,871.67	6.92	7.05	-119.168	115.84	118.62	187.06	173.40	13.66	13.694		
1,920.00	1,914.63	1,909.24	1,901.32	7.04	7.17	-119.143	117.73	121.09	190.42	176.53	13.89	13.709		
1,950.00	1,944.52	1,939.05	1,930.97	7.16	7.29	-119.119	119.62	123.57	193.77	179.65	14.12	13.723		
1,980.00	1,974.41	1,968.86	1,960.62	7.27	7.41	-119.095	121.52	126.04	197.13	182.78	14.35	13.736		
2,010.00	2,004.30	2,001.33	1,990.27	7.39	7.54	-119.072	123.41	128.51	200.48	185.89	14.59	13.740		
2,040.00	2,034.19	2,028.48	2,019.91	7.51	7.65	-119.050	125.31	130.98	203.84	189.03	14.81	13.762		
2,070.00	2,064.08	2,058.29	2,049.56	7.63	7.77	-119.029	127.20	133.46	207.19	192.15	15.04	13.775		
2,100.00	2,093.97	2,088.11	2,079.21	7.74	7.89	-119.008	129.10	135.93	210.55	195.28	15.27	13.787		
2,130.00	2,123.86	2,117.92	2,108.86	7.86	8.01	-118.988	130.99	138.40	213.90	198.40	15.50	13.798		
2,160.00	2,153.75	2,147.73	2,138.51	7.98	8.14	-118.969	132.88	140.88	217.26	201.53	15.73	13.809		
2,190.00	2,183.64	2,177.54	2,168.16	8.10	8.26	-118.950	134.78	143.35	220.62	204.65	15.96	13.820		
2,220.00	2,213.53	2,207.35	2,197.80	8.22	8.38	-118.932	136.67	145.82	223.97	207.78	16.19	13.831		
2,250.00	2,243.42	2,237.16	2,227.45	8.33	8.50	-118.914	138.57	148.30	227.33	210.90	16.42	13.841		
2,280.00	2,273.31	2,266.98	2,257.10	8.45	8.62	-118.897	140.46	150.77	230.68	214.03	16.65	13.851		
2,310.00	2,303.19	2,303.21	2,286.75	8.57	8.76	-118.880	142.36	153.24	234.04	217.13	16.91	13.840		
2,340.00	2,333.08	2,326.60	2,316.40	8.69	8.86	-118.864	144.25	155.72	237.39	220.28	17.12	13.870		
2,370.00	2,362.97	2,356.41	2,346.05	8.80	8.98	-118.848	146.15	158.19	240.75	223.40	17.35	13.879		
2,400.00	2,392.86	2,386.22	2,375.69	8.92	9.10	-118.833	148.04	160.66	244.10	226.53	17.58	13.888		

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		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)	Separation Factor		
2,430.00	2,422.75	2,416.03	2,405.34	9.04	9.22	-118.818	149.93	163.14	247.46	229.65	17.81	13.897		
2,460.00	2,452.64	2,445.85	2,434.99	9.16	9.34	-118.803	151.83	165.61	250.82	232.78	18.04	13.905		
2,490.00	2,482.53	2,475.66	2,464.64	9.28	9.46	-118.789	153.72	168.08	254.17	235.90	18.27	13.913		
2,520.00	2,512.42	2,505.47	2,494.29	9.39	9.58	-118.775	155.62	170.56	257.53	239.03	18.50	13.921		
2,550.00	2,542.31	2,535.28	2,523.94	9.51	9.70	-118.762	157.51	173.03	260.88	242.15	18.73	13.929		
2,580.00	2,572.20	2,565.09	2,553.59	9.63	9.82	-118.749	159.41	175.50	264.24	245.28	18.96	13.936		
2,610.00	2,602.09	2,605.10	2,583.23	9.75	9.99	-118.736	161.30	177.98	267.59	248.36	19.23	13.915		
2,640.00	2,631.98	2,624.72	2,612.88	9.86	10.06	-118.723	163.20	180.45	270.95	251.53	19.42	13.951		
2,670.00	2,661.87	2,654.53	2,642.53	9.98	10.19	-118.711	165.09	182.92	274.31	254.65	19.65	13.958		
2,700.00	2,691.76	2,684.34	2,672.18	10.10	10.31	-118.699	166.98	185.39	277.66	257.78	19.88	13.965		
2,730.00	2,721.65	2,714.15	2,701.83	10.22	10.43	-118.688	168.88	187.87	281.02	260.90	20.11	13.972		
2,760.00	2,751.54	2,743.96	2,731.48	10.34	10.55	-118.677	170.77	190.34	284.37	264.03	20.34	13.978		
2,790.00	2,781.43	2,773.77	2,761.12	10.45	10.67	-118.666	172.67	192.81	287.73	267.15	20.57	13.984		
2,820.00	2,811.31	2,803.59	2,790.77	10.57	10.79	-118.655	174.56	195.29	291.08	270.28	20.81	13.991		
2,850.00	2,841.20	2,833.40	2,820.42	10.69	10.91	-118.644	176.46	197.76	294.44	273.40	21.04	13.997		
2,880.00	2,871.09	2,863.21	2,850.07	10.81	11.03	-118.634	178.35	200.23	297.80	276.53	21.27	14.003		
2,910.00	2,900.98	2,906.98	2,879.72	10.93	11.21	-118.624	180.24	202.71	301.15	279.60	21.55	13.973		
2,940.00	2,930.87	2,922.83	2,909.37	11.04	11.27	-118.614	182.14	205.18	304.51	282.78	21.73	14.014		
2,970.00	2,960.76	2,952.64	2,939.02	11.16	11.39	-118.604	184.03	207.65	307.86	285.90	21.96	14.020		
3,000.00	2,990.65	2,982.46	2,968.66	11.28	11.51	-118.595	185.93	210.13	311.22	289.03	22.19	14.025		
3,030.00	3,020.54	3,012.27	2,998.31	11.40	11.63	-118.586	187.82	212.60	314.58	292.15	22.42	14.030		
3,060.00	3,050.43	3,042.08	3,027.96	11.52	11.75	-118.577	189.72	215.07	317.93	295.28	22.65	14.036		
3,090.00	3,080.32	3,071.89	3,057.61	11.63	11.88	-118.568	191.61	217.55	321.29	298.40	22.88	14.041		
3,120.00	3,110.21	3,101.70	3,087.26	11.75	12.00	-118.559	193.51	220.02	324.64	301.53	23.11	14.046		
3,150.00	3,140.10	3,131.51	3,116.91	11.87	12.12	-118.551	195.40	222.49	328.00	304.66	23.34	14.051		
3,180.00	3,169.99	3,161.33	3,146.55	11.99	12.24	-118.543	197.29	224.97	331.36	307.78	23.57	14.055		
3,210.00	3,199.88	3,208.86	3,176.20	12.10	12.43	-118.534	199.19	227.44	334.71	310.84	23.87	14.019		
3,240.00	3,229.77	3,220.95	3,205.85	12.22	12.48	-118.526	201.08	229.91	338.07	314.03	24.04	14.065		
3,270.00	3,259.66	3,250.76	3,235.50	12.34	12.60	-118.519	202.98	232.38	341.42	317.16	24.27	14.069		
3,300.00	3,289.55	3,280.57	3,265.15	12.46	12.72	-118.511	204.87	234.86	344.78	320.28	24.50	14.074		
3,330.00	3,319.43	3,310.38	3,294.80	12.58	12.84	-118.503	206.77	237.33	348.13	323.41	24.73	14.078		
3,360.00	3,349.32	3,340.20	3,324.45	12.69	12.96	-118.496	208.66	239.80	351.49	326.53	24.96	14.082		
3,390.00	3,379.21	3,370.01	3,354.09	12.81	13.08	-118.489	210.56	242.28	354.85	329.66	25.19	14.086		
3,420.00	3,409.10	3,400.18	3,383.74	12.93	13.20	-118.482	212.45	244.75	358.20	332.78	25.42	14.090		
3,450.00	3,438.99	3,429.63	3,413.39	13.05	13.32	-118.475	214.34	247.22	361.56	335.91	25.65	14.094		
3,480.00	3,468.88	3,459.44	3,443.04	13.17	13.44	-118.468	216.24	249.70	364.91	339.03	25.88	14.098		
3,510.00	3,498.77	3,489.25	3,472.69	13.28	13.57	-118.461	218.13	252.17	368.27	342.16	26.11	14.102		
3,540.00	3,528.66	3,519.07	3,502.34	13.40	13.69	-118.455	220.03	254.64	371.63	345.28	26.35	14.106		
3,570.00	3,558.55	3,548.04	3,531.10	13.52	13.81	-118.371	221.85	257.55	375.01	348.44	26.57	14.113		
3,600.00	3,588.44	3,576.70	3,559.39	13.64	13.94	-118.073	223.58	261.84	378.48	351.67	26.81	14.119		
3,630.00	3,618.33	3,605.09	3,587.16	13.76	14.07	-117.571	225.24	267.47	382.06	355.02	27.04	14.129		
3,660.00	3,648.22	3,633.06	3,614.22	13.87	14.21	-116.882	226.80	274.36	385.78	358.50	27.28	14.142		
3,690.00	3,678.11	3,660.49	3,640.40	13.99	14.36	-116.025	228.26	282.40	389.70	362.19	27.51	14.164		
3,720.00	3,708.00	3,687.28	3,665.58	14.11	14.51	-115.024	229.62	291.44	393.88	366.13	27.75	14.196		
3,750.00	3,737.89	3,713.34	3,689.64	14.23	14.67	-113.900	230.87	301.37	398.37	370.40	27.97	14.243		
3,780.00	3,767.78	3,738.59	3,712.50	14.35	14.83	-112.680	232.02	312.01	403.26	375.08	28.18	14.309		
3,810.00	3,797.67	3,762.98	3,734.13	14.46	14.99	-111.384	233.06	323.25	408.61	380.23	28.38	14.397		
3,840.00	3,827.55	3,786.46	3,754.48	14.58	15.15	-110.037	234.00	334.92	414.50	385.94	28.56	14.514		
3,870.00	3,857.44	3,809.02	3,773.56	14.70	15.32	-108.658	234.84	346.92	420.98	392.27	28.71	14.661		
3,900.00	3,887.33	3,830.64	3,791.40	14.82	15.48	-107.265	235.59	359.10	428.13	399.28	28.84	14.843		
3,930.00	3,917.22	3,851.32	3,808.02	14.94	15.65	-105.874	236.26	371.38	435.98	407.04	28.94	15.066		
3,960.00	3,947.11	3,871.06	3,823.47	15.05	15.82	-104.498	236.85	383.66	444.58	415.57	29.01	15.325		

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						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)	Separation Factor	
3,990.00	3,977.00	3,889.89	3,837.81	15.17	15.98	-103.149	237.37	395.87	453.97	424.93	29.04	15.632	
4,020.00	4,006.84	3,908.12	3,851.29	15.30	16.14	-88.676	237.83	408.12	463.93	434.88	29.05	15.969	
4,050.00	4,036.50	3,926.21	3,864.29	15.42	16.31	-79.720	238.24	420.69	474.05	445.00	29.05	16.318	
4,080.00	4,065.89	3,944.18	3,876.80	15.56	16.49	-73.876	238.61	433.58	484.25	455.21	29.04	16.674	
4,110.00	4,094.94	3,962.03	3,888.82	15.71	16.67	-69.530	238.94	446.77	494.46	465.43	29.03	17.033	
4,140.00	4,123.57	3,979.78	3,900.36	15.87	16.86	-66.038	239.22	460.25	504.62	475.60	29.02	17.391	
4,170.00	4,151.70	4,000.00	3,913.00	16.03	17.08	-62.975	239.50	476.03	514.66	485.61	29.05	17.715	
4,200.00	4,179.25	4,015.00	3,922.01	16.20	17.26	-60.550	239.67	488.03	524.52	495.54	28.98	18.101	
4,230.00	4,206.14	4,032.49	3,932.12	16.39	17.46	-58.300	239.83	502.30	534.16	505.20	28.97	18.441	
4,260.00	4,232.31	4,050.00	3,941.80	16.58	17.67	-56.286	239.95	516.89	543.54	514.59	28.95	18.774	
4,290.00	4,257.67	4,067.26	3,950.90	16.79	17.89	-54.479	240.03	531.55	552.62	523.67	28.95	19.091	
4,320.00	4,282.17	4,088.99	3,961.84	17.01	18.18	-52.706	240.08	550.33	561.30	532.24	29.06	19.315	
4,350.00	4,305.74	4,116.84	3,975.77	17.24	18.56	-51.000	240.14	574.45	569.18	539.83	29.35	19.393	
4,380.00	4,328.30	4,145.24	3,989.96	17.49	18.97	-49.551	240.20	599.04	576.10	546.41	29.69	19.404	
4,410.00	4,349.80	4,174.10	4,004.39	17.75	19.38	-48.344	240.26	624.03	582.01	551.95	30.06	19.361	
4,440.00	4,370.18	4,191.23	4,012.77	18.03	19.63	-47.513	240.30	638.97	587.14	556.96	30.18	19.457	
4,470.00	4,389.38	4,207.01	4,020.02	18.34	19.87	-46.789	240.33	652.98	591.84	561.56	30.28	19.548	
4,500.00	4,407.35	4,225.00	4,027.71	18.65	20.15	-46.114	240.37	669.25	596.13	565.68	30.45	19.578	
4,530.00	4,424.04	4,238.42	4,033.05	19.00	20.37	-45.572	240.40	681.57	599.96	569.41	30.54	19.642	
4,560.00	4,439.44	4,250.00	4,037.38	19.36	20.56	-45.184	240.43	692.30	603.40	572.79	30.61	19.715	
4,590.00	4,454.44	4,269.59	4,044.10	19.74	20.89	-44.956	240.47	710.71	607.15	576.27	30.88	19.661	
4,620.00	4,469.44	4,284.91	4,048.82	20.14	21.16	-44.741	240.51	725.28	611.64	580.59	31.04	19.704	
4,650.00	4,484.44	4,300.00	4,053.02	20.55	21.42	-44.501	240.55	739.77	616.83	585.64	31.18	19.782	
4,680.00	4,498.78	4,314.97	4,056.72	20.97	21.69	-43.854	240.58	754.27	622.19	590.86	31.33	19.858	
4,710.00	4,511.45	4,329.93	4,059.97	21.42	21.96	-43.252	240.62	768.87	626.92	595.41	31.52	19.890	
4,740.00	4,522.39	4,344.88	4,062.76	21.89	22.24	-42.742	240.65	783.56	631.01	599.26	31.75	19.875	
4,770.00	4,531.55	4,359.84	4,065.09	22.38	22.52	-42.322	240.69	798.34	634.42	602.40	32.02	19.812	
4,800.00	4,538.89	4,375.00	4,066.97	22.89	22.80	-41.989	240.73	813.38	637.15	604.80	32.34	19.700	
4,830.00	4,544.40	4,389.75	4,068.35	23.42	23.09	-41.745	240.76	828.07	639.18	606.48	32.70	19.545	
4,860.00	4,548.05	4,400.00	4,069.04	23.96	23.28	-41.596	240.79	838.29	640.55	607.53	33.02	19.400	
4,890.00	4,549.82	4,419.66	4,069.74	24.51	23.66	-41.510	240.84	857.94	641.15	607.57	33.57	19.098	
4,920.00	4,550.00	4,442.31	4,069.80	25.08	24.11	-41.504	240.89	880.59	641.20	606.97	34.23	18.732	
4,950.00	4,550.00	4,472.31	4,069.80	25.66	24.71	-41.504	240.97	910.59	641.20	606.15	35.04	18.297	
4,980.00	4,550.00	4,502.31	4,069.80	26.24	25.31	-41.504	241.04	940.59	641.20	605.34	35.86	17.880	
5,010.00	4,550.00	4,532.31	4,069.80	26.83	25.94	-41.504	241.11	970.59	641.20	604.49	36.70	17.469	
5,040.00	4,550.00	4,562.31	4,069.80	27.44	26.57	-41.504	241.19	1,000.59	641.20	603.63	37.56	17.069	
5,070.00	4,550.00	4,607.69	4,069.80	28.06	27.53	-41.504	241.26	1,030.59	641.20	602.54	38.65	16.589	
5,100.00	4,550.00	4,622.31	4,069.80	28.67	27.85	-41.504	241.34	1,060.59	641.20	601.90	39.30	16.316	
5,130.00	4,550.00	4,652.31	4,069.80	29.31	28.50	-41.504	241.41	1,090.59	641.20	601.00	40.20	15.951	
5,160.00	4,550.00	4,682.31	4,069.80	29.95	29.16	-41.504	241.48	1,120.59	641.20	600.10	41.10	15.602	
5,190.00	4,550.00	4,712.31	4,069.80	30.59	29.82	-41.504	241.56	1,150.59	641.20	599.20	42.00	15.266	
5,220.00	4,550.00	4,742.31	4,069.80	31.25	30.49	-41.504	241.63	1,180.59	641.20	598.27	42.93	14.937	
5,250.00	4,550.00	4,772.31	4,069.80	31.91	31.17	-41.504	241.70	1,210.59	641.20	597.34	43.86	14.620	
5,280.00	4,550.00	4,802.31	4,069.80	32.57	31.85	-41.504	241.78	1,240.59	641.20	596.41	44.79	14.316	
5,310.00	4,550.00	4,832.31	4,069.80	33.24	32.54	-41.504	241.85	1,270.59	641.20	595.46	45.73	14.020	
5,340.00	4,550.00	4,862.31	4,069.80	33.92	33.23	-41.504	241.93	1,300.59	641.20	594.51	46.69	13.733	
5,370.00	4,550.00	4,907.69	4,069.80	34.60	34.28	-41.504	242.00	1,330.59	641.20	593.30	47.89	13.388	
5,400.00	4,550.00	4,922.31	4,069.80	35.28	34.63	-41.504	242.07	1,360.59	641.20	592.59	48.61	13.191	
5,430.00	4,550.00	4,952.31	4,069.80	35.98	35.33	-41.504	242.15	1,390.59	641.20	591.61	49.58	12.932	
5,460.00	4,550.00	4,982.31	4,069.80	36.67	36.04	-41.504	242.22	1,420.59	641.20	590.64	50.56	12.682	
5,490.00	4,550.00	5,012.31	4,069.80	37.37	36.75	-41.504	242.30	1,450.59	641.20	589.66	51.54	12.441	
5,520.00	4,550.00	5,042.31	4,069.80	38.07	37.46	-41.504	242.37	1,480.59	641.20	588.67	52.53	12.207	

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						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)	Separation Factor	
5,550.00	4,550.00	5,072.31	4,069.80	38.78	38.18	-41.504	242.44	1,510.59	641.20	587.68	53.52	11.980	
5,580.00	4,550.00	5,102.31	4,069.80	39.48	38.90	-41.504	242.52	1,540.59	641.20	586.68	54.51	11.762	
5,610.00	4,550.00	5,132.31	4,069.80	40.19	39.62	-41.504	242.59	1,570.59	641.20	585.68	55.52	11.550	
5,640.00	4,550.00	5,162.31	4,069.80	40.91	40.35	-41.504	242.67	1,600.59	641.20	584.67	56.52	11.344	
5,670.00	4,550.00	5,207.69	4,069.80	41.63	41.45	-41.504	242.74	1,630.59	641.20	583.41	57.79	11.095	
5,700.00	4,550.00	5,222.31	4,069.80	42.35	41.81	-41.504	242.81	1,660.59	641.20	582.66	58.54	10.953	
5,730.00	4,550.00	5,252.31	4,069.80	43.07	42.54	-41.504	242.89	1,690.59	641.20	581.64	59.56	10.766	
5,760.00	4,550.00	5,282.31	4,069.80	43.80	43.27	-41.504	242.96	1,720.59	641.20	580.62	60.58	10.585	
5,790.00	4,550.00	5,312.31	4,069.80	44.52	44.01	-41.504	243.03	1,750.59	641.20	579.60	61.60	10.410	
5,820.00	4,550.00	5,342.31	4,069.80	45.25	44.75	-41.504	243.11	1,780.59	641.20	578.57	62.62	10.239	
5,850.00	4,550.00	5,372.31	4,069.80	45.99	45.49	-41.504	243.18	1,810.59	641.20	577.55	63.65	10.074	
5,880.00	4,550.00	5,402.31	4,069.80	46.72	46.23	-41.504	243.26	1,840.59	641.20	576.52	64.68	9.913	
5,910.00	4,550.00	5,432.31	4,069.80	47.45	46.98	-41.504	243.33	1,870.59	641.20	575.48	65.71	9.758	
5,940.00	4,550.00	5,462.31	4,069.80	48.19	47.72	-41.504	243.40	1,900.59	641.20	574.45	66.75	9.606	
5,970.00	4,550.00	5,507.69	4,069.80	48.93	48.85	-41.504	243.48	1,930.59	641.20	573.14	68.05	9.422	
6,000.00	4,550.00	5,522.31	4,069.80	49.67	49.22	-41.504	243.55	1,960.59	641.20	572.37	68.83	9.316	
6,030.00	4,550.00	5,552.31	4,069.80	50.41	49.97	-41.504	243.63	1,990.59	641.20	571.33	69.87	9.177	
6,060.00	4,550.00	5,582.31	4,069.80	51.16	50.72	-41.504	243.70	2,020.59	641.20	570.28	70.91	9.042	
6,090.00	4,550.00	5,612.31	4,069.80	51.90	51.47	-41.504	243.77	2,050.59	641.20	569.24	71.96	8.911	
6,120.00	4,550.00	5,642.31	4,069.80	52.65	52.22	-41.504	243.85	2,080.59	641.20	568.19	73.01	8.783	
6,150.00	4,550.00	5,672.31	4,069.80	53.40	52.98	-41.504	243.92	2,110.59	641.20	567.14	74.06	8.658	
6,180.00	4,550.00	5,702.31	4,069.80	54.14	53.73	-41.504	243.99	2,140.59	641.20	566.09	75.11	8.537	
6,210.00	4,550.00	5,732.31	4,069.80	54.89	54.49	-41.504	244.07	2,170.59	641.20	565.04	76.16	8.419	
6,240.00	4,550.00	5,762.31	4,069.80	55.65	55.25	-41.504	244.14	2,200.59	641.20	563.98	77.21	8.304	
6,270.00	4,550.00	5,807.69	4,069.80	56.40	56.39	-41.504	244.22	2,230.59	641.20	562.66	78.54	8.164	
6,300.00	4,550.00	5,822.31	4,069.80	57.15	56.76	-41.504	244.29	2,260.59	641.20	561.87	79.33	8.083	
6,330.00	4,550.00	5,852.31	4,069.80	57.91	57.52	-41.504	244.36	2,290.59	641.20	560.81	80.39	7.976	
6,360.00	4,550.00	5,882.31	4,069.80	58.66	58.28	-41.504	244.44	2,320.59	641.20	559.75	81.45	7.873	
6,390.00	4,550.00	5,912.31	4,069.80	59.42	59.04	-41.504	244.51	2,350.59	641.20	558.69	82.51	7.771	
6,420.00	4,550.00	5,942.31	4,069.80	60.17	59.81	-41.504	244.59	2,380.59	641.20	557.63	83.57	7.673	
6,450.00	4,550.00	5,972.31	4,069.80	60.93	60.57	-41.504	244.66	2,410.59	641.20	556.56	84.63	7.576	
6,480.00	4,550.00	6,002.31	4,069.80	61.69	61.33	-41.504	244.73	2,440.59	641.20	555.50	85.70	7.482	
6,510.00	4,550.00	6,032.31	4,069.80	62.45	62.10	-41.504	244.81	2,470.59	641.20	554.43	86.76	7.390	
6,540.00	4,550.00	6,062.31	4,069.80	63.21	62.86	-41.504	244.88	2,500.59	641.20	553.36	87.83	7.300	
6,570.00	4,550.00	6,107.69	4,069.80	63.97	64.02	-41.504	244.96	2,530.59	641.20	552.02	89.17	7.190	
6,600.00	4,550.00	6,122.31	4,069.80	64.73	64.40	-41.504	245.03	2,560.59	641.20	551.23	89.97	7.127	
6,630.00	4,550.00	6,152.31	4,069.80	65.50	65.16	-41.504	245.10	2,590.59	641.20	550.16	91.04	7.043	
6,660.00	4,550.00	6,182.31	4,069.80	66.26	65.93	-41.504	245.18	2,620.59	641.20	549.09	92.11	6.961	
6,690.00	4,550.00	6,212.31	4,069.80	67.03	66.70	-41.504	245.25	2,650.59	641.20	548.02	93.18	6.881	
6,720.00	4,550.00	6,242.31	4,069.80	67.79	67.47	-41.504	245.32	2,680.59	641.20	546.94	94.25	6.803	
6,750.00	4,550.00	6,272.31	4,069.80	68.56	68.24	-41.504	245.40	2,710.59	641.20	545.87	95.33	6.726	
6,780.00	4,550.00	6,302.31	4,069.80	69.32	69.01	-41.504	245.47	2,740.59	641.20	544.79	96.40	6.651	
6,810.00	4,550.00	6,332.31	4,069.80	70.09	69.78	-41.504	245.55	2,770.59	641.20	543.72	97.48	6.578	
6,840.00	4,550.00	6,362.31	4,069.80	70.86	70.55	-41.504	245.62	2,800.59	641.20	542.64	98.55	6.506	
6,870.00	4,550.00	6,407.69	4,069.80	71.62	71.72	-41.504	245.69	2,830.59	641.20	541.29	99.91	6.418	
6,900.00	4,550.00	6,422.31	4,069.80	72.39	72.09	-41.504	245.77	2,860.59	641.20	540.49	100.71	6.367	
6,930.00	4,550.00	6,452.31	4,069.80	73.16	72.86	-41.504	245.84	2,890.59	641.20	539.41	101.79	6.300	
6,960.00	4,550.00	6,482.31	4,069.80	73.93	73.64	-41.504	245.92	2,920.59	641.20	538.33	102.86	6.233	
6,990.00	4,550.00	6,512.31	4,069.80	74.70	74.41	-41.504	245.99	2,950.59	641.20	537.25	103.94	6.169	
7,020.00	4,550.00	6,542.31	4,069.80	75.47	75.18	-41.504	246.06	2,980.58	641.20	536.17	105.02	6.105	
7,050.00	4,550.00	6,572.31	4,069.80	76.24	75.96	-41.504	246.14	3,010.58	641.20	535.09	106.10	6.043	
7,080.00	4,550.00	6,602.31	4,069.80	77.01	76.73	-41.504	246.21	3,040.58	641.20	534.01	107.18	5.982	

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						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)	Separation Factor	
7,110.00	4,550.00	6,632.31	4,069.80	77.78	77.51	-41.504	246.28	3,070.58	641.20	532.93	108.26	5.922	
7,140.00	4,550.00	6,662.31	4,069.80	78.55	78.28	-41.504	246.36	3,100.58	641.20	531.85	109.35	5.864	
7,170.00	4,550.00	6,707.69	4,069.80	79.33	79.45	-41.504	246.43	3,130.58	641.20	530.49	110.71	5.792	
7,200.00	4,550.00	6,722.31	4,069.80	80.10	79.83	-41.504	246.51	3,160.58	641.20	529.68	111.51	5.750	
7,230.00	4,550.00	6,752.31	4,069.80	80.87	80.61	-41.504	246.58	3,190.58	641.20	528.60	112.60	5.695	
7,260.00	4,550.00	6,782.31	4,069.80	81.64	81.38	-41.504	246.65	3,220.58	641.20	527.52	113.68	5.640	
7,290.00	4,550.00	6,812.31	4,069.80	82.42	82.16	-41.504	246.73	3,250.58	641.20	526.43	114.76	5.587	
7,320.00	4,550.00	6,842.31	4,069.80	83.19	82.94	-41.504	246.80	3,280.58	641.20	525.35	115.85	5.535	
7,350.00	4,550.00	6,872.31	4,069.80	83.97	83.71	-41.504	246.88	3,310.58	641.20	524.26	116.94	5.483	
7,380.00	4,550.00	6,902.31	4,069.80	84.74	84.49	-41.504	246.95	3,340.58	641.20	523.18	118.02	5.433	
7,410.00	4,550.00	6,932.31	4,069.80	85.51	85.27	-41.504	247.02	3,370.58	641.20	522.09	119.11	5.383	
7,440.00	4,550.00	6,962.31	4,069.80	86.29	86.05	-41.504	247.10	3,400.58	641.20	521.00	120.19	5.335	
7,470.00	4,550.00	7,007.69	4,069.80	87.07	87.22	-41.504	247.17	3,430.58	641.20	519.64	121.56	5.275	
7,500.00	4,550.00	7,022.31	4,069.80	87.84	87.60	-41.504	247.25	3,460.58	641.20	518.83	122.37	5.240	
7,530.00	4,550.00	7,052.31	4,069.80	88.62	88.38	-41.504	247.32	3,490.58	641.20	517.74	123.46	5.194	
7,560.00	4,550.00	7,082.31	4,069.80	89.39	89.16	-41.504	247.39	3,520.58	641.20	516.65	124.54	5.148	
7,590.00	4,550.00	7,112.31	4,069.80	90.17	89.94	-41.504	247.47	3,550.58	641.20	515.56	125.63	5.104	
7,620.00	4,550.00	7,142.31	4,069.80	90.95	90.72	-41.504	247.54	3,580.58	641.20	514.47	126.72	5.060	
7,650.00	4,550.00	7,172.31	4,069.80	91.72	91.50	-41.504	247.61	3,610.58	641.20	513.39	127.81	5.017	
7,680.00	4,550.00	7,202.31	4,069.80	92.50	92.28	-41.504	247.69	3,640.58	641.20	512.30	128.90	4.974	
7,710.00	4,550.00	7,232.31	4,069.80	93.28	93.05	-41.504	247.76	3,670.58	641.20	511.21	129.99	4.933	
7,740.00	4,550.00	7,262.31	4,069.80	94.06	93.83	-41.504	247.84	3,700.58	641.20	510.12	131.08	4.892	
7,770.00	4,550.00	7,307.69	4,069.80	94.83	95.01	-41.504	247.91	3,730.58	641.20	508.75	132.45	4.841	
7,800.00	4,550.00	7,322.31	4,069.80	95.61	95.40	-41.504	247.98	3,760.58	641.20	507.93	133.26	4.812	
7,830.00	4,550.00	7,352.31	4,069.80	96.39	96.18	-41.504	248.06	3,790.58	641.20	506.84	134.35	4.772	
7,860.00	4,550.00	7,382.31	4,069.80	97.17	96.96	-41.504	248.13	3,820.58	641.20	505.75	135.45	4.734	
7,890.00	4,550.00	7,412.31	4,069.80	97.95	97.74	-41.504	248.21	3,850.58	641.20	504.66	136.54	4.696	
7,920.00	4,550.00	7,442.31	4,069.80	98.73	98.52	-41.504	248.28	3,880.58	641.20	503.57	137.63	4.659	
7,950.00	4,550.00	7,472.31	4,069.80	99.51	99.30	-41.504	248.35	3,910.58	641.20	502.48	138.72	4.622	
7,980.00	4,550.00	7,502.31	4,069.80	100.29	100.08	-41.504	248.43	3,940.58	641.20	501.38	139.81	4.586	
8,010.00	4,550.00	7,532.31	4,069.80	101.07	100.86	-41.504	248.50	3,970.58	641.20	500.29	140.91	4.551	
8,040.00	4,550.00	7,562.31	4,069.80	101.85	101.64	-41.504	248.57	4,000.58	641.20	499.20	142.00	4.516	
8,070.00	4,550.00	7,607.69	4,069.80	102.63	102.83	-41.504	248.65	4,030.58	641.20	497.82	143.37	4.472	
8,100.00	4,550.00	7,622.31	4,069.80	103.41	103.21	-41.504	248.72	4,060.58	641.20	497.01	144.19	4.447	
8,130.00	4,550.00	7,652.31	4,069.80	104.19	103.99	-41.504	248.80	4,090.58	641.20	495.92	145.28	4.414	
8,160.00	4,550.00	7,682.31	4,069.80	104.97	104.77	-41.504	248.87	4,120.58	641.20	494.82	146.37	4.381	
8,190.00	4,550.00	7,712.31	4,069.80	105.75	105.55	-41.504	248.94	4,150.58	641.20	493.73	147.47	4.348	
8,220.00	4,550.00	7,742.31	4,069.80	106.53	106.34	-41.504	249.02	4,180.58	641.20	492.64	148.56	4.316	
8,250.00	4,550.00	7,772.31	4,069.80	107.31	107.12	-41.504	249.09	4,210.58	641.20	491.54	149.66	4.284	
8,280.00	4,550.00	7,802.31	4,069.80	108.09	107.90	-41.504	249.17	4,240.58	641.20	490.45	150.75	4.253	
8,310.00	4,550.00	7,832.31	4,069.80	108.87	108.69	-41.504	249.24	4,270.58	641.20	489.35	151.85	4.223	
8,340.00	4,550.00	7,862.31	4,069.80	109.65	109.47	-41.504	249.31	4,300.58	641.20	488.26	152.94	4.192	
8,370.00	4,550.00	7,907.69	4,069.80	110.44	110.65	-41.504	249.39	4,330.58	641.20	486.88	154.32	4.155	
8,400.00	4,550.00	7,922.31	4,069.80	111.22	111.03	-41.504	249.46	4,360.58	641.20	486.07	155.13	4.133	
8,430.00	4,550.00	7,952.31	4,069.80	112.00	111.82	-41.504	249.53	4,390.58	641.20	484.97	156.23	4.104	
8,460.00	4,550.00	7,982.31	4,069.80	112.78	112.60	-41.504	249.61	4,420.58	641.20	483.87	157.32	4.076	
8,490.00	4,550.00	8,012.31	4,069.80	113.56	113.39	-41.504	249.68	4,450.58	641.20	482.78	158.42	4.047	
8,520.00	4,550.00	8,042.31	4,069.80	114.35	114.17	-41.504	249.76	4,480.58	641.20	481.68	159.52	4.020	
8,550.00	4,550.00	8,072.31	4,069.80	115.13	114.95	-41.504	249.83	4,510.58	641.20	480.58	160.61	3.992	
8,580.00	4,550.00	8,102.31	4,069.80	115.91	115.74	-41.504	249.90	4,540.58	641.20	479.49	161.71	3.965	
8,610.00	4,550.00	8,132.31	4,069.80	116.69	116.52	-41.504	249.98	4,570.58	641.20	478.39	162.81	3.938	
8,640.00	4,550.00	8,162.31	4,069.80	117.48	117.30	-41.504	250.05	4,600.58	641.20	477.29	163.90	3.912	

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	
Survey Program: 0-MWD+IGRF													Offset Well Error:	
Reference		Offset		Semi Major Axis			Distance							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)	Separation Factor		
8,670.00	4,550.00	8,207.69	4,069.80	118.26	118.49	-41.504	250.13	4,630.58	641.20	475.92	165.28	3.879		
8,700.00	4,550.00	8,222.31	4,069.80	119.04	118.87	-41.504	250.20	4,660.58	641.20	475.10	166.10	3.860		
8,730.00	4,550.00	8,252.31	4,069.80	119.82	119.66	-41.504	250.27	4,690.58	641.20	474.00	167.19	3.835		
8,760.00	4,550.00	8,282.31	4,069.80	120.61	120.44	-41.504	250.35	4,720.58	641.20	472.91	168.29	3.810		
8,790.00	4,550.00	8,312.31	4,069.80	121.39	121.23	-41.504	250.42	4,750.58	641.20	471.81	169.39	3.785		
8,820.00	4,550.00	8,342.31	4,069.80	122.17	122.01	-41.504	250.50	4,780.58	641.20	470.71	170.49	3.761		
8,850.00	4,550.00	8,372.31	4,069.80	122.96	122.80	-41.504	250.57	4,810.58	641.20	469.61	171.58	3.737		
8,880.00	4,550.00	8,402.31	4,069.80	123.74	123.58	-41.504	250.64	4,840.58	641.20	468.51	172.68	3.713		
8,910.00	4,550.00	8,432.31	4,069.80	124.53	124.37	-41.504	250.72	4,870.58	641.20	467.42	173.78	3.690		
8,940.00	4,550.00	8,462.31	4,069.80	125.31	125.15	-41.504	250.79	4,900.58	641.20	466.32	174.88	3.667		
8,970.00	4,550.00	8,507.69	4,069.80	126.09	126.34	-41.504	250.86	4,930.58	641.20	464.94	176.26	3.638		
9,000.00	4,550.00	8,522.31	4,069.80	126.88	126.72	-41.504	250.94	4,960.58	641.20	464.12	177.08	3.621		
9,030.00	4,550.00	8,552.31	4,069.80	127.66	127.51	-41.504	251.01	4,990.58	641.20	463.02	178.17	3.599		
9,060.00	4,550.00	8,582.31	4,069.80	128.45	128.29	-41.504	251.09	5,020.58	641.20	461.92	179.27	3.577		
9,090.00	4,550.00	8,612.31	4,069.80	129.23	129.08	-41.504	251.16	5,050.58	641.20	460.82	180.37	3.555		
9,120.00	4,550.00	8,642.31	4,069.80	130.01	129.86	-41.504	251.23	5,080.58	641.20	459.72	181.47	3.533		
9,150.00	4,550.00	8,672.31	4,069.80	130.80	130.65	-41.504	251.31	5,110.58	641.20	458.63	182.57	3.512		
9,180.00	4,550.00	8,702.31	4,069.80	131.58	131.43	-41.504	251.38	5,140.58	641.20	457.53	183.67	3.491		
9,210.00	4,550.00	8,732.31	4,069.80	132.37	132.22	-41.504	251.46	5,170.58	641.20	456.43	184.77	3.470		
9,240.00	4,550.00	8,762.31	4,069.80	133.15	133.01	-41.504	251.53	5,200.58	641.20	455.33	185.87	3.450		
9,270.00	4,550.00	8,807.69	4,069.80	133.94	134.19	-41.504	251.60	5,230.58	641.20	453.95	187.25	3.424		
9,300.00	4,550.00	8,822.31	4,069.80	134.72	134.58	-41.504	251.68	5,260.58	641.20	453.13	188.07	3.409		
9,330.00	4,550.00	8,852.31	4,069.80	135.51	135.36	-41.504	251.75	5,290.58	641.20	452.03	189.17	3.390		
9,360.00	4,550.00	8,882.31	4,069.80	136.29	136.15	-41.504	251.82	5,320.58	641.20	450.93	190.27	3.370		
9,390.00	4,550.00	8,912.31	4,069.80	137.08	136.94	-41.504	251.90	5,350.58	641.20	449.83	191.37	3.351		
9,420.00	4,550.00	8,942.31	4,069.80	137.86	137.72	-41.504	251.97	5,380.58	641.20	448.73	192.47	3.331		
9,450.00	4,550.00	8,972.31	4,069.80	138.65	138.51	-41.504	252.05	5,410.58	641.20	447.63	193.57	3.313		
9,480.00	4,550.00	9,002.31	4,069.80	139.43	139.29	-41.504	252.12	5,440.58	641.20	446.53	194.67	3.294		
9,510.00	4,550.00	9,032.31	4,069.80	140.22	140.08	-41.504	252.19	5,470.58	641.20	445.43	195.77	3.275		
9,540.00	4,550.00	9,062.31	4,069.80	141.00	140.87	-41.504	252.27	5,500.58	641.20	444.33	196.87	3.257		
9,570.00	4,550.00	9,092.31	4,069.80	141.79	141.65	-41.504	252.34	5,530.58	641.20	443.23	197.97	3.239		
9,600.00	4,550.00	9,122.31	4,069.80	142.57	142.44	-41.504	252.42	5,560.58	641.20	442.13	199.07	3.221		
9,630.00	4,550.00	9,152.31	4,069.80	143.36	143.23	-41.504	252.49	5,590.58	641.20	441.03	200.17	3.203		
9,633.97	4,550.00	9,156.28	4,069.80	143.46	143.33	-41.504	252.50	5,594.54	641.20	440.88	200.32	3.201 SF		

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		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)	Separation Factor		
240.00	240.00	239.10	240.00	0.65	0.65	-179.954	-25.00	-0.02	25.00	23.70	1.30	19.260		
270.00	270.00	269.10	270.00	0.76	0.75	-179.954	-25.00	-0.02	25.00	23.49	1.51	16.522		
300.00	300.00	299.10	300.00	0.87	0.86	-179.954	-25.00	-0.02	25.00	23.27	1.73	14.466 CC		
330.00	330.00	328.88	329.78	0.97	0.97	56.264	-25.13	0.05	25.04	23.11	1.94	12.939		
360.00	360.00	358.65	359.54	1.07	1.07	56.653	-25.53	0.26	25.18	23.04	2.14	11.755 ES		
390.00	389.99	388.42	389.30	1.18	1.17	57.285	-26.20	0.63	25.43	23.08	2.35	10.826		
420.00	419.96	418.18	419.05	1.28	1.27	58.145	-27.15	1.13	25.78	23.22	2.55	10.090		
450.00	449.93	447.94	448.78	1.39	1.38	59.214	-28.36	1.79	26.24	23.48	2.76	9.505		
480.00	479.88	477.70	478.48	1.49	1.48	60.466	-29.85	2.59	26.82	23.85	2.97	9.043		
510.00	509.81	507.45	508.16	1.60	1.58	61.874	-31.61	3.54	27.52	24.35	3.17	8.678		
540.00	539.72	537.19	537.82	1.70	1.69	63.408	-33.64	4.63	28.34	24.96	3.38	8.377		
570.00	569.61	566.92	567.43	1.81	1.80	64.877	-35.94	5.87	29.35	25.75	3.60	8.160		
600.00	599.50	596.64	597.01	1.92	1.90	65.901	-38.51	7.25	30.61	26.80	3.81	8.032		
630.00	629.39	626.35	626.54	2.04	2.02	66.496	-41.35	8.78	32.13	28.10	4.03	7.971		
660.00	659.28	656.03	656.02	2.15	2.13	66.707	-44.46	10.45	33.89	29.64	4.25	7.973		
690.00	689.17	685.68	685.42	2.26	2.25	66.587	-47.83	12.26	35.89	31.42	4.47	8.031		
720.00	719.06	715.30	714.75	2.38	2.37	66.189	-51.47	14.21	38.13	33.44	4.69	8.130		
750.00	748.95	744.87	743.99	2.49	2.49	65.569	-55.36	16.31	40.62	35.70	4.91	8.269		
780.00	778.84	774.40	773.14	2.60	2.61	64.775	-59.51	18.54	43.35	38.22	5.13	8.447		
810.00	808.72	803.87	802.18	2.72	2.74	63.852	-63.93	20.91	46.34	40.99	5.35	8.660		
840.00	838.61	833.60	831.44	2.83	2.87	62.887	-68.56	23.41	49.52	43.95	5.58	8.881		
870.00	868.50	863.42	860.78	2.95	3.00	62.031	-73.22	25.91	52.72	46.92	5.80	9.087		
900.00	898.39	906.76	890.13	3.06	3.20	61.273	-77.88	28.42	55.93	49.85	6.08	9.199		
930.00	928.28	923.06	919.48	3.18	3.27	60.597	-82.54	30.92	59.15	52.90	6.25	9.457		
960.00	958.17	952.88	948.82	3.29	3.41	59.991	-87.19	33.43	62.38	55.89	6.48	9.624		
990.00	988.06	982.70	978.17	3.41	3.55	59.445	-91.85	35.93	65.61	58.90	6.71	9.782		
1,020.00	1,017.95	1,012.52	1,007.52	3.53	3.68	58.950	-96.51	38.44	68.84	61.91	6.93	9.929		
1,050.00	1,047.84	1,042.34	1,036.86	3.64	3.82	58.499	-101.17	40.94	72.09	64.93	7.16	10.069		
1,080.00	1,077.73	1,072.15	1,066.21	3.76	3.96	58.087	-105.82	43.45	75.33	67.95	7.39	10.199		
1,110.00	1,107.62	1,101.97	1,095.56	3.87	4.10	57.709	-110.48	45.95	78.58	70.96	7.62	10.316		
1,140.00	1,137.51	1,131.79	1,124.90	3.99	4.24	57.362	-115.14	48.46	81.83	73.99	7.84	10.432		
1,170.00	1,167.40	1,161.61	1,154.25	4.11	4.38	57.041	-119.80	50.96	85.09	77.01	8.07	10.540		
1,200.00	1,197.29	1,208.57	1,183.59	4.22	4.60	56.743	-124.46	53.47	88.35	79.98	8.37	10.555		
1,230.00	1,227.18	1,221.25	1,212.94	4.34	4.66	56.467	-129.11	55.97	91.60	83.07	8.53	10.739		
1,260.00	1,257.07	1,251.07	1,242.29	4.46	4.80	56.209	-133.77	58.48	94.87	86.11	8.76	10.831		
1,290.00	1,286.96	1,280.89	1,271.63	4.58	4.95	55.969	-138.43	60.98	98.13	89.14	8.99	10.918		
1,320.00	1,316.84	1,310.71	1,300.98	4.69	5.09	55.744	-143.09	63.49	101.39	92.18	9.22	11.001		
1,350.00	1,346.73	1,340.53	1,330.33	4.81	5.23	55.534	-147.75	66.00	104.66	95.21	9.45	11.080		
1,380.00	1,376.62	1,370.35	1,359.67	4.93	5.37	55.336	-152.40	68.50	107.93	98.25	9.68	11.155		
1,410.00	1,406.51	1,400.17	1,389.02	5.04	5.51	55.149	-157.06	71.01	111.20	101.29	9.90	11.227		
1,440.00	1,436.40	1,429.99	1,418.37	5.16	5.66	54.974	-161.72	73.51	114.47	104.33	10.13	11.295		
1,470.00	1,466.29	1,459.81	1,447.71	5.28	5.80	54.808	-166.38	76.02	117.74	107.37	10.36	11.361		
1,500.00	1,496.18	1,489.62	1,477.06	5.39	5.94	54.651	-171.04	78.52	121.01	110.42	10.59	11.424		
1,530.00	1,526.07	1,519.44	1,506.41	5.51	6.09	54.502	-175.69	81.03	124.28	113.46	10.82	11.484		
1,560.00	1,555.96	1,549.26	1,535.75	5.63	6.23	54.361	-180.35	83.53	127.56	116.50	11.05	11.541		
1,590.00	1,585.85	1,579.08	1,565.10	5.75	6.38	54.227	-185.01	86.04	130.83	119.55	11.28	11.596		
1,620.00	1,615.74	1,608.90	1,594.45	5.86	6.52	54.099	-189.67	88.54	134.11	122.59	11.51	11.649		
1,650.00	1,645.63	1,638.72	1,623.79	5.98	6.66	53.978	-194.32	91.05	137.38	125.64	11.74	11.700		
1,680.00	1,675.52	1,668.54	1,653.14	6.10	6.81	53.862	-198.98	93.55	140.66	128.69	11.97	11.749		
1,710.00	1,705.41	1,698.36	1,682.49	6.22	6.95	53.752	-203.64	96.06	143.93	131.73	12.20	11.796		
1,740.00	1,735.30	1,728.18	1,711.83	6.33	7.10	53.646	-208.30	98.56	147.21	134.78	12.43	11.842		
1,770.00	1,765.19	1,758.00	1,741.18	6.45	7.24	53.545	-212.96	101.07	150.49	137.83	12.66	11.885		

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						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)	Separation Factor	
1,800.00	1,795.08	1,787.82	1,770.52	6.57	7.38	53.449	-217.61	103.57	153.77	140.88	12.89	11.927	
1,830.00	1,824.96	1,817.64	1,799.87	6.69	7.53	53.356	-222.27	106.08	157.05	143.92	13.12	11.968	
1,860.00	1,854.85	1,847.46	1,829.22	6.80	7.67	53.267	-226.93	108.58	160.32	146.97	13.35	12.007	
1,890.00	1,884.74	1,877.28	1,858.56	6.92	7.82	53.182	-231.59	111.09	163.60	150.02	13.58	12.045	
1,920.00	1,914.63	1,907.09	1,887.91	7.04	7.96	53.100	-236.25	113.59	166.88	153.07	13.81	12.082	
1,950.00	1,944.52	1,936.91	1,917.26	7.16	8.11	53.021	-240.90	116.10	170.16	156.12	14.04	12.117	
1,980.00	1,974.41	1,966.73	1,946.60	7.27	8.25	52.945	-245.56	118.60	173.44	159.17	14.27	12.151	
2,010.00	2,004.30	2,003.45	1,975.95	7.39	8.43	52.872	-250.22	121.11	176.72	162.19	14.53	12.162	
2,040.00	2,034.19	2,026.37	2,005.30	7.51	8.54	52.802	-254.88	123.61	180.00	165.27	14.73	12.217	
2,070.00	2,064.08	2,056.19	2,034.64	7.63	8.69	52.734	-259.54	126.12	183.29	168.32	14.96	12.248	
2,100.00	2,093.97	2,086.01	2,063.99	7.74	8.83	52.669	-264.19	128.62	186.57	171.37	15.20	12.278	
2,130.00	2,123.86	2,115.83	2,093.34	7.86	8.98	52.606	-268.85	131.13	189.85	174.42	15.43	12.307	
2,160.00	2,153.75	2,145.65	2,122.68	7.98	9.12	52.545	-273.51	133.63	193.13	177.47	15.66	12.336	
2,190.00	2,183.64	2,175.47	2,152.03	8.10	9.27	52.486	-278.17	136.14	196.41	180.53	15.89	12.363	
2,220.00	2,213.53	2,205.29	2,181.38	8.22	9.41	52.429	-282.82	138.64	199.69	183.58	16.12	12.390	
2,250.00	2,243.42	2,235.11	2,210.72	8.33	9.56	52.374	-287.48	141.15	202.98	186.63	16.35	12.416	
2,280.00	2,273.31	2,264.93	2,240.07	8.45	9.71	52.320	-292.14	143.65	206.26	189.68	16.58	12.441	
2,310.00	2,303.19	2,305.26	2,269.42	8.57	9.90	52.268	-296.80	146.16	209.54	192.69	16.85	12.435	
2,340.00	2,333.08	2,324.56	2,298.76	8.69	10.00	52.218	-301.46	148.66	212.83	195.79	17.04	12.490	
2,370.00	2,362.97	2,354.38	2,328.11	8.80	10.14	52.170	-306.11	151.17	216.11	198.84	17.27	12.513	
2,400.00	2,392.86	2,384.20	2,357.46	8.92	10.29	52.122	-310.77	153.67	219.39	201.89	17.50	12.536	
2,430.00	2,422.75	2,414.02	2,386.80	9.04	10.43	52.077	-315.43	156.18	222.67	204.94	17.73	12.558	
2,460.00	2,452.64	2,443.84	2,416.15	9.16	10.58	52.032	-320.09	158.68	225.96	208.00	17.96	12.580	
2,490.00	2,482.53	2,473.66	2,445.49	9.28	10.72	51.989	-324.75	161.19	229.24	211.05	18.19	12.601	
2,520.00	2,512.42	2,503.48	2,474.84	9.39	10.87	51.947	-329.40	163.69	232.53	214.10	18.42	12.621	
2,550.00	2,542.31	2,533.30	2,504.19	9.51	11.02	51.906	-334.06	166.20	235.81	217.15	18.65	12.641	
2,580.00	2,572.20	2,563.12	2,533.53	9.63	11.16	51.867	-338.72	168.70	239.09	220.21	18.89	12.660	
2,610.00	2,602.09	2,607.06	2,562.88	9.75	11.38	51.828	-343.38	171.21	242.38	223.20	19.17	12.642	
2,640.00	2,631.98	2,622.76	2,592.23	9.86	11.45	51.790	-348.04	173.71	245.66	226.31	19.35	12.698	
2,670.00	2,661.87	2,652.58	2,621.57	9.98	11.60	51.754	-352.69	176.22	248.95	229.37	19.58	12.716	
2,700.00	2,691.76	2,682.40	2,650.92	10.10	11.74	51.718	-357.35	178.72	252.23	232.42	19.81	12.733	
2,730.00	2,721.65	2,712.21	2,680.27	10.22	11.89	51.684	-362.01	181.23	255.51	235.48	20.04	12.751	
2,760.00	2,751.54	2,742.03	2,709.61	10.34	12.04	51.650	-366.67	183.73	258.80	238.53	20.27	12.768	
2,790.00	2,781.43	2,771.85	2,738.96	10.45	12.18	51.617	-371.32	186.24	262.08	241.58	20.50	12.784	
2,820.00	2,811.31	2,801.67	2,768.31	10.57	12.33	51.585	-375.98	188.75	265.37	244.64	20.73	12.800	
2,850.00	2,841.20	2,831.49	2,797.65	10.69	12.47	51.553	-380.64	191.25	268.65	247.69	20.96	12.816	
2,880.00	2,871.09	2,861.31	2,827.00	10.81	12.62	51.523	-385.30	193.76	271.94	250.74	21.19	12.831	
2,910.00	2,900.98	2,891.13	2,856.35	10.93	12.77	51.493	-389.96	196.26	275.22	253.80	21.42	12.846	
2,940.00	2,930.87	2,920.95	2,885.69	11.04	12.91	51.464	-394.61	198.77	278.51	256.85	21.66	12.861	
2,970.00	2,960.76	2,950.77	2,915.04	11.16	13.06	51.435	-399.27	201.27	281.79	259.91	21.89	12.875	
3,000.00	2,990.65	2,980.59	2,944.39	11.28	13.20	51.407	-403.93	203.78	285.08	262.96	22.12	12.890	
3,030.00	3,020.54	3,010.41	2,973.73	11.40	13.35	51.380	-408.59	206.28	288.36	266.02	22.35	12.903	
3,060.00	3,050.43	3,040.23	3,003.08	11.52	13.50	51.353	-413.25	208.79	291.65	269.07	22.58	12.917	
3,090.00	3,080.32	3,070.05	3,032.42	11.63	13.64	51.327	-417.90	211.29	294.93	272.12	22.81	12.930	
3,120.00	3,110.21	3,100.13	3,061.77	11.75	13.79	51.302	-422.56	213.80	298.22	275.18	23.04	12.942	
3,150.00	3,140.10	3,129.68	3,091.12	11.87	13.93	51.277	-427.22	216.30	301.50	278.23	23.27	12.956	
3,180.00	3,169.99	3,159.50	3,120.46	11.99	14.08	51.253	-431.88	218.81	304.79	281.29	23.50	12.968	
3,210.00	3,199.88	3,189.32	3,149.81	12.10	14.23	51.229	-436.53	221.31	308.08	284.34	23.73	12.981	
3,240.00	3,229.77	3,219.14	3,179.16	12.22	14.37	51.206	-441.19	223.82	311.36	287.40	23.96	12.993	
3,270.00	3,259.66	3,248.96	3,208.50	12.34	14.52	51.183	-445.85	226.32	314.65	290.45	24.20	13.004	
3,300.00	3,289.55	3,278.78	3,237.85	12.46	14.66	51.160	-450.51	228.83	317.93	293.51	24.43	13.016	
3,330.00	3,319.43	3,308.60	3,267.20	12.58	14.81	51.139	-455.17	231.33	321.22	296.56	24.66	13.027	

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							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)	Separation Factor		
3,360.00	3,349.32	3,338.42	3,296.54	12.69	14.96	51.117	-459.82	233.84	324.50	299.62	24.89	13.038		
3,390.00	3,379.21	3,368.24	3,325.89	12.81	15.10	51.096	-464.48	236.34	327.79	302.67	25.12	13.049		
3,420.00	3,409.10	3,401.94	3,355.24	12.93	15.27	51.075	-469.14	238.85	331.08	305.71	25.37	13.052		
3,450.00	3,438.99	3,427.88	3,384.58	13.05	15.39	51.055	-473.80	241.35	334.36	308.78	25.58	13.070		
3,480.00	3,468.88	3,457.70	3,413.93	13.17	15.54	51.035	-478.46	243.86	337.65	311.84	25.81	13.081		
3,510.00	3,498.77	3,487.52	3,443.28	13.28	15.69	51.016	-483.11	246.36	340.93	314.89	26.04	13.091		
3,540.00	3,528.66	3,517.34	3,472.62	13.40	15.83	50.997	-487.77	248.87	344.22	317.95	26.27	13.101		
3,570.00	3,558.55	3,547.15	3,501.97	13.52	15.98	50.978	-492.43	251.37	347.51	321.00	26.51	13.111		
3,600.00	3,588.44	3,577.23	3,531.53	13.64	16.13	50.879	-497.07	254.39	350.78	324.04	26.74	13.119		
3,630.00	3,618.33	3,607.25	3,560.86	13.76	16.29	50.532	-501.53	258.91	354.04	327.08	26.96	13.131		
3,660.00	3,648.22	3,636.97	3,589.66	13.87	16.45	49.946	-505.75	264.91	357.31	330.13	27.18	13.148		
3,690.00	3,678.11	3,666.23	3,617.70	13.99	16.61	49.141	-509.70	272.27	360.62	333.25	27.38	13.172		
3,720.00	3,708.00	3,694.91	3,644.81	14.11	16.77	48.140	-513.38	280.88	364.06	336.49	27.57	13.207		
3,750.00	3,737.89	3,722.89	3,670.83	14.23	16.94	46.971	-516.77	290.57	367.68	339.94	27.74	13.253		
3,780.00	3,767.78	3,750.04	3,695.63	14.35	17.11	45.662	-519.86	301.19	371.57	343.67	27.90	13.319		
3,810.00	3,797.67	3,776.31	3,719.13	14.46	17.28	44.241	-522.66	312.57	375.82	347.78	28.04	13.402		
3,840.00	3,827.55	3,801.62	3,741.29	14.58	17.44	42.738	-525.17	324.54	380.53	352.37	28.16	13.513		
3,870.00	3,857.44	3,825.93	3,762.07	14.70	17.60	41.177	-527.41	336.96	385.76	357.50	28.26	13.651		
3,900.00	3,887.33	3,849.23	3,781.49	14.82	17.77	39.585	-529.40	349.67	391.62	363.29	28.33	13.824		
3,930.00	3,917.22	3,871.49	3,799.57	14.94	17.93	37.983	-531.14	362.54	398.17	369.79	28.38	14.031		
3,960.00	3,947.11	3,892.73	3,816.35	15.05	18.08	36.389	-532.66	375.46	405.47	377.08	28.39	14.282		
3,990.00	3,977.00	3,912.95	3,831.89	15.17	18.24	34.819	-533.98	388.34	413.58	385.21	28.38	14.576		
4,020.00	4,006.84	3,932.49	3,846.47	15.30	18.39	44.879	-535.13	401.29	422.34	394.00	28.34	14.903		
4,050.00	4,036.50	3,951.81	3,860.46	15.42	18.55	49.389	-536.15	414.57	431.37	403.08	28.29	15.250		
4,080.00	4,065.89	3,970.95	3,873.88	15.56	18.71	50.979	-537.04	428.19	440.58	412.34	28.24	15.603		
4,110.00	4,094.94	3,989.93	3,886.74	15.71	18.87	51.271	-537.80	442.12	449.91	421.73	28.17	15.968		
4,140.00	4,123.57	4,008.75	3,899.05	15.87	19.04	50.915	-538.45	456.35	459.27	431.16	28.11	16.339		
4,170.00	4,151.70	4,027.43	3,910.80	16.03	19.21	50.213	-538.97	470.86	468.61	440.57	28.04	16.711		
4,200.00	4,179.25	4,045.99	3,922.02	16.20	19.39	49.327	-539.37	485.64	477.86	449.89	27.97	17.087		
4,230.00	4,206.14	4,064.43	3,932.69	16.39	19.57	48.348	-539.66	500.67	486.97	459.07	27.90	17.453		
4,260.00	4,232.31	4,082.76	3,942.82	16.58	19.76	47.330	-539.84	515.94	495.89	468.06	27.84	17.815		
4,290.00	4,257.67	4,100.99	3,952.42	16.79	19.95	46.309	-539.90	531.44	504.58	476.81	27.77	18.169		
4,320.00	4,282.17	4,123.85	3,963.91	17.01	20.21	45.147	-539.86	551.21	512.93	485.11	27.82	18.436		
4,350.00	4,305.74	4,151.70	3,977.83	17.24	20.53	43.964	-539.79	575.32	520.51	492.52	27.99	18.595		
4,380.00	4,328.30	4,180.09	3,992.03	17.49	20.86	42.955	-539.72	599.91	527.19	498.99	28.20	18.692		
4,410.00	4,349.80	4,208.95	4,006.46	17.75	21.21	42.123	-539.65	624.91	532.91	504.46	28.45	18.732		
4,440.00	4,370.18	4,225.00	4,014.28	18.03	21.41	41.651	-539.61	638.92	537.95	509.47	28.49	18.885		
4,470.00	4,389.38	4,241.05	4,021.62	18.34	21.63	41.211	-539.57	653.19	542.68	514.12	28.56	19.004		
4,500.00	4,407.35	4,256.81	4,028.35	18.65	21.84	40.811	-539.52	667.44	547.06	518.42	28.65	19.098		
4,530.00	4,424.04	4,275.00	4,035.54	19.00	22.10	40.419	-539.48	684.15	551.12	522.29	28.82	19.119		
4,560.00	4,439.44	4,288.20	4,040.36	19.36	22.29	40.157	-539.44	696.44	554.82	525.87	28.95	19.166		
4,590.00	4,454.44	4,300.00	4,044.38	19.74	22.46	40.018	-539.41	707.53	558.98	529.91	29.07	19.230		
4,620.00	4,469.44	4,319.10	4,050.29	20.14	22.76	39.754	-539.36	725.69	563.86	534.54	29.31	19.235		
4,650.00	4,484.44	4,334.22	4,054.45	20.55	22.99	39.514	-539.31	740.22	569.51	540.02	29.49	19.313		
4,680.00	4,498.78	4,350.00	4,058.31	20.97	23.24	38.860	-539.27	755.53	575.35	545.66	29.69	19.379		
4,710.00	4,511.45	4,364.17	4,061.34	21.42	23.48	38.275	-539.23	769.37	580.50	550.59	29.92	19.403		
4,740.00	4,522.39	4,375.00	4,063.37	21.89	23.66	37.812	-539.20	780.01	584.98	554.82	30.16	19.398		
4,770.00	4,531.55	4,394.11	4,066.38	22.38	23.98	37.355	-539.15	798.88	588.68	558.12	30.55	19.268		
4,800.00	4,538.89	4,409.09	4,068.20	22.89	24.24	37.026	-539.10	813.74	591.67	560.72	30.95	19.118		
4,830.00	4,544.40	4,425.00	4,069.63	23.42	24.51	36.777	-539.06	829.59	593.91	562.50	31.41	18.908		
4,860.00	4,548.05	4,439.03	4,070.44	23.96	24.76	36.619	-539.02	843.60	595.41	563.50	31.91	18.658		
4,890.00	4,549.82	4,454.01	4,070.86	24.51	25.03	36.539	-538.97	858.57	596.15	563.67	32.47	18.357		

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						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)	Separation Factor	
4,920.00	4,550.00	4,478.10	4,070.90	25.08	25.47	36.529	-538.90	882.66	596.23	563.07	33.16	17.983	
4,950.00	4,550.00	4,508.10	4,070.90	25.66	26.02	36.528	-538.82	912.66	596.22	562.33	33.89	17.591	
4,980.00	4,550.00	4,538.10	4,070.90	26.24	26.60	36.527	-538.73	942.66	596.21	561.57	34.64	17.210	
5,010.00	4,550.00	4,568.10	4,070.90	26.83	27.18	36.526	-538.64	972.66	596.21	560.80	35.40	16.841	
5,040.00	4,550.00	4,601.90	4,070.90	27.44	27.84	36.526	-538.56	1,002.66	596.20	559.97	36.22	16.459	
5,070.00	4,550.00	4,628.10	4,070.90	28.06	28.37	36.525	-538.47	1,032.66	596.19	559.23	36.96	16.130	
5,100.00	4,550.00	4,658.10	4,070.90	28.67	28.98	36.524	-538.38	1,062.66	596.18	558.43	37.75	15.792	
5,130.00	4,550.00	4,688.10	4,070.90	29.31	29.60	36.523	-538.30	1,092.66	596.18	557.61	38.56	15.461	
5,160.00	4,550.00	4,718.10	4,070.90	29.95	30.23	36.522	-538.21	1,122.66	596.17	556.79	39.38	15.140	
5,190.00	4,550.00	4,748.10	4,070.90	30.59	30.87	36.521	-538.12	1,152.66	596.16	555.96	40.20	14.830	
5,220.00	4,550.00	4,778.10	4,070.90	31.25	31.51	36.520	-538.04	1,182.66	596.15	555.12	41.03	14.529	
5,250.00	4,550.00	4,808.10	4,070.90	31.91	32.16	36.519	-537.95	1,212.66	596.15	554.27	41.87	14.237	
5,280.00	4,550.00	4,838.10	4,070.90	32.57	32.82	36.518	-537.87	1,242.66	596.14	553.42	42.72	13.954	
5,310.00	4,550.00	4,868.10	4,070.90	33.24	33.48	36.517	-537.78	1,272.66	596.13	552.55	43.58	13.680	
5,340.00	4,550.00	4,901.90	4,070.90	33.92	34.23	36.516	-537.69	1,302.66	596.12	551.63	44.49	13.398	
5,370.00	4,550.00	4,928.10	4,070.90	34.60	34.83	36.515	-537.61	1,332.66	596.12	550.81	45.31	13.157	
5,400.00	4,550.00	4,958.10	4,070.90	35.28	35.51	36.514	-537.52	1,362.66	596.11	549.93	46.18	12.909	
5,430.00	4,550.00	4,988.10	4,070.90	35.98	36.19	36.513	-537.43	1,392.66	596.10	549.04	47.06	12.667	
5,460.00	4,550.00	5,018.10	4,070.90	36.67	36.88	36.512	-537.35	1,422.66	596.09	548.15	47.94	12.433	
5,490.00	4,550.00	5,048.10	4,070.90	37.37	37.57	36.511	-537.26	1,452.66	596.09	547.25	48.83	12.207	
5,520.00	4,550.00	5,078.10	4,070.90	38.07	38.27	36.510	-537.17	1,482.66	596.08	546.35	49.73	11.987	
5,550.00	4,550.00	5,108.10	4,070.90	38.78	38.97	36.509	-537.09	1,512.66	596.07	545.45	50.63	11.774	
5,580.00	4,550.00	5,138.10	4,070.90	39.48	39.68	36.508	-537.00	1,542.66	596.06	544.53	51.53	11.568	
5,610.00	4,550.00	5,168.10	4,070.90	40.19	40.38	36.507	-536.91	1,572.66	596.06	543.62	52.43	11.368	
5,640.00	4,550.00	5,201.90	4,070.90	40.91	41.18	36.506	-536.83	1,602.66	596.05	542.65	53.40	11.161	
5,670.00	4,550.00	5,228.10	4,070.90	41.63	41.81	36.505	-536.74	1,632.66	596.04	541.78	54.26	10.985	
5,700.00	4,550.00	5,258.10	4,070.90	42.35	42.53	36.504	-536.65	1,662.66	596.03	540.86	55.18	10.803	
5,730.00	4,550.00	5,288.10	4,070.90	43.07	43.25	36.503	-536.57	1,692.66	596.03	539.93	56.10	10.625	
5,760.00	4,550.00	5,318.10	4,070.90	43.80	43.97	36.502	-536.48	1,722.66	596.02	539.00	57.02	10.453	
5,790.00	4,550.00	5,348.10	4,070.90	44.52	44.69	36.501	-536.39	1,752.66	596.01	538.06	57.95	10.285	
5,820.00	4,550.00	5,378.10	4,070.90	45.25	45.42	36.500	-536.31	1,782.66	596.00	537.13	58.88	10.123	
5,850.00	4,550.00	5,408.10	4,070.90	45.99	46.15	36.499	-536.22	1,812.66	596.00	536.19	59.81	9.965	
5,880.00	4,550.00	5,438.10	4,070.90	46.72	46.88	36.498	-536.14	1,842.66	595.99	535.24	60.74	9.812	
5,910.00	4,550.00	5,468.10	4,070.90	47.45	47.61	36.497	-536.05	1,872.66	595.98	534.30	61.68	9.662	
5,940.00	4,550.00	5,501.90	4,070.90	48.19	48.44	36.496	-535.96	1,902.66	595.97	533.29	62.68	9.508	
5,970.00	4,550.00	5,528.10	4,070.90	48.93	49.09	36.495	-535.88	1,932.66	595.97	532.40	63.56	9.376	
6,000.00	4,550.00	5,558.10	4,070.90	49.67	49.82	36.494	-535.79	1,962.66	595.96	531.45	64.50	9.239	
6,030.00	4,550.00	5,588.10	4,070.90	50.41	50.56	36.493	-535.70	1,992.66	595.95	530.50	65.45	9.105	
6,060.00	4,550.00	5,618.10	4,070.90	51.16	51.31	36.492	-535.62	2,022.66	595.94	529.54	66.40	8.975	
6,090.00	4,550.00	5,648.10	4,070.90	51.90	52.05	36.491	-535.53	2,052.66	595.94	528.59	67.35	8.849	
6,120.00	4,550.00	5,678.10	4,070.90	52.65	52.80	36.490	-535.44	2,082.66	595.93	527.63	68.30	8.725	
6,150.00	4,550.00	5,708.10	4,070.90	53.40	53.54	36.489	-535.36	2,112.66	595.92	526.67	69.25	8.605	
6,180.00	4,550.00	5,738.10	4,070.90	54.14	54.29	36.488	-535.27	2,142.66	595.91	525.71	70.21	8.488	
6,210.00	4,550.00	5,768.10	4,070.90	54.89	55.04	36.487	-535.18	2,172.66	595.91	524.74	71.16	8.374	
6,240.00	4,550.00	5,801.90	4,070.90	55.65	55.88	36.486	-535.10	2,202.66	595.90	523.72	72.18	8.256	
6,270.00	4,550.00	5,828.10	4,070.90	56.40	56.54	36.485	-535.01	2,232.66	595.89	522.81	73.08	8.154	
6,300.00	4,550.00	5,858.10	4,070.90	57.15	57.29	36.485	-534.92	2,262.66	595.88	521.85	74.04	8.048	
6,330.00	4,550.00	5,888.10	4,070.90	57.91	58.04	36.484	-534.84	2,292.66	595.87	520.88	75.00	7.945	
6,360.00	4,550.00	5,918.10	4,070.90	58.66	58.80	36.483	-534.75	2,322.66	595.87	519.91	75.96	7.844	
6,390.00	4,550.00	5,948.10	4,070.90	59.42	59.56	36.482	-534.66	2,352.66	595.86	518.93	76.93	7.746	
6,420.00	4,550.00	5,978.10	4,070.90	60.17	60.31	36.481	-534.58	2,382.66	595.85	517.96	77.89	7.650	
6,450.00	4,550.00	6,008.10	4,070.90	60.93	61.07	36.480	-534.49	2,412.66	595.84	516.99	78.86	7.556	

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						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)	Separation Factor	
6,480.00	4,550.00	6,038.10	4,070.90	61.69	61.83	36.479	-534.40	2,442.65	595.84	516.01	79.82	7.464	
6,510.00	4,550.00	6,068.10	4,070.90	62.45	62.59	36.478	-534.32	2,472.65	595.83	515.04	80.79	7.375	
6,540.00	4,550.00	6,101.90	4,070.90	63.21	63.44	36.477	-534.23	2,502.65	595.82	514.00	81.82	7.282	
6,570.00	4,550.00	6,128.10	4,070.90	63.97	64.11	36.476	-534.15	2,532.65	595.81	513.08	82.73	7.202	
6,600.00	4,550.00	6,158.10	4,070.90	64.73	64.87	36.475	-534.06	2,562.65	595.81	512.10	83.70	7.118	
6,630.00	4,550.00	6,188.10	4,070.90	65.50	65.63	36.474	-533.97	2,592.65	595.80	511.12	84.68	7.036	
6,660.00	4,550.00	6,218.10	4,070.90	66.26	66.39	36.473	-533.89	2,622.65	595.79	510.14	85.65	6.956	
6,690.00	4,550.00	6,248.10	4,070.90	67.03	67.16	36.472	-533.80	2,652.65	595.78	509.16	86.62	6.878	
6,720.00	4,550.00	6,278.10	4,070.90	67.79	67.92	36.471	-533.71	2,682.65	595.78	508.18	87.60	6.801	
6,750.00	4,550.00	6,308.10	4,070.90	68.56	68.68	36.470	-533.63	2,712.65	595.77	507.20	88.57	6.726	
6,780.00	4,550.00	6,338.10	4,070.90	69.32	69.45	36.469	-533.54	2,742.65	595.76	506.21	89.55	6.653	
6,810.00	4,550.00	6,368.10	4,070.90	70.09	70.22	36.468	-533.45	2,772.65	595.75	505.23	90.53	6.581	
6,840.00	4,550.00	6,401.90	4,070.90	70.86	71.08	36.467	-533.37	2,802.65	595.75	504.18	91.57	6.506	
6,870.00	4,550.00	6,428.10	4,070.90	71.62	71.75	36.466	-533.28	2,832.65	595.74	503.26	92.48	6.442	
6,900.00	4,550.00	6,458.10	4,070.90	72.39	72.52	36.465	-533.19	2,862.65	595.73	502.27	93.46	6.374	
6,930.00	4,550.00	6,488.10	4,070.90	73.16	73.29	36.464	-533.11	2,892.65	595.72	501.28	94.44	6.308	
6,960.00	4,550.00	6,518.10	4,070.90	73.93	74.05	36.463	-533.02	2,922.65	595.72	500.30	95.42	6.243	
6,990.00	4,550.00	6,548.10	4,070.90	74.70	74.82	36.462	-532.93	2,952.65	595.71	499.31	96.40	6.180	
7,020.00	4,550.00	6,578.10	4,070.90	75.47	75.59	36.461	-532.85	2,982.65	595.70	498.32	97.38	6.117	
7,050.00	4,550.00	6,608.10	4,070.90	76.24	76.36	36.460	-532.76	3,012.65	595.69	497.33	98.36	6.056	
7,080.00	4,550.00	6,638.10	4,070.90	77.01	77.13	36.459	-532.67	3,042.65	595.69	496.34	99.35	5.996	
7,110.00	4,550.00	6,668.10	4,070.90	77.78	77.90	36.458	-532.59	3,072.65	595.68	495.35	100.33	5.937	
7,140.00	4,550.00	6,701.90	4,070.90	78.55	78.77	36.457	-532.50	3,102.65	595.67	494.30	101.38	5.876	
7,170.00	4,550.00	6,728.10	4,070.90	79.33	79.45	36.456	-532.41	3,132.65	595.66	493.37	102.30	5.823	
7,200.00	4,550.00	6,758.10	4,070.90	80.10	80.22	36.455	-532.33	3,162.65	595.66	492.38	103.28	5.767	
7,230.00	4,550.00	6,788.10	4,070.90	80.87	80.99	36.454	-532.24	3,192.65	595.65	491.38	104.27	5.713	
7,260.00	4,550.00	6,818.10	4,070.90	81.64	81.76	36.453	-532.16	3,222.65	595.64	490.39	105.25	5.659	
7,290.00	4,550.00	6,848.10	4,070.90	82.42	82.54	36.452	-532.07	3,252.65	595.63	489.40	106.24	5.607	
7,320.00	4,550.00	6,878.10	4,070.90	83.19	83.31	36.451	-531.98	3,282.65	595.63	488.40	107.22	5.555	
7,350.00	4,550.00	6,908.10	4,070.90	83.97	84.09	36.450	-531.90	3,312.65	595.62	487.41	108.21	5.504	
7,380.00	4,550.00	6,938.10	4,070.90	84.74	84.86	36.449	-531.81	3,342.65	595.61	486.42	109.20	5.454	
7,410.00	4,550.00	6,968.10	4,070.90	85.51	85.63	36.448	-531.72	3,372.65	595.60	485.42	110.18	5.406	
7,440.00	4,550.00	7,001.90	4,070.90	86.29	86.51	36.447	-531.64	3,402.65	595.60	484.36	111.23	5.354	
7,470.00	4,550.00	7,028.10	4,070.90	87.07	87.18	36.446	-531.55	3,432.65	595.59	483.43	112.16	5.310	
7,500.00	4,550.00	7,058.10	4,070.90	87.84	87.96	36.445	-531.46	3,462.65	595.58	482.43	113.15	5.264	
7,530.00	4,550.00	7,088.10	4,070.90	88.62	88.74	36.444	-531.38	3,492.65	595.57	481.44	114.14	5.218	
7,560.00	4,550.00	7,118.10	4,070.90	89.39	89.51	36.443	-531.29	3,522.65	595.57	480.44	115.13	5.173	
7,590.00	4,550.00	7,148.10	4,070.90	90.17	90.29	36.442	-531.20	3,552.65	595.56	479.44	116.12	5.129	
7,620.00	4,550.00	7,178.10	4,070.90	90.95	91.06	36.441	-531.12	3,582.65	595.55	478.45	117.10	5.086	
7,650.00	4,550.00	7,208.10	4,070.90	91.72	91.84	36.441	-531.03	3,612.65	595.54	477.45	118.10	5.043	
7,680.00	4,550.00	7,238.10	4,070.90	92.50	92.62	36.440	-530.94	3,642.65	595.54	476.45	119.09	5.001	
7,710.00	4,550.00	7,268.10	4,070.90	93.28	93.40	36.439	-530.86	3,672.65	595.53	475.45	120.08	4.960	
7,740.00	4,550.00	7,301.90	4,070.90	94.06	94.27	36.438	-530.77	3,702.65	595.52	474.39	121.13	4.916	
7,770.00	4,550.00	7,328.10	4,070.90	94.83	94.95	36.437	-530.68	3,732.65	595.51	473.46	122.06	4.879	
7,800.00	4,550.00	7,358.10	4,070.90	95.61	95.73	36.436	-530.60	3,762.65	595.51	472.46	123.05	4.840	
7,830.00	4,550.00	7,388.10	4,070.90	96.39	96.51	36.435	-530.51	3,792.65	595.50	471.46	124.04	4.801	
7,860.00	4,550.00	7,418.10	4,070.90	97.17	97.29	36.434	-530.42	3,822.65	595.49	470.46	125.03	4.763	
7,890.00	4,550.00	7,448.10	4,070.90	97.95	98.07	36.433	-530.34	3,852.65	595.48	469.46	126.02	4.725	
7,920.00	4,550.00	7,478.10	4,070.90	98.73	98.84	36.432	-530.25	3,882.65	595.48	468.46	127.02	4.688	
7,950.00	4,550.00	7,508.10	4,070.90	99.51	99.62	36.431	-530.17	3,912.65	595.47	467.46	128.01	4.652	
7,980.00	4,550.00	7,538.10	4,070.90	100.29	100.40	36.430	-530.08	3,942.65	595.46	466.46	129.00	4.616	
8,010.00	4,550.00	7,568.10	4,070.90	101.07	101.18	36.429	-529.99	3,972.65	595.45	465.46	130.00	4.581	

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						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)	Separation Factor	
8,040.00	4,550.00	7,601.90	4,070.90	101.85	102.06	36.428	-529.91	4,002.65	595.45	464.39	131.05	4.544	
8,070.00	4,550.00	7,628.10	4,070.90	102.63	102.74	36.427	-529.82	4,032.65	595.44	463.46	131.98	4.511	
8,100.00	4,550.00	7,658.10	4,070.90	103.41	103.52	36.426	-529.73	4,062.65	595.43	462.46	132.98	4.478	
8,130.00	4,550.00	7,688.10	4,070.90	104.19	104.30	36.425	-529.65	4,092.65	595.42	461.45	133.97	4.444	
8,160.00	4,550.00	7,718.10	4,070.90	104.97	105.08	36.424	-529.56	4,122.65	595.42	460.45	134.96	4.412	
8,190.00	4,550.00	7,748.10	4,070.90	105.75	105.86	36.423	-529.47	4,152.65	595.41	459.45	135.96	4.379	
8,220.00	4,550.00	7,778.10	4,070.90	106.53	106.64	36.422	-529.39	4,182.65	595.40	458.45	136.95	4.347	
8,250.00	4,550.00	7,808.10	4,070.90	107.31	107.42	36.421	-529.30	4,212.65	595.39	457.45	137.95	4.316	
8,280.00	4,550.00	7,838.10	4,070.90	108.09	108.21	36.420	-529.21	4,242.65	595.39	456.44	138.94	4.285	
8,310.00	4,550.00	7,868.10	4,070.90	108.87	108.99	36.419	-529.13	4,272.65	595.38	455.44	139.94	4.255	
8,340.00	4,550.00	7,901.90	4,070.90	109.65	109.87	36.418	-529.04	4,302.65	595.37	454.38	141.00	4.223	
8,370.00	4,550.00	7,928.10	4,070.90	110.44	110.55	36.417	-528.95	4,332.65	595.36	453.44	141.93	4.195	
8,400.00	4,550.00	7,958.10	4,070.90	111.22	111.33	36.416	-528.87	4,362.65	595.36	452.43	142.92	4.166	
8,430.00	4,550.00	7,988.10	4,070.90	112.00	112.11	36.415	-528.78	4,392.65	595.35	451.43	143.92	4.137	
8,460.00	4,550.00	8,018.10	4,070.90	112.78	112.89	36.414	-528.69	4,422.65	595.34	450.43	144.91	4.108	
8,490.00	4,550.00	8,048.10	4,070.90	113.56	113.68	36.413	-528.61	4,452.65	595.33	449.42	145.91	4.080	
8,520.00	4,550.00	8,078.10	4,070.90	114.35	114.46	36.412	-528.52	4,482.65	595.33	448.42	146.91	4.052	
8,550.00	4,550.00	8,108.10	4,070.90	115.13	115.24	36.411	-528.44	4,512.65	595.32	447.42	147.90	4.025	
8,580.00	4,550.00	8,138.10	4,070.90	115.91	116.02	36.410	-528.35	4,542.65	595.31	446.41	148.90	3.998	
8,610.00	4,550.00	8,168.10	4,070.90	116.69	116.81	36.409	-528.26	4,572.65	595.30	445.41	149.89	3.971	
8,640.00	4,550.00	8,201.90	4,070.90	117.48	117.69	36.408	-528.18	4,602.65	595.30	444.34	150.95	3.944	
8,670.00	4,550.00	8,228.10	4,070.90	118.26	118.37	36.407	-528.09	4,632.65	595.29	443.40	151.89	3.919	
8,700.00	4,550.00	8,258.10	4,070.90	119.04	119.15	36.406	-528.00	4,662.65	595.28	442.40	152.88	3.894	
8,730.00	4,550.00	8,288.10	4,070.90	119.82	119.94	36.405	-527.92	4,692.64	595.27	441.39	153.88	3.868	
8,760.00	4,550.00	8,318.10	4,070.90	120.61	120.72	36.404	-527.83	4,722.64	595.27	440.39	154.88	3.843	
8,790.00	4,550.00	8,348.10	4,070.90	121.39	121.50	36.403	-527.74	4,752.64	595.26	439.38	155.88	3.819	
8,820.00	4,550.00	8,378.10	4,070.90	122.17	122.29	36.402	-527.66	4,782.64	595.25	438.38	156.87	3.794	
8,850.00	4,550.00	8,408.10	4,070.90	122.96	123.07	36.401	-527.57	4,812.64	595.24	437.37	157.87	3.770	
8,880.00	4,550.00	8,438.10	4,070.90	123.74	123.85	36.400	-527.48	4,842.64	595.24	436.37	158.87	3.747	
8,910.00	4,550.00	8,468.10	4,070.90	124.53	124.64	36.399	-527.40	4,872.64	595.23	435.36	159.86	3.723	
8,940.00	4,550.00	8,501.90	4,070.90	125.31	125.52	36.398	-527.31	4,902.64	595.22	434.30	160.93	3.699	
8,970.00	4,550.00	8,528.10	4,070.90	126.09	126.21	36.397	-527.22	4,932.64	595.21	433.35	161.86	3.677	
9,000.00	4,550.00	8,558.10	4,070.90	126.88	126.99	36.396	-527.14	4,962.64	595.21	432.35	162.86	3.655	
9,030.00	4,550.00	8,588.10	4,070.90	127.66	127.77	36.396	-527.05	4,992.64	595.20	431.34	163.86	3.632	
9,060.00	4,550.00	8,618.10	4,070.90	128.45	128.56	36.395	-526.96	5,022.64	595.19	430.34	164.85	3.610	
9,090.00	4,550.00	8,648.10	4,070.90	129.23	129.34	36.394	-526.88	5,052.64	595.18	429.33	165.85	3.589	
9,120.00	4,550.00	8,678.10	4,070.90	130.01	130.13	36.393	-526.79	5,082.64	595.18	428.33	166.85	3.567	
9,150.00	4,550.00	8,708.10	4,070.90	130.80	130.91	36.392	-526.70	5,112.64	595.17	427.32	167.85	3.546	
9,180.00	4,550.00	8,738.10	4,070.90	131.58	131.69	36.391	-526.62	5,142.64	595.16	426.32	168.85	3.525	
9,210.00	4,550.00	8,768.10	4,070.90	132.37	132.48	36.390	-526.53	5,172.64	595.15	425.31	169.84	3.504	
9,240.00	4,550.00	8,801.90	4,070.90	133.15	133.36	36.389	-526.45	5,202.64	595.15	424.24	170.91	3.482	
9,270.00	4,550.00	8,828.10	4,070.90	133.94	134.05	36.388	-526.36	5,232.64	595.14	423.30	171.84	3.463	
9,300.00	4,550.00	8,858.10	4,070.90	134.72	134.83	36.387	-526.27	5,262.64	595.13	422.29	172.84	3.443	
9,330.00	4,550.00	8,888.10	4,070.90	135.51	135.62	36.386	-526.19	5,292.64	595.12	421.29	173.84	3.423	
9,360.00	4,550.00	8,918.10	4,070.90	136.29	136.40	36.385	-526.10	5,322.64	595.12	420.28	174.84	3.404	
9,390.00	4,550.00	8,948.10	4,070.90	137.08	137.19	36.384	-526.01	5,352.64	595.11	419.27	175.84	3.384	
9,420.00	4,550.00	8,978.10	4,070.90	137.86	137.97	36.383	-525.93	5,382.64	595.10	418.27	176.83	3.365	
9,450.00	4,550.00	9,008.10	4,070.90	138.65	138.76	36.382	-525.84	5,412.64	595.09	417.26	177.83	3.346	
9,480.00	4,550.00	9,038.10	4,070.90	139.43	139.54	36.381	-525.75	5,442.64	595.09	416.25	178.83	3.328	
9,510.00	4,550.00	9,068.10	4,070.90	140.22	140.33	36.380	-525.67	5,472.64	595.08	415.25	179.83	3.309	
9,540.00	4,550.00	9,098.10	4,070.90	141.00	141.11	36.379	-525.58	5,502.64	595.07	414.24	180.83	3.291	
9,570.00	4,550.00	9,128.10	4,070.90	141.79	141.90	36.378	-525.49	5,532.64	595.06	413.24	181.83	3.273	

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design OZZY FED COM 18C - 003H - Wellbore #1 - Plan #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IGRF												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 +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,600.00	4,550.00	9,158.10	4,070.90	142.57	142.69	36.377	-525.41	5,562.64	595.06	412.23	182.83	3.255	
9,630.00	4,550.00	9,188.10	4,070.90	143.36	143.47	36.376	-525.32	5,592.64	595.05	411.22	183.83	3.237	
9,633.97	4,550.00	9,192.07	4,070.90	143.46	143.57	36.376	-525.31	5,596.61	595.05	411.09	183.96	3.235 SF	

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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Reference Depths are relative to EST RKB @ 3715.70usft

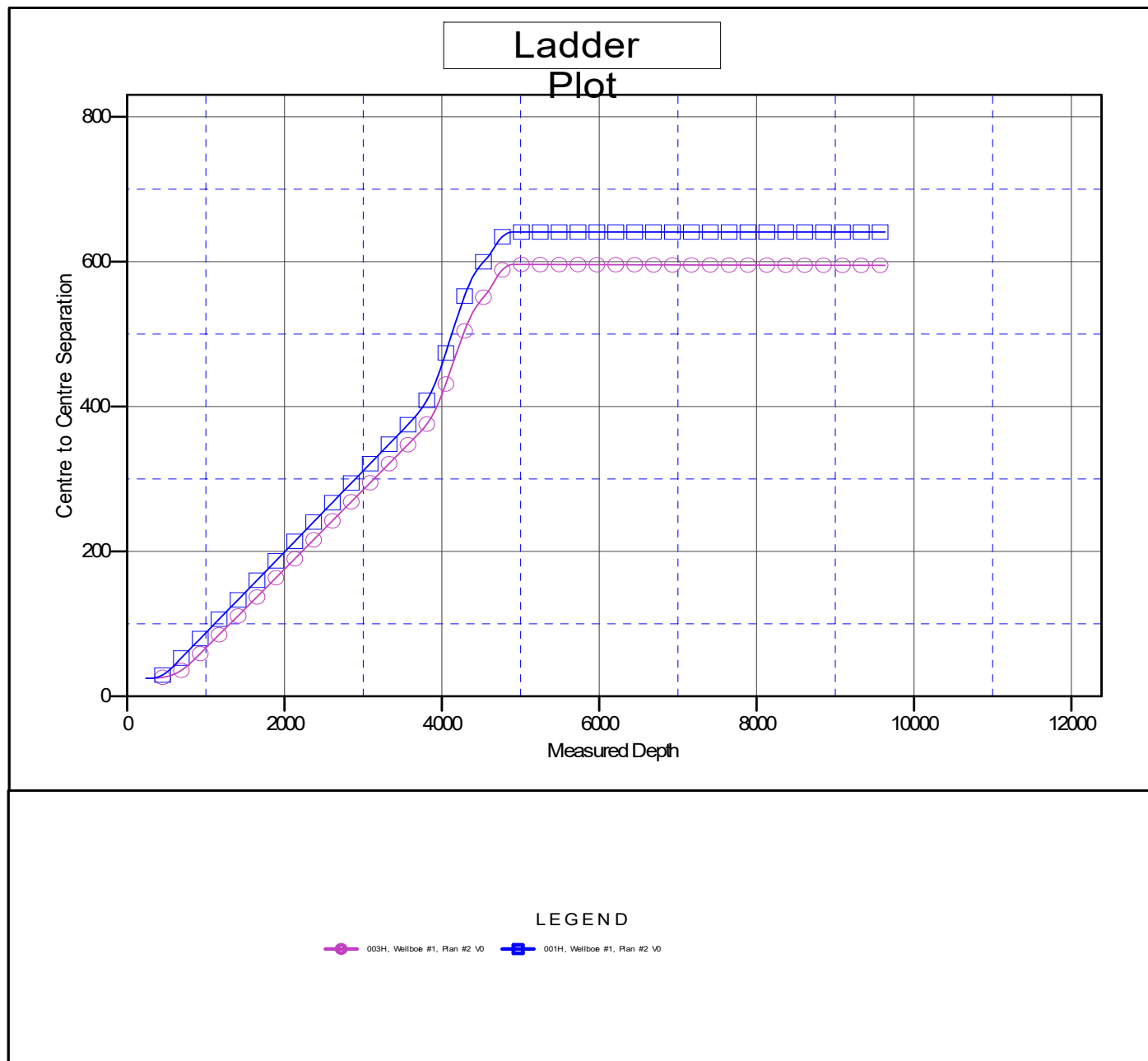
Offset Depths are relative to Offset Datum

Central Meridian is -104.333334

Coordinates are relative to: 002H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.114°



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



Anticollision Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	EST RKB @ 3715.70usft
Reference Site:	OZZY FED COM 18C	MD Reference:	EST RKB @ 3715.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	002H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	WBDS_SQL_2
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Reference Depths are relative to EST RKB @ 3715.70usft

Offset Depths are relative to Offset Datum

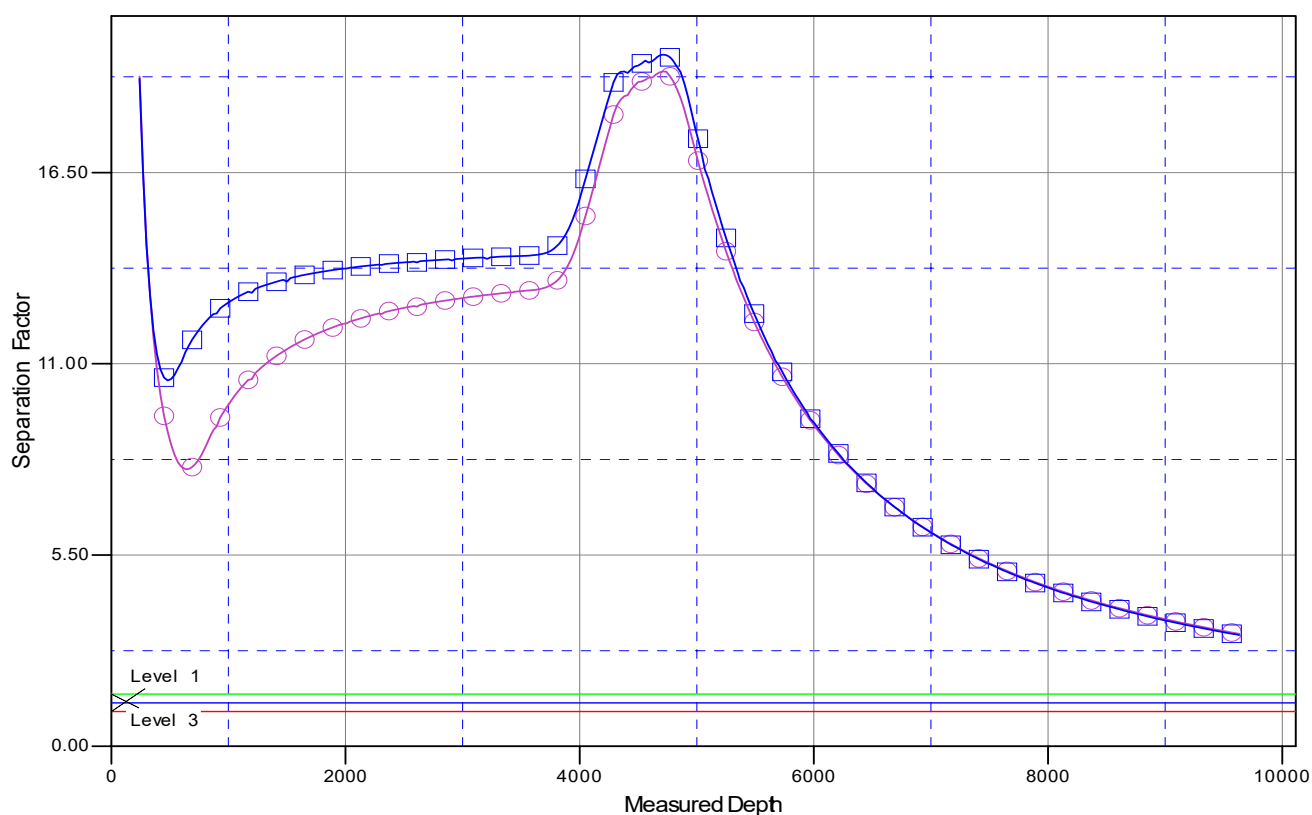
Central Meridian is -104.333334

Coordinates are relative to: 002H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.114°

Separation Factor Plot



LEGEND

—○— 003H, Wellbore #1, Plan #2 V0 —■— 001H, Wellbore #1, Plan #2 V0

District I

1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 44487

CONDITIONS

Operator: LONGFELLOW ENERGY, LP 8115 Preston Road Dallas, TX 75225	OGRID: 372210
	Action Number: 44487
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
jagarcia	None	8/26/2021