

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM40406
2. Name of Operator LEGACY RESERVES OPERATING LP		6. If Indian, Allottee or Tribe Name
Contact: MATT DICKSON E-Mail: mdickson@legacylp.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 303 W WALL ST STE 1800 MIDLAND, TX 79701	3b. Phone No. (include area code) Ph: 432-689-5200 Ext: 5204	8. Well Name and No. HAMON FED COM A 6H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 6 T20S R34E SWSE 579FSL 1956FEL		9. API Well No. 30-025-43214
		10. Field and Pool or Exploratory Area TEAS; BONE SPRING, EAST
		11. County or Parish, State LEA CO COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Legacy Reserves Operating respectfully request to shift the proposed BHL of the subject well. The SHL will remain the same as originally permitted. Please see the attached C-102 and directional plan that reflect the revised plan.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #381730 verified by the BLM Well Information System
For LEGACY RESERVES OPERATING LP, sent to the Hobbs
Committed to AFMSS for processing by JENNIFER SANCHEZ on 11/06/2017 ()

Name (Printed/Typed) MATT DICKSON	Title DRILLING ENGINEER
Signature (Electronic Submission)	Date 07/18/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE NOV 6 2017

Approved By _____	Title _____	Date _____
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Office _____		

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.

(Instructions on page 2)

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-026-43214	Pool Code 96637	Pool Name TEXAS DOWE SPRING, EAST
Property Code 302795	Property Name HAMON FED COM A	Well Number 6H.
OGRID No.	Operator Name LEGACY RESERVES OPERATING LP	Elevation 3610'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	6	20 S	34 E		579	SOUTH	1956	EAST	LEA

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
0	7	20 S	34 E		330	SOUTH	1820	EAST	LEA
Dedicated Acres	Joint or Infill	Consolidation Code	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

NOTE:

1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1983. Distances shown hereon are mean horizontal surface values.

T-20-S, R-33-E
T-20-S, R-34-E

6

#6H (SL & PP)
S 13°30'49" E-933'

(FTP)

330' 4,621' 5,554'
Total Distance from (SL) to (BHL) equals 5,554'

7

S 00°44'03" W

(BHL & LTP)

330' 1820'

SURFACE LOCATION & PENETRATION POINT

Plane Coordinate
X = 767,999.33
Y = 581,517.45
Geodetic (D.D.)
LAT:32.59648825
LON:103.59734191

FIRST TAKE POINT

Plane Coordinate
X = 768,217.28
Y = 580,610.58
Geodetic (D.D.)
LAT:32.59399156
LON:103.59665466

LAST TAKE POINT & BOTTOM HOLE LOCATION

Plane Coordinate
X = 768,158.08
Y = 575,990.46
Geodetic (D.D.)
LAT:32.58129420
LON:103.59695070

Scale
1" = 2000'

OPERATOR CERTIFICATION

I hereby certify 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 _____

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.

June 29, 2015

Date of Survey _____

Signature and Seal of Registered Surveyor

07-18-17

W.O. Num. 2015-50497

Certificate No. LINDSAY GYGAX 23263



Legacy Reserves Operating
Project: Lea County, NM
Site: Hamon Fed Pad
Well: Hamon Fed Com A #6H
Wellbore: Wellbore #1
Plan: Plan #3 (Hamon Fed Com A #6H/Wellbore #1)
McVay 4



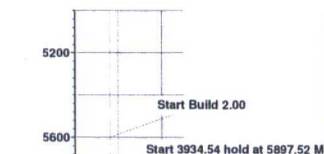
WELL DETAILS: Hamon Fed Com A #6H

Ground Elevation:: 3610.00
RKB Elevation: KB=18' @ 3628.00ft (McVay 4)
Rig Name: McVay 4

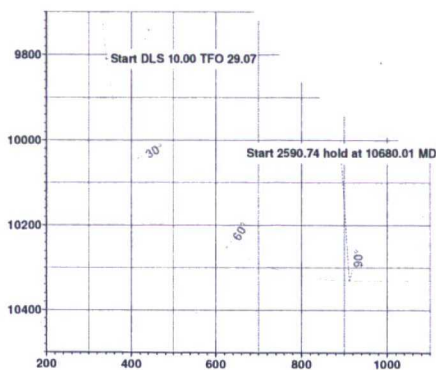
Northing	Easting	Latitude	Longitude
581454.7000	726818.7000	32.5970279	-103.7310532

Planned Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1650.00	0.00	0.00	1650.00	0.00	0.00	0.00	0.00	0.00
3	1750.00	2.00	0.00	1749.98	1.75	0.00	2.00	0.00	-1.74
4	2750.00	2.00	0.00	2749.37	36.64	0.00	0.00	0.00	-36.63
5	2850.00	0.00	0.00	2849.35	38.39	0.00	2.00	180.00	-38.37
6	5600.00	0.00	0.00	5599.35	38.39	0.00	0.00	0.00	-38.37
7	5897.52	5.95	151.81	5896.34	24.79	7.29	2.00	151.81	-24.57
8	9832.06	5.95	151.81	9809.68	-334.71	200.00	0.00	0.00	340.32
9	10680.01	90.00	180.74	10330.00	-905.60	218.83	10.00	29.07	911.52
10	13270.75	90.00	180.74	10330.00	-3496.12	185.22	0.00	0.00	3500.00
11	13320.75	89.00	180.74	10330.43	-3546.11	184.57	2.00	180.00	3549.95
12	15299.41	89.00	180.74	10364.96	-5524.30	158.90	0.00	0.00	5526.58

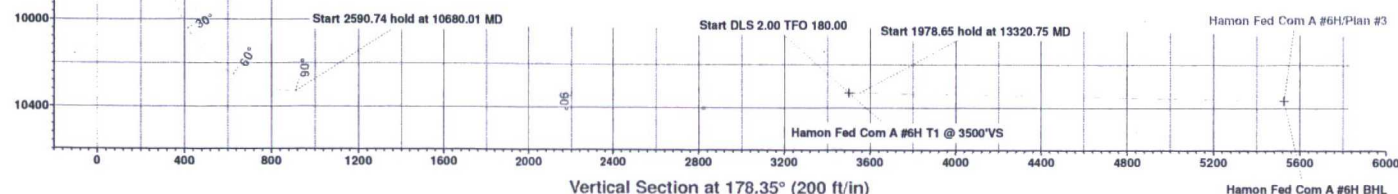
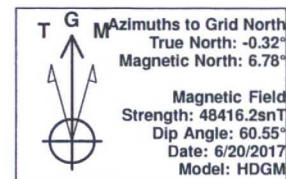


True Vertical Depth (200 ft/in)

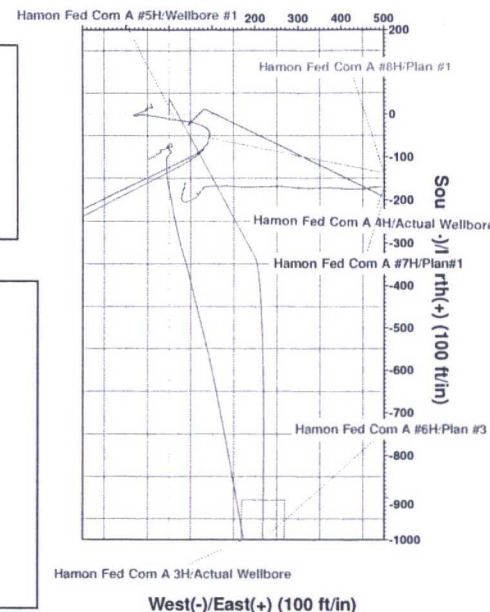


Vertical Section at 178.35° (100 ft/in)

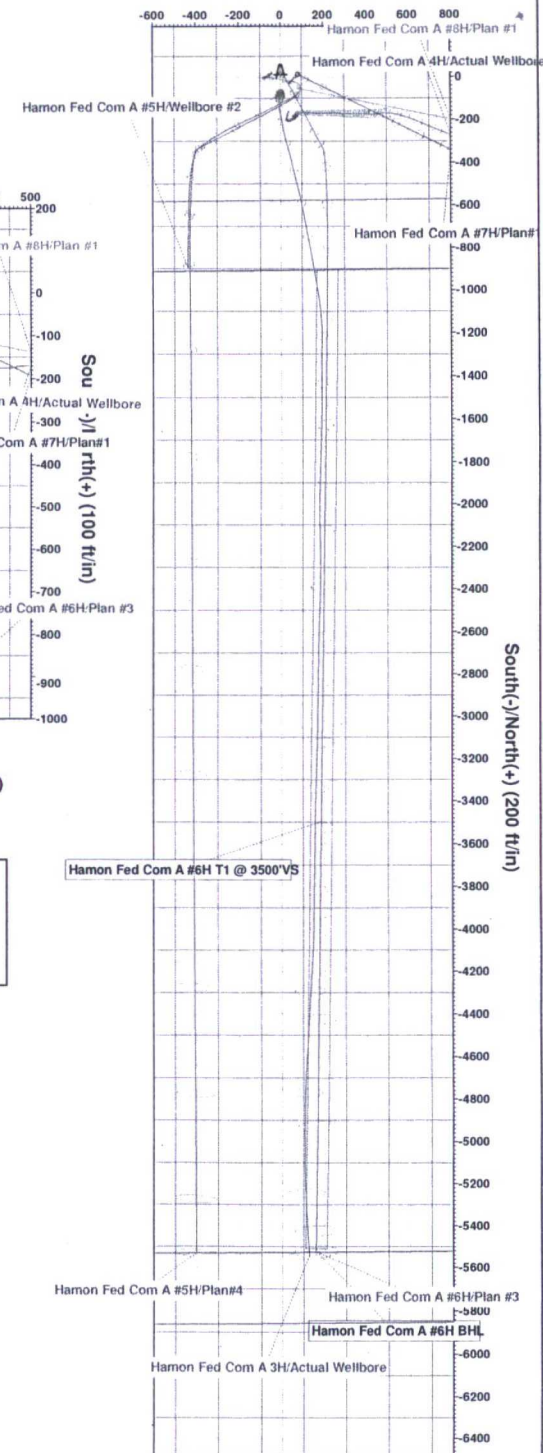
PROJECT DETAILS: Lea County, NM
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid



Vertical Section at 178.35° (200 ft/in)



West(-)/East(+) (100 ft/in)



South(-)/North(+) (200 ft/in)



Legacy Reserves Operating

Lea County, NM

Hamon Fed Pad

Hamon Fed Com A #6H

Wellbore #1

Plan: Plan #3

Standard Survey Report

13 July, 2017





Integrity Directional Services, LLC

Survey Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Site: Hamon Fed Pad
Well: Hamon Fed Com A #6H
Wellbore: Wellbore #1
Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Project	Lea County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Hamon Fed Pad			
Site Position:		Northing:	580,846.2000 usft	Latitude:	32.5954069
From:	Map	Easting:	723,480.4000 usft	Longitude:	-103.7419035
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.32 °

Well	Hamon Fed Com A #6H					
Well Position	+N/-S	0.00 ft	Northing:	581,454.7000 usfl	Latitude:	32.5970280
	+E/-W	0.00 ft	Easting:	726,818.7000 usfl	Longitude:	-103.7310532
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	3,610.00 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/20/2017	7.10	60.55	48,416

Design	Plan #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	10,365.34	0.00	0.00	178.35

Survey Tool Program		Date	7/13/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	15,298.81	Plan #3 (Wellbore #1)	MWD	MWD - Standard	

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A #6H Drilling Window									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00



Integrity Directional Services, LLC
Survey Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Site: Hamon Fed Pad
Well: Hamon Fed Com A #6H
Wellbore: Wellbore #1
Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,650.00	0.00	0.00	1,650.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,700.00	1.00	0.00	1,700.00	0.44	0.00	-0.44	2.00	2.00	0.00
1,750.00	2.00	0.00	1,749.98	1.75	0.00	-1.74	2.00	2.00	0.00
Start 1000.00 hold at 1750.00 MD									
1,800.00	2.00	0.00	1,799.95	3.49	0.00	-3.49	0.00	0.00	0.00
1,900.00	2.00	0.00	1,899.89	6.98	0.00	-6.98	0.00	0.00	0.00
2,000.00	2.00	0.00	1,999.83	10.47	0.00	-10.47	0.00	0.00	0.00
2,100.00	2.00	0.00	2,099.77	13.96	0.00	-13.95	0.00	0.00	0.00
2,200.00	2.00	0.00	2,199.71	17.45	0.00	-17.44	0.00	0.00	0.00
2,300.00	2.00	0.00	2,299.64	20.94	0.00	-20.93	0.00	0.00	0.00
2,400.00	2.00	0.00	2,399.58	24.43	0.00	-24.42	0.00	0.00	0.00
2,500.00	2.00	0.00	2,499.52	27.92	0.00	-27.91	0.00	0.00	0.00
2,600.00	2.00	0.00	2,599.46	31.41	0.00	-31.40	0.00	0.00	0.00
2,700.00	2.00	0.00	2,699.40	34.90	0.00	-34.89	0.00	0.00	0.00
2,750.00	2.00	0.00	2,749.37	36.64	0.00	-36.63	0.00	0.00	0.00
Start Drop -2.00									
2,800.00	1.00	0.00	2,799.35	37.95	0.00	-37.94	2.00	-2.00	0.00
2,850.00	0.00	0.00	2,849.35	38.39	0.00	-38.37	2.00	-2.00	0.00
Start 2750.00 hold at 2850.00 MD									
2,900.00	0.00	0.00	2,899.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,000.00	0.00	0.00	2,999.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,100.00	0.00	0.00	3,099.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,200.00	0.00	0.00	3,199.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,300.00	0.00	0.00	3,299.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,400.00	0.00	0.00	3,399.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,500.00	0.00	0.00	3,499.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,600.00	0.00	0.00	3,599.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,700.00	0.00	0.00	3,699.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,800.00	0.00	0.00	3,799.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,900.00	0.00	0.00	3,899.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,000.00	0.00	0.00	3,999.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,100.00	0.00	0.00	4,099.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,200.00	0.00	0.00	4,199.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,300.00	0.00	0.00	4,299.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,400.00	0.00	0.00	4,399.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,500.00	0.00	0.00	4,499.35	38.39	0.00	-38.37	0.00	0.00	0.00



Integrity Directional Services, LLC
Survey Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Site: Hamon Fed Pad
Well: Hamon Fed Com A #6H
Wellbore: Wellbore #1
Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,600.00	0.00	0.00	4,599.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,700.00	0.00	0.00	4,699.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,800.00	0.00	0.00	4,799.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,900.00	0.00	0.00	4,899.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,000.00	0.00	0.00	4,999.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,100.00	0.00	0.00	5,099.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,200.00	0.00	0.00	5,199.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,300.00	0.00	0.00	5,299.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,400.00	0.00	0.00	5,399.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,500.00	0.00	0.00	5,499.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,600.00	0.00	0.00	5,599.35	38.39	0.00	-38.37	0.00	0.00	0.00
Start Build 2.00									
5,700.00	2.00	151.81	5,699.33	36.85	0.82	-36.81	2.00	2.00	0.00
5,800.00	4.00	151.81	5,799.19	32.24	3.30	-32.13	2.00	2.00	0.00
5,897.52	5.95	151.81	5,896.34	24.79	7.29	-24.57	2.00	2.00	0.00
Start 3934.54 hold at 5897.52 MD									
5,900.00	5.95	151.81	5,898.80	24.56	7.41	-24.34	0.00	0.00	0.00
6,000.00	5.95	151.81	5,998.26	15.42	12.31	-15.06	0.00	0.00	0.00
6,100.00	5.95	151.81	6,097.72	6.29	17.21	-5.79	0.00	0.00	0.00
6,200.00	5.95	151.81	6,197.19	-2.85	22.11	3.49	0.00	0.00	0.00
6,300.00	5.95	151.81	6,296.65	-11.99	27.01	12.76	0.00	0.00	0.00
6,400.00	5.95	151.81	6,396.11	-21.13	31.90	22.03	0.00	0.00	0.00
6,500.00	5.95	151.81	6,495.57	-30.26	36.80	31.31	0.00	0.00	0.00
6,600.00	5.95	151.81	6,595.03	-39.40	41.70	40.58	0.00	0.00	0.00
6,700.00	5.95	151.81	6,694.49	-48.54	46.60	49.86	0.00	0.00	0.00
6,800.00	5.95	151.81	6,793.95	-57.67	51.49	59.13	0.00	0.00	0.00
6,900.00	5.95	151.81	6,893.41	-66.81	56.39	68.40	0.00	0.00	0.00
7,000.00	5.95	151.81	6,992.88	-75.95	61.29	77.68	0.00	0.00	0.00
7,100.00	5.95	151.81	7,092.34	-85.08	66.19	86.95	0.00	0.00	0.00
7,200.00	5.95	151.81	7,191.80	-94.22	71.09	96.23	0.00	0.00	0.00
7,300.00	5.95	151.81	7,291.26	-103.36	75.98	105.50	0.00	0.00	0.00
7,400.00	5.95	151.81	7,390.72	-112.49	80.88	114.77	0.00	0.00	0.00
7,500.00	5.95	151.81	7,490.18	-121.63	85.78	124.05	0.00	0.00	0.00
7,600.00	5.95	151.81	7,589.64	-130.77	90.68	133.32	0.00	0.00	0.00
7,700.00	5.95	151.81	7,689.10	-139.91	95.57	142.60	0.00	0.00	0.00
7,800.00	5.95	151.81	7,788.57	-149.04	100.47	151.87	0.00	0.00	0.00
7,900.00	5.95	151.81	7,888.03	-158.18	105.37	161.14	0.00	0.00	0.00
8,000.00	5.95	151.81	7,987.49	-167.32	110.27	170.42	0.00	0.00	0.00
8,100.00	5.95	151.81	8,086.95	-176.45	115.17	179.69	0.00	0.00	0.00
8,200.00	5.95	151.81	8,186.41	-185.59	120.06	188.97	0.00	0.00	0.00
8,300.00	5.95	151.81	8,285.87	-194.73	124.96	198.24	0.00	0.00	0.00
8,400.00	5.95	151.81	8,385.33	-203.86	129.86	207.51	0.00	0.00	0.00
8,500.00	5.95	151.81	8,484.79	-213.00	134.76	216.79	0.00	0.00	0.00



Integrity Directional Services, LLC
Survey Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Site: Hamon Fed Pad
Well: Hamon Fed Com A #6H
Wellbore: Wellbore #1
Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,600.00	5.95	151.81	8,584.25	-222.14	139.66	226.06	0.00	0.00	0.00
8,700.00	5.95	151.81	8,683.72	-231.27	144.55	235.33	0.00	0.00	0.00
8,800.00	5.95	151.81	8,783.18	-240.41	149.45	244.61	0.00	0.00	0.00
8,900.00	5.95	151.81	8,882.64	-249.55	154.35	253.88	0.00	0.00	0.00
9,000.00	5.95	151.81	8,982.10	-258.69	159.25	263.16	0.00	0.00	0.00
9,100.00	5.95	151.81	9,081.56	-267.82	164.14	272.43	0.00	0.00	0.00
9,200.00	5.95	151.81	9,181.02	-276.96	169.04	281.70	0.00	0.00	0.00
9,300.00	5.95	151.81	9,280.48	-286.10	173.94	290.98	0.00	0.00	0.00
9,400.00	5.95	151.81	9,379.94	-295.23	178.84	300.25	0.00	0.00	0.00
9,500.00	5.95	151.81	9,479.41	-304.37	183.74	309.53	0.00	0.00	0.00
9,600.00	5.95	151.81	9,578.87	-313.51	188.63	318.80	0.00	0.00	0.00
9,700.00	5.95	151.81	9,678.33	-322.64	193.53	328.07	0.00	0.00	0.00
9,800.00	5.95	151.81	9,777.79	-331.78	198.43	337.35	0.00	0.00	0.00
9,832.06	5.95	151.81	9,809.68	-334.71	200.00	340.32	0.00	0.00	0.00
Start DLS 10.00 TFO 29.07									
9,900.00	12.34	167.41	9,876.73	-344.91	203.25	350.61	10.00	9.40	22.97
10,000.00	22.18	173.64	9,972.12	-374.17	207.68	379.98	10.00	9.84	6.23
10,100.00	32.12	176.13	10,060.99	-419.56	211.57	425.47	10.00	9.94	2.50
10,200.00	42.08	177.54	10,140.65	-479.71	214.81	485.69	10.00	9.96	1.41
10,300.00	52.06	178.49	10,208.68	-552.79	217.29	558.81	10.00	9.98	0.95
10,400.00	62.04	179.21	10,263.01	-636.58	218.95	642.61	10.00	9.98	0.72
10,500.00	72.02	179.81	10,301.99	-728.53	219.72	734.55	10.00	9.98	0.60
10,600.00	82.01	180.34	10,324.43	-825.85	219.59	831.82	10.00	9.99	0.53
10,680.01	90.00	180.74	10,330.00	-905.60	218.83	911.52	10.00	9.99	0.51
Start 2590.74 hold at 10680.01 MD									
10,700.00	90.00	180.74	10,330.00	-925.58	218.58	931.49	0.00	0.00	0.00
10,800.00	90.00	180.74	10,330.00	-1,025.58	217.28	1,031.40	0.00	0.00	0.00
10,900.00	90.00	180.74	10,330.00	-1,125.57	215.98	1,131.31	0.00	0.00	0.00
11,000.00	90.00	180.74	10,330.00	-1,225.56	214.68	1,231.23	0.00	0.00	0.00
11,100.00	90.00	180.74	10,330.00	-1,325.55	213.38	1,331.14	0.00	0.00	0.00
11,200.00	90.00	180.74	10,330.00	-1,425.54	212.09	1,431.05	0.00	0.00	0.00
11,300.00	90.00	180.74	10,330.00	-1,525.53	210.79	1,530.96	0.00	0.00	0.00
11,400.00	90.00	180.74	10,330.00	-1,625.53	209.49	1,630.88	0.00	0.00	0.00
11,500.00	90.00	180.74	10,330.00	-1,725.52	208.19	1,730.79	0.00	0.00	0.00
11,600.00	90.00	180.74	10,330.00	-1,825.51	206.90	1,830.70	0.00	0.00	0.00
11,700.00	90.00	180.74	10,330.00	-1,925.50	205.60	1,930.62	0.00	0.00	0.00
11,800.00	90.00	180.74	10,330.00	-2,025.49	204.30	2,030.53	0.00	0.00	0.00
11,900.00	90.00	180.74	10,330.00	-2,125.48	203.00	2,130.44	0.00	0.00	0.00
12,000.00	90.00	180.74	10,330.00	-2,225.48	201.71	2,230.35	0.00	0.00	0.00
12,100.00	90.00	180.74	10,330.00	-2,325.47	200.41	2,330.27	0.00	0.00	0.00
12,200.00	90.00	180.74	10,330.00	-2,425.46	199.11	2,430.18	0.00	0.00	0.00
12,300.00	90.00	180.74	10,330.00	-2,525.45	197.81	2,530.09	0.00	0.00	0.00
12,400.00	90.00	180.74	10,330.00	-2,625.44	196.52	2,630.01	0.00	0.00	0.00
12,500.00	90.00	180.74	10,330.00	-2,725.43	195.22	2,729.92	0.00	0.00	0.00



Integrity Directional Services, LLC

Survey Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Site: Hamon Fed Pad
Well: Hamon Fed Com A #6H
Wellbore: Wellbore #1
Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,600.00	90.00	180.74	10,330.00	-2,825.42	193.92	2,829.83	0.00	0.00	0.00
12,700.00	90.00	180.74	10,330.00	-2,925.42	192.62	2,929.75	0.00	0.00	0.00
12,800.00	90.00	180.74	10,330.00	-3,025.41	191.33	3,029.66	0.00	0.00	0.00
12,900.00	90.00	180.74	10,330.00	-3,125.40	190.03	3,129.57	0.00	0.00	0.00
13,000.00	90.00	180.74	10,330.00	-3,225.39	188.73	3,229.48	0.00	0.00	0.00
13,100.00	90.00	180.74	10,330.00	-3,325.38	187.43	3,329.40	0.00	0.00	0.00
13,200.00	90.00	180.74	10,330.00	-3,425.37	186.14	3,429.31	0.00	0.00	0.00
13,270.75	90.00	180.74	10,330.00	-3,496.12	185.22	3,500.00	0.00	0.00	0.00
Start DLS 2.00 TFO 180.00 - Hamon Fed Com A #6H T1 @ 3500°VS									
13,300.00	89.42	180.74	10,330.15	-3,525.37	184.84	3,529.22	2.00	-2.00	0.00
13,320.75	89.00	180.74	10,330.43	-3,546.11	184.57	3,549.95	2.00	-2.00	0.00
Start 1978.65 hold at 13320.75 MD									
13,400.00	89.00	180.74	10,331.82	-3,625.34	183.54	3,629.12	0.00	0.00	0.00
13,500.00	89.00	180.74	10,333.56	-3,725.32	182.24	3,729.02	0.00	0.00	0.00
13,600.00	89.00	180.74	10,335.31	-3,825.30	180.95	3,828.92	0.00	0.00	0.00
13,700.00	89.00	180.74	10,337.05	-3,925.27	179.65	3,928.81	0.00	0.00	0.00
13,800.00	89.00	180.74	10,338.80	-4,025.25	178.35	4,028.71	0.00	0.00	0.00
13,900.00	89.00	180.74	10,340.54	-4,125.22	177.06	4,128.61	0.00	0.00	0.00
14,000.00	89.00	180.74	10,342.29	-4,225.20	175.76	4,228.51	0.00	0.00	0.00
14,100.00	89.00	180.74	10,344.03	-4,325.18	174.46	4,328.41	0.00	0.00	0.00
14,200.00	89.00	180.74	10,345.78	-4,425.15	173.16	4,428.30	0.00	0.00	0.00
14,300.00	89.00	180.74	10,347.52	-4,525.13	171.87	4,528.20	0.00	0.00	0.00
14,400.00	89.00	180.74	10,349.27	-4,625.11	170.57	4,628.10	0.00	0.00	0.00
14,500.00	89.00	180.74	10,351.01	-4,725.08	169.27	4,728.00	0.00	0.00	0.00
14,600.00	89.00	180.74	10,352.76	-4,825.06	167.97	4,827.89	0.00	0.00	0.00
14,700.00	89.00	180.74	10,354.50	-4,925.04	166.68	4,927.79	0.00	0.00	0.00
14,800.00	89.00	180.74	10,356.25	-5,025.01	165.38	5,027.69	0.00	0.00	0.00
14,900.00	89.00	180.74	10,357.99	-5,124.99	164.08	5,127.59	0.00	0.00	0.00
15,000.00	89.00	180.74	10,359.74	-5,224.96	162.78	5,227.48	0.00	0.00	0.00
15,100.00	89.00	180.74	10,361.48	-5,324.94	161.49	5,327.38	0.00	0.00	0.00
15,200.00	89.00	180.74	10,363.23	-5,424.92	160.19	5,427.28	0.00	0.00	0.00
15,299.41	89.00	180.74	10,364.96	-5,524.30	158.90	5,526.58	0.00	0.00	0.00
TD at 15299.41 - Hamon Fed Com A #6H BHL									



Integrity Directional Services, LLC
Survey Report.



Company: Legacy Reserves Operating
Project: Lea County, NM
Site: Hamon Fed Pad
Well: Hamon Fed Com A #6H
Wellbore: Wellbore #1
Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
A #6H Drilling Window	0.00	180.74	0.00	-905.60	218.83	580,549.1018	727,037.5295	32.5945354	-103.7303593
- plan misses target center by 931.66ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W100.00 H4,604.17 D0.00)									
Hamon Fed Com A #6	0.00	0.00	10,330.0	-3,496.12	185.22	577,958.5870	727,003.9196	32.5874157	-103.7305161
- plan misses target center by 0.01ft at 13270.75ft MD (10330.00 TVD, -3496.12 N, 185.22 E)									
- Point									
Hamon Fed Com A #6	0.00	0.00	10,365.3	-5,524.30	158.90	575,930.4111	726,977.5996	32.5818415	-103.7306389
- plan misses target center by 0.38ft at 15299.41ft MD (10364.96 TVD, -5524.30 N, 158.90 E)									
- Point									

Plan Annotations

Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
1650	1650	0	0	Start Build 2.00
1750	1750	2	0	Start 1000.00 hold at 1750.00 MD
2750	2749	37	0	Start Drop -2.00
2850	2849	38	0	Start 2750.00 hold at 2850.00 MD
5600	5599	38	0	Start Build 2.00
5898	5896	25	7	Start 3934.54 hold at 5897.52 MD
9832	9810	-335	200	Start DLS 10.00 TFO 29.07
10,680	10,330	-906	219	Start 2590.74 hold at 10680.01 MD
13,271	10,330	-3496	185	Start DLS 2.00 TFO 180.00
13,321	10,330	-3546	185	Start 1978.65 hold at 13320.75 MD
15,299	10,365	-5524	159	TD at 15299.41

Checked By: _____ Approved By: _____ Date: _____



Legacy Reserves Operating

**Lea County, NM
Hamon Fed Pad
Hamon Fed Com A #6H**

**Wellbore #1
Plan #3**

Anticollision Report

14 July, 2017





Integrity Directional Services, LLC

Anticollision Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Reference Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Hamon Fed Com A #6H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Reference	Plan #3
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD + Stations Interval 100.00ft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 10,000.00 ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic
Casing Method:	Not applied

Survey Tool Program		Date	7/14/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	15,298.81	Plan #3 (Wellbore #1)	MWD	MWD - Standard	

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Hamon Fed Pad						
HAMON A FED #1 - Wellbore #1 - Wellbore #1	13,986.23	10,346.13	183.17	-201.96	0.476	Level 1, CC, ES, SF
Hamon Fed Com A #5H - Wellbore #1 - Wellbore #1	887.49	887.56	42.52	38.91	11.783	CC
Hamon Fed Com A #5H - Wellbore #1 - Wellbore #1	5,250.67	5,255.29	48.12	25.58	2.135	ES, SF
Hamon Fed Com A #5H - Wellbore #2 - Plan#4	887.49	887.56	42.52	38.91	11.783	CC
Hamon Fed Com A #5H - Wellbore #2 - Plan#4	5,250.67	5,255.29	48.12	25.58	2.135	ES, SF
Hamon Fed Com A #5H - Wellbore #2 - Wellbore #2	887.49	887.56	42.52	38.91	11.783	CC
Hamon Fed Com A #5H - Wellbore #2 - Wellbore #2	5,250.67	5,255.29	48.12	25.58	2.135	ES, SF
Hamon Fed Com A #7H - Wellbore #1 - Plan#1	1,650.00	1,650.00	49.66	42.51	6.944	CC, ES
Hamon Fed Com A #7H - Wellbore #1 - Plan#1	5,700.00	5,697.43	85.80	60.69	3.418	SF
Hamon Fed Com A #8H - Wellbore #1 - Plan#1	1,650.00	1,651.00	99.91	92.76	13.966	CC, ES
Hamon Fed Com A #8H - Wellbore #1 - Plan#1	15,299.41	15,198.04	1,415.05	1,212.85	6.998	SF
Hamon Fed Com A 3H - Wellbore #1 - Actual Wellbore	6,660.11	6,660.66	46.43	19.19	1.705	CC, ES, SF
Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbo	0.00	5.95	163.23			
Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbo	7,300.00	7,291.77	188.00	157.95	6.256	ES
Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbo	7,400.00	7,388.44	189.60	159.09	6.215	SF
HAMON FEDERAL COM #001 - Wellbore #1 - Wellbore	11,016.04	10,334.08	234.61	-102.14	0.697	Level 1, CC, ES, SF

Offset Design		Hamon Fed Pad - HAMON A FED #1 - Wellbore #1 - Wellbore #1										Offset Site Error:		0.00 ft		
Survey Program: 502-INC														Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)		+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	3.00	3.00	0.00	0.05	-179.90	-4,209.05	-7.22	4,209.06							
100.00	100.00	103.00	103.00	0.09	1.72	-179.90	-4,209.05	-7.22	4,209.06	4,207.25		1.81	2,323.516			
200.00	200.00	203.00	203.00	0.32	3.39	-179.90	-4,209.05	-7.22	4,209.06	4,205.36		3.71	1,135.882			
300.00	300.00	303.00	303.00	0.54	5.06	-179.90	-4,209.05	-7.22	4,209.06	4,203.46		5.60	751.674			
400.00	400.00	403.00	403.00	0.77	6.73	-179.90	-4,209.05	-7.22	4,209.06	4,201.57		7.49	561.686			
500.00	500.00	503.00	503.00	0.99	8.41	-179.90	-4,209.05	-7.22	4,209.06	4,199.66		9.40	447.638			
600.00	600.00	603.00	603.00	1.22	11.60	-179.90	-4,209.05	-7.22	4,209.06	4,196.25		12.81	328.479			
700.00	700.00	703.00	703.00	1.44	14.78	-179.90	-4,209.05	-7.22	4,209.06	4,192.84		16.22	259.422			
800.00	800.00	803.00	803.00	1.67	17.97	-179.90	-4,209.05	-7.22	4,209.06	4,189.42		19.64	214.357			
900.00	900.00	903.00	903.00	1.89	21.16	-179.90	-4,209.05	-7.22	4,209.06	4,186.01		23.05	182.632			
1,000.00	1,000.00	1,008.00	1,008.00	2.12	24.50	-179.90	-4,209.05	-7.22	4,209.06	4,182.45		26.62	158.135			
1,035.09	1,035.09	1,038.09	1,038.09	2.19	25.42	-179.90	-4,209.05	-7.22	4,209.06	4,181.45		27.61	152.449			

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



Integrity Directional Services, LLC

Anticollision Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Reference Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Hamon Fed Com A #6H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Hamon Fed Pad - HAMON A FED #1 - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 ft
Survey Program: 502-INC														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
1,100.00	1,100.00	1,103.00	1,103.00	2.34	27.39	-179.90	-4,209.05	-7.22	4,209.06	4,179.33	29.73	141.590			
1,200.00	1,200.00	1,203.00	1,203.00	2.56	30.42	-179.90	-4,209.05	-7.22	4,209.06	4,176.07	32.99	127.589			
1,300.00	1,300.00	1,303.00	1,303.00	2.79	33.46	-179.90	-4,209.05	-7.22	4,209.06	4,172.81	36.25	116.108			
1,400.00	1,400.00	1,403.00	1,403.00	3.01	36.50	-179.90	-4,209.05	-7.22	4,209.06	4,169.55	39.51	106.522			
1,500.00	1,500.00	1,503.01	1,503.00	3.24	39.53	-179.90	-4,209.05	-7.22	4,209.06	4,166.29	42.77	98.403			
1,600.00	1,600.00	1,603.01	1,603.00	3.46	42.56	-179.90	-4,209.05	-7.22	4,209.06	4,163.04	46.02	91.455			
1,650.00	1,650.00	1,653.01	1,653.00	3.58	44.07	-179.90	-4,209.05	-7.22	4,209.06	4,161.41	47.65	88.336			
1,700.00	1,700.00	1,703.00	1,703.00	3.69	45.58	-179.90	-4,209.05	-7.22	4,209.50	4,160.23	49.27	85.445			
1,750.00	1,749.98	1,752.99	1,752.98	3.80	47.10	-179.90	-4,209.05	-7.22	4,210.81	4,159.94	50.87	82.781			
1,800.00	1,799.95	1,802.96	1,802.95	3.91	48.61	-179.90	-4,209.05	-7.22	4,212.55	4,160.06	52.49	80.254			
1,900.00	1,899.89	1,902.89	1,902.89	4.14	51.63	-179.90	-4,209.05	-7.22	4,216.04	4,160.30	55.74	75.643			
2,000.00	1,999.83	2,002.85	2,002.83	4.36	54.66	-179.90	-4,209.05	-7.22	4,219.53	4,160.55	58.98	71.538			
2,100.00	2,099.77	2,102.79	2,102.77	4.59	57.68	-179.90	-4,209.05	-7.22	4,223.02	4,160.79	62.23	67.859			
2,200.00	2,199.71	2,202.73	2,202.71	4.81	60.71	-179.90	-4,209.05	-7.22	4,226.51	4,161.03	65.48	64.546			
2,300.00	2,299.64	2,302.66	2,302.64	5.04	63.73	-179.90	-4,209.05	-7.22	4,230.00	4,161.27	68.73	61.545			
2,400.00	2,399.58	2,402.60	2,402.58	5.27	66.76	-179.90	-4,209.05	-7.22	4,233.49	4,161.51	71.98	58.816			
2,500.00	2,499.52	2,502.00	2,519.96	5.49	70.31	-179.90	-4,209.05	-7.22	4,237.02	4,161.26	75.76	55.930			
2,600.00	2,599.46	2,602.50	2,602.46	5.72	72.77	-179.90	-4,209.05	-7.22	4,240.47	4,162.03	78.44	54.060			
2,700.00	2,699.40	2,702.44	2,702.40	5.95	75.75	-179.90	-4,209.05	-7.22	4,243.96	4,162.32	81.64	51.981			
2,750.00	2,749.37	2,858.00	2,857.95	6.06	80.39	-179.90	-4,209.05	-7.22	4,247.02	4,160.62	86.39	49.158			
2,800.00	2,799.35	2,858.00	2,857.95	6.16	80.39	-179.90	-4,209.05	-7.22	4,247.38	4,160.85	86.53	49.085			
2,850.00	2,849.35	2,858.00	2,857.95	6.25	80.39	-179.90	-4,209.05	-7.22	4,247.45	4,160.82	86.63	49.030			
2,868.77	2,868.12	2,871.17	2,871.12	6.29	80.78	-179.90	-4,209.05	-7.22	4,247.45	4,160.39	87.06	48.789			
2,900.00	2,899.35	2,902.40	2,902.35	6.35	81.71	-179.90	-4,209.05	-7.22	4,247.45	4,159.40	88.05	48.241			
3,000.00	2,999.35	3,097.00	3,096.91	6.57	87.49	-179.90	-4,209.05	-7.22	4,248.50	4,154.45	94.05	45.172			
3,100.00	3,099.35	3,102.44	3,102.35	6.79	87.65	-179.90	-4,209.05	-7.22	4,247.45	4,153.01	94.44	44.977			
3,200.00	3,199.35	3,220.00	3,219.89	7.02	91.13	-179.90	-4,209.05	-7.22	4,247.49	4,149.35	98.14	43.282			
3,240.42	3,239.77	3,242.89	3,242.77	7.11	91.80	-179.90	-4,209.05	-7.22	4,247.45	4,148.55	98.90	42.947			
3,300.00	3,299.35	3,302.47	3,302.35	7.24	93.55	-179.90	-4,209.05	-7.22	4,247.45	4,146.66	100.79	42.143			
3,400.00	3,399.35	3,478.00	3,477.79	7.46	98.72	-179.90	-4,209.05	-7.22	4,248.12	4,141.95	106.17	40.011			
3,500.00	3,499.35	3,502.56	3,502.35	7.69	99.45	-179.90	-4,209.05	-7.22	4,247.45	4,140.32	107.13	39.648			
3,600.00	3,599.35	3,645.00	3,644.73	7.91	103.69	-179.90	-4,209.05	-7.22	4,247.66	4,136.07	111.59	38.064			
3,657.85	3,657.20	3,660.47	3,660.20	8.04	104.17	-179.90	-4,209.05	-7.22	4,247.45	4,135.25	112.20	37.854			
3,700.00	3,699.35	3,702.62	3,702.35	8.14	105.49	-179.90	-4,209.05	-7.22	4,247.45	4,133.83	113.62	37.384			
3,800.00	3,799.35	3,802.62	3,802.35	8.36	108.61	-179.90	-4,209.05	-7.22	4,247.45	4,130.48	116.97	36.313			
3,900.00	3,899.35	3,902.62	3,902.35	8.58	111.74	-179.90	-4,209.05	-7.22	4,247.45	4,127.13	120.32	35.302			
4,000.00	3,999.35	4,002.62	4,002.35	8.81	114.87	-179.90	-4,209.05	-7.22	4,247.45	4,123.78	123.67	34.345			
4,100.00	4,099.35	4,102.62	4,102.35	9.03	117.99	-179.90	-4,209.05	-7.22	4,247.45	4,120.43	127.02	33.439			
4,200.00	4,199.35	4,202.62	4,202.35	9.26	121.12	-179.90	-4,209.05	-7.22	4,247.45	4,117.08	130.37	32.580			
4,300.00	4,299.35	4,302.62	4,302.35	9.48	124.24	-179.90	-4,209.05	-7.22	4,247.45	4,113.73	133.72	31.763			
4,400.00	4,399.35	4,402.62	4,402.35	9.70	127.37	-179.90	-4,209.05	-7.22	4,247.45	4,110.38	137.07	30.987			
4,500.00	4,499.35	4,502.62	4,502.35	9.93	130.50	-179.90	-4,209.05	-7.22	4,247.45	4,107.03	140.42	30.247			
4,600.00	4,599.35	4,602.62	4,602.35	10.15	133.62	-179.90	-4,209.05	-7.22	4,247.45	4,103.68	143.78	29.542			
4,700.00	4,699.35	4,702.62	4,702.35	10.38	136.75	-179.90	-4,209.05	-7.22	4,247.45	4,100.32	147.13	28.869			
4,800.00	4,799.35	4,802.62	4,802.35	10.60	139.88	-179.90	-4,209.05	-7.22	4,247.45	4,096.97	150.48	28.227			
4,900.00	4,899.35	4,902.62	4,902.35	10.83	143.00	-179.90	-4,209.05	-7.22	4,247.45	4,093.62	153.83	27.612			
5,000.00	4,999.35	5,002.62	5,002.35	11.05	146.13	-179.90	-4,209.05	-7.22	4,247.45	4,090.27	157.18	27.023			
5,100.00	5,099.35	5,102.62	5,102.35	11.27	149.26	-179.90	-4,209.05	-7.22	4,247.45	4,086.92	160.53	26.459			
5,200.00	5,199.35	5,208.00	5,207.49	11.50	152.55	-179.90	-4,209.05	-7.22	4,247.45	4,083.40	164.05	25.891			
5,235.14	5,234.49	5,238.00	5,237.49	11.58	153.43	-179.90	-4,209.05	-7.22	4,247.45	4,082.44	165.01	25.741			
5,300.00	5,299.35	5,302.86	5,302.35	11.72	155.34	-179.90	-4,209.05	-7.22	4,247.45	4,080.39	167.06	25.424			
5,400.00	5,399.35	5,402.86	5,402.35	11.95	158.33	-179.90	-4,209.05	-7.22	4,247.45	4,077.18	170.27	24.945			

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



Integrity Directional Services, LLC

Anticollision Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Reference Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Hamon Fed Com A #6H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Hamon Fed Pad - HAMON A FED #1 - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 ft
Survey Program: 502-INC														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
5,500.00	5,499.35	5,502.86	5,502.35	12.17	161.31	-179.90	-4,209.05	-7.22	4,247.45	4,073.97	173.48	24.483			
5,600.00	5,599.35	5,602.87	5,602.35	12.40	164.30	-179.90	-4,209.05	-7.22	4,247.45	4,070.75	176.70	24.038			
5,700.00	5,699.33	5,600.00	5,799.46	12.59	170.19	28.34	-4,209.05	-7.22	4,247.02	4,064.33	182.69	23.247			
5,800.00	5,799.19	5,802.73	5,802.19	12.77	170.27	28.39	-4,209.05	-7.22	4,241.31	4,058.62	182.69	23.216			
5,897.52	5,896.34	5,899.88	5,899.34	12.94	173.13	28.52	-4,209.05	-7.22	4,233.86	4,048.57	185.29	22.850			
5,900.00	5,898.80	5,902.34	5,901.80	12.94	173.21	28.52	-4,209.05	-7.22	4,233.64	4,048.27	185.37	22.839			
6,000.00	5,998.26	6,001.80	6,001.26	13.12	176.14	28.59	-4,209.05	-7.22	4,224.52	4,036.06	188.47	22.415			
6,100.00	6,097.72	6,101.26	6,100.72	13.30	179.07	28.66	-4,209.05	-7.22	4,215.41	4,023.84	191.57	22.005			
6,200.00	6,197.19	6,200.73	6,200.19	13.48	182.00	28.72	-4,209.05	-7.22	4,206.30	4,011.64	194.67	21.607			
6,300.00	6,296.65	6,300.26	6,299.65	13.66	184.94	28.79	-4,209.05	-7.22	4,197.21	3,999.43	197.78	21.222			
6,400.00	6,396.11	6,399.72	6,399.11	13.85	187.88	28.86	-4,209.05	-7.22	4,188.11	3,987.22	200.89	20.847			
6,500.00	6,495.57	6,499.19	6,498.57	14.04	190.82	28.93	-4,209.05	-7.22	4,179.02	3,975.01	204.01	20.484			
6,600.00	6,595.03	6,598.65	6,598.03	14.23	193.76	29.00	-4,209.05	-7.22	4,169.94	3,962.81	207.13	20.132			
6,700.00	6,694.49	6,698.11	6,697.49	14.43	196.70	29.07	-4,209.05	-7.22	4,160.87	3,950.61	210.25	19.790			
6,800.00	6,793.95	6,797.59	6,796.95	14.63	199.65	29.14	-4,209.05	-7.22	4,151.80	3,938.41	213.38	19.457			
6,900.00	6,893.41	6,897.06	6,896.41	14.84	202.64	29.20	-4,209.05	-7.22	4,142.73	3,926.18	216.55	19.131			
7,000.00	6,992.88	6,996.52	6,995.88	15.05	205.62	29.27	-4,209.05	-7.22	4,133.68	3,913.96	219.72	18.813			
7,100.00	7,092.34	7,095.98	7,095.34	15.26	208.60	29.35	-4,209.05	-7.22	4,124.62	3,901.73	222.89	18.505			
7,200.00	7,191.80	7,285.00	7,284.33	15.47	214.27	29.48	-4,209.05	-7.22	4,116.55	3,887.81	228.74	17.997			
7,300.00	7,291.26	7,294.93	7,294.26	15.69	214.57	29.49	-4,209.05	-7.22	4,106.54	3,877.31	229.23	17.914			
7,400.00	7,390.72	7,394.39	7,393.72	15.91	217.52	29.56	-4,209.05	-7.22	4,097.51	3,865.13	232.38	17.633			
7,500.00	7,490.18	7,493.85	7,493.18	16.13	220.47	29.63	-4,209.05	-7.22	4,088.48	3,852.96	235.52	17.359			
7,600.00	7,589.64	7,593.31	7,592.64	16.35	223.42	29.70	-4,209.05	-7.22	4,079.46	3,840.79	238.67	17.092			
7,700.00	7,689.10	7,775.00	7,774.28	16.58	228.81	29.83	-4,209.05	-7.22	4,071.28	3,827.03	244.25	16.668			
7,800.00	7,788.57	7,792.29	7,791.57	16.81	229.33	29.85	-4,209.05	-7.22	4,061.44	3,816.47	244.97	16.579			
7,900.00	7,888.03	7,891.75	7,891.03	17.04	232.28	29.92	-4,209.05	-7.22	4,052.44	3,804.31	248.13	16.332			
8,000.00	7,987.49	7,991.21	7,990.49	17.27	235.24	29.99	-4,209.05	-7.22	4,043.45	3,792.16	251.28	16.091			
8,100.00	8,086.95	8,090.67	8,089.95	17.51	238.20	30.07	-4,209.05	-7.22	4,034.46	3,780.02	254.44	15.856			
8,200.00	8,186.41	8,309.00	8,308.24	17.74	244.69	30.23	-4,209.05	-7.22	4,027.23	3,766.11	261.12	15.423			
8,300.00	8,285.87	8,309.00	8,308.24	17.98	244.69	30.23	-4,209.05	-7.22	4,016.55	3,755.21	261.34	15.369			
8,400.00	8,385.33	8,389.10	8,388.33	18.22	247.07	30.29	-4,209.05	-7.22	4,007.54	3,743.61	263.93	15.184			
8,500.00	8,484.79	8,488.56	8,487.79	18.46	250.03	30.36	-4,209.05	-7.22	3,998.58	3,731.48	267.09	14.971			
8,600.00	8,584.25	8,588.02	8,587.25	18.71	252.99	30.44	-4,209.05	-7.22	3,989.62	3,719.36	270.26	14.762			
8,700.00	8,683.72	8,687.48	8,686.72	18.95	255.95	30.51	-4,209.05	-7.22	3,980.67	3,707.24	273.43	14.558			
8,800.00	8,783.18	8,790.00	8,789.14	19.20	259.00	30.59	-4,209.05	-7.22	3,971.74	3,695.04	276.69	14.354			
8,900.00	8,882.64	8,886.50	8,885.64	19.44	261.88	30.67	-4,209.05	-7.22	3,962.80	3,683.02	279.78	14.164			
9,000.00	8,982.10	8,985.96	8,985.10	19.69	264.84	30.74	-4,209.05	-7.22	3,953.87	3,670.92	282.95	13.974			
9,100.00	9,081.56	9,085.42	9,084.56	19.94	267.81	30.82	-4,209.05	-7.22	3,944.96	3,658.83	286.13	13.787			
9,200.00	9,181.02	9,291.00	9,290.13	20.20	273.93	30.98	-4,209.05	-7.22	3,937.47	3,645.02	292.46	13.463			
9,300.00	9,280.48	9,291.00	9,290.13	20.45	273.93	30.98	-4,209.05	-7.22	3,927.14	3,634.46	292.68	13.418			
9,400.00	9,379.94	9,383.81	9,382.94	20.70	276.70	31.05	-4,209.05	-7.22	3,918.24	3,622.58	295.67	13.252			
9,500.00	9,479.41	9,504.00	9,503.08	20.96	280.28	31.15	-4,209.05	-7.22	3,909.41	3,609.94	299.46	13.055			
9,600.00	9,578.87	9,582.79	9,581.87	21.21	282.63	31.21	-4,209.05	-7.22	3,900.47	3,598.44	302.03	12.914			
9,700.00	9,678.33	9,715.00	9,714.03	21.47	286.58	31.31	-4,209.05	-7.22	3,891.73	3,585.54	306.19	12.710			
9,800.00	9,777.79	9,781.76	9,780.79	21.73	288.59	31.37	-4,209.05	-7.22	3,882.72	3,574.30	308.42	12.589			
9,832.06	9,809.68	9,813.65	9,812.68	21.81	289.55	31.39	-4,209.05	-7.22	3,879.88	3,570.43	309.45	12.538			
9,850.00	9,827.49	9,831.46	9,830.49	21.86	290.09	24.83	-4,209.05	-7.22	3,878.01	3,568.97	309.05	12.548			
9,900.00	9,876.73	9,880.69	9,879.73	22.00	291.57	16.06	-4,209.05	-7.22	3,869.87	3,563.56	306.32	12.634			
9,950.00	9,925.06	9,929.02	9,928.06	22.17	293.03	12.31	-4,209.05	-7.22	3,857.47	3,556.24	301.24	12.806			
10,000.00	9,972.12	9,976.08	9,975.12	22.36	294.44	10.32	-4,209.05	-7.22	3,840.90	3,547.08	293.82	13.072			
10,050.00	10,017.54	10,021.51	10,020.54	22.57	295.81	9.15	-4,209.05	-7.22	3,820.30	3,536.18	284.12	13.446			
10,100.00	10,060.99	10,064.96	10,063.99	22.80	297.12	8.45	-4,209.05	-7.22	3,795.80	3,523.61	272.19	13.945			

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



Integrity Directional Services, LLC

Anticollision Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Reference Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Hamon Fed Com A #6H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Hamon Fed Pad - HAMON A FED #1 - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 ft
Survey Program: 502-INC														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
10,150.00	10,102.13	10,106.10	10,105.13	23.06	298.36	8.05	-4,209.05	-7.22	3,767.62	3,509.46	258.16	14.594			
10,200.00	10,140.65	10,272.00	10,270.92	23.35	303.36	8.13	-4,209.05	-7.22	3,738.11	3,492.97	245.15	15.249			
10,250.00	10,176.26	10,272.00	10,270.92	23.66	303.36	8.12	-4,209.05	-7.22	3,702.17	3,475.77	226.40	16.352			
10,300.00	10,208.68	10,272.00	10,270.92	24.01	303.36	8.31	-4,209.05	-7.22	3,663.63	3,457.32	206.31	17.758			
10,350.00	10,237.67	10,272.00	10,270.92	24.38	303.36	8.70	-4,209.05	-7.22	3,622.70	3,437.45	185.25	19.556			
10,400.00	10,263.01	10,272.00	10,270.92	24.79	303.36	9.37	-4,209.05	-7.22	3,579.63	3,415.81	163.82	21.851			
10,450.00	10,284.50	10,288.58	10,287.50	25.22	303.86	10.55	-4,209.05	-7.22	3,534.63	3,391.06	143.57	24.620			
10,500.00	10,301.99	10,306.06	10,304.99	25.68	304.38	12.53	-4,209.05	-7.22	3,487.91	3,360.94	126.97	27.470			
10,550.00	10,315.33	10,319.41	10,318.33	26.16	304.78	16.08	-4,209.05	-7.22	3,439.85	3,318.87	120.98	28.432			
10,600.00	10,324.43	10,328.50	10,327.43	26.67	305.05	23.73	-4,209.05	-7.22	3,390.80	3,246.97	143.82	23.576			
10,650.00	10,329.21	10,333.29	10,332.21	27.20	305.20	47.74	-4,209.05	-7.22	3,341.13	3,093.93	247.21	13.516			
10,680.01	10,330.00	10,334.08	10,333.00	27.52	305.22	90.00	-4,209.05	-7.22	3,311.18	2,978.74	332.44	9.960			
10,700.00	10,330.00	10,334.08	10,333.00	27.74	305.22	90.00	-4,209.05	-7.22	3,291.22	2,958.56	332.66	9.894			
10,800.00	10,330.00	10,334.08	10,333.00	28.88	305.22	90.00	-4,209.05	-7.22	3,191.38	2,857.57	333.81	9.560			
10,900.00	10,330.00	10,334.08	10,333.00	30.09	305.22	90.00	-4,209.05	-7.22	3,091.55	2,756.52	335.03	9.228			
11,000.00	10,330.00	10,334.08	10,333.00	31.36	305.22	90.00	-4,209.05	-7.22	2,991.74	2,655.42	336.31	8.896			
11,100.00	10,330.00	10,334.08	10,333.00	32.69	305.22	90.00	-4,209.05	-7.22	2,891.93	2,554.28	337.64	8.565			
11,200.00	10,330.00	10,334.08	10,333.00	34.06	305.22	90.00	-4,209.05	-7.22	2,792.14	2,453.11	339.02	8.236			
11,300.00	10,330.00	10,334.08	10,333.00	35.47	305.22	90.00	-4,209.05	-7.22	2,692.36	2,351.92	340.44	7.908			
11,400.00	10,330.00	10,334.08	10,333.00	36.91	305.22	90.00	-4,209.05	-7.22	2,592.60	2,250.70	341.90	7.583			
11,500.00	10,330.00	10,334.08	10,333.00	38.39	305.22	90.00	-4,209.05	-7.22	2,492.86	2,149.48	343.39	7.260			
11,600.00	10,330.00	10,334.08	10,333.00	39.90	305.22	90.00	-4,209.05	-7.22	2,393.14	2,048.24	344.90	6.939			
11,700.00	10,330.00	10,334.08	10,333.00	41.43	305.22	90.00	-4,209.05	-7.22	2,293.45	1,947.01	346.44	6.620			
11,800.00	10,330.00	10,334.08	10,333.00	42.99	305.22	90.00	-4,209.05	-7.22	2,193.78	1,845.78	348.01	6.304			
11,900.00	10,330.00	10,334.08	10,333.00	44.57	305.22	90.00	-4,209.05	-7.22	2,094.15	1,744.56	349.59	5.990			
12,000.00	10,330.00	10,334.08	10,333.00	46.16	305.22	90.00	-4,209.05	-7.22	1,994.55	1,643.36	351.19	5.679			
12,100.00	10,330.00	10,334.08	10,333.00	47.78	305.22	90.00	-4,209.05	-7.22	1,895.00	1,542.18	352.81	5.371			
12,200.00	10,330.00	10,334.08	10,333.00	49.40	305.22	90.00	-4,209.05	-7.22	1,795.49	1,441.05	354.44	5.066			
12,300.00	10,330.00	10,334.08	10,333.00	51.04	305.22	90.00	-4,209.05	-7.22	1,696.04	1,339.95	356.09	4.763			
12,400.00	10,330.00	10,334.08	10,333.00	52.70	305.22	90.00	-4,209.05	-7.22	1,596.66	1,238.92	357.75	4.463			
12,500.00	10,330.00	10,334.08	10,333.00	54.36	305.22	90.00	-4,209.05	-7.22	1,497.37	1,137.95	359.42	4.166			
12,600.00	10,330.00	10,334.08	10,333.00	56.04	305.22	90.00	-4,209.05	-7.22	1,398.17	1,037.08	361.10	3.872			
12,700.00	10,330.00	10,334.08	10,333.00	57.72	305.22	90.00	-4,209.05	-7.22	1,299.10	936.32	362.78	3.581			
12,800.00	10,330.00	10,334.08	10,333.00	59.41	305.22	90.00	-4,209.05	-7.22	1,200.18	835.70	364.48	3.293			
12,900.00	10,330.00	10,334.08	10,333.00	61.11	305.22	90.00	-4,209.05	-7.22	1,101.46	735.27	366.18	3.008			
13,000.00	10,330.00	10,334.08	10,333.00	62.82	305.22	90.00	-4,209.05	-7.22	1,002.99	635.09	367.90	2.726			
13,100.00	10,330.00	10,334.08	10,333.00	64.53	305.22	90.00	-4,209.05	-7.22	904.86	535.24	369.61	2.448			
13,200.00	10,330.00	10,334.08	10,333.00	66.25	305.22	90.00	-4,209.05	-7.22	807.18	435.84	371.34	2.174			
13,270.75	10,330.00	10,334.08	10,333.00	67.47	305.22	90.00	-4,209.05	-7.22	738.45	365.89	372.56	1.982			
13,300.00	10,330.15	10,334.22	10,333.15	67.92	305.22	87.81	-4,209.05	-7.22	710.15	337.43	372.72	1.905			
13,320.75	10,330.43	10,334.51	10,333.43	68.21	305.23	86.37	-4,209.05	-7.22	690.12	317.59	372.54	1.852			
13,400.00	10,331.82	10,335.89	10,334.82	69.43	305.27	86.80	-4,209.05	-7.22	614.09	240.11	373.98	1.642			
13,500.00	10,333.56	10,337.64	10,336.56	71.17	305.33	87.35	-4,209.05	-7.22	519.51	143.57	375.95	1.382 Level 3			
13,600.00	10,335.31	10,339.39	10,338.31	72.91	305.38	87.89	-4,209.05	-7.22	427.41	49.51	377.89	1.131 Level 2			
13,700.00	10,337.05	10,341.13	10,340.05	74.65	305.43	88.44	-4,209.05	-7.22	339.78	-40.03	379.81	0.895 Level 1			
13,800.00	10,338.80	10,342.88	10,341.80	76.40	305.48	88.98	-4,209.05	-7.22	261.19	-120.51	381.70	0.684 Level 1			
13,900.00	10,340.54	10,344.62	10,343.54	78.15	305.54	89.53	-4,209.05	-7.22	202.44	-181.11	383.55	0.528 Level 1			
13,986.23	10,342.05	10,346.13	10,345.05	79.67	305.58	90.00	-4,209.05	-7.22	183.17	-201.96	385.13	0.476 Level 1, CC, ES, SF			
14,000.00	10,342.29	10,346.37	10,345.29	79.91	305.59	90.08	-4,209.05	-7.22	183.68	-201.70	385.38	0.477 Level 1			
14,100.00	10,344.03	10,348.11	10,347.03	81.67	305.64	90.62	-4,209.05	-7.22	215.62	-171.56	387.18	0.557 Level 1			
14,200.00	10,345.78	10,349.86	10,348.78	83.43	305.69	91.17	-4,209.05	-7.22	281.49	-107.46	388.94	0.724 Level 1			
14,300.00	10,347.52	10,351.60	10,350.52	85.19	305.74	91.71	-4,209.05	-7.22	363.28	-27.40	390.68	0.930 Level 1			

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



Integrity Directional Services, LLC
Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - HAMON A FED #1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 ft
Survey Program: 502-INC													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
14,400.00	10,349.27	10,353.35	10,352.27	86.96	305.80	92.26	-4,209.05	-7.22	452.44	60.07	392.38	1.153	Level 2	
14,500.00	10,351.01	10,355.09	10,354.01	88.73	305.85	92.80	-4,209.05	-7.22	545.37	151.33	394.05	1.384	Level 3	
14,600.00	10,352.76	10,356.84	10,355.76	90.50	305.90	93.35	-4,209.05	-7.22	640.43	244.75	395.68	1.619		
14,700.00	10,354.50	10,358.58	10,357.50	92.27	305.95	93.89	-4,209.05	-7.22	736.80	339.51	397.28	1.855		
14,800.00	10,356.25	10,360.33	10,359.25	94.05	306.01	94.43	-4,209.05	-7.22	834.01	435.16	398.85	2.091		
14,900.00	10,357.99	10,362.07	10,360.99	95.82	306.06	94.98	-4,209.05	-7.22	931.81	531.43	400.38	2.327		
15,000.00	10,359.74	10,363.82	10,362.74	97.60	306.11	95.52	-4,209.05	-7.22	1,030.04	628.16	401.88	2.563		
15,100.00	10,361.48	10,365.56	10,364.48	99.38	306.16	96.06	-4,209.05	-7.22	1,128.57	725.23	403.34	2.798		
15,200.00	10,363.23	10,367.31	10,366.23	101.17	306.21	96.60	-4,209.05	-7.22	1,227.33	822.57	404.77	3.032		
15,299.41	10,364.96	10,369.04	10,367.96	102.63	306.27	97.13	-4,209.05	-7.22	1,325.69	919.86	405.83	3.267		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 ft
Survey Program: 100-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	-58.66	25.70	-42.20	49.41						
100.00	100.00	100.50	100.50	0.09	0.10	-59.41	24.88	-42.09	48.89	48.70	0.19	256.615			
200.00	200.00	200.43	200.41	0.32	0.30	-60.85	23.36	-41.88	47.96	47.34	0.62	77.602			
300.00	300.00	300.59	300.57	0.54	0.51	-61.96	22.05	-41.41	46.92	45.87	1.05	44.572			
400.00	400.00	400.63	400.60	0.77	0.73	-62.83	20.85	-40.62	45.67	44.17	1.50	30.536			
500.00	500.00	500.55	500.50	0.99	0.94	-63.65	19.73	-39.82	44.45	42.52	1.93	23.013			
600.00	600.00	600.35	600.29	1.22	1.15	-64.44	18.79	-39.29	43.55	41.19	2.36	18.440			
700.00	700.00	700.18	700.13	1.44	1.36	-65.34	17.96	-39.13	43.06	40.27	2.79	15.409			
800.00	800.00	800.23	800.17	1.67	1.57	-66.30	17.16	-39.10	42.71	39.48	3.23	13.229			
887.49	887.49	887.56	887.50	1.86	1.75	-67.06	16.57	-39.16	42.52	38.91	3.61	11.783 CC			
900.00	900.00	900.00	899.94	1.89	1.78	-67.15	16.51	-39.18	42.52	38.86	3.66	11.608			
1,000.00	1,000.00	999.91	999.85	2.12	1.99	-67.77	16.16	-39.54	42.72	38.62	4.10	10.413			
1,100.00	1,100.00	1,099.88	1,099.81	2.34	2.20	-68.24	15.98	-40.04	43.12	38.57	4.54	9.491			
1,200.00	1,200.00	1,199.50	1,199.43	2.56	2.42	-68.68	15.99	-40.97	43.98	39.00	4.98	8.827			
1,300.00	1,300.00	1,299.38	1,299.30	2.79	2.63	-69.22	16.11	-42.45	45.41	39.99	5.42	8.377			
1,400.00	1,400.00	1,399.24	1,399.14	3.01	2.84	-70.02	16.09	-44.25	47.09	41.24	5.86	8.039			
1,500.00	1,500.00	1,499.20	1,499.08	3.24	3.06	-70.90	16.01	-46.24	48.94	42.64	6.30	7.769			
1,600.00	1,600.00	1,599.23	1,599.09	3.46	3.27	-72.15	15.56	-48.32	50.77	44.03	6.74	7.537			
1,650.00	1,650.00	1,649.24	1,649.09	3.58	3.37	-72.98	15.12	-49.39	51.66	44.71	6.95	7.434			
1,700.00	1,700.00	1,699.25	1,699.08	3.69	3.47	-74.22	14.68	-50.43	52.41	45.25	7.16	7.319			
1,750.00	1,749.98	1,749.41	1,749.24	3.80	3.57	-76.26	14.29	-51.35	52.87	45.49	7.37	7.170			
1,800.00	1,799.95	1,799.59	1,799.41	3.91	3.68	-78.55	14.01	-52.04	53.09	45.51	7.59	6.999			
1,900.00	1,899.89	1,899.65	1,899.46	4.14	3.88	-82.94	13.54	-53.04	53.44	45.43	8.01	6.670			
2,000.00	1,999.83	1,999.61	1,999.42	4.36	4.09	-87.00	13.28	-53.85	53.92	45.48	8.44	6.386			
2,100.00	2,099.77	2,099.82	2,099.63	4.59	4.30	-90.82	13.17	-54.35	54.36	45.48	8.88	6.123			
2,200.00	2,199.71	2,199.71	2,199.52	4.81	4.50	-94.73	12.92	-54.64	54.82	45.52	9.31	5.889			
2,300.00	2,299.64	2,299.80	2,299.60	5.04	4.71	-98.40	12.84	-54.85	55.44	45.70	9.74	5.690			
2,400.00	2,399.58	2,399.80	2,399.61	5.27	4.92	-101.93	12.83	-54.86	56.07	45.89	10.18	5.508			
2,500.00	2,499.52	2,499.65	2,499.46	5.49	5.12	-105.65	12.55	-54.82	56.94	46.32	10.61	5.365			
2,600.00	2,599.46	2,599.68	2,599.48	5.72	5.33	-109.02	12.49	-54.86	58.03	46.98	11.05	5.252			
2,700.00	2,699.40	2,699.80	2,699.61	5.95	5.54	-112.66	12.14	-54.49	59.05	47.57	11.48	5.142			
2,750.00	2,749.37	2,749.71	2,749.51	6.06	5.65	-114.72	11.71	-54.14	59.61	47.91	11.70	5.093			
2,800.00	2,799.35	2,799.65	2,799.45	6.16	5.75	-116.21	11.42	-53.90	60.07	48.17	11.91	5.045			
2,850.00	2,849.35	2,849.87	2,849.67	6.25	5.86	-116.80	11.29	-53.64	60.10	47.99	12.10	4.965			
2,900.00	2,899.35	2,900.00	2,899.80	6.35	5.96	-116.91	11.36	-53.27	59.73	47.43	12.31	4.854			
2,979.12	2,978.47	2,978.67	2,978.47	6.52	6.13	-117.31	11.15	-52.75	59.37	46.72	12.65	4.694			
3,000.00	2,999.35	2,999.41	2,999.20	6.57	6.17	-117.51	10.95	-52.68	59.40	46.66	12.74	4.663			
3,100.00	3,099.35	3,100.30	3,100.09	6.79	6.38	-118.09	10.66	-51.96	58.90	45.73	13.17	4.471			
3,200.00	3,199.35	3,200.00	3,199.78	7.02	6.59	-118.12	11.12	-51.04	57.87	44.27	13.61	4.254			
3,300.00	3,299.35	3,299.58	3,299.36	7.24	6.80	-118.32	11.13	-50.58	57.46	43.42	14.04	4.093			
3,300.43	3,299.78	3,300.00	3,299.78	7.24	6.80	-118.32	11.13	-50.58	57.46	43.42	14.04	4.093			
3,400.00	3,399.35	3,399.78	3,399.49	7.46	7.00	-118.47	9.55	-53.18	60.62	46.15	14.46	4.191			
3,500.00	3,499.35	3,494.04	3,493.47	7.69	7.22	-117.73	6.77	-60.14	68.20	53.30	14.90	4.577			
3,600.00	3,599.35	3,592.96	3,591.97	7.91	7.44	-116.49	4.05	-68.89	77.33	61.99	15.34	5.042			
3,700.00	3,699.35	3,695.18	3,693.84	8.14	7.66	-116.04	0.95	-76.63	85.47	69.69	15.78	5.417			
3,800.00	3,799.35	3,798.89	3,797.44	8.36	7.88	-116.23	-1.29	-80.51	89.78	73.56	16.22	5.537			
3,900.00	3,899.35	3,900.73	3,899.28	8.58	8.09	-116.27	-1.83	-81.47	90.86	74.21	16.65	5.457			
4,000.00	3,999.35	4,000.93	3,999.48	8.81	8.30	-116.36	-1.94	-81.38	90.83	73.74	17.08	5.317			
4,032.68	4,032.03	4,033.48	4,032.03	8.88	8.37	-116.45	-2.05	-81.30	90.80	73.58	17.22	5.272			
4,100.00	4,099.35	4,100.55	4,099.10	9.03	8.51	-116.57	-2.27	-81.30	90.90	73.38	17.51	5.190			
4,200.00	4,199.35	4,200.72	4,199.26	9.26	8.71	-116.84	-2.73	-81.28	91.09	73.14	17.95	5.075			
4,300.00	4,299.35	4,301.61	4,300.14	9.48	8.92	-117.39	-3.34	-80.53	90.70	72.32	18.38	4.934			

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



Integrity Directional Services, LLC

Anticollision Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Reference Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Hamon Fed Com A #6H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 ft
Survey Program: 100-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
4,400.00	4,399.35	4,402.81	4,401.33	9.70	9.13	-118.11	-3.61	-78.61	89.15	70.33	18.82	4.738			
4,500.00	4,499.35	4,503.67	4,502.14	9.93	9.34	-118.81	-3.24	-75.69	86.43	67.18	19.25	4.490			
4,600.00	4,599.35	4,604.46	4,602.86	10.15	9.55	-119.51	-2.30	-71.89	82.68	62.99	19.68	4.200			
4,700.00	4,699.35	4,704.84	4,703.12	10.38	9.75	-120.68	-1.44	-67.14	78.15	58.04	20.12	3.885			
4,800.00	4,799.35	4,805.56	4,803.65	10.60	9.96	-122.71	-0.86	-61.12	72.77	52.21	20.55	3.541			
4,900.00	4,899.35	4,905.70	4,903.49	10.83	10.16	-126.75	-1.42	-53.31	66.67	45.68	20.99	3.177			
5,000.00	4,999.35	5,005.94	5,003.21	11.05	10.37	-133.84	-3.30	-43.41	60.31	38.88	21.42	2.815			
5,100.00	5,099.35	5,106.25	5,102.79	11.27	10.59	-144.23	-5.14	-31.36	53.76	31.90	21.86	2.459			
5,200.00	5,199.35	5,205.28	5,200.73	11.50	10.81	-159.61	-7.41	-17.03	48.88	26.57	22.31	2.191			
5,250.67	5,250.02	5,255.29	5,250.02	11.61	10.93	-169.63	-8.95	-8.66	48.12	25.58	22.54	2.135 ES, SF			
5,300.00	5,299.35	5,303.67	5,297.54	11.72	11.05	179.69	-10.58	0.26	49.00	26.23	22.77	2.152			
5,400.00	5,399.35	5,375.00	5,367.34	11.95	11.22	164.07	-13.20	14.73	62.47	39.31	23.17	2.697			
5,500.00	5,499.35	5,375.00	5,367.34	12.17	11.22	164.07	-13.20	14.73	142.50	119.10	23.39	6.092			
5,600.00	5,599.35	5,375.00	5,367.34	12.40	11.22	164.07	-13.20	14.73	238.13	214.52	23.61	10.084			
5,700.00	5,699.33	5,375.00	5,367.34	12.59	11.22	10.38	-13.20	14.73	336.03	312.26	23.77	14.139			
5,800.00	5,799.19	5,375.00	5,367.34	12.77	11.22	8.59	-13.20	14.73	434.38	410.49	23.89	18.179			
5,897.52	5,896.34	5,375.00	5,367.34	12.94	11.22	7.09	-13.20	14.73	530.41	506.42	23.99	22.106			
5,900.00	5,898.80	5,375.00	5,367.34	12.94	11.22	7.09	-13.20	14.73	532.85	508.85	24.00	22.203			
6,000.00	5,998.26	5,375.00	5,367.34	13.12	11.22	7.09	-13.20	14.73	631.58	607.40	24.17	26.127			
6,100.00	6,097.72	5,375.00	5,367.34	13.30	11.22	7.09	-13.20	14.73	730.65	706.30	24.35	30.005			
6,200.00	6,197.19	5,375.00	5,367.34	13.48	11.22	7.09	-13.20	14.73	829.94	805.41	24.53	33.835			
6,300.00	6,296.65	5,375.00	5,367.34	13.66	11.22	7.09	-13.20	14.73	929.39	904.68	24.71	37.612			
6,400.00	6,396.11	5,375.00	5,367.34	13.85	11.22	7.09	-13.20	14.73	1,028.94	1,004.05	24.89	41.336			
6,500.00	6,495.57	5,375.00	5,367.34	14.04	11.22	7.09	-13.20	14.73	1,128.58	1,103.50	25.08	45.007			
6,600.00	6,595.03	5,375.00	5,367.34	14.23	11.22	7.09	-13.20	14.73	1,228.27	1,203.01	25.26	48.623			
6,700.00	6,694.49	5,375.00	5,367.34	14.43	11.22	7.09	-13.20	14.73	1,328.01	1,302.56	25.45	52.185			
6,800.00	6,793.95	5,375.00	5,367.34	14.63	11.22	7.09	-13.20	14.73	1,427.78	1,402.14	25.64	55.693			
6,900.00	6,893.41	5,375.00	5,367.34	14.84	11.22	7.09	-13.20	14.73	1,527.58	1,501.76	25.83	59.148			
7,000.00	6,992.88	5,375.00	5,367.34	15.05	11.22	7.09	-13.20	14.73	1,627.41	1,601.40	26.02	62.550			
7,100.00	7,092.34	5,375.00	5,367.34	15.26	11.22	7.09	-13.20	14.73	1,727.26	1,701.05	26.21	65.900			
7,200.00	7,191.80	5,375.00	5,367.34	15.47	11.22	7.09	-13.20	14.73	1,827.13	1,800.72	26.40	69.198			
7,300.00	7,291.26	5,375.00	5,367.34	15.69	11.22	7.09	-13.20	14.73	1,927.00	1,900.41	26.60	72.446			
7,400.00	7,390.72	5,375.00	5,367.34	15.91	11.22	7.09	-13.20	14.73	2,026.90	2,000.10	26.80	75.644			
7,500.00	7,490.18	5,375.00	5,367.34	16.13	11.22	7.09	-13.20	14.73	2,126.80	2,099.80	26.99	78.792			
7,600.00	7,589.64	5,375.00	5,367.34	16.35	11.22	7.09	-13.20	14.73	2,226.71	2,199.52	27.19	81.891			
7,700.00	7,689.10	5,375.00	5,367.34	16.58	11.22	7.09	-13.20	14.73	2,326.62	2,299.23	27.39	84.943			
7,800.00	7,788.57	5,375.00	5,367.34	16.81	11.22	7.09	-13.20	14.73	2,426.55	2,398.96	27.59	87.948			
7,900.00	7,888.03	5,375.00	5,367.34	17.04	11.22	7.09	-13.20	14.73	2,526.48	2,498.69	27.79	90.906			
8,000.00	7,987.49	5,375.00	5,367.34	17.27	11.22	7.09	-13.20	14.73	2,626.42	2,598.42	27.99	93.819			
8,100.00	8,086.95	5,375.00	5,367.34	17.51	11.22	7.09	-13.20	14.73	2,726.36	2,698.16	28.20	96.687			
8,200.00	8,186.41	5,375.00	5,367.34	17.74	11.22	7.09	-13.20	14.73	2,826.30	2,797.90	28.40	99.511			
8,300.00	8,285.87	5,375.00	5,367.34	17.98	11.22	7.09	-13.20	14.73	2,926.25	2,897.64	28.61	102.292			
8,400.00	8,385.33	5,375.00	5,367.34	18.22	11.22	7.09	-13.20	14.73	3,026.20	2,997.39	28.81	105.031			
8,500.00	8,484.79	5,375.00	5,367.34	18.46	11.22	7.09	-13.20	14.73	3,126.16	3,097.14	29.02	107.728			
8,600.00	8,584.25	5,375.00	5,367.34	18.71	11.22	7.09	-13.20	14.73	3,226.11	3,196.89	29.23	110.384			
8,700.00	8,683.72	5,375.00	5,367.34	18.95	11.22	7.09	-13.20	14.73	3,326.07	3,296.64	29.43	113.000			
8,800.00	8,783.18	5,375.00	5,367.34	19.20	11.22	7.09	-13.20	14.73	3,426.04	3,396.39	29.64	115.577			
8,900.00	8,882.64	5,375.00	5,367.34	19.44	11.22	7.09	-13.20	14.73	3,526.00	3,496.15	29.85	118.115			
9,000.00	8,982.10	5,375.00	5,367.34	19.69	11.22	7.09	-13.20	14.73	3,625.97	3,595.90	30.06	120.615			
9,100.00	9,081.56	5,375.00	5,367.34	19.94	11.22	7.09	-13.20	14.73	3,725.94	3,695.66	30.27	123.078			
9,200.00	9,181.02	5,375.00	5,367.34	20.20	11.22	7.09	-13.20	14.73	3,825.91	3,795.42	30.48	125.504			
9,300.00	9,280.48	5,375.00	5,367.34	20.45	11.22	7.09	-13.20	14.73	3,925.88	3,895.18	30.70	127.894			

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 ft
Survey Program: 100-MWD													Offset Well Error: 0.00 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,400.00	9,379.94	5,375.00	5,367.34	20.70	11.22	7.09	-13.20	14.73	4,025.85	3,994.94	30.91	130.250	
9,500.00	9,479.41	5,375.00	5,367.34	20.96	11.22	7.09	-13.20	14.73	4,125.82	4,094.70	31.12	132.571	
9,600.00	9,578.87	5,375.00	5,367.34	21.21	11.22	7.09	-13.20	14.73	4,225.80	4,194.47	31.34	134.858	
9,700.00	9,678.33	5,375.00	5,367.34	21.47	11.22	7.09	-13.20	14.73	4,325.78	4,294.23	31.55	137.111	
9,800.00	9,777.79	5,375.00	5,367.34	21.73	11.22	7.09	-13.20	14.73	4,425.75	4,393.99	31.76	139.333	
9,832.06	9,809.68	5,375.00	5,367.34	21.81	11.22	7.09	-13.20	14.73	4,457.81	4,425.98	31.83	140.038	
9,850.00	9,827.49	5,375.00	5,367.34	21.86	11.22	13.76	-13.20	14.73	4,475.74	4,443.77	31.96	140.027	
9,900.00	9,876.73	5,375.00	5,367.34	22.00	11.22	10.43	-13.20	14.73	4,525.50	4,493.68	31.82	142.236	
9,950.00	9,925.06	5,375.00	5,367.34	22.17	11.22	7.82	-13.20	14.73	4,574.68	4,543.29	31.39	145.722	
10,000.00	9,972.12	5,375.00	5,367.34	22.36	11.22	6.25	-13.20	14.73	4,622.93	4,592.17	30.76	150.305	
10,050.00	10,017.54	5,375.00	5,367.34	22.57	11.22	5.22	-13.20	14.73	4,669.92	4,639.99	29.92	156.058	
10,100.00	10,060.99	5,375.00	5,367.34	22.80	11.22	4.51	-13.20	14.73	4,715.32	4,686.41	28.91	163.114	
10,150.00	10,102.13	5,375.00	5,367.34	23.06	11.22	4.00	-13.20	14.73	4,758.85	4,731.13	27.72	171.655	
10,200.00	10,140.65	5,375.00	5,367.34	23.35	11.22	3.62	-13.20	14.73	4,800.23	4,773.84	26.39	181.917	
10,250.00	10,176.26	5,375.00	5,367.34	23.66	11.22	3.32	-13.20	14.73	4,839.20	4,814.28	24.92	194.191	
10,300.00	10,208.68	5,375.00	5,367.34	24.01	11.22	3.09	-13.20	14.73	4,875.53	4,852.18	23.35	208.826	
10,350.00	10,237.67	5,375.00	5,367.34	24.38	11.22	2.92	-13.20	14.73	4,909.00	4,887.30	21.70	226.212	
10,400.00	10,263.01	5,375.00	5,367.34	24.79	11.22	2.78	-13.20	14.73	4,939.42	4,919.40	20.02	246.736	
10,450.00	10,284.50	5,375.00	5,367.34	25.22	11.22	2.67	-13.20	14.73	4,966.62	4,948.27	18.35	270.647	
10,500.00	10,301.99	5,375.00	5,367.34	25.68	11.22	2.59	-13.20	14.73	4,990.44	4,973.68	16.76	297.760	
10,550.00	10,315.33	5,375.00	5,367.34	26.16	11.22	2.54	-13.20	14.73	5,010.74	4,995.41	15.33	326.855	
10,600.00	10,324.43	5,375.00	5,367.34	26.67	11.22	2.50	-13.20	14.73	5,027.43	5,013.26	14.17	354.702	
10,650.00	10,329.21	5,375.00	5,367.34	27.20	11.22	2.49	-13.20	14.73	5,040.41	5,026.98	13.43	375.300	
10,680.01	10,330.00	5,375.00	5,367.34	27.52	11.22	2.49	-13.20	14.73	5,046.38	5,033.14	13.24	381.157	
10,700.00	10,330.00	5,375.00	5,367.34	27.74	11.22	2.49	-13.20	14.73	5,049.95	5,036.66	13.29	379.943	
10,800.00	10,330.00	5,375.00	5,367.34	28.88	11.22	2.49	-13.20	14.73	5,068.91	5,055.34	13.58	373.369	
10,900.00	10,330.00	5,375.00	5,367.34	30.09	11.22	2.49	-13.20	14.73	5,089.78	5,075.87	13.90	366.106	
11,000.00	10,330.00	5,375.00	5,367.34	31.36	11.22	2.49	-13.20	14.73	5,112.51	5,098.24	14.27	358.351	
11,100.00	10,330.00	5,375.00	5,367.34	32.69	11.22	2.49	-13.20	14.73	5,137.09	5,122.42	14.67	350.283	
11,200.00	10,330.00	5,375.00	5,367.34	34.06	11.22	2.49	-13.20	14.73	5,163.49	5,148.39	15.10	342.056	
11,300.00	10,330.00	5,375.00	5,367.34	35.47	11.22	2.49	-13.20	14.73	5,191.68	5,176.13	15.55	333.798	
11,400.00	10,330.00	5,375.00	5,367.34	36.91	11.22	2.49	-13.20	14.73	5,221.64	5,205.60	16.04	325.612	
11,500.00	10,330.00	5,375.00	5,367.34	38.39	11.22	2.49	-13.20	14.73	5,253.33	5,236.78	16.54	317.578	
11,600.00	10,330.00	5,375.00	5,367.34	39.90	11.22	2.49	-13.20	14.73	5,286.72	5,269.65	17.07	309.754	
11,700.00	10,330.00	5,375.00	5,367.34	41.43	11.22	2.49	-13.20	14.73	5,321.78	5,304.16	17.61	302.185	
11,800.00	10,330.00	5,375.00	5,367.34	42.99	11.22	2.49	-13.20	14.73	5,358.47	5,340.30	18.17	294.898	
11,900.00	10,330.00	5,375.00	5,367.34	44.57	11.22	2.49	-13.20	14.73	5,396.77	5,378.03	18.74	287.911	
12,000.00	10,330.00	5,375.00	5,367.34	46.16	11.22	2.49	-13.20	14.73	5,436.64	5,417.31	19.33	281.232	
12,100.00	10,330.00	5,375.00	5,367.34	47.78	11.22	2.49	-13.20	14.73	5,478.05	5,458.12	19.93	274.865	
12,200.00	10,330.00	5,375.00	5,367.34	49.40	11.22	2.49	-13.20	14.73	5,520.96	5,500.42	20.54	268.806	
12,300.00	10,330.00	5,375.00	5,367.34	51.04	11.22	2.49	-13.20	14.73	5,565.33	5,544.17	21.16	263.049	
12,400.00	10,330.00	5,375.00	5,367.34	52.70	11.22	2.49	-13.20	14.73	5,611.13	5,589.35	21.78	257.585	
12,500.00	10,330.00	5,375.00	5,367.34	54.36	11.22	2.49	-13.20	14.73	5,658.34	5,635.92	22.42	252.402	
12,600.00	10,330.00	5,375.00	5,367.34	56.04	11.22	2.49	-13.20	14.73	5,706.90	5,683.84	23.06	247.489	
12,700.00	10,330.00	5,375.00	5,367.34	57.72	11.22	2.49	-13.20	14.73	5,756.79	5,733.08	23.71	242.834	
12,800.00	10,330.00	5,375.00	5,367.34	59.41	11.22	2.49	-13.20	14.73	5,807.97	5,783.61	24.36	238.423	
12,900.00	10,330.00	5,375.00	5,367.34	61.11	11.22	2.49	-13.20	14.73	5,860.42	5,835.40	25.02	234.244	
13,000.00	10,330.00	5,375.00	5,367.34	62.82	11.22	2.49	-13.20	14.73	5,914.09	5,888.41	25.68	230.284	
13,100.00	10,330.00	5,375.00	5,367.34	64.53	11.22	2.49	-13.20	14.73	5,968.95	5,942.60	26.35	226.531	
13,200.00	10,330.00	5,375.00	5,367.34	66.25	11.22	2.49	-13.20	14.73	6,024.97	5,997.95	27.02	222.974	
13,270.75	10,330.00	5,375.00	5,367.34	67.47	11.22	2.49	-13.20	14.73	6,065.29	6,037.79	27.50	220.569	
13,300.00	10,330.15	5,375.00	5,367.34	67.92	11.22	2.51	-13.20	14.73	6,082.25	6,054.51	27.74	219.267	

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



Integrity Directional Services, LLC
Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 ft
Survey Program: 100-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
13,320.75	10,330.43	5,375.00	5,367.34	68.21	11.22	2.52	-13.20	14.73	6,094.48	6,066.56	27.91	218.345			
13,400.00	10,331.82	5,375.00	5,367.34	69.43	11.22	2.52	-13.20	14.73	6,141.83	6,113.38	28.45	215.879			
13,500.00	10,333.56	5,375.00	5,367.34	71.17	11.22	2.52	-13.20	14.73	6,202.52	6,173.39	29.13	212.902			
13,600.00	10,335.31	5,375.00	5,367.34	72.91	11.22	2.52	-13.20	14.73	6,264.22	6,234.40	29.82	210.076			
13,700.00	10,337.05	5,375.00	5,367.34	74.65	11.22	2.52	-13.20	14.73	6,326.89	6,296.38	30.51	207.390			
13,800.00	10,338.80	5,375.00	5,367.34	76.40	11.22	2.52	-13.20	14.73	6,390.52	6,359.32	31.20	204.838			
13,900.00	10,340.54	5,375.00	5,367.34	78.15	11.22	2.52	-13.20	14.73	6,455.06	6,423.17	31.89	202.411			
14,000.00	10,342.29	5,375.00	5,367.34	79.91	11.22	2.52	-13.20	14.73	6,520.51	6,487.92	32.59	200.101			
14,100.00	10,344.03	5,375.00	5,367.34	81.67	11.22	2.52	-13.20	14.73	6,586.82	6,553.53	33.28	197.903			
14,200.00	10,345.78	5,375.00	5,367.34	83.43	11.22	2.52	-13.20	14.73	6,653.97	6,619.99	33.98	195.809			
14,300.00	10,347.52	5,375.00	5,367.34	85.19	11.22	2.52	-13.20	14.73	6,721.94	6,687.26	34.68	193.813			
14,400.00	10,349.27	5,375.00	5,367.34	86.96	11.22	2.52	-13.20	14.73	6,790.70	6,755.32	35.38	191.910			
14,500.00	10,351.01	5,375.00	5,367.34	88.73	11.22	2.52	-13.20	14.73	6,860.23	6,824.14	36.09	190.095			
14,600.00	10,352.76	5,375.00	5,367.34	90.50	11.22	2.52	-13.20	14.73	6,930.51	6,893.71	36.79	188.362			
14,700.00	10,354.50	5,375.00	5,367.34	92.27	11.22	2.52	-13.20	14.73	7,001.50	6,964.00	37.50	186.706			
14,800.00	10,356.25	5,375.00	5,367.34	94.05	11.22	2.52	-13.20	14.73	7,073.20	7,035.00	38.21	185.125			
14,900.00	10,357.99	5,375.00	5,367.34	95.82	11.22	2.52	-13.20	14.73	7,145.58	7,106.67	38.92	183.613			
15,000.00	10,359.74	5,375.00	5,367.34	97.60	11.22	2.52	-13.20	14.73	7,218.62	7,178.99	39.63	182.166			
15,100.00	10,361.48	5,375.00	5,367.34	99.38	11.22	2.52	-13.20	14.73	7,292.30	7,251.96	40.34	180.782			
15,200.00	10,363.23	5,375.00	5,367.34	101.17	11.22	2.52	-13.20	14.73	7,366.60	7,325.55	41.05	179.456			
15,299.41	10,364.96	5,375.00	5,367.34	102.63	11.22	2.52	-13.20	14.73	7,441.06	7,399.65	41.41	179.699			

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



Integrity Directional Services, LLC

Anticollision Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Reference Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Hamon Fed Com A #6H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Plan#4													Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD, 6254-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	0.00	0.00	0.00	-58.66	25.70	-42.20	49.41					
100.00	100.00	100.50	100.50	0.09	0.10	-59.41	24.88	-42.09	48.89	48.70	0.19	256.615		
200.00	200.00	200.43	200.41	0.32	0.30	-60.85	23.36	-41.88	47.96	47.34	0.62	77.602		
300.00	300.00	300.59	300.57	0.54	0.51	-61.96	22.05	-41.41	46.92	45.87	1.05	44.572		
400.00	400.00	400.63	400.60	0.77	0.73	-62.83	20.85	-40.62	45.67	44.17	1.50	30.536		
500.00	500.00	500.55	500.50	0.99	0.94	-63.65	19.73	-39.82	44.45	42.52	1.93	23.013		
600.00	600.00	600.35	600.29	1.22	1.15	-64.44	18.79	-39.29	43.55	41.19	2.36	18.440		
700.00	700.00	700.18	700.13	1.44	1.36	-65.34	17.96	-39.13	43.06	40.27	2.79	15.409		
800.00	800.00	800.23	800.17	1.67	1.57	-66.30	17.16	-39.10	42.71	39.48	3.23	13.229		
887.49	887.49	887.56	887.50	1.86	1.75	-67.06	16.57	-39.16	42.52	38.91	3.61	11.783 CC		
900.00	900.00	900.00	899.94	1.89	1.78	-67.15	16.51	-39.18	42.52	38.86	3.66	11.608		
1,000.00	1,000.00	999.91	999.85	2.12	1.99	-67.77	16.16	-39.54	42.72	38.62	4.10	10.413		
1,100.00	1,100.00	1,099.88	1,099.81	2.34	2.20	-68.24	15.98	-40.04	43.12	38.57	4.54	9.491		
1,200.00	1,200.00	1,199.50	1,199.43	2.56	2.42	-68.68	15.99	-40.97	43.98	39.00	4.98	8.827		
1,300.00	1,300.00	1,299.38	1,299.30	2.79	2.63	-69.22	16.11	-42.45	45.41	39.99	5.42	8.377		
1,400.00	1,400.00	1,399.24	1,399.14	3.01	2.84	-70.02	16.09	-44.25	47.09	41.24	5.86	8.039		
1,500.00	1,500.00	1,499.20	1,499.08	3.24	3.06	-70.90	16.01	-46.24	48.94	42.64	6.30	7.769		
1,600.00	1,600.00	1,599.23	1,599.09	3.46	3.27	-72.15	15.56	-48.32	50.77	44.03	6.74	7.537		
1,650.00	1,650.00	1,649.24	1,649.09	3.58	3.37	-72.98	15.12	-49.39	51.66	44.71	6.95	7.434		
1,700.00	1,700.00	1,699.25	1,699.08	3.69	3.47	-74.22	14.68	-50.43	52.41	45.25	7.16	7.319		
1,750.00	1,749.98	1,749.41	1,749.24	3.80	3.57	-76.26	14.29	-51.35	52.87	45.49	7.37	7.170		
1,800.00	1,799.95	1,799.59	1,799.41	3.91	3.68	-78.55	14.01	-52.04	53.09	45.51	7.59	6.999		
1,900.00	1,899.89	1,899.65	1,899.46	4.14	3.88	-82.94	13.54	-53.04	53.44	45.43	8.01	6.670		
2,000.00	1,999.83	1,999.61	1,999.42	4.36	4.09	-87.00	13.28	-53.85	53.92	45.48	8.44	6.386		
2,100.00	2,099.77	2,099.82	2,099.63	4.59	4.30	-90.82	13.17	-54.35	54.36	45.48	8.88	6.123		
2,200.00	2,199.71	2,199.71	2,199.52	4.81	4.50	-94.73	12.92	-54.64	54.82	45.52	9.31	5.889		
2,300.00	2,299.64	2,299.80	2,299.60	5.04	4.71	-98.40	12.84	-54.85	55.44	45.70	9.74	5.690		
2,400.00	2,399.58	2,399.80	2,399.61	5.27	4.92	-101.93	12.83	-54.86	56.07	45.89	10.18	5.508		
2,500.00	2,499.52	2,499.65	2,499.46	5.49	5.12	-105.65	12.55	-54.82	56.94	46.32	10.61	5.365		
2,600.00	2,599.46	2,599.68	2,599.48	5.72	5.33	-109.02	12.49	-54.86	58.03	46.98	11.05	5.252		
2,700.00	2,699.40	2,699.80	2,699.61	5.95	5.54	-112.66	12.14	-54.49	59.05	47.57	11.48	5.142		
2,750.00	2,749.37	2,749.71	2,749.51	6.06	5.65	-114.72	11.71	-54.14	59.61	47.91	11.70	5.093		
2,800.00	2,799.35	2,799.65	2,799.45	6.16	5.75	-116.21	11.42	-53.90	60.07	48.17	11.91	5.045		
2,850.00	2,849.35	2,849.87	2,849.67	6.25	5.86	-116.80	11.29	-53.64	60.10	47.99	12.10	4.965		
2,900.00	2,899.35	2,900.00	2,899.80	6.35	5.96	-116.91	11.36	-53.27	59.73	47.43	12.31	4.854		
2,979.12	2,978.47	2,978.67	2,978.47	6.52	6.13	-117.31	11.15	-52.75	59.37	46.72	12.65	4.694		
3,000.00	2,999.35	2,999.41	2,999.20	6.57	6.17	-117.51	10.95	-52.68	59.40	46.66	12.74	4.663		
3,100.00	3,099.35	3,100.30	3,100.09	6.79	6.38	-118.09	10.66	-51.96	58.90	45.73	13.17	4.471		
3,200.00	3,199.35	3,200.00	3,199.78	7.02	6.59	-118.12	11.12	-51.04	57.87	44.27	13.61	4.254		
3,300.00	3,299.35	3,299.58	3,299.36	7.24	6.80	-118.32	11.13	-50.58	57.46	43.42	14.04	4.093		
3,300.43	3,299.78	3,300.00	3,299.78	7.24	6.80	-118.32	11.13	-50.58	57.46	43.42	14.04	4.093		
3,400.00	3,399.35	3,395.78	3,395.49	7.46	7.00	-118.47	9.55	-53.18	60.62	46.15	14.46	4.191		
3,500.00	3,499.35	3,494.04	3,493.47	7.69	7.22	-117.73	6.77	-60.14	68.20	53.30	14.90	4.577		
3,600.00	3,599.35	3,592.96	3,591.97	7.91	7.44	-116.49	4.05	-68.89	77.33	61.99	15.34	5.042		
3,700.00	3,699.35	3,695.18	3,693.84	8.14	7.66	-116.04	0.95	-76.63	85.47	69.69	15.78	5.417		
3,800.00	3,799.35	3,798.89	3,797.44	8.36	7.88	-116.23	-1.29	-80.51	89.78	73.56	16.22	5.537		
3,900.00	3,899.35	3,900.73	3,899.28	8.58	8.09	-116.27	-1.83	-81.47	90.86	74.21	16.65	5.457		
4,000.00	3,999.35	4,000.93	3,999.48	8.81	8.30	-116.36	-1.94	-81.38	90.83	73.74	17.08	5.317		
4,032.68	4,032.03	4,033.48	4,032.03	8.88	8.37	-116.45	-2.05	-81.30	90.80	73.58	17.22	5.272		
4,100.00	4,099.35	4,100.55	4,099.10	9.03	8.51	-116.57	-2.27	-81.30	90.90	73.38	17.51	5.190		
4,200.00	4,199.35	4,200.72	4,199.26	9.26	8.71	-116.84	-2.73	-81.28	91.09	73.14	17.95	5.075		
4,300.00	4,299.35	4,301.61	4,300.14	9.48	8.92	-117.39	-3.34	-80.53	90.70	72.32	18.38	4.934		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Plan#4														Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD, 6254-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
4,400.00	4,399.35	4,402.81	4,401.33	9.70	9.13	-118.11	-3.61	-78.61	89.15	70.33	18.82	4.738			
4,500.00	4,499.35	4,503.67	4,502.14	9.93	9.34	-118.81	-3.24	-75.69	86.43	67.18	19.25	4.490			
4,600.00	4,599.35	4,604.46	4,602.86	10.15	9.55	-119.51	-2.30	-71.89	82.68	62.99	19.68	4.200			
4,700.00	4,699.35	4,704.84	4,703.12	10.38	9.75	-120.68	-1.44	-67.14	78.15	58.04	20.12	3.885			
4,800.00	4,799.35	4,805.56	4,803.65	10.60	9.96	-122.71	-0.86	-61.12	72.77	52.21	20.55	3.541			
4,900.00	4,899.35	4,905.70	4,903.49	10.83	10.16	-126.75	-1.42	-53.31	66.67	45.68	20.99	3.177			
5,000.00	4,999.35	5,005.94	5,003.21	11.05	10.37	-133.84	-3.30	-43.41	60.31	38.88	21.42	2.815			
5,100.00	5,099.35	5,106.25	5,102.79	11.27	10.59	-144.23	-5.14	-31.36	53.76	31.90	21.86	2.459			
5,200.00	5,199.35	5,205.28	5,200.73	11.50	10.81	-159.61	-7.41	-17.03	48.88	26.57	22.31	2.191			
5,250.67	5,250.02	5,255.29	5,250.02	11.61	10.93	-169.63	-8.95	-8.66	48.12	25.58	22.54	2.135 ES, SF			
5,300.00	5,299.35	5,303.67	5,297.54	11.72	11.05	179.69	-10.58	0.26	49.00	26.23	22.77	2.152			
5,400.00	5,399.35	5,401.39	5,393.08	11.95	11.26	158.68	-14.09	20.48	56.68	33.48	23.20	2.443			
5,500.00	5,499.35	5,501.72	5,491.44	12.17	11.30	144.00	-16.65	39.99	68.50	45.06	23.44	2.922			
5,600.00	5,599.35	5,600.76	5,589.25	12.40	11.34	136.36	-19.52	55.22	80.65	56.97	23.68	3.406			
5,700.00	5,699.33	5,700.60	5,688.10	12.59	11.38	-20.07	-23.54	68.70	91.55	67.74	23.81	3.845			
5,800.00	5,799.19	5,802.47	5,789.26	12.77	11.43	-23.32	-28.23	79.65	97.90	73.95	23.96	4.086			
5,897.52	5,896.34	5,901.64	5,888.01	12.94	11.48	-25.94	-33.00	87.51	99.21	75.12	24.09	4.118			
5,900.00	5,898.80	5,904.14	5,890.50	12.94	11.48	-26.00	-33.13	87.67	99.19	75.09	24.09	4.117			
6,000.00	5,998.26	6,005.15	5,991.16	13.12	11.53	-27.34	-39.61	92.69	97.67	73.38	24.29	4.021			
6,100.00	6,097.72	6,106.65	6,092.19	13.30	11.58	-26.03	-49.25	94.37	95.23	70.74	24.49	3.888			
6,200.00	6,197.19	6,208.33	6,193.16	13.48	11.63	-21.96	-60.85	91.58	90.59	65.89	24.70	3.667			
6,300.00	6,296.65	6,309.48	6,293.44	13.66	11.67	-15.99	-72.96	86.21	85.04	60.13	24.92	3.413			
6,400.00	6,396.11	6,410.54	6,393.40	13.85	11.72	-7.38	-84.86	77.46	78.39	53.24	25.15	3.117			
6,500.00	6,495.57	6,510.52	6,491.98	14.04	11.76	4.84	-96.34	65.33	72.06	46.66	25.41	2.836			
6,600.00	6,595.03	6,609.21	6,588.83	14.23	11.80	21.16	-107.38	49.97	68.76	43.05	25.71	2.674			
6,609.80	6,604.77	6,618.80	6,598.21	14.25	11.81	22.95	-108.43	48.30	68.73	42.98	25.74	2.670			
6,700.00	6,694.49	6,706.40	6,683.67	14.43	11.85	39.97	-117.95	31.58	71.83	45.78	26.06	2.757			
6,800.00	6,793.95	6,803.09	6,777.71	14.63	11.92	56.79	-128.30	11.61	82.72	56.32	26.40	3.134			
6,900.00	6,893.41	6,899.79	6,871.75	14.84	12.00	69.08	-138.65	-8.36	99.12	72.40	26.72	3.710			
7,000.00	6,992.88	6,996.48	6,965.79	15.05	12.10	77.71	-149.01	-28.34	118.76	91.74	27.02	4.395			
7,100.00	7,092.34	7,093.18	7,059.84	15.26	12.22	83.84	-159.36	-48.32	140.30	112.98	27.33	5.134			
7,200.00	7,191.80	7,189.88	7,153.88	15.47	12.36	88.33	-169.72	-68.29	162.98	135.35	27.64	5.897			
7,300.00	7,291.26	7,286.58	7,247.92	15.69	12.52	91.72	-180.07	-88.27	186.39	158.43	27.95	6.668			
7,400.00	7,390.72	7,383.28	7,341.97	15.91	12.70	94.36	-190.43	-108.24	210.28	182.00	28.28	7.435			
7,500.00	7,490.18	7,479.97	7,436.01	16.13	12.90	96.45	-200.78	-128.22	234.51	205.89	28.62	8.194			
7,600.00	7,589.64	7,576.67	7,530.06	16.35	13.11	98.16	-211.14	-148.19	258.98	230.01	28.96	8.941			
7,700.00	7,689.10	7,673.37	7,624.10	16.58	13.33	99.57	-221.49	-168.17	283.62	254.31	29.32	9.674			
7,800.00	7,788.57	7,770.07	7,718.14	16.81	13.57	100.75	-231.85	-188.14	308.41	278.73	29.68	10.391			
7,900.00	7,888.03	7,866.77	7,812.19	17.04	13.81	101.76	-242.20	-208.12	333.30	303.25	30.05	11.091			
8,000.00	7,987.49	7,963.46	7,906.23	17.27	14.08	102.63	-252.55	-228.09	358.27	327.84	30.43	11.774			
8,100.00	8,086.95	8,060.16	8,000.28	17.51	14.35	103.39	-262.91	-248.07	383.31	352.50	30.81	12.440			
8,200.00	8,186.41	8,156.86	8,094.32	17.74	14.63	104.05	-273.26	-268.05	408.41	377.20	31.21	13.087			
8,300.00	8,285.87	8,253.56	8,188.36	17.98	14.92	104.64	-283.62	-288.02	433.55	401.94	31.61	13.717			
8,400.00	8,385.33	8,350.26	8,282.41	18.22	15.22	105.16	-293.97	-308.00	458.73	426.71	32.01	14.330			
8,500.00	8,484.79	8,446.95	8,376.45	18.46	15.53	105.63	-304.33	-327.97	483.94	451.51	32.43	14.925			
8,600.00	8,584.25	8,559.40	8,486.14	18.71	15.83	106.16	-315.73	-349.91	508.00	475.15	32.84	15.468			
8,700.00	8,683.72	8,677.85	8,602.62	18.95	16.08	106.80	-325.69	-368.90	528.32	495.07	33.26	15.887			
8,800.00	8,783.18	8,797.94	8,721.52	19.20	16.31	107.54	-333.60	-383.73	544.77	511.10	33.67	16.180			
8,900.00	8,882.64	8,919.29	8,842.28	19.44	16.50	108.39	-339.33	-394.18	557.29	523.21	34.08	16.352			
9,000.00	8,982.10	9,014.54	8,937.12	19.69	16.67	108.85	-345.27	-399.99	567.68	533.20	34.48	16.464			
9,100.00	9,081.56	9,100.00	9,020.57	19.94	16.90	108.05	-362.62	-404.97	580.17	545.27	34.90	16.624			
9,200.00	9,181.02	9,181.06	9,096.52	20.20	17.21	106.19	-390.39	-409.43	595.51	560.16	35.35	16.846			

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Plan#4													Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD, 6254-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance		Minimum Separation		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,300.00	9,280.48	9,250.00	9,157.50	20.45	17.52	103.88	-422.26	-412.95	614.90	579.11	35.79	17.182		
9,400.00	9,379.94	9,320.62	9,215.55	20.70	17.91	100.90	-462.27	-416.24	639.57	603.31	36.25	17.642		
9,500.00	9,479.41	9,377.85	9,258.71	20.96	18.28	98.12	-499.74	-418.64	670.62	633.94	36.68	18.282		
9,600.00	9,578.87	9,427.26	9,292.81	21.21	18.63	95.52	-535.43	-420.50	708.60	671.51	37.09	19.105		
9,700.00	9,678.33	9,469.75	9,319.60	21.47	18.97	93.18	-568.37	-421.93	753.57	716.09	37.47	20.109		
9,800.00	9,777.79	9,500.00	9,337.14	21.73	19.22	91.48	-592.99	-422.85	805.22	767.41	37.81	21.294		
9,832.06	9,809.68	9,516.92	9,346.38	21.81	19.37	90.51	-607.15	-423.32	823.05	785.10	37.95	21.689		
9,850.00	9,827.49	9,522.76	9,349.47	21.86	19.42	82.53	-612.11	-423.48	833.19	795.23	37.96	21.951		
9,900.00	9,876.73	9,550.00	9,363.22	22.00	19.67	69.45	-635.61	-424.17	861.31	823.32	37.99	22.674		
9,950.00	9,925.06	9,550.00	9,363.22	22.17	19.67	62.96	-635.61	-424.17	888.56	850.67	37.89	23.451		
10,000.00	9,972.12	9,574.39	9,374.58	22.36	19.91	57.45	-657.19	-424.73	914.93	877.15	37.78	24.220		
10,050.00	10,017.54	9,600.00	9,385.50	22.57	20.16	53.11	-680.34	-425.26	940.27	902.72	37.55	25.039		
10,100.00	10,060.99	9,600.00	9,385.50	22.80	20.16	50.25	-680.34	-425.26	964.28	927.12	37.17	25.945		
10,150.00	10,102.13	9,629.70	9,396.86	23.06	20.47	47.15	-707.77	-425.78	986.58	949.84	36.74	26.851		
10,200.00	10,140.65	9,650.00	9,403.80	23.35	20.69	44.75	-726.84	-426.09	1,007.36	971.15	36.21	27.823		
10,250.00	10,176.26	9,667.95	9,409.38	23.66	20.89	42.77	-743.90	-426.32	1,026.35	990.74	35.60	28.828		
10,300.00	10,208.68	9,700.00	9,417.99	24.01	21.25	40.91	-774.77	-426.66	1,043.62	1,008.62	35.00	29.818		
10,350.00	10,237.67	9,700.00	9,417.99	24.38	21.25	39.75	-774.77	-426.66	1,058.59	1,024.29	34.30	30.861		
10,400.00	10,263.01	9,726.69	9,423.84	24.79	21.56	38.52	-800.81	-426.85	1,071.56	1,037.82	33.73	31.765		
10,450.00	10,284.50	9,750.00	9,427.96	25.22	21.84	37.57	-823.75	-426.96	1,082.45	1,049.21	33.24	32.567		
10,500.00	10,301.99	9,766.46	9,430.30	25.68	22.04	36.87	-840.03	-427.01	1,091.11	1,058.27	32.84	33.226		
10,550.00	10,315.33	9,800.00	9,433.62	26.16	22.45	36.28	-873.41	-427.00	1,097.76	1,065.05	32.70	33.569		
10,600.00	10,324.43	9,800.00	9,433.62	26.67	22.45	36.01	-873.41	-427.00	1,101.76	1,069.20	32.55	33.843		
10,650.00	10,329.21	9,835.20	9,435.01	27.20	22.90	35.81	-908.58	-426.87	1,103.66	1,070.79	32.87	33.573		
10,680.01	10,330.00	9,843.66	9,435.08	27.52	23.01	35.80	-917.04	-426.82	1,103.57	1,070.49	33.09	33.352		
10,700.00	10,330.00	9,863.64	9,435.26	27.74	23.26	35.79	-937.02	-426.71	1,103.22	1,069.83	33.39	33.040		
10,800.00	10,330.00	9,963.62	9,436.13	28.88	24.60	35.74	-1,036.99	-426.15	1,101.42	1,066.47	34.95	31.511		
10,900.00	10,330.00	10,063.60	9,437.00	30.09	26.00	35.69	-1,136.97	-425.59	1,099.63	1,063.02	36.60	30.041		
11,000.00	10,330.00	10,163.58	9,437.87	31.36	27.45	35.63	-1,236.94	-425.03	1,097.83	1,059.50	38.33	28.641		
11,100.00	10,330.00	10,263.56	9,438.75	32.69	28.94	35.58	-1,336.91	-424.46	1,096.04	1,055.92	40.12	27.316		
11,200.00	10,330.00	10,363.54	9,439.62	34.06	30.47	35.53	-1,436.89	-423.90	1,094.25	1,052.27	41.98	26.068		
11,300.00	10,330.00	10,463.52	9,440.49	35.47	32.04	35.48	-1,536.86	-423.34	1,092.46	1,048.58	43.88	24.898		
11,400.00	10,330.00	10,563.50	9,441.36	36.91	33.63	35.42	-1,636.83	-422.78	1,090.67	1,044.85	45.82	23.803		
11,500.00	10,330.00	10,663.47	9,442.24	38.39	35.24	35.37	-1,736.81	-422.22	1,088.88	1,041.08	47.80	22.779		
11,600.00	10,330.00	10,763.45	9,443.11	39.90	36.88	35.32	-1,836.78	-421.66	1,087.10	1,037.28	49.82	21.822		
11,700.00	10,330.00	10,863.43	9,443.98	41.43	38.53	35.26	-1,936.75	-421.10	1,085.31	1,033.45	51.86	20.929		
11,800.00	10,330.00	10,963.41	9,444.85	42.99	40.20	35.21	-2,036.73	-420.53	1,083.52	1,029.60	53.92	20.094		
11,900.00	10,330.00	11,063.39	9,445.73	44.57	41.88	35.16	-2,136.70	-419.97	1,081.74	1,025.73	56.01	19.313		
12,000.00	10,330.00	11,163.37	9,446.60	46.16	43.58	35.10	-2,236.67	-419.41	1,079.96	1,021.84	58.11	18.583		
12,100.00	10,330.00	11,263.35	9,447.47	47.78	45.28	35.05	-2,336.65	-418.85	1,078.17	1,017.94	60.24	17.899		
12,200.00	10,330.00	11,363.33	9,448.34	49.40	47.00	34.99	-2,436.62	-418.29	1,076.39	1,014.02	62.37	17.258		
12,300.00	10,330.00	11,463.31	9,449.22	51.04	48.72	34.94	-2,536.59	-417.73	1,074.61	1,010.09	64.52	16.656		
12,400.00	10,330.00	11,563.28	9,450.09	52.70	50.45	34.88	-2,636.57	-417.16	1,072.83	1,006.16	66.67	16.091		
12,500.00	10,330.00	11,663.26	9,450.96	54.36	52.19	34.83	-2,736.54	-416.60	1,071.05	1,002.21	68.84	15.558		
12,600.00	10,330.00	11,763.24	9,451.83	56.04	53.93	34.77	-2,836.52	-416.04	1,069.27	998.26	71.01	15.057		
12,700.00	10,330.00	11,863.22	9,452.71	57.72	55.68	34.72	-2,936.49	-415.48	1,067.50	994.30	73.19	14.584		
12,800.00	10,330.00	11,963.20	9,453.58	59.41	57.44	34.66	-3,036.46	-414.92	1,065.72	990.34	75.38	14.138		
12,900.00	10,330.00	12,063.18	9,454.45	61.11	59.20	34.61	-3,136.44	-414.36	1,063.95	986.38	77.57	13.716		
13,000.00	10,330.00	12,163.16	9,455.32	62.82	60.96	34.55	-3,236.41	-413.79	1,062.17	982.41	79.76	13.316		
13,100.00	10,330.00	12,263.14	9,456.20	64.53	62.73	34.50	-3,336.38	-413.23	1,060.40	978.44	81.96	12.938		
13,200.00	10,330.00	12,363.12	9,457.07	66.25	64.50	34.44	-3,436.36	-412.67	1,058.63	974.47	84.16	12.579		
13,270.75	10,330.00	12,433.85	9,457.69	67.47	65.76	34.40	-3,507.09	-412.27	1,057.38	971.66	85.72	12.335		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Plan#4													Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD, 6254-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
13,300.00	10,330.15	12,463.10	9,457.94	67.92	66.27	34.38	-3,536.33	-412.11	1,056.98	970.64	86.34	12.242		
13,320.75	10,330.43	12,483.84	9,458.12	68.21	66.64	34.35	-3,557.08	-411.99	1,056.85	970.10	86.75	12.182		
13,400.00	10,331.82	12,563.07	9,458.81	69.43	68.05	34.27	-3,636.30	-411.55	1,056.59	968.23	88.36	11.957		
13,500.00	10,333.56	12,663.05	9,459.69	71.17	69.83	34.16	-3,736.28	-410.99	1,056.27	965.78	90.49	11.673		
13,600.00	10,335.31	12,763.03	9,460.56	72.91	71.62	34.05	-3,836.25	-410.42	1,055.95	963.34	92.60	11.403		
13,700.00	10,337.05	12,863.01	9,461.43	74.65	73.40	33.94	-3,936.23	-409.86	1,055.63	960.91	94.72	11.145		
13,800.00	10,338.80	12,962.99	9,462.30	76.40	75.19	33.83	-4,036.20	-409.30	1,055.32	958.49	96.83	10.899		
13,900.00	10,340.54	13,062.97	9,463.18	78.15	76.98	33.72	-4,136.17	-408.74	1,055.01	956.08	98.93	10.664		
14,000.00	10,342.29	13,162.95	9,464.05	79.91	78.77	33.61	-4,236.15	-408.18	1,054.71	953.67	101.03	10.439		
14,100.00	10,344.03	13,262.93	9,464.92	81.67	80.57	33.49	-4,336.12	-407.62	1,054.41	951.27	103.13	10.224		
14,200.00	10,345.78	13,362.91	9,465.79	83.43	82.36	33.38	-4,436.09	-407.05	1,054.11	948.89	105.22	10.018		
14,300.00	10,347.52	13,462.89	9,466.67	85.19	84.16	33.27	-4,536.07	-406.49	1,053.82	946.51	107.31	9.821		
14,400.00	10,349.27	13,562.86	9,467.54	86.96	85.96	33.16	-4,636.04	-405.93	1,053.53	944.14	109.39	9.631		
14,500.00	10,351.01	13,662.84	9,468.41	88.73	87.76	33.05	-4,736.01	-405.37	1,053.24	941.78	111.46	9.449		
14,600.00	10,352.76	13,762.82	9,469.28	90.50	89.56	32.94	-4,835.99	-404.81	1,052.96	939.43	113.53	9.275		
14,700.00	10,354.50	13,862.80	9,470.15	92.27	91.36	32.83	-4,935.96	-404.25	1,052.68	937.09	115.59	9.107		
14,800.00	10,356.25	13,962.78	9,471.03	94.05	93.16	32.72	-5,035.93	-403.69	1,052.41	934.76	117.65	8.945		
14,900.00	10,357.99	14,062.76	9,471.90	95.82	94.97	32.61	-5,135.91	-403.12	1,052.14	932.45	119.70	8.790		
15,000.00	10,359.74	14,162.74	9,472.77	97.60	96.78	32.50	-5,235.88	-402.56	1,051.88	930.14	121.74	8.640		
15,100.00	10,361.48	14,262.72	9,473.64	99.38	98.58	32.39	-5,335.85	-402.00	1,051.62	927.84	123.77	8.496		
15,200.00	10,363.23	14,362.70	9,474.52	101.17	100.39	32.28	-5,435.83	-401.44	1,051.36	925.55	125.80	8.357		
15,297.84	10,364.94	14,458.57	9,475.35	102.60	102.12	32.17	-5,531.70	-400.90	1,051.11	923.64	127.47	8.246		
15,299.41	10,364.96	14,458.57	9,475.35	102.63	102.12	32.17	-5,531.70	-400.90	1,051.11	923.63	127.49	8.245		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Wellbore #2														Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	-58.66	25.70	-42.20	49.41						
100.00	100.00	100.50	100.50	0.09	0.10	-59.41	24.88	-42.09	48.89	48.70	0.19	256.615			
200.00	200.00	200.43	200.41	0.32	0.30	-60.85	23.36	-41.88	47.96	47.34	0.62	77.602			
300.00	300.00	300.59	300.57	0.54	0.51	-61.96	22.05	-41.41	46.92	45.87	1.05	44.572			
400.00	400.00	400.63	400.60	0.77	0.73	-62.83	20.85	-40.62	45.67	44.17	1.50	30.536			
500.00	500.00	500.55	500.50	0.99	0.94	-63.65	19.73	-39.82	44.45	42.52	1.93	23.013			
600.00	600.00	600.35	600.29	1.22	1.15	-64.44	18.79	-39.29	43.55	41.19	2.36	18.440			
700.00	700.00	700.18	700.13	1.44	1.36	-65.34	17.96	-39.13	43.06	40.27	2.79	15.409			
800.00	800.00	800.23	800.17	1.67	1.57	-66.30	17.16	-39.10	42.71	39.48	3.23	13.229			
887.49	887.49	887.56	887.50	1.86	1.75	-67.06	16.57	-39.16	42.52	38.91	3.61	11.783 CC			
900.00	900.00	900.00	899.94	1.89	1.78	-67.15	16.51	-39.18	42.52	38.86	3.66	11.608			
1,000.00	1,000.00	999.91	999.85	2.12	1.99	-67.77	16.16	-39.54	42.72	38.62	4.10	10.413			
1,100.00	1,100.00	1,099.88	1,099.81	2.34	2.20	-68.24	15.98	-40.04	43.12	38.57	4.54	9.491			
1,200.00	1,200.00	1,199.50	1,199.43	2.56	2.42	-68.68	15.99	-40.97	43.98	39.00	4.98	8.827			
1,300.00	1,300.00	1,299.38	1,299.30	2.79	2.63	-69.22	16.11	-42.45	45.41	39.99	5.42	8.377			
1,400.00	1,400.00	1,399.24	1,399.14	3.01	2.84	-70.02	16.09	-44.25	47.09	41.24	5.86	8.039			
1,500.00	1,500.00	1,499.20	1,499.08	3.24	3.06	-70.90	16.01	-46.24	48.94	42.64	6.30	7.769			
1,600.00	1,600.00	1,599.23	1,599.09	3.46	3.27	-72.15	15.56	-48.32	50.77	44.03	6.74	7.537			
1,650.00	1,650.00	1,649.24	1,649.09	3.58	3.37	-72.98	15.12	-49.39	51.66	44.71	6.95	7.434			
1,700.00	1,700.00	1,699.25	1,699.08	3.69	3.47	-74.22	14.68	-50.43	52.41	45.25	7.16	7.319			
1,750.00	1,749.98	1,749.41	1,749.24	3.80	3.57	-76.26	14.29	-51.35	52.87	45.49	7.37	7.170			
1,800.00	1,799.95	1,799.59	1,799.41	3.91	3.68	-78.55	14.01	-52.04	53.09	45.51	7.59	6.999			
1,900.00	1,899.89	1,899.65	1,899.46	4.14	3.88	-82.94	13.54	-53.04	53.44	45.43	8.01	6.670			
2,000.00	1,999.83	1,999.61	1,999.42	4.36	4.09	-87.00	13.28	-53.85	53.92	45.48	8.44	6.386			
2,100.00	2,099.77	2,099.82	2,099.63	4.59	4.30	-90.82	13.17	-54.35	54.36	45.48	8.88	6.123			
2,200.00	2,199.71	2,199.71	2,199.52	4.81	4.50	-94.73	12.92	-54.64	54.82	45.52	9.31	5.889			
2,300.00	2,299.64	2,299.80	2,299.60	5.04	4.71	-98.40	12.84	-54.85	55.44	45.70	9.74	5.690			
2,400.00	2,399.58	2,399.80	2,399.61	5.27	4.92	-101.93	12.83	-54.86	56.07	45.89	10.18	5.508			
2,500.00	2,499.52	2,499.65	2,499.46	5.49	5.12	-105.65	12.55	-54.82	56.94	46.32	10.61	5.365			
2,600.00	2,599.46	2,599.68	2,599.48	5.72	5.33	-109.02	12.49	-54.86	58.03	46.98	11.05	5.252			
2,700.00	2,699.40	2,699.80	2,699.61	5.95	5.54	-112.66	12.14	-54.49	59.05	47.57	11.48	5.142			
2,750.00	2,749.37	2,749.71	2,749.51	6.06	5.65	-114.72	11.71	-54.14	59.61	47.91	11.70	5.093			
2,800.00	2,799.35	2,799.65	2,799.45	6.16	5.75	-116.21	11.42	-53.90	60.07	48.17	11.91	5.045			
2,850.00	2,849.35	2,849.87	2,849.67	6.25	5.86	-116.80	11.29	-53.64	60.10	47.99	12.10	4.965			
2,900.00	2,899.35	2,900.00	2,899.80	6.35	5.96	-116.91	11.36	-53.27	59.73	47.43	12.31	4.854			
2,979.12	2,978.47	2,978.67	2,978.47	6.52	6.13	-117.31	11.15	-52.75	59.37	46.72	12.65	4.694			
3,000.00	2,999.35	2,999.41	2,999.20	6.57	6.17	-117.51	10.95	-52.68	59.40	46.66	12.74	4.663			
3,100.00	3,099.35	3,100.30	3,100.09	6.79	6.38	-118.09	10.66	-51.96	58.90	45.73	13.17	4.471			
3,200.00	3,199.35	3,200.00	3,199.78	7.02	6.59	-118.12	11.12	-51.04	57.87	44.27	13.61	4.254			
3,300.00	3,299.35	3,299.58	3,299.36	7.24	6.80	-118.32	11.13	-50.58	57.46	43.42	14.04	4.093			
3,300.43	3,299.78	3,300.00	3,299.78	7.24	6.80	-118.32	11.13	-50.58	57.46	43.42	14.04	4.093			
3,400.00	3,399.35	3,395.78	3,395.49	7.46	7.00	-118.47	9.55	-53.18	60.62	46.15	14.46	4.191			
3,500.00	3,499.35	3,494.04	3,493.47	7.69	7.22	-117.73	6.77	-60.14	68.20	53.30	14.90	4.577			
3,600.00	3,599.35	3,592.96	3,591.97	7.91	7.44	-116.49	4.05	-68.89	77.33	61.99	15.34	5.042			
3,700.00	3,699.35	3,695.18	3,693.84	8.14	7.66	-116.04	0.95	-76.63	85.47	69.69	15.78	5.417			
3,800.00	3,799.35	3,798.89	3,797.44	8.36	7.88	-116.23	-1.29	-80.51	89.78	73.56	16.22	5.537			
3,900.00	3,899.35	3,900.73	3,899.28	8.58	8.09	-116.27	-1.83	-81.47	90.86	74.21	16.65	5.457			
4,000.00	3,999.35	4,000.93	3,999.48	8.81	8.30	-116.36	-1.94	-81.38	90.83	73.74	17.08	5.317			
4,032.68	4,032.03	4,033.48	4,032.03	8.88	8.37	-116.45	-2.05	-81.30	90.80	73.58	17.22	5.272			
4,100.00	4,099.35	4,100.55	4,099.10	9.03	8.51	-116.57	-2.27	-81.30	90.90	73.38	17.51	5.190			
4,200.00	4,199.35	4,200.72	4,199.26	9.26	8.71	-116.84	-2.73	-81.28	91.09	73.14	17.95	5.075			
4,300.00	4,299.35	4,301.61	4,300.14	9.48	8.92	-117.39	-3.34	-80.53	90.70	72.32	18.38	4.934			

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



Integrity Directional Services, LLC

Anticollision Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Reference Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Hamon Fed Com A #6H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Wellbore #2													Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,400.00	4,399.35	4,402.81	4,401.33	9.70	9.13	-118.11	-3.61	-78.61	89.15	70.33	18.82	4.738		
4,500.00	4,499.35	4,503.67	4,502.14	9.93	9.34	-118.81	-3.24	-75.69	86.43	67.18	19.25	4.490		
4,600.00	4,599.35	4,604.46	4,602.86	10.15	9.55	-119.51	-2.30	-71.89	82.68	62.99	19.68	4.200		
4,700.00	4,699.35	4,704.84	4,703.12	10.38	9.75	-120.68	-1.44	-67.14	78.15	58.04	20.12	3.885		
4,800.00	4,799.35	4,805.56	4,803.65	10.60	9.96	-122.71	-0.86	-61.12	72.77	52.21	20.55	3.541		
4,900.00	4,899.35	4,905.70	4,903.49	10.83	10.16	-126.75	-1.42	-53.31	66.67	45.68	20.99	3.177		
5,000.00	4,999.35	5,005.94	5,003.21	11.05	10.37	-133.84	-3.30	-43.41	60.31	38.88	21.42	2.815		
5,100.00	5,099.35	5,106.25	5,102.79	11.27	10.59	-144.23	-5.14	-31.36	53.76	31.90	21.86	2.459		
5,200.00	5,199.35	5,205.28	5,200.73	11.50	10.81	-159.61	-7.41	-17.03	48.88	26.57	22.31	2.191		
5,250.67	5,250.02	5,255.29	5,250.02	11.61	10.93	-169.63	-8.95	-8.66	48.12	25.58	22.54	2.135 ES, SF		
5,300.00	5,299.35	5,303.67	5,297.54	11.72	11.05	179.69	-10.58	0.26	49.00	26.23	22.77	2.152		
5,400.00	5,399.35	5,401.39	5,393.08	11.95	11.26	158.68	-14.09	20.48	56.68	33.48	23.20	2.443		
5,500.00	5,499.35	5,501.72	5,491.44	12.17	11.30	144.00	-16.65	39.99	68.50	45.06	23.44	2.922		
5,600.00	5,599.35	5,600.76	5,589.25	12.40	11.34	136.36	-19.52	55.22	80.65	56.97	23.68	3.406		
5,700.00	5,699.33	5,700.60	5,688.10	12.59	11.38	-20.07	-23.54	68.70	91.55	67.74	23.81	3.845		
5,800.00	5,799.19	5,802.47	5,789.26	12.77	11.43	-23.32	-28.23	79.65	97.90	73.95	23.96	4.086		
5,897.52	5,896.34	5,901.64	5,888.01	12.94	11.48	-25.94	-33.00	87.51	99.21	75.12	24.09	4.118		
5,900.00	5,898.80	5,904.14	5,890.50	12.94	11.48	-26.00	-33.13	87.67	99.19	75.09	24.09	4.117		
6,000.00	5,998.26	6,005.15	5,991.16	13.12	11.53	-27.34	-39.61	92.69	97.67	73.38	24.29	4.021		
6,100.00	6,097.72	6,106.65	6,092.19	13.30	11.58	-26.03	-49.25	94.37	95.23	70.74	24.49	3.888		
6,200.00	6,197.19	6,208.33	6,193.16	13.48	11.63	-21.96	-60.85	91.58	90.59	65.89	24.70	3.667		
6,300.00	6,296.65	6,310.82	6,294.80	13.66	11.67	-16.03	-72.66	85.96	84.62	59.70	24.92	3.396		
6,400.00	6,396.11	6,411.26	6,394.35	13.85	11.71	-8.09	-82.53	76.94	76.17	51.03	25.15	3.029		
6,500.00	6,495.57	6,512.24	6,494.21	14.04	11.75	3.31	-92.05	65.48	68.14	42.73	25.40	2.682		
6,600.00	6,595.03	6,611.10	6,591.58	14.23	11.78	20.02	-100.00	50.39	61.31	35.61	25.70	2.386		
6,640.80	6,635.61	6,650.43	6,630.11	14.32	11.80	28.52	-103.29	43.22	60.41	34.57	25.84	2.338		
6,700.00	6,694.49	6,706.81	6,685.09	14.43	11.82	41.46	-108.61	31.94	62.55	36.49	26.06	2.400		
6,800.00	6,793.95	6,803.21	6,778.78	14.63	11.87	60.58	-118.53	11.47	74.41	48.01	26.40	2.818		
6,900.00	6,893.41	6,900.50	6,873.42	14.84	11.93	73.53	-128.51	-8.70	91.89	65.19	26.70	3.441		
7,000.00	6,992.88	6,995.67	6,965.95	15.05	12.01	82.04	-138.34	-28.67	112.74	85.75	26.99	4.178		
7,100.00	7,092.34	7,093.00	7,060.47	15.26	12.11	88.06	-148.46	-49.57	135.76	108.49	27.28	4.977		
7,200.00	7,191.80	7,191.92	7,156.81	15.47	12.22	92.42	-158.17	-69.82	158.65	131.08	27.57	5.755		
7,300.00	7,291.26	7,286.56	7,248.97	15.69	12.34	95.50	-167.57	-89.17	182.18	154.31	27.87	6.537		
7,400.00	7,390.72	7,384.59	7,344.38	15.91	12.49	97.89	-177.60	-109.32	206.31	178.13	28.18	7.321		
7,500.00	7,490.18	7,481.12	7,438.42	16.13	12.65	99.81	-187.18	-128.89	230.35	201.85	28.50	8.083		
7,600.00	7,589.64	7,573.91	7,528.58	16.35	12.83	101.25	-196.87	-148.56	255.61	226.78	28.82	8.868		
7,700.00	7,689.10	7,672.18	7,623.97	16.58	13.02	102.52	-207.18	-169.81	281.42	252.25	29.17	9.649		
7,800.00	7,788.57	7,772.38	7,721.56	16.81	13.23	103.68	-216.91	-190.32	306.03	276.52	29.51	10.370		
7,900.00	7,888.03	7,864.84	7,811.49	17.04	13.43	104.55	-226.27	-209.67	331.28	301.42	29.86	11.095		
8,000.00	7,987.49	7,963.89	7,907.78	17.27	13.67	105.32	-236.51	-230.54	356.78	326.56	30.22	11.805		
8,100.00	8,086.95	8,062.79	8,004.13	17.51	13.90	106.01	-246.38	-250.53	381.43	350.84	30.59	12.469		
8,200.00	8,186.41	8,157.33	8,096.07	17.74	14.14	106.42	-257.00	-269.79	406.51	375.55	30.96	13.129		
8,300.00	8,285.87	8,257.06	8,193.06	17.98	14.41	106.71	-268.88	-289.72	431.36	400.01	31.35	13.760		
8,400.00	8,385.33	8,358.97	8,292.34	18.22	14.69	106.96	-280.95	-309.35	455.52	423.77	31.74	14.350		
8,500.00	8,484.79	8,464.84	8,395.87	18.46	14.97	107.30	-292.37	-328.25	478.10	445.96	32.15	14.871		
8,600.00	8,584.25	8,579.32	8,508.33	18.71	15.26	107.67	-303.97	-346.18	498.50	465.93	32.57	15.305		
8,700.00	8,683.72	8,689.57	8,617.24	18.95	15.52	108.03	-314.22	-359.95	515.58	482.59	32.99	15.630		
8,800.00	8,783.18	8,796.25	8,722.95	19.20	15.75	108.48	-322.65	-371.61	530.94	497.54	33.40	15.897		
8,900.00	8,882.64	8,894.90	8,820.78	19.44	15.96	108.92	-330.04	-381.81	545.68	511.88	33.80	16.143		
9,000.00	8,982.10	8,978.00	8,902.97	19.69	16.15	109.05	-338.36	-390.45	561.05	526.86	34.19	16.409		
9,100.00	9,081.56	9,046.67	8,968.59	19.94	16.40	108.06	-356.26	-399.20	581.33	546.73	34.60	16.801		
9,200.00	9,181.02	9,141.36	9,055.48	20.20	16.81	105.70	-391.82	-411.29	604.76	569.66	35.10	17.231		

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



Integrity Directional Services, LLC

Anticollision Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Reference Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Hamon Fed Com A #6H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Wellbore #2													Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,300.00	9,280.48	9,234.28	9,137.27	20.45	17.26	102.69	-434.96	-419.82	628.67	593.06	35.61	17.653		
9,400.00	9,379.94	9,308.00	9,197.62	20.70	17.68	99.68	-476.95	-424.64	656.09	620.00	36.09	18.180		
9,500.00	9,479.41	9,365.45	9,241.38	20.96	18.05	97.06	-514.00	-427.97	689.05	652.52	36.53	18.862		
9,600.00	9,578.87	9,423.74	9,282.41	21.21	18.47	94.18	-555.30	-430.38	727.69	690.72	36.97	19.681		
9,700.00	9,678.33	9,470.44	9,312.16	21.47	18.84	91.71	-591.26	-431.41	772.52	735.14	37.38	20.667		
9,800.00	9,777.79	9,509.68	9,335.13	21.73	19.17	89.58	-623.07	-431.86	823.45	785.69	37.76	21.810		
9,832.06	9,809.68	9,519.89	9,340.74	21.81	19.26	89.02	-631.60	-431.94	841.07	803.20	37.87	22.209		
9,850.00	9,827.49	9,525.50	9,343.75	21.86	19.31	81.10	-636.33	-431.97	851.07	813.19	37.88	22.467		
9,900.00	9,876.73	9,544.00	9,353.31	22.00	19.47	68.58	-652.17	-432.06	878.63	840.74	37.89	23.187		
9,950.00	9,925.06	9,544.00	9,353.31	22.17	19.47	62.14	-652.17	-432.06	905.68	867.89	37.80	23.963		
10,000.00	9,972.12	9,570.31	9,365.88	22.36	19.73	56.66	-675.28	-432.23	931.50	893.81	37.69	24.717		
10,050.00	10,017.54	9,591.00	9,374.86	22.57	19.93	52.56	-693.92	-432.50	956.49	919.03	37.45	25.538		
10,100.00	10,060.99	9,591.00	9,374.86	22.80	19.93	49.74	-693.92	-432.50	980.25	943.19	37.06	26.451		
10,150.00	10,102.13	9,617.63	9,385.31	23.06	20.21	46.78	-718.40	-433.00	1,002.34	965.71	36.63	27.363		
10,200.00	10,140.65	9,638.00	9,392.50	23.35	20.42	44.44	-737.45	-433.49	1,022.97	986.87	36.10	28.340		
10,250.00	10,176.26	9,638.00	9,392.50	23.66	20.42	42.76	-737.45	-433.49	1,042.07	1,006.64	35.44	29.407		
10,300.00	10,208.68	9,667.66	9,401.58	24.01	20.76	40.96	-765.68	-434.31	1,058.93	1,024.09	34.83	30.401		
10,350.00	10,237.67	9,685.00	9,406.08	24.38	20.95	39.61	-782.41	-434.83	1,074.11	1,039.93	34.18	31.421		
10,400.00	10,263.01	9,703.73	9,410.29	24.79	21.18	38.48	-800.65	-435.36	1,087.27	1,053.69	33.59	32.373		
10,450.00	10,284.50	9,733.00	9,415.60	25.22	21.53	37.51	-829.42	-436.02	1,098.38	1,065.26	33.12	33.166		
10,500.00	10,301.99	9,754.28	9,418.81	25.68	21.79	36.82	-850.46	-436.37	1,106.94	1,074.19	32.75	33.801		
10,550.00	10,315.33	9,799.00	9,425.02	26.16	22.34	36.28	-894.74	-436.76	1,112.48	1,079.76	32.71	34.005		
10,600.00	10,324.43	9,841.99	9,430.56	26.67	22.89	36.04	-937.37	-436.94	1,114.66	1,081.72	32.94	33.838		
10,650.00	10,329.21	9,890.45	9,436.72	27.20	23.50	36.14	-985.44	-437.22	1,113.32	1,079.80	33.52	33.214		
10,680.01	10,330.00	9,914.46	9,439.72	27.52	23.81	36.34	-1,009.26	-437.41	1,110.85	1,076.87	33.98	32.693		
10,700.00	10,330.00	9,929.95	9,441.57	27.74	24.01	36.39	-1,024.64	-437.54	1,108.87	1,074.60	34.28	32.350		
10,800.00	10,330.00	9,988.00	9,447.73	28.88	24.79	36.60	-1,082.35	-438.63	1,100.84	1,065.21	35.62	30.903		
10,900.00	10,330.00	10,055.53	9,452.99	30.09	25.74	36.84	-1,149.61	-441.41	1,096.30	1,059.14	37.16	29.501		
10,990.18	10,330.00	10,113.21	9,455.37	31.24	26.58	36.98	-1,207.19	-443.77	1,094.89	1,056.35	38.54	28.411		
11,000.00	10,330.00	10,119.16	9,455.48	31.36	26.66	36.99	-1,213.14	-444.01	1,094.90	1,056.22	38.68	28.305		
11,100.00	10,330.00	10,186.65	9,454.90	32.69	27.66	37.04	-1,280.57	-446.48	1,096.92	1,056.68	40.24	27.260		
11,200.00	10,330.00	10,281.09	9,452.15	34.06	29.05	37.03	-1,374.92	-449.54	1,100.42	1,058.35	42.07	26.159		
11,300.00	10,330.00	10,383.51	9,449.00	35.47	30.54	37.03	-1,477.22	-453.30	1,104.31	1,060.30	44.02	25.089		
11,400.00	10,330.00	10,520.38	9,444.57	36.91	32.55	36.84	-1,614.00	-453.72	1,106.33	1,060.11	46.22	23.938		
11,500.00	10,330.00	10,619.66	9,442.42	38.39	34.00	36.68	-1,713.25	-452.71	1,106.67	1,058.60	48.07	23.021		
11,600.00	10,330.00	10,722.34	9,440.67	39.90	35.53	36.53	-1,815.91	-451.92	1,106.81	1,056.79	50.01	22.130		
11,700.00	10,330.00	10,829.46	9,439.82	41.43	37.14	36.47	-1,923.02	-452.29	1,106.91	1,054.83	52.08	21.254		
11,800.00	10,330.00	10,939.48	9,440.57	42.99	38.80	36.43	-2,033.04	-452.24	1,105.53	1,051.31	54.22	20.388		
11,900.00	10,330.00	11,049.06	9,442.09	44.57	40.47	36.43	-2,142.61	-452.66	1,103.89	1,047.46	56.43	19.561		
12,000.00	10,330.00	11,165.00	9,446.69	46.16	42.25	36.51	-2,258.45	-452.70	1,099.81	1,041.01	58.80	18.705		
12,041.46	10,330.00	11,165.00	9,446.69	46.83	42.25	36.51	-2,258.45	-452.70	1,099.03	1,039.78	59.24	18.551		
12,100.00	10,330.00	11,165.00	9,446.69	47.78	42.25	36.51	-2,258.45	-452.70	1,100.58	1,040.71	59.87	18.383		
12,200.00	10,330.00	11,165.00	9,446.69	49.40	42.25	36.51	-2,258.45	-452.70	1,110.40	1,049.45	60.95	18.217		
12,300.00	10,330.00	11,165.00	9,446.69	51.04	42.25	36.51	-2,258.45	-452.70	1,129.03	1,066.98	62.05	18.196		
12,400.00	10,330.00	11,165.00	9,446.69	52.70	42.25	36.51	-2,258.45	-452.70	1,156.03	1,092.88	63.15	18.305		
12,500.00	10,330.00	11,165.00	9,446.69	54.36	42.25	36.51	-2,258.45	-452.70	1,190.85	1,126.58	64.27	18.530		
12,600.00	10,330.00	11,165.00	9,446.69	56.04	42.25	36.51	-2,258.45	-452.70	1,232.81	1,167.42	65.39	18.854		
12,700.00	10,330.00	11,165.00	9,446.69	57.72	42.25	36.51	-2,258.45	-452.70	1,281.22	1,214.71	66.52	19.262		
12,800.00	10,330.00	11,165.00	9,446.69	59.41	42.25	36.51	-2,258.45	-452.70	1,335.38	1,267.73	67.65	19.739		
12,900.00	10,330.00	11,165.00	9,446.69	61.11	42.25	36.51	-2,258.45	-452.70	1,394.61	1,325.82	68.79	20.273		
13,000.00	10,330.00	11,165.00	9,446.69	62.82	42.25	36.51	-2,258.45	-452.70	1,458.31	1,388.37	69.94	20.852		
13,100.00	10,330.00	11,165.00	9,446.69	64.53	42.25	36.51	-2,258.45	-452.70	1,525.90	1,454.81	71.09	21.465		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Wellbore #2													Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
13,200.00	10,330.00	11,165.00	9,446.69	66.25	42.25	36.51	-2,258.45	-452.70	1,596.89	1,524.65	72.25	22.104		
13,270.75	10,330.00	11,165.00	9,446.69	67.47	42.25	36.51	-2,258.45	-452.70	1,648.94	1,575.88	73.07	22.568		
13,300.00	10,330.15	11,165.00	9,446.69	67.92	42.25	36.91	-2,258.45	-452.70	1,670.94	1,597.08	73.86	22.624		
13,320.75	10,330.43	11,165.00	9,446.69	68.21	42.25	37.21	-2,258.45	-452.70	1,686.77	1,612.36	74.41	22.668		
13,400.00	10,331.82	11,165.00	9,446.69	69.43	42.25	37.21	-2,258.45	-452.70	1,748.33	1,673.06	75.27	23.228		
13,500.00	10,333.56	11,165.00	9,446.69	71.17	42.25	37.21	-2,258.45	-452.70	1,827.95	1,751.51	76.45	23.911		
13,600.00	10,335.31	11,165.00	9,446.69	72.91	42.25	37.21	-2,258.45	-452.70	1,909.49	1,831.86	77.63	24.596		
13,700.00	10,337.05	11,165.00	9,446.69	74.65	42.25	37.21	-2,258.45	-452.70	1,992.72	1,913.90	78.82	25.282		
13,800.00	10,338.80	11,165.00	9,446.69	76.40	42.25	37.21	-2,258.45	-452.70	2,077.42	1,997.41	80.01	25.964		
13,900.00	10,340.54	11,165.00	9,446.69	78.15	42.25	37.21	-2,258.45	-452.70	2,163.43	2,082.22	81.20	26.642		
14,000.00	10,342.29	11,165.00	9,446.69	79.91	42.25	37.21	-2,258.45	-452.70	2,250.60	2,168.19	82.40	27.313		
14,100.00	10,344.03	11,165.00	9,446.69	81.67	42.25	37.21	-2,258.45	-452.70	2,338.79	2,255.19	83.60	27.976		
14,200.00	10,345.78	11,165.00	9,446.69	83.43	42.25	37.21	-2,258.45	-452.70	2,427.90	2,343.10	84.80	28.631		
14,300.00	10,347.52	11,165.00	9,446.69	85.19	42.25	37.21	-2,258.45	-452.70	2,517.82	2,431.82	86.00	29.276		
14,400.00	10,349.27	11,165.00	9,446.69	86.96	42.25	37.21	-2,258.45	-452.70	2,608.48	2,521.28	87.21	29.911		
14,500.00	10,351.01	11,165.00	9,446.69	88.73	42.25	37.21	-2,258.45	-452.70	2,699.80	2,611.39	88.41	30.536		
14,600.00	10,352.76	11,165.00	9,446.69	90.50	42.25	37.21	-2,258.45	-452.70	2,791.72	2,702.10	89.62	31.150		
14,700.00	10,354.50	11,165.00	9,446.69	92.27	42.25	37.21	-2,258.45	-452.70	2,884.17	2,793.34	90.83	31.753		
14,800.00	10,356.25	11,165.00	9,446.69	94.05	42.25	37.21	-2,258.45	-452.70	2,977.11	2,885.07	92.04	32.344		
14,900.00	10,357.99	11,165.00	9,446.69	95.82	42.25	37.21	-2,258.45	-452.70	3,070.50	2,977.24	93.26	32.925		
15,000.00	10,359.74	11,165.00	9,446.69	97.60	42.25	37.21	-2,258.45	-452.70	3,164.29	3,069.82	94.47	33.495		
15,100.00	10,361.48	11,165.00	9,446.69	99.38	42.25	37.21	-2,258.45	-452.70	3,258.44	3,162.76	95.69	34.053		
15,200.00	10,363.23	11,165.00	9,446.69	101.17	42.25	37.21	-2,258.45	-452.70	3,352.94	3,256.04	96.90	34.601		
15,299.41	10,364.96	11,165.00	9,446.69	102.63	42.25	37.21	-2,258.45	-452.70	3,447.18	3,349.37	97.82	35.240		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #7H - Wellbore #1 - Plan#1													Offset Site Error: 0.00 ft	
Survey Program: 0-MWD													Offset Well Error: 0.00 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	0.00	0.00	0.00	122.25	-26.50	42.00	49.66					
100.00	100.00	100.00	100.00	0.09	0.09	122.25	-26.50	42.00	49.66	49.48	0.18	269.448		
200.00	200.00	200.00	200.00	0.32	0.32	122.25	-26.50	42.00	49.66	49.03	0.63	78.350		
300.00	300.00	300.00	300.00	0.54	0.54	122.25	-26.50	42.00	49.66	48.58	1.08	45.840		
400.00	400.00	400.00	400.00	0.77	0.77	122.25	-26.50	42.00	49.66	48.13	1.53	32.397		
500.00	500.00	500.00	500.00	0.99	0.99	122.25	-26.50	42.00	49.66	47.68	1.98	25.051		
600.00	600.00	600.00	600.00	1.22	1.22	122.25	-26.50	42.00	49.66	47.23	2.43	20.420		
700.00	700.00	700.00	700.00	1.44	1.44	122.25	-26.50	42.00	49.66	46.78	2.88	17.235		
800.00	800.00	800.00	800.00	1.67	1.67	122.25	-26.50	42.00	49.66	46.33	3.33	14.909		
900.00	900.00	900.00	900.00	1.89	1.89	122.25	-26.50	42.00	49.66	45.88	3.78	13.136		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	122.25	-26.50	42.00	49.66	45.43	4.23	11.740		
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	122.25	-26.50	42.00	49.66	44.98	4.68	10.612		
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	122.25	-26.50	42.00	49.66	44.53	5.13	9.682		
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	122.25	-26.50	42.00	49.66	44.08	5.58	8.902		
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	122.25	-26.50	42.00	49.66	43.63	6.03	8.238		
1,500.00	1,500.00	1,500.00	1,500.00	3.24	3.24	122.25	-26.50	42.00	49.66	43.18	6.48	7.666		
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	122.25	-26.50	42.00	49.66	42.73	6.93	7.169		
1,650.00	1,650.00	1,650.00	1,650.00	3.58	3.58	122.25	-26.50	42.00	49.66	42.51	7.15	6.944	CC, ES	
1,700.00	1,700.00	1,699.81	1,699.80	3.69	3.69	122.18	-26.19	42.31	49.99	42.62	7.37	6.779		
1,750.00	1,749.98	1,749.60	1,749.58	3.80	3.79	121.98	-25.28	43.22	50.98	43.38	7.59	6.714		
1,800.00	1,799.95	1,799.58	1,799.53	3.91	3.90	121.74	-24.04	44.46	52.29	44.48	7.81	6.693		
1,900.00	1,899.89	1,899.55	1,899.43	4.14	4.12	121.29	-21.58	46.92	54.93	46.68	8.26	6.654		
2,000.00	1,999.83	1,999.51	1,999.34	4.36	4.34	120.89	-19.11	49.39	57.57	48.87	8.70	6.618		
2,100.00	2,099.77	2,099.47	2,099.24	4.59	4.56	120.51	-16.64	51.86	60.22	51.07	9.15	6.584		
2,200.00	2,199.71	2,199.44	2,199.15	4.81	4.79	120.17	-14.17	54.33	62.86	53.27	9.59	6.553		
2,300.00	2,299.64	2,299.40	2,299.05	5.04	5.01	119.86	-11.71	56.79	65.51	55.47	10.04	6.524		
2,400.00	2,399.58	2,399.37	2,398.95	5.27	5.23	119.57	-9.24	59.26	68.16	57.67	10.49	6.497		
2,500.00	2,499.52	2,499.33	2,498.86	5.49	5.46	119.31	-6.77	61.73	70.81	59.87	10.94	6.471		
2,600.00	2,599.46	2,599.30	2,598.76	5.72	5.68	119.06	-4.31	64.19	73.46	62.07	11.39	6.448		
2,700.00	2,699.40	2,699.26	2,698.66	5.95	5.91	118.83	-1.84	66.66	76.12	64.27	11.85	6.426		
2,750.00	2,749.37	2,749.24	2,748.61	6.06	6.02	118.72	-0.61	67.89	77.45	65.37	12.07	6.415		
2,800.00	2,799.35	2,799.23	2,798.57	6.16	6.13	118.36	0.63	69.13	78.56	66.28	12.29	6.395		
2,850.00	2,849.35	2,849.21	2,848.52	6.25	6.25	117.44	1.86	70.36	79.28	66.80	12.49	6.350		
2,900.00	2,899.35	2,899.17	2,898.45	6.35	6.36	116.24	3.09	71.59	79.83	67.13	12.70	6.287		
3,000.00	2,999.35	2,999.11	2,998.33	6.57	6.59	113.91	5.56	74.06	81.02	67.87	13.15	6.162		
3,100.00	3,099.35	3,099.05	3,098.21	6.79	6.82	111.64	8.03	76.53	82.34	68.74	13.60	6.054		
3,200.00	3,199.35	3,198.99	3,198.09	7.02	7.04	109.45	10.49	78.99	83.78	69.73	14.05	5.963		
3,300.00	3,299.35	3,299.61	3,298.66	7.24	7.26	107.58	12.67	81.17	85.15	70.66	14.49	5.876		
3,400.00	3,399.35	3,400.30	3,399.35	7.46	7.45	107.32	12.98	81.48	85.35	70.45	14.90	5.728		
3,500.00	3,499.35	3,500.30	3,499.35	7.69	7.67	107.32	12.98	81.48	85.35	70.01	15.35	5.562		
3,600.00	3,599.35	3,600.30	3,599.35	7.91	7.89	107.32	12.98	81.48	85.35	69.56	15.79	5.405		
3,700.00	3,699.35	3,700.30	3,699.35	8.14	8.11	107.32	12.98	81.48	85.35	69.12	16.24	5.257		
3,800.00	3,799.35	3,800.30	3,799.35	8.36	8.33	107.32	12.98	81.48	85.35	68.67	16.68	5.116		
3,900.00	3,899.35	3,900.30	3,899.35	8.58	8.55	107.32	12.98	81.48	85.35	68.22	17.13	4.983		
4,000.00	3,999.35	4,000.30	3,999.35	8.81	8.77	107.32	12.98	81.48	85.35	67.78	17.58	4.856		
4,100.00	4,099.35	4,100.30	4,099.35	9.03	9.00	107.32	12.98	81.48	85.35	67.33	18.02	4.736		
4,200.00	4,199.35	4,200.30	4,199.35	9.26	9.22	107.32	12.98	81.48	85.35	66.89	18.47	4.622		
4,300.00	4,299.35	4,300.30	4,299.35	9.48	9.44	107.32	12.98	81.48	85.35	66.44	18.91	4.513		
4,400.00	4,399.35	4,400.30	4,399.35	9.70	9.66	107.32	12.98	81.48	85.35	65.99	19.36	4.408		
4,500.00	4,499.35	4,500.30	4,499.35	9.93	9.89	107.32	12.98	81.48	85.35	65.54	19.81	4.309		
4,600.00	4,599.35	4,600.30	4,599.35	10.15	10.11	107.32	12.98	81.48	85.35	65.10	20.26	4.214		
4,700.00	4,699.35	4,700.30	4,699.35	10.38	10.33	107.32	12.98	81.48	85.35	64.65	20.70	4.123		

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



Integrity Directional Services, LLC

Anticollision Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Reference Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Hamon Fed Com A #6H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore:	Wellbore #1	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #7H - Wellbore #1 - Plan#1														Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
4,800.00	4,799.35	4,800.30	4,799.35	10.60	10.55	107.32	12.98	81.48	85.35	64.20	21.15	4.036			
4,900.00	4,899.35	4,900.30	4,899.35	10.83	10.78	107.32	12.98	81.48	85.35	63.76	21.60	3.952			
5,000.00	4,999.35	5,000.30	4,999.35	11.05	11.00	107.32	12.98	81.48	85.35	63.31	22.04	3.872			
5,100.00	5,099.35	5,100.30	5,099.35	11.27	11.22	107.32	12.98	81.48	85.35	62.86	22.49	3.795			
5,200.00	5,199.35	5,200.30	5,199.35	11.50	11.45	107.32	12.98	81.48	85.35	62.41	22.94	3.721			
5,300.00	5,299.35	5,300.30	5,299.35	11.72	11.67	107.32	12.98	81.48	85.35	61.97	23.39	3.650			
5,400.00	5,399.35	5,400.30	5,399.35	11.95	11.89	107.32	12.98	81.48	85.35	61.52	23.83	3.581			
5,500.00	5,499.35	5,500.30	5,499.35	12.17	12.12	107.32	12.98	81.48	85.35	61.07	24.28	3.515			
5,566.57	5,565.92	5,566.87	5,565.92	12.32	12.26	107.32	12.98	81.48	85.35	60.77	24.58	3.472			
5,600.00	5,599.35	5,600.00	5,599.05	12.40	12.34	107.32	12.98	81.48	85.35	60.62	24.73	3.451			
5,700.00	5,699.33	5,697.43	5,696.45	12.59	12.54	-45.11	12.25	82.97	85.80	60.69	25.10	3.418 SF			
5,800.00	5,799.19	5,794.50	5,793.39	12.77	12.73	-46.91	10.07	87.40	87.17	61.74	25.44	3.427			
5,897.52	5,896.34	5,889.04	5,887.60	12.94	12.92	-49.71	6.55	94.55	89.57	63.82	25.75	3.478			
5,900.00	5,898.80	5,891.44	5,889.99	12.94	12.93	-49.79	6.44	94.77	89.65	63.89	25.76	3.480			
6,000.00	5,998.26	5,988.22	5,986.08	13.12	13.13	-52.73	1.38	105.04	94.58	68.46	26.12	3.621			
6,100.00	6,097.72	6,084.66	6,081.40	13.30	13.34	-54.74	-5.09	118.17	102.91	76.42	26.48	3.885			
6,200.00	6,197.19	6,180.55	6,175.63	13.48	13.56	-55.86	-12.92	134.07	114.46	87.61	26.85	4.263			
6,300.00	6,296.65	6,275.69	6,268.49	13.66	13.80	-56.25	-22.07	152.63	129.14	101.92	27.22	4.744			
6,400.00	6,396.11	6,371.54	6,361.35	13.85	14.05	-56.14	-32.56	173.92	146.66	119.06	27.59	5.315			
6,500.00	6,495.57	6,469.88	6,456.48	14.04	14.33	-55.97	-43.59	196.31	164.77	136.79	27.98	5.889			
6,600.00	6,595.03	6,568.23	6,551.60	14.23	14.61	-55.83	-54.62	218.70	182.89	154.52	28.37	6.446			
6,700.00	6,694.49	6,666.57	6,646.72	14.43	14.92	-55.72	-65.65	241.10	201.01	172.24	28.77	6.986			
6,800.00	6,793.95	6,764.92	6,741.85	14.63	15.23	-55.62	-76.68	263.49	219.13	189.95	29.18	7.510			
6,900.00	6,893.41	6,863.26	6,836.97	14.84	15.55	-55.54	-87.71	285.88	237.25	207.66	29.59	8.017			
7,000.00	6,992.88	6,961.60	6,932.09	15.05	15.89	-55.47	-98.74	308.22	255.37	225.36	30.01	8.509			
7,100.00	7,092.34	7,059.95	7,027.22	15.26	16.23	-55.41	-109.78	330.66	273.49	243.05	30.44	8.985			
7,200.00	7,191.80	7,158.29	7,122.34	15.47	16.59	-55.36	-120.81	353.05	291.61	260.74	30.87	9.447			
7,300.00	7,291.26	7,256.64	7,217.46	15.69	16.95	-55.32	-131.84	375.45	309.73	278.43	31.31	9.894			
7,400.00	7,390.72	7,354.98	7,312.59	15.91	17.32	-55.27	-142.87	397.84	327.86	296.11	31.75	10.327			
7,500.00	7,490.18	7,453.33	7,407.71	16.13	17.70	-55.24	-153.90	420.23	345.98	313.78	32.19	10.746			
7,600.00	7,589.64	7,551.67	7,502.83	16.35	18.09	-55.21	-164.93	442.62	364.10	331.45	32.65	11.153			
7,700.00	7,689.10	7,650.01	7,597.96	16.58	18.48	-55.18	-175.97	465.01	382.22	349.12	33.10	11.546			
7,800.00	7,788.57	7,748.36	7,693.08	16.81	18.88	-55.15	-187.00	487.40	400.34	366.78	33.56	11.928			
7,900.00	7,888.03	7,846.70	7,788.20	17.04	19.28	-55.12	-198.03	509.80	418.46	384.43	34.03	12.297			
8,000.00	7,987.49	7,945.05	7,883.33	17.27	19.70	-55.10	-209.06	532.19	436.59	402.09	34.50	12.655			
8,100.00	8,086.95	8,043.39	7,978.45	17.51	20.11	-55.08	-220.09	554.58	454.71	419.74	34.97	13.002			
8,200.00	8,186.41	8,141.73	8,073.58	17.74	20.53	-55.06	-231.12	576.97	472.83	437.38	35.45	13.338			
8,300.00	8,285.87	8,240.08	8,168.70	17.98	20.96	-55.04	-242.15	599.36	490.95	455.02	35.93	13.664			
8,400.00	8,385.33	8,338.42	8,263.82	18.22	21.39	-55.03	-253.19	621.76	509.08	472.66	36.42	13.980			
8,500.00	8,484.79	8,436.77	8,358.95	18.46	21.82	-55.01	-264.22	644.15	527.20	490.30	36.90	14.286			
8,600.00	8,584.25	8,535.11	8,454.07	18.71	22.26	-55.00	-275.25	666.54	545.32	507.93	37.39	14.583			
8,700.00	8,683.72	8,633.45	8,549.19	18.95	22.70	-54.98	-286.28	688.93	563.44	525.56	37.89	14.871			
8,800.00	8,783.18	8,731.80	8,644.32	19.20	23.14	-54.97	-297.31	711.32	581.57	543.18	38.38	15.151			
8,900.00	8,882.64	8,830.14	8,739.44	19.44	23.59	-54.96	-308.34	733.71	599.69	560.80	38.88	15.422			
9,000.00	8,982.10	8,928.49	8,834.56	19.69	24.04	-54.95	-319.38	756.11	617.81	578.42	39.39	15.686			
9,100.00	9,081.56	9,026.83	8,929.69	19.94	24.49	-54.94	-330.41	778.50	635.93	596.04	39.89	15.941			
9,200.00	9,181.02	9,115.48	9,014.63	20.20	24.90	-54.46	-345.55	798.51	654.69	614.35	40.35	16.227			
9,300.00	9,280.48	9,200.00	9,092.59	20.45	25.32	-52.95	-372.24	816.94	675.41	634.65	40.75	16.574			
9,400.00	9,379.94	9,275.67	9,158.47	20.70	25.74	-50.81	-405.92	832.56	699.03	657.92	41.12	17.002			
9,500.00	9,479.41	9,343.88	9,213.68	20.96	26.15	-48.33	-443.67	845.68	726.77	685.33	41.44	17.538			
9,600.00	9,578.87	9,400.00	9,255.58	21.21	26.52	-45.96	-479.62	855.67	759.64	717.91	41.73	18.203			
9,700.00	9,678.33	9,450.00	9,289.86	21.47	26.85	-43.65	-515.06	863.87	798.31	756.30	42.01	19.004			

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #7H - Wellbore #1 - Plan#1													Offset Site Error: 0.00 ft	
Survey Program: 0-MWD													Offset Well Error: 0.00 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,800.00	9,777.79	9,500.00	9,321.00	21.73	27.21	-41.20	-553.44	871.35	842.98	800.71	42.27	19.943		
9,832.06	9,809.68	9,511.34	9,327.60	21.81	27.29	-40.63	-562.53	872.94	858.57	816.22	42.35	20.273		
9,850.00	9,827.49	9,518.32	9,331.57	21.86	27.34	-45.91	-568.18	873.89	867.47	825.15	42.33	20.494		
9,900.00	9,876.73	9,538.06	9,342.45	22.00	27.49	-51.23	-584.44	876.52	892.26	849.99	42.26	21.111		
9,950.00	9,925.06	9,550.00	9,348.76	22.17	27.58	-52.06	-594.46	878.04	916.83	874.67	42.16	21.746		
10,000.00	9,972.12	9,578.62	9,363.05	22.36	27.80	-50.78	-619.02	881.50	940.72	898.72	42.00	22.397		
10,050.00	10,017.54	9,600.00	9,372.93	22.57	27.97	-49.26	-637.82	883.90	963.88	922.16	41.73	23.100		
10,100.00	10,060.99	9,620.34	9,381.69	22.80	28.13	-47.62	-656.05	886.03	986.04	944.71	41.33	23.857		
10,150.00	10,102.13	9,650.00	9,393.33	23.06	28.38	-45.79	-683.18	888.88	1,007.07	966.26	40.81	24.678		
10,200.00	10,140.65	9,662.92	9,397.97	23.35	28.49	-44.42	-695.19	890.02	1,026.60	986.43	40.18	25.552		
10,250.00	10,176.26	9,684.48	9,405.12	23.66	28.67	-43.00	-715.44	891.78	1,044.71	1,005.24	39.46	26.474		
10,300.00	10,208.68	9,700.00	9,409.80	24.01	28.80	-41.81	-730.20	892.95	1,061.22	1,022.52	38.70	27.421		
10,350.00	10,237.67	9,728.00	9,417.26	24.38	29.04	-40.63	-757.11	894.81	1,075.92	1,037.95	37.97	28.340		
10,400.00	10,263.01	9,750.00	9,422.22	24.79	29.24	-39.69	-778.51	896.07	1,088.83	1,051.53	37.30	29.193		
10,450.00	10,284.50	9,771.94	9,426.37	25.22	29.43	-38.90	-800.03	897.13	1,099.84	1,063.07	36.77	29.908		
10,500.00	10,301.99	9,800.00	9,430.50	25.68	29.68	-38.25	-827.76	898.21	1,108.92	1,072.44	36.48	30.399		
10,550.00	10,315.33	9,816.17	9,432.27	26.16	29.83	-37.80	-843.82	898.70	1,115.90	1,079.49	36.41	30.649		
10,600.00	10,324.43	9,850.00	9,434.56	26.67	30.14	-37.45	-877.57	899.37	1,121.00	1,084.26	36.75	30.508		
10,650.00	10,329.21	9,860.57	9,434.87	27.20	30.24	-37.29	-888.13	899.49	1,123.75	1,086.47	37.29	30.138		
10,680.01	10,330.00	9,875.21	9,435.00	27.52	30.38	-37.25	-902.77	899.58	1,124.48	1,086.64	37.83	29.722		
10,700.00	10,330.00	9,895.19	9,435.00	27.74	30.57	-37.27	-922.75	899.67	1,124.68	1,086.54	38.14	29.489		
10,800.00	10,330.00	9,995.18	9,435.00	28.88	31.57	-37.34	-1,022.73	900.08	1,125.72	1,085.98	39.74	28.329		
10,900.00	10,330.00	10,095.16	9,435.00	30.09	32.65	-37.41	-1,122.72	900.50	1,126.76	1,085.33	41.43	27.195		
11,000.00	10,330.00	10,195.15	9,435.00	31.36	33.79	-37.48	-1,222.70	900.92	1,127.80	1,084.59	43.21	26.098		
11,100.00	10,330.00	10,295.13	9,435.00	32.69	35.00	-37.54	-1,322.69	901.33	1,128.85	1,083.77	45.07	25.045		
11,200.00	10,330.00	10,395.12	9,435.00	34.06	36.25	-37.61	-1,422.67	901.75	1,129.89	1,082.89	47.00	24.040		
11,300.00	10,330.00	10,495.10	9,435.00	35.47	37.55	-37.68	-1,522.66	902.16	1,130.94	1,081.95	48.99	23.085		
11,400.00	10,330.00	10,595.09	9,435.00	36.91	38.90	-37.75	-1,622.64	902.58	1,131.99	1,080.95	51.03	22.181		
11,500.00	10,330.00	10,695.07	9,435.00	38.39	40.29	-37.82	-1,722.63	903.00	1,133.04	1,079.91	53.13	21.327		
11,600.00	10,330.00	10,795.06	9,435.00	39.90	41.70	-37.89	-1,822.61	903.41	1,134.09	1,078.82	55.27	20.521		
11,700.00	10,330.00	10,895.05	9,435.00	41.43	43.16	-37.96	-1,922.59	903.83	1,135.14	1,077.70	57.44	19.761		
11,800.00	10,330.00	10,995.03	9,435.00	42.99	44.63	-38.02	-2,022.58	904.24	1,136.20	1,076.54	59.66	19.045		
11,900.00	10,330.00	11,095.02	9,435.00	44.57	46.14	-38.09	-2,122.56	904.66	1,137.25	1,075.35	61.91	18.371		
12,000.00	10,330.00	11,195.00	9,435.00	46.16	47.67	-38.16	-2,222.55	905.08	1,138.31	1,074.13	64.18	17.735		
12,100.00	10,330.00	11,294.99	9,435.00	47.78	49.21	-38.23	-2,322.53	905.49	1,139.37	1,072.88	66.49	17.136		
12,200.00	10,330.00	11,394.97	9,435.00	49.40	50.78	-38.30	-2,422.52	905.91	1,140.43	1,071.61	68.82	16.571		
12,300.00	10,330.00	11,494.96	9,435.00	51.04	52.37	-38.36	-2,522.50	906.32	1,141.50	1,070.32	71.18	16.038		
12,400.00	10,330.00	11,594.94	9,435.00	52.70	53.97	-38.43	-2,622.49	906.74	1,142.56	1,069.01	73.55	15.534		
12,500.00	10,330.00	11,694.93	9,435.00	54.36	55.58	-38.50	-2,722.47	907.16	1,143.63	1,067.68	75.95	15.058		
12,600.00	10,330.00	11,794.91	9,435.00	56.04	57.21	-38.56	-2,822.45	907.57	1,144.69	1,066.33	78.36	14.608		
12,700.00	10,330.00	11,894.90	9,435.00	57.72	58.85	-38.63	-2,922.44	907.99	1,145.76	1,064.97	80.80	14.181		
12,800.00	10,330.00	11,994.88	9,435.00	59.41	60.50	-38.70	-3,022.42	908.41	1,146.83	1,063.59	83.25	13.777		
12,900.00	10,330.00	12,094.87	9,435.00	61.11	62.16	-38.76	-3,122.41	908.82	1,147.91	1,062.20	85.71	13.393		
13,000.00	10,330.00	12,194.85	9,435.00	62.82	63.83	-38.83	-3,222.39	909.24	1,148.98	1,060.79	88.19	13.029		
13,100.00	10,330.00	12,294.84	9,435.00	64.53	65.51	-38.90	-3,322.38	909.65	1,150.05	1,059.37	90.68	12.682		
13,200.00	10,330.00	12,394.83	9,435.00	66.25	67.19	-38.96	-3,422.36	910.07	1,151.13	1,057.94	93.19	12.353		
13,270.75	10,330.00	12,465.57	9,435.00	67.47	68.39	-39.01	-3,493.10	910.36	1,151.89	1,056.93	94.97	12.129		
13,300.00	10,330.15	12,494.81	9,435.00	67.92	68.89	-39.03	-3,522.35	910.49	1,152.33	1,056.76	95.56	12.058		
13,320.75	10,330.43	12,515.56	9,435.00	68.21	69.24	-39.04	-3,543.09	910.57	1,152.77	1,056.81	95.96	12.013		
13,400.00	10,331.82	12,594.78	9,435.00	69.43	70.59	-39.05	-3,622.32	910.90	1,154.70	1,056.88	97.82	11.804		
13,500.00	10,333.56	12,694.75	9,435.00	71.17	72.30	-39.06	-3,722.29	911.32	1,157.14	1,056.86	100.28	11.539		
13,600.00	10,335.31	12,794.72	9,435.00	72.91	74.01	-39.07	-3,822.25	911.73	1,159.57	1,056.83	102.74	11.286		

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



Integrity Directional Services, LLC
Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #7H - Wellbore #1 - Plan#1													Offset Site Error: 0.00 ft	
Survey Program: 0-MWD													Offset Well Error: 0.00 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
13,700.00	10,337.05	12,894.69	9,435.00	74.65	75.73	-39.09	-3,922.22	912.15	1,162.01	1,056.79	105.22	11.044		
13,800.00	10,338.80	12,994.66	9,435.00	76.40	77.45	-39.10	-4,022.19	912.57	1,164.44	1,056.75	107.69	10.813		
13,900.00	10,340.54	13,094.63	9,435.00	78.15	79.18	-39.11	-4,122.16	912.98	1,166.88	1,056.70	110.18	10.591		
14,000.00	10,342.29	13,194.60	9,435.00	79.91	80.91	-39.12	-4,222.13	913.40	1,169.31	1,056.64	112.67	10.378		
14,100.00	10,344.03	13,294.57	9,435.00	81.67	82.65	-39.13	-4,322.10	913.81	1,171.75	1,056.58	115.16	10.175		
14,200.00	10,345.78	13,394.54	9,435.00	83.43	84.39	-39.14	-4,422.07	914.23	1,174.18	1,056.52	117.66	9.979		
14,300.00	10,347.52	13,494.51	9,435.00	85.19	86.14	-39.15	-4,522.04	914.65	1,176.62	1,056.45	120.17	9.791		
14,400.00	10,349.27	13,594.48	9,435.00	86.96	87.89	-39.16	-4,622.01	915.06	1,179.05	1,056.38	122.68	9.611		
14,500.00	10,351.01	13,694.45	9,435.00	88.73	89.64	-39.17	-4,721.98	915.48	1,181.49	1,056.30	125.19	9.438		
14,600.00	10,352.76	13,794.42	9,435.00	90.50	91.39	-39.19	-4,821.95	915.89	1,183.92	1,056.22	127.71	9.271		
14,700.00	10,354.50	13,894.39	9,435.00	92.27	93.15	-39.20	-4,921.92	916.31	1,186.36	1,056.13	130.23	9.110		
14,800.00	10,356.25	13,994.36	9,435.00	94.05	94.91	-39.21	-5,021.88	916.73	1,188.79	1,056.04	132.75	8.955		
14,900.00	10,357.99	14,094.33	9,435.00	95.82	96.68	-39.22	-5,121.85	917.14	1,191.23	1,055.95	135.28	8.806		
15,000.00	10,359.74	14,194.30	9,435.00	97.60	98.44	-39.23	-5,221.82	917.56	1,193.66	1,055.85	137.81	8.662		
15,100.00	10,361.48	14,294.27	9,435.00	99.38	100.21	-39.24	-5,321.79	917.97	1,196.10	1,055.75	140.35	8.522		
15,200.00	10,363.23	14,394.24	9,435.00	101.17	101.98	-39.25	-5,421.76	918.39	1,198.54	1,055.65	142.88	8.388		
15,299.41	10,364.96	14,492.78	9,435.00	102.63	103.48	-39.26	-5,520.30	918.80	1,200.96	1,056.12	144.83	8.292		

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



Integrity Directional Services, LLC

Anticollision Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Reference Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Hamon Fed Com A #6H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #8H - Wellbore #1 - Plan #1													Offset Site Error: 0.00 ft	
Survey Program: 0-MWD													Offset Well Error: 0.00 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	1.00	0.00	0.00	122.78	-54.10	84.00	99.91					
100.00	100.00	101.00	101.00	0.09	0.09	122.78	-54.10	84.00	99.91	99.73	0.19	535.572		
200.00	200.00	201.00	201.00	0.32	0.32	122.78	-54.10	84.00	99.91	99.28	0.64	157.076		
300.00	300.00	301.00	301.00	0.54	0.54	122.78	-54.10	84.00	99.91	98.83	1.09	92.034		
400.00	400.00	401.00	401.00	0.77	0.77	122.78	-54.10	84.00	99.91	98.38	1.54	65.084		
500.00	500.00	501.00	501.00	0.99	0.99	122.78	-54.10	84.00	99.91	97.93	1.98	50.343		
600.00	600.00	601.00	601.00	1.22	1.22	122.78	-54.10	84.00	99.91	97.48	2.43	41.046		
700.00	700.00	701.00	701.00	1.44	1.44	122.78	-54.10	84.00	99.91	97.03	2.88	34.647		
800.00	800.00	801.00	801.00	1.67	1.67	122.78	-54.10	84.00	99.91	96.58	3.33	29.975		
900.00	900.00	901.00	901.00	1.89	1.89	122.78	-54.10	84.00	99.91	96.13	3.78	26.413		
1,000.00	1,000.00	1,001.00	1,001.00	2.12	2.12	122.78	-54.10	84.00	99.91	95.68	4.23	23.607		
1,100.00	1,100.00	1,101.00	1,101.00	2.34	2.34	122.78	-54.10	84.00	99.91	95.23	4.68	21.341		
1,200.00	1,200.00	1,201.00	1,201.00	2.56	2.57	122.78	-54.10	84.00	99.91	94.78	5.13	19.471		
1,300.00	1,300.00	1,301.00	1,301.00	2.79	2.79	122.78	-54.10	84.00	99.91	94.33	5.58	17.903		
1,400.00	1,400.00	1,401.00	1,401.00	3.01	3.02	122.78	-54.10	84.00	99.91	93.88	6.03	16.568		
1,500.00	1,500.00	1,501.00	1,501.00	3.24	3.24	122.78	-54.10	84.00	99.91	93.43	6.48	15.419		
1,600.00	1,600.00	1,601.00	1,601.00	3.46	3.47	122.78	-54.10	84.00	99.91	92.98	6.93	14.419		
1,650.00	1,650.00	1,651.00	1,651.00	3.58	3.58	122.78	-54.10	84.00	99.91	92.76	7.15	13.966 CC, ES		
1,700.00	1,700.00	1,701.00	1,701.00	3.69	3.69	122.99	-54.10	84.00	100.15	92.77	7.38	13.573		
1,750.00	1,749.98	1,750.98	1,750.98	3.80	3.80	123.60	-54.10	84.00	100.87	93.27	7.60	13.268		
1,800.00	1,799.95	1,800.95	1,800.95	3.91	3.92	124.42	-54.10	84.00	101.85	94.02	7.83	13.013		
1,900.00	1,899.89	1,900.89	1,900.89	4.14	4.14	126.01	-54.10	84.00	103.86	95.58	8.28	12.551		
2,000.00	1,999.83	2,000.83	2,000.83	4.36	4.36	127.53	-54.10	84.00	105.95	97.23	8.72	12.144		
2,100.00	2,099.77	2,100.77	2,100.77	4.59	4.59	129.00	-54.10	84.00	108.11	98.94	9.17	11.784		
2,200.00	2,199.71	2,200.71	2,200.71	4.81	4.81	130.41	-54.10	84.00	110.34	100.72	9.62	11.465		
2,300.00	2,299.64	2,300.64	2,300.64	5.04	5.04	131.76	-54.10	84.00	112.64	102.56	10.08	11.180		
2,400.00	2,399.58	2,400.58	2,400.58	5.27	5.26	133.05	-54.10	84.00	114.99	104.47	10.53	10.925		
2,500.00	2,499.52	2,500.52	2,500.52	5.49	5.49	134.30	-54.10	84.00	117.40	106.43	10.98	10.696		
2,600.00	2,599.46	2,600.46	2,600.46	5.72	5.71	135.49	-54.10	84.00	119.87	108.44	11.43	10.489		
2,700.00	2,699.40	2,700.40	2,700.40	5.95	5.94	136.64	-54.10	84.00	122.38	110.50	11.88	10.303		
2,750.00	2,749.37	2,750.37	2,750.37	6.06	6.05	137.19	-54.10	84.00	123.66	111.55	12.10	10.216		
2,800.00	2,799.35	2,800.00	2,800.00	6.16	6.16	137.61	-54.10	84.00	124.62	112.30	12.32	10.118		
2,850.00	2,849.35	2,848.64	2,848.64	6.25	6.26	137.64	-54.18	84.40	125.29	112.79	12.50	10.026		
2,900.00	2,899.35	2,896.91	2,896.89	6.35	6.36	137.31	-54.42	85.61	126.31	113.62	12.70	9.950		
3,000.00	2,999.35	2,993.26	2,993.11	6.57	6.55	136.05	-55.39	90.39	130.45	117.34	13.11	9.952		
3,100.00	3,099.35	3,089.17	3,088.68	6.79	6.74	134.13	-56.98	98.30	137.45	123.93	13.52	10.164		
3,200.00	3,199.35	3,184.44	3,183.29	7.02	6.94	131.77	-59.18	109.25	147.47	133.52	13.95	10.574		
3,300.00	3,299.35	3,278.87	3,276.64	7.24	7.16	129.18	-61.98	123.14	160.63	146.25	14.37	11.174		
3,400.00	3,399.35	3,372.25	3,368.45	7.46	7.38	126.57	-65.34	139.84	177.01	162.20	14.81	11.951		
3,500.00	3,499.35	3,468.89	3,463.04	7.69	7.64	124.05	-69.25	159.27	195.82	180.55	15.26	12.828		
3,600.00	3,599.35	3,566.75	3,558.80	7.91	7.91	121.94	-73.23	179.02	215.01	199.29	15.73	13.673		
3,700.00	3,699.35	3,664.61	3,654.56	8.14	8.20	120.18	-77.20	198.76	234.45	218.25	16.19	14.480		
3,800.00	3,799.35	3,762.46	3,750.33	8.36	8.50	118.69	-81.18	218.51	254.06	237.40	16.66	15.248		
3,900.00	3,899.35	3,860.32	3,846.09	8.58	8.81	117.41	-85.15	238.26	273.81	256.68	17.14	15.978		
4,000.00	3,999.35	3,958.18	3,941.85	8.81	9.13	116.30	-89.13	258.01	293.68	276.07	17.61	16.673		
4,100.00	4,099.35	4,056.04	4,037.61	9.03	9.46	115.33	-93.10	277.76	313.65	295.55	18.10	17.333		
4,200.00	4,199.35	4,153.90	4,133.38	9.26	9.80	114.48	-97.08	297.50	333.68	315.11	18.58	17.960		
4,300.00	4,299.35	4,251.76	4,229.14	9.48	10.15	113.73	-101.05	317.25	353.79	334.72	19.07	18.556		
4,400.00	4,399.35	4,349.61	4,324.90	9.70	10.50	113.05	-105.03	337.00	373.94	354.38	19.55	19.123		
4,500.00	4,499.35	4,447.47	4,420.66	9.93	10.86	112.45	-109.01	356.75	394.14	374.09	20.05	19.662		
4,600.00	4,599.35	4,545.33	4,516.43	10.15	11.22	111.90	-112.98	376.49	414.37	393.83	20.54	20.175		
4,700.00	4,699.35	4,643.19	4,612.19	10.38	11.59	111.41	-116.96	396.24	434.64	413.61	21.03	20.664		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #8H - Wellbore #1 - Plan #1														Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
4,800.00	4,799.35	4,741.05	4,707.95	10.60	11.96	110.96	-120.93	415.99	454.94	433.41	21.53	21.130			
4,900.00	4,899.35	4,838.91	4,803.71	10.83	12.34	110.54	-124.91	435.74	475.26	453.23	22.03	21.575			
5,000.00	4,999.35	4,936.76	4,899.48	11.05	12.72	110.17	-128.88	455.49	495.60	473.08	22.53	22.000			
5,100.00	5,099.35	5,034.62	4,995.24	11.27	13.11	109.82	-132.86	475.23	515.97	492.94	23.03	22.405			
5,200.00	5,199.35	5,132.48	5,091.00	11.50	13.49	109.49	-136.83	494.98	536.35	512.82	23.53	22.793			
5,300.00	5,299.35	5,230.34	5,186.76	11.72	13.88	109.20	-140.81	514.73	556.74	532.71	24.03	23.165			
5,400.00	5,399.35	5,328.20	5,282.53	11.95	14.28	108.92	-144.78	534.48	577.15	552.61	24.54	23.520			
5,500.00	5,499.35	5,426.06	5,378.29	12.17	14.67	108.66	-148.76	554.23	597.57	572.53	25.04	23.861			
5,600.00	5,599.35	5,523.91	5,474.05	12.40	15.07	108.42	-152.73	573.97	618.00	592.45	25.55	24.187			
5,700.00	5,699.33	5,621.98	5,570.02	12.59	15.47	-43.46	-156.72	593.76	637.20	612.16	25.04	25.443			
5,800.00	5,799.19	5,720.39	5,666.32	12.77	15.87	-43.75	-160.72	613.62	653.95	628.49	25.46	25.689			
5,897.52	5,896.34	5,816.57	5,760.44	12.94	16.27	-44.25	-164.62	633.03	667.96	642.12	25.84	25.847			
5,900.00	5,898.80	5,819.01	5,762.83	12.94	16.28	-44.27	-164.72	633.53	668.29	642.43	25.85	25.849			
6,000.00	5,998.26	5,917.70	5,859.41	13.12	16.69	-45.05	-168.73	653.44	681.56	655.30	26.26	25.954			
6,100.00	6,097.72	6,016.39	5,955.98	13.30	17.10	-45.80	-172.74	673.36	694.95	668.28	26.67	26.055			
6,200.00	6,197.19	6,115.08	6,052.56	13.48	17.51	-46.53	-176.75	693.27	708.46	681.37	27.09	26.152			
6,300.00	6,296.65	6,213.77	6,149.14	13.66	17.92	-47.22	-180.76	713.19	722.07	694.56	27.51	26.246			
6,400.00	6,396.11	6,312.46	6,245.71	13.85	18.33	-47.89	-184.77	733.11	735.79	707.85	27.94	26.336			
6,500.00	6,495.57	6,411.16	6,342.29	14.04	18.75	-48.54	-188.78	753.02	749.60	721.23	28.37	26.422			
6,600.00	6,595.03	6,509.85	6,438.87	14.23	19.16	-49.16	-192.79	772.94	763.50	734.70	28.81	26.505			
6,700.00	6,694.49	6,608.54	6,535.45	14.43	19.58	-49.77	-196.80	792.85	777.49	748.25	29.25	26.584			
6,800.00	6,793.95	6,707.23	6,632.02	14.63	20.00	-50.35	-200.81	812.77	791.56	761.87	29.69	26.659			
6,900.00	6,893.41	6,805.92	6,728.60	14.84	20.42	-50.91	-204.81	832.69	805.71	775.57	30.14	26.730			
7,000.00	6,992.88	6,904.61	6,825.18	15.05	20.84	-51.45	-208.82	852.60	819.93	789.34	30.60	26.798			
7,100.00	7,092.34	7,003.30	6,921.75	15.26	21.26	-51.97	-212.83	872.52	834.22	803.17	31.06	26.862			
7,200.00	7,191.80	7,101.99	7,018.33	15.47	21.68	-52.47	-216.84	892.43	848.58	817.06	31.52	26.923			
7,300.00	7,291.26	7,200.68	7,114.91	15.69	22.10	-52.96	-220.85	912.35	863.00	831.01	31.99	26.981			
7,400.00	7,390.72	7,299.37	7,211.49	15.91	22.52	-53.43	-224.86	932.26	877.48	845.02	32.46	27.036			
7,500.00	7,490.18	7,398.06	7,308.06	16.13	22.94	-53.89	-228.87	952.18	892.01	859.08	32.93	27.087			
7,600.00	7,589.64	7,496.75	7,404.64	16.35	23.37	-54.33	-232.88	972.10	906.60	873.19	33.41	27.136			
7,700.00	7,689.10	7,595.44	7,501.22	16.58	23.79	-54.76	-236.89	992.01	921.24	887.35	33.89	27.181			
7,800.00	7,788.57	7,694.13	7,597.79	16.81	24.21	-55.17	-240.90	1,011.93	935.93	901.55	34.38	27.224			
7,900.00	7,888.03	7,792.82	7,694.37	17.04	24.64	-55.57	-244.91	1,031.84	950.67	915.80	34.87	27.265			
8,000.00	7,987.49	7,891.52	7,790.95	17.27	25.07	-55.96	-248.92	1,051.76	965.45	930.09	35.36	27.303			
8,100.00	8,086.95	7,990.21	7,887.52	17.51	25.49	-56.34	-252.92	1,071.68	980.27	944.41	35.86	27.339			
8,200.00	8,186.41	8,088.90	7,984.10	17.74	25.92	-56.71	-256.93	1,091.59	995.13	958.78	36.36	27.372			
8,300.00	8,285.87	8,187.59	8,080.68	17.98	26.34	-57.06	-260.94	1,111.51	1,010.04	973.18	36.86	27.403			
8,400.00	8,385.33	8,286.28	8,177.26	18.22	26.77	-57.41	-264.95	1,131.42	1,024.98	987.61	37.36	27.432			
8,500.00	8,484.79	8,384.97	8,273.83	18.46	27.20	-57.75	-268.96	1,151.34	1,039.95	1,002.08	37.87	27.460			
8,600.00	8,584.25	8,483.66	8,370.41	18.71	27.63	-58.07	-272.97	1,171.26	1,054.96	1,016.58	38.38	27.485			
8,700.00	8,683.72	8,582.35	8,466.99	18.95	28.05	-58.39	-276.98	1,191.17	1,070.00	1,031.11	38.90	27.509			
8,800.00	8,783.18	8,681.04	8,563.56	19.20	28.48	-58.70	-280.99	1,211.09	1,085.08	1,045.66	39.41	27.531			
8,900.00	8,882.64	8,779.73	8,660.14	19.44	28.91	-59.00	-285.00	1,231.00	1,100.18	1,060.25	39.93	27.551			
9,000.00	8,982.10	8,878.42	8,756.72	19.69	29.34	-59.29	-289.01	1,250.92	1,115.31	1,074.86	40.45	27.570			
9,100.00	9,081.56	8,977.11	8,853.29	19.94	29.77	-59.57	-293.02	1,270.84	1,130.47	1,089.49	40.98	27.587			
9,200.00	9,181.02	9,075.80	8,949.87	20.20	30.20	-59.85	-297.03	1,290.75	1,145.66	1,104.15	41.50	27.604			
9,300.00	9,280.48	9,174.49	9,046.45	20.45	30.63	-60.12	-301.03	1,310.67	1,160.87	1,118.84	42.03	27.619			
9,400.00	9,379.94	9,273.18	9,143.03	20.70	31.06	-60.38	-305.04	1,330.58	1,176.10	1,133.54	42.56	27.632			
9,500.00	9,479.41	9,371.87	9,239.60	20.96	31.49	-60.64	-309.05	1,350.50	1,191.36	1,148.27	43.10	27.645			
9,600.00	9,578.87	9,470.57	9,336.18	21.21	31.92	-60.89	-313.06	1,370.42	1,206.64	1,163.01	43.63	27.656			
9,700.00	9,678.33	9,569.26	9,432.76	21.47	32.35	-61.13	-317.07	1,390.33	1,221.95	1,177.78	44.17	27.667			
9,800.00	9,777.79	9,667.95	9,529.33	21.73	32.78	-61.37	-321.08	1,410.25	1,237.27	1,192.57	44.71	27.676			

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad- Hamon Fed Com A #8H - Wellbore #1 - Plan #1														Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)					
9,832.06	9,809.68	9,699.59	9,560.30	21.81	32.92	-61.44	-322.37	1,416.63	1,242.19	1,197.31	44.88	27.679			
9,850.00	9,827.49	9,717.51	9,577.83	21.86	33.00	-67.79	-323.32	1,420.25	1,244.94	1,200.00	44.95	27.697			
9,900.00	9,876.73	9,767.71	9,626.66	22.00	33.21	-75.99	-328.96	1,430.33	1,252.61	1,207.44	45.16	27.735			
9,950.00	9,925.06	9,818.16	9,675.06	22.17	33.43	-79.19	-338.99	1,440.35	1,260.21	1,214.79	45.42	27.748			
10,000.00	9,972.12	9,868.88	9,722.65	22.36	33.66	-80.68	-353.43	1,450.21	1,267.69	1,221.98	45.71	27.734			
10,050.00	10,017.54	9,919.88	9,769.06	22.57	33.90	-81.40	-372.22	1,459.85	1,275.00	1,228.96	46.04	27.692			
10,100.00	10,060.99	9,971.16	9,813.88	22.80	34.16	-81.70	-395.28	1,469.18	1,282.07	1,235.65	46.42	27.619			
10,150.00	10,102.13	10,022.74	9,856.74	23.06	34.42	-81.78	-422.52	1,478.12	1,288.86	1,242.02	46.84	27.514			
10,200.00	10,140.65	10,074.61	9,897.25	23.35	34.69	-81.72	-453.76	1,486.59	1,295.31	1,247.99	47.32	27.373			
10,250.00	10,176.26	10,126.77	9,935.01	23.66	34.97	-81.58	-488.82	1,494.51	1,301.37	1,253.51	47.85	27.195			
10,300.00	10,208.68	10,179.20	9,969.67	24.01	35.27	-81.39	-527.45	1,501.81	1,306.99	1,258.54	48.45	26.975			
10,350.00	10,237.67	10,231.89	10,000.87	24.38	35.57	-81.18	-569.37	1,508.41	1,312.13	1,263.01	49.12	26.713			
10,400.00	10,263.01	10,284.81	10,028.28	24.79	35.89	-80.96	-614.25	1,514.23	1,316.75	1,266.89	49.87	26.406			
10,450.00	10,284.50	10,337.94	10,051.59	25.22	36.22	-80.74	-661.71	1,519.23	1,320.81	1,270.12	50.69	26.055			
10,500.00	10,301.99	10,391.24	10,070.56	25.68	36.56	-80.54	-711.33	1,523.33	1,324.29	1,272.68	51.60	25.663			
10,550.00	10,315.33	10,444.68	10,084.95	26.16	36.91	-80.36	-762.68	1,526.51	1,327.14	1,274.54	52.60	25.233			
10,600.00	10,324.43	10,498.22	10,094.61	26.67	37.27	-80.20	-815.27	1,528.71	1,329.35	1,275.69	53.67	24.770			
10,650.00	10,329.21	10,551.80	10,099.43	27.20	37.65	-80.07	-868.60	1,529.92	1,330.91	1,276.10	54.81	24.283			
10,680.01	10,330.00	10,583.54	10,100.00	27.52	37.87	-80.01	-900.33	1,530.16	1,331.53	1,276.01	55.52	23.983			
10,700.00	10,330.00	10,603.52	10,100.00	27.74	38.02	-80.01	-920.31	1,530.24	1,331.86	1,275.93	55.93	23.811			
10,800.00	10,330.00	10,703.51	10,100.00	28.88	38.79	-80.02	-1,020.30	1,530.64	1,333.54	1,275.44	58.10	22.953			
10,900.00	10,330.00	10,803.49	10,100.00	30.09	39.64	-80.04	-1,120.28	1,531.04	1,335.21	1,274.81	60.40	22.105			
11,000.00	10,330.00	10,903.48	10,100.00	31.36	40.55	-80.05	-1,220.27	1,531.45	1,336.88	1,274.05	62.83	21.278			
11,100.00	10,330.00	11,003.46	10,100.00	32.69	41.52	-80.06	-1,320.25	1,531.85	1,338.56	1,273.19	65.36	20.478			
11,200.00	10,330.00	11,103.45	10,100.00	34.06	42.55	-80.07	-1,420.24	1,532.25	1,340.23	1,272.23	68.00	19.710			
11,300.00	10,330.00	11,203.44	10,100.00	35.47	43.63	-80.09	-1,520.22	1,532.65	1,341.90	1,271.18	70.72	18.975			
11,400.00	10,330.00	11,303.42	10,100.00	36.91	44.76	-80.10	-1,620.21	1,533.05	1,343.58	1,270.06	73.52	18.276			
11,500.00	10,330.00	11,403.41	10,100.00	38.39	45.94	-80.11	-1,720.19	1,533.45	1,345.25	1,268.87	76.38	17.612			
11,600.00	10,330.00	11,503.39	10,100.00	39.90	47.16	-80.12	-1,820.18	1,533.86	1,346.93	1,267.62	79.31	16.983			
11,700.00	10,330.00	11,603.38	10,100.00	41.43	48.42	-80.14	-1,920.16	1,534.26	1,348.60	1,266.31	82.29	16.388			
11,800.00	10,330.00	11,703.36	10,100.00	42.99	49.72	-80.15	-2,020.15	1,534.66	1,350.27	1,264.95	85.32	15.825			
11,900.00	10,330.00	11,803.35	10,100.00	44.57	51.04	-80.16	-2,120.13	1,535.06	1,351.95	1,263.55	88.40	15.294			
12,000.00	10,330.00	11,903.33	10,100.00	46.16	52.40	-80.17	-2,220.12	1,535.46	1,353.62	1,262.11	91.51	14.792			
12,100.00	10,330.00	12,003.32	10,100.00	47.78	53.79	-80.19	-2,320.10	1,535.86	1,355.30	1,260.63	94.66	14.317			
12,200.00	10,330.00	12,103.31	10,100.00	49.40	55.20	-80.20	-2,420.09	1,536.27	1,356.97	1,259.12	97.85	13.868			
12,300.00	10,330.00	12,203.29	10,100.00	51.04	56.64	-80.21	-2,520.07	1,536.67	1,358.65	1,257.59	101.06	13.444			
12,400.00	10,330.00	12,303.28	10,100.00	52.70	58.10	-80.22	-2,620.06	1,537.07	1,360.32	1,256.02	104.30	13.043			
12,500.00	10,330.00	12,403.26	10,100.00	54.36	59.58	-80.23	-2,720.04	1,537.47	1,361.99	1,254.43	107.56	12.662			
12,600.00	10,330.00	12,503.25	10,100.00	56.04	61.08	-80.25	-2,820.03	1,537.87	1,363.67	1,252.82	110.85	12.302			
12,700.00	10,330.00	12,603.23	10,100.00	57.72	62.60	-80.26	-2,920.01	1,538.28	1,365.34	1,251.19	114.15	11.961			
12,800.00	10,330.00	12,703.22	10,100.00	59.41	64.14	-80.27	-3,019.99	1,538.68	1,367.02	1,249.54	117.48	11.637			
12,900.00	10,330.00	12,803.20	10,100.00	61.11	65.69	-80.28	-3,119.98	1,539.08	1,368.69	1,247.88	120.82	11.329			
13,000.00	10,330.00	12,903.19	10,100.00	62.82	67.25	-80.29	-3,219.96	1,539.48	1,370.37	1,246.19	124.17	11.036			
13,100.00	10,330.00	13,003.18	10,100.00	64.53	68.83	-80.31	-3,319.95	1,539.88	1,372.04	1,244.50	127.55	10.757			
13,200.00	10,330.00	13,103.16	10,100.00	66.25	70.42	-80.32	-3,419.93	1,540.28	1,373.72	1,242.79	130.93	10.492			
13,270.75	10,330.00	13,173.90	10,100.00	67.47	71.55	-80.33	-3,490.67	1,540.57	1,374.90	1,241.57	133.33	10.312			
13,300.00	10,330.15	13,203.15	10,100.00	67.92	72.02	-80.33	-3,519.92	1,540.69	1,375.42	1,241.19	134.23	10.247			
13,320.75	10,330.43	13,223.89	10,100.00	68.21	72.35	-80.33	-3,540.66	1,540.77	1,375.81	1,240.99	134.83	10.204			
13,400.00	10,331.82	13,303.12	10,100.00	69.43	73.63	-80.29	-3,619.89	1,541.09	1,377.38	1,240.00	137.37	10.027			
13,500.00	10,333.56	13,403.09	10,100.00	71.17	75.25	-80.23	-3,719.86	1,541.49	1,379.35	1,238.58	140.77	9.799			
13,600.00	10,335.31	13,503.06	10,100.00	72.91	76.88	-80.17	-3,819.83	1,541.89	1,381.32	1,237.14	144.18	9.581			
13,700.00	10,337.05	13,603.03	10,100.00	74.65	78.52	-80.11	-3,919.80	1,542.29	1,383.29	1,235.70	147.59	9.372			

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #8H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
13,800.00	10,338.80	13,703.00	10,100.00	76.40	80.17	-80.05	-4,019.77	1,542.69	1,385.27	1,234.25	151.01	9.173		
13,900.00	10,340.54	13,802.97	10,100.00	78.15	81.83	-79.99	-4,119.74	1,543.10	1,387.24	1,232.80	154.44	8.982		
14,000.00	10,342.29	13,902.94	10,100.00	79.91	83.49	-79.93	-4,219.71	1,543.50	1,389.22	1,231.34	157.88	8.799		
14,100.00	10,344.03	14,002.91	10,100.00	81.67	85.16	-79.87	-4,319.68	1,543.90	1,391.20	1,229.88	161.32	8.624		
14,200.00	10,345.78	14,102.88	10,100.00	83.43	86.84	-79.81	-4,419.64	1,544.30	1,393.18	1,228.41	164.77	8.455		
14,300.00	10,347.52	14,202.85	10,100.00	85.19	88.53	-79.76	-4,519.61	1,544.70	1,395.16	1,226.94	168.22	8.294		
14,400.00	10,349.27	14,302.82	10,100.00	86.96	90.21	-79.70	-4,619.58	1,545.10	1,397.14	1,225.47	171.67	8.138		
14,500.00	10,351.01	14,402.79	10,100.00	88.73	91.91	-79.64	-4,719.55	1,545.51	1,399.13	1,224.00	175.13	7.989		
14,600.00	10,352.76	14,502.76	10,100.00	90.50	93.61	-79.58	-4,819.52	1,545.91	1,401.12	1,222.52	178.60	7.845		
14,700.00	10,354.50	14,602.73	10,100.00	92.27	95.31	-79.52	-4,919.49	1,546.31	1,403.10	1,221.04	182.06	7.707		
14,800.00	10,356.25	14,702.70	10,100.00	94.05	97.02	-79.47	-5,019.46	1,546.71	1,405.09	1,219.56	185.54	7.573		
14,900.00	10,357.99	14,802.67	10,100.00	95.82	98.74	-79.41	-5,119.43	1,547.11	1,407.08	1,218.07	189.01	7.445		
15,000.00	10,359.74	14,902.64	10,100.00	97.60	100.46	-79.35	-5,219.40	1,547.51	1,409.07	1,216.59	192.49	7.320		
15,100.00	10,361.48	15,002.61	10,100.00	99.38	102.18	-79.30	-5,319.37	1,547.92	1,411.07	1,215.10	195.96	7.201		
15,200.00	10,363.23	15,102.58	10,100.00	101.17	103.90	-79.24	-5,419.34	1,548.32	1,413.06	1,213.62	199.44	7.085		
15,299.41	10,364.96	15,198.04	10,100.00	102.63	105.40	-79.19	-5,514.80	1,548.70	1,415.05	1,212.85	202.20	6.998 SF		

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



Integrity Directional Services, LLC

Anticollision Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Reference Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Hamon Fed Com A #6H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 3H - Wellbore #1 - Actual Wellbore													Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 10100-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	5.06	5.06	0.00	0.01	-155.71	-105.90	-47.80	116.19					
100.00	100.00	106.28	106.28	0.09	0.12	-155.79	-105.41	-47.39	115.58	115.37	0.21	544.745		
200.00	200.00	205.96	205.95	0.32	0.38	-156.04	-104.68	-46.52	114.56	113.86	0.70	164.218		
300.00	300.00	306.27	306.25	0.54	0.64	-156.43	-104.09	-45.41	113.57	112.39	1.18	96.022		
400.00	400.00	406.56	406.53	0.77	0.91	-157.02	-103.20	-43.77	112.11	110.44	1.67	67.054		
500.00	500.00	507.80	507.73	0.99	1.17	-157.81	-101.82	-41.52	109.99	107.83	2.16	50.810		
600.00	600.00	607.83	607.69	1.22	1.44	-158.96	-100.05	-38.48	107.23	104.58	2.65	40.396		
700.00	700.00	708.54	708.32	1.44	1.71	-160.56	-98.33	-34.71	104.33	101.19	3.15	33.163		
800.00	800.00	808.77	808.46	1.67	1.97	-162.18	-96.14	-30.91	101.04	97.41	3.64	27.779		
900.00	900.00	908.43	908.04	1.89	2.24	-163.53	-93.83	-27.74	97.89	93.76	4.13	23.729		
1,000.00	1,000.00	1,008.02	1,007.54	2.12	2.50	-165.30	-91.82	-24.09	94.96	90.35	4.62	20.575		
1,100.00	1,100.00	1,107.65	1,107.10	2.34	2.77	-166.90	-89.96	-20.93	92.39	87.28	5.11	18.096		
1,200.00	1,200.00	1,206.61	1,206.03	2.56	3.00	-167.37	-88.14	-19.74	90.33	84.77	5.56	16.249		
1,300.00	1,300.00	1,306.70	1,306.11	2.79	3.18	-167.44	-87.54	-19.51	89.69	83.73	5.96	15.045		
1,400.00	1,400.00	1,406.18	1,405.59	3.01	3.35	-167.45	-87.15	-19.41	89.28	82.92	6.36	14.033		
1,435.28	1,435.28	1,440.88	1,440.29	3.09	3.41	-167.51	-87.22	-19.32	89.34	82.84	6.50	13.749		
1,500.00	1,500.00	1,505.42	1,504.83	3.24	3.52	-167.57	-87.22	-19.23	89.31	82.56	6.75	13.232		
1,600.00	1,600.00	1,606.12	1,605.53	3.46	3.67	-167.40	-86.79	-19.40	88.94	81.81	7.13	12.477		
1,631.13	1,631.13	1,636.72	1,636.13	3.53	3.71	-167.30	-86.63	-19.52	88.80	81.57	7.23	12.274		
1,650.00	1,650.00	1,655.44	1,654.85	3.58	3.72	-167.26	-86.67	-19.59	88.86	81.57	7.29	12.185		
1,678.69	1,678.69	1,685.15	1,684.55	3.64	3.77	-167.26	-86.44	-19.59	88.78	81.38	7.40	11.995		
1,700.00	1,700.00	1,706.10	1,705.51	3.69	3.81	-167.27	-86.29	-19.60	88.92	81.42	7.49	11.865		
1,750.00	1,749.98	1,756.28	1,755.69	3.80	3.92	-167.44	-85.91	-19.53	89.81	82.09	7.72	11.639		
1,800.00	1,799.95	1,805.99	1,805.39	3.91	4.00	-167.49	-85.62	-19.76	91.27	83.37	7.90	11.547		
1,900.00	1,899.89	1,906.31	1,905.71	4.14	4.13	-167.84	-85.38	-19.90	94.49	86.22	8.27	11.430		
2,000.00	1,999.83	2,005.86	2,005.26	4.36	4.34	-168.23	-84.96	-19.87	97.48	88.78	8.69	11.213		
2,100.00	2,099.77	2,105.62	2,105.02	4.59	4.52	-168.40	-84.33	-20.16	100.33	91.23	9.10	11.023		
2,200.00	2,199.71	2,204.91	2,204.31	4.81	4.67	-168.77	-84.30	-20.18	103.74	94.26	9.48	10.944		
2,300.00	2,299.64	2,304.99	2,304.39	5.04	4.77	-169.00	-84.30	-20.44	107.21	97.41	9.80	10.937		
2,400.00	2,399.58	2,405.14	2,404.54	5.27	4.95	-169.43	-84.17	-20.25	110.47	100.26	10.21	10.824		
2,500.00	2,499.52	2,505.56	2,504.96	5.49	5.14	-169.67	-83.83	-20.35	113.59	102.96	10.62	10.692		
2,600.00	2,599.46	2,606.44	2,605.83	5.72	5.33	-170.37	-83.58	-19.50	116.64	105.59	11.04	10.563		
2,700.00	2,699.40	2,705.55	2,704.90	5.95	5.56	-171.79	-83.25	-17.04	119.38	107.88	11.49	10.388		
2,750.00	2,749.37	2,755.81	2,755.14	6.06	5.67	-172.65	-83.08	-15.45	120.72	109.00	11.72	10.302		
2,800.00	2,799.35	2,806.30	2,805.60	6.16	5.79	-173.40	-82.79	-13.98	121.56	109.62	11.94	10.183		
2,850.00	2,849.35	2,856.75	2,856.04	6.25	5.91	-174.13	-82.38	-12.42	121.42	109.28	12.14	9.999		
2,900.00	2,899.35	2,906.36	2,905.62	6.35	6.03	-174.81	-81.97	-10.94	120.86	108.50	12.36	9.777		
3,000.00	2,999.35	3,006.68	3,005.88	6.57	6.28	-176.20	-80.49	-7.90	119.15	106.32	12.83	9.285		
3,100.00	3,099.35	3,106.70	3,105.84	6.79	6.53	-177.64	-79.01	-4.84	117.51	104.20	13.31	8.829		
3,200.00	3,199.35	3,207.01	3,206.12	7.02	6.75	-178.38	-77.97	-3.29	116.42	102.67	13.75	8.467		
3,300.00	3,299.35	3,306.24	3,305.33	7.24	6.98	-178.79	-76.60	-2.43	115.02	100.82	14.20	8.098		
3,391.98	3,391.33	3,397.26	3,396.33	7.45	7.21	-179.57	-75.97	-0.86	114.36	99.73	14.64	7.814		
3,400.00	3,399.35	3,405.20	3,404.27	7.46	7.23	-179.65	-75.98	-0.70	114.37	99.70	14.67	7.795		
3,500.00	3,499.35	3,504.54	3,503.60	7.69	7.44	-179.48	-76.24	1.04	114.64	99.53	15.11	7.587		
3,600.00	3,599.35	3,604.32	3,603.37	7.91	7.64	-178.71	-76.75	2.60	115.18	99.65	15.53	7.415		
3,700.00	3,699.35	3,704.59	3,703.62	8.14	7.78	-178.34	-77.50	3.36	115.94	100.03	15.91	7.289		
3,800.00	3,799.35	3,804.84	3,803.87	8.36	7.95	-177.98	-78.02	4.11	116.49	100.20	16.29	7.150		
3,900.00	3,899.35	3,905.82	3,904.84	8.58	8.11	-177.80	-78.39	4.49	116.87	100.19	16.68	7.007		
4,000.00	3,999.35	4,006.02	4,005.04	8.81	8.33	-177.50	-77.80	5.07	116.30	99.17	17.13	6.790		
4,100.00	4,099.35	4,106.19	4,105.19	9.03	8.57	-177.15	-77.22	5.76	115.76	98.17	17.59	6.582		
4,200.00	4,199.35	4,205.67	4,204.68	9.26	8.73	-177.19	-76.82	5.65	115.35	97.37	17.98	6.416		
4,236.50	4,235.85	4,241.87	4,240.88	9.34	8.79	-177.21	-76.76	5.61	115.28	97.17	18.11	6.364		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 3H - Wellbore #1 - Actual Wellbore														Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 10100-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
4,300.00	4,299.35	4,305.12	4,304.13	9.48	8.88	177.11	-76.87	5.81	115.40	97.05	18.35	6.288			
4,400.00	4,399.35	4,405.62	4,404.62	9.70	9.00	177.17	-76.92	5.71	115.45	96.76	18.69	6.177			
4,500.00	4,499.35	4,506.00	4,505.00	9.93	9.21	177.09	-76.56	5.83	115.10	95.97	19.13	6.017			
4,559.13	4,558.48	4,564.38	4,563.39	10.06	9.31	177.10	-76.47	5.82	115.01	95.65	19.36	5.941			
4,600.00	4,599.35	4,605.33	4,604.33	10.15	9.40	176.97	-76.42	6.08	114.97	95.43	19.54	5.884			
4,700.00	4,699.35	4,704.47	4,703.47	10.38	9.60	176.60	-76.68	6.84	115.28	95.31	19.97	5.773			
4,800.00	4,799.35	4,805.52	4,804.51	10.60	9.81	176.51	-76.32	6.99	114.92	94.52	20.40	5.634			
4,804.67	4,804.02	4,810.03	4,809.02	10.61	9.82	176.50	-76.31	7.01	114.92	94.50	20.42	5.628			
4,900.00	4,899.35	4,905.74	4,904.74	10.83	9.96	176.39	-76.40	7.24	115.01	94.24	20.78	5.535			
5,000.00	4,999.35	5,005.73	5,004.72	11.05	10.20	176.03	-76.20	7.95	114.87	93.63	21.24	5.409			
5,100.00	5,099.35	5,105.45	5,104.44	11.27	10.36	176.00	-75.99	7.99	114.66	93.04	21.63	5.302			
5,200.00	5,199.35	5,205.66	5,204.65	11.50	10.53	176.00	-75.80	7.99	114.47	92.45	22.02	5.198			
5,259.34	5,258.69	5,264.79	5,263.78	11.63	10.58	176.08	-75.76	7.83	114.42	92.22	22.20	5.153			
5,300.00	5,299.35	5,305.32	5,304.31	11.72	10.64	176.09	-75.76	7.80	114.42	92.07	22.35	5.119			
5,400.00	5,399.35	5,405.39	5,404.38	11.95	10.77	176.11	-75.83	7.77	114.48	91.78	22.71	5.042			
5,483.33	5,482.68	5,488.70	5,487.69	12.14	10.90	176.12	-75.78	7.74	114.43	91.41	23.02	4.970			
5,500.00	5,499.35	5,505.21	5,504.19	12.17	10.93	176.09	-75.79	7.80	114.44	91.35	23.09	4.955			
5,600.00	5,599.35	5,605.30	5,604.29	12.40	11.06	176.08	-75.95	7.84	114.61	91.16	23.45	4.887			
5,700.00	5,699.33	5,705.99	5,704.98	12.59	11.20	24.58	-75.98	7.99	113.06	89.28	23.78	4.755			
5,800.00	5,799.19	5,805.86	5,804.85	12.77	11.37	25.85	-75.62	7.83	107.95	83.87	24.08	4.483			
5,897.52	5,896.34	5,903.08	5,902.07	12.94	11.52	28.31	-74.97	7.35	99.76	75.42	24.34	4.099			
5,900.00	5,898.80	5,905.63	5,904.61	12.94	11.52	28.39	-74.95	7.33	99.51	75.17	24.35	4.088			
6,000.00	5,998.26	6,005.32	6,004.30	13.12	11.71	31.86	-73.63	6.88	89.23	64.52	24.71	3.611			
6,100.00	6,097.72	6,104.64	6,103.61	13.30	11.84	36.48	-72.93	5.93	80.02	54.99	25.03	3.197			
6,200.00	6,197.19	6,204.01	6,202.97	13.48	12.03	41.91	-71.76	5.54	70.88	45.47	25.42	2.789			
6,300.00	6,296.65	6,303.15	6,302.10	13.66	12.25	48.44	-70.72	5.56	62.53	36.70	25.83	2.421			
6,400.00	6,396.11	6,401.89	6,400.83	13.85	12.42	56.82	-70.08	5.31	55.71	29.50	26.21	2.126			
6,500.00	6,495.57	6,501.93	6,500.87	14.04	12.63	67.15	-69.43	5.30	50.27	23.64	26.62	1.888			
6,600.00	6,595.03	6,601.12	6,600.06	14.23	12.80	79.67	-68.79	4.86	47.13	20.12	27.01	1.745			
6,660.11	6,654.81	6,660.66	6,659.59	14.35	12.90	87.58	-68.52	4.68	46.43	19.19	27.23	1.705 CC, ES, SF			
6,700.00	6,694.49	6,700.30	6,699.24	14.43	12.94	92.66	-68.62	4.47	46.67	19.32	27.35	1.707			
6,800.00	6,793.95	6,799.66	6,798.59	14.63	13.04	104.85	-68.82	4.03	48.75	21.12	27.63	1.765			
6,900.00	6,893.41	6,899.07	6,898.00	14.84	13.16	115.83	-68.85	3.33	53.11	25.19	27.92	1.902			
7,000.00	6,992.88	6,998.84	6,997.77	15.05	13.27	124.84	-68.96	2.67	59.03	30.84	28.19	2.094			
7,100.00	7,092.34	7,098.06	7,096.98	15.26	13.37	131.62	-69.62	2.33	65.70	37.23	28.47	2.308			
7,200.00	7,191.80	7,197.31	7,196.23	15.47	13.48	137.28	-70.01	1.84	73.36	44.59	28.76	2.550			
7,300.00	7,291.26	7,296.74	7,295.65	15.69	13.61	142.05	-69.92	1.00	82.10	53.02	29.07	2.824			
7,400.00	7,390.72	7,396.00	7,394.91	15.91	13.72	145.66	-70.28	0.25	91.02	61.66	29.36	3.100			
7,500.00	7,490.18	7,496.94	7,495.84	16.13	13.83	148.64	-70.85	-0.21	99.87	70.21	29.66	3.367			
7,600.00	7,589.64	7,595.62	7,594.52	16.35	13.95	151.22	-71.10	-0.63	109.07	79.10	29.97	3.639			
7,700.00	7,689.10	7,695.41	7,694.31	16.58	14.05	153.32	-71.69	-0.98	118.23	87.96	30.27	3.906			
7,800.00	7,788.57	7,794.23	7,793.13	16.81	14.18	155.16	-71.94	-1.51	127.85	97.26	30.59	4.179			
7,900.00	7,888.03	7,893.37	7,892.27	17.04	14.31	156.70	-72.45	-1.89	137.31	106.40	30.91	4.442			
8,000.00	7,987.49	7,992.47	7,991.36	17.27	14.46	158.18	-72.34	-2.46	147.41	116.15	31.26	4.716			
8,100.00	8,086.95	8,092.95	8,091.84	17.51	14.58	159.33	-72.97	-2.89	156.99	125.40	31.58	4.970			
8,200.00	8,186.41	8,192.88	8,191.76	17.74	14.70	160.28	-73.60	-3.54	166.79	134.89	31.90	5.228			
8,300.00	8,285.87	8,291.29	8,290.17	17.98	14.82	161.09	-74.51	-3.95	176.27	144.04	32.23	5.469			
8,400.00	8,385.33	8,392.40	8,391.28	18.22	14.95	161.88	-75.24	-4.41	185.94	153.37	32.57	5.710			
8,500.00	8,484.79	8,493.56	8,492.43	18.46	15.08	162.52	-76.46	-4.71	195.19	162.29	32.90	5.933			
8,600.00	8,584.25	8,593.52	8,592.38	18.71	15.23	163.19	-78.02	-4.18	203.63	170.39	33.25	6.125			
8,700.00	8,683.72	8,693.09	8,691.93	18.95	15.38	163.86	-79.47	-3.44	212.03	178.43	33.60	6.310			
8,800.00	8,783.18	8,794.46	8,793.29	19.20	15.55	164.67	-80.25	-2.46	220.80	186.82	33.98	6.497			

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 3H - Wellbore #1 - Actual Wellbore													Offset Site Error: 0.00 ft	
Survey Program: 100-NS-GYRO-MS, 10100-MWD													Offset Well Error: 0.00 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
8,900.00	8,882.64	8,894.30	8,893.10	19.44	15.72	165.45	-81.53	-0.73	228.71	194.35	34.36	6.656		
9,000.00	8,982.10	8,993.18	8,991.96	19.69	15.89	166.12	-83.14	1.00	236.39	201.66	34.74	6.805		
9,100.00	9,081.56	9,093.69	9,092.43	19.94	16.07	166.78	-84.68	2.79	244.15	209.03	35.12	6.952		
9,200.00	9,181.02	9,192.77	9,191.48	20.20	16.23	167.26	-86.56	4.13	251.95	216.46	35.50	7.098		
9,300.00	9,280.48	9,289.30	9,287.99	20.45	16.38	167.43	-88.74	4.15	260.35	224.50	35.85	7.262		
9,400.00	9,379.94	9,387.18	9,385.84	20.70	16.51	167.37	-90.85	2.67	269.83	233.63	36.20	7.453		
9,500.00	9,479.41	9,486.37	9,484.98	20.96	16.65	167.25	-93.02	0.78	279.53	242.98	36.56	7.646		
9,600.00	9,578.87	9,587.10	9,585.67	21.21	16.80	167.12	-95.33	-1.13	289.16	252.24	36.92	7.833		
9,700.00	9,678.33	9,687.09	9,685.62	21.47	16.95	167.07	-97.73	-2.41	298.30	261.02	37.28	8.001		
9,800.00	9,777.79	9,787.45	9,785.94	21.73	17.10	167.04	-100.02	-3.78	307.58	269.93	37.65	8.170		
9,832.06	9,809.68	9,819.04	9,817.52	21.81	17.15	167.00	-100.85	-4.26	310.52	272.75	37.77	8.222		
9,850.00	9,827.49	9,837.65	9,836.12	21.86	17.17	160.32	-101.32	-4.52	312.36	274.60	37.76	8.271		
9,900.00	9,876.73	9,886.46	9,884.92	22.00	17.25	151.43	-102.49	-4.98	319.59	281.93	37.66	8.486		
9,950.00	9,925.06	9,935.10	9,933.55	22.17	17.33	147.81	-103.51	-5.47	330.18	292.75	37.42	8.823		
10,000.00	9,972.12	9,983.01	9,981.44	22.36	17.40	146.15	-104.50	-5.75	343.93	306.89	37.05	9.283		
10,050.00	10,017.54	10,029.08	10,027.50	22.57	17.46	145.36	-105.47	-6.02	361.03	324.45	36.58	9.870		
10,100.00	10,060.99	10,073.31	10,071.72	22.80	17.49	145.00	-106.36	-6.17	381.50	345.39	36.11	10.565		
10,150.00	10,102.13	10,115.16	10,113.56	23.06	17.52	144.79	-107.17	-6.21	405.35	369.77	35.59	11.390		
10,200.00	10,140.65	10,154.26	10,152.66	23.35	17.52	144.52	-107.89	-6.19	432.59	397.69	34.90	12.395		
10,250.00	10,176.26	10,190.46	10,188.85	23.66	17.52	144.04	-108.54	-6.12	463.13	428.88	34.25	13.523		
10,300.00	10,208.68	10,246.44	10,244.78	24.01	17.52	144.79	-110.58	-6.12	496.42	463.03	33.39	14.866		
10,350.00	10,237.67	10,331.87	10,329.51	24.38	17.53	147.12	-121.22	-5.86	529.91	497.74	32.17	16.471		
10,400.00	10,263.01	10,995.37	10,787.46	24.79	19.36	165.23	-526.79	82.65	548.15	520.22	27.93	19.627		
10,450.00	10,284.50	11,072.01	10,805.01	25.22	20.00	166.72	-599.54	99.10	535.71	509.09	26.62	20.126		
10,500.00	10,301.99	11,152.83	10,818.66	25.68	20.76	168.20	-677.67	114.58	524.84	499.38	25.46	20.615		
10,550.00	10,315.33	11,219.70	10,826.41	26.16	21.46	169.53	-742.85	127.28	515.58	491.08	24.50	21.043		
10,600.00	10,324.43	11,294.02	10,831.75	26.67	22.30	171.03	-815.70	140.94	508.55	484.75	23.80	21.371		
10,650.00	10,329.21	11,365.70	10,833.43	27.20	23.17	172.51	-886.22	153.62	503.62	480.21	23.41	21.512		
10,680.01	10,330.00	11,398.67	10,833.33	27.52	23.58	173.20	-918.71	159.23	502.06	478.70	23.36	21.490		
10,700.00	10,330.00	11,419.42	10,833.19	27.74	23.85	173.63	-939.16	162.75	501.50	478.09	23.40	21.427		
10,800.00	10,330.00	11,517.19	10,832.01	28.88	25.09	175.55	-1,035.66	178.44	498.63	474.92	23.71	21.030		
10,840.24	10,330.00	11,547.16	10,832.01	29.37	25.46	176.04	-1,065.37	182.32	498.21	474.33	23.88	20.860		
10,900.00	10,330.00	11,597.19	10,833.03	30.09	26.07	176.68	-1,115.14	187.23	498.97	474.79	24.18	20.632		
11,000.00	10,330.00	11,695.36	10,835.72	31.36	27.30	177.37	-1,213.14	191.83	501.39	476.53	24.86	20.166		
11,100.00	10,330.00	11,803.11	10,837.41	32.69	28.72	177.34	-1,320.85	190.12	502.97	477.24	25.73	19.544		
11,200.00	10,330.00	11,890.16	10,838.91	34.06	29.84	177.40	-1,407.89	189.44	504.74	478.18	26.56	19.006		
11,300.00	10,330.00	11,994.52	10,842.40	35.47	31.23	177.58	-1,512.19	189.54	508.02	480.53	27.49	18.478		
11,400.00	10,330.00	12,091.04	10,844.59	36.91	32.60	177.69	-1,608.67	189.12	510.28	481.83	28.45	17.938		
11,500.00	10,330.00	12,195.27	10,847.98	38.39	34.12	177.49	-1,712.80	185.84	513.63	484.10	29.52	17.398		
11,600.00	10,330.00	12,308.33	10,848.90	39.90	35.82	177.34	-1,825.81	183.00	514.46	483.78	30.68	16.770		
11,602.14	10,330.00	12,309.86	10,848.90	39.93	35.84	177.34	-1,827.34	182.98	514.46	483.76	30.70	16.759		
11,700.00	10,330.00	12,382.43	10,850.73	41.43	36.85	177.27	-1,899.86	181.32	516.94	485.29	31.64	16.336		
11,800.00	10,330.00	12,486.55	10,855.92	42.99	38.36	177.25	-2,003.83	179.55	521.97	489.17	32.80	15.915		
11,900.00	10,330.00	12,600.86	10,859.04	44.57	40.15	177.54	-2,118.08	180.62	524.57	490.59	33.98	15.437		
12,000.00	10,330.00	12,703.28	10,860.29	46.16	41.80	177.91	-2,220.48	182.62	525.67	490.56	35.11	14.972		
12,100.00	10,330.00	12,803.89	10,861.22	47.78	43.40	178.16	-2,321.08	183.58	526.51	490.24	36.27	14.516		
12,200.00	10,330.00	12,906.63	10,861.90	49.40	45.02	178.09	-2,423.80	181.59	527.20	489.69	37.51	14.054		
12,282.31	10,330.00	12,990.39	10,861.67	50.75	46.35	177.93	-2,507.51	179.02	527.02	488.46	38.56	13.667		
12,300.00	10,330.00	13,005.70	10,861.69	51.04	46.59	177.90	-2,522.81	178.53	527.06	488.29	38.77	13.595		
12,400.00	10,330.00	13,093.28	10,863.12	52.70	47.92	177.71	-2,610.33	175.60	528.76	488.78	39.98	13.227		
12,500.00	10,330.00	13,186.40	10,866.53	54.36	49.32	177.63	-2,703.37	173.52	532.44	491.22	41.21	12.919		
12,600.00	10,330.00	13,291.81	10,870.52	56.04	50.98	177.70	-2,808.70	172.66	536.21	493.70	42.51	12.613		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 3H - Wellbore #1 - Actual Wellbore												Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 10100-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor
12,700.00	10,330.00	13,393.92	10,872.98	57.72	52.62	177.68	-2,910.76	170.98	538.62	494.80	43.82	12.291	
12,800.00	10,330.00	13,490.35	10,876.09	59.41	54.15	177.64	-3,007.13	169.28	541.85	496.75	45.11	12.013	
12,900.00	10,330.00	13,592.11	10,879.29	61.11	55.78	177.67	-3,108.83	168.13	544.98	498.56	46.42	11.739	
13,000.00	10,330.00	13,698.44	10,881.97	62.82	57.52	177.48	-3,215.07	164.80	547.59	499.76	47.83	11.449	
13,100.00	10,330.00	13,798.53	10,883.44	64.53	59.16	177.33	-3,315.11	161.95	549.14	499.94	49.20	11.161	
13,200.00	10,330.00	13,900.79	10,885.18	66.25	60.82	177.15	-3,417.30	158.84	550.92	500.32	50.60	10.887	
13,270.75	10,330.00	13,966.10	10,886.24	67.47	61.88	177.14	-3,482.59	157.82	552.09	500.57	51.52	10.716	
13,300.00	10,330.15	13,991.60	10,886.93	67.92	62.29	177.12	-3,508.08	157.27	552.74	500.82	51.92	10.647	
13,320.75	10,330.43	14,009.69	10,887.51	68.21	62.59	177.10	-3,526.16	156.81	553.14	500.94	52.20	10.597	
13,400.00	10,331.82	14,095.58	10,890.14	69.43	63.99	177.05	-3,611.99	155.16	554.22	500.88	53.33	10.392	
13,500.00	10,333.56	14,191.86	10,892.53	71.17	65.59	177.06	-3,708.23	153.97	554.96	500.29	54.67	10.152	
13,600.00	10,335.31	14,301.47	10,895.07	72.91	67.42	176.96	-3,817.78	151.56	555.59	499.46	56.13	9.898	
13,700.00	10,337.05	14,411.97	10,895.25	74.65	69.31	176.94	-3,928.27	150.08	554.00	496.41	57.58	9.621	
13,800.00	10,338.80	14,509.74	10,894.99	76.40	70.94	176.92	-4,026.03	148.72	551.99	493.04	58.95	9.364	
13,900.00	10,340.54	14,610.89	10,894.10	78.15	72.61	176.62	-4,127.09	144.68	549.52	489.07	60.45	9.091	
14,000.00	10,342.29	14,699.68	10,894.69	79.91	74.06	176.21	-4,215.73	139.66	548.67	486.76	61.92	8.862	
14,100.00	10,344.03	14,802.74	10,895.50	81.67	75.76	175.77	-4,318.64	134.14	547.99	484.46	63.53	8.626	
14,126.18	10,344.49	14,826.44	10,895.74	82.13	76.15	175.67	-4,342.30	132.86	547.88	483.95	63.93	8.571	
14,200.00	10,345.78	14,901.71	10,896.95	83.43	77.41	175.32	-4,417.44	128.51	548.05	482.90	65.15	8.412	
14,300.00	10,347.52	15,013.38	10,896.00	85.19	79.27	174.77	-4,528.92	122.10	545.76	478.83	66.94	8.153	
14,400.00	10,349.27	15,104.08	10,895.46	86.96	80.76	174.28	-4,619.44	116.41	543.93	475.33	68.60	7.929	
14,434.89	10,349.88	15,134.52	10,895.72	87.57	81.25	174.12	-4,649.82	114.53	543.78	474.62	69.16	7.862	
14,500.00	10,351.01	15,192.34	10,896.87	88.73	82.18	173.85	-4,707.53	111.17	544.25	474.02	70.23	7.750	
14,600.00	10,352.76	15,287.99	10,900.23	90.50	83.72	173.54	-4,803.02	106.79	546.36	474.51	71.85	7.604	
14,700.00	10,354.50	15,396.12	10,903.66	92.27	85.52	173.56	-4,911.07	105.39	547.77	474.43	73.35	7.468	
14,800.00	10,356.25	15,497.15	10,905.87	94.05	87.24	173.71	-5,012.08	105.48	548.06	473.37	74.69	7.338	
14,900.00	10,357.99	15,600.70	10,908.41	95.82	88.99	173.93	-5,115.60	106.23	548.56	472.56	76.00	7.218	
15,000.00	10,359.74	15,710.78	10,909.61	97.60	90.88	174.41	-5,225.62	109.43	547.48	470.30	77.18	7.094	
15,100.00	10,361.48	15,820.47	10,908.97	99.38	92.80	175.05	-5,335.20	114.44	544.62	466.36	78.26	6.959	
15,200.00	10,363.23	15,931.75	10,906.20	101.17	94.76	175.82	-5,446.27	120.60	539.85	460.52	79.33	6.805	
15,299.41	10,364.96	16,028.00	10,902.32	102.63	96.47	176.61	-5,542.21	127.18	533.60	453.64	79.97	6.673	

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbore													Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 9928-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	5.95	5.95	0.00	0.01	166.93	-159.00	36.90	163.23					
100.00	100.00	105.21	105.21	0.09	0.12	166.93	-159.29	36.98	163.52	163.32	0.21	784.667		
200.00	200.00	205.36	205.36	0.32	0.35	167.03	-159.58	36.75	163.76	163.09	0.67	245.980		
300.00	300.00	304.98	304.97	0.54	0.61	167.15	-160.27	36.56	164.38	163.23	1.15	142.909		
400.00	400.00	404.99	404.99	0.77	0.87	167.25	-160.85	36.39	164.91	163.27	1.64	100.650		
500.00	500.00	504.37	504.36	0.99	1.13	167.41	-161.82	36.15	165.82	163.69	2.13	78.000		
600.00	600.00	603.97	603.95	1.22	1.40	167.51	-162.95	36.11	166.92	164.31	2.61	63.920		
700.00	700.00	702.66	702.62	1.44	1.66	167.70	-164.55	35.88	168.45	165.35	3.10	54.387		
800.00	800.00	801.73	801.67	1.67	1.92	168.05	-166.94	35.34	170.70	167.11	3.59	47.614		
900.00	900.00	900.78	900.67	1.89	2.18	168.52	-169.92	34.52	173.48	169.40	4.07	42.595		
1,000.00	1,000.00	998.95	998.76	2.12	2.44	169.14	-173.80	33.35	177.12	172.56	4.56	38.857		
1,100.00	1,100.00	1,097.63	1,097.31	2.34	2.71	169.85	-178.51	31.96	181.55	176.51	5.04	35.987		
1,200.00	1,200.00	1,196.90	1,196.42	2.56	2.97	170.58	-183.91	30.50	186.66	181.13	5.53	33.733		
1,300.00	1,300.00	1,298.67	1,298.07	2.79	3.25	171.19	-188.92	29.29	191.34	185.31	6.03	31.740		
1,400.00	1,400.00	1,399.39	1,398.70	3.01	3.52	171.60	-192.85	28.48	195.08	188.56	6.52	29.918		
1,500.00	1,500.00	1,501.93	1,501.19	3.24	3.79	171.82	-196.08	28.18	198.16	191.14	7.02	28.245		
1,600.00	1,600.00	1,602.90	1,602.13	3.46	4.05	171.88	-198.36	28.32	200.41	192.91	7.50	26.715		
1,650.00	1,650.00	1,653.66	1,652.89	3.58	4.18	171.84	-199.23	28.56	201.29	193.55	7.74	26.006		
1,700.00	1,700.00	1,704.41	1,703.63	3.69	4.29	171.76	-199.84	28.98	202.37	194.41	7.96	25.418		
1,750.00	1,749.98	1,754.93	1,754.15	3.80	4.39	171.72	-200.32	29.39	204.19	196.02	8.18	24.974		
1,800.00	1,799.95	1,805.16	1,804.38	3.91	4.49	171.68	-200.66	29.82	206.32	197.93	8.39	24.606		
1,900.00	1,899.89	1,905.05	1,904.26	4.14	4.70	171.70	-201.23	30.36	210.42	201.60	8.82	23.850		
2,000.00	1,999.83	2,006.05	2,005.26	4.36	4.86	171.67	-201.50	31.00	214.22	205.02	9.21	23.272		
2,100.00	2,099.77	2,104.58	2,103.79	4.59	5.05	171.74	-201.91	31.32	218.14	208.51	9.62	22.667		
2,200.00	2,199.71	2,205.16	2,204.36	4.81	5.30	171.78	-202.74	31.77	222.48	212.38	10.09	22.045		
2,300.00	2,299.64	2,304.31	2,303.50	5.04	5.54	171.81	-203.56	32.27	226.81	216.26	10.56	21.481		
2,400.00	2,399.58	2,404.77	2,403.96	5.27	5.76	171.78	-204.13	32.98	230.93	219.93	11.00	20.995		
2,500.00	2,499.52	2,505.16	2,504.34	5.49	5.97	171.70	-204.79	33.92	235.17	223.73	11.44	20.554		
2,600.00	2,599.46	2,605.45	2,604.62	5.72	6.13	171.40	-204.98	35.74	239.07	227.25	11.83	20.213		
2,700.00	2,699.40	2,705.88	2,705.00	5.95	6.27	170.85	-204.56	38.54	242.54	230.36	12.19	19.901		
2,750.00	2,749.37	2,756.65	2,755.74	6.06	6.34	170.50	-204.33	40.29	244.32	231.94	12.37	19.749		
2,800.00	2,799.35	2,807.34	2,806.41	6.16	6.40	170.17	-203.91	41.91	245.47	232.93	12.54	19.573		
2,850.00	2,849.35	2,858.54	2,857.57	6.25	6.47	169.72	-203.22	43.80	245.56	232.87	12.69	19.345		
2,900.00	2,899.35	2,907.93	2,906.92	6.35	6.53	169.28	-202.50	45.62	245.18	232.33	12.85	19.077		
3,000.00	2,999.35	3,008.53	3,007.42	6.57	6.65	168.30	-200.89	49.55	244.36	231.16	13.20	18.507		
3,100.00	3,099.35	3,109.09	3,107.91	6.79	6.79	167.34	-199.23	53.37	243.56	229.99	13.56	17.959		
3,200.00	3,199.35	3,208.61	3,207.35	7.02	6.92	166.51	-197.58	56.60	242.67	228.75	13.92	17.436		
3,300.00	3,299.35	3,308.29	3,306.99	7.24	7.05	165.81	-196.12	59.28	241.89	227.61	14.28	16.941		
3,400.00	3,399.35	3,408.86	3,407.52	7.46	7.19	165.13	-194.54	61.83	241.00	226.36	14.64	16.462		
3,500.00	3,499.35	3,508.99	3,507.61	7.69	7.33	164.55	-193.02	63.95	240.09	225.09	15.00	16.004		
3,600.00	3,599.35	3,609.34	3,607.94	7.91	7.46	164.05	-191.45	65.70	239.06	223.70	15.36	15.564		
3,700.00	3,699.35	3,708.95	3,707.52	8.14	7.59	163.62	-190.01	67.12	238.06	222.35	15.71	15.150		
3,800.00	3,799.35	3,810.54	3,809.10	8.36	7.68	163.40	-188.43	67.61	236.71	220.68	16.03	14.766		
3,900.00	3,899.35	3,910.51	3,909.05	8.58	7.75	163.33	-186.74	67.42	235.04	218.71	16.32	14.398		
4,000.00	3,999.35	4,009.74	4,008.27	8.81	7.81	163.54	-185.77	66.25	233.77	217.16	16.61	14.077		
4,100.00	4,099.35	4,108.23	4,106.75	9.03	7.88	163.80	-185.23	64.96	232.87	215.97	16.90	13.777		
4,200.00	4,199.35	4,207.72	4,206.24	9.26	7.97	164.07	-185.08	63.79	232.39	215.17	17.22	13.496		
4,300.00	4,299.35	4,306.85	4,305.36	9.48	8.09	164.24	-185.14	63.07	232.26	214.69	17.57	13.220		
4,300.14	4,299.49	4,306.98	4,305.49	9.48	8.09	164.24	-185.14	63.06	232.26	214.69	17.57	13.220		
4,400.00	4,399.35	4,403.76	4,402.27	9.70	8.30	164.26	-186.06	63.26	233.21	215.22	18.00	12.959		
4,500.00	4,499.35	4,506.58	4,505.07	9.93	8.52	164.09	-186.71	64.17	234.07	215.62	18.45	12.687		
4,600.00	4,599.35	4,607.46	4,605.94	10.15	8.71	163.70	-186.15	65.68	233.95	215.09	18.86	12.405		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbore													Offset Site Error: 0.00 ft
Survey Program: 100-NS-GYRO-MS, 9928-MWD													Offset Well Error: 0.00 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,700.00	4,699.35	4,707.37	4,705.84	10.38	8.89	163.24	-185.34	67.38	233.66	214.39	19.27	12.128	
4,800.00	4,799.35	4,808.46	4,806.90	10.60	9.08	162.72	-184.44	69.34	233.37	213.69	19.68	11.859	
4,900.00	4,899.35	4,909.30	4,907.72	10.83	9.24	162.24	-182.86	70.86	232.34	212.27	20.07	11.578	
5,000.00	4,999.35	5,010.09	5,008.48	11.05	9.41	161.70	-180.95	72.55	231.05	210.59	20.46	11.295	
5,100.00	5,099.35	5,110.24	5,108.59	11.27	9.57	161.11	-178.85	74.34	229.63	208.79	20.85	11.016	
5,200.00	5,199.35	5,210.78	5,209.10	11.50	9.74	160.58	-176.75	75.83	228.14	206.91	21.23	10.744	
5,300.00	5,299.35	5,310.86	5,309.14	11.72	9.90	160.07	-174.44	77.15	226.42	204.79	21.62	10.472	
5,400.00	5,399.35	5,409.71	5,407.96	11.95	10.07	159.55	-172.47	78.61	225.05	203.03	22.02	10.222	
5,500.00	5,499.35	5,507.86	5,506.07	12.17	10.25	158.94	-170.58	80.48	223.93	201.51	22.42	9.986	
5,524.36	5,523.71	5,531.51	5,529.71	12.23	10.30	158.70	-170.20	81.31	223.88	201.35	22.53	9.937	
5,600.00	5,599.35	5,603.76	5,601.85	12.40	10.46	157.71	-169.29	85.13	224.48	201.62	22.86	9.820	
5,700.00	5,699.33	5,700.00	5,697.78	12.59	10.69	4.12	-168.58	92.58	225.12	201.86	23.27	9.676	
5,800.00	5,799.19	5,798.15	5,795.41	12.77	10.92	1.81	-168.26	102.74	224.02	200.39	23.63	9.481	
5,897.52	5,896.34	5,894.53	5,891.25	12.94	11.15	-0.52	-168.10	112.96	220.21	196.25	23.96	9.190	
5,900.00	5,898.80	5,896.99	5,893.69	12.94	11.16	-0.58	-168.10	113.22	220.08	196.11	23.97	9.181	
6,000.00	5,998.26	5,997.13	5,993.29	13.12	11.40	-3.04	-167.95	123.51	214.73	190.35	24.38	8.806	
6,100.00	6,097.72	6,096.42	6,092.07	13.30	11.64	-5.56	-167.88	133.61	209.80	185.00	24.80	8.460	
6,200.00	6,197.19	6,193.71	6,188.84	13.48	11.88	-8.14	-168.09	143.72	205.66	180.45	25.21	8.157	
6,300.00	6,296.65	6,293.22	6,287.80	13.66	12.12	-10.73	-169.16	154.06	202.65	177.01	25.64	7.905	
6,400.00	6,396.11	6,392.90	6,386.93	13.85	12.37	-13.44	-170.11	164.50	200.02	173.96	26.06	7.675	
6,500.00	6,495.57	6,492.90	6,486.38	14.04	12.62	-16.29	-170.76	175.01	197.67	171.17	26.49	7.461	
6,600.00	6,595.03	6,593.74	6,586.65	14.23	12.87	-19.44	-170.47	185.66	195.22	168.29	26.93	7.250	
6,700.00	6,694.49	6,693.63	6,686.01	14.43	13.12	-22.60	-170.04	195.88	193.03	165.67	27.36	7.055	
6,800.00	6,793.95	6,793.07	6,784.96	14.63	13.37	-25.74	-169.67	205.75	191.21	163.42	27.80	6.879	
6,900.00	6,893.41	6,892.72	6,884.15	14.84	13.62	-28.83	-169.52	215.33	189.85	161.61	28.24	6.723	
7,000.00	6,992.88	6,992.93	6,983.93	15.05	13.87	-31.80	-169.81	224.56	188.92	160.24	28.68	6.586	
7,100.00	7,092.34	7,093.22	7,083.81	15.26	14.13	-34.89	-169.65	233.63	188.14	159.00	29.14	6.457	
7,191.46	7,183.31	7,183.73	7,173.95	15.45	14.36	-37.88	-168.88	241.87	187.71	158.16	29.55	6.352	
7,200.00	7,191.80	7,191.99	7,182.16	15.47	14.38	-38.15	-168.82	242.64	187.72	158.13	29.59	6.344	
7,300.00	7,291.26	7,291.77	7,281.53	15.69	14.63	-41.30	-168.44	251.65	188.00	157.95	30.05	6.256 ES	
7,400.00	7,390.72	7,388.44	7,377.76	15.91	14.88	-44.14	-168.92	260.90	189.60	159.09	30.51	6.215 SF	
7,500.00	7,490.18	7,487.62	7,476.40	16.13	15.14	-46.92	-169.89	271.19	192.61	161.63	30.98	6.217	
7,600.00	7,589.64	7,587.84	7,576.09	16.35	15.40	-49.60	-170.97	281.39	195.88	164.43	31.46	6.227	
7,700.00	7,689.10	7,687.03	7,674.78	16.58	15.65	-52.19	-171.90	291.36	199.42	167.48	31.94	6.244	
7,800.00	7,788.57	7,787.57	7,774.79	16.81	15.92	-54.88	-172.31	301.56	203.39	170.97	32.43	6.273	
7,900.00	7,888.03	7,887.24	7,874.01	17.04	16.18	-57.46	-172.57	311.04	207.14	174.22	32.92	6.293	
8,000.00	7,987.49	7,985.51	7,971.79	17.27	16.43	-59.83	-173.13	320.89	211.81	178.41	33.41	6.341	
8,100.00	8,086.95	8,084.71	8,070.44	17.51	16.69	-62.15	-173.57	331.28	217.31	183.40	33.90	6.410	
8,200.00	8,186.41	8,185.76	8,170.98	17.74	16.96	-64.68	-172.93	341.40	222.73	188.32	34.41	6.474	
8,300.00	8,285.87	8,286.50	8,271.29	17.98	17.22	-67.10	-172.25	350.75	227.84	192.93	34.91	6.526	
8,400.00	8,385.33	8,385.73	8,370.11	18.22	17.48	-69.28	-172.04	359.73	233.03	197.62	35.42	6.580	
8,500.00	8,484.79	8,485.00	8,468.94	18.46	17.74	-71.31	-171.99	368.96	238.77	202.85	35.93	6.646	
8,600.00	8,584.25	8,586.24	8,569.76	18.71	18.00	-73.18	-172.44	378.23	244.55	208.11	36.44	6.711	
8,700.00	8,683.72	8,688.45	8,671.67	18.95	18.27	-75.13	-172.55	386.13	249.27	212.31	36.96	6.744	
8,800.00	8,783.18	8,782.48	8,765.35	19.20	18.52	-76.75	-172.93	394.11	254.91	217.45	37.46	6.805	
8,900.00	8,882.64	8,882.24	8,864.57	19.44	18.78	-78.08	-174.29	404.37	262.21	224.24	37.97	6.905	
9,000.00	8,982.10	8,979.51	8,961.33	19.69	19.04	-79.44	-175.00	414.27	269.74	231.25	38.48	7.009	
9,100.00	9,081.56	9,082.00	9,063.33	19.94	19.31	-80.94	-175.18	424.34	277.25	238.24	39.01	7.107	
9,200.00	9,181.02	9,177.65	9,158.56	20.20	19.57	-82.38	-174.86	433.30	284.73	245.21	39.52	7.205	
9,300.00	9,280.48	9,273.25	9,253.48	20.45	19.82	-83.53	-174.81	444.56	294.46	254.44	40.03	7.357	
9,400.00	9,379.94	9,373.36	9,352.94	20.70	20.09	-84.81	-174.07	455.87	304.17	263.62	40.55	7.502	
9,500.00	9,479.41	9,469.74	9,448.68	20.96	20.34	-86.25	-171.66	466.74	314.73	273.68	41.05	7.666	

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbore														Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 9928-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
9,600.00	9,578.87	9,567.62	9,545.76	21.21	20.60	-87.30	-170.53	479.15	326.14	284.57	41.57	7.846			
9,700.00	9,678.33	9,679.19	9,656.68	21.47	20.90	-88.51	-169.78	491.11	335.68	293.56	42.12	7.970			
9,800.00	9,777.79	9,783.55	9,760.65	21.73	21.18	-89.67	-169.56	500.15	343.35	300.69	42.66	8.049			
9,832.06	9,809.68	9,818.75	9,795.74	21.81	21.27	-90.03	-169.82	502.76	345.33	302.49	42.83	8.062			
9,850.00	9,827.49	9,836.28	9,813.22	21.86	21.30	-96.72	-170.09	504.05	346.50	303.61	42.89	8.079			
9,900.00	9,876.73	9,882.75	9,859.56	22.00	21.36	-106.05	-170.62	507.66	351.54	308.54	43.00	8.176			
9,950.00	9,925.06	9,928.25	9,904.89	22.17	21.42	-110.68	-170.86	511.46	359.31	316.25	43.06	8.345			
10,000.00	9,972.12	9,970.81	9,947.27	22.36	21.43	-113.65	-170.95	515.46	370.10	327.11	42.99	8.609			
10,050.00	10,017.54	10,011.88	9,988.09	22.57	21.43	-115.79	-171.14	519.97	384.19	341.32	42.86	8.963			
10,100.00	10,060.99	10,050.83	10,026.69	22.80	21.43	-117.30	-171.73	525.10	401.67	358.99	42.68	9.410			
10,150.00	10,102.13	10,079.21	10,054.59	23.06	21.43	-117.60	-172.96	530.14	422.91	380.36	42.55	9.938			
10,200.00	10,140.65	10,104.21	10,078.88	23.35	21.44	-117.10	-174.20	535.91	448.37	405.86	42.51	10.548			
10,250.00	10,176.26	10,130.05	10,103.66	23.66	21.44	-116.10	-175.69	543.07	477.52	434.94	42.58	11.216			
10,300.00	10,208.68	10,154.00	10,126.34	24.01	21.45	-114.40	-177.51	550.55	509.61	466.78	42.83	11.899			
10,350.00	10,237.67	10,179.23	10,149.91	24.38	21.46	-112.23	-179.72	559.26	544.34	501.08	43.26	12.583			
10,400.00	10,263.01	10,200.02	10,169.10	24.79	21.47	-109.12	-181.59	567.04	581.52	537.57	43.95	13.230			
10,450.00	10,284.50	10,219.66	10,187.09	25.22	21.48	-105.26	-183.41	574.72	620.65	575.81	44.85	13.840			
10,500.00	10,301.99	10,240.12	10,205.68	25.68	21.49	-100.84	-185.45	583.00	661.34	615.52	45.82	14.434			
10,550.00	10,315.33	10,269.24	10,232.03	26.16	21.51	-96.89	-188.69	594.96	703.21	656.53	46.68	15.065			
10,600.00	10,324.43	10,328.22	10,286.38	26.67	21.55	-96.41	-196.67	616.38	745.15	697.94	47.20	15.786			
10,650.00	10,329.21	10,339.25	10,296.56	27.20	21.56	-89.57	-198.40	620.26	788.01	739.93	48.08	16.390			
10,680.01	10,330.00	10,345.00	10,301.85	27.52	21.56	-85.05	-199.32	622.32	814.13	765.77	48.36	16.835			
10,700.00	10,330.00	10,345.00	10,301.85	27.74	21.56	-85.05	-199.32	622.32	831.65	783.07	48.58	17.119			
10,800.00	10,330.00	10,356.95	10,312.77	28.88	21.57	-86.67	-201.26	626.77	920.72	870.93	49.78	18.495			
10,900.00	10,330.00	10,367.84	10,322.61	30.09	21.58	-88.10	-203.08	631.06	1,011.66	960.64	51.02	19.829			
11,000.00	10,330.00	10,380.02	10,333.50	31.36	21.60	-89.65	-205.16	636.11	1,104.00	1,051.71	52.29	21.112			
11,100.00	10,330.00	11,898.57	10,855.27	32.69	33.90	-116.87	-1,266.85	1,239.17	1,151.23	1,094.99	56.24	20.469			
11,200.00	10,330.00	11,994.40	10,857.97	34.06	34.95	-116.86	-1,362.54	1,243.53	1,157.72	1,099.19	58.53	19.782			
11,300.00	10,330.00	12,098.73	10,859.42	35.47	36.18	-116.77	-1,466.71	1,249.14	1,164.31	1,103.26	61.05	19.071			
11,400.00	10,330.00	12,200.10	10,858.73	36.91	37.43	-116.58	-1,567.89	1,255.12	1,170.43	1,106.76	63.68	18.380			
11,500.00	10,330.00	12,309.79	10,856.98	38.39	38.81	-116.33	-1,677.39	1,261.54	1,176.13	1,109.64	66.49	17.690			
11,600.00	10,330.00	12,413.93	10,856.97	39.90	40.11	-116.19	-1,781.40	1,266.56	1,181.63	1,112.42	69.20	17.075			
11,700.00	10,330.00	12,524.05	10,857.55	41.43	41.56	-116.11	-1,891.45	1,270.26	1,186.03	1,113.96	72.07	16.456			
11,800.00	10,330.00	12,627.43	10,857.28	42.99	42.97	-116.00	-1,994.78	1,273.58	1,189.98	1,115.04	74.94	15.880			
11,900.00	10,330.00	12,728.09	10,857.92	44.57	44.32	-115.95	-2,095.41	1,275.89	1,193.48	1,115.75	77.72	15.355			
12,000.00	10,330.00	12,815.40	10,860.42	46.16	45.47	-116.00	-2,182.66	1,277.68	1,197.74	1,117.45	80.28	14.919			
12,100.00	10,330.00	12,913.08	10,864.69	47.78	46.78	-116.11	-2,280.22	1,279.79	1,202.76	1,119.79	82.97	14.497			
12,200.00	10,330.00	13,022.09	10,869.87	49.40	48.30	-116.28	-2,389.11	1,281.06	1,207.04	1,121.21	85.84	14.062			
12,300.00	10,330.00	13,114.13	10,873.33	51.04	49.64	-116.36	-2,481.06	1,282.74	1,211.51	1,122.95	88.56	13.680			
12,400.00	10,330.00	13,203.12	10,875.34	52.70	50.95	-116.36	-2,569.98	1,285.80	1,216.76	1,125.43	91.33	13.323			
12,500.00	10,330.00	13,290.46	10,878.08	54.36	52.24	-116.38	-2,657.20	1,289.40	1,223.00	1,128.94	94.06	13.002			
12,600.00	10,330.00	13,379.29	10,881.11	56.04	53.57	-116.39	-2,745.87	1,293.86	1,230.18	1,133.35	96.84	12.704			
12,700.00	10,330.00	13,467.38	10,883.38	57.72	54.95	-116.34	-2,833.74	1,299.55	1,238.28	1,138.59	99.69	12.421			
12,800.00	10,330.00	13,556.00	10,886.15	59.41	56.32	-116.30	-2,922.08	1,305.97	1,247.31	1,144.75	102.55	12.163			
12,900.00	10,330.00	13,674.71	10,891.23	61.11	58.16	-116.33	-3,040.46	1,313.32	1,255.90	1,150.09	105.81	11.870			
13,000.00	10,330.00	13,791.47	10,894.80	62.82	60.02	-116.31	-3,156.97	1,319.84	1,263.47	1,154.35	109.12	11.579			
13,100.00	10,330.00	13,924.72	10,898.14	64.53	62.11	-116.33	-3,290.11	1,324.13	1,268.59	1,155.95	112.64	11.262			
13,200.00	10,330.00	14,093.78	10,899.90	66.25	64.73	-116.37	-3,459.13	1,323.48	1,269.91	1,153.24	116.67	10.884			
13,270.75	10,330.00	14,175.93	10,901.02	67.47	65.99	-116.46	-3,541.19	1,319.74	1,268.24	1,149.33	118.91	10.666			
13,300.00	10,330.15	14,203.71	10,901.22	67.92	66.41	-116.47	-3,568.94	1,318.56	1,267.49	1,147.68	119.81	10.579			
13,320.75	10,330.43	14,223.00	10,901.29	68.21	66.71	-116.46	-3,588.22	1,317.79	1,266.90	1,146.47	120.43	10.520			
13,400.00	10,331.82	14,296.54	10,900.73	69.43	67.86	-116.41	-3,661.72	1,315.51	1,264.73	1,142.04	122.69	10.309			

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbore													Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 9928-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore +N/-S (ft)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
13,500.00	10,333.56	14,398.86	10,899.23	71.17	69.45	-116.31	-3,764.00	1,312.97	1,262.25	1,136.36	125.89	10.027		
13,600.00	10,335.31	14,510.00	10,900.04	72.91	71.16	-116.33	-3,875.03	1,308.19	1,259.10	1,130.01	129.08	9.754		
13,700.00	10,337.05	14,605.00	10,900.46	74.65	72.65	-116.34	-3,969.93	1,303.96	1,255.70	1,123.61	132.08	9.507		
13,800.00	10,338.80	14,717.54	10,900.30	76.40	74.41	-116.33	-4,082.34	1,298.69	1,251.80	1,116.43	135.36	9.248		
13,900.00	10,340.54	14,801.10	10,901.49	78.15	75.69	-116.38	-4,165.78	1,294.48	1,248.30	1,110.17	138.13	9.037		
14,000.00	10,342.29	14,893.60	10,902.20	79.91	77.13	-116.39	-4,258.21	1,291.09	1,245.74	1,104.65	141.09	8.830		
14,100.00	10,344.03	14,986.00	10,902.12	81.67	78.60	-116.35	-4,350.58	1,288.51	1,243.61	1,099.49	144.12	8.629		
14,200.00	10,345.78	15,070.37	10,903.31	83.43	79.91	-116.35	-4,434.91	1,286.41	1,242.42	1,095.46	146.95	8.454		
14,270.20	10,347.00	15,136.03	10,904.83	84.66	80.96	-116.38	-4,500.54	1,285.27	1,242.32	1,093.28	149.05	8.335		
14,300.00	10,347.52	15,164.91	10,905.15	85.19	81.43	-116.37	-4,529.42	1,285.00	1,242.32	1,092.35	149.97	8.284		
14,400.00	10,349.27	15,288.20	10,905.40	86.96	83.43	-116.29	-4,652.69	1,283.20	1,241.51	1,087.97	153.54	8.086		
14,500.00	10,351.01	15,395.28	10,906.78	88.73	85.15	-116.32	-4,759.68	1,279.23	1,239.13	1,082.39	156.74	7.906		
14,600.00	10,352.76	15,485.03	10,909.55	90.50	86.58	-116.43	-4,849.32	1,275.57	1,237.23	1,077.64	159.59	7.753		
14,700.00	10,354.50	15,583.42	10,911.63	92.27	88.18	-116.48	-4,947.63	1,272.41	1,235.67	1,073.04	162.64	7.598		
14,800.00	10,356.25	15,676.34	10,911.96	94.05	89.71	-116.44	-5,040.53	1,270.60	1,234.47	1,068.74	165.73	7.449		
14,896.32	10,357.93	15,761.89	10,912.82	95.76	91.10	-116.41	-5,126.07	1,269.36	1,234.04	1,065.42	168.62	7.318		
14,900.00	10,357.99	15,765.06	10,912.88	95.82	91.15	-116.41	-5,129.24	1,269.33	1,234.04	1,065.31	168.73	7.314		
15,000.00	10,359.74	15,846.00	10,914.31	97.60	92.46	-116.41	-5,210.17	1,268.77	1,234.65	1,063.07	171.58	7.196		
15,100.00	10,361.48	15,941.00	10,915.72	99.38	94.02	-116.35	-5,305.15	1,269.77	1,236.62	1,061.90	174.72	7.078		
15,200.00	10,363.23	16,037.51	10,916.05	101.17	95.65	-116.22	-5,401.63	1,271.96	1,239.19	1,061.17	178.01	6.961		
15,299.41	10,364.96	16,140.55	10,915.11	102.63	97.40	-116.03	-5,504.64	1,274.30	1,241.21	1,060.03	181.18	6.851		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - HAMON FEDERAL COM #001 - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 ft
Survey Program: 418-INC														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.00	0.00	3.00	3.00	0.00	0.05	-179.07	-1,238.55	-20.12	1,238.71						
100.00	100.00	103.00	103.00	0.09	1.71	-179.07	-1,238.55	-20.12	1,238.71	1,236.92	1.80	689.241			
200.00	200.00	203.00	203.00	0.32	3.36	-179.07	-1,238.55	-20.12	1,238.71	1,235.04	3.68	336.847			
300.00	300.00	303.00	303.00	0.54	5.02	-179.07	-1,238.55	-20.12	1,238.71	1,233.16	5.56	222.889			
400.00	400.00	403.00	403.00	0.77	6.67	-179.07	-1,238.55	-20.12	1,238.71	1,231.27	7.44	166.545			
500.00	500.00	503.00	503.00	0.99	9.66	-179.07	-1,238.55	-20.12	1,238.71	1,228.06	10.66	116.246			
600.00	600.00	603.00	603.00	1.22	12.89	-179.07	-1,238.55	-20.12	1,238.71	1,224.60	14.11	87.788			
700.00	700.00	703.00	703.00	1.44	16.12	-179.07	-1,238.55	-20.12	1,238.71	1,221.15	17.56	70.523			
800.00	800.00	803.00	803.00	1.67	19.35	-179.07	-1,238.55	-20.12	1,238.71	1,217.69	21.02	58.933			
900.00	900.00	903.00	903.00	1.89	22.58	-179.07	-1,238.55	-20.12	1,238.71	1,214.24	24.47	50.615			
1,000.00	1,000.00	1,003.01	1,003.00	2.12	25.70	-179.07	-1,238.55	-20.12	1,238.71	1,210.90	27.81	44.540			
1,100.00	1,100.00	1,103.01	1,103.00	2.34	28.73	-179.07	-1,238.55	-20.12	1,238.71	1,207.64	31.07	39.863			
1,200.00	1,200.00	1,203.01	1,203.00	2.56	31.77	-179.07	-1,238.55	-20.12	1,238.71	1,204.38	34.34	36.075			
1,300.00	1,300.00	1,303.01	1,303.00	2.79	34.81	-179.07	-1,238.55	-20.12	1,238.71	1,201.11	37.60	32.944			
1,400.00	1,400.00	1,403.01	1,403.00	3.01	37.85	-179.07	-1,238.55	-20.12	1,238.71	1,197.85	40.86	30.314			
1,500.00	1,500.00	1,503.03	1,503.00	3.24	40.88	-179.07	-1,238.55	-20.12	1,238.71	1,194.60	44.12	28.078			
1,600.00	1,600.00	1,603.03	1,603.00	3.46	43.90	-179.07	-1,238.55	-20.12	1,238.71	1,191.35	47.36	26.153			
1,650.00	1,650.00	1,653.03	1,653.00	3.58	45.41	-179.07	-1,238.55	-20.12	1,238.71	1,189.72	48.99	25.286			
1,700.00	1,700.00	1,703.03	1,703.00	3.69	46.92	-179.07	-1,238.55	-20.12	1,239.15	1,188.54	50.60	24.487			
1,750.00	1,749.98	1,753.01	1,752.98	3.80	48.43	-179.07	-1,238.55	-20.12	1,240.46	1,188.25	52.20	23.762			
1,800.00	1,799.95	1,802.98	1,802.95	3.91	49.95	-179.07	-1,238.55	-20.12	1,242.20	1,188.38	53.83	23.078			
1,900.00	1,899.89	1,902.92	1,902.89	4.14	52.97	-179.07	-1,238.55	-20.12	1,245.69	1,188.62	57.07	21.827			
2,000.00	1,999.83	2,002.88	2,002.83	4.36	56.00	-179.08	-1,238.55	-20.12	1,249.18	1,188.85	60.33	20.707			
2,100.00	2,099.77	2,102.82	2,102.77	4.59	59.04	-179.08	-1,238.55	-20.12	1,252.67	1,189.08	63.59	19.700			
2,200.00	2,199.71	2,202.76	2,202.71	4.81	62.07	-179.08	-1,238.55	-20.12	1,256.16	1,189.31	66.85	18.792			
2,300.00	2,299.64	2,302.70	2,302.64	5.04	65.11	-179.08	-1,238.55	-20.12	1,259.65	1,189.54	70.11	17.967			
2,400.00	2,399.58	2,402.64	2,402.58	5.27	68.15	-179.09	-1,238.55	-20.12	1,263.14	1,189.77	73.37	17.216			
2,500.00	2,499.52	2,502.58	2,502.52	5.49	71.18	-179.09	-1,238.55	-20.12	1,266.63	1,190.00	76.63	16.529			
2,600.00	2,599.46	2,602.52	2,602.46	5.72	74.15	-179.09	-1,238.55	-20.12	1,270.12	1,190.30	79.82	15.913			
2,700.00	2,699.40	2,702.51	2,702.40	5.95	77.06	-179.09	-1,238.55	-20.12	1,273.61	1,190.66	82.95	15.353			
2,750.00	2,749.37	2,752.48	2,752.37	6.06	78.52	-179.10	-1,238.55	-20.12	1,275.35	1,190.83	84.52	15.089			
2,800.00	2,799.35	2,802.50	2,802.35	6.16	79.97	-179.10	-1,238.55	-20.12	1,276.66	1,190.55	86.11	14.825			
2,850.00	2,849.35	2,852.49	2,852.35	6.25	81.44	-179.10	-1,238.55	-20.12	1,277.10	1,189.42	87.68	14.566			
2,900.00	2,899.35	2,902.49	2,902.35	6.35	82.90	-179.10	-1,238.55	-20.12	1,277.10	1,187.86	89.24	14.311			
3,000.00	2,999.35	3,002.49	3,002.35	6.57	85.83	-179.10	-1,238.55	-20.12	1,277.10	1,184.71	92.39	13.823			
3,100.00	3,099.35	3,102.52	3,102.35	6.79	88.81	-179.10	-1,238.55	-20.12	1,277.10	1,181.50	95.60	13.359			
3,200.00	3,199.35	3,202.52	3,202.35	7.02	91.82	-179.10	-1,238.55	-20.12	1,277.10	1,178.26	98.83	12.922			
3,300.00	3,299.35	3,302.52	3,302.35	7.24	94.84	-179.10	-1,238.55	-20.12	1,277.10	1,175.03	102.07	12.512			
3,400.00	3,399.35	3,402.52	3,402.35	7.46	97.85	-179.10	-1,238.55	-20.12	1,277.10	1,171.79	105.31	12.127			
3,500.00	3,499.35	3,502.57	3,502.35	7.69	100.86	-179.10	-1,238.55	-20.12	1,277.10	1,168.55	108.54	11.766			
3,600.00	3,599.35	3,602.57	3,602.35	7.91	103.85	-179.10	-1,238.55	-20.12	1,277.10	1,165.34	111.75	11.428			
3,700.00	3,699.35	3,760.00	3,759.72	8.14	108.55	-179.10	-1,238.55	-20.12	1,278.39	1,161.71	116.68	10.956			
3,778.21	3,777.56	3,780.84	3,780.56	8.31	109.17	-179.10	-1,238.55	-20.12	1,277.10	1,159.62	117.47	10.871			
3,800.00	3,799.35	3,802.63	3,802.35	8.36	109.81	-179.10	-1,238.55	-20.12	1,277.10	1,158.93	118.17	10.807			
3,900.00	3,899.35	3,902.63	3,902.35	8.58	112.78	-179.10	-1,238.55	-20.12	1,277.10	1,155.74	121.36	10.523			
4,000.00	3,999.35	4,002.63	4,002.35	8.81	115.75	-179.10	-1,238.55	-20.12	1,277.10	1,152.55	124.55	10.254			
4,100.00	4,099.35	4,102.63	4,102.35	9.03	118.71	-179.10	-1,238.55	-20.12	1,277.10	1,149.36	127.74	9.998			
4,200.00	4,199.35	4,202.63	4,202.35	9.26	121.68	-179.10	-1,238.55	-20.12	1,277.10	1,146.17	130.93	9.754			
4,300.00	4,299.35	4,302.63	4,302.35	9.48	124.65	-179.10	-1,238.55	-20.12	1,277.10	1,142.97	134.12	9.522			
4,400.00	4,399.35	4,402.63	4,402.35	9.70	127.61	-179.10	-1,238.55	-20.12	1,277.10	1,139.78	137.31	9.301			
4,500.00	4,499.35	4,502.63	4,502.35	9.93	130.58	-179.10	-1,238.55	-20.12	1,277.10	1,136.59	140.50	9.089			
4,600.00	4,599.35	4,602.63	4,602.35	10.15	133.54	-179.10	-1,238.55	-20.12	1,277.10	1,133.40	143.70	8.888			

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



Integrity Directional Services, LLC

Anticollision Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Reference Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Hamon Fed Com A #6H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore:	Wellbore #1	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Hamon Fed Pad - HAMON FEDERAL COM #001 - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 ft
Survey Program: 418-INC														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
4,700.00	4,699.35	4,702.63	4,702.35	10.38	136.51	-179.10	-1,238.55	-20.12	1,277.10	1,130.21	146.89	8.694			
4,800.00	4,799.35	4,802.63	4,802.35	10.60	139.48	-179.10	-1,238.55	-20.12	1,277.10	1,127.02	150.08	8.510			
4,900.00	4,899.35	4,902.63	4,902.35	10.83	142.44	-179.10	-1,238.55	-20.12	1,277.10	1,123.83	153.27	8.332			
5,000.00	4,999.35	5,002.63	5,002.35	11.05	145.41	-179.10	-1,238.55	-20.12	1,277.10	1,120.64	156.46	8.162			
5,100.00	5,099.35	5,102.63	5,102.35	11.27	148.38	-179.10	-1,238.55	-20.12	1,277.10	1,117.45	159.65	7.999			
5,200.00	5,199.35	5,203.17	5,202.35	11.50	151.37	-179.10	-1,238.55	-20.12	1,277.10	1,114.23	162.87	7.841			
5,300.00	5,299.35	5,303.17	5,302.35	11.72	154.39	-179.10	-1,238.55	-20.12	1,277.10	1,110.98	166.11	7.688			
5,400.00	5,399.35	5,403.17	5,402.35	11.95	157.41	-179.10	-1,238.55	-20.12	1,277.10	1,107.74	169.36	7.541			
5,500.00	5,499.35	5,503.17	5,502.35	12.17	160.43	-179.10	-1,238.55	-20.12	1,277.10	1,104.50	172.60	7.399			
5,600.00	5,599.35	5,603.28	5,602.35	12.40	163.45	-179.10	-1,238.55	-20.12	1,277.10	1,101.25	175.85	7.263			
5,700.00	5,699.33	5,703.26	5,702.33	12.59	166.47	29.15	-1,238.55	-20.12	1,275.57	1,096.59	178.98	7.127			
5,800.00	5,799.19	5,803.11	5,802.19	12.77	169.49	29.31	-1,238.55	-20.12	1,271.00	1,089.09	181.92	6.987			
5,897.52	5,896.34	5,900.27	5,899.34	12.94	172.43	29.57	-1,238.55	-20.12	1,263.63	1,079.03	184.61	6.845			
5,900.00	5,898.80	5,902.73	5,901.80	12.94	172.50	29.57	-1,238.55	-20.12	1,263.41	1,078.72	184.68	6.841			
6,000.00	5,998.26	6,002.19	6,001.26	13.12	175.51	29.81	-1,238.55	-20.12	1,254.39	1,066.53	187.86	6.677			
6,100.00	6,097.72	6,101.71	6,100.72	13.30	178.50	30.05	-1,238.55	-20.12	1,245.39	1,054.37	191.02	6.520			
6,200.00	6,197.19	6,201.17	6,200.19	13.48	181.47	30.29	-1,238.55	-20.12	1,236.42	1,042.26	194.16	6.368			
6,300.00	6,296.65	6,300.63	6,299.65	13.66	184.44	30.53	-1,238.55	-20.12	1,227.47	1,030.16	197.31	6.221			
6,400.00	6,396.11	6,400.09	6,399.11	13.85	187.40	30.78	-1,238.55	-20.12	1,218.53	1,018.09	200.45	6.079			
6,500.00	6,495.57	6,499.55	6,498.57	14.04	190.37	31.03	-1,238.55	-20.12	1,209.63	1,006.03	203.60	5.941			
6,600.00	6,595.03	6,599.02	6,598.03	14.23	193.34	31.28	-1,238.55	-20.12	1,200.74	994.00	206.75	5.808			
6,700.00	6,694.49	6,698.48	6,697.49	14.43	196.31	31.54	-1,238.55	-20.12	1,191.88	981.98	209.90	5.678			
6,800.00	6,793.95	6,797.94	6,796.95	14.63	199.28	31.80	-1,238.55	-20.12	1,183.05	969.99	213.06	5.553			
6,900.00	6,893.41	6,897.40	6,896.41	14.84	202.25	32.07	-1,238.55	-20.12	1,174.23	958.02	216.22	5.431			
7,000.00	6,992.88	6,996.86	6,995.88	15.05	205.22	32.34	-1,238.55	-20.12	1,165.45	946.07	219.38	5.312			
7,100.00	7,092.34	7,096.33	7,095.34	15.26	208.19	32.61	-1,238.55	-20.12	1,156.69	934.15	222.54	5.198			
7,200.00	7,191.80	7,195.79	7,194.80	15.47	211.16	32.89	-1,238.55	-20.12	1,147.96	922.25	225.71	5.086			
7,300.00	7,291.26	7,295.25	7,294.26	15.69	214.13	33.17	-1,238.55	-20.12	1,139.25	910.37	228.88	4.977			
7,400.00	7,390.72	7,394.71	7,393.72	15.91	217.11	33.46	-1,238.55	-20.12	1,130.58	898.52	232.06	4.872			
7,500.00	7,490.18	7,494.18	7,493.18	16.13	220.08	33.75	-1,238.55	-20.12	1,121.93	886.70	235.23	4.769			
7,600.00	7,589.64	7,611.00	7,610.00	16.35	223.57	34.10	-1,238.55	-20.12	1,113.44	874.52	238.92	4.660			
7,700.00	7,689.10	7,693.10	7,692.10	16.58	226.05	34.35	-1,238.55	-20.12	1,104.72	863.11	241.61	4.572			
7,800.00	7,788.57	7,792.56	7,791.57	16.81	229.06	34.65	-1,238.55	-20.12	1,096.16	851.33	244.83	4.477			
7,900.00	7,888.03	7,892.02	7,891.03	17.04	232.06	34.96	-1,238.55	-20.12	1,087.63	839.59	248.04	4.385			
8,000.00	7,987.49	7,991.48	7,990.49	17.27	235.07	35.28	-1,238.55	-20.12	1,079.14	827.88	251.26	4.295			
8,100.00	8,086.95	8,102.00	8,100.98	17.51	238.41	35.63	-1,238.55	-20.12	1,070.73	815.92	254.81	4.202			
8,200.00	8,186.41	8,190.43	8,189.41	17.74	241.06	35.92	-1,238.55	-20.12	1,062.25	804.58	257.67	4.122			
8,300.00	8,285.87	8,289.89	8,288.87	17.98	244.03	36.25	-1,238.55	-20.12	1,053.86	792.99	260.87	4.040			
8,400.00	8,385.33	8,389.35	8,388.33	18.22	247.01	36.59	-1,238.55	-20.12	1,045.50	781.44	264.06	3.959			
8,500.00	8,484.79	8,488.81	8,487.79	18.46	249.98	36.93	-1,238.55	-20.12	1,037.18	769.92	267.26	3.881			
8,600.00	8,584.25	8,588.28	8,587.25	18.71	252.96	37.28	-1,238.55	-20.12	1,028.89	758.44	270.45	3.804			
8,700.00	8,683.72	8,687.76	8,686.72	18.95	255.94	37.63	-1,238.55	-20.12	1,020.65	746.99	273.66	3.730			
8,800.00	8,783.18	8,787.23	8,786.18	19.20	258.91	37.99	-1,238.55	-20.12	1,012.44	735.58	276.86	3.657			
8,900.00	8,882.64	8,886.69	8,885.64	19.44	261.89	38.35	-1,238.55	-20.12	1,004.27	724.21	280.06	3.586			
9,000.00	8,982.10	8,986.15	8,985.10	19.69	264.87	38.72	-1,238.55	-20.12	996.15	712.88	283.27	3.517			
9,100.00	9,081.56	9,085.61	9,084.56	19.94	267.85	39.09	-1,238.55	-20.12	988.06	701.58	286.49	3.449			
9,200.00	9,181.02	9,185.07	9,184.02	20.20	270.85	39.47	-1,238.55	-20.12	980.02	690.30	289.72	3.383			
9,300.00	9,280.48	9,284.53	9,283.48	20.45	273.85	39.86	-1,238.55	-20.12	972.02	679.07	292.96	3.318			
9,400.00	9,379.94	9,383.99	9,382.94	20.70	276.85	40.26	-1,238.55	-20.12	964.07	667.88	296.19	3.255			
9,500.00	9,479.41	9,483.47	9,482.41	20.96	279.86	40.66	-1,238.55	-20.12	956.16	656.73	299.44	3.193			
9,600.00	9,578.87	9,582.93	9,581.87	21.21	282.86	41.06	-1,238.55	-20.12	948.30	645.63	302.68	3.133			
9,700.00	9,678.33	9,682.39	9,681.33	21.47	285.86	41.48	-1,238.55	-20.12	940.49	634.57	305.93	3.074			

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



Integrity Directional Services, LLC

Anticollision Report



Company:	Legacy Reserves Operating	Local Co-ordinate Reference:	Well Hamon Fed Com A #6H
Project:	Lea County, NM	TVD Reference:	KB=18' @ 3628.00ft (McVay 4)
Reference Site:	Hamon Fed Pad	MD Reference:	KB=18' @ 3628.00ft (McVay 4)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Hamon Fed Com A #6H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Hamon Fed Pad - HAMON FEDERAL COM #001 - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 ft
Survey Program: 418-INC														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset		+N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)					
9,800.00	9,777.79	9,781.85	9,780.79	21.73	288.87	41.90	-1,238.55	-20.12	932.73	623.56	309.17	3.017			
9,832.06	9,809.68	9,813.74	9,812.68	21.81	289.83	42.03	-1,238.55	-20.12	930.26	620.04	310.22	2.999			
9,850.00	9,827.49	9,831.55	9,830.49	21.86	290.37	35.57	-1,238.55	-20.12	928.60	618.65	309.95	2.996			
9,900.00	9,876.73	9,880.79	9,879.73	22.00	291.85	27.16	-1,238.55	-20.12	921.13	613.39	307.74	2.993			
9,950.00	9,925.06	9,929.12	9,928.06	22.17	293.31	23.94	-1,238.55	-20.12	909.53	606.12	303.41	2.998			
10,000.00	9,972.12	9,976.20	9,975.12	22.36	294.73	22.65	-1,238.55	-20.12	893.90	596.82	297.08	3.009			
10,050.00	10,017.54	10,021.63	10,020.54	22.57	296.09	22.40	-1,238.55	-20.12	874.37	585.42	288.95	3.026			
10,100.00	10,060.99	10,065.08	10,063.99	22.80	297.40	22.87	-1,238.55	-20.12	851.13	571.75	279.38	3.046			
10,150.00	10,102.13	10,106.22	10,105.13	23.06	298.63	23.97	-1,238.55	-20.12	824.38	555.50	268.89	3.066			
10,200.00	10,140.65	10,144.74	10,143.65	23.35	299.78	25.70	-1,238.55	-20.12	794.37	536.09	258.28	3.076			
10,250.00	10,176.26	10,180.35	10,179.26	23.66	300.85	28.15	-1,238.55	-20.12	761.37	512.57	248.81	3.060			
10,300.00	10,208.68	10,212.77	10,211.68	24.01	301.82	31.45	-1,238.55	-20.12	725.69	483.45	242.24	2.996			
10,350.00	10,237.67	10,241.76	10,240.67	24.38	302.69	35.78	-1,238.55	-20.12	687.68	446.79	240.89	2.855			
10,400.00	10,263.01	10,267.10	10,266.01	24.79	303.45	41.39	-1,238.55	-20.12	647.70	400.66	247.05	2.622			
10,450.00	10,284.50	10,288.59	10,287.50	25.22	304.09	48.44	-1,238.55	-20.12	606.19	344.48	261.71	2.316			
10,500.00	10,301.99	10,306.07	10,304.99	25.68	304.61	56.95	-1,238.55	-20.12	563.60	280.67	282.93	1.992			
10,550.00	10,315.33	10,319.41	10,318.33	26.16	305.01	66.54	-1,238.55	-20.12	520.43	215.08	305.35	1.704			
10,600.00	10,324.43	10,328.51	10,327.43	26.67	305.28	76.36	-1,238.55	-20.12	477.26	154.68	322.59	1.479 Level 3			
10,650.00	10,329.21	10,333.30	10,332.21	27.20	305.43	85.36	-1,238.55	-20.12	434.74	103.51	331.23	1.313 Level 3			
10,680.01	10,330.00	10,334.08	10,333.00	27.52	305.45	90.00	-1,238.55	-20.12	409.82	77.15	332.67	1.232 Level 2			
10,700.00	10,330.00	10,334.08	10,333.00	27.74	305.45	90.00	-1,238.55	-20.12	393.60	60.71	332.89	1.182 Level 2			
10,800.00	10,330.00	10,334.08	10,333.00	28.88	305.45	90.00	-1,238.55	-20.12	318.93	-15.12	334.04	0.955 Level 1			
10,900.00	10,330.00	10,334.08	10,333.00	30.09	305.45	90.00	-1,238.55	-20.12	261.74	-73.52	335.26	0.781 Level 1			
11,000.00	10,330.00	10,334.08	10,333.00	31.36	305.45	90.00	-1,238.55	-20.12	235.16	-101.38	336.54	0.699 Level 1			
11,016.04	10,330.00	10,334.08	10,333.00	31.58	305.45	90.00	-1,238.55	-20.12	234.61	-102.14	336.76	0.697 Level 1, CC, ES, SF			
11,100.00	10,330.00	10,334.08	10,333.00	32.69	305.45	90.00	-1,238.55	-20.12	249.19	-88.69	337.88	0.738 Level 1			
11,200.00	10,330.00	10,334.08	10,333.00	34.06	305.45	90.00	-1,238.55	-20.12	298.14	-41.12	339.26	0.879 Level 1			
11,300.00	10,330.00	10,334.08	10,333.00	35.47	305.45	90.00	-1,238.55	-20.12	368.35	27.67	340.68	1.081 Level 2			
11,400.00	10,330.00	10,334.08	10,333.00	36.91	305.45	90.00	-1,238.55	-20.12	449.97	107.84	342.13	1.315 Level 3			
11,500.00	10,330.00	10,334.08	10,333.00	38.39	305.45	90.00	-1,238.55	-20.12	537.83	194.22	343.62	1.565			
11,600.00	10,330.00	10,334.08	10,333.00	39.90	305.45	90.00	-1,238.55	-20.12	629.33	284.20	345.13	1.823			
11,700.00	10,330.00	10,334.08	10,333.00	41.43	305.45	90.00	-1,238.55	-20.12	723.08	376.41	346.68	2.086			
11,800.00	10,330.00	10,334.08	10,333.00	42.99	305.45	90.00	-1,238.55	-20.12	818.32	470.08	348.24	2.350			
11,900.00	10,330.00	10,334.08	10,333.00	44.57	305.45	90.00	-1,238.55	-20.12	914.57	564.75	349.82	2.614			
12,000.00	10,330.00	10,334.08	10,333.00	46.16	305.45	90.00	-1,238.55	-20.12	1,011.55	660.12	351.43	2.878			
12,100.00	10,330.00	10,334.08	10,333.00	47.78	305.45	90.00	-1,238.55	-20.12	1,109.06	756.02	353.04	3.141			
12,200.00	10,330.00	10,334.08	10,333.00	49.40	305.45	90.00	-1,238.55	-20.12	1,206.99	852.31	354.68	3.403			
12,300.00	10,330.00	10,334.08	10,333.00	51.04	305.45	90.00	-1,238.55	-20.12	1,305.22	948.90	356.32	3.663			
12,400.00	10,330.00	10,334.08	10,333.00	52.70	305.45	90.00	-1,238.55	-20.12	1,403.71	1,045.73	357.98	3.921			
12,500.00	10,330.00	10,334.08	10,333.00	54.36	305.45	90.00	-1,238.55	-20.12	1,502.40	1,142.75	359.65	4.177			
12,600.00	10,330.00	10,334.08	10,333.00	56.04	305.45	90.00	-1,238.55	-20.12	1,601.25	1,239.92	361.33	4.432			
12,700.00	10,330.00	10,334.08	10,333.00	57.72	305.45	90.00	-1,238.55	-20.12	1,700.23	1,337.21	363.02	4.684			
12,800.00	10,330.00	10,334.08	10,333.00	59.41	305.45	90.00	-1,238.55	-20.12	1,799.33	1,434.61	364.71	4.934			
12,900.00	10,330.00	10,334.08	10,333.00	61.11	305.45	90.00	-1,238.55	-20.12	1,898.52	1,532.10	366.42	5.181			
13,000.00	10,330.00	10,334.08	10,333.00	62.82	305.45	90.00	-1,238.55	-20.12	1,997.79	1,629.66	368.13	5.427			
13,100.00	10,330.00	10,334.08	10,333.00	64.53	305.45	90.00	-1,238.55	-20.12	2,097.13	1,727.28	369.85	5.670			
13,200.00	10,330.00	10,334.08	10,333.00	66.25	305.45	90.00	-1,238.55	-20.12	2,196.53	1,824.96	371.57	5.912			
13,270.75	10,330.00	10,334.08	10,333.00	67.47	305.45	90.00	-1,238.55	-20.12	2,266.89	1,894.10	372.79	6.081			
13,300.00	10,330.15	10,334.23	10,333.15	67.92	305.46	95.68	-1,238.55	-20.12	2,295.98	1,924.45	371.53	6.180			
13,320.75	10,330.43	10,334.52	10,333.43	68.21	305.46	99.73	-1,238.55	-20.12	2,316.62	1,948.21	368.41	6.288			
13,400.00	10,331.82	10,335.90	10,334.82	69.43	305.51	100.06	-1,238.55	-20.12	2,395.47	2,026.15	369.32	6.486			
13,500.00	10,333.56	10,337.65	10,336.56	71.17	305.56	100.47	-1,238.55	-20.12	2,494.99	2,124.37	370.62	6.732			

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - HAMON FEDERAL COM #001 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 ft
Survey Program: 418-INC													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
13,600.00	10,335.31	10,339.39	10,338.31	72.91	305.61	100.88	-1,238.55	-20.12	2,594.55	2,222.65	371.90	6.976		
13,700.00	10,337.05	10,341.14	10,340.05	74.65	305.66	101.29	-1,238.55	-20.12	2,694.14	2,320.97	373.17	7.220		
13,800.00	10,338.80	10,342.88	10,341.80	76.40	305.72	101.70	-1,238.55	-20.12	2,793.76	2,419.34	374.42	7.462		
13,900.00	10,340.54	10,344.63	10,343.54	78.15	305.77	102.11	-1,238.55	-20.12	2,893.40	2,517.75	375.65	7.702		
14,000.00	10,342.29	10,346.37	10,345.29	79.91	305.82	102.51	-1,238.55	-20.12	2,993.07	2,616.20	376.87	7.942		
14,100.00	10,344.03	10,348.12	10,347.03	81.67	305.87	102.92	-1,238.55	-20.12	3,092.76	2,714.69	378.06	8.180		
14,200.00	10,345.78	10,349.86	10,348.78	83.43	305.92	103.32	-1,238.55	-20.12	3,192.46	2,813.22	379.24	8.418		
14,300.00	10,347.52	10,351.61	10,350.52	85.19	305.98	103.73	-1,238.55	-20.12	3,292.18	2,911.78	380.40	8.654		
14,400.00	10,349.27	10,353.35	10,352.27	86.96	306.03	104.13	-1,238.55	-20.12	3,391.92	3,010.38	381.54	8.890		
14,500.00	10,351.01	10,355.10	10,354.01	88.73	306.08	104.53	-1,238.55	-20.12	3,491.67	3,109.01	382.66	9.125		
14,600.00	10,352.76	10,356.85	10,355.76	90.50	306.13	104.93	-1,238.55	-20.12	3,591.44	3,207.67	383.77	9.358		
14,700.00	10,354.50	10,358.59	10,357.50	92.27	306.19	105.32	-1,238.55	-20.12	3,691.22	3,306.36	384.85	9.591		
14,800.00	10,356.25	10,360.34	10,359.25	94.05	306.24	105.72	-1,238.55	-20.12	3,791.00	3,405.09	385.92	9.823		
14,900.00	10,357.99	10,362.08	10,360.99	95.82	306.29	106.11	-1,238.55	-20.12	3,890.80	3,503.84	386.97	10.055		
15,000.00	10,359.74	10,363.83	10,362.74	97.60	306.34	106.51	-1,238.55	-20.12	3,990.61	3,602.61	387.99	10.285		
15,100.00	10,361.48	10,365.57	10,364.48	99.38	306.39	106.90	-1,238.55	-20.12	4,090.43	3,701.42	389.00	10.515		
15,200.00	10,363.23	10,367.32	10,366.23	101.17	306.45	107.29	-1,238.55	-20.12	4,190.25	3,800.25	390.00	10.744		
15,299.41	10,364.96	10,369.05	10,367.96	102.63	306.50	107.67	-1,238.55	-20.12	4,289.49	3,898.84	390.64	10.981		

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



Integrity Directional Services, LLC

Anticollision Report



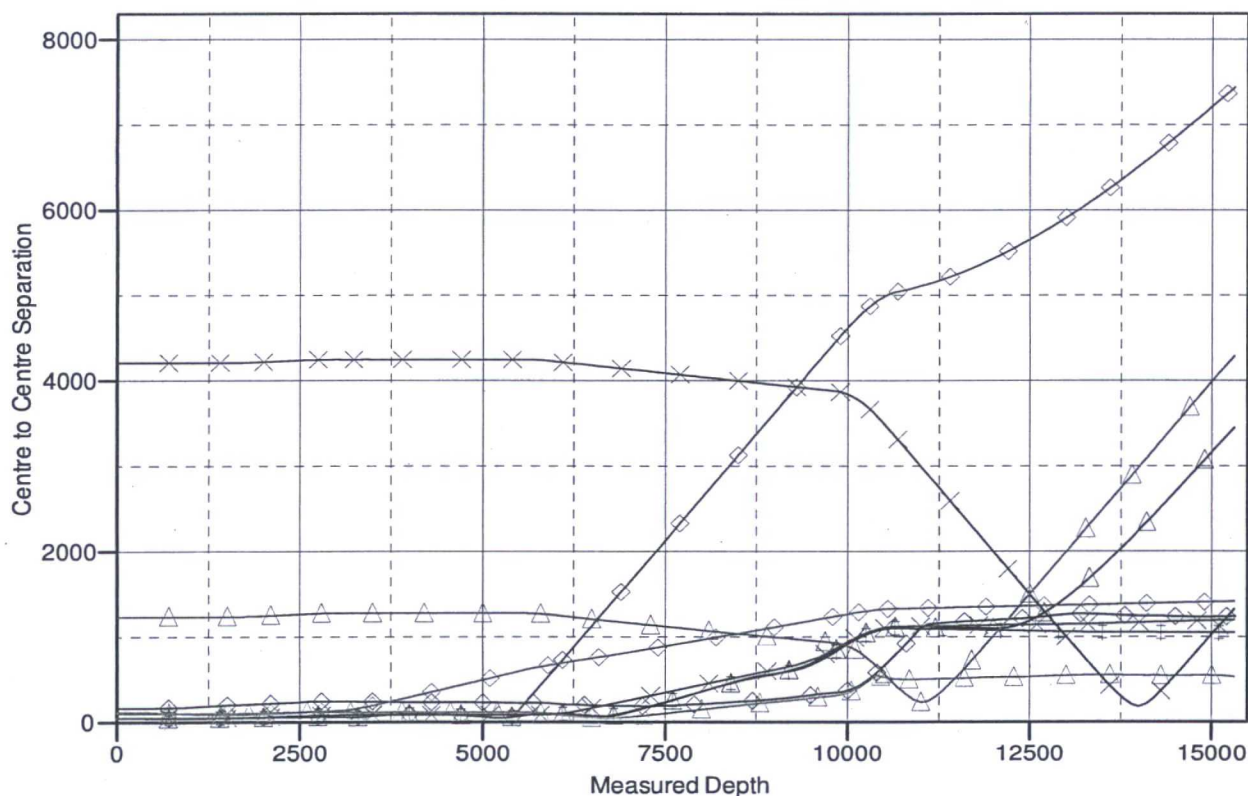
Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB=18' @ 3628.00ft (McVay 4)
Offset Depths are relative to Offset Datum
Central Meridian is -104.333333

Coordinates are relative to: Hamon Fed Com A #6H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.32°

Ladder Plot



LEGEND

nA#5H, Wellbore #2, Plan#4 V0
nA#5H, Wellbore #2, Wellbore #2 V0
nA#5H, Wellbore #1, Wellbore #1 V0

◆ Hamon Fed Com A 4H, Actual Wellbore, Actual Wellbore V0
◆ Hamon Fed Com A #8H, Wellbore #1, Plan #1 V0
✕ Hamon Fed Com A #7H, Wellbore #1, Plan#1 V0

▲ Hamon Fed Com A3H, Wellbore #1 A
✕ HAMON A FED #1, Wellbore #1, Wellbore #1 V0
▲ HAMON FEDERAL COM #001, Wellbore #1



Integrity Directional Services, LLC

Anticollision Report



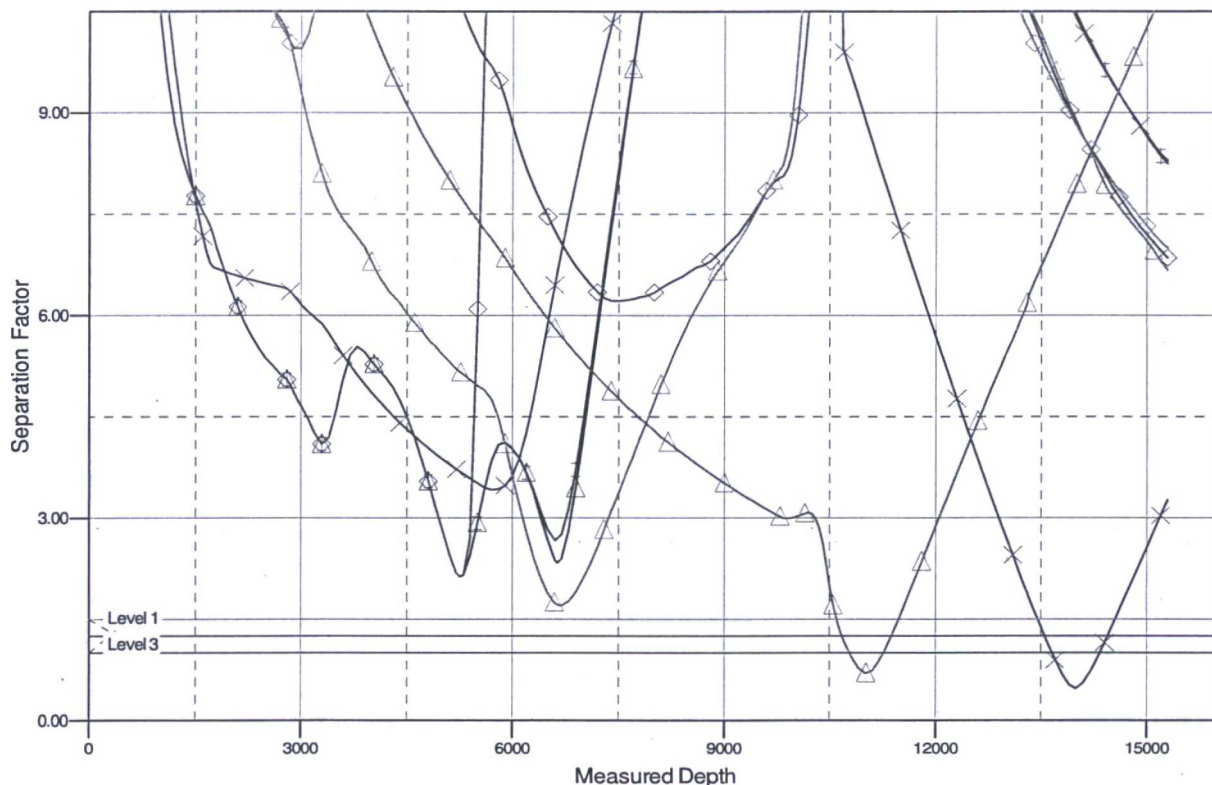
Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB=18' @ 3628.00ft (McVay 4)
Offset Depths are relative to Offset Datum
Central Meridian is -104.333333

Coordinates are relative to: Hamon Fed Com A #6H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.32°

Separation Factor Plot



LEGEND

n A #5H, Wellbore #2, Plan#4 V0	◆ Hamon Fed Com A4H, Actual Wellbore, Actual Wellbore V0	▲ Hamon Fed Com A3H, Wellbore #1 A
n A #5H, Wellbore #2, Wellbore #2 V0	◆ Hamon Fed Com A#8H, Wellbore #1, Plan #1 V0	✕ HAMON AFED #1, Wellbore #1, Wellbore
n A #5H, Wellbore #1, Wellbore #1 V0	✕ Hamon Fed Com A#7H, Wellbore #1, Plan#1 V0	▲ HAMON FEDERAL COM #001, Wellbore

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