

Well Name: PHANTOM BANK 31 FED COM	Well Location: T26S / R31E / SEC 32 / NWNW /	County or Parish/State: /
Well Number: 501HY	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM138868	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001549201	Well Status: Drilling Well	Operator: FLAT CREEK RESOURCES LLC

Notice of Intent

Sundry ID: 2660721

Type of Submission: Notice of Intent

Type of Action: Other

Date Sundry Submitted: 03/08/2022

Time Sundry Submitted: 09:38

Date proposed operation will begin: 03/11/2022

Procedure Description: Due to complications while drilling, Flat Creek Resources, LLC requests to skid the original wellbore of the Phantom Bank 31 Fed Com 501H (API# 30-015-49201). Flat Creek requests to change the original wellbore name from Phantom Bank 31 Fed Com 501H to Phantom Bank 31 Fed Com 501HY. Flat Creek requests to change the surface hole location from 700 FNL 300 FWL, NWNW, Sec. 32, T. 26S, R. 31E to 730 FNL 300 FWL, NWNW, Sec. 32, T. 26S, R. 31E and the bottom hole location from 380 FSL 30 FWL, Lot 2, Sec. 31, T. 26S, R. 31E to 480 FSL 30 FWL, Lot 2, Sec. 31, T. 26S, R. 31E. Please see the attached documents for additional information.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

501H_SkidSundry_Attachment_v2_20220308093454.pdf

Well Name: PHANTOM BANK 31 FED COM	Well Location: T26S / R31E / SEC 32 / NWNW /	County or Parish/State: /
Well Number: 501HY	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM138868	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001549201	Well Status: Drilling Well	Operator: FLAT CREEK RESOURCES LLC

Conditions of Approval

Specialist Review

32_26_31_D_Sundry_ID_2659997_Phantom_Bank_31_Fed_Com_501H_Eddy_NM138868_Flat_Creek_Resources_LL
C_13_22c_5_12_2021_LV_20220308131246.pdf

Phantom_Bank_31_Fed_Com_501H_Dr_COA_Sundry_ID_2659997_20220308131246.pdf

Authorized Officer

501H_SkidSundry_3160_3_20220308140136.pdf

Operator Certification

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

Operator Electronic Signature: BRIAN WOOD	Signed on: MAR 08, 2022 09:35 AM
Name: FLAT CREEK RESOURCES LLC	
Title: President	
Street Address: 37 VERANO LOOP	
City: SANTA FE	State: NM
Phone: (505) 466-8120	
Email address: AFMSS@PERMITSWEST.COM	

Field Representative

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

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Approved	Disposition Date: 03/08/2022
Signature: Chris Walls	

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

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

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

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-49332	² Pool Code 98319	³ Pool Name WILDCAT 015 G 06 S242630A;BONE SPRING
⁴ Property Code 327168	⁵ Property Name PHANTOM BANK 31 FED COM	⁶ Well Number 501H
⁷ OGRID No. 374034	⁸ Operator Name FLAT CREEK RESOURCES, LLC	⁹ Elevation 3129'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	32	26 SOUTH	31 EAST, N.M.P.M.		730'	NORTH	300'	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L2	31	26 SOUTH	31 EAST, N.M.P.M.		480'	SOUTH	30'	WEST	EDDY

¹² Dedicated Acres 264.48	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

PROPOSED LAST TAKE POINT X= 657,479' Y= 364,590' LAT. 32.001355° N LONG. 103.825323° W NAD 27 X= 698,666' Y= 364,647' LAT. 32.001480° N LONG. 103.825798° W NAD83/86	CORNER COORDINATES TABLE (NAD 27) A - Y=366245.06, X=657370.11 B - Y=366283.60, X=660040.51 C - Y=366321.04, X=662703.16 D - Y=366332.89, X=665368.25 E - Y=364109.66, X=657381.51 F - Y=364123.23, X=660052.17 G - Y=364137.17, X=662715.32 H - Y=364152.16, X=665379.32	PHANTOM BANK 31 FED COM NO. 501H WELL X= 663,007' Y= 365,592' LAT. 32.004037° N LONG. 103.807475° W NAD 27 X= 704,194' Y= 365,649' LAT. 32.004163° N LONG. 103.807949° W NAD83/86 ELEV. 0.0' NAVD88	¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> <u>Rodney Littleton</u> Feb 25, 2022 Signature Date Rodney Littleton Printed Name rodney.littleton@flatcreekresources.com E-mail Address
PROPOSED BOTTOM HOLE LOCATION X= 657,409' Y= 364,590' LAT. 32.001355° N LONG. 103.825549° W NAD 27 X= 698,596' Y= 364,647' LAT. 32.001480° N LONG. 103.826024° W NAD83/86	PROPOSED FIRST TAKE POINT X= 662,613' Y= 364,617' LAT. 32.001360° N LONG. 103.808763° W NAD 27 X= 703,800' Y= 364,674' LAT. 32.001486° N LONG. 103.809237° W NAD83/86	¹⁸ SURVEYOR CERTIFICATION <i>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.</i> 02/18/2022 Date of Survey Signature and Seal of Professional Surveyor ROBERT L. LASTRAPES NEW MEXICO 23006 02/21/2022 Certificate Number	

Changes to Plan

Original Well Name

From: Phantom Bank 31 Fed Com 501H

To: Phantom Bank 31 Fed Com 501HY

Surface Hole Location

From: 700 FNL 300 FWL, NWNW, Sec. 32, T. 26S, R. 31E

To: 730 FNL 300 FWL, NWNW, Sec. 32, T. 26S, R. 31E

First Take Point

From: 380 FSL 100 FEL, Lot 5, Sec. 31, T. 26S, R. 31E

To: 480 FSL 100 FEL, Lot 5, Sec. 31, T. 26S, R. 31E

Bottom Hole Location

From: 380 FSL 30 FWL, Lot 2, Sec. 31, T. 26S, R. 31E

To: 480 FSL 30 FWL, Lot 2, Sec. 31, T. 26S, R. 31E

Casing Program

From: 3-string

To: 4-string

No additional surface disturbance is required.

Please refer to the attached revised C-102, drill plan, and directional survey for additional information.

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM138868
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☒ Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator Flat Creek Resources, LLC		8. Lease Name and Well No. Phantom Bank 31 Fed Com 501H
3a. Address 777 Main Street, Suite 3600, Fort Worth, TX 76102		9. API Well No.
3b. Phone No. (include area code) (817) 310-8570		10. Field and Pool, or Exploratory WC 015 G06 S242630A; Bone Spring
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWNW / 730 FNL / 300 FWL / LAT 32.004163 / LONG -103.807949 At proposed prod. zone LOT 2 / 480 FSL / 30 FWL / LAT 32.001480 / LONG -103.826024		11. Sec., T. R. M. or Blk. and Survey or Area SEC 32/T26S/R31E/NMP
14. Distance in miles and direction from nearest town or post office* 38 miles		12. County or Parish EDDY
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 300 feet		13. State NM
16. No of acres in lease		17. Spacing Unit dedicated to this well 264
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 80 feet		20. BLM/BIA Bond No. in file FED: NMB001675
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3129 feet		22. Approximate date work will start* 3/4/2022
		23. Estimated duration 30 days
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature 	Name (Printed/Typed) Cory Walk	Date 3/3/2022
Title Agent		
Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	

Application approval 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.

Conditions of approval, if any, are attached.

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.

(Continued on page 2)

*(Instructions on page 2)



FLAT CREEK
RESOURCES

Well: Phantom Bank 31 Fed Com No. 501H
Site: Phantom Bank 31 Fed Com
Project: Eddy County, New Mexico NAD27 NM
Design: rev5
Rig: H&P 474

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Annotation
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	
2	3700.00	0.00	0.000	3700.00	0.00	0.00	0.00	0.00	KOP Begin 2°/100' build
3	4405.62	14.11	176.226	4398.51	-86.27	5.69	2.00	-5.25	Begin 14.11° tangent
4	7809.85	14.11	176.226	7700.00	-914.51	60.32	0.00	-55.63	Begin 2°/100' drop
5	8280.27	0.00	0.000	8165.67	-972.03	64.12	3.00	-59.13	Begin vertical hold
6	9930.69	0.00	0.000	9816.09	-972.03	64.12	0.00	-59.13	Begin 10°/100' build
7	10837.71	90.70	269.692	10389.00	-975.15	-515.85	10.00	520.85	Begin 90.70° lateral
8	15850.37	90.70	269.692	10327.61	-1002.07	-5528.07	0.00	5533.14	LTP 15850.37 MD 10327.61 TVD
9	15900.37	90.70	269.692	10327.00	-1002.34	-5578.06	0.00	5583.13	PBHL/TD 15900.37 MD 10327.00 TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
Phantom 501 FTP 480 FSL 100 FEL r4	10389.00	-975.74	-394.54	364616.575	662612.615
- plan misses target center by 11.31ft at 10717.73ft MD (10377.95 TVD, -974.50 N, -396.61 E)					
Phantom 501 LTP 480 FSL 100 FWL r4	10327.61	-1002.07	-5528.07	364590.241	657479.096
- plan hits target center					
Phantom 501 PBHL 480 FSL 50 FWL r4	10327.00	-1002.31	-5578.06	364590.000	657429.100
- plan misses target center by 0.03ft at 15900.37ft MD (10327.00 TVD, -1002.34 N, -5578.06 E)					
Phantom 501 vert	7700.00	-972.03	64.12	364620.280	663071.270
- plan misses target center by 55.96ft at 7822.59ft MD (7712.36 TVD, -917.57 N, 60.52 E)					



Azimuths to Grid North
True North: -0.28°
Magnetic North: 6.28°

Magnetic Field
Strength: 47269.6nT
Dip Angle: 59.64°
Date: 2/23/2022
Model: IGRF2020

Geodetic System: US State Plane 1927 (Exact solution)

Datum: NAD 1927 (NADCON CONUS)

Ellipsoid: Clarke 1866

Zone: New Mexico East 3001

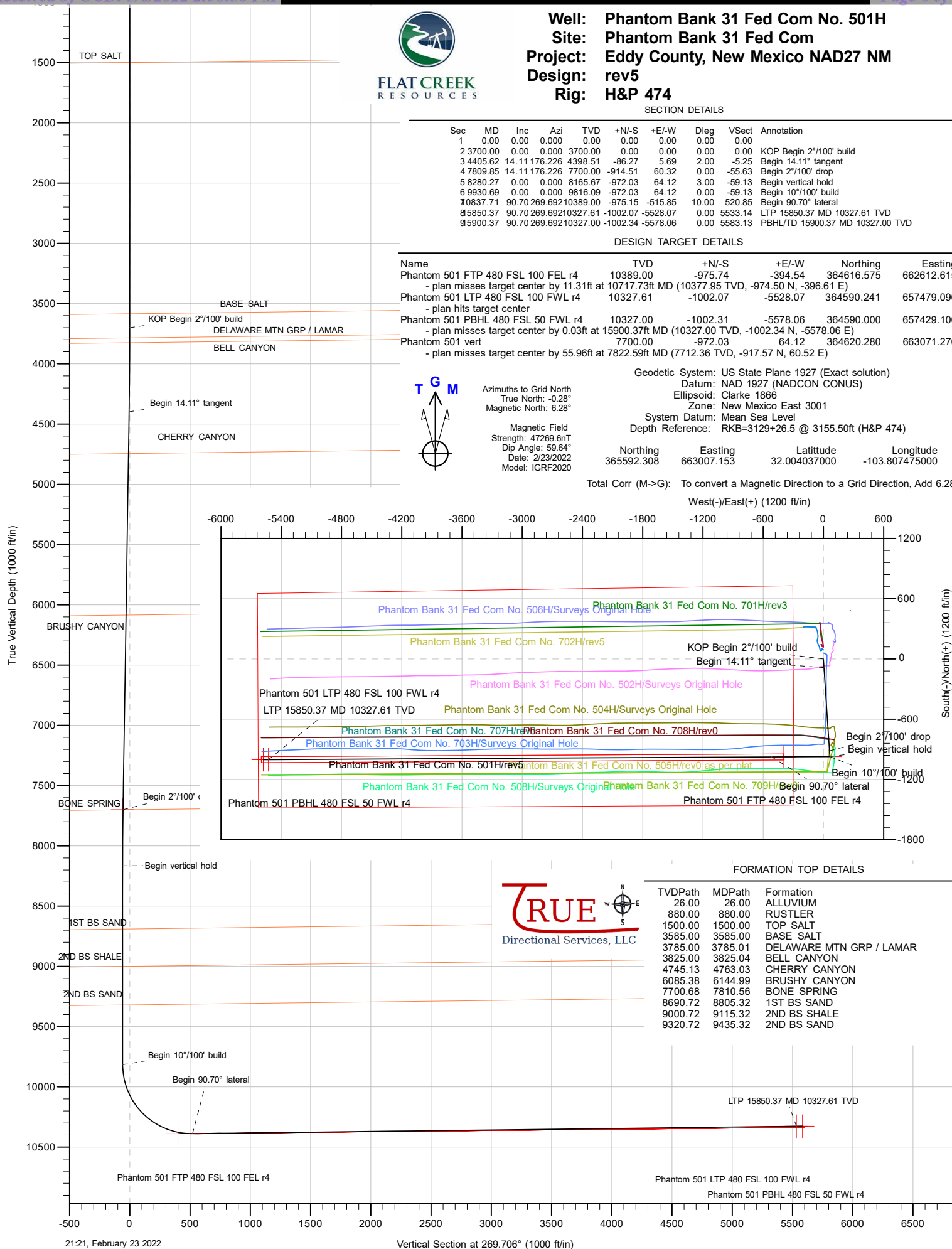
System Datum: Mean Sea Level

Depth Reference: RKB=3129+26.5 @ 3155.50ft (H&P 474)

Northing 365592.308 Easting 663007.153 Latitude 32.004037000 Longitude -103.807475000

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Add 6.28

West(-)/East(+) (1200 ft/in)



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
26.00	26.00	ALLUVIUM
880.00	880.00	RUSTLER
1500.00	1500.00	TOP SALT
3585.00	3585.00	BASE SALT
3785.00	3785.01	DELAWARE MTN GRP / LAMAR
3825.00	3825.04	BELL CANYON
4745.13	4763.03	CHERRY CANYON
6085.38	6144.99	BRUSHY CANYON
7700.68	7810.56	BONE SPRING
8690.72	8805.32	1ST BS SAND
9000.72	9115.32	2ND BS SHALE
9320.72	9435.32	2ND BS SAND

TRUE
Directional Services, LLC

21:21, February 23 2022

Vertical Section at 269.706° (1000 ft/in)

Sundry Notice Detail – Drilling Plan

Phantom Bank 31 Fed Com 501H

Notice of Intent:

Procedure Description: Move well surface location, add a string of casing, and revise bottom hole location.

Drilling Plan

Section 1 – Geologic Formations Change: No change

Section 2 – Blowout Preventer Testing Procedure: No change

Section 3 – Hole Size and Casing Change:

Surface: Change hole size from 14-3/4" to 17-1/2".
Change from 10-3/4" casing to 13-3/8" casing.

Intermediate 1: Add 12-1/4" hole size to 3700'.
Add 10-3/4" casing to 3700'. Revised casing to special clearance coupling of 11.4".

Intermediate 2: Hole size will remain 9-7/8".
Casing size will remain 7-5/8" set at 9820'.

Production: Hole size will remain 6-3/4".
Casing size remains 5-1/2" set at 15,900'.

5-1/2" casing will run from surface to 6700' (TCBC-HT connection, OD of coupling 6.3")

5-1/2" casing will run from 7700' to TD (approximately 15,900')
TCBC-HT connection, OD of coupling 5.9"

Section 4 – Cement Change:

Surface: Revised volumes and properties for revised casing size

- Lead cement: 575 sacks at 12.8 ppg, 1.68 cubic feet/sack yield (125% excess). TOC at surface.
- Tail cement: 380 sacks at 14.8 ppg, 1.34 cubic feet/sack yield (125% excess). TOC at 650'.

Intermediate 1: Volumes and properties for additional casing string.

- Lead cement: 440 sacks at 10.4 ppg, 2.29 cubic feet/sack yield (35% excess). TOC at surface.
- Tail cement: 120 sacks at 13.5 ppg, 1.74 cubic feet/sack yield (35% excess). TOC at 3000'.

Intermediate 2: Revised volumes and properties for revised casing depth.

- Lead cement: 1000 sacks at 10.4 ppg, 2.29 cubic feet/sack yield (35% excess). TOC at surface.
- Tail cement: 140 sacks at 13.5 ppg, 1.74 cubic feet/sack yield (35% excess). TOC at 9020'.

Production: Revised volumes to bring cement back to surface.

- Lead cement: 355 sacks at 10.4 ppg, 2.49 cubic feet/sack yield (0 % excess). TOC at surface.
- Tail cement: 500 sacks at 13.2 ppg, 1.45 cubic feet/sack yield (35% excess). TOC at 9520'.

Section 5 – Circulating Medium Change:

Surface: No change. Fresh water based mud at 8.4 ppg.

Intermediate 1: Added string of casing. Will drill this salt section with 10.0 ppg brine.

Intermediate 2: No change. Will drill this section with 10.0 ppg brine.

Production: Change from cut brine to oil based mud at 10.5 ppg.

Section 6 – Test, Logging, Coring: No change

Section 7 – Pressure: Change of pressure due to change in formation from Second Bone Spring to slightly over pressured Third Bone Spring.

Section 8 – Other Information: Change to new directional plan

Phantom Bank 31 Fed Com
Well: 501H
Casing Design Data

	Surface	Intermediate 1	Intermediate 2 or Liner	Production or Liner	Production 2
Top Setting Depth MD	0	0	0	0	6700
Top Setting Depth TVD	0	0	0	0	6700
Top Setting Depth MSL	3129	3129	3129	3129	-3571
Bottom Setting Depth MD	950	3700	9820	6700	15900
Bottom Setting Depth TVD	950	3700	9706	6700	10327
Bottom Setting Depth MSL	2179	-571	-6577	-3571	-7198
Calculated Casing Length MD	950	3700	9820	6700	9200
Size	13.375	10.75	7.625	5.5	5.5
Grade	J-55	J-55	P-110HC	P-110 HC	P-110 HC
Weight	54.5	45.5	29.7	20	20
Joint	BTC	BTC	BTC	TCBC-HT	TCBC-HT
Condition (new or used)	New	New	New	New	New
Standard (API, Non-API)	API	API	API	API	API
Tapered (Yes, No)	No	No	No	Yes	Yes
Collapse Design Safety Factor	2.5	1.1	1.4	3.2	2.1
Burst Design Safety Factor	6.1	1.7	1.9	3.3	2
Body Tensile Design Safety Factor type (Dry or Buoyant)	Dry	Dry	Dry	Dry	
Body Tensile Design Safety Factor type	13.2	4.2	3.2	4.8	Horizontal
Joint Tensile Design Safety Factor type (Dry or Buoyant)	Dry	Dry	Dry	Dry	
Joint Tensile Design Safety Factor type	14.1	4.7	3.3	4.8	Horizontal
Coupling OD				6.3"	5.9"

Casing Design Worksheet

Casing	13-3/8" 54.5, J-55, BTC	10-3/4", 45.5, J55, BTC
Collapse, psi	1130	2090
Internal Yield Pressure, psi	2730	3290
Body Yield, lbs.	853,000	715000
Joint Strength, lbs.	909,000	796000

Collapse Load

Surface

Intermediate 1

Depth, feet	950	3700
Mud Weight, ppg	9	10
Pressure, psi	444.6	1924
Design Safety Factor	2.5	1.1

Burst Load

Depth, feet	950	3700
Mud Weight, ppg	9	10
Pressure, psi	444.6	1924
Design Safety Factor	6.1	1.7

Body Tensile

Depth, feet	950	3700
Pipe Weight, ppf	68	45.5
String Weight, lbs.	64600	168350
Design Safety Factor	13.2	4.2

Joint Tensile

Depth, feet	950	3700
Pipe Weight, ppf	68	45.5
String Weight, lbs.	64600	168350
Design Safety Factor	14.1	4.7

7-5/8" 29.7#, P110HC, BTC

7150
9470
940000
960000

5-1/2" 20#, P-110HC, TCBC-HT
6.3" OD Coupling

11100
12640
641000
641000

Intermediate 2

9820
10
5106.4

1.4

Production Top

6700
10
3484

3.2

9820
10
5106.4

1.9

6700
11
3832.4

3.3

9820
29.7
291654

3.2

6700
20
134000

4.8

9820
29.7
291654

3.3

6700
20
134000

4.8

5-1/2" 20#, P-110HC, TCBC-HT

5.9" OD Coupling

11500

12000

600000

600000

Production Bottom

10327

10

5370.04

2.1

10327

11

5907.044

2.0

Horizontal

Horizontal



API BTC -Special Clearance

Coupling	Pipe Body
Grade: J55 (Casing)	Grade: J55 (Casing)
Body: Bright Green	1st Band: Bright Green
1st Band: White	2nd Band: -
2nd Band: -	3rd Band: -
3rd Band: -	4th Band: -

Outside Diameter	10.750 in.	Wall Thickness	0.400 in.	Grade	J55 (Casing)
Min. Wall Thickness	87.50 %	Pipe Body Drift	API Standard	Type	Casing
Connection OD Option	Special Clearance				

Pipe Body Data

Geometry				Performance	
Nominal OD	10.750 in.	Drift	9.794 in.	SMYS	55,000 psi
Wall Thickness	0.400 in.	Plain End Weight	44.26 lb/ft	Min UTS	75,000 psi
Nominal Weight	45.500 lb/ft	OD Tolerance	API	Body Yield Strength	715 x1000 lb
Nominal ID	9.950 in.			Min. Internal Yield Pressure	3580 psi
				Collapse Pressure	2090 psi
				Max. Allowed Bending	23 °/100 ft

Connection Data

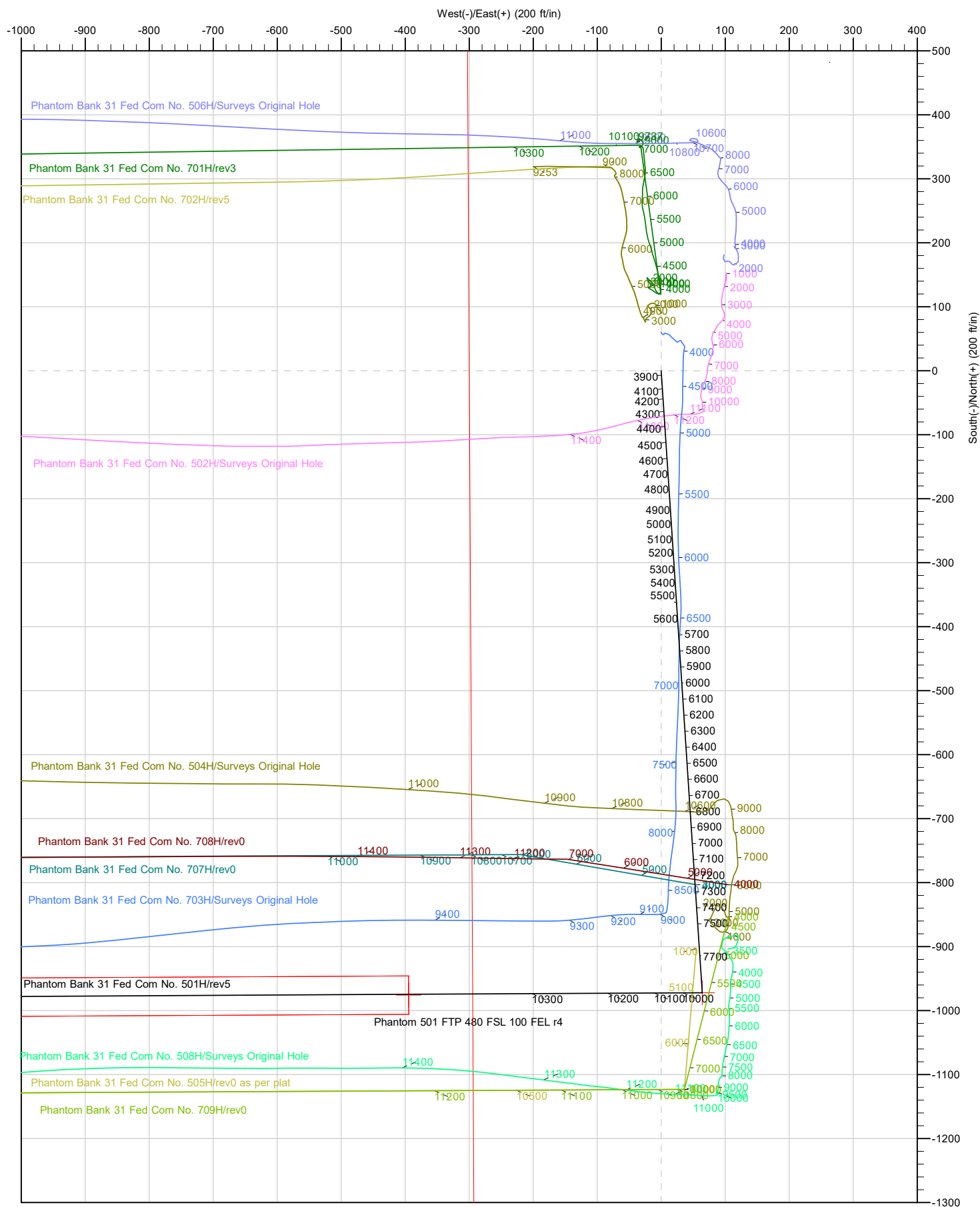
Geometry		Performance	
Thread per In	5	Joint Strength	796 x1000 lb
Connection OD	11.250 in.	Coupling Face Load	329 x1000 lb
Hand Tight Stand Off	1 in.	Internal Pressure Capacity	3290 psi

Notes

For products according to API Standards 5CT & 5B; Performance calculated considering API Technical Report 5C3 (Sections 9 & 10) equations.
For geometrical and steel grades combinations not considered in the API Standards 5CT and/or 5B; Performance calculations indirectly derived from API Technical Report 5C3 (Sections 9 & 10) equations.
Couplings OD are shown according to current API 5CT 10th Edition.
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Flat Creek Resources, LLC

Well: Phantom Bank 31 Fed Com No. 501H
Site: Phantom Bank 31 Fed Com
Project: Eddy County, New Mexico NAD27 NM
Design: rev5



FLAT CREEK
RESOURCES

Planning Report

Database:	DB_Feb1422LT	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Project	Eddy County, New Mexico NAD27 NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Phantom Bank 31 Fed Com		
Site Position:		Northing:	365,652.329 usft
From:	Lat/Long	Easting:	663,006.861 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	32.004202000
		Longitude:	-103.807475000

Well	Phantom Bank 31 Fed Com No. 501H, Surf loc: 730 FNL 300 FWL Section 32-T26S-R31E		
Well Position	+N/-S	0.00 ft	Northing: 365,592.308 usft
	+E/-W	0.00 ft	Easting: 663,007.153 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
Grid Convergence:	0.28 °	Ground Level:	3,129.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/23/2022	6.56	59.64	47,269.62156667

Design	rev5			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	269.706

Plan Survey Tool Program	Date	2/23/2022		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	15,900.24 rev5 (Original Hole)	MWD	
			OWSG MWD - Standard	

FLAT CREEK
RESOURCES

Planning Report

Database:	DB_Feb1422LT	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,700.00	0.00	0.000	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,405.62	14.11	176.226	4,398.51	-86.27	5.69	2.00	2.00	0.00	176.23	
7,809.85	14.11	176.226	7,700.00	-914.51	60.32	0.00	0.00	0.00	0.00	
8,280.27	0.00	0.000	8,165.67	-972.03	64.12	3.00	-3.00	0.00	180.00	
9,930.69	0.00	0.000	9,816.09	-972.03	64.12	0.00	0.00	0.00	0.00	
10,837.71	90.70	269.692	10,389.01	-975.15	-515.85	10.00	10.00	-9.96	269.69	
15,850.37	90.70	269.692	10,327.61	-1,002.07	-5,528.07	0.00	0.00	0.00	0.00	Phantom 501 LTP 480
15,900.37	90.70	269.692	10,327.00	-1,002.34	-5,578.06	0.00	0.00	0.00	0.00	Phantom 501 PBHL 4

FLAT CREEK
RESOURCES

Planning Report

Database:	DB_Feb1422LT	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.000	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.000	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.000	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.000	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.000	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.000	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.000	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.000	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.000	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.000	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.000	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.000	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.000	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.000	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.000	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.000	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.000	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.000	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.000	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.000	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.000	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.000	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.000	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.000	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.000	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.000	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 2°/100' build									
3,800.00	2.00	176.226	3,799.98	-1.74	0.11	-0.11	2.00	2.00	0.00
3,900.00	4.00	176.226	3,899.84	-6.96	0.46	-0.42	2.00	2.00	0.00
4,000.00	6.00	176.226	3,999.45	-15.66	1.03	-0.95	2.00	2.00	0.00
4,100.00	8.00	176.226	4,098.70	-27.82	1.84	-1.69	2.00	2.00	0.00
4,200.00	10.00	176.226	4,197.47	-43.43	2.86	-2.64	2.00	2.00	0.00
4,300.00	12.00	176.226	4,295.62	-62.47	4.12	-3.80	2.00	2.00	0.00
4,405.62	14.11	176.226	4,398.51	-86.27	5.69	-5.25	2.00	2.00	0.00
Begin 14.11° tangent									
4,500.00	14.11	176.226	4,490.04	-109.24	7.21	-6.64	0.00	0.00	0.00
4,600.00	14.11	176.226	4,587.02	-133.57	8.81	-8.12	0.00	0.00	0.00
4,700.00	14.11	176.226	4,684.00	-157.90	10.42	-9.60	0.00	0.00	0.00
4,800.00	14.11	176.226	4,780.98	-182.23	12.02	-11.08	0.00	0.00	0.00
4,900.00	14.11	176.226	4,877.97	-206.56	13.62	-12.56	0.00	0.00	0.00
5,000.00	14.11	176.226	4,974.95	-230.88	15.23	-14.04	0.00	0.00	0.00
5,100.00	14.11	176.226	5,071.93	-255.21	16.83	-15.52	0.00	0.00	0.00

FLAT CREEK
RESOURCES

Planning Report

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Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,200.00	14.11	176.226	5,168.91	-279.54	18.44	-17.00	0.00	0.00	0.00
5,300.00	14.11	176.226	5,265.89	-303.87	20.04	-18.48	0.00	0.00	0.00
5,400.00	14.11	176.226	5,362.88	-328.20	21.65	-19.96	0.00	0.00	0.00
5,500.00	14.11	176.226	5,459.86	-352.53	23.25	-21.44	0.00	0.00	0.00
5,600.00	14.11	176.226	5,556.84	-376.86	24.86	-22.92	0.00	0.00	0.00
5,700.00	14.11	176.226	5,653.82	-401.19	26.46	-24.40	0.00	0.00	0.00
5,800.00	14.11	176.226	5,750.80	-425.52	28.07	-25.88	0.00	0.00	0.00
5,900.00	14.11	176.226	5,847.79	-449.85	29.67	-27.36	0.00	0.00	0.00
6,000.00	14.11	176.226	5,944.77	-474.18	31.28	-28.84	0.00	0.00	0.00
6,100.00	14.11	176.226	6,041.75	-498.51	32.88	-30.32	0.00	0.00	0.00
6,200.00	14.11	176.226	6,138.73	-522.84	34.49	-31.80	0.00	0.00	0.00
6,300.00	14.11	176.226	6,235.71	-547.17	36.09	-33.28	0.00	0.00	0.00
6,400.00	14.11	176.226	6,332.69	-571.50	37.70	-34.76	0.00	0.00	0.00
6,500.00	14.11	176.226	6,429.68	-595.83	39.30	-36.24	0.00	0.00	0.00
6,600.00	14.11	176.226	6,526.66	-620.16	40.91	-37.72	0.00	0.00	0.00
6,700.00	14.11	176.226	6,623.64	-644.49	42.51	-39.20	0.00	0.00	0.00
6,800.00	14.11	176.226	6,720.62	-668.82	44.12	-40.68	0.00	0.00	0.00
6,900.00	14.11	176.226	6,817.60	-693.15	45.72	-42.16	0.00	0.00	0.00
7,000.00	14.11	176.226	6,914.59	-717.48	47.33	-43.64	0.00	0.00	0.00
7,100.00	14.11	176.226	7,011.57	-741.81	48.93	-45.12	0.00	0.00	0.00
7,200.00	14.11	176.226	7,108.55	-766.14	50.54	-46.60	0.00	0.00	0.00
7,300.00	14.11	176.226	7,205.53	-790.47	52.14	-48.08	0.00	0.00	0.00
7,400.00	14.11	176.226	7,302.51	-814.80	53.75	-49.56	0.00	0.00	0.00
7,500.00	14.11	176.226	7,399.50	-839.13	55.35	-51.04	0.00	0.00	0.00
7,600.00	14.11	176.226	7,496.48	-863.46	56.96	-52.52	0.00	0.00	0.00
7,700.00	14.11	176.226	7,593.46	-887.79	58.56	-54.00	0.00	0.00	0.00
7,809.85	14.11	176.226	7,700.00	-914.51	60.32	-55.63	0.00	0.00	0.00
Begin 2°/100' drop									
7,900.00	11.41	176.226	7,787.91	-934.38	61.63	-56.84	3.00	-3.00	0.00
8,000.00	8.41	176.226	7,886.41	-951.55	62.77	-57.88	3.00	-3.00	0.00
8,100.00	5.41	176.226	7,985.67	-963.55	63.56	-58.61	3.00	-3.00	0.00
8,200.00	2.41	176.226	8,085.43	-970.35	64.01	-59.03	3.00	-3.00	0.00
8,280.27	0.00	0.000	8,165.67	-972.03	64.12	-59.13	3.00	-3.00	0.00
Begin vertical hold									
8,300.00	0.00	0.000	8,185.40	-972.03	64.12	-59.13	0.00	0.00	0.00
8,400.00	0.00	0.000	8,285.40	-972.03	64.12	-59.13	0.00	0.00	0.00
8,500.00	0.00	0.000	8,385.40	-972.03	64.12	-59.13	0.00	0.00	0.00
8,600.00	0.00	0.000	8,485.40	-972.03	64.12	-59.13	0.00	0.00	0.00
8,700.00	0.00	0.000	8,585.40	-972.03	64.12	-59.13	0.00	0.00	0.00
8,800.00	0.00	0.000	8,685.40	-972.03	64.12	-59.13	0.00	0.00	0.00
8,900.00	0.00	0.000	8,785.40	-972.03	64.12	-59.13	0.00	0.00	0.00
9,000.00	0.00	0.000	8,885.40	-972.03	64.12	-59.13	0.00	0.00	0.00
9,100.00	0.00	0.000	8,985.40	-972.03	64.12	-59.13	0.00	0.00	0.00
9,200.00	0.00	0.000	9,085.40	-972.03	64.12	-59.13	0.00	0.00	0.00
9,300.00	0.00	0.000	9,185.40	-972.03	64.12	-59.13	0.00	0.00	0.00
9,400.00	0.00	0.000	9,285.40	-972.03	64.12	-59.13	0.00	0.00	0.00
9,500.00	0.00	0.000	9,385.40	-972.03	64.12	-59.13	0.00	0.00	0.00
9,600.00	0.00	0.000	9,485.40	-972.03	64.12	-59.13	0.00	0.00	0.00
9,700.00	0.00	0.000	9,585.40	-972.03	64.12	-59.13	0.00	0.00	0.00
9,800.00	0.00	0.000	9,685.40	-972.03	64.12	-59.13	0.00	0.00	0.00
9,900.00	0.00	0.000	9,785.40	-972.03	64.12	-59.13	0.00	0.00	0.00
9,930.69	0.00	0.000	9,816.09	-972.03	64.12	-59.13	0.00	0.00	0.00
Begin 10°/100' build									

FLAT CREEK
RESOURCES

Planning Report

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Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,950.00	1.93	269.692	9,835.40	-972.03	63.79	-58.80	10.00	10.00	0.00
10,000.00	6.93	269.692	9,885.23	-972.05	59.93	-54.94	10.00	10.00	0.00
10,050.00	11.93	269.692	9,934.54	-972.10	51.74	-46.75	10.00	10.00	0.00
10,100.00	16.93	269.692	9,982.95	-972.16	39.28	-34.29	10.00	10.00	0.00
10,150.00	21.93	269.692	10,030.09	-972.25	22.65	-17.67	10.00	10.00	0.00
10,200.00	26.93	269.692	10,075.59	-972.36	1.98	3.01	10.00	10.00	0.00
10,250.00	31.93	269.692	10,119.13	-972.50	-22.58	27.57	10.00	10.00	0.00
10,300.00	36.93	269.692	10,160.35	-972.65	-50.84	55.83	10.00	10.00	0.00
10,350.00	41.93	269.692	10,198.96	-972.82	-82.59	87.58	10.00	10.00	0.00
10,400.00	46.93	269.692	10,234.66	-973.01	-117.58	122.57	10.00	10.00	0.00
10,450.00	51.93	269.692	10,267.16	-973.21	-155.55	160.54	10.00	10.00	0.00
10,500.00	56.93	269.692	10,296.24	-973.43	-196.21	201.20	10.00	10.00	0.00
10,550.00	61.93	269.692	10,321.66	-973.66	-239.24	244.23	10.00	10.00	0.00
10,600.00	66.93	269.692	10,343.23	-973.90	-284.33	289.32	10.00	10.00	0.00
10,650.00	71.93	269.692	10,360.79	-974.15	-331.13	336.12	10.00	10.00	0.00
10,700.00	76.93	269.692	10,374.21	-974.41	-379.28	384.27	10.00	10.00	0.00
10,750.00	81.93	269.692	10,383.38	-974.68	-428.41	433.41	10.00	10.00	0.00
10,800.00	86.93	269.692	10,388.23	-974.94	-478.16	483.16	10.00	10.00	0.00
10,837.71	90.70	269.692	10,389.01	-975.15	-515.85	520.85	10.00	10.00	0.00
Begin 90.70° lateral									
10,900.00	90.70	269.692	10,388.24	-975.48	-578.14	583.14	0.00	0.00	0.00
11,000.00	90.70	269.692	10,387.02	-976.02	-678.13	683.13	0.00	0.00	0.00
11,100.00	90.70	269.692	10,385.79	-976.55	-778.12	783.12	0.00	0.00	0.00
11,200.00	90.70	269.692	10,384.57	-977.09	-878.11	883.11	0.00	0.00	0.00
11,300.00	90.70	269.692	10,383.34	-977.63	-978.10	983.11	0.00	0.00	0.00
11,400.00	90.70	269.692	10,382.12	-978.17	-1,078.09	1,083.10	0.00	0.00	0.00
11,500.00	90.70	269.692	10,380.89	-978.70	-1,178.08	1,183.09	0.00	0.00	0.00
11,600.00	90.70	269.692	10,379.67	-979.24	-1,278.08	1,283.08	0.00	0.00	0.00
11,700.00	90.70	269.692	10,378.44	-979.78	-1,378.07	1,383.08	0.00	0.00	0.00
11,800.00	90.70	269.692	10,377.22	-980.31	-1,478.06	1,483.07	0.00	0.00	0.00
11,900.00	90.70	269.692	10,375.99	-980.85	-1,578.05	1,583.06	0.00	0.00	0.00
12,000.00	90.70	269.692	10,374.77	-981.39	-1,678.04	1,683.05	0.00	0.00	0.00
12,100.00	90.70	269.692	10,373.54	-981.93	-1,778.03	1,783.05	0.00	0.00	0.00
12,200.00	90.70	269.692	10,372.32	-982.46	-1,878.02	1,883.04	0.00	0.00	0.00
12,300.00	90.70	269.692	10,371.09	-983.00	-1,978.01	1,983.03	0.00	0.00	0.00
12,400.00	90.70	269.692	10,369.87	-983.54	-2,078.00	2,083.02	0.00	0.00	0.00
12,500.00	90.70	269.692	10,368.65	-984.07	-2,178.00	2,183.02	0.00	0.00	0.00
12,600.00	90.70	269.692	10,367.42	-984.61	-2,277.99	2,283.01	0.00	0.00	0.00
12,700.00	90.70	269.692	10,366.20	-985.15	-2,377.98	2,383.00	0.00	0.00	0.00
12,800.00	90.70	269.692	10,364.97	-985.69	-2,477.97	2,482.99	0.00	0.00	0.00
12,900.00	90.70	269.692	10,363.75	-986.22	-2,577.96	2,582.99	0.00	0.00	0.00
13,000.00	90.70	269.692	10,362.52	-986.76	-2,677.95	2,682.98	0.00	0.00	0.00
13,100.00	90.70	269.692	10,361.30	-987.30	-2,777.94	2,782.97	0.00	0.00	0.00
13,200.00	90.70	269.692	10,360.07	-987.83	-2,877.93	2,882.96	0.00	0.00	0.00
13,300.00	90.70	269.692	10,358.85	-988.37	-2,977.92	2,982.96	0.00	0.00	0.00
13,400.00	90.70	269.692	10,357.62	-988.91	-3,077.92	3,082.95	0.00	0.00	0.00
13,500.00	90.70	269.692	10,356.40	-989.44	-3,177.91	3,182.94	0.00	0.00	0.00
13,600.00	90.70	269.692	10,355.17	-989.98	-3,277.90	3,282.93	0.00	0.00	0.00
13,700.00	90.70	269.692	10,353.95	-990.52	-3,377.89	3,382.93	0.00	0.00	0.00
13,800.00	90.70	269.692	10,352.72	-991.06	-3,477.88	3,482.92	0.00	0.00	0.00
13,900.00	90.70	269.692	10,351.50	-991.59	-3,577.87	3,582.91	0.00	0.00	0.00
14,000.00	90.70	269.692	10,350.27	-992.13	-3,677.86	3,682.90	0.00	0.00	0.00
14,100.00	90.70	269.692	10,349.05	-992.67	-3,777.85	3,782.90	0.00	0.00	0.00
14,200.00	90.70	269.692	10,347.82	-993.20	-3,877.84	3,882.89	0.00	0.00	0.00

FLAT CREEK
RESOURCES

Planning Report

Database:	DB_Feb1422LT	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
14,300.00	90.70	269.692	10,346.60	-993.74	-3,977.83	3,982.88	0.00	0.00	0.00
14,400.00	90.70	269.692	10,345.37	-994.28	-4,077.83	4,082.87	0.00	0.00	0.00
14,500.00	90.70	269.692	10,344.15	-994.82	-4,177.82	4,182.87	0.00	0.00	0.00
14,600.00	90.70	269.692	10,342.92	-995.35	-4,277.81	4,282.86	0.00	0.00	0.00
14,700.00	90.70	269.692	10,341.70	-995.89	-4,377.80	4,382.85	0.00	0.00	0.00
14,800.00	90.70	269.692	10,340.48	-996.43	-4,477.79	4,482.84	0.00	0.00	0.00
14,900.00	90.70	269.692	10,339.25	-996.96	-4,577.78	4,582.84	0.00	0.00	0.00
15,000.00	90.70	269.692	10,338.03	-997.50	-4,677.77	4,682.83	0.00	0.00	0.00
15,100.00	90.70	269.692	10,336.80	-998.04	-4,777.76	4,782.82	0.00	0.00	0.00
15,200.00	90.70	269.692	10,335.58	-998.58	-4,877.75	4,882.81	0.00	0.00	0.00
15,300.00	90.70	269.692	10,334.35	-999.11	-4,977.75	4,982.81	0.00	0.00	0.00
15,400.00	90.70	269.692	10,333.13	-999.65	-5,077.74	5,082.80	0.00	0.00	0.00
15,500.00	90.70	269.692	10,331.90	-1,000.19	-5,177.73	5,182.79	0.00	0.00	0.00
15,600.00	90.70	269.692	10,330.68	-1,000.72	-5,277.72	5,282.78	0.00	0.00	0.00
15,700.00	90.70	269.692	10,329.45	-1,001.26	-5,377.71	5,382.78	0.00	0.00	0.00
15,800.00	90.70	269.692	10,328.23	-1,001.80	-5,477.70	5,482.77	0.00	0.00	0.00
15,850.37	90.70	269.692	10,327.61	-1,002.07	-5,528.07	5,533.14	0.00	0.00	0.00
LTP 15850.37 MD 10327.61 TVD									
15,900.37	90.70	269.692	10,327.00	-1,002.34	-5,578.06	5,583.13	0.00	0.00	0.00
PBHL/TD 15900.37 MD 10327.00 TVD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Phantom 501 vert - plan misses target center by 55.96ft at 7822.59ft MD (7712.36 TVD, -917.57 N, 60.52 E) - Point	0.00	0.000	7,700.00	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
Phantom 501 PBHL 480 - plan misses target center by 0.03ft at 15900.37ft MD (10327.00 TVD, -1002.34 N, -5578.06 E) - Point	0.00	0.000	10,327.00	-1,002.31	-5,578.06	364,590.000	657,429.100	32.001354983	-103.825484279
Phantom 501 LTP 480 F - plan hits target center - Point	0.00	0.000	10,327.61	-1,002.07	-5,528.07	364,590.241	657,479.095	32.001355000	-103.825323000
Phantom 501 FTP 480 F - plan misses target center by 11.31ft at 10717.73ft MD (10377.95 TVD, -974.50 N, -396.61 E) - Rectangle (sides W60.00 H5,203.93 D0.00)	0.57	89.710	10,389.00	-975.74	-394.54	364,616.574	662,612.615	32.001360000	-103.808763000

FLAT CREEK
RESOURCES

Planning Report

Database:	DB_Feb1422LT	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
26.00	26.00	ALLUVIUM		-0.70	269.710	
880.00	880.00	RUSTLER		-0.70	269.710	
1,500.00	1,500.00	TOP SALT		-0.70	269.710	
3,585.00	3,585.00	BASE SALT		-0.70	269.710	
3,785.01	3,785.00	DELAWARE MTN GRP / LAMAR		-0.70	269.710	
3,825.04	3,825.00	BELL CANYON		-0.70	269.710	
4,763.03	4,745.13	CHERRY CANYON		-0.70	269.710	
6,144.99	6,085.38	BRUSHY CANYON		-0.70	269.710	
7,810.56	7,700.68	BONE SPRING		-0.70	269.710	
8,805.32	8,690.72	1ST BS SAND		-0.70	269.710	
9,115.32	9,000.72	2ND BS SHALE		-0.70	269.710	
9,435.32	9,320.72	2ND BS SAND		-0.70	269.710	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
3,700.00	3,700.00	0.00	0.00	KOP Begin 2°/100' build	
4,405.62	4,398.51	-86.27	5.69	Begin 14.11° tangent	
7,809.85	7,700.00	-914.51	60.32	Begin 2°/100' drop	
8,280.27	8,165.67	-972.03	64.12	Begin vertical hold	
9,930.69	9,816.09	-972.03	64.12	Begin 10°/100' build	
10,837.71	10,389.01	-975.15	-515.85	Begin 90.70° lateral	
15,850.37	10,327.61	-1,002.07	-5,528.07	LTP 15850.37 MD 10327.61 TVD	
15,900.37	10,327.00	-1,002.34	-5,578.06	PBHL/TD 15900.37 MD 10327.00 TVD	

FLAT CREEK
RESOURCES

Planning Report - Geographic

Database:	DB_Feb1422LT	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Project	Eddy County, New Mexico NAD27 NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Phantom Bank 31 Fed Com				
Site Position:		Northing:	365,652.329 usft	Latitude:	32.004202000
From:	Lat/Long	Easting:	663,006.861 usft	Longitude:	-103.807475000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Phantom Bank 31 Fed Com No. 501H, Surf loc: 730 FNL 300 FWL Section 32-T26S-R31E					
Well Position	+N/-S	0.00 ft	Northing:	365,592.308 usft	Latitude:	32.004037000
	+E/-W	0.00 ft	Easting:	663,007.153 usft	Longitude:	-103.807475000
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,129.00 ft
Grid Convergence:		0.28 °				

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/23/2022	6.56	59.64	47,269.62156667

Design	rev5			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	269.706

Plan Survey Tool Program	Date	2/23/2022		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	15,900.24 rev5 (Original Hole)	MWD	
			OWSG MWD - Standard	

FLAT CREEK
RESOURCES

Planning Report - Geographic

Database:	DB_Feb1422LT	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,700.00	0.00	0.000	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,405.62	14.11	176.226	4,398.51	-86.27	5.69	2.00	2.00	0.00	176.23	
7,809.85	14.11	176.226	7,700.00	-914.51	60.32	0.00	0.00	0.00	0.00	
8,280.27	0.00	0.000	8,165.67	-972.03	64.12	3.00	-3.00	0.00	180.00	
9,930.69	0.00	0.000	9,816.09	-972.03	64.12	0.00	0.00	0.00	0.00	
10,837.71	90.70	269.692	10,389.01	-975.15	-515.85	10.00	10.00	-9.96	269.69	
15,850.37	90.70	269.692	10,327.61	-1,002.07	-5,528.07	0.00	0.00	0.00	0.00	Phantom 501 LTP 480
15,900.37	90.70	269.692	10,327.00	-1,002.34	-5,578.06	0.00	0.00	0.00	0.00	Phantom 501 PBHL 4

FLAT CREEK
RESOURCES

Planning Report - Geographic

Database:	DB_Feb1422LT	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.000	0.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
100.00	0.00	0.000	100.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
200.00	0.00	0.000	200.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
300.00	0.00	0.000	300.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
400.00	0.00	0.000	400.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
500.00	0.00	0.000	500.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
600.00	0.00	0.000	600.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
700.00	0.00	0.000	700.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
800.00	0.00	0.000	800.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
900.00	0.00	0.000	900.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
1,000.00	0.00	0.000	1,000.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
1,100.00	0.00	0.000	1,100.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
1,200.00	0.00	0.000	1,200.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
1,300.00	0.00	0.000	1,300.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
1,400.00	0.00	0.000	1,400.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
1,500.00	0.00	0.000	1,500.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
1,600.00	0.00	0.000	1,600.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
1,700.00	0.00	0.000	1,700.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
1,800.00	0.00	0.000	1,800.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
1,900.00	0.00	0.000	1,900.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
2,000.00	0.00	0.000	2,000.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
2,100.00	0.00	0.000	2,100.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
2,200.00	0.00	0.000	2,200.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
2,300.00	0.00	0.000	2,300.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
2,400.00	0.00	0.000	2,400.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
2,500.00	0.00	0.000	2,500.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
2,600.00	0.00	0.000	2,600.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
2,700.00	0.00	0.000	2,700.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
2,800.00	0.00	0.000	2,800.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
2,900.00	0.00	0.000	2,900.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
3,000.00	0.00	0.000	3,000.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
3,100.00	0.00	0.000	3,100.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
3,200.00	0.00	0.000	3,200.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
3,300.00	0.00	0.000	3,300.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
3,400.00	0.00	0.000	3,400.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
3,500.00	0.00	0.000	3,500.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
3,600.00	0.00	0.000	3,600.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
3,700.00	0.00	0.000	3,700.00	0.00	0.00	365,592.308	663,007.153	32.004037000	-103.807475000
KOP Begin 2°/100' build									
3,800.00	2.00	176.226	3,799.98	-1.74	0.11	365,590.566	663,007.268	32.004032212	-103.807474657
3,900.00	4.00	176.226	3,899.84	-6.96	0.46	365,585.345	663,007.612	32.004017852	-103.807473627
4,000.00	6.00	176.226	3,999.45	-15.66	1.03	365,576.648	663,008.186	32.003993939	-103.807471913
4,100.00	8.00	176.226	4,098.70	-27.82	1.84	365,564.488	663,008.988	32.003960501	-103.807469517
4,200.00	10.00	176.226	4,197.47	-43.43	2.86	365,548.880	663,010.017	32.003917579	-103.807466441
4,300.00	12.00	176.226	4,295.62	-62.47	4.12	365,529.841	663,011.273	32.003865226	-103.807462688
4,405.62	14.11	176.226	4,398.51	-86.27	5.69	365,506.033	663,012.844	32.003799758	-103.807457996
Begin 14.11° tangent									
4,500.00	14.11	176.226	4,490.04	-109.24	7.21	365,483.072	663,014.358	32.003736616	-103.807453470
4,600.00	14.11	176.226	4,587.02	-133.57	8.81	365,458.742	663,015.963	32.003669713	-103.807448675
4,700.00	14.11	176.226	4,684.00	-157.90	10.42	365,434.412	663,017.568	32.003602810	-103.807443880
4,800.00	14.11	176.226	4,780.98	-182.23	12.02	365,410.083	663,019.173	32.003535907	-103.807439085
4,900.00	14.11	176.226	4,877.97	-206.56	13.62	365,385.753	663,020.778	32.003469004	-103.807434290
5,000.00	14.11	176.226	4,974.95	-230.88	15.23	365,361.423	663,022.382	32.003402101	-103.807429495
5,100.00	14.11	176.226	5,071.93	-255.21	16.83	365,337.094	663,023.987	32.003335198	-103.807424699

FLAT CREEK
RESOURCES

Planning Report - Geographic

Database:	DB_Feb1422LT	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,200.00	14.11	176.226	5,168.91	-279.54	18.44	365,312.764	663,025.592	32.003268295	-103.807419904
5,300.00	14.11	176.226	5,265.89	-303.87	20.04	365,288.435	663,027.197	32.003201392	-103.807415109
5,400.00	14.11	176.226	5,362.88	-328.20	21.65	365,264.105	663,028.802	32.003134488	-103.807410314
5,500.00	14.11	176.226	5,459.86	-352.53	23.25	365,239.775	663,030.406	32.003067585	-103.807405519
5,600.00	14.11	176.226	5,556.84	-376.86	24.86	365,215.446	663,032.011	32.003000682	-103.807400724
5,700.00	14.11	176.226	5,653.82	-401.19	26.46	365,191.116	663,033.616	32.002933779	-103.807395929
5,800.00	14.11	176.226	5,750.80	-425.52	28.07	365,166.786	663,035.221	32.002866876	-103.807391134
5,900.00	14.11	176.226	5,847.79	-449.85	29.67	365,142.457	663,036.826	32.002799973	-103.807386339
6,000.00	14.11	176.226	5,944.77	-474.18	31.28	365,118.127	663,038.431	32.002733070	-103.807381544
6,100.00	14.11	176.226	6,041.75	-498.51	32.88	365,093.797	663,040.035	32.002666167	-103.807376749
6,200.00	14.11	176.226	6,138.73	-522.84	34.49	365,069.468	663,041.640	32.002599264	-103.807371953
6,300.00	14.11	176.226	6,235.71	-547.17	36.09	365,045.138	663,043.245	32.002532360	-103.807367158
6,400.00	14.11	176.226	6,332.69	-571.50	37.70	365,020.808	663,044.850	32.002465457	-103.807362363
6,500.00	14.11	176.226	6,429.68	-595.83	39.30	364,996.479	663,046.455	32.002398554	-103.807357568
6,600.00	14.11	176.226	6,526.66	-620.16	40.91	364,972.149	663,048.060	32.002331651	-103.807352773
6,700.00	14.11	176.226	6,623.64	-644.49	42.51	364,947.819	663,049.664	32.002264748	-103.807347978
6,800.00	14.11	176.226	6,720.62	-668.82	44.12	364,923.490	663,051.269	32.002197845	-103.807343183
6,900.00	14.11	176.226	6,817.60	-693.15	45.72	364,899.160	663,052.874	32.002130942	-103.807338388
7,000.00	14.11	176.226	6,914.59	-717.48	47.33	364,874.830	663,054.479	32.002064039	-103.807333593
7,100.00	14.11	176.226	7,011.57	-741.81	48.93	364,850.501	663,056.084	32.001997135	-103.807328798
7,200.00	14.11	176.226	7,108.55	-766.14	50.54	364,826.171	663,057.689	32.001930232	-103.807324003
7,300.00	14.11	176.226	7,205.53	-790.47	52.14	364,801.841	663,059.293	32.001863329	-103.807319208
7,400.00	14.11	176.226	7,302.51	-814.80	53.75	364,777.512	663,060.898	32.001796426	-103.807314413
7,500.00	14.11	176.226	7,399.50	-839.13	55.35	364,753.182	663,062.503	32.001729523	-103.807309618
7,600.00	14.11	176.226	7,496.48	-863.46	56.96	364,728.852	663,064.108	32.001662620	-103.807304823
7,700.00	14.11	176.226	7,593.46	-887.79	58.56	364,704.523	663,065.713	32.001595717	-103.807300028
7,809.85	14.11	176.226	7,700.00	-914.51	60.32	364,677.796	663,067.476	32.001522222	-103.807294761
Begin 2°/100' drop									
7,900.00	11.41	176.226	7,787.91	-934.38	61.63	364,657.930	663,068.786	32.001467593	-103.807290846
8,000.00	8.41	176.226	7,886.41	-951.55	62.77	364,640.763	663,069.918	32.001420385	-103.807287462
8,100.00	5.41	176.226	7,985.67	-963.55	63.56	364,628.763	663,070.710	32.001387387	-103.807285097
8,200.00	2.41	176.226	8,085.43	-970.35	64.01	364,621.963	663,071.159	32.001368688	-103.807283757
8,280.27	0.00	0.000	8,165.67	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
Begin vertical hold									
8,300.00	0.00	0.000	8,185.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
8,400.00	0.00	0.000	8,285.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
8,500.00	0.00	0.000	8,385.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
8,600.00	0.00	0.000	8,485.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
8,700.00	0.00	0.000	8,585.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
8,800.00	0.00	0.000	8,685.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
8,900.00	0.00	0.000	8,785.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
9,000.00	0.00	0.000	8,885.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
9,100.00	0.00	0.000	8,985.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
9,200.00	0.00	0.000	9,085.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
9,300.00	0.00	0.000	9,185.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
9,400.00	0.00	0.000	9,285.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
9,500.00	0.00	0.000	9,385.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
9,600.00	0.00	0.000	9,485.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
9,700.00	0.00	0.000	9,585.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
9,800.00	0.00	0.000	9,685.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
9,900.00	0.00	0.000	9,785.40	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
9,930.69	0.00	0.000	9,816.09	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425
Begin 10°/100' build									
9,950.00	1.93	269.692	9,835.40	-972.03	63.79	364,620.278	663,070.944	32.001364059	-103.807284475

FLAT CREEK
RESOURCES

Planning Report - Geographic

Database:	DB_Feb1422LT	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,000.00	6.93	269.692	9,885.23	-972.05	59.93	364,620.257	663,067.082	32.001364054	-103.807296933
10,050.00	11.93	269.692	9,934.54	-972.10	51.74	364,620.213	663,058.892	32.001364043	-103.807323354
10,100.00	16.93	269.692	9,982.95	-972.16	39.28	364,620.146	663,046.435	32.001364025	-103.807363537
10,150.00	21.93	269.692	10,030.09	-972.25	22.65	364,620.057	663,029.807	32.001364002	-103.807417177
10,200.00	26.93	269.692	10,075.59	-972.36	1.98	364,619.946	663,009.134	32.001363973	-103.807483866
10,250.00	31.93	269.692	10,119.13	-972.50	-22.58	364,619.814	662,984.573	32.001363939	-103.807563095
10,300.00	36.93	269.692	10,160.35	-972.65	-50.84	364,619.662	662,956.312	32.001363900	-103.807654262
10,350.00	41.93	269.692	10,198.96	-972.82	-82.59	364,619.492	662,924.565	32.001363855	-103.807756673
10,400.00	46.93	269.692	10,234.66	-973.01	-117.58	364,619.304	662,889.574	32.001363806	-103.807869549
10,450.00	51.93	269.692	10,267.16	-973.21	-155.55	364,619.100	662,851.605	32.001363752	-103.807992030
10,500.00	56.93	269.692	10,296.24	-973.43	-196.21	364,618.881	662,810.948	32.001363695	-103.808123185
10,550.00	61.93	269.692	10,321.66	-973.66	-239.24	364,618.650	662,767.912	32.001363634	-103.808262015
10,600.00	66.93	269.692	10,343.23	-973.90	-284.33	364,618.408	662,722.823	32.001363570	-103.808407463
10,650.00	71.93	269.692	10,360.79	-974.15	-331.13	364,618.157	662,676.026	32.001363504	-103.808558424
10,700.00	76.93	269.692	10,374.21	-974.41	-379.28	364,617.898	662,627.877	32.001363435	-103.808713747
10,750.00	81.93	269.692	10,383.38	-974.68	-428.41	364,617.634	662,578.742	32.001363365	-103.808872250
10,800.00	86.93	269.692	10,388.23	-974.94	-478.16	364,617.367	662,528.994	32.001363294	-103.809032728
10,837.71	90.70	269.692	10,389.01	-975.15	-515.85	364,617.164	662,491.304	32.001363240	-103.809154313
Begin 90.70° lateral									
10,900.00	90.70	269.692	10,388.24	-975.48	-578.14	364,616.830	662,429.015	32.001363150	-103.809355246
11,000.00	90.70	269.692	10,387.02	-976.02	-678.13	364,616.293	662,329.025	32.001363005	-103.809677802
11,100.00	90.70	269.692	10,385.79	-976.55	-778.12	364,615.756	662,229.034	32.001362860	-103.810000359
11,200.00	90.70	269.692	10,384.57	-977.09	-878.11	364,615.218	662,129.043	32.001362713	-103.810322915
11,300.00	90.70	269.692	10,383.34	-977.63	-978.10	364,614.681	662,029.052	32.001362566	-103.810645471
11,400.00	90.70	269.692	10,382.12	-978.17	-1,078.09	364,614.144	661,929.061	32.001362418	-103.810968028
11,500.00	90.70	269.692	10,380.89	-978.70	-1,178.08	364,613.607	661,829.070	32.001362269	-103.811290584
11,600.00	90.70	269.692	10,379.67	-979.24	-1,278.08	364,613.070	661,729.079	32.001362119	-103.811613141
11,700.00	90.70	269.692	10,378.44	-979.78	-1,378.07	364,612.533	661,629.089	32.001361969	-103.811935697
11,800.00	90.70	269.692	10,377.22	-980.31	-1,478.06	364,611.996	661,529.098	32.001361818	-103.812258253
11,900.00	90.70	269.692	10,375.99	-980.85	-1,578.05	364,611.459	661,429.107	32.001361666	-103.812580810
12,000.00	90.70	269.692	10,374.77	-981.39	-1,678.04	364,610.922	661,329.116	32.001361513	-103.812903366
12,100.00	90.70	269.692	10,373.54	-981.93	-1,778.03	364,610.384	661,229.125	32.001361359	-103.813225923
12,200.00	90.70	269.692	10,372.32	-982.46	-1,878.02	364,609.847	661,129.134	32.001361204	-103.813548479
12,300.00	90.70	269.692	10,371.09	-983.00	-1,978.01	364,609.310	661,029.143	32.001361049	-103.813871036
12,400.00	90.70	269.692	10,369.87	-983.54	-2,078.00	364,608.773	660,929.153	32.001360893	-103.814193592
12,500.00	90.70	269.692	10,368.65	-984.07	-2,178.00	364,608.236	660,829.162	32.001360736	-103.814516149
12,600.00	90.70	269.692	10,367.42	-984.61	-2,277.99	364,607.699	660,729.171	32.001360578	-103.814838705
12,700.00	90.70	269.692	10,366.20	-985.15	-2,377.98	364,607.162	660,629.180	32.001360419	-103.815161262
12,800.00	90.70	269.692	10,364.97	-985.69	-2,477.97	364,606.625	660,529.189	32.001360260	-103.815483818
12,900.00	90.70	269.692	10,363.75	-986.22	-2,577.96	364,606.088	660,429.198	32.001360099	-103.815806375
13,000.00	90.70	269.692	10,362.52	-986.76	-2,677.95	364,605.550	660,329.208	32.001359938	-103.816128931
13,100.00	90.70	269.692	10,361.30	-987.30	-2,777.94	364,605.013	660,229.217	32.001359776	-103.816451488
13,200.00	90.70	269.692	10,360.07	-987.83	-2,877.93	364,604.476	660,129.226	32.001359613	-103.816774044
13,300.00	90.70	269.692	10,358.85	-988.37	-2,977.92	364,603.939	660,029.235	32.001359450	-103.817096601
13,400.00	90.70	269.692	10,357.62	-988.91	-3,077.92	364,603.402	659,929.244	32.001359285	-103.817419158
13,500.00	90.70	269.692	10,356.40	-989.44	-3,177.91	364,602.865	659,829.253	32.001359120	-103.817741714
13,600.00	90.70	269.692	10,355.17	-989.98	-3,277.90	364,602.328	659,729.262	32.001358954	-103.818064271
13,700.00	90.70	269.692	10,353.95	-990.52	-3,377.89	364,601.791	659,629.272	32.001358787	-103.818386827
13,800.00	90.70	269.692	10,352.72	-991.06	-3,477.88	364,601.254	659,529.281	32.001358619	-103.818709384
13,900.00	90.70	269.692	10,351.50	-991.59	-3,577.87	364,600.716	659,429.290	32.001358451	-103.819031941
14,000.00	90.70	269.692	10,350.27	-992.13	-3,677.86	364,600.179	659,329.299	32.001358282	-103.819354497
14,100.00	90.70	269.692	10,349.05	-992.67	-3,777.85	364,599.642	659,229.308	32.001358111	-103.819677054
14,200.00	90.70	269.692	10,347.82	-993.20	-3,877.84	364,599.105	659,129.317	32.001357940	-103.819999611
14,300.00	90.70	269.692	10,346.60	-993.74	-3,977.83	364,598.568	659,029.326	32.001357769	-103.820322167

FLAT CREEK
RESOURCES

Planning Report - Geographic

Database:	DB_Feb1422LT	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
14,400.00	90.70	269.692	10,345.37	-994.28	-4,077.83	364,598.031	658,929.336	32.001357596	-103.820644724
14,500.00	90.70	269.692	10,344.15	-994.82	-4,177.82	364,597.494	658,829.345	32.001357423	-103.820967281
14,600.00	90.70	269.692	10,342.92	-995.35	-4,277.81	364,596.957	658,729.354	32.001357248	-103.821289838
14,700.00	90.70	269.692	10,341.70	-995.89	-4,377.80	364,596.420	658,629.363	32.001357073	-103.821612394
14,800.00	90.70	269.692	10,340.48	-996.43	-4,477.79	364,595.882	658,529.372	32.001356897	-103.821934951
14,900.00	90.70	269.692	10,339.25	-996.96	-4,577.78	364,595.345	658,429.381	32.001356721	-103.822257508
15,000.00	90.70	269.692	10,338.03	-997.50	-4,677.77	364,594.808	658,329.390	32.001356543	-103.822580065
15,100.00	90.70	269.692	10,336.80	-998.04	-4,777.76	364,594.271	658,229.400	32.001356365	-103.822902621
15,200.00	90.70	269.692	10,335.58	-998.58	-4,877.75	364,593.734	658,129.409	32.001356185	-103.823225178
15,300.00	90.70	269.692	10,334.35	-999.11	-4,977.75	364,593.197	658,029.418	32.001356005	-103.823547735
15,400.00	90.70	269.692	10,333.13	-999.65	-5,077.74	364,592.660	657,929.427	32.001355825	-103.823870292
15,500.00	90.70	269.692	10,331.90	-1,000.19	-5,177.73	364,592.123	657,829.436	32.001355643	-103.824192849
15,600.00	90.70	269.692	10,330.68	-1,000.72	-5,277.72	364,591.586	657,729.445	32.001355461	-103.824515405
15,700.00	90.70	269.692	10,329.45	-1,001.26	-5,377.71	364,591.049	657,629.455	32.001355277	-103.824837962
15,800.00	90.70	269.692	10,328.23	-1,001.80	-5,477.70	364,590.511	657,529.464	32.001355093	-103.825160519
15,850.37	90.70	269.692	10,327.61	-1,002.07	-5,528.07	364,590.241	657,479.095	32.001355000	-103.825323000
LTP 15850.37 MD 10327.61 TVD									
15,900.37	90.70	269.692	10,327.00	-1,002.34	-5,578.06	364,589.972	657,429.100	32.001354907	-103.825484279
PBHL/TD 15900.37 MD 10327.00 TVD									

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Phantom 501 vert - plan misses target center by 55.96ft at 7822.59ft MD (7712.36 TVD, -917.57 N, 60.52 E) - Point	0.00	0.000	7,700.00	-972.03	64.12	364,620.280	663,071.270	32.001364060	-103.807283425	
Phantom 501 PBHL 480 - plan misses target center by 0.03ft at 15900.37ft MD (10327.00 TVD, -1002.34 N, -5578.06 E) - Point	0.00	0.000	10,327.00	-1,002.31	-5,578.06	364,590.000	657,429.100	32.001354983	-103.825484279	
Phantom 501 LTP 480 F - plan hits target center - Point	0.00	0.000	10,327.61	-1,002.07	-5,528.07	364,590.241	657,479.095	32.001355000	-103.825323000	
Phantom 501 FTP 480 F - plan misses target center by 11.31ft at 10717.73ft MD (10377.95 TVD, -974.50 N, -396.61 E) - Rectangle (sides W60.00 H5,203.93 D0.00)	0.57	89.710	10,389.00	-975.74	-394.54	364,616.574	662,612.615	32.001360000	-103.808763000	

FLAT CREEK
RESOURCES

Planning Report - Geographic

Database:	DB_Feb1422LT	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Project:	Eddy County, New Mexico NAD27 NM	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev5		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
26.00	26.00	ALLUVIUM		-0.70	269.710	
880.00	880.00	RUSTLER		-0.70	269.710	
1,500.00	1,500.00	TOP SALT		-0.70	269.710	
3,585.00	3,585.00	BASE SALT		-0.70	269.710	
3,785.01	3,785.00	DELAWARE MTN GRP / LAMAR		-0.70	269.710	
3,825.04	3,825.00	BELL CANYON		-0.70	269.710	
4,763.03	4,745.13	CHERRY CANYON		-0.70	269.710	
6,144.99	6,085.38	BRUSHY CANYON		-0.70	269.710	
7,810.56	7,700.68	BONE SPRING		-0.70	269.710	
8,805.32	8,690.72	1ST BS SAND		-0.70	269.710	
9,115.32	9,000.72	2ND BS SHALE		-0.70	269.710	
9,435.32	9,320.72	2ND BS SAND		-0.70	269.710	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
3,700.00	3,700.00	0.00	0.00	KOP Begin 2°/100' build	
4,405.62	4,398.51	-86.27	5.69	Begin 14.11° tangent	
7,809.85	7,700.00	-914.51	60.32	Begin 2°/100' drop	
8,280.27	8,165.67	-972.03	64.12	Begin vertical hold	
9,930.69	9,816.09	-972.03	64.12	Begin 10°/100' build	
10,837.71	10,389.01	-975.15	-515.85	Begin 90.70° lateral	
15,850.37	10,327.61	-1,002.07	-5,528.07	LTP 15850.37 MD 10327.61 TVD	
15,900.37	10,327.00	-1,002.34	-5,578.06	PBHL/TD 15900.37 MD 10327.00 TVD	

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Reference	rev5		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,790.08ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	2/23/2022		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	15,900.24	rev5 (Original Hole)	MWD	OWSG MWD - Standard	

Summary						
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						
Phantom Bank 31 Fed Com						
Phantom Bank 31 Fed Com No. 502H - Original Hole - S	3,803.88	3,809.05	130.13	109.12	6.193	CC, ES
Phantom Bank 31 Fed Com No. 502H - Original Hole - S	3,900.00	3,905.30	131.04	109.64	6.122	SF
Phantom Bank 31 Fed Com No. 504H - Original Hole - S	7,185.41	7,085.46	68.78	35.55	2.070	CC, ES
Phantom Bank 31 Fed Com No. 504H - Original Hole - S	7,200.00	7,099.42	68.91	35.58	2.068	SF
Phantom Bank 31 Fed Com No. 505H - Original Hole - re	10,112.67	9,988.05	150.90	108.85	3.589	CC
Phantom Bank 31 Fed Com No. 505H - Original Hole - re	15,900.85	15,954.24	242.77	61.63	1.340	Collision Avoidance Req.<1.1
Phantom Bank 31 Fed Com No. 506H - Original Hole - S	807.35	813.44	197.77	189.06	22.694	CC
Phantom Bank 31 Fed Com No. 506H - Original Hole - S	1,700.00	1,705.86	199.63	186.81	15.574	ES
Phantom Bank 31 Fed Com No. 506H - Original Hole - S	15,900.85	16,485.00	1,455.97	1,204.24	5.784	SF
Phantom Bank 31 Fed Com No. 508H - Original Hole - S	8,320.74	8,196.01	134.96	84.48	2.674	CC, ES
Phantom Bank 31 Fed Com No. 508H - Original Hole - S	8,400.00	8,274.17	135.28	84.62	2.670	SF
Phantom Bank 31 Fed Com No. 701H - Original Hole - re	3,700.00	3,700.00	120.04	104.33	7.640	CC, ES
Phantom Bank 31 Fed Com No. 701H - Original Hole - re	15,900.85	15,758.50	1,275.90	1,002.31	4.664	SF
Phantom Bank 31 Fed Com No. 701H - Original Hole - S	321.30	321.30	119.59	115.56	29.653	CC
Phantom Bank 31 Fed Com No. 701H - Original Hole - S	3,711.15	3,712.88	120.02	104.34	7.657	ES, SF
Phantom Bank 31 Fed Com No. 702H - Original Hole - re	3,261.52	3,262.39	79.84	64.62	5.245	CC, ES
Phantom Bank 31 Fed Com No. 702H - Original Hole - re	3,300.00	3,299.39	80.19	64.86	5.232	SF
Phantom Bank 31 Fed Com No. 702H - Original Hole - re	3,261.52	3,262.39	79.84	64.62	5.245	CC, ES
Phantom Bank 31 Fed Com No. 702H - Original Hole - S	3,300.00	3,299.39	80.19	64.86	5.232	SF
Phantom Bank 31 Fed Com No. 703H - Original Hole - S	2,633.59	2,633.85	51.27	38.73	4.088	CC
Phantom Bank 31 Fed Com No. 703H - Original Hole - S	3,769.35	3,770.67	51.62	35.85	3.274	ES
Phantom Bank 31 Fed Com No. 703H - Original Hole - S	9,054.18	9,024.31	136.59	81.89	2.497	SF
Phantom Bank 31 Fed Com No. 707H - Original Hole - re	10,526.78	10,314.65	217.44	176.51	5.312	CC, ES, SF
Phantom Bank 31 Fed Com No. 708H - Original Hole - re	7,136.83	7,048.02	195.10	163.68	6.209	CC, ES
Phantom Bank 31 Fed Com No. 708H - Original Hole - re	10,435.21	10,258.63	209.54	169.08	5.179	SF
Phantom Bank 31 Fed Com No. 709H - Original Hole - re	10,100.00	9,980.81	150.95	107.98	3.513	SF
Phantom Bank 31 Fed Com No. 709H - Original Hole - re	10,112.68	9,992.90	150.90	107.96	3.514	CC, ES

Offset Design:	Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 502H - Original Hole - Surveys Original Hole											Offset Site Error:	0.00 ft
Survey Program:	220-MWD		Offset	Semi Major Axis		Offset Wellbore Centre		Rule Assigned:			Offset Well Error:	0.00 ft	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.99	0.99	0.00	0.01	37.19	130.71	99.18	164.08				

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 502H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 220-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum	Separation	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)		
100.00	100.00	100.21	100.21	0.84	0.69	37.12	131.03	99.16	164.32	162.80	1.52	107.966	
200.00	200.00	199.43	199.42	1.44	1.37	36.91	131.96	99.11	165.04	162.23	2.81	58.806	
300.00	300.00	298.42	298.41	1.89	1.93	36.57	133.54	99.05	166.29	162.48	3.80	43.723	
400.00	400.00	397.65	397.61	2.25	2.33	36.23	135.57	99.31	168.09	163.54	4.55	36.951	
500.00	500.00	499.00	498.95	2.57	2.74	36.11	136.78	99.76	169.31	164.03	5.28	32.067	
600.00	600.00	596.60	596.54	2.85	3.30	36.05	138.02	100.48	170.78	164.66	6.12	27.913	
700.00	700.00	695.60	695.49	3.11	4.06	35.79	140.81	101.51	173.67	166.54	7.13	24.355	
800.00	800.00	794.80	794.62	3.35	4.76	35.21	144.62	102.07	177.12	169.07	8.06	21.988	
900.00	900.00	895.97	895.69	3.58	5.03	34.38	148.92	101.88	180.51	171.97	8.54	21.129	
1,000.00	1,000.00	997.70	997.38	3.79	5.31	33.79	151.92	101.68	182.85	173.82	9.02	20.263	
1,100.00	1,100.00	1,100.10	1,099.76	3.99	5.58	33.62	153.52	102.08	184.37	174.85	9.52	19.362	
1,200.00	1,200.00	1,204.13	1,203.79	4.19	5.95	33.73	152.96	102.13	183.95	173.89	10.06	18.291	
1,300.00	1,300.00	1,305.41	1,305.04	4.38	7.09	34.04	150.63	101.73	181.81	171.09	10.72	16.962	
1,400.00	1,400.00	1,405.15	1,404.75	4.56	8.38	34.32	148.34	101.28	179.65	168.28	11.37	15.802	
1,500.00	1,500.00	1,505.25	1,504.83	4.74	8.89	34.62	146.09	100.84	177.55	165.74	11.82	15.023	
1,600.00	1,600.00	1,605.45	1,605.00	4.91	9.13	35.01	143.57	100.57	175.34	163.07	12.26	14.298	
1,700.00	1,700.00	1,705.66	1,705.17	5.08	9.37	35.46	140.86	100.34	172.99	160.29	12.70	13.616	
1,800.00	1,800.00	1,805.86	1,805.33	5.24	9.60	35.90	138.08	99.96	170.52	157.38	13.14	12.976	
1,900.00	1,900.00	1,906.31	1,905.74	5.40	9.83	36.33	135.16	99.39	167.84	154.27	13.57	12.368	
2,000.00	2,000.00	2,006.69	2,006.07	5.56	10.05	36.75	132.04	98.61	164.88	150.88	13.99	11.781	
2,100.00	2,100.00	2,106.71	2,106.03	5.71	10.27	37.21	128.79	97.79	161.78	147.37	14.42	11.220	
2,200.00	2,200.00	2,206.60	2,205.86	5.86	10.48	37.72	125.46	97.02	158.67	143.83	14.84	10.690	
2,300.00	2,300.00	2,306.15	2,305.35	6.01	10.70	38.24	122.28	96.35	155.74	140.47	15.27	10.202	
2,400.00	2,400.00	2,405.86	2,405.02	6.16	10.91	38.76	119.31	95.79	153.06	137.37	15.69	9.757	
2,500.00	2,500.00	2,505.81	2,504.93	6.30	11.11	39.27	116.42	95.20	150.44	134.33	16.11	9.341	
2,600.00	2,600.00	2,605.56	2,604.64	6.44	11.31	39.80	113.57	94.62	147.87	131.35	16.52	8.952	
2,700.00	2,700.00	2,705.11	2,704.14	6.58	11.51	40.49	110.68	94.49	145.56	128.63	16.93	8.599	
2,800.00	2,800.00	2,804.78	2,803.77	6.72	11.71	41.30	107.81	94.71	143.53	126.20	17.34	8.280	
2,900.00	2,900.00	2,904.56	2,903.53	6.85	11.90	41.96	105.34	94.70	141.67	123.94	17.73	7.989	
3,000.00	3,000.00	3,004.20	3,003.14	6.98	12.09	42.47	103.26	94.51	140.00	121.88	18.12	7.726	
3,100.00	3,100.00	3,103.80	3,102.72	7.12	12.27	42.96	101.43	94.46	138.62	120.11	18.50	7.491	
3,200.00	3,200.00	3,203.74	3,202.65	7.25	12.45	43.58	99.53	94.72	137.41	118.54	18.87	7.280	
3,300.00	3,300.00	3,303.71	3,302.58	7.38	12.64	44.53	97.10	95.53	136.23	116.98	19.25	7.078	
3,400.00	3,400.00	3,403.62	3,402.44	7.50	12.82	45.76	94.26	96.79	135.11	115.50	19.61	6.890	
3,500.00	3,500.00	3,503.59	3,502.36	7.63	13.01	47.19	91.12	98.38	134.10	114.13	19.97	6.714	
3,600.00	3,600.00	3,604.26	3,602.97	7.75	13.19	48.44	88.12	99.41	132.86	112.53	20.33	6.536	
3,700.00	3,700.00	3,704.85	3,703.52	7.88	13.36	49.26	85.56	99.34	131.13	110.45	20.68	6.341	
3,800.00	3,799.98	3,805.16	3,803.81	8.00	13.54	-126.99	83.18	98.68	130.13	109.14	21.00	6.198	
3,803.88	3,803.86	3,809.05	3,807.70	8.01	13.54	-127.02	83.09	98.64	130.13	109.12	21.01	6.193 CC, ES	
3,900.00	3,899.84	3,905.30	3,903.91	8.38	13.70	-128.37	80.92	97.61	131.04	109.64	21.40	6.122 SF	
4,000.00	3,999.45	4,005.02	4,003.61	8.76	13.86	-131.08	79.09	96.11	134.27	112.42	21.84	6.147	
4,100.00	4,098.70	4,104.48	4,103.04	9.15	14.01	-134.85	77.63	94.26	140.26	117.92	22.34	6.278	
4,200.00	4,197.47	4,203.71	4,202.24	9.54	14.17	-139.00	75.84	92.61	149.31	126.40	22.91	6.518	
4,300.00	4,295.62	4,302.30	4,300.79	9.93	14.33	-143.24	73.78	91.13	161.71	138.16	23.54	6.868	
4,400.00	4,393.06	4,400.00	4,398.46	10.36	14.51	-147.54	71.95	89.33	177.87	153.62	24.25	7.336	
4,500.00	4,490.04	4,497.17	4,495.60	10.63	14.69	-151.54	70.25	87.53	196.69	171.85	24.84	7.917	
4,600.00	4,587.02	4,594.50	4,592.90	10.83	14.91	-154.62	68.25	86.57	216.33	190.97	25.36	8.531	
4,700.00	4,684.00	4,691.89	4,690.27	11.04	15.14	-157.08	66.13	86.00	236.49	210.61	25.88	9.139	
4,800.00	4,780.98	4,789.12	4,787.47	11.27	15.39	-159.31	64.27	84.81	257.08	230.67	26.41	9.735	
4,900.00	4,877.97	4,885.89	4,884.22	11.52	15.65	-161.27	62.66	83.30	278.14	251.20	26.94	10.325	
5,000.00	4,974.95	4,982.54	4,980.85	11.79	15.90	-162.95	61.25	81.92	299.69	272.21	27.47	10.908	
5,100.00	5,071.93	5,079.85	5,078.15	12.06	16.14	-164.34	59.85	80.92	321.56	293.55	28.01	11.482	

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 502H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 220-MWD												Offset Well Error:	0.00 ft
Rule Assigned:												Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,168.91	5,177.31	5,175.59	12.36	16.38	-165.43	58.28	80.64	343.55	315.00	28.55	12.034	
5,300.00	5,265.89	5,274.57	5,272.84	12.66	16.62	-166.35	56.68	80.57	365.64	336.53	29.12	12.558	
5,400.00	5,362.88	5,371.82	5,370.07	12.98	16.87	-167.21	55.14	80.26	387.85	358.15	29.69	13.061	
5,500.00	5,459.86	5,469.23	5,467.47	13.30	17.13	-168.01	53.64	79.70	410.13	379.85	30.28	13.544	
5,600.00	5,556.84	5,567.22	5,565.45	13.64	17.38	-168.76	52.13	78.92	432.45	401.57	30.88	14.005	
5,700.00	5,653.82	5,667.95	5,666.15	13.99	17.64	-169.38	50.00	78.67	454.35	422.85	31.50	14.425	
5,800.00	5,750.80	5,767.68	5,765.83	14.34	17.89	-169.81	47.10	79.31	475.60	443.48	32.12	14.806	
5,900.00	5,847.79	5,864.57	5,862.68	14.70	18.14	-170.16	44.21	80.20	496.83	464.08	32.75	15.170	
6,000.00	5,944.77	5,962.20	5,960.27	15.07	18.40	-170.49	41.42	81.09	518.21	484.82	33.39	15.519	
6,100.00	6,041.75	6,061.06	6,059.09	15.45	18.66	-170.86	38.50	81.43	539.45	505.40	34.05	15.843	
6,200.00	6,138.73	6,159.17	6,157.15	15.83	18.94	-171.26	35.47	81.12	560.52	525.81	34.72	16.146	
6,300.00	6,235.71	6,256.48	6,254.41	16.22	19.22	-171.66	32.51	80.54	581.65	546.27	35.39	16.437	
6,400.00	6,332.69	6,353.92	6,351.80	16.62	19.50	-172.04	29.62	79.81	602.86	566.80	36.07	16.716	
6,500.00	6,429.68	6,451.47	6,449.31	17.02	19.78	-172.38	26.72	79.29	624.12	587.37	36.75	16.983	
6,600.00	6,526.66	6,549.24	6,547.03	17.42	20.07	-172.69	23.83	78.82	645.39	607.96	37.43	17.241	
6,700.00	6,623.64	6,647.08	6,644.83	17.83	20.35	-173.03	20.93	77.84	666.66	628.53	38.12	17.487	
6,800.00	6,720.62	6,744.29	6,741.99	18.24	20.63	-173.38	18.07	76.51	687.95	649.14	38.81	17.726	
6,900.00	6,817.60	6,841.27	6,838.92	18.66	20.91	-173.68	15.29	75.38	709.35	669.85	39.50	17.959	
7,000.00	6,914.59	6,939.43	6,937.03	19.08	21.20	-173.96	12.49	74.41	730.79	690.59	40.20	18.179	
7,100.00	7,011.57	7,037.90	7,035.46	19.51	21.48	-174.22	9.58	73.53	752.14	711.23	40.91	18.386	
7,200.00	7,108.55	7,135.96	7,133.47	19.93	21.77	-174.45	6.59	72.85	773.42	731.80	41.62	18.583	
7,300.00	7,205.53	7,234.02	7,231.48	20.36	22.06	-174.64	3.54	72.50	794.66	752.33	42.34	18.770	
7,400.00	7,302.51	7,332.05	7,329.46	20.80	22.34	-174.81	0.45	72.27	815.87	772.81	43.06	18.947	
7,500.00	7,399.50	7,429.93	7,427.29	21.23	22.63	-174.98	-2.68	71.96	837.04	793.26	43.78	19.118	
7,600.00	7,496.48	7,526.31	7,523.63	21.67	22.92	-175.14	-5.68	71.53	858.30	813.80	44.50	19.287	
7,700.00	7,593.46	7,622.61	7,619.88	22.11	23.20	-175.31	-8.53	70.93	879.71	834.49	45.22	19.455	
7,800.00	7,690.44	7,718.76	7,715.99	22.56	23.48	-175.48	-11.22	70.26	901.29	855.35	45.93	19.622	
7,900.00	7,787.91	7,814.25	7,811.45	23.05	23.75	-175.67	-13.73	69.57	920.96	874.28	46.68	19.729	
8,000.00	7,886.41	7,906.35	7,903.53	23.68	23.99	-175.80	-15.64	69.20	936.06	888.54	47.53	19.696	
8,100.00	7,985.67	7,998.49	7,995.65	24.30	24.20	-175.87	-16.89	69.25	946.71	898.39	48.32	19.593	
8,200.00	8,085.43	8,088.94	8,086.10	24.87	24.25	-175.91	-17.31	69.27	953.05	904.17	48.89	19.495	
8,300.00	8,185.40	8,181.00	8,178.16	24.99	24.29	0.29	-16.82	69.00	955.25	906.24	49.01	19.491	
8,400.00	8,285.40	8,284.40	8,281.56	25.01	24.25	0.29	-16.12	68.95	955.94	906.92	49.02	19.502	
8,500.00	8,385.40	8,386.84	8,383.99	25.04	24.22	0.32	-15.77	69.42	956.28	907.24	49.04	19.501	
8,600.00	8,485.40	8,487.11	8,484.27	25.07	24.23	0.31	-15.53	69.30	956.52	907.45	49.07	19.491	
8,700.00	8,585.40	8,596.11	8,593.26	25.10	24.33	0.25	-15.53	68.24	956.53	907.30	49.23	19.429	
8,800.00	8,685.40	8,716.50	8,713.63	25.13	24.54	0.18	-17.68	67.06	954.75	905.20	49.54	19.271	
8,900.00	8,785.40	8,819.12	8,816.19	25.16	24.82	0.12	-20.85	66.14	951.64	901.78	49.86	19.085	
9,000.00	8,885.40	8,919.31	8,916.32	25.19	25.12	0.06	-24.00	65.19	948.50	898.32	50.19	18.899	
9,100.00	8,985.40	9,020.60	9,017.55	25.22	25.42	0.00	-27.27	64.10	945.28	894.77	50.51	18.716	
9,200.00	9,085.40	9,122.17	9,119.06	25.25	25.72	-0.08	-30.69	62.80	941.91	891.08	50.83	18.531	
9,300.00	9,185.40	9,225.46	9,222.28	25.28	26.02	-0.13	-34.46	61.95	938.26	887.09	51.17	18.337	
9,400.00	9,285.40	9,322.37	9,319.11	25.31	26.32	-0.13	-38.23	61.92	934.37	882.90	51.47	18.152	
9,500.00	9,385.40	9,406.75	9,403.47	25.34	26.58	-0.13	-40.48	61.96	931.71	880.00	51.71	18.018	
9,600.00	9,485.40	9,493.52	9,490.23	25.37	26.85	-0.14	-41.34	61.87	930.70	878.75	51.95	17.916	
9,700.00	9,585.40	9,599.32	9,596.03	25.40	27.14	-0.13	-42.11	61.94	929.98	877.69	52.29	17.785	
9,800.00	9,685.40	9,704.27	9,700.96	25.43	27.41	-0.11	-43.50	62.41	928.64	876.03	52.62	17.649	
9,900.00	9,785.40	9,807.58	9,804.25	25.46	27.65	-0.06	-45.31	63.16	926.90	873.98	52.92	17.516	
10,000.00	9,885.23	9,906.57	9,903.22	25.46	27.86	90.68	-47.27	64.02	924.94	871.79	53.16	17.401	
10,100.00	9,982.95	10,007.50	10,004.13	25.46	28.09	92.15	-49.13	64.46	923.60	870.16	53.44	17.282	
10,181.34	10,058.82	10,090.94	10,087.54	25.47	28.29	94.06	-51.29	64.47	923.05	869.31	53.73	17.178	
10,200.00	10,075.59	10,109.41	10,106.01	25.47	28.34	94.56	-51.86	64.43	923.09	869.29	53.80	17.159	

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 502H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 220-MWD												Offset Well Error:	0.00 ft
Reference												Rule Assigned:	
Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
							+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
10,300.00	10,160.35	10,192.18	10,188.74	25.51	28.56	96.98	-54.54	64.19	925.69	871.62	54.08	17.119	
10,400.00	10,234.66	10,260.74	10,257.27	25.63	28.75	98.89	-56.37	64.20	934.73	880.46	54.27	17.222	
10,500.00	10,296.24	10,323.00	10,319.52	25.89	28.92	100.14	-57.70	64.38	952.35	897.93	54.42	17.500	
10,600.00	10,343.23	10,361.34	10,357.85	26.34	29.00	99.39	-58.37	64.54	979.85	925.50	54.35	18.030	
10,700.00	10,374.21	10,390.45	10,386.96	27.03	29.07	97.05	-58.82	64.66	1,017.61	963.42	54.18	18.782	
10,800.00	10,388.23	10,403.43	10,399.94	27.96	29.10	92.51	-59.01	64.71	1,064.78	1,010.90	53.88	19.762	
10,900.00	10,388.24	10,403.09	10,399.59	29.09	29.10	90.15	-59.01	64.71	1,119.50	1,066.03	53.48	20.934	
11,000.00	10,387.02	10,401.56	10,398.06	30.37	29.10	90.06	-58.98	64.71	1,180.19	1,127.13	53.07	22.240	
11,100.00	10,385.79	10,400.03	10,396.53	31.78	29.09	89.96	-58.96	64.70	1,245.96	1,193.29	52.66	23.658	
11,200.00	10,384.57	10,398.49	10,395.00	33.30	29.09	89.86	-58.94	64.69	1,316.04	1,263.76	52.28	25.171	
11,300.00	10,383.34	12,289.13	11,437.65	34.92	38.99	140.37	-105.48	-940.75	1,368.02	1,299.90	68.13	20.080	
11,400.00	10,382.12	12,405.01	11,435.68	36.62	40.73	140.14	-99.41	-1,056.45	1,371.34	1,300.83	70.50	19.451	
11,500.00	10,380.89	12,505.03	11,433.75	38.40	42.33	139.94	-94.52	-1,156.33	1,374.28	1,301.47	72.81	18.874	
11,600.00	10,379.67	12,619.53	11,433.40	40.24	44.29	139.88	-92.28	-1,270.80	1,376.58	1,301.23	75.36	18.268	
11,700.00	10,378.44	12,740.51	11,434.98	42.14	46.45	140.01	-94.33	-1,391.75	1,377.81	1,299.84	77.97	17.670	
11,800.00	10,377.22	12,861.46	11,435.65	44.09	48.66	140.18	-98.55	-1,512.62	1,377.26	1,296.64	80.62	17.084	
11,900.00	10,375.99	13,000.27	11,433.91	46.09	51.28	140.35	-104.76	-1,651.28	1,374.76	1,291.22	83.54	16.457	
12,000.00	10,374.77	13,135.27	11,429.12	48.12	53.90	140.52	-113.25	-1,785.91	1,369.25	1,282.80	86.45	15.839	
12,100.00	10,373.54	13,218.33	11,424.70	50.19	55.56	140.55	-117.57	-1,868.74	1,363.15	1,274.28	88.87	15.339	
12,200.00	10,372.32	13,291.03	11,420.99	52.28	57.04	140.53	-119.64	-1,941.32	1,358.71	1,267.50	91.21	14.897	
12,300.00	10,371.09	13,359.29	11,418.51	54.41	58.45	140.50	-120.45	-2,009.53	1,356.46	1,262.96	93.49	14.509	
12,340.58	10,370.60	13,385.80	11,418.05	55.28	59.00	140.50	-120.63	-2,036.03	1,356.25	1,261.86	94.39	14.368	
12,400.00	10,369.87	13,426.00	11,417.96	56.56	59.83	140.51	-120.85	-2,076.23	1,356.70	1,261.00	95.70	14.176	
12,500.00	10,368.65	13,541.46	11,417.92	58.73	62.24	140.55	-121.59	-2,191.68	1,357.55	1,258.84	98.72	13.752	
12,600.00	10,367.42	13,653.95	11,417.45	60.92	64.63	140.61	-123.35	-2,304.16	1,357.54	1,255.87	101.67	13.352	
12,700.00	10,366.20	13,752.09	11,415.82	63.13	66.73	140.64	-124.95	-2,402.28	1,356.52	1,252.07	104.46	12.987	
12,730.18	10,365.83	13,775.45	11,415.40	63.80	67.24	140.63	-125.00	-2,425.63	1,356.44	1,251.24	105.21	12.893	
12,800.00	10,364.97	13,836.35	11,414.40	65.35	68.56	140.60	-124.58	-2,486.52	1,356.76	1,249.67	107.09	12.670	
12,900.00	10,363.75	13,946.83	11,413.22	67.59	70.97	140.58	-124.41	-2,596.99	1,357.35	1,247.16	110.19	12.318	
13,000.00	10,362.52	14,058.01	11,411.61	69.84	73.41	140.61	-126.00	-2,708.14	1,356.58	1,243.31	113.27	11.976	
13,100.00	10,361.30	14,171.90	11,410.87	72.11	75.93	140.73	-129.86	-2,821.97	1,355.23	1,238.94	116.30	11.653	
13,200.00	10,360.07	14,245.63	11,410.67	74.38	77.57	140.82	-132.33	-2,895.66	1,354.20	1,235.54	118.66	11.412	
13,200.99	10,360.06	14,246.35	11,410.67	74.41	77.59	140.82	-132.35	-2,896.37	1,354.20	1,235.51	118.68	11.410	
13,300.00	10,358.85	14,344.71	11,412.46	76.67	79.78	141.00	-136.03	-2,994.65	1,354.53	1,233.18	121.35	11.162	
13,400.00	10,357.62	14,470.87	11,414.14	78.96	82.61	141.27	-142.29	-3,120.64	1,353.78	1,229.38	124.40	10.883	
13,500.00	10,356.40	14,606.20	11,412.87	81.26	85.65	141.54	-150.84	-3,255.68	1,350.31	1,222.76	127.55	10.586	
13,600.00	10,355.17	14,697.05	11,409.75	83.57	87.71	141.62	-155.34	-3,346.37	1,345.86	1,215.61	130.26	10.332	
13,700.00	10,353.95	14,781.53	11,406.72	85.89	89.64	141.62	-157.48	-3,430.77	1,342.75	1,209.78	132.97	10.098	
13,800.00	10,352.72	14,869.98	11,404.08	88.21	91.67	141.62	-159.21	-3,519.16	1,340.49	1,204.74	135.76	9.874	
13,900.00	10,351.50	14,973.79	11,402.46	90.54	94.04	141.69	-161.87	-3,622.92	1,338.99	1,200.26	138.73	9.652	
14,000.00	10,350.27	15,082.08	11,399.43	92.87	96.53	141.73	-164.98	-3,731.12	1,336.29	1,194.46	141.82	9.422	
14,100.00	10,349.05	15,190.69	11,394.53	95.21	99.04	141.65	-166.08	-3,839.61	1,333.42	1,188.28	145.14	9.187	
14,200.00	10,347.82	15,256.88	11,391.35	97.56	100.57	141.57	-166.02	-3,905.72	1,331.12	1,183.42	147.71	9.012	
14,226.25	10,347.50	15,272.46	11,390.98	98.17	100.93	141.56	-165.97	-3,921.30	1,331.02	1,182.71	148.31	8.975	
14,300.00	10,346.60	15,326.85	11,390.67	99.91	102.19	141.56	-165.80	-3,975.69	1,331.73	1,181.56	150.16	8.868	
14,400.00	10,345.37	15,426.83	11,391.77	102.26	104.51	141.63	-166.67	-4,075.65	1,333.34	1,180.26	153.09	8.710	
14,500.00	10,344.15	15,544.48	11,392.89	104.62	107.25	141.75	-168.92	-4,193.28	1,334.21	1,177.93	156.27	8.538	
14,600.00	10,342.92	15,658.23	11,392.92	106.98	109.90	141.88	-172.16	-4,306.98	1,333.75	1,174.40	159.35	8.370	
14,652.53	10,342.28	15,694.43	11,392.78	108.22	110.74	141.91	-173.09	-4,343.17	1,333.49	1,172.94	160.54	8.306	
14,700.00	10,341.70	15,720.36	11,393.22	109.34	111.35	141.95	-173.72	-4,369.09	1,334.03	1,172.59	161.44	8.263	
14,800.00	10,340.48	15,782.86	11,396.25	111.71	112.81	142.08	-175.10	-4,431.49	1,337.64	1,174.37	163.27	8.193	
14,900.00	10,339.25	15,925.24	11,402.98	114.08	116.13	142.38	-178.03	-4,573.66	1,341.67	1,174.95	166.72	8.048	

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



Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 502H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 220-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
15,000.00	10,338.03	16,043.06	11,402.17	116.45	118.90	142.39	-178.48	-4,691.48	1,342.11	1,171.94	170.17	7.887		
15,100.00	10,336.80	16,169.25	11,398.45	118.82	121.87	142.28	-177.60	-4,817.60	1,341.52	1,167.49	174.04	7.708		
15,200.00	10,335.58	16,300.36	11,392.20	121.20	124.96	142.17	-178.55	-4,948.57	1,338.58	1,160.63	177.96	7.522		
15,300.00	10,334.35	16,408.77	11,385.62	123.58	127.51	142.06	-180.22	-5,056.76	1,334.13	1,152.70	181.43	7.353		
15,400.00	10,333.13	16,524.05	11,378.22	125.97	130.22	141.97	-182.82	-5,171.77	1,328.98	1,143.99	185.00	7.184		
15,500.00	10,331.90	16,609.00	11,373.82	128.35	132.23	141.95	-185.30	-5,256.57	1,324.30	1,136.38	187.92	7.047		
15,600.00	10,330.68	16,713.12	11,369.94	130.74	134.69	142.02	-189.86	-5,360.51	1,319.98	1,129.06	190.92	6.914		
15,700.00	10,329.45	16,823.00	11,365.00	133.12	137.28	142.10	-195.62	-5,470.13	1,314.49	1,120.54	193.95	6.778		
15,800.00	10,328.23	16,859.00	11,363.24	135.51	138.13	142.12	-197.49	-5,506.04	1,310.31	1,114.47	195.83	6.691		
15,811.35	10,328.09	16,859.00	11,363.24	135.79	138.13	142.12	-197.49	-5,506.04	1,310.26	1,114.32	195.94	6.687		
15,900.00	10,327.00	16,859.00	11,363.24	137.90	138.13	142.12	-197.49	-5,506.04	1,313.25	1,116.98	196.27	6.691		
15,900.85	10,326.99	16,859.00	11,363.24	137.93	138.13	142.12	-197.49	-5,506.04	1,313.31	1,117.04	196.27	6.691		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 504H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 312-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+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	173.00	-853.31	104.85	859.83					
100.00	100.00	85.61	85.61	0.84	0.79	173.00	-853.39	104.80	859.80	858.17	1.63	528.024		
200.00	200.00	184.02	184.02	1.44	1.70	173.01	-853.66	104.63	860.05	856.91	3.14	273.536		
300.00	300.00	282.43	282.42	1.89	2.61	173.03	-854.13	104.35	860.49	855.99	4.50	191.254		
400.00	400.00	386.62	386.61	2.25	3.32	173.07	-854.59	103.85	860.88	855.32	5.56	154.744		
500.00	500.00	493.29	493.28	2.57	3.95	173.13	-854.33	103.01	860.54	854.05	6.49	132.596		
600.00	600.00	603.13	603.11	2.85	4.22	173.19	-852.99	101.85	859.20	852.17	7.03	122.222		
700.00	700.00	705.24	705.19	3.11	4.62	173.24	-851.06	100.81	857.20	849.52	7.68	111.575		
800.00	800.00	807.28	807.21	3.35	5.01	173.29	-848.85	99.93	854.95	846.66	8.30	103.061		
900.00	900.00	909.17	909.06	3.58	5.31	173.29	-846.36	99.51	852.48	843.66	8.82	96.629		
1,000.00	1,000.00	1,004.39	1,004.25	3.79	5.63	173.31	-844.19	99.09	850.16	840.80	9.36	90.844		
1,100.00	1,100.00	1,099.78	1,099.63	3.99	5.97	173.36	-842.64	98.06	848.42	838.52	9.89	85.763		
1,200.00	1,200.00	1,197.49	1,197.32	4.19	6.37	173.44	-841.46	96.73	847.06	836.60	10.46	80.944		
1,300.00	1,300.00	1,296.13	1,295.95	4.38	6.77	173.53	-840.53	95.36	845.97	834.94	11.03	76.697		
1,400.00	1,400.00	1,397.91	1,397.71	4.56	7.18	173.61	-839.49	94.03	844.81	833.22	11.59	72.898		
1,500.00	1,500.00	1,498.30	1,498.09	4.74	7.57	173.68	-838.27	92.84	843.46	831.33	12.13	69.544		
1,600.00	1,600.00	1,596.45	1,596.22	4.91	7.94	173.75	-837.21	91.63	842.26	829.62	12.64	66.632		
1,700.00	1,700.00	1,693.65	1,693.41	5.08	8.28	173.84	-836.41	90.32	841.30	828.18	13.12	64.138		
1,800.00	1,800.00	1,789.79	1,789.54	5.24	8.61	173.95	-836.08	88.62	840.77	827.21	13.55	62.029		
1,856.34	1,856.34	1,843.60	1,843.34	5.33	8.78	174.03	-836.11	87.47	840.67	826.88	13.79	60.972		
1,900.00	1,900.00	1,884.10	1,883.83	5.40	8.87	174.08	-836.27	86.68	840.75	826.82	13.93	60.344		
2,000.00	2,000.00	1,976.87	1,976.59	5.56	9.08	174.17	-837.15	85.42	841.56	827.30	14.26	59.014		
2,100.00	2,100.00	2,071.63	2,071.33	5.71	9.29	174.23	-838.75	84.79	843.17	828.58	14.59	57.785		
2,200.00	2,200.00	2,168.25	2,167.93	5.86	9.51	174.29	-840.82	84.01	845.22	830.30	14.93	56.627		
2,300.00	2,300.00	2,267.72	2,267.36	6.01	9.73	174.38	-843.28	82.99	847.58	832.31	15.27	55.510		
2,400.00	2,400.00	2,369.19	2,368.80	6.16	9.97	174.47	-845.66	81.88	849.81	834.19	15.62	54.414		
2,500.00	2,500.00	2,470.54	2,470.12	6.30	10.21	174.56	-847.86	80.77	851.87	835.90	15.97	53.349		
2,600.00	2,600.00	2,571.87	2,571.42	6.44	10.46	174.63	-849.89	79.84	853.77	837.46	16.32	52.318		
2,700.00	2,700.00	2,672.41	2,671.94	6.58	10.69	174.70	-851.77	79.09	855.56	838.90	16.66	51.344		
2,800.00	2,800.00	2,772.99	2,772.50	6.72	10.93	174.75	-853.57	78.50	857.29	840.28	17.01	50.386		
2,900.00	2,900.00	2,876.36	2,875.85	6.85	11.18	174.81	-855.20	77.65	858.79	841.43	17.36	49.463		
3,000.00	3,000.00	2,978.52	2,978.00	6.98	11.42	174.91	-856.47	76.25	859.91	842.21	17.70	48.586		
3,100.00	3,100.00	3,076.67	3,076.13	7.12	11.64	174.98	-857.69	75.29	861.06	843.04	18.02	47.789		
3,200.00	3,200.00	3,173.97	3,173.43	7.25	11.84	175.00	-859.06	75.15	862.45	844.11	18.33	47.039		
3,300.00	3,300.00	3,269.49	3,268.93	7.38	11.98	174.95	-860.74	76.03	864.28	845.63	18.65	46.349		
3,400.00	3,400.00	3,362.74	3,362.13	7.50	12.12	174.84	-862.81	77.93	866.67	847.72	18.96	45.718		
3,500.00	3,500.00	3,451.87	3,451.17	7.63	12.24	174.68	-865.69	80.55	870.17	850.90	19.26	45.172		
3,600.00	3,600.00	3,546.20	3,545.35	7.75	12.38	174.48	-869.79	84.09	874.83	855.25	19.58	44.678		
3,700.00	3,700.00	3,655.97	3,654.96	7.88	12.53	174.23	-874.00	88.36	879.04	859.10	19.94	44.085		
3,800.00	3,799.98	3,771.90	3,770.77	8.00	12.67	-2.26	-876.90	92.68	880.19	859.91	20.28	43.410		
3,900.00	3,899.84	3,892.55	3,891.35	8.38	12.79	-2.53	-877.29	96.55	875.62	854.76	20.86	41.980		
4,000.00	3,999.45	3,994.18	3,992.94	8.76	12.89	-2.76	-876.33	99.28	866.28	844.89	21.40	40.488		
4,100.00	4,098.70	4,096.00	4,094.73	9.15	13.00	-2.97	-875.18	101.55	853.25	831.32	21.93	38.904		
4,200.00	4,197.47	4,201.01	4,199.71	9.54	13.10	-3.18	-873.46	103.19	836.21	813.76	22.45	37.243		
4,300.00	4,295.62	4,305.51	4,304.18	9.93	13.21	-3.36	-871.02	104.05	814.99	792.01	22.98	35.466		
4,400.00	4,393.06	4,409.52	4,408.14	10.36	13.35	-3.59	-867.67	104.82	789.52	765.98	23.55	33.531		
4,500.00	4,490.04	4,508.40	4,506.93	10.63	13.48	-3.81	-863.73	105.57	761.47	737.52	23.95	31.794		
4,600.00	4,587.02	4,604.00	4,602.45	10.83	13.61	-4.02	-859.90	106.12	733.37	709.09	24.28	30.199		
4,700.00	4,684.00	4,699.11	4,697.49	11.04	13.75	-4.22	-856.18	106.43	705.35	680.71	24.65	28.617		
4,800.00	4,780.98	4,794.01	4,792.33	11.27	13.90	-4.41	-852.66	106.41	677.49	652.46	25.03	27.069		
4,900.00	4,877.97	4,891.80	4,890.05	11.52	14.05	-4.61	-849.09	106.19	649.65	624.22	25.43	25.544		
5,000.00	4,974.95	4,990.84	4,989.00	11.79	14.22	-4.85	-844.98	106.16	621.38	595.53	25.85	24.035		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 504H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft	
Survey Program:		312-MWD			Offset			Semi Major Axis		Offset Wellbore Centre		Rule Assigned:		Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
5,100.00	5,071.93	5,086.13	5,084.20	12.06	14.38	-5.12	-840.74	106.32	592.86	566.56	26.30	22.543			
5,200.00	5,168.91	5,180.53	5,178.51	12.36	14.55	-5.43	-836.75	106.58	564.59	537.83	26.76	21.096			
5,300.00	5,265.89	5,273.92	5,271.83	12.66	14.72	-5.76	-833.13	106.85	536.66	509.41	27.25	19.697			
5,400.00	5,362.88	5,367.28	5,365.14	12.98	14.89	-6.10	-830.02	106.96	509.24	481.50	27.74	18.356			
5,500.00	5,459.86	5,467.72	5,465.52	13.30	15.08	-6.51	-826.65	107.09	481.84	453.59	28.24	17.060			
5,600.00	5,556.84	5,569.51	5,567.20	13.64	15.27	-7.06	-821.88	107.64	453.26	424.51	28.74	15.768			
5,700.00	5,653.82	5,663.45	5,661.01	13.99	15.46	-7.69	-816.96	108.36	424.24	394.96	29.28	14.487			
5,800.00	5,750.80	5,757.23	5,754.68	14.34	15.65	-8.38	-812.51	109.06	395.73	365.89	29.83	13.265			
5,900.00	5,847.79	5,851.21	5,848.57	14.70	15.84	-9.14	-808.54	109.58	367.74	337.35	30.39	12.101			
6,000.00	5,944.77	5,945.49	5,942.80	15.07	16.03	-9.94	-805.12	109.74	340.30	309.34	30.95	10.993			
6,100.00	6,041.75	6,043.31	6,040.54	15.45	16.24	-10.94	-801.53	110.07	312.92	281.41	31.51	9.932			
6,200.00	6,138.73	6,140.75	6,137.88	15.83	16.44	-12.34	-797.16	111.19	285.10	253.05	32.06	8.894			
6,300.00	6,235.71	6,235.69	6,232.71	16.22	16.64	-14.05	-792.74	112.52	257.38	224.77	32.61	7.892			
6,400.00	6,332.69	6,330.83	6,327.76	16.62	16.84	-16.10	-788.67	113.64	230.21	197.05	33.16	6.942			
6,500.00	6,429.68	6,425.87	6,422.70	17.02	17.04	-18.74	-784.83	115.11	203.73	170.06	33.67	6.051			
6,600.00	6,526.66	6,521.25	6,517.98	17.42	17.24	-22.37	-781.11	117.36	178.24	144.11	34.12	5.224			
6,700.00	6,623.64	6,618.64	6,615.27	17.83	17.45	-27.15	-777.18	119.18	153.31	118.86	34.46	4.449			
6,800.00	6,720.62	6,715.60	6,712.14	18.24	17.67	-33.28	-772.98	119.74	128.79	94.13	34.66	3.716			
6,900.00	6,817.60	6,811.49	6,807.94	18.66	17.90	-41.81	-768.74	119.80	105.89	71.25	34.64	3.057			
7,000.00	6,914.59	6,907.41	6,903.77	19.08	18.13	-54.34	-764.53	119.73	86.37	52.19	34.18	2.527			
7,100.00	7,011.57	7,003.44	6,999.71	19.51	18.37	-72.16	-760.43	119.39	72.89	39.50	33.39	2.183			
7,185.41	7,094.40	7,085.46	7,081.66	19.87	18.57	-90.87	-757.05	118.86	68.78	35.55	33.23	2.070 CC, ES			
7,200.00	7,108.55	7,099.42	7,095.61	19.93	18.60	-94.15	-756.50	118.77	68.91	35.58	33.33	2.068 SF			
7,300.00	7,205.53	7,195.25	7,191.36	20.36	18.84	-114.90	-752.93	118.35	76.12	41.30	34.82	2.186			
7,400.00	7,302.51	7,291.13	7,287.20	20.80	19.08	-130.33	-749.68	118.29	91.71	54.98	36.74	2.497			
7,500.00	7,399.50	7,386.32	7,382.31	21.23	19.32	-141.10	-745.78	118.18	112.60	74.26	38.34	2.937			
7,600.00	7,496.48	7,481.53	7,477.39	21.67	19.56	-148.67	-740.97	117.90	136.95	97.32	39.62	3.456			
7,700.00	7,593.46	7,577.84	7,573.58	22.11	19.82	-153.96	-736.30	117.68	162.76	122.06	40.71	3.998			
7,800.00	7,690.44	7,674.60	7,670.25	22.56	20.07	-157.74	-732.10	117.54	189.08	147.41	41.66	4.538			
7,900.00	7,787.91	7,772.45	7,768.03	23.05	20.32	-160.65	-728.42	117.20	213.44	170.86	42.57	5.013			
8,000.00	7,886.41	7,871.78	7,867.32	23.68	20.57	-162.61	-725.27	116.59	232.67	189.13	43.54	5.344			
8,100.00	7,985.67	7,972.24	7,967.74	24.30	20.81	-163.94	-722.67	115.60	246.48	202.03	44.46	5.544			
8,200.00	8,085.43	8,071.72	8,067.18	24.87	21.05	-164.81	-720.48	114.36	254.95	209.68	45.27	5.632			
8,300.00	8,185.40	8,170.53	8,165.95	24.99	21.29	10.94	-717.97	113.24	258.85	213.23	45.62	5.674			
8,400.00	8,285.40	8,268.53	8,263.91	25.01	21.54	10.66	-715.00	112.49	261.68	215.81	45.87	5.705			
8,500.00	8,385.40	8,366.21	8,361.52	25.04	21.79	10.54	-711.38	112.61	265.35	219.24	46.11	5.754			
8,600.00	8,485.40	8,466.78	8,462.01	25.07	22.05	10.47	-707.28	113.04	269.43	223.01	46.42	5.805			
8,700.00	8,585.40	8,568.03	8,563.19	25.10	22.32	10.24	-703.48	112.62	273.05	226.30	46.74	5.841			
8,800.00	8,685.40	8,666.82	8,661.90	25.13	22.59	9.94	-699.76	111.81	276.62	229.58	47.03	5.881			
8,900.00	8,785.40	8,765.57	8,760.56	25.16	22.86	9.66	-695.62	111.15	280.64	233.31	47.32	5.930			
9,000.00	8,885.40	8,865.10	8,859.98	25.19	23.14	9.38	-691.18	110.52	284.92	237.29	47.64	5.981			
9,100.00	8,985.40	8,965.04	8,959.82	25.22	23.42	9.10	-686.60	109.84	289.34	241.38	47.96	6.033			
9,200.00	9,085.40	9,066.90	9,061.59	25.25	23.70	8.81	-682.33	109.02	293.36	245.05	48.31	6.072			
9,300.00	9,185.40	9,167.94	9,162.56	25.28	23.98	8.51	-678.70	108.00	296.76	248.12	48.64	6.101			
9,400.00	9,285.40	9,267.31	9,261.84	25.31	24.25	8.07	-675.01	106.22	300.18	251.24	48.94	6.134			
9,500.00	9,385.40	9,370.29	9,364.71	25.34	24.51	7.45	-671.15	103.44	303.53	254.25	49.28	6.159			
9,600.00	9,485.40	9,477.66	9,472.01	25.37	24.76	6.77	-669.29	100.04	304.86	255.22	49.65	6.141			
9,700.00	9,585.40	9,580.64	9,574.93	25.40	24.94	6.10	-669.46	96.45	304.31	254.42	49.89	6.099			
9,800.00	9,685.40	9,681.88	9,676.10	25.43	25.10	5.43	-670.13	92.82	303.28	253.19	50.10	6.054			
9,900.00	9,785.40	9,781.95	9,776.11	25.46	25.18	4.81	-671.08	89.46	302.04	251.83	50.20	6.016			
10,000.00	9,885.23	9,881.82	9,875.94	25.46	25.25	95.49	-672.09	86.89	301.20	250.97	50.23	5.997			
10,008.32	9,893.49	9,890.39	9,884.50	25.46	25.25	95.66	-672.18	86.71	301.19	250.97	50.22	5.998			

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 504H - Original Hole - Surveys Original Hole													Offset Site Error: 0.00 ft			
Survey Program: 312-MWD				Offset			Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error: 0.00 ft	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning			
10,100.00	9,982.95	9,983.95	9,978.03	25.46	25.26	99.00	-673.81	84.59	301.88	251.87	50.01	6.037				
10,200.00	10,075.59	10,080.87	10,074.88	25.47	25.27	104.90	-676.69	82.25	306.62	257.16	49.45	6.200				
10,300.00	10,160.35	10,166.90	10,160.83	25.51	25.25	111.30	-679.64	80.01	321.18	272.71	48.47	6.626				
10,400.00	10,234.66	10,243.07	10,236.92	25.63	25.24	116.69	-682.20	77.89	350.73	303.50	47.23	7.426				
10,500.00	10,296.24	10,309.06	10,302.84	25.89	25.24	119.95	-684.39	75.78	397.37	351.35	46.03	8.633				
10,600.00	10,343.23	10,362.10	10,355.81	26.34	25.24	119.91	-686.18	73.65	459.99	414.92	45.07	10.206				
10,700.00	10,374.21	10,399.78	10,393.43	27.03	25.24	115.18	-687.47	71.89	535.66	491.29	44.37	12.072				
10,800.00	10,388.23	10,420.36	10,413.97	27.96	25.24	103.51	-688.18	70.84	620.60	576.75	43.85	14.153				
10,900.00	10,388.24	10,559.28	10,550.62	29.09	26.02	120.70	-689.75	47.77	710.04	664.33	45.71	15.532				
11,000.00	10,387.02	11,364.37	11,016.57	30.37	30.49	152.87	-646.91	-544.62	734.17	680.23	53.94	13.611				
11,100.00	10,385.79	11,589.58	11,032.62	31.78	32.75	153.32	-644.97	-768.79	738.51	683.57	54.94	13.442				
11,200.00	10,384.57	11,692.85	11,033.26	33.30	34.16	153.26	-643.72	-872.05	740.95	684.80	56.15	13.196				
11,300.00	10,383.34	11,791.94	11,032.92	34.92	35.67	153.10	-641.49	-971.11	743.00	685.51	57.49	12.924				
11,400.00	10,382.12	11,895.14	11,032.63	36.62	37.37	152.91	-638.78	-1,074.28	745.28	686.34	58.94	12.644				
11,500.00	10,380.89	12,000.66	11,031.00	38.40	39.20	152.63	-635.41	-1,179.73	746.71	686.16	60.55	12.333				
11,600.00	10,379.67	12,100.87	11,029.53	40.24	41.06	152.43	-633.17	-1,279.90	747.77	685.55	62.22	12.017				
11,700.00	10,378.44	12,214.98	11,028.41	42.14	43.25	152.46	-634.11	-1,394.00	747.84	683.89	63.95	11.694				
11,800.00	10,377.22	12,310.52	11,027.30	44.09	45.11	152.54	-635.70	-1,489.51	747.37	681.76	65.61	11.391				
11,897.10	10,376.03	12,406.14	11,026.39	46.03	47.02	152.60	-636.96	-1,585.12	747.26	679.97	67.29	11.105				
11,900.00	10,375.99	12,408.95	11,026.36	46.09	47.07	152.60	-636.98	-1,587.92	747.26	679.92	67.34	11.097				
12,000.00	10,374.77	12,505.54	11,025.20	48.12	49.04	152.57	-637.04	-1,684.51	747.50	678.33	69.16	10.808				
12,100.00	10,373.54	12,603.29	11,024.58	50.19	51.06	152.56	-637.23	-1,782.26	748.18	677.16	71.03	10.534				
12,200.00	10,372.32	12,707.90	11,023.62	52.28	53.26	152.53	-637.07	-1,886.86	748.78	675.77	73.01	10.256				
12,300.00	10,371.09	12,813.73	11,022.05	54.41	55.51	152.54	-637.98	-1,992.67	748.39	673.38	75.01	9.977				
12,400.00	10,369.87	12,916.00	11,020.57	56.56	57.71	152.61	-639.74	-2,094.91	747.65	670.67	76.97	9.713				
12,500.00	10,368.65	13,017.02	11,019.77	58.73	59.91	152.84	-643.43	-2,195.86	746.61	667.80	78.81	9.474				
12,600.00	10,367.42	13,114.68	11,019.71	60.92	62.05	153.18	-648.21	-2,293.40	745.67	665.15	80.52	9.261				
12,700.00	10,366.20	13,213.00	11,020.37	63.13	64.21	153.58	-653.73	-2,391.57	745.08	662.94	82.14	9.070				
12,800.00	10,364.97	13,315.59	11,020.58	65.35	66.49	153.93	-658.64	-2,494.04	744.48	660.62	83.86	8.877				
12,884.22	10,363.94	13,393.70	11,019.81	67.24	68.26	154.03	-660.32	-2,572.13	744.07	658.61	85.47	8.706				
12,900.00	10,363.75	13,408.11	11,019.69	67.59	68.58	154.04	-660.49	-2,586.54	744.09	658.31	85.77	8.675				
13,000.00	10,362.52	13,513.71	11,017.92	69.84	70.98	153.96	-660.23	-2,692.11	744.03	655.99	88.04	8.451				
13,100.00	10,361.30	13,617.80	11,014.49	72.11	73.34	153.72	-658.37	-2,796.13	743.19	652.66	90.53	8.209				
13,200.00	10,360.07	13,722.13	11,010.69	74.38	75.71	153.52	-657.22	-2,900.38	741.76	648.73	93.02	7.974				
13,300.00	10,358.85	13,823.38	11,007.34	76.67	78.03	153.43	-657.59	-3,001.58	739.97	644.61	95.36	7.760				
13,400.00	10,357.62	13,927.17	11,003.97	78.96	80.41	153.39	-658.54	-3,105.31	737.99	640.30	97.69	7.554				
13,500.00	10,356.40	14,023.29	11,000.29	81.26	82.62	153.34	-659.69	-3,201.34	735.39	635.41	99.98	7.356				
13,568.32	10,355.56	14,078.00	10,998.80	82.84	83.89	153.29	-659.57	-3,256.04	734.72	633.25	101.47	7.241				
13,600.00	10,355.17	14,104.15	10,998.36	83.57	84.49	153.25	-659.27	-3,282.18	734.82	632.64	102.18	7.191				
13,700.00	10,353.95	14,187.43	10,998.28	85.89	86.43	153.14	-657.69	-3,365.44	736.89	632.46	104.43	7.056				
13,800.00	10,352.72	14,296.33	10,999.23	88.21	88.96	153.07	-656.00	-3,474.33	739.74	632.73	107.01	6.913				
13,900.00	10,351.50	14,419.03	10,996.72	90.54	91.82	152.91	-654.88	-3,596.99	739.59	629.66	109.93	6.728				
14,000.00	10,350.27	14,523.13	10,993.21	92.87	94.26	152.79	-654.88	-3,701.03	737.93	625.38	112.55	6.557				
14,100.00	10,349.05	14,623.02	10,990.52	95.21	96.59	152.81	-656.52	-3,800.86	736.11	621.24	114.87	6.408				
14,200.00	10,347.82	14,727.75	10,987.95	97.56	99.04	152.92	-659.31	-3,905.53	734.05	616.97	117.08	6.270				
14,300.00	10,346.60	14,821.77	10,985.67	99.91	101.25	153.03	-661.90	-3,999.49	731.98	612.79	119.18	6.142				
14,373.73	10,345.70	14,883.64	10,984.53	101.64	102.71	153.04	-662.63	-4,061.33	731.35	610.59	120.76	6.056				
14,400.00	10,345.37	14,905.47	10,984.29	102.26	103.22	153.04	-662.67	-4,083.17	731.43	610.09	121.34	6.028				
14,500.00	10,344.15	14,997.80	10,984.17	104.62	105.41	153.03	-662.60	-4,175.50	732.67	609.05	123.62	5.927				
14,600.00	10,342.92	15,096.44	10,985.03	106.98	107.73	153.12	-663.29	-4,274.13	734.47	608.65	125.82	5.837				
14,700.00	10,341.70	15,198.27	10,986.11	109.34	110.14	153.25	-664.55	-4,375.95	736.20	608.24	127.96	5.754				
14,800.00	10,340.48	15,296.81	10,987.59	111.71	112.47	153.46	-666.72	-4,474.45	737.88	608.03	129.85	5.682				

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



Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 504H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 312-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
14,900.00	10,339.25	15,401.02	10,989.44	114.08	114.93	153.75	-670.00	-4,578.59	739.41	607.79	131.62	5.618	
15,000.00	10,338.03	15,506.11	10,989.71	116.45	117.43	153.89	-671.80	-4,683.66	740.22	606.46	133.75	5.534	
15,100.00	10,336.80	15,614.00	10,989.44	118.82	119.99	154.02	-673.70	-4,791.53	740.58	604.64	135.94	5.448	
15,200.00	10,335.58	15,727.57	10,986.36	121.20	122.69	154.04	-675.38	-4,905.04	738.79	600.33	138.46	5.336	
15,300.00	10,334.35	15,831.85	10,981.94	123.58	125.17	153.92	-675.78	-5,009.23	736.14	594.94	141.20	5.213	
15,400.00	10,333.13	15,931.60	10,977.74	125.97	127.55	153.87	-677.04	-5,108.89	733.14	589.41	143.74	5.101	
15,500.00	10,331.90	16,015.61	10,974.98	128.35	129.55	153.83	-677.85	-5,192.84	731.14	585.08	146.06	5.006	
15,533.75	10,331.49	16,044.00	10,974.45	129.15	130.23	153.81	-677.81	-5,221.23	731.04	584.19	146.86	4.978	
15,600.00	10,330.68	16,109.45	10,973.45	130.74	131.79	153.76	-677.53	-5,286.67	731.14	582.55	148.59	4.920	
15,700.00	10,329.45	16,217.92	10,971.33	133.12	134.38	153.68	-677.33	-5,395.11	730.82	579.44	151.38	4.828	
15,800.00	10,328.23	16,325.78	10,967.82	135.51	136.96	153.60	-677.92	-5,502.92	728.98	574.85	154.13	4.730	
15,832.70	10,327.83	16,343.00	10,967.22	136.30	137.37	153.59	-678.05	-5,520.13	728.45	573.69	154.75	4.707	
15,900.00	10,327.00	16,343.00	10,967.22	137.90	137.37	153.59	-678.05	-5,520.13	731.55	576.77	154.78	4.726	
15,900.85	10,326.99	16,343.00	10,967.22	137.93	137.37	153.59	-678.05	-5,520.13	731.63	576.85	154.78	4.727	

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 505H - Original Hole - rev0 as per plat													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)				
0.00	0.00	0.00	0.00	0.00	0.00	176.53	-903.31	54.85	905.11					
100.00	100.00	84.50	84.50	0.84	0.72	176.53	-903.31	54.85	904.97	903.41	1.56	579.378		
200.00	200.00	184.50	184.50	1.44	1.36	176.53	-903.31	54.85	904.97	902.16	2.81	322.152		
300.00	300.00	284.50	284.50	1.89	1.83	176.53	-903.31	54.85	904.97	901.25	3.72	243.096		
400.00	400.00	384.50	384.50	2.25	2.21	176.53	-903.31	54.85	904.97	900.52	4.46	202.979		
500.00	500.00	484.50	484.50	2.57	2.53	176.53	-903.31	54.85	904.97	899.88	5.09	177.682		
600.00	600.00	584.50	584.50	2.85	2.81	176.53	-903.31	54.85	904.97	899.31	5.66	159.845		
700.00	700.00	684.50	684.50	3.11	3.07	176.53	-903.31	54.85	904.97	898.79	6.18	146.388		
800.00	800.00	784.50	784.50	3.35	3.32	176.53	-903.31	54.85	904.97	898.31	6.67	135.763		
900.00	900.00	884.50	884.50	3.58	3.55	176.53	-903.31	54.85	904.97	897.85	7.12	127.093		
1,000.00	1,000.00	984.50	984.50	3.79	3.76	176.53	-903.31	54.85	904.97	897.42	7.55	119.842		
1,100.00	1,100.00	1,084.50	1,084.50	3.99	3.97	176.53	-903.31	54.85	904.97	897.01	7.96	113.657		
1,200.00	1,200.00	1,184.50	1,184.50	4.19	4.17	176.53	-903.31	54.85	904.97	896.62	8.36	108.300		
1,300.00	1,300.00	1,284.50	1,284.50	4.38	4.36	176.53	-903.31	54.85	904.97	896.24	8.74	103.599		
1,400.00	1,400.00	1,384.50	1,384.50	4.56	4.54	176.53	-903.31	54.85	904.97	895.87	9.10	99.429		
1,500.00	1,500.00	1,484.50	1,484.50	4.74	4.72	176.53	-903.31	54.85	904.97	895.52	9.46	95.697		
1,600.00	1,600.00	1,584.50	1,584.50	4.91	4.89	176.53	-903.31	54.85	904.97	895.17	9.80	92.331		
1,700.00	1,700.00	1,684.50	1,684.50	5.08	5.06	176.53	-903.31	54.85	904.97	894.84	10.14	89.273		
1,800.00	1,800.00	1,784.50	1,784.50	5.24	5.22	176.53	-903.31	54.85	904.97	894.51	10.46	86.480		
1,900.00	1,900.00	1,884.50	1,884.50	5.40	5.38	176.53	-903.31	54.85	904.97	894.19	10.78	83.914		
2,000.00	2,000.00	1,984.50	1,984.50	5.56	5.54	176.53	-903.31	54.85	904.97	893.88	11.10	81.546		
2,100.00	2,100.00	2,084.50	2,084.50	5.71	5.69	176.53	-903.31	54.85	904.97	893.57	11.40	79.351		
2,200.00	2,200.00	2,184.50	2,184.50	5.86	5.84	176.53	-903.31	54.85	904.97	893.27	11.71	77.310		
2,300.00	2,300.00	2,284.50	2,284.50	6.01	5.99	176.53	-903.31	54.85	904.97	892.97	12.00	75.405		
2,400.00	2,400.00	2,384.50	2,384.50	6.16	6.14	176.53	-903.31	54.85	904.97	892.68	12.29	73.620		
2,500.00	2,500.00	2,484.50	2,484.50	6.30	6.28	176.53	-903.31	54.85	904.97	892.39	12.58	71.945		
2,600.00	2,600.00	2,584.50	2,584.50	6.44	6.42	176.53	-903.31	54.85	904.97	892.11	12.86	70.368		
2,700.00	2,700.00	2,684.50	2,684.50	6.58	6.56	176.53	-903.31	54.85	904.97	891.84	13.14	68.880		
2,800.00	2,800.00	2,784.50	2,784.50	6.72	6.70	176.53	-903.31	54.85	904.97	891.56	13.41	67.472		
2,900.00	2,900.00	2,884.50	2,884.50	6.85	6.83	176.53	-903.31	54.85	904.97	891.29	13.68	66.137		
3,000.00	3,000.00	2,984.50	2,984.50	6.98	6.97	176.53	-903.31	54.85	904.97	891.02	13.95	64.870		
3,100.00	3,100.00	3,084.50	3,084.50	7.12	7.10	176.53	-903.31	54.85	904.97	890.76	14.21	63.665		
3,200.00	3,200.00	3,184.50	3,184.50	7.25	7.23	176.53	-903.31	54.85	904.97	890.50	14.48	62.517		
3,300.00	3,300.00	3,284.50	3,284.50	7.38	7.36	176.53	-903.31	54.85	904.97	890.24	14.73	61.421		
3,400.00	3,400.00	3,384.50	3,384.50	7.50	7.49	176.53	-903.31	54.85	904.97	889.98	14.99	60.373		
3,500.00	3,500.00	3,484.50	3,484.50	7.63	7.61	176.53	-903.31	54.85	904.97	889.73	15.24	59.371		
3,600.00	3,600.00	3,584.50	3,584.50	7.75	7.74	176.53	-903.31	54.85	904.97	889.48	15.49	58.410		
3,700.00	3,700.00	3,684.50	3,684.50	7.88	7.86	176.53	-903.31	54.85	904.97	889.23	15.74	57.489		
3,800.00	3,799.98	3,784.48	3,784.48	8.00	7.99	0.30	-903.31	54.85	903.23	887.25	15.98	56.513		
3,900.00	3,899.84	3,884.34	3,884.34	8.38	8.11	0.30	-903.31	54.85	898.00	881.51	16.49	54.467		
4,000.00	3,999.45	3,983.95	3,983.95	8.76	8.23	0.31	-903.31	54.85	889.28	872.29	16.99	52.343		
4,100.00	4,098.70	4,063.85	4,063.84	9.15	8.32	0.32	-904.02	54.79	878.01	860.55	17.46	50.273		
4,200.00	4,197.47	4,140.12	4,140.07	9.54	8.51	0.35	-906.72	54.56	865.86	847.82	18.04	48.009		
4,300.00	4,295.62	4,216.57	4,216.37	9.93	8.73	0.40	-911.46	54.16	852.86	834.21	18.65	45.739		
4,400.00	4,393.06	4,312.26	4,311.76	10.36	8.79	0.49	-919.00	53.52	838.05	818.91	19.14	43.775		
4,500.00	4,490.04	4,410.85	4,410.04	10.63	8.88	0.58	-926.79	52.86	821.37	801.86	19.51	42.096		
4,600.00	4,587.02	4,509.44	4,508.32	10.83	9.00	0.68	-934.59	52.20	804.68	784.86	19.82	40.592		
4,700.00	4,684.00	4,608.03	4,606.59	11.04	9.12	0.78	-942.38	51.54	787.99	767.82	20.17	39.069		
4,800.00	4,780.98	4,706.62	4,704.87	11.27	9.26	0.89	-950.17	50.89	771.31	750.76	20.55	37.541		
4,900.00	4,877.97	4,805.21	4,803.15	11.52	9.42	1.00	-957.96	50.23	754.63	733.67	20.95	36.017		
5,000.00	4,974.95	4,903.80	4,901.43	11.79	9.58	1.11	-965.75	49.57	737.95	716.56	21.39	34.506		
5,100.00	5,071.93	5,002.38	4,999.70	12.06	9.76	1.23	-973.54	48.91	721.27	699.43	21.85	33.016		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 505H - Original Hole - rev0 as per plat												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Rule Assigned:												Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,168.91	5,100.97	5,097.98	12.36	9.94	1.36	-981.33	48.25	704.60	682.27	22.33	31.552	
5,300.00	5,265.89	5,199.56	5,196.26	12.66	10.14	1.49	-989.12	47.59	687.93	665.09	22.84	30.121	
5,400.00	5,362.88	5,298.15	5,294.54	12.98	10.35	1.63	-996.91	46.93	671.27	647.90	23.37	28.725	
5,500.00	5,459.86	5,396.74	5,392.82	13.30	10.56	1.77	-1,004.70	46.28	654.60	630.69	23.92	27.369	
5,600.00	5,556.84	5,495.33	5,491.09	13.64	10.79	1.92	-1,012.49	45.62	637.95	613.46	24.49	26.053	
5,700.00	5,653.82	5,593.91	5,589.37	13.99	11.02	2.09	-1,020.28	44.96	621.29	596.22	25.07	24.780	
5,800.00	5,750.80	5,692.50	5,687.65	14.34	11.26	2.26	-1,028.07	44.30	604.65	578.97	25.67	23.550	
5,900.00	5,847.79	5,791.09	5,785.93	14.70	11.51	2.43	-1,035.86	43.64	588.00	561.71	26.29	22.364	
6,000.00	5,944.77	5,889.68	5,884.20	15.07	11.77	2.62	-1,043.65	42.98	571.37	544.44	26.92	21.222	
6,100.00	6,041.75	5,988.27	5,982.48	15.45	12.03	2.83	-1,051.44	42.32	554.74	527.17	27.57	20.122	
6,200.00	6,138.73	6,086.85	6,080.76	15.83	12.30	3.04	-1,059.23	41.66	538.12	509.89	28.23	19.064	
6,300.00	6,235.71	6,185.44	6,179.04	16.22	12.57	3.27	-1,067.02	41.01	521.50	492.61	28.89	18.048	
6,400.00	6,332.69	6,284.03	6,277.32	16.62	12.84	3.51	-1,074.81	40.35	504.90	475.32	29.57	17.072	
6,500.00	6,429.68	6,382.62	6,375.59	17.02	13.13	3.77	-1,082.60	39.69	488.30	458.04	30.26	16.135	
6,600.00	6,526.66	6,481.21	6,473.87	17.42	13.41	4.05	-1,090.39	39.03	471.71	440.75	30.96	15.235	
6,700.00	6,623.64	6,579.80	6,572.15	17.83	13.71	4.34	-1,098.18	38.37	455.14	423.47	31.67	14.371	
6,800.00	6,720.62	6,678.38	6,670.43	18.24	14.00	4.66	-1,105.97	37.71	438.58	406.19	32.38	13.543	
6,900.00	6,817.60	6,776.97	6,768.70	18.66	14.29	5.01	-1,113.76	37.05	422.03	388.93	33.10	12.751	
7,000.00	6,914.59	6,891.05	6,882.57	19.08	14.66	5.42	-1,120.68	36.47	403.69	369.87	33.81	11.939	
7,100.00	7,011.57	7,003.98	6,995.47	19.51	14.84	5.85	-1,123.08	36.27	381.48	347.17	34.31	11.118	
7,200.00	7,108.55	7,101.57	7,093.05	19.93	14.95	6.25	-1,123.08	36.27	357.23	322.38	34.84	10.253	
7,300.00	7,205.53	7,198.55	7,190.03	20.36	15.00	6.71	-1,123.08	36.27	332.99	297.67	35.32	9.428	
7,400.00	7,302.51	7,295.53	7,287.01	20.80	15.06	7.24	-1,123.08	36.27	308.78	272.98	35.80	8.625	
7,500.00	7,399.50	7,392.52	7,384.00	21.23	15.11	7.85	-1,123.08	36.27	284.59	248.31	36.28	7.844	
7,600.00	7,496.48	7,489.50	7,480.98	21.67	15.17	8.59	-1,123.08	36.27	260.45	223.69	36.76	7.085	
7,700.00	7,593.46	7,586.48	7,577.96	22.11	15.22	9.47	-1,123.08	36.27	236.35	199.11	37.24	6.347	
7,800.00	7,690.44	7,683.46	7,674.94	22.56	15.27	10.55	-1,123.08	36.27	212.31	174.60	37.71	5.630	
7,900.00	7,787.91	7,780.93	7,772.41	23.05	15.33	11.65	-1,123.08	36.27	190.40	152.19	38.21	4.983	
8,000.00	7,886.41	7,879.43	7,870.91	23.68	15.38	12.69	-1,123.08	36.27	173.57	134.72	38.84	4.468	
8,100.00	7,985.67	7,978.69	7,970.17	24.30	15.44	13.54	-1,123.08	36.27	161.85	122.39	39.46	4.102	
8,200.00	8,085.43	8,078.45	8,069.93	24.87	15.50	14.08	-1,123.08	36.27	155.23	115.20	40.03	3.878	
8,300.00	8,185.40	8,178.42	8,169.90	24.99	15.55	-169.55	-1,123.08	36.27	153.60	113.40	40.20	3.821	
8,400.00	8,285.40	8,278.42	8,269.90	25.01	15.61	-169.55	-1,123.08	36.27	153.60	113.31	40.28	3.813	
8,500.00	8,385.40	8,378.42	8,369.90	25.04	15.67	-169.55	-1,123.08	36.27	153.60	113.23	40.37	3.805	
8,600.00	8,485.40	8,478.42	8,469.90	25.07	15.72	-169.55	-1,123.08	36.27	153.60	113.14	40.45	3.797	
8,700.00	8,585.40	8,578.42	8,569.90	25.10	15.78	-169.55	-1,123.08	36.27	153.60	113.06	40.54	3.789	
8,800.00	8,685.40	8,678.42	8,669.90	25.13	15.84	-169.55	-1,123.08	36.27	153.60	112.97	40.63	3.781	
8,900.00	8,785.40	8,778.42	8,769.90	25.16	15.90	-169.55	-1,123.08	36.27	153.60	112.88	40.72	3.772	
9,000.00	8,885.40	8,878.42	8,869.90	25.19	15.96	-169.55	-1,123.08	36.27	153.60	112.79	40.80	3.764	
9,100.00	8,985.40	8,978.42	8,969.90	25.22	16.02	-169.55	-1,123.08	36.27	153.60	112.70	40.89	3.756	
9,200.00	9,085.40	9,078.42	9,069.90	25.25	16.07	-169.55	-1,123.08	36.27	153.60	112.61	40.98	3.748	
9,300.00	9,185.40	9,178.42	9,169.90	25.28	16.13	-169.55	-1,123.08	36.27	153.60	112.52	41.07	3.740	
9,400.00	9,285.40	9,278.42	9,269.90	25.31	16.19	-169.55	-1,123.08	36.27	153.60	112.43	41.16	3.732	
9,500.00	9,385.40	9,378.42	9,369.90	25.34	16.25	-169.55	-1,123.08	36.27	153.60	112.34	41.25	3.723	
9,600.00	9,485.40	9,478.42	9,469.90	25.37	16.31	-169.55	-1,123.08	36.27	153.60	112.25	41.34	3.715	
9,700.00	9,585.40	9,578.42	9,569.90	25.40	16.37	-169.55	-1,123.08	36.27	153.60	112.16	41.43	3.707	
9,800.00	9,685.40	9,678.42	9,669.90	25.43	16.43	-169.55	-1,123.08	36.27	153.60	112.07	41.53	3.699	
9,900.00	9,785.40	9,778.42	9,769.90	25.46	16.49	-169.55	-1,123.08	36.27	153.60	111.98	41.62	3.691	
10,000.00	9,885.23	9,878.25	9,869.73	25.46	16.55	-80.85	-1,123.08	36.27	152.87	111.08	41.79	3.658	
10,100.00	9,982.95	9,975.97	9,967.45	25.46	16.61	-88.61	-1,123.08	36.27	150.95	108.90	42.04	3.590	
10,112.67	9,995.03	9,988.05	9,979.53	25.46	16.62	-90.00	-1,123.08	36.27	150.90	108.85	42.05	3.589 CC	
10,200.00	10,075.59	10,070.50	10,061.97	25.47	16.65	-101.22	-1,123.08	35.41	154.40	112.80	41.60	3.712	

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 505H - Original Hole - rev0 as per plat												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.00	10,160.35	10,172.85	10,162.92	25.51	16.71	-113.78	-1,123.17	19.59	167.16	126.88	40.28	4.150	
10,400.00	10,234.66	10,285.67	10,268.21	25.63	16.85	-123.99	-1,123.38	-20.29	185.70	146.28	39.42	4.711	
10,500.00	10,296.24	10,410.51	10,371.69	25.89	17.13	-131.60	-1,123.74	-89.60	205.50	165.85	39.65	5.183	
10,600.00	10,343.23	10,547.72	10,462.83	26.34	17.64	-136.74	-1,124.27	-191.64	222.39	181.65	40.74	5.459	
10,700.00	10,374.21	10,695.21	10,527.53	27.03	18.59	-139.54	-1,124.96	-323.63	232.95	190.89	42.06	5.538	
10,800.00	10,388.23	10,847.81	10,552.91	27.96	20.22	-140.06	-1,125.75	-473.54	235.01	192.09	42.92	5.475	
10,896.71	10,390.33	10,950.08	10,552.15	29.05	21.66	-139.62	-1,126.29	-575.81	232.79	188.95	43.84	5.310	
10,900.00	10,388.24	10,953.41	10,552.11	29.09	21.71	-139.94	-1,126.31	-579.14	234.36	190.50	43.85	5.344	
11,000.00	10,387.02	11,053.41	10,551.11	30.37	23.30	-139.98	-1,126.83	-679.13	234.52	189.53	44.99	5.213	
11,100.00	10,385.79	11,153.41	10,550.12	31.78	25.04	-140.02	-1,127.36	-779.12	234.69	188.35	46.34	5.064	
11,200.00	10,384.57	11,253.41	10,549.12	33.30	26.89	-140.06	-1,127.88	-879.12	234.85	186.96	47.89	4.904	
11,300.00	10,383.34	11,353.41	10,548.12	34.92	28.82	-140.09	-1,128.41	-979.11	235.02	185.41	49.61	4.737	
11,400.00	10,382.12	11,453.41	10,547.12	36.62	30.83	-140.13	-1,128.93	-1,079.10	235.19	183.69	51.49	4.567	
11,500.00	10,380.89	11,553.41	10,546.12	38.40	32.90	-140.17	-1,129.46	-1,179.10	235.35	181.84	53.51	4.398	
11,600.00	10,379.67	11,653.41	10,545.12	40.24	35.02	-140.21	-1,129.98	-1,279.09	235.52	179.86	55.66	4.232	
11,700.00	10,378.44	11,753.41	10,544.12	42.14	37.17	-140.24	-1,130.51	-1,379.08	235.69	177.78	57.91	4.070	
11,800.00	10,377.22	11,853.41	10,543.13	44.09	39.36	-140.28	-1,131.03	-1,479.08	235.85	175.60	60.26	3.914	
11,900.00	10,375.99	11,953.41	10,542.13	46.09	41.58	-140.32	-1,131.56	-1,579.07	236.02	173.33	62.69	3.765	
12,000.00	10,374.77	12,053.41	10,541.13	48.12	43.82	-140.36	-1,132.09	-1,679.06	236.19	170.99	65.20	3.623	
12,100.00	10,373.54	12,153.41	10,540.13	50.19	46.08	-140.39	-1,132.61	-1,779.06	236.35	168.58	67.77	3.487	
12,200.00	10,372.32	12,253.40	10,539.13	52.28	48.36	-140.43	-1,133.14	-1,879.05	236.52	166.11	70.41	3.359	
12,300.00	10,371.09	12,353.40	10,538.13	54.41	50.65	-140.47	-1,133.66	-1,979.04	236.69	163.60	73.09	3.238	
12,400.00	10,369.87	12,453.40	10,537.13	56.56	52.95	-140.50	-1,134.19	-2,079.04	236.85	161.03	75.82	3.124	
12,500.00	10,368.65	12,553.40	10,536.14	58.73	55.27	-140.54	-1,134.71	-2,179.03	237.02	158.43	78.59	3.016	
12,600.00	10,367.42	12,653.40	10,535.14	60.92	57.60	-140.58	-1,135.24	-2,279.02	237.19	155.79	81.40	2.914	
12,700.00	10,366.20	12,753.40	10,534.14	63.13	59.93	-140.61	-1,135.76	-2,379.02	237.36	153.12	84.23	2.818	
12,800.00	10,364.97	12,853.40	10,533.14	65.35	62.28	-140.65	-1,136.29	-2,479.01	237.52	150.43	87.10	2.727	
12,900.00	10,363.75	12,953.40	10,532.14	67.59	64.63	-140.69	-1,136.82	-2,579.00	237.69	147.70	89.99	2.641	
13,000.00	10,362.52	13,053.40	10,531.14	69.84	66.98	-140.73	-1,137.34	-2,679.00	237.86	144.96	92.90	2.560	
13,100.00	10,361.30	13,153.40	10,530.14	72.11	69.35	-140.76	-1,137.87	-2,778.99	238.03	142.19	95.83	2.484	
13,200.00	10,360.07	13,253.40	10,529.15	74.38	71.71	-140.80	-1,138.39	-2,878.98	238.19	139.41	98.78	2.411	
13,300.00	10,358.85	13,353.40	10,528.15	76.67	74.09	-140.83	-1,138.92	-2,978.98	238.36	136.62	101.75	2.343	
13,400.00	10,357.62	13,453.40	10,527.15	78.96	76.46	-140.87	-1,139.44	-3,078.97	238.53	133.80	104.73	2.278	
13,500.00	10,356.40	13,553.40	10,526.15	81.26	78.84	-140.91	-1,139.97	-3,178.96	238.70	130.98	107.72	2.216	
13,600.00	10,355.17	13,653.40	10,525.15	83.57	81.23	-140.94	-1,140.49	-3,278.96	238.87	128.15	110.72	2.157	
13,700.00	10,353.95	13,753.40	10,524.15	85.89	83.61	-140.98	-1,141.02	-3,378.95	239.04	125.30	113.73	2.102	
13,800.00	10,352.72	13,853.40	10,523.15	88.21	86.00	-141.02	-1,141.55	-3,478.95	239.20	122.45	116.76	2.049	
13,900.00	10,351.50	13,953.40	10,522.16	90.54	88.40	-141.05	-1,142.07	-3,578.94	239.37	119.59	119.79	1.998 Collision Risk Procedures<2.0	
14,000.00	10,350.27	14,053.40	10,521.16	92.87	90.79	-141.09	-1,142.60	-3,678.93	239.54	116.72	122.82	1.950 Collision Risk Procedures<2.0	
14,100.00	10,349.05	14,153.40	10,520.16	95.21	93.19	-141.13	-1,143.12	-3,778.93	239.71	113.84	125.87	1.904 Collision Risk Procedures<2.0	
14,200.00	10,347.82	14,253.40	10,519.16	97.56	95.59	-141.16	-1,143.65	-3,878.92	239.88	110.96	128.91	1.861 Collision Risk Procedures<2.0	
14,300.00	10,346.60	14,353.40	10,518.16	99.91	97.99	-141.20	-1,144.17	-3,978.91	240.05	108.08	131.97	1.819 Collision Risk Procedures<2.0	
14,400.00	10,345.37	14,453.40	10,517.16	102.26	100.39	-141.23	-1,144.70	-4,078.91	240.22	105.19	135.03	1.779 Collision Risk Procedures<2.0	
14,500.00	10,344.15	14,553.40	10,516.16	104.62	102.80	-141.27	-1,145.22	-4,178.90	240.39	102.30	138.09	1.741 Collision Risk Procedures<2.0	
14,600.00	10,342.92	14,653.40	10,515.17	106.98	105.20	-141.31	-1,145.75	-4,278.89	240.56	99.41	141.15	1.704 Collision Risk Procedures<2.0	
14,700.00	10,341.70	14,753.40	10,514.17	109.34	107.61	-141.34	-1,146.28	-4,378.89	240.73	96.51	144.22	1.669 Collision Risk Procedures<2.0	
14,800.00	10,340.48	14,853.40	10,513.17	111.71	110.02	-141.38	-1,146.80	-4,478.88	240.89	93.61	147.29	1.636 Collision Risk Procedures<2.0	
14,900.00	10,339.25	14,953.40	10,512.17	114.08	112.43	-141.41	-1,147.33	-4,578.87	241.06	90.71	150.36	1.603 Collision Risk Procedures<2.0	
15,000.00	10,338.03	15,053.40	10,511.17	116.45	114.84	-141.45	-1,147.85	-4,678.87	241.23	87.80	153.43	1.572 Collision Risk Procedures<2.0	
15,100.00	10,336.80	15,153.40	10,510.17	118.82	117.25	-141.48	-1,148.38	-4,778.86	241.40	84.90	156.50	1.542 Collision Risk Procedures<2.0	
15,200.00	10,335.58	15,253.40	10,509.17	121.20	119.67	-141.52	-1,148.90	-4,878.85	241.57	81.99	159.58	1.514 Collision Risk Procedures<2.0	
15,300.00	10,334.35	15,353.40	10,508.18	123.58	122.08	-141.55	-1,149.43	-4,978.85	241.74	79.09	162.65	1.486 Collision Avoidance Req.<1.50	

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



Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 505H - Original Hole - rev0 as per plat												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
15,400.00	10,333.13	15,453.40	10,507.18	125.97	124.50	-141.59	-1,149.95	-5,078.84	241.91	76.18	165.73	1.460	Collision Avoidance Req.<1.50
15,500.00	10,331.90	15,553.40	10,506.18	128.35	126.91	-141.63	-1,150.48	-5,178.83	242.08	73.28	168.81	1.434	Collision Avoidance Req.<1.50
15,600.00	10,330.68	15,653.40	10,505.18	130.74	129.33	-141.66	-1,151.01	-5,278.83	242.25	70.37	171.88	1.409	Collision Avoidance Req.<1.50
15,700.00	10,329.45	15,753.40	10,504.18	133.12	131.75	-141.70	-1,151.53	-5,378.82	242.42	67.47	174.96	1.386	Collision Avoidance Req.<1.50
15,800.00	10,328.23	15,853.40	10,503.18	135.51	134.17	-141.73	-1,152.06	-5,478.81	242.59	64.56	178.03	1.363	Collision Avoidance Req.<1.50
15,900.00	10,327.00	15,953.40	10,502.18	137.90	136.59	-141.77	-1,152.58	-5,578.81	242.77	61.66	181.11	1.340	Collision Avoidance Req.<1.50
15,900.85	10,326.99	15,954.24	10,502.18	137.93	136.61	-141.77	-1,152.59	-5,579.65	242.77	61.63	181.13	1.340	Collision Avoidance Req.<1.50, ES, SF

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 506H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 220-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	6.09	6.09	0.00	0.04	28.40	181.27	98.01	206.07					
100.00	100.00	107.64	107.64	0.84	0.71	28.43	180.84	97.91	205.65	204.10	1.55	132.901		
200.00	200.00	209.17	209.16	1.44	1.38	28.53	179.63	97.64	204.47	201.65	2.82	72.414		
300.00	300.00	308.63	308.61	1.89	2.31	28.66	178.11	97.37	203.00	198.80	4.20	48.336		
400.00	400.00	407.87	407.84	2.25	3.28	28.82	176.89	97.33	201.91	196.39	5.52	36.576		
500.00	500.00	508.52	508.49	2.57	3.90	29.05	175.56	97.50	200.83	194.38	6.45	31.133		
600.00	600.00	608.87	608.81	2.85	4.51	29.38	173.77	97.84	199.45	192.12	7.32	27.231		
700.00	700.00	707.76	707.69	3.11	5.00	29.81	172.07	98.59	198.32	190.26	8.05	24.629		
800.00	800.00	806.27	806.18	3.35	5.42	30.31	170.73	99.82	197.77	189.09	8.68	22.782		
807.35	807.35	813.44	813.35	3.37	5.44	30.35	170.67	99.92	197.77	189.06	8.71	22.694 CC		
900.00	900.00	903.81	903.71	3.58	5.68	30.68	170.55	101.16	198.31	189.17	9.13	21.715		
1,000.00	1,000.00	1,003.82	1,003.71	3.79	5.88	30.91	171.30	102.55	199.66	190.14	9.52	20.972		
1,100.00	1,100.00	1,104.66	1,104.54	3.99	6.14	31.23	171.48	103.99	200.55	190.60	9.95	20.164		
1,200.00	1,200.00	1,205.11	1,204.98	4.19	6.47	31.57	171.40	105.32	201.17	190.74	10.43	19.282		
1,300.00	1,300.00	1,305.94	1,305.80	4.38	6.84	31.92	171.04	106.54	201.51	190.57	10.94	18.425		
1,400.00	1,400.00	1,406.98	1,406.83	4.56	7.22	32.37	170.06	107.80	201.35	189.91	11.45	17.591		
1,500.00	1,500.00	1,507.52	1,507.35	4.74	7.61	32.93	168.53	109.14	200.79	188.84	11.95	16.804		
1,600.00	1,600.00	1,607.90	1,607.70	4.91	8.00	33.59	166.61	110.67	200.02	187.58	12.44	16.074		
1,684.11	1,684.11	1,690.34	1,690.11	5.05	8.22	34.10	165.29	111.93	199.62	186.86	12.76	15.643		
1,700.00	1,700.00	1,705.86	1,705.63	5.08	8.25	34.17	165.16	112.14	199.63	186.81	12.82	15.574 ES		
1,800.00	1,800.00	1,803.57	1,803.34	5.24	8.49	34.42	165.29	113.26	200.39	187.21	13.18	15.209		
1,900.00	1,900.00	1,903.52	1,903.28	5.40	8.75	34.50	166.25	114.25	201.74	188.14	13.60	14.836		
2,000.00	2,000.00	2,003.47	2,003.22	5.56	9.02	34.58	167.19	115.26	203.09	189.07	14.02	14.489		
2,100.00	2,100.00	2,102.95	2,102.68	5.71	9.30	34.78	168.02	116.68	204.58	190.16	14.43	14.180		
2,200.00	2,200.00	2,202.27	2,201.98	5.86	9.61	35.13	168.72	118.72	206.34	191.51	14.83	13.914		
2,300.00	2,300.00	2,301.08	2,300.76	6.01	10.01	35.19	170.40	120.17	208.57	193.37	15.21	13.716		
2,400.00	2,400.00	2,400.36	2,399.99	6.16	10.42	34.80	173.47	120.55	211.33	195.72	15.61	13.535		
2,500.00	2,500.00	2,500.70	2,500.28	6.30	10.85	34.31	176.77	120.64	214.09	198.00	16.09	13.308		
2,600.00	2,600.00	2,601.20	2,600.73	6.44	11.17	33.85	179.88	120.65	216.66	200.14	16.52	13.118		
2,700.00	2,700.00	2,701.86	2,701.35	6.58	11.34	33.33	182.87	120.28	218.93	202.04	16.89	12.962		
2,800.00	2,800.00	2,802.77	2,802.21	6.72	11.50	32.75	185.73	119.49	220.87	203.62	17.25	12.801		
2,900.00	2,900.00	2,903.85	2,903.26	6.85	11.66	32.16	188.23	118.33	222.35	204.74	17.61	12.627		
3,000.00	3,000.00	3,004.32	3,003.70	6.98	11.81	31.56	190.38	116.95	223.45	205.49	17.96	12.444		
3,100.00	3,100.00	3,104.58	3,103.93	7.12	11.95	31.03	192.30	115.68	224.42	206.13	18.29	12.268		
3,200.00	3,200.00	3,205.60	3,204.93	7.25	12.09	30.61	193.78	114.63	225.15	206.53	18.61	12.096		
3,300.00	3,300.00	3,306.76	3,306.09	7.38	12.24	30.39	194.40	114.02	225.37	206.43	18.93	11.904		
3,400.00	3,400.00	3,408.13	3,407.45	7.50	12.44	30.43	194.02	113.96	225.02	205.83	19.19	11.725		
3,500.00	3,500.00	3,508.83	3,508.14	7.63	12.65	30.75	192.59	114.57	224.10	204.62	19.48	11.504		
3,599.10	3,599.10	3,605.80	3,605.10	7.75	12.89	31.04	191.61	115.30	223.63	203.75	19.88	11.247		
3,600.00	3,600.00	3,606.68	3,605.98	7.75	12.90	31.04	191.61	115.31	223.63	203.74	19.89	11.245		
3,700.00	3,700.00	3,704.81	3,704.11	7.88	13.13	31.15	191.78	115.93	224.10	203.82	20.28	11.048		
3,800.00	3,799.98	3,803.64	3,802.93	8.00	13.30	-145.38	192.87	116.20	226.63	206.06	20.57	11.020		
3,900.00	3,899.84	3,902.44	3,901.72	8.38	13.47	-146.31	194.78	116.05	232.55	211.52	21.03	11.059		
4,000.00	3,999.45	4,001.24	4,000.48	8.76	13.63	-147.71	197.14	115.68	241.77	220.26	21.51	11.239		
4,100.00	4,098.70	4,097.42	4,096.63	9.15	13.81	-149.39	199.97	115.23	254.58	232.52	22.06	11.540		
4,200.00	4,197.47	4,190.25	4,189.35	9.54	13.99	-151.19	204.22	115.31	272.35	249.67	22.68	12.009		
4,300.00	4,295.62	4,284.44	4,283.36	9.93	14.19	-153.07	210.06	115.95	295.14	271.80	23.34	12.645		
4,400.00	4,393.06	4,380.95	4,379.68	10.36	14.43	-154.98	216.13	116.59	321.44	297.36	24.08	13.347		
4,500.00	4,490.04	4,477.23	4,475.78	10.63	14.66	-156.93	222.00	117.09	349.58	324.94	24.64	14.189		
4,600.00	4,587.02	4,573.84	4,572.22	10.83	14.86	-158.63	227.65	117.34	377.74	352.66	25.08	15.062		
4,700.00	4,684.00	4,671.47	4,669.71	11.04	15.07	-160.13	233.01	117.40	405.79	380.25	25.54	15.887		
4,800.00	4,780.98	4,770.07	4,768.19	11.27	15.29	-161.41	237.75	117.49	433.42	407.39	26.03	16.652		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 506H - Original Hole - Surveys Original Hole													Offset Site Error: 0.00 ft
Survey Program: 220-MWD													Offset Well Error: 0.00 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance		Minimum	Separation	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	Factor	
4,900.00	4,877.97	4,867.74	4,865.77	11.52	15.50	-162.52	241.86	117.49	460.65	434.13	26.52	17.371	
5,000.00	4,974.95	4,964.93	4,962.88	11.79	15.71	-163.55	245.78	117.03	487.74	460.72	27.02	18.050	
5,100.00	5,071.93	5,062.04	5,059.92	12.06	15.91	-164.52	249.52	116.16	514.73	487.20	27.53	18.695	
5,200.00	5,168.91	5,159.20	5,157.00	12.36	16.11	-165.40	253.08	115.10	541.62	513.57	28.06	19.304	
5,300.00	5,265.89	5,256.69	5,254.42	12.66	16.30	-166.22	256.47	113.80	568.40	539.81	28.59	19.882	
5,400.00	5,362.88	5,354.32	5,352.00	12.98	16.49	-167.00	259.64	112.21	595.02	565.89	29.13	20.425	
5,500.00	5,459.86	5,449.86	5,447.47	13.30	16.69	-167.70	262.67	110.60	621.64	591.97	29.68	20.946	
5,600.00	5,556.84	5,545.21	5,542.76	13.64	16.88	-168.31	265.77	109.26	648.46	618.23	30.23	21.448	
5,700.00	5,653.82	5,637.67	5,635.16	13.99	17.09	-168.84	269.03	108.24	675.65	644.85	30.80	21.938	
5,800.00	5,750.80	5,729.76	5,727.17	14.34	17.31	-169.31	272.76	107.54	703.41	672.05	31.37	22.423	
5,900.00	5,847.79	5,828.14	5,825.46	14.70	17.48	-169.74	276.83	107.18	731.35	699.43	31.92	22.912	
6,000.00	5,944.77	5,926.49	5,923.74	15.07	17.68	-170.15	280.57	106.55	758.98	726.46	32.51	23.345	
6,100.00	6,041.75	6,024.66	6,021.83	15.45	17.88	-170.61	284.09	104.93	786.34	753.23	33.11	23.749	
6,200.00	6,138.73	6,119.97	6,117.06	15.83	18.09	-171.08	287.49	102.64	813.66	779.95	33.71	24.134	
6,300.00	6,235.71	6,215.68	6,212.66	16.22	18.29	-171.56	291.03	99.82	841.12	806.80	34.33	24.504	
6,400.00	6,332.69	6,315.23	6,312.10	16.62	18.49	-172.04	294.52	96.57	868.42	833.47	34.95	24.846	
6,500.00	6,429.68	6,413.14	6,409.90	17.02	18.70	-172.50	297.57	93.21	895.39	859.82	35.58	25.168	
6,600.00	6,526.66	6,504.83	6,501.51	17.42	18.90	-172.86	300.58	90.70	922.61	886.43	36.18	25.499	
6,700.00	6,623.64	6,598.08	6,594.68	17.83	19.12	-173.14	304.03	89.15	950.30	913.50	36.80	25.820	
6,800.00	6,720.62	6,698.26	6,694.79	18.24	19.38	-173.37	307.54	88.47	977.88	940.39	37.49	26.084	
6,900.00	6,817.60	6,798.19	6,794.68	18.66	19.64	-173.54	310.58	88.70	1,005.06	966.88	38.18	26.327	
7,000.00	6,914.59	6,897.23	6,893.68	19.08	19.90	-173.67	313.27	89.25	1,031.95	993.09	38.86	26.554	
7,100.00	7,011.57	6,995.27	6,991.69	19.51	20.16	-173.78	315.69	89.92	1,058.61	1,019.07	39.55	26.769	
7,200.00	7,108.55	7,091.88	7,088.27	19.93	20.41	-173.89	318.02	90.54	1,085.22	1,045.00	40.22	26.980	
7,300.00	7,205.53	7,190.90	7,187.26	20.36	20.67	-174.01	320.34	91.11	1,111.75	1,070.84	40.91	27.174	
7,400.00	7,302.51	7,292.47	7,288.81	20.80	20.93	-174.12	322.31	91.59	1,137.91	1,096.29	41.62	27.343	
7,500.00	7,399.50	7,389.92	7,386.24	21.23	21.18	-174.23	323.88	91.95	1,163.75	1,121.45	42.30	27.513	
7,600.00	7,496.48	7,485.01	7,481.32	21.67	21.41	-174.33	325.51	92.25	1,189.68	1,146.71	42.97	27.688	
7,700.00	7,593.46	7,583.80	7,580.09	22.11	21.66	-174.44	327.21	92.53	1,215.63	1,171.97	43.66	27.845	
7,800.00	7,690.44	7,684.46	7,680.74	22.56	21.91	-174.54	328.65	92.75	1,241.29	1,196.93	44.36	27.982	
7,900.00	7,787.91	7,783.11	7,779.39	23.05	22.14	-174.69	329.82	92.88	1,264.67	1,219.58	45.09	28.050	
8,000.00	7,886.41	7,882.38	7,878.65	23.68	22.37	-174.82	330.92	92.84	1,282.89	1,236.94	45.95	27.918	
8,100.00	7,985.67	7,981.07	7,977.34	24.30	22.59	-174.92	332.00	92.52	1,295.95	1,249.16	46.79	27.700	
8,200.00	8,085.43	8,080.19	8,076.45	24.87	22.80	-175.00	333.13	91.81	1,303.86	1,256.30	47.56	27.413	
8,300.00	8,185.40	8,179.18	8,175.43	24.99	23.00	1.17	334.33	90.78	1,306.73	1,258.84	47.89	27.285	
8,400.00	8,285.40	8,278.07	8,274.30	25.01	23.20	1.11	335.60	89.49	1,307.99	1,259.87	48.12	27.182	
8,500.00	8,385.40	8,376.18	8,372.39	25.04	23.40	1.05	336.98	88.18	1,309.37	1,261.01	48.35	27.079	
8,600.00	8,485.40	8,472.13	8,468.32	25.07	23.61	1.00	338.48	86.97	1,310.91	1,262.33	48.58	26.985	
8,700.00	8,585.40	8,561.48	8,557.63	25.10	23.81	0.92	340.44	85.23	1,313.08	1,264.29	48.78	26.916	
8,800.00	8,685.40	8,653.22	8,649.29	25.13	24.02	0.80	343.21	82.52	1,316.04	1,267.05	49.00	26.859	
8,900.00	8,785.40	8,759.80	8,755.74	25.16	24.24	0.62	346.41	78.43	1,319.00	1,269.72	49.28	26.768	
9,000.00	8,885.40	8,865.68	8,861.47	25.19	24.45	0.41	349.06	73.55	1,321.46	1,271.93	49.54	26.677	
9,100.00	8,985.40	8,970.51	8,966.17	25.22	24.65	0.20	351.27	68.68	1,323.55	1,273.78	49.77	26.594	
9,200.00	9,085.40	9,071.52	9,067.06	25.25	24.83	0.00	353.11	64.15	1,325.36	1,275.38	49.98	26.516	
9,300.00	9,185.40	9,169.92	9,165.35	25.28	25.02	-0.18	354.97	59.92	1,327.26	1,277.08	50.19	26.446	
9,400.00	9,285.40	9,273.27	9,268.59	25.31	25.21	-0.37	356.91	55.63	1,329.16	1,278.76	50.41	26.370	
9,500.00	9,385.40	9,378.91	9,374.14	25.34	25.41	-0.55	358.46	51.32	1,330.67	1,280.04	50.63	26.282	
9,600.00	9,485.40	9,486.66	9,481.81	25.37	25.57	-0.72	359.51	47.40	1,331.68	1,280.86	50.83	26.201	
9,700.00	9,585.40	9,591.69	9,586.80	25.40	25.74	-0.84	359.94	44.60	1,332.13	1,281.11	51.01	26.113	
9,800.00	9,685.40	9,683.38	9,678.48	25.43	25.91	-0.87	360.54	43.86	1,332.78	1,281.60	51.18	26.039	
9,900.00	9,785.40	9,777.69	9,772.77	25.46	26.11	-0.81	361.76	45.25	1,334.05	1,282.67	51.38	25.963	
10,000.00	9,885.23	9,887.56	9,882.59	25.46	26.45	89.77	362.91	48.37	1,335.05	1,283.30	51.74	25.801	

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 506H - Original Hole - Surveys Original Hole													Offset Site Error: 0.00 ft		
Survey Program: 220-MWD		Offset		Semi Major Axis			Offset Wellbore Centre			Rule Assigned:				Offset Well Error: 0.00 ft	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
10,100.00	9,982.95	9,996.36	9,991.32	25.46	26.65	90.85	363.21	52.17	1,335.44	1,283.50	51.94	25.713			
10,200.00	10,075.59	10,102.11	10,097.04	25.47	26.64	92.60	362.44	54.97	1,335.95	1,284.01	51.94	25.721			
10,300.00	10,160.35	10,188.49	10,183.39	25.51	26.62	94.36	361.20	56.38	1,338.25	1,286.38	51.88	25.796			
10,400.00	10,234.66	10,259.49	10,254.38	25.63	26.58	95.75	360.31	57.09	1,344.78	1,292.98	51.79	25.964			
10,500.00	10,296.24	10,318.84	10,313.72	25.89	26.54	96.51	359.70	57.38	1,357.08	1,305.35	51.73	26.232			
10,600.00	10,343.23	10,365.06	10,359.95	26.34	26.50	96.28	359.31	57.42	1,376.36	1,324.68	51.68	26.633			
10,700.00	10,374.21	10,396.52	10,391.40	27.03	26.47	94.78	359.08	57.35	1,403.20	1,351.54	51.66	27.161			
10,800.00	10,388.23	10,411.52	10,406.40	27.96	26.45	91.77	358.96	57.31	1,437.42	1,385.76	51.67	27.821			
10,900.00	10,388.24	10,411.84	10,406.72	29.09	26.45	90.20	358.96	57.31	1,478.07	1,426.40	51.67	28.607			
11,000.00	10,387.02	11,562.26	11,052.92	30.37	31.31	115.95	378.68	-621.87	1,507.92	1,445.94	61.98	24.328			
11,100.00	10,385.79	11,665.24	11,050.24	31.78	32.61	115.80	384.16	-724.67	1,512.60	1,448.34	64.26	23.538			
11,200.00	10,384.57	11,774.43	11,048.14	33.30	34.16	115.68	389.08	-833.72	1,516.84	1,449.98	66.86	22.687			
11,300.00	10,383.34	11,899.23	11,047.33	34.92	36.10	115.64	392.73	-958.47	1,520.27	1,450.36	69.91	21.746			
11,400.00	10,382.12	12,077.55	11,048.32	36.62	39.20	115.79	389.20	-1,136.70	1,519.54	1,445.49	74.04	20.522			
11,500.00	10,380.89	12,197.52	11,048.44	38.40	41.36	115.93	383.05	-1,256.51	1,515.97	1,438.55	77.42	19.580			
11,600.00	10,379.67	12,303.00	11,047.32	40.24	43.32	116.03	376.83	-1,361.80	1,511.20	1,430.49	80.71	18.725			
11,700.00	10,378.44	12,370.54	11,046.23	42.14	44.63	116.07	373.69	-1,429.25	1,507.46	1,423.96	83.51	18.052			
11,800.00	10,377.22	12,449.50	11,044.56	44.09	46.20	116.06	372.44	-1,508.18	1,506.06	1,419.50	86.56	17.398			
11,900.00	10,375.99	12,545.65	11,041.81	46.09	48.12	116.01	371.82	-1,604.29	1,505.24	1,415.24	90.01	16.724			
12,000.00	10,374.77	12,645.73	11,038.81	48.12	50.15	115.94	371.37	-1,704.33	1,504.55	1,410.95	93.60	16.074			
12,100.00	10,373.54	12,738.80	11,035.97	50.19	52.07	115.88	371.08	-1,797.35	1,503.96	1,406.83	97.12	15.485			
12,200.00	10,372.32	12,835.97	11,033.36	52.28	54.10	115.82	371.18	-1,894.48	1,503.89	1,403.10	100.80	14.920			
12,231.20	10,371.94	12,866.00	11,032.56	52.95	54.73	115.81	371.19	-1,924.51	1,503.86	1,401.91	101.95	14.751			
12,300.00	10,371.09	12,920.59	11,031.58	54.41	55.89	115.79	371.30	-1,979.09	1,504.15	1,399.91	104.25	14.429			
12,400.00	10,369.87	13,009.49	11,031.53	56.56	57.79	115.81	371.83	-2,067.98	1,505.66	1,397.85	107.80	13.967			
12,500.00	10,368.65	13,104.99	11,031.18	58.73	59.86	115.81	372.79	-2,163.47	1,507.42	1,395.86	111.56	13.513			
12,600.00	10,367.42	13,201.41	11,029.91	60.92	61.96	115.77	374.63	-2,259.87	1,509.59	1,394.19	115.39	13.082			
12,700.00	10,366.20	13,309.71	11,030.93	63.13	64.35	115.83	375.37	-2,368.16	1,511.63	1,392.14	119.49	12.651			
12,800.00	10,364.97	13,418.52	11,032.24	65.35	66.76	115.91	375.13	-2,476.96	1,512.98	1,389.37	123.61	12.240			
12,900.00	10,363.75	13,517.60	11,032.89	67.59	68.97	115.97	374.90	-2,576.04	1,514.07	1,386.52	127.55	11.871			
13,000.00	10,362.52	13,636.36	11,033.63	69.84	71.65	116.05	374.11	-2,694.79	1,514.80	1,382.85	131.95	11.480			
13,100.00	10,361.30	13,773.00	11,035.22	72.11	74.74	116.23	369.38	-2,831.33	1,513.12	1,376.44	136.68	11.071			
13,200.00	10,360.07	13,921.15	11,034.53	74.38	78.09	116.38	361.60	-2,979.26	1,509.33	1,367.75	141.58	10.660			
13,300.00	10,358.85	14,031.30	11,028.77	76.67	80.60	116.33	354.91	-3,089.05	1,502.51	1,356.62	145.89	10.299			
13,400.00	10,357.62	14,083.00	11,025.63	78.96	81.78	116.28	352.60	-3,140.60	1,497.28	1,348.18	149.10	10.042			
13,500.00	10,356.40	14,177.00	11,020.88	81.26	83.95	116.18	350.61	-3,234.46	1,494.17	1,340.97	153.20	9.753			
13,600.00	10,355.17	14,245.36	11,018.47	83.57	85.53	116.13	350.28	-3,302.77	1,492.97	1,336.28	156.68	9.529			
13,700.00	10,353.95	14,340.93	11,016.36	85.89	87.75	116.10	349.78	-3,398.32	1,492.54	1,331.77	160.77	9.284			
13,800.00	10,352.72	14,442.75	11,015.27	88.21	90.11	116.11	348.72	-3,500.12	1,492.16	1,327.19	164.97	9.045			
13,900.00	10,351.50	14,543.91	11,014.05	90.54	92.46	116.12	347.58	-3,601.27	1,491.64	1,322.47	169.18	8.817			
14,000.00	10,350.27	14,656.28	11,013.57	92.87	95.07	116.18	345.32	-3,713.61	1,490.67	1,317.07	173.60	8.587			
14,100.00	10,349.05	14,765.12	11,013.75	95.21	97.61	116.28	342.14	-3,822.41	1,489.16	1,311.26	177.90	8.371			
14,200.00	10,347.82	14,878.29	11,009.68	97.56	100.26	116.22	339.46	-3,935.47	1,486.43	1,303.96	182.47	8.146			
14,300.00	10,346.60	14,969.22	11,005.23	99.91	102.39	116.12	337.98	-4,026.27	1,483.83	1,297.21	186.62	7.951			
14,400.00	10,345.37	15,056.64	11,002.37	102.26	104.44	116.07	336.60	-4,113.63	1,482.00	1,291.38	190.62	7.775			
14,500.00	10,344.15	15,141.32	11,000.29	104.62	106.43	116.04	335.78	-4,198.28	1,481.07	1,286.54	194.54	7.613			
14,527.73	10,343.81	15,163.70	11,000.17	105.27	106.96	116.05	335.54	-4,220.66	1,481.02	1,285.45	195.58	7.573			
14,600.00	10,342.92	15,229.85	11,001.28	106.98	108.52	116.13	334.55	-4,286.79	1,481.31	1,282.91	198.40	7.466			
14,700.00	10,341.70	15,345.05	11,005.32	109.34	111.23	116.37	331.01	-4,401.86	1,481.12	1,278.40	202.72	7.306			
14,800.00	10,340.48	15,466.82	11,008.62	111.71	114.10	116.60	326.39	-4,523.50	1,480.00	1,272.83	207.17	7.144			
14,900.00	10,339.25	15,580.46	11,008.92	114.08	116.78	116.73	321.62	-4,637.04	1,477.38	1,265.84	211.54	6.984			
15,000.00	10,338.03	15,676.77	11,007.72	116.45	119.06	116.79	318.04	-4,733.27	1,474.52	1,258.89	215.64	6.838			

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



Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 506H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 220-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
15,100.00	10,336.80	15,774.42	11,005.58	118.82	121.37	116.79	315.10	-4,830.85	1,471.88	1,252.04	219.83	6.695		
15,200.00	10,335.58	15,862.00	11,002.98	121.20	123.45	116.77	312.84	-4,918.37	1,469.32	1,245.47	223.85	6.564		
15,300.00	10,334.35	15,955.00	11,000.84	123.58	125.66	116.76	311.21	-5,011.32	1,467.75	1,239.77	227.99	6.438		
15,400.00	10,333.13	16,049.88	11,000.37	125.97	127.92	116.80	309.60	-5,106.19	1,467.04	1,234.96	232.07	6.321		
15,500.00	10,331.90	16,165.99	11,000.57	128.35	130.68	116.90	306.31	-5,222.25	1,465.62	1,229.05	236.57	6.195		
15,600.00	10,330.68	16,282.72	10,997.66	130.74	133.45	116.90	302.95	-5,338.89	1,462.95	1,221.72	241.22	6.065		
15,700.00	10,329.45	16,389.77	10,993.39	133.12	136.00	116.84	299.76	-5,445.81	1,459.51	1,213.76	245.75	5.939		
15,800.00	10,328.23	16,485.00	10,988.86	135.51	138.27	116.77	296.99	-5,540.89	1,455.81	1,205.74	250.07	5.822		
15,848.19	10,327.64	16,485.00	10,988.86	136.67	138.27	116.77	296.99	-5,540.89	1,455.02	1,204.01	251.01	5.797		
15,900.00	10,327.00	16,485.00	10,988.86	137.90	138.27	116.77	296.99	-5,540.89	1,455.94	1,204.22	251.72	5.784		
15,900.85	10,326.99	16,485.00	10,988.86	137.93	138.27	116.77	296.99	-5,540.89	1,455.97	1,204.24	251.73	5.784 SF		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 508H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 311-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+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	173.38	-903.31	104.85	909.52					
100.00	100.00	82.96	82.96	0.84	0.77	173.37	-903.35	104.93	909.42	907.82	1.60	568.272		
200.00	200.00	181.73	181.73	1.44	1.68	173.36	-903.49	105.25	909.60	906.49	3.12	291.978		
300.00	300.00	280.49	280.49	1.89	2.59	173.32	-903.74	105.81	909.92	905.45	4.47	203.587		
400.00	400.00	387.51	387.50	2.25	3.35	173.27	-903.78	106.67	910.06	904.48	5.58	163.009		
500.00	500.00	498.21	498.19	2.57	4.05	173.19	-902.57	107.76	909.09	902.51	6.58	138.184		
600.00	600.00	584.36	584.33	2.85	4.80	173.10	-901.73	109.18	908.32	900.68	7.63	118.985		
602.43	602.43	586.47	586.43	2.86	4.82	173.09	-901.73	109.22	908.32	900.66	7.66	118.598		
700.00	700.00	670.96	670.89	3.11	5.61	172.95	-902.06	111.54	909.02	900.37	8.65	105.081		
800.00	800.00	799.35	799.22	3.35	6.81	172.72	-901.81	115.27	909.28	899.12	10.16	89.518		
900.00	900.00	924.68	924.45	3.58	8.06	172.54	-897.33	117.49	905.89	894.49	11.40	79.442		
1,000.00	1,000.00	1,037.94	1,037.51	3.79	8.89	172.34	-891.07	119.92	900.69	888.57	12.12	74.320		
1,100.00	1,100.00	1,125.19	1,124.59	3.99	9.23	172.20	-886.08	121.39	895.27	882.59	12.69	70.554		
1,200.00	1,200.00	1,208.93	1,208.28	4.19	9.50	172.21	-883.10	120.76	891.65	878.42	13.23	67.412		
1,300.00	1,300.00	1,294.97	1,294.27	4.38	9.79	172.34	-881.76	118.53	889.75	875.98	13.77	64.595		
1,380.42	1,380.42	1,365.14	1,364.42	4.53	10.05	172.46	-881.59	116.76	889.29	875.07	14.22	62.548		
1,400.00	1,400.00	1,382.22	1,381.50	4.56	10.11	172.48	-881.67	116.34	889.31	874.99	14.33	62.080		
1,500.00	1,500.00	1,477.95	1,477.20	4.74	10.38	172.63	-882.70	114.13	890.07	875.28	14.79	60.172		
1,600.00	1,600.00	1,582.21	1,581.42	4.91	10.60	172.80	-883.57	111.66	890.60	875.43	15.18	58.686		
1,700.00	1,700.00	1,683.45	1,682.64	5.08	10.81	172.95	-884.04	109.33	890.77	875.22	15.55	57.288		
1,800.00	1,800.00	1,783.46	1,782.63	5.24	11.02	173.06	-884.40	107.63	890.93	875.01	15.92	55.975		
1,900.00	1,900.00	1,883.03	1,882.18	5.40	11.22	173.16	-884.75	106.19	891.10	874.83	16.27	54.755		
2,000.00	2,000.00	1,982.49	1,981.63	5.56	11.43	173.28	-885.21	104.33	891.34	874.71	16.63	53.607		
2,100.00	2,100.00	2,077.12	2,076.23	5.71	11.61	173.42	-885.99	102.17	891.89	874.94	16.95	52.604		
2,200.00	2,200.00	2,174.00	2,173.06	5.86	11.80	173.60	-887.45	99.55	893.08	875.80	17.28	51.675		
2,300.00	2,300.00	2,273.75	2,272.78	6.01	11.97	173.75	-889.09	97.35	894.47	876.88	17.59	50.838		
2,400.00	2,400.00	2,375.40	2,374.41	6.16	12.14	173.81	-890.32	96.54	895.59	877.68	17.91	50.001		
2,500.00	2,500.00	2,471.97	2,470.97	6.30	12.30	173.84	-891.58	96.23	896.85	878.63	18.23	49.207		
2,600.00	2,600.00	2,568.80	2,567.79	6.44	12.44	173.87	-893.22	95.86	898.49	879.98	18.52	48.527		
2,700.00	2,700.00	2,667.92	2,666.89	6.58	12.50	173.91	-895.15	95.55	900.40	881.68	18.72	48.093		
2,800.00	2,800.00	2,768.63	2,767.59	6.72	12.55	173.95	-897.00	95.12	902.18	883.26	18.92	47.678		
2,900.00	2,900.00	2,867.78	2,866.71	6.85	12.60	173.99	-898.99	94.67	904.13	885.00	19.13	47.275		
3,000.00	3,000.00	2,972.66	2,971.58	6.98	12.65	174.02	-900.81	94.42	905.83	886.49	19.34	46.848		
3,100.00	3,100.00	3,072.13	3,071.04	7.12	12.75	173.99	-902.00	94.90	907.07	887.48	19.59	46.307		
3,200.00	3,200.00	3,166.80	3,165.69	7.25	12.88	173.92	-903.49	96.29	908.79	888.92	19.87	45.747		
3,300.00	3,300.00	3,262.05	3,260.89	7.38	13.05	173.79	-905.44	98.49	911.08	890.91	20.17	45.170		
3,400.00	3,400.00	3,357.63	3,356.41	7.50	13.23	173.65	-907.84	100.96	913.86	893.36	20.49	44.599		
3,500.00	3,500.00	3,445.12	3,443.81	7.63	13.49	173.52	-910.67	103.50	917.42	896.55	20.86	43.970		
3,600.00	3,600.00	3,528.72	3,527.26	7.75	13.78	173.36	-914.76	106.47	922.68	901.42	21.26	43.399		
3,700.00	3,700.00	3,623.26	3,621.53	7.88	14.11	173.18	-920.79	110.15	929.46	907.75	21.71	42.817		
3,800.00	3,799.98	3,732.57	3,730.62	8.00	14.49	-3.13	-927.38	112.24	933.93	911.72	22.22	42.036		
3,900.00	3,899.84	3,840.72	3,838.62	8.38	14.76	-3.10	-933.11	112.22	933.96	911.07	22.89	40.799		
4,000.00	3,999.45	3,948.24	3,946.03	8.76	14.98	-3.08	-937.96	111.84	929.69	906.16	23.53	39.514		
4,100.00	4,098.70	4,049.05	4,046.76	9.15	15.19	-3.06	-942.05	111.20	921.45	897.30	24.15	38.158		
4,200.00	4,197.47	4,149.32	4,146.94	9.54	15.39	-3.03	-946.05	110.22	909.64	884.88	24.76	36.735		
4,300.00	4,295.62	4,249.24	4,246.78	9.93	15.52	-3.02	-949.94	109.16	894.27	868.96	25.32	35.325		
4,400.00	4,393.06	4,349.15	4,346.62	10.36	15.71	-3.04	-953.62	108.43	875.31	849.35	25.96	33.720		
4,500.00	4,490.04	4,447.16	4,444.57	10.63	15.88	-3.09	-957.02	108.18	854.28	827.86	26.42	32.337		
4,600.00	4,587.02	4,543.21	4,540.55	10.83	16.04	-3.15	-960.50	108.26	833.45	806.66	26.79	31.113		
4,700.00	4,684.00	4,642.34	4,639.62	11.04	16.24	-3.23	-964.04	108.44	812.58	785.36	27.22	29.851		
4,800.00	4,780.98	4,736.95	4,734.17	11.27	16.46	-3.31	-967.38	108.61	791.68	764.00	27.68	28.601		
4,900.00	4,877.97	4,825.65	4,822.78	11.52	16.68	-3.35	-971.42	108.35	771.71	743.54	28.16	27.400		

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



FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 508H - Original Hole - Surveys Original Hole													Offset Site Error: 0.00 ft	
Survey Program: 311-MWD		Offset		Semi Major Axis			Offset Wellbore Centre		Rule Assigned:				Offset Well Error: 0.00 ft	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,000.00	4,974.95	4,921.22	4,918.19	11.79	16.91	-3.34	-976.87	107.56	752.78	724.10	28.68	26.246		
5,100.00	5,071.93	5,031.51	5,028.35	12.06	17.19	-3.36	-982.04	106.95	732.91	703.66	29.25	25.059		
5,200.00	5,168.91	5,134.22	5,131.01	12.36	17.40	-3.43	-985.44	106.69	711.72	681.97	29.75	23.920		
5,300.00	5,265.89	5,233.72	5,230.46	12.66	17.60	-3.46	-988.50	106.01	690.28	660.01	30.27	22.807		
5,400.00	5,362.88	5,333.61	5,330.31	12.98	17.82	-3.53	-991.21	105.61	668.51	637.71	30.80	21.702		
5,500.00	5,459.86	5,422.87	5,419.53	13.30	18.11	-3.61	-993.87	105.55	647.06	615.62	31.44	20.581		
5,600.00	5,556.84	5,510.15	5,506.71	13.64	18.42	-3.72	-997.89	105.82	627.21	595.10	32.11	19.536		
5,700.00	5,653.82	5,607.95	5,604.35	13.99	18.78	-3.85	-1,003.49	106.35	608.49	575.67	32.82	18.542		
5,800.00	5,750.80	5,710.73	5,707.00	14.34	19.16	-3.97	-1,008.75	106.62	589.15	555.60	33.55	17.559		
5,900.00	5,847.79	5,806.62	5,802.78	14.70	19.44	-4.07	-1,013.40	106.62	569.52	535.31	34.21	16.649		
6,000.00	5,944.77	5,901.37	5,897.39	15.07	19.71	-4.16	-1,018.59	106.46	550.47	515.61	34.85	15.794		
6,100.00	6,041.75	5,997.53	5,993.37	15.45	19.99	-4.22	-1,024.36	106.15	531.92	496.40	35.52	14.976		
6,200.00	6,138.73	6,093.99	6,089.63	15.83	20.27	-4.27	-1,030.53	105.68	513.73	477.53	36.19	14.194		
6,300.00	6,235.71	6,194.78	6,190.21	16.22	20.57	-4.31	-1,036.97	105.06	495.51	458.63	36.88	13.437		
6,400.00	6,332.69	6,295.73	6,290.99	16.62	20.87	-4.35	-1,042.85	104.32	476.73	439.16	37.56	12.691		
6,500.00	6,429.68	6,395.74	6,390.85	17.02	21.16	-4.39	-1,048.20	103.55	457.48	419.23	38.25	11.960		
6,600.00	6,526.66	6,495.74	6,490.73	17.42	21.45	-4.44	-1,053.14	102.78	437.84	398.90	38.94	11.245		
6,700.00	6,623.64	6,596.18	6,591.07	17.83	21.73	-4.50	-1,057.59	101.92	417.68	378.06	39.62	10.543		
6,800.00	6,720.62	6,695.90	6,690.71	18.24	22.01	-4.56	-1,061.45	100.95	396.97	356.67	40.30	9.852		
6,900.00	6,817.60	6,794.53	6,789.27	18.66	22.28	-4.64	-1,064.96	100.06	375.97	334.99	40.97	9.176		
7,000.00	6,914.59	6,892.48	6,887.17	19.08	22.55	-4.75	-1,068.25	99.26	354.78	313.13	41.66	8.517		
7,100.00	7,011.57	6,989.75	6,984.37	19.51	22.82	-4.89	-1,071.59	98.55	333.69	291.34	42.35	7.880		
7,200.00	7,108.55	7,087.62	7,082.18	19.93	23.10	-5.05	-1,075.04	97.88	312.68	269.64	43.04	7.265		
7,300.00	7,205.53	7,185.96	7,180.46	20.36	23.37	-5.25	-1,078.34	97.24	291.52	247.80	43.73	6.667		
7,400.00	7,302.51	7,283.78	7,278.23	20.80	23.65	-5.49	-1,081.46	96.66	270.22	225.80	44.42	6.083		
7,500.00	7,399.50	7,381.33	7,375.73	21.23	23.92	-5.80	-1,084.59	96.20	248.96	203.85	45.12	5.518		
7,600.00	7,496.48	7,479.12	7,473.46	21.67	24.20	-6.20	-1,087.74	95.84	227.74	181.93	45.80	4.972		
7,700.00	7,593.46	7,576.97	7,571.26	22.11	24.48	-6.69	-1,090.82	95.51	206.46	159.97	46.49	4.441		
7,800.00	7,690.44	7,674.87	7,669.12	22.56	24.75	-7.33	-1,093.80	95.26	185.12	137.94	47.18	3.924		
7,900.00	7,787.91	7,773.17	7,767.38	23.05	25.03	-8.01	-1,096.63	95.15	165.74	117.84	47.89	3.461		
8,000.00	7,886.41	7,872.50	7,866.68	23.68	25.30	-8.66	-1,099.27	95.17	151.28	102.54	48.74	3.104		
8,100.00	7,985.67	7,972.43	7,966.58	24.30	25.58	-9.19	-1,101.62	95.28	141.71	92.14	49.57	2.859		
8,200.00	8,085.43	8,074.17	8,068.31	24.87	25.73	-9.37	-1,103.25	95.03	136.49	86.29	50.20	2.719		
8,300.00	8,185.40	8,175.57	8,169.69	24.99	25.89	167.23	-1,103.67	93.95	134.98	84.55	50.43	2.677		
8,320.74	8,206.14	8,196.01	8,190.14	25.00	25.92	167.35	-1,103.71	93.68	134.96	84.48	50.48	2.674	CC, ES	
8,400.00	8,285.40	8,274.17	8,268.28	25.01	26.04	167.83	-1,104.27	92.64	135.28	84.62	50.66	2.670	SF	
8,500.00	8,385.40	8,372.95	8,367.05	25.04	26.22	168.47	-1,105.87	91.42	136.61	85.70	50.92	2.683		
8,600.00	8,485.40	8,472.35	8,466.42	25.07	26.47	169.04	-1,108.02	90.46	138.55	87.32	51.24	2.704		
8,700.00	8,585.40	8,571.98	8,566.02	25.10	26.74	169.48	-1,110.51	89.84	140.89	89.34	51.55	2.733		
8,800.00	8,685.40	8,672.07	8,666.08	25.13	27.01	169.80	-1,112.98	89.48	143.25	91.39	51.86	2.762		
8,900.00	8,785.40	8,772.22	8,766.19	25.16	27.29	170.02	-1,115.32	89.33	145.52	93.36	52.16	2.790		
9,000.00	8,885.40	8,872.41	8,866.36	25.19	27.56	170.23	-1,117.51	89.16	147.65	95.19	52.46	2.815		
9,100.00	8,985.40	8,972.59	8,966.52	25.22	27.82	170.43	-1,119.56	88.99	149.64	96.89	52.76	2.837		
9,200.00	9,085.40	9,072.75	9,066.66	25.25	28.09	170.53	-1,121.45	89.04	151.51	98.47	53.05	2.856		
9,300.00	9,185.40	9,172.51	9,166.41	25.28	28.35	170.64	-1,123.32	89.05	153.36	100.02	53.34	2.875		
9,400.00	9,285.40	9,272.12	9,265.99	25.31	28.60	171.05	-1,125.53	88.29	155.43	101.79	53.65	2.897		
9,500.00	9,385.40	9,373.34	9,367.18	25.34	28.82	171.50	-1,127.59	87.36	157.30	103.43	53.88	2.920		
9,600.00	9,485.40	9,473.80	9,467.63	25.37	29.05	171.71	-1,128.92	86.98	158.55	104.43	54.12	2.929		
9,700.00	9,585.40	9,574.35	9,568.18	25.40	29.26	171.87	-1,129.96	86.69	159.54	105.19	54.35	2.935		
9,800.00	9,685.40	9,676.62	9,670.45	25.43	29.29	171.94	-1,130.04	86.50	159.59	105.25	54.35	2.937		
9,900.00	9,785.40	9,777.99	9,771.80	25.46	29.29	171.89	-1,128.72	86.44	158.30	103.95	54.34	2.913		
9,955.97	9,841.33	9,833.11	9,826.92	25.46	29.26	-98.58	-1,128.00	86.57	157.86	103.56	54.29	2.907		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 508H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft	
Survey Program:		311-MWD			Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:			Offset Well Error:	0.00 ft
Reference	Vertical	Measured	Vertical	Reference	Offset	Highside			Distance				Warning		
Measured Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,000.00	9,885.23	9,876.38	9,870.19	25.46	29.23	-99.46	-1,127.61	86.78	157.86	103.63	54.23	2.911			
10,100.00	9,982.95	9,972.89	9,966.70	25.46	29.23	-106.25	-1,127.29	87.55	162.46	108.91	53.55	3.034			
10,200.00	10,075.59	10,065.16	10,058.96	25.47	29.32	-115.99	-1,127.32	88.12	177.29	125.32	51.97	3.411			
10,300.00	10,160.35	10,149.73	10,143.53	25.51	29.42	-125.28	-1,127.54	88.37	208.26	158.47	49.79	4.183			
10,400.00	10,234.66	10,223.80	10,217.60	25.63	29.57	-131.79	-1,127.86	88.50	257.78	209.85	47.93	5.378			
10,500.00	10,296.24	10,285.20	10,279.00	25.89	29.69	-134.56	-1,128.18	88.58	324.12	277.35	46.77	6.930			
10,600.00	10,343.23	10,332.07	10,325.87	26.34	29.78	-132.72	-1,128.47	88.63	403.73	357.56	46.17	8.744			
10,700.00	10,374.21	10,362.89	10,356.69	27.03	29.84	-123.60	-1,128.65	88.67	492.71	446.82	45.89	10.737			
10,800.00	10,388.23	10,376.73	10,370.53	27.96	29.86	-100.34	-1,128.72	88.69	587.34	541.58	45.76	12.834			
10,900.00	10,388.24	10,376.59	10,370.39	29.09	29.86	-86.35	-1,128.72	88.69	684.22	638.51	45.71	14.969			
11,000.00	10,387.02	10,375.22	10,369.02	30.37	29.86	-85.85	-1,128.71	88.69	781.88	736.19	45.69	17.112			
11,100.00	10,385.79	10,373.85	10,367.64	31.78	29.86	-85.35	-1,128.71	88.69	880.07	834.37	45.70	19.259			
11,200.00	10,384.57	10,372.48	10,366.28	33.30	29.85	-84.85	-1,128.70	88.69	978.62	932.90	45.71	21.408			
11,300.00	10,383.34	12,231.25	11,404.42	34.92	39.86	-173.48	-1,096.34	-996.58	1,044.02	993.94	50.07	20.849			
11,325.65	10,383.03	12,250.53	11,403.98	35.36	40.17	-173.40	-1,097.73	-1,015.81	1,043.94	993.68	50.25	20.773			
11,400.00	10,382.12	12,306.37	11,403.32	36.62	41.08	-173.18	-1,102.13	-1,071.47	1,044.60	993.83	50.77	20.574			
11,500.00	10,380.89	12,390.00	11,404.05	38.40	42.44	-172.81	-1,109.72	-1,154.75	1,047.64	996.15	51.49	20.345			
11,600.00	10,379.67	12,482.47	11,405.79	40.24	43.98	-172.36	-1,118.83	-1,246.75	1,051.90	999.70	52.20	20.151			
11,700.00	10,378.44	12,564.83	11,408.14	42.14	45.44	-172.08	-1,124.84	-1,328.85	1,056.86	1,003.94	52.92	19.970			
11,800.00	10,377.22	12,660.13	11,412.41	44.09	47.19	-171.96	-1,128.47	-1,423.98	1,062.96	1,009.24	53.71	19.789			
11,900.00	10,375.99	12,831.73	11,415.71	46.09	50.69	-172.03	-1,128.75	-1,595.49	1,066.17	1,011.20	54.97	19.395			
12,000.00	10,374.77	12,967.62	11,411.68	48.12	53.43	-172.41	-1,122.07	-1,731.14	1,063.59	1,007.50	56.09	18.963			
12,100.00	10,373.54	13,073.06	11,406.32	50.19	55.52	-172.56	-1,119.24	-1,836.40	1,059.34	1,002.31	57.02	18.578			
12,200.00	10,372.32	13,163.23	11,401.60	52.28	57.35	-172.57	-1,119.04	-1,926.45	1,055.28	997.32	57.95	18.209			
12,300.00	10,371.09	13,232.00	11,398.82	54.41	58.75	-172.51	-1,120.27	-1,995.15	1,052.86	993.98	58.88	17.882			
12,364.79	10,370.30	13,291.73	11,397.31	55.80	59.98	-172.41	-1,122.37	-2,054.82	1,052.30	992.77	59.53	17.677			
12,400.00	10,369.87	13,326.00	11,396.88	56.56	60.69	-172.33	-1,124.00	-2,089.05	1,052.48	992.59	59.89	17.574			
12,500.00	10,368.65	13,423.19	11,395.91	58.73	62.72	-172.15	-1,127.99	-2,186.15	1,053.17	992.24	60.93	17.285			
12,600.00	10,367.42	13,506.08	11,395.66	60.92	64.46	-172.06	-1,130.16	-2,269.01	1,054.38	992.41	61.96	17.017			
12,700.00	10,366.20	13,600.97	11,396.47	63.13	66.48	-171.99	-1,132.31	-2,363.87	1,056.67	993.62	63.05	16.759			
12,800.00	10,364.97	13,702.28	11,397.37	65.35	68.64	-171.87	-1,135.29	-2,465.14	1,059.10	994.91	64.18	16.501			
12,900.00	10,363.75	13,832.06	11,395.61	67.59	71.45	-171.67	-1,139.70	-2,594.82	1,059.18	993.71	65.47	16.178			
12,934.75	10,363.32	13,861.97	11,395.06	68.38	72.10	-171.63	-1,140.68	-2,624.71	1,059.10	993.22	65.88	16.077			
13,000.00	10,362.52	13,919.97	11,394.33	69.84	73.36	-171.54	-1,142.64	-2,682.67	1,059.35	992.71	66.65	15.895			
13,100.00	10,361.30	14,011.95	11,393.68	72.11	75.39	-171.35	-1,146.68	-2,774.56	1,060.43	992.58	67.86	15.628			
13,200.00	10,360.07	14,105.48	11,394.06	74.38	77.48	-171.31	-1,148.17	-2,868.07	1,062.21	993.13	69.07	15.378			
13,300.00	10,358.85	14,200.00	11,395.11	76.67	79.59	-171.33	-1,148.65	-2,962.58	1,064.51	994.21	70.30	15.143			
13,400.00	10,357.62	14,303.43	11,396.80	78.96	81.90	-171.40	-1,148.46	-3,066.00	1,067.24	995.67	71.57	14.912			
13,500.00	10,356.40	14,420.18	11,396.92	81.26	84.52	-171.42	-1,148.86	-3,182.74	1,068.49	995.58	72.92	14.653			
13,600.00	10,355.17	14,537.78	11,395.46	83.57	87.18	-171.43	-1,149.35	-3,300.34	1,068.47	994.19	74.28	14.384			
13,700.00	10,353.95	14,690.35	11,388.06	85.89	90.65	-171.59	-1,146.38	-3,452.67	1,064.24	988.54	75.70	14.058			
13,800.00	10,352.72	14,775.76	11,382.32	88.21	92.59	-171.64	-1,145.07	-3,537.88	1,058.59	981.58	77.01	13.746			
13,900.00	10,351.50	14,846.35	11,379.43	90.54	94.20	-171.70	-1,144.12	-3,608.40	1,055.46	977.18	78.28	13.483			
13,967.58	10,350.67	14,895.38	11,378.48	92.12	95.33	-171.73	-1,143.82	-3,657.42	1,054.87	975.72	79.15	13.327			
14,000.00	10,350.27	14,921.00	11,378.30	92.87	95.91	-171.73	-1,143.84	-3,683.04	1,055.01	975.43	79.57	13.258			
14,100.00	10,349.05	14,987.88	11,379.03	95.21	97.45	-171.73	-1,144.47	-3,749.91	1,057.31	976.50	80.81	13.084			
14,200.00	10,347.82	15,061.08	11,381.74	97.56	99.14	-171.68	-1,146.25	-3,823.04	1,062.42	980.35	82.07	12.945			
14,300.00	10,346.60	15,161.90	11,387.09	99.91	101.47	-171.55	-1,150.27	-3,923.63	1,069.40	985.83	83.57	12.796			
14,400.00	10,345.37	15,294.63	11,391.22	102.26	104.54	-171.46	-1,153.58	-4,056.25	1,073.95	988.68	85.27	12.595			
14,500.00	10,344.15	15,477.88	11,387.01	104.62	108.79	-171.44	-1,154.68	-4,239.40	1,072.63	985.51	87.11	12.313			
14,600.00	10,342.92	15,599.03	11,378.53	106.98	111.61	-171.41	-1,154.85	-4,360.25	1,066.82	978.21	88.61	12.040			
14,700.00	10,341.70	15,697.41	11,370.87	109.34	113.89	-171.44	-1,153.74	-4,458.32	1,060.08	970.06	90.02	11.775			

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 508H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 311-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance		Rule Assigned:		Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
14,800.00	10,340.48	15,784.89	11,365.21	111.71	115.94	-171.59	-1,150.76	-4,545.57	1,054.30	962.93	91.36	11.539	
14,900.00	10,339.25	15,873.76	11,360.13	114.08	118.02	-171.77	-1,147.31	-4,634.22	1,049.25	956.56	92.68	11.321	
15,000.00	10,338.03	15,950.00	11,357.60	116.45	119.81	-171.85	-1,146.10	-4,710.41	1,046.70	952.66	94.04	11.131	
15,039.49	10,337.54	15,966.00	11,357.40	117.39	120.19	-171.85	-1,146.14	-4,726.40	1,046.47	951.95	94.52	11.071	
15,100.00	10,336.80	16,006.23	11,357.37	118.82	121.14	-171.84	-1,146.58	-4,766.63	1,047.22	951.89	95.33	10.985	
15,200.00	10,335.58	16,096.04	11,359.09	121.20	123.26	-171.76	-1,148.87	-4,856.39	1,050.54	953.71	96.83	10.850	
15,300.00	10,334.35	16,234.67	11,359.20	123.58	126.52	-171.65	-1,152.02	-4,994.99	1,052.16	953.52	98.64	10.666	
15,400.00	10,333.13	16,338.18	11,357.00	125.97	128.96	-171.62	-1,152.96	-5,098.46	1,051.32	951.14	100.18	10.494	
15,440.77	10,332.63	16,370.14	11,356.49	126.94	129.72	-171.62	-1,153.06	-5,130.42	1,051.15	950.40	100.75	10.433	
15,500.00	10,331.90	16,418.00	11,356.19	128.35	130.85	-171.62	-1,153.44	-5,178.27	1,051.51	949.93	101.58	10.351	
15,600.00	10,330.68	16,513.15	11,356.26	130.74	133.10	-171.59	-1,154.67	-5,273.42	1,052.91	949.82	103.09	10.213	
15,700.00	10,329.45	16,622.08	11,356.18	133.12	135.67	-171.52	-1,156.71	-5,382.32	1,054.26	949.54	104.72	10.067	
15,800.00	10,328.23	16,747.67	11,353.00	135.51	138.64	-171.39	-1,159.69	-5,507.83	1,053.12	946.61	106.50	9.888	
15,838.51	10,327.76	16,768.00	11,352.34	136.43	139.12	-171.36	-1,160.18	-5,528.15	1,052.61	945.57	107.04	9.834	
15,900.00	10,327.00	16,768.00	11,352.34	137.90	139.12	-171.36	-1,160.18	-5,528.15	1,054.40	946.87	107.53	9.806	
15,900.85	10,326.99	16,768.00	11,352.34	137.93	139.12	-171.36	-1,160.18	-5,528.15	1,054.45	946.92	107.53	9.806	

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 701H - Original Hole - rev3												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)			
0.00	0.00	0.00	0.00	0.00	0.00	-0.28	120.04	-0.58	120.04				
100.00	100.00	100.00	100.00	0.84	0.42	-0.28	120.04	-0.58	120.04	118.79	1.26	95.550	
200.00	200.00	200.00	200.00	1.44	1.25	-0.28	120.04	-0.58	120.04	117.35	2.69	44.597	
300.00	300.00	300.00	300.00	1.89	1.74	-0.28	120.04	-0.58	120.04	116.41	3.63	33.036	
400.00	400.00	400.00	400.00	2.25	2.13	-0.28	120.04	-0.58	120.04	115.66	4.38	27.392	
500.00	500.00	500.00	500.00	2.57	2.46	-0.28	120.04	-0.58	120.04	115.02	5.03	23.886	
600.00	600.00	600.00	600.00	2.85	2.75	-0.28	120.04	-0.58	120.04	114.44	5.60	21.436	
700.00	700.00	700.00	700.00	3.11	3.02	-0.28	120.04	-0.58	120.04	113.92	6.13	19.599	
800.00	800.00	800.00	800.00	3.35	3.26	-0.28	120.04	-0.58	120.04	113.43	6.61	18.154	
900.00	900.00	900.00	900.00	3.58	3.50	-0.28	120.04	-0.58	120.04	112.97	7.07	16.979	
1,000.00	1,000.00	1,000.00	1,000.00	3.79	3.71	-0.28	120.04	-0.58	120.04	112.54	7.50	15.999	
1,100.00	1,100.00	1,100.00	1,100.00	3.99	3.92	-0.28	120.04	-0.58	120.04	112.13	7.92	15.164	
1,200.00	1,200.00	1,200.00	1,200.00	4.19	4.12	-0.28	120.04	-0.58	120.04	111.73	8.31	14.442	
1,300.00	1,300.00	1,300.00	1,300.00	4.38	4.31	-0.28	120.04	-0.58	120.04	111.35	8.69	13.810	
1,400.00	1,400.00	1,400.00	1,400.00	4.56	4.50	-0.28	120.04	-0.58	120.04	110.98	9.06	13.249	
1,500.00	1,500.00	1,500.00	1,500.00	4.74	4.68	-0.28	120.04	-0.58	120.04	110.63	9.42	12.748	
1,600.00	1,600.00	1,600.00	1,600.00	4.91	4.85	-0.28	120.04	-0.58	120.04	110.28	9.76	12.296	
1,700.00	1,700.00	1,700.00	1,700.00	5.08	5.02	-0.28	120.04	-0.58	120.04	109.94	10.10	11.887	
1,800.00	1,800.00	1,800.00	1,800.00	5.24	5.18	-0.28	120.04	-0.58	120.04	109.62	10.43	11.512	
1,900.00	1,900.00	1,900.00	1,900.00	5.40	5.35	-0.28	120.04	-0.58	120.04	109.30	10.75	11.169	
2,000.00	2,000.00	2,000.00	2,000.00	5.56	5.50	-0.28	120.04	-0.58	120.04	108.98	11.06	10.852	
2,100.00	2,100.00	2,100.00	2,100.00	5.71	5.66	-0.28	120.04	-0.58	120.04	108.67	11.37	10.558	
2,200.00	2,200.00	2,200.00	2,200.00	5.86	5.81	-0.28	120.04	-0.58	120.04	108.37	11.67	10.285	
2,300.00	2,300.00	2,300.00	2,300.00	6.01	5.96	-0.28	120.04	-0.58	120.04	108.08	11.97	10.030	
2,400.00	2,400.00	2,400.00	2,400.00	6.16	6.10	-0.28	120.04	-0.58	120.04	107.78	12.26	9.792	
2,500.00	2,500.00	2,500.00	2,500.00	6.30	6.25	-0.28	120.04	-0.58	120.04	107.50	12.55	9.568	
2,600.00	2,600.00	2,600.00	2,600.00	6.44	6.39	-0.28	120.04	-0.58	120.04	107.22	12.83	9.358	
2,700.00	2,700.00	2,700.00	2,700.00	6.58	6.53	-0.28	120.04	-0.58	120.04	106.94	13.11	9.159	
2,800.00	2,800.00	2,800.00	2,800.00	6.72	6.67	-0.28	120.04	-0.58	120.04	106.66	13.38	8.971	
2,900.00	2,900.00	2,900.00	2,900.00	6.85	6.80	-0.28	120.04	-0.58	120.04	106.39	13.65	8.793	
3,000.00	3,000.00	3,000.00	3,000.00	6.98	6.94	-0.28	120.04	-0.58	120.04	106.12	13.92	8.624	
3,100.00	3,100.00	3,100.00	3,100.00	7.12	7.07	-0.28	120.04	-0.58	120.04	105.86	14.18	8.463	
3,200.00	3,200.00	3,200.00	3,200.00	7.25	7.20	-0.28	120.04	-0.58	120.04	105.60	14.45	8.310	
3,300.00	3,300.00	3,300.00	3,300.00	7.38	7.33	-0.28	120.04	-0.58	120.04	105.34	14.70	8.164	
3,400.00	3,400.00	3,400.00	3,400.00	7.50	7.46	-0.28	120.04	-0.58	120.04	105.08	14.96	8.024	
3,500.00	3,500.00	3,500.00	3,500.00	7.63	7.58	-0.28	120.04	-0.58	120.04	104.83	15.21	7.890	
3,600.00	3,600.00	3,600.00	3,600.00	7.75	7.71	-0.28	120.04	-0.58	120.04	104.58	15.46	7.762	
3,700.00	3,700.00	3,700.00	3,700.00	7.88	7.83	-0.28	120.04	-0.58	120.04	104.33	15.71	7.640 CC, ES	
3,800.00	3,799.98	3,799.98	3,799.98	8.00	7.96	-176.55	120.04	-0.58	121.79	105.83	15.95	7.633	
3,900.00	3,899.84	3,895.60	3,895.58	8.38	8.18	-176.77	121.62	-0.80	128.66	112.11	16.55	7.773	
4,000.00	3,999.45	3,990.22	3,990.08	8.76	8.58	-177.19	126.30	-1.43	142.29	124.98	17.31	8.220	
4,100.00	4,098.70	4,087.31	4,086.92	9.15	8.72	-177.68	133.29	-2.38	161.59	143.76	17.83	9.063	
4,200.00	4,197.47	4,184.67	4,184.01	9.54	8.87	-178.11	140.36	-3.34	184.39	166.03	18.36	10.044	
4,300.00	4,295.62	4,281.16	4,280.24	9.93	9.03	-178.47	147.38	-4.30	210.58	191.67	18.90	11.139	
4,400.00	4,393.06	4,376.69	4,375.51	10.36	9.20	-178.76	154.32	-5.24	240.12	220.62	19.50	12.316	
4,500.00	4,490.04	4,471.62	4,470.19	10.63	9.38	-179.01	161.22	-6.18	271.52	251.58	19.94	13.618	
4,600.00	4,587.02	4,566.56	4,564.87	10.83	9.56	-179.21	168.12	-7.11	302.92	282.60	20.32	14.908	
4,700.00	4,684.00	4,661.50	4,659.55	11.04	9.76	-179.37	175.03	-8.05	334.33	313.60	20.73	16.130	
4,800.00	4,780.98	4,756.43	4,754.23	11.27	9.97	-179.50	181.93	-8.99	365.74	344.58	21.16	17.284	
4,900.00	4,877.97	4,851.37	4,848.91	11.52	10.18	-179.62	188.83	-9.92	397.15	375.53	21.62	18.371	
5,000.00	4,974.95	4,946.30	4,943.59	11.79	10.40	-179.71	195.73	-10.86	428.56	406.46	22.10	19.393	
5,100.00	5,071.93	5,041.24	5,038.27	12.06	10.63	-179.79	202.63	-11.80	459.97	437.37	22.60	20.352	

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 701H - Original Hole - rev3											Offset Site Error:	0.00 ft
Survey Program: 0-MWD											Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis	Highside	Rule Assigned:				Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
5,200.00	5,168.91	5,136.18	5,132.95	12.36	10.87	-179.87	209.53	-12.74	491.39	468.27	23.12	21.252
5,300.00	5,265.89	5,231.11	5,227.63	12.66	11.11	-179.93	216.43	-13.67	522.80	499.14	23.66	22.095
5,400.00	5,362.88	5,326.05	5,322.31	12.98	11.36	-179.99	223.34	-14.61	554.22	530.00	24.22	22.884
5,500.00	5,459.86	5,420.98	5,416.99	13.30	11.61	179.96	230.24	-15.55	585.63	560.84	24.79	23.622
5,600.00	5,556.84	5,515.92	5,511.68	13.64	11.87	179.92	237.14	-16.48	617.05	591.67	25.38	24.313
5,700.00	5,653.82	5,610.86	5,606.36	13.99	12.13	179.88	244.04	-17.42	648.46	622.48	25.98	24.959
5,800.00	5,750.80	5,705.79	5,701.04	14.34	12.40	179.84	250.94	-18.36	679.88	653.28	26.60	25.563
5,900.00	5,847.79	5,800.73	5,795.72	14.70	12.67	179.81	257.84	-19.30	711.29	684.07	27.22	26.128
6,000.00	5,944.77	5,895.67	5,890.40	15.07	12.95	179.78	264.74	-20.23	742.71	714.85	27.86	26.657
6,100.00	6,041.75	5,990.60	5,985.08	15.45	13.23	179.75	271.64	-21.17	774.13	745.62	28.51	27.152
6,200.00	6,138.73	6,085.54	6,079.76	15.83	13.51	179.72	278.55	-22.11	805.55	776.37	29.17	27.615
6,300.00	6,235.71	6,180.47	6,174.44	16.22	13.80	179.70	285.45	-23.04	836.96	807.12	29.84	28.050
6,400.00	6,332.69	6,275.41	6,269.12	16.62	14.08	179.67	292.35	-23.98	868.38	837.86	30.52	28.457
6,500.00	6,429.68	6,370.35	6,363.80	17.02	14.38	179.65	299.25	-24.92	899.80	868.60	31.20	28.840
6,600.00	6,526.66	6,465.28	6,458.48	17.42	14.67	179.63	306.15	-25.86	931.21	899.32	31.89	29.199
6,700.00	6,623.64	6,560.22	6,553.16	17.83	14.97	179.62	313.05	-26.79	962.63	930.04	32.59	29.536
6,800.00	6,720.62	6,655.15	6,647.84	18.24	15.27	179.60	319.95	-27.73	994.05	960.75	33.30	29.854
6,900.00	6,817.60	6,750.09	6,742.52	18.66	15.57	179.58	326.86	-28.67	1,025.47	991.46	34.01	30.152
7,000.00	6,914.59	6,845.03	6,837.20	19.08	15.88	179.57	333.76	-29.60	1,056.88	1,022.16	34.73	30.434
7,100.00	7,011.57	6,939.96	6,931.88	19.51	16.18	179.55	340.66	-30.54	1,088.30	1,052.85	35.45	30.699
7,200.00	7,108.55	7,058.45	7,050.09	19.93	16.57	179.54	348.64	-31.63	1,119.33	1,082.99	36.34	30.802
7,300.00	7,205.53	7,217.64	7,209.21	20.36	17.13	179.54	352.52	-32.15	1,146.10	1,108.60	37.49	30.567
7,400.00	7,302.51	7,310.94	7,302.51	20.80	17.22	179.55	352.53	-32.15	1,170.49	1,132.48	38.00	30.799
7,500.00	7,399.50	7,407.92	7,399.50	21.23	17.29	179.56	352.53	-32.15	1,194.87	1,156.36	38.51	31.029
7,600.00	7,496.48	7,504.91	7,496.48	21.67	17.35	179.57	352.53	-32.15	1,219.25	1,180.23	39.02	31.251
7,700.00	7,593.46	7,601.89	7,593.46	22.11	17.42	179.58	352.53	-32.15	1,243.63	1,204.11	39.52	31.465
7,800.00	7,690.44	7,698.87	7,690.44	22.56	17.49	179.59	352.53	-32.15	1,268.01	1,227.97	40.04	31.668
7,900.00	7,787.91	7,796.34	7,787.91	23.05	17.56	179.60	352.53	-32.15	1,290.32	1,249.73	40.60	31.783
8,000.00	7,886.41	7,894.84	7,886.41	23.68	17.63	179.61	352.53	-32.15	1,307.53	1,266.23	41.30	31.659
8,100.00	7,985.67	7,994.10	7,985.67	24.30	17.70	179.61	352.53	-32.15	1,319.56	1,277.57	41.99	31.426
8,200.00	8,085.43	8,093.85	8,085.43	24.87	17.77	179.62	352.53	-32.15	1,326.37	1,283.74	42.62	31.117
8,300.00	8,185.40	8,193.83	8,185.40	24.99	17.84	-4.16	352.53	-32.15	1,328.06	1,285.24	42.82	31.015
8,400.00	8,285.40	8,293.83	8,285.40	25.01	17.91	-4.16	352.53	-32.15	1,328.06	1,285.14	42.91	30.947
8,500.00	8,385.40	8,393.83	8,385.40	25.04	17.98	-4.16	352.53	-32.15	1,328.06	1,285.04	43.01	30.875
8,600.00	8,485.40	8,493.83	8,485.40	25.07	18.05	-4.16	352.53	-32.15	1,328.06	1,284.94	43.11	30.804
8,700.00	8,585.40	8,593.83	8,585.40	25.10	18.13	-4.16	352.53	-32.15	1,328.06	1,284.84	43.21	30.733
8,800.00	8,685.40	8,693.83	8,685.40	25.13	18.20	-4.16	352.53	-32.15	1,328.06	1,284.74	43.31	30.661
8,900.00	8,785.40	8,793.83	8,785.40	25.16	18.27	-4.16	352.53	-32.15	1,328.06	1,284.64	43.41	30.590
9,000.00	8,885.40	8,893.83	8,885.40	25.19	18.34	-4.16	352.53	-32.15	1,328.06	1,284.54	43.52	30.519
9,100.00	8,985.40	8,993.83	8,985.40	25.22	18.41	-4.16	352.53	-32.15	1,328.06	1,284.44	43.62	30.448
9,200.00	9,085.40	9,093.83	9,085.40	25.25	18.48	-4.16	352.53	-32.15	1,328.06	1,284.34	43.72	30.377
9,300.00	9,185.40	9,193.83	9,185.40	25.28	18.56	-4.16	352.53	-32.15	1,328.06	1,284.24	43.82	30.307
9,400.00	9,285.40	9,293.83	9,285.40	25.31	18.63	-4.16	352.53	-32.15	1,328.06	1,284.13	43.92	30.236
9,500.00	9,385.40	9,393.83	9,385.40	25.34	18.70	-4.16	352.53	-32.15	1,328.06	1,284.03	44.03	30.165
9,600.00	9,485.40	9,493.83	9,485.40	25.37	18.77	-4.16	352.53	-32.15	1,328.06	1,283.93	44.13	30.095
9,700.00	9,585.40	9,593.83	9,585.40	25.40	18.84	-4.16	352.53	-32.15	1,328.06	1,283.82	44.23	30.025
9,800.00	9,685.40	9,693.83	9,685.40	25.43	18.92	-4.16	352.53	-32.15	1,328.06	1,283.72	44.34	29.955
9,900.00	9,785.40	9,793.83	9,785.40	25.46	18.99	-4.16	352.53	-32.15	1,328.06	1,283.62	44.44	29.885
10,000.00	9,885.23	9,893.66	9,885.23	25.46	19.06	86.36	352.53	-32.15	1,327.78	1,283.27	44.51	29.831
10,100.00	9,982.95	9,983.97	9,975.35	25.46	19.10	87.07	352.47	-36.37	1,326.82	1,282.31	44.51	29.809
10,200.00	10,075.59	10,073.49	10,062.45	25.47	19.16	87.77	352.19	-56.45	1,325.90	1,281.37	44.53	29.774
10,300.00	10,160.35	10,165.82	10,146.74	25.51	19.26	88.41	351.66	-93.80	1,325.07	1,280.44	44.63	29.687

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 701H - Original Hole - rev3												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Rule Assigned:												Warning	
Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	10,234.66	10,260.82	10,224.30	25.63	19.42	88.97	350.88	-148.38	1,324.28	1,279.39	44.89	29.498	
10,500.00	10,296.24	10,358.15	10,290.96	25.89	19.71	89.44	349.88	-219.06	1,323.51	1,278.09	45.42	29.138	
10,600.00	10,343.23	10,457.27	10,342.71	26.34	20.18	89.78	348.68	-303.38	1,322.72	1,276.37	46.35	28.540	
10,700.00	10,374.21	10,557.44	10,376.21	27.03	20.89	89.97	347.34	-397.58	1,321.88	1,274.13	47.75	27.684	
10,800.00	10,388.23	10,657.83	10,389.37	27.96	21.87	90.02	345.93	-496.90	1,321.00	1,271.38	49.62	26.622	
10,900.00	10,388.24	10,757.85	10,388.51	29.09	23.09	90.02	344.50	-596.90	1,320.12	1,268.21	51.91	25.431	
11,000.00	10,387.02	10,857.84	10,387.29	30.37	24.48	90.02	343.08	-696.88	1,319.23	1,264.70	54.53	24.193	
11,100.00	10,385.79	10,957.84	10,386.07	31.78	26.04	90.02	341.66	-796.86	1,318.35	1,260.90	57.45	22.948	
11,200.00	10,384.57	11,057.84	10,384.85	33.30	27.73	90.02	340.24	-896.84	1,317.47	1,256.85	60.62	21.733	
11,300.00	10,383.34	11,157.83	10,383.64	34.92	29.53	90.02	338.82	-996.82	1,316.58	1,252.58	64.01	20.570	
11,400.00	10,382.12	11,257.83	10,382.42	36.62	31.41	90.02	337.40	-1,096.80	1,315.70	1,248.13	67.57	19.471	
11,500.00	10,380.89	11,357.82	10,381.20	38.40	33.37	90.02	335.98	-1,196.78	1,314.81	1,243.52	71.29	18.442	
11,600.00	10,379.67	11,457.82	10,379.98	40.24	35.38	90.02	334.56	-1,296.75	1,313.93	1,238.78	75.14	17.485	
11,700.00	10,378.44	11,557.82	10,378.76	42.14	37.45	90.02	333.14	-1,396.73	1,313.04	1,233.94	79.11	16.598	
11,800.00	10,377.22	11,657.81	10,377.55	44.09	39.56	90.02	331.71	-1,496.71	1,312.16	1,228.99	83.17	15.777	
11,900.00	10,375.99	11,757.81	10,376.33	46.09	41.71	90.02	330.29	-1,596.69	1,311.28	1,223.96	87.31	15.018	
12,000.00	10,374.77	11,857.81	10,375.11	48.12	43.88	90.02	328.87	-1,696.67	1,310.39	1,218.87	91.53	14.317	
12,100.00	10,373.54	11,957.80	10,373.89	50.19	46.08	90.02	327.45	-1,796.65	1,309.51	1,213.70	95.80	13.669	
12,200.00	10,372.32	12,057.80	10,372.67	52.28	48.31	90.02	326.03	-1,896.63	1,308.62	1,208.49	100.13	13.069	
12,300.00	10,371.09	12,157.79	10,371.46	54.41	50.55	90.02	324.61	-1,996.60	1,307.74	1,203.23	104.51	12.513	
12,400.00	10,369.87	12,257.79	10,370.24	56.56	52.81	90.02	323.19	-2,096.58	1,306.86	1,197.92	108.93	11.997	
12,500.00	10,368.65	12,357.79	10,369.02	58.73	55.09	90.02	321.77	-2,196.56	1,305.97	1,192.58	113.39	11.517	
12,600.00	10,367.42	12,457.78	10,367.80	60.92	57.38	90.02	320.34	-2,296.54	1,305.09	1,187.20	117.88	11.071	
12,700.00	10,366.20	12,557.78	10,366.58	63.13	59.68	90.02	318.92	-2,396.52	1,304.20	1,181.80	122.40	10.655	
12,800.00	10,364.97	12,657.77	10,365.37	65.35	61.99	90.02	317.50	-2,496.50	1,303.32	1,176.37	126.95	10.266	
12,900.00	10,363.75	12,757.77	10,364.15	67.59	64.31	90.02	316.08	-2,596.48	1,302.44	1,170.92	131.52	9.903	
13,000.00	10,362.52	12,857.77	10,362.93	69.84	66.64	90.02	314.66	-2,696.45	1,301.55	1,165.44	136.11	9.563	
13,100.00	10,361.30	12,957.76	10,361.71	72.11	68.97	90.02	313.24	-2,796.43	1,300.67	1,159.95	140.72	9.243	
13,200.00	10,360.07	13,057.76	10,360.50	74.38	71.32	90.02	311.82	-2,896.41	1,299.78	1,154.44	145.35	8.943	
13,300.00	10,358.85	13,157.75	10,359.28	76.67	73.67	90.03	310.40	-2,996.39	1,298.90	1,148.91	149.99	8.660	
13,400.00	10,357.62	13,257.75	10,358.06	78.96	76.02	90.03	308.98	-3,096.37	1,298.01	1,143.37	154.65	8.393	
13,500.00	10,356.40	13,357.75	10,356.84	81.26	78.38	90.03	307.55	-3,196.35	1,297.13	1,137.81	159.32	8.142	
13,600.00	10,355.17	13,457.74	10,355.62	83.57	80.74	90.03	306.13	-3,296.33	1,296.25	1,132.25	164.00	7.904	
13,700.00	10,353.95	13,557.74	10,354.41	85.89	83.11	90.03	304.71	-3,396.30	1,295.36	1,126.67	168.69	7.679	
13,800.00	10,352.72	13,657.73	10,353.19	88.21	85.49	90.03	303.29	-3,496.28	1,294.48	1,121.08	173.39	7.466	
13,900.00	10,351.50	13,757.73	10,351.97	90.54	87.86	90.03	301.87	-3,596.26	1,293.59	1,115.49	178.11	7.263	
14,000.00	10,350.27	13,857.73	10,350.75	92.87	90.24	90.03	300.45	-3,696.24	1,292.71	1,109.88	182.83	7.071	
14,100.00	10,349.05	13,957.72	10,349.53	95.21	92.62	90.03	299.03	-3,796.22	1,291.83	1,104.27	187.56	6.888	
14,200.00	10,347.82	14,057.72	10,348.32	97.56	95.01	90.03	297.61	-3,896.20	1,290.94	1,098.65	192.29	6.713	
14,300.00	10,346.60	14,157.72	10,347.10	99.91	97.39	90.03	296.19	-3,996.18	1,290.06	1,093.02	197.03	6.547	
14,400.00	10,345.37	14,257.71	10,345.88	102.26	99.78	90.03	294.76	-4,096.15	1,289.17	1,087.39	201.78	6.389	
14,500.00	10,344.15	14,357.71	10,344.66	104.62	102.18	90.03	293.34	-4,196.13	1,288.29	1,081.75	206.54	6.238	
14,600.00	10,342.92	14,457.70	10,343.44	106.98	104.57	90.03	291.92	-4,296.11	1,287.41	1,076.11	211.30	6.093	
14,700.00	10,341.70	14,557.70	10,342.23	109.34	106.97	90.03	290.50	-4,396.09	1,286.52	1,070.46	216.06	5.954	
14,800.00	10,340.48	14,657.70	10,341.01	111.71	109.36	90.03	289.08	-4,496.07	1,285.64	1,064.80	220.83	5.822	
14,900.00	10,339.25	14,757.69	10,339.79	114.08	111.76	90.03	287.66	-4,596.05	1,284.75	1,059.14	225.61	5.695	
15,000.00	10,338.03	14,857.69	10,338.57	116.45	114.16	90.03	286.24	-4,696.03	1,283.87	1,053.48	230.39	5.573	
15,100.00	10,336.80	14,957.68	10,337.36	118.82	116.57	90.03	284.82	-4,796.01	1,282.98	1,047.81	235.17	5.456	
15,200.00	10,335.58	15,057.68	10,336.14	121.20	118.97	90.03	283.39	-4,895.98	1,282.10	1,042.14	239.96	5.343	
15,300.00	10,334.35	15,157.68	10,334.92	123.58	121.38	90.03	281.97	-4,995.96	1,281.22	1,036.47	244.75	5.235	
15,400.00	10,333.13	15,257.67	10,333.70	125.97	123.78	90.03	280.55	-5,095.94	1,280.33	1,030.79	249.54	5.131	
15,500.00	10,331.90	15,357.67	10,332.48	128.35	126.19	90.03	279.13	-5,195.92	1,279.45	1,025.11	254.34	5.030	

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



Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 701H - Original Hole - rev3													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
15,600.00	10,330.68	15,457.66	10,331.27	130.74	128.60	90.03	277.71	-5,295.90	1,278.56	1,019.43	259.14	4.934		
15,700.00	10,329.45	15,557.66	10,330.05	133.12	131.01	90.03	276.29	-5,395.88	1,277.68	1,013.74	263.94	4.841		
15,800.00	10,328.23	15,657.66	10,328.83	135.51	133.42	90.03	274.87	-5,495.86	1,276.80	1,008.05	268.75	4.751		
15,900.00	10,327.00	15,757.65	10,327.61	137.90	135.83	90.03	273.45	-5,595.83	1,275.91	1,002.36	273.55	4.664		
15,900.85	10,326.99	15,758.50	10,327.60	137.93	135.85	90.03	273.43	-5,596.68	1,275.90	1,002.31	273.59	4.664 SF		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 701H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 176-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum	Separation	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)		
0.00	0.00	0.00	0.00	0.00	0.00	-0.28	120.04	-0.58	120.04				
100.00	100.00	100.17	100.17	0.84	0.59	-0.35	119.97	-0.74	119.97	118.54	1.43	84.086	
200.00	200.00	200.27	200.27	1.44	1.22	-0.58	119.76	-1.20	119.76	117.11	2.65	45.122	
300.00	300.00	300.11	300.11	1.89	1.96	-0.81	119.59	-1.68	119.60	115.78	3.82	31.347	
321.30	321.30	321.30	321.30	1.97	2.10	-0.86	119.58	-1.79	119.59	115.56	4.03	29.653 CC	
400.00	400.00	399.61	399.61	2.25	2.64	-1.13	119.69	-2.36	119.72	114.88	4.84	24.747	
500.00	500.00	499.06	499.04	2.57	3.23	-1.65	120.21	-3.46	120.26	114.55	5.72	21.037	
600.00	600.00	598.25	598.22	2.85	3.58	-2.22	121.27	-4.70	121.37	115.06	6.31	19.227	
700.00	700.00	697.28	697.23	3.11	4.06	-2.96	123.03	-6.36	123.23	116.21	7.02	17.554	
800.00	800.00	796.32	796.21	3.35	4.44	-3.82	125.54	-8.39	125.87	118.27	7.60	16.552	
900.00	900.00	895.50	895.33	3.58	4.67	-4.36	128.74	-9.81	129.20	121.16	8.05	16.058	
1,000.00	1,000.00	995.17	994.93	3.79	4.86	-4.67	132.42	-10.81	132.96	124.52	8.44	15.748	
1,100.00	1,100.00	1,094.68	1,094.34	3.99	5.12	-5.46	136.16	-13.02	136.90	128.01	8.89	15.397	
1,200.00	1,200.00	1,194.52	1,194.03	4.19	5.42	-6.73	140.25	-16.54	141.34	131.99	9.36	15.107	
1,300.00	1,300.00	1,297.43	1,296.87	4.38	5.80	-7.76	142.91	-19.47	144.26	134.41	9.85	14.651	
1,400.00	1,400.00	1,398.25	1,397.64	4.56	6.14	-8.45	144.73	-21.50	146.34	136.04	10.30	14.207	
1,500.00	1,500.00	1,500.21	1,499.59	4.74	6.35	-8.69	145.49	-22.23	147.18	136.50	10.68	13.783	
1,600.00	1,600.00	1,601.29	1,600.68	4.91	6.41	-8.56	145.42	-21.90	147.06	136.12	10.94	13.446	
1,700.00	1,700.00	1,701.84	1,701.23	5.08	6.42	-8.39	144.78	-21.37	146.36	135.22	11.14	13.141	
1,800.00	1,800.00	1,802.33	1,801.71	5.24	6.45	-8.45	143.79	-21.36	145.38	134.05	11.33	12.833	
1,900.00	1,900.00	1,903.31	1,902.68	5.40	6.48	-8.52	142.29	-21.31	143.91	132.39	11.52	12.497	
2,000.00	2,000.00	2,004.30	2,003.64	5.56	6.49	-8.22	140.17	-20.25	141.67	129.98	11.70	12.112	
2,100.00	2,100.00	2,105.00	2,104.29	5.71	6.49	-7.62	137.54	-18.40	138.83	126.95	11.88	11.684	
2,200.00	2,200.00	2,203.25	2,202.49	5.86	6.51	-7.09	135.18	-16.81	136.24	124.16	12.09	11.272	
2,300.00	2,300.00	2,300.94	2,300.18	6.01	6.56	-6.85	134.29	-16.13	135.25	122.95	12.31	10.989	
2,400.00	2,400.00	2,401.54	2,400.78	6.16	6.64	-6.84	134.03	-16.07	134.99	122.46	12.53	10.774	
2,500.00	2,500.00	2,501.83	2,501.06	6.30	6.73	-6.98	133.30	-16.31	134.30	121.54	12.76	10.528	
2,600.00	2,600.00	2,602.25	2,601.48	6.44	6.84	-7.23	132.31	-16.78	133.37	120.38	12.99	10.268	
2,700.00	2,700.00	2,702.86	2,702.07	6.58	6.95	-7.57	130.72	-17.36	131.89	118.66	13.23	9.973	
2,800.00	2,800.00	2,801.05	2,800.26	6.72	7.07	-7.83	129.82	-17.85	131.04	117.58	13.46	9.734	
2,818.67	2,818.67	2,819.46	2,818.67	6.74	7.10	-7.88	129.78	-17.96	131.02	117.51	13.51	9.701	
2,900.00	2,900.00	2,900.02	2,899.23	6.85	7.22	-8.21	129.99	-18.74	131.34	117.64	13.70	9.588	
3,000.00	3,000.00	3,000.28	2,999.48	6.98	7.38	-8.57	130.40	-19.65	131.87	117.93	13.94	9.460	
3,100.00	3,100.00	3,101.00	3,100.20	7.12	7.51	-8.87	130.43	-20.36	132.01	117.84	14.17	9.316	
3,200.00	3,200.00	3,202.58	3,201.77	7.25	7.59	-8.75	129.88	-19.99	131.43	117.03	14.40	9.130	
3,300.00	3,300.00	3,302.66	3,301.82	7.38	7.67	-8.04	128.27	-18.12	129.56	114.91	14.65	8.844	
3,400.00	3,400.00	3,402.35	3,401.50	7.50	7.78	-7.47	127.58	-16.73	128.68	113.78	14.90	8.638	
3,500.00	3,500.00	3,505.07	3,504.15	7.63	7.91	-6.26	125.80	-13.80	126.62	111.47	15.16	8.355	
3,600.00	3,600.00	3,605.81	3,604.71	7.75	8.04	-4.13	122.32	-8.84	122.73	107.32	15.41	7.963	
3,700.00	3,700.00	3,702.25	3,700.98	7.88	8.17	-1.80	120.00	-3.78	120.06	104.41	15.65	7.672	
3,711.15	3,711.15	3,712.88	3,711.61	7.89	8.18	-177.84	119.95	-3.37	120.02	104.34	15.67	7.657 ES, SF	
3,800.00	3,799.98	3,796.34	3,795.02	8.00	8.54	-176.84	121.43	-1.21	123.28	107.39	15.89	7.758	
3,900.00	3,899.84	3,891.83	3,890.34	8.38	9.04	-176.65	127.01	-0.59	134.32	117.90	16.41	8.183	
4,000.00	3,999.45	3,989.60	3,987.82	8.76	9.26	-177.05	134.44	-1.24	150.57	133.65	16.92	8.901	
4,100.00	4,098.70	4,087.69	4,085.61	9.15	9.36	-177.65	141.99	-2.52	170.37	152.97	17.39	9.795	
4,200.00	4,197.47	4,185.45	4,183.09	9.54	9.45	-178.27	149.34	-4.16	193.43	175.55	17.88	10.817	
4,300.00	4,295.62	4,282.97	4,280.34	9.93	9.55	-178.78	156.31	-5.82	219.54	201.15	18.39	11.937	
4,400.00	4,393.06	4,380.04	4,377.18	10.36	9.66	-179.20	162.72	-7.43	248.49	229.54	18.95	13.113	
4,500.00	4,490.04	4,476.43	4,473.39	10.63	9.76	-179.55	168.59	-9.04	278.80	259.45	19.35	14.405	
4,600.00	4,587.02	4,572.53	4,569.30	10.83	9.88	-179.90	174.11	-10.95	308.81	289.12	19.70	15.678	
4,700.00	4,684.00	4,659.61	4,656.16	11.04	10.01	179.84	179.98	-12.78	339.81	319.74	20.07	16.933	
4,800.00	4,780.98	4,755.75	4,751.97	11.27	10.17	179.61	187.77	-14.76	372.09	351.57	20.53	18.127	

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 701H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft	
Survey Program:		176-MWD		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:	0.00 ft
Measured Depth Reference	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)				
4,900.00	4,877.97	4,852.41	4,848.34	11.52	10.31	179.41	194.92	-16.81	403.71	382.75	20.96	19.257			
5,000.00	4,974.95	4,947.82	4,943.48	11.79	10.47	179.19	201.69	-19.16	435.08	413.67	21.41	20.319			
5,100.00	5,071.93	5,040.71	5,036.10	12.06	10.62	179.03	208.45	-21.27	466.60	444.73	21.87	21.336			
5,200.00	5,168.91	5,131.10	5,126.19	12.36	10.78	178.99	215.69	-22.54	498.75	476.42	22.34	22.330			
5,300.00	5,265.89	5,226.15	5,220.89	12.66	10.95	179.00	223.82	-23.51	531.39	508.54	22.85	23.257			
5,400.00	5,362.88	5,322.50	5,316.90	12.98	11.14	179.00	231.76	-24.66	563.75	540.36	23.39	24.103			
5,500.00	5,459.86	5,422.61	5,416.71	13.30	11.34	178.98	239.43	-25.88	595.56	571.60	23.97	24.850			
5,600.00	5,556.84	5,521.91	5,515.77	13.64	11.55	178.94	246.17	-27.28	626.56	602.01	24.55	25.521			
5,700.00	5,653.82	5,618.43	5,612.09	13.99	11.76	178.89	252.29	-28.76	657.14	632.01	25.13	26.147			
5,800.00	5,750.80	5,708.25	5,701.70	14.34	11.96	178.89	258.28	-29.71	687.99	662.30	25.69	26.780			
5,900.00	5,847.79	5,803.31	5,796.51	14.70	12.17	178.98	265.11	-29.73	719.25	692.96	26.29	27.357			
6,000.00	5,944.77	5,903.81	5,896.78	15.07	12.39	179.08	271.98	-29.38	750.16	723.23	26.93	27.854			
6,100.00	6,041.75	6,002.90	5,995.68	15.45	12.61	179.17	278.12	-29.19	780.47	752.90	27.57	28.306			
6,200.00	6,138.73	6,104.38	6,097.01	15.83	12.85	179.23	283.58	-29.16	810.00	781.77	28.24	28.687			
6,300.00	6,235.71	6,189.00	6,181.46	16.22	13.07	179.32	288.89	-28.52	840.30	811.46	28.84	29.135			
6,400.00	6,332.69	6,275.51	6,267.72	16.62	13.29	179.47	295.36	-27.15	871.71	842.24	29.47	29.582			
6,500.00	6,429.68	6,379.84	6,371.78	17.02	13.55	179.62	302.77	-25.75	902.81	872.63	30.18	29.915			
6,600.00	6,526.66	6,477.57	6,469.30	17.42	13.80	179.72	308.98	-24.79	933.22	902.37	30.86	30.245			
6,700.00	6,623.64	6,568.62	6,560.16	17.83	14.04	179.75	314.79	-24.73	963.73	932.23	31.50	30.591			
6,800.00	6,720.62	6,662.22	6,653.56	18.24	14.31	179.74	321.00	-25.44	994.52	962.34	32.18	30.904			
6,900.00	6,817.60	6,763.96	6,755.08	18.66	14.60	179.74	327.50	-25.98	1,025.08	992.17	32.91	31.147			
7,000.00	6,914.59	6,864.59	6,855.54	19.08	14.88	179.74	333.36	-26.56	1,055.09	1,021.45	33.64	31.368			
7,100.00	7,011.57	6,965.22	6,956.02	19.51	15.17	179.74	338.73	-27.14	1,084.63	1,050.27	34.36	31.566			
7,200.00	7,108.55	7,067.90	7,058.59	19.93	15.45	179.73	343.68	-27.70	1,113.70	1,078.60	35.10	31.732			
7,300.00	7,205.53	7,185.15	7,175.75	20.36	15.77	179.72	348.06	-28.32	1,141.75	1,105.85	35.90	31.803			
7,400.00	7,302.51	7,302.05	7,292.63	20.80	16.04	179.68	349.75	-29.45	1,167.56	1,130.93	36.63	31.874			
7,500.00	7,399.50	7,402.39	7,392.96	21.23	16.21	179.62	350.29	-30.83	1,192.55	1,155.34	37.21	32.050			
7,600.00	7,496.48	7,504.63	7,495.19	21.67	16.34	179.57	350.56	-32.02	1,217.28	1,179.52	37.75	32.242			
7,700.00	7,593.46	7,603.04	7,593.60	22.11	16.43	179.53	350.52	-33.06	1,241.69	1,203.44	38.25	32.460			
7,800.00	7,690.44	7,704.10	7,694.66	22.56	16.50	179.48	350.26	-34.18	1,265.91	1,227.18	38.73	32.686			
7,900.00	7,787.91	7,803.76	7,794.31	23.05	16.46	179.49	349.84	-34.41	1,287.82	1,248.65	39.17	32.876			
8,000.00	7,886.41	7,904.64	7,895.19	23.68	16.35	179.52	349.23	-33.89	1,304.39	1,264.67	39.72	32.837			
8,100.00	7,985.67	7,996.65	7,987.19	24.30	16.27	179.54	348.90	-33.66	1,316.04	1,275.78	40.26	32.689			
8,200.00	8,085.43	8,092.26	8,082.80	24.87	16.26	179.56	348.99	-33.13	1,322.91	1,282.09	40.82	32.408			
8,300.00	8,185.40	8,190.86	8,181.40	24.99	16.29	-4.17	349.26	-32.26	1,324.80	1,283.79	41.02	32.298			
8,400.00	8,285.40	8,281.84	8,272.37	25.01	16.37	-4.14	349.88	-31.48	1,325.42	1,284.29	41.13	32.225			
8,500.00	8,385.40	8,364.00	8,354.51	25.04	16.48	-4.08	351.17	-30.36	1,326.93	1,285.68	41.25	32.165			
8,600.00	8,485.40	8,450.06	8,440.52	25.07	16.64	-4.00	353.60	-28.66	1,329.63	1,288.20	41.42	32.098			
8,700.00	8,585.40	8,537.19	8,527.57	25.10	16.84	-3.98	357.00	-28.39	1,333.50	1,291.86	41.64	32.024			
8,800.00	8,685.40	8,661.51	8,651.69	25.13	17.22	-4.21	361.14	-33.95	1,337.19	1,295.04	42.15	31.725			
8,900.00	8,785.40	8,793.22	8,783.35	25.16	17.57	-4.29	362.74	-36.10	1,338.53	1,295.93	42.60	31.418			
9,000.00	8,885.40	8,906.54	8,896.67	25.19	17.59	-4.25	362.21	-35.02	1,337.96	1,295.26	42.70	31.336			
9,100.00	8,985.40	9,002.73	8,992.85	25.22	17.50	-4.25	361.46	-35.01	1,337.19	1,294.56	42.63	31.368			
9,200.00	9,085.40	9,097.53	9,087.65	25.25	17.46	-4.26	361.11	-35.20	1,336.84	1,294.24	42.59	31.385			
9,300.00	9,185.40	9,199.82	9,189.94	25.28	17.48	-4.29	360.86	-35.97	1,336.65	1,294.02	42.63	31.357			
9,400.00	9,285.40	9,306.82	9,296.93	25.31	17.48	-4.35	360.13	-37.21	1,336.06	1,293.43	42.64	31.337			
9,500.00	9,385.40	9,408.89	9,398.99	25.34	17.40	-4.37	359.11	-37.71	1,335.10	1,292.52	42.57	31.361			
9,600.00	9,485.40	9,500.78	9,490.88	25.37	17.32	-4.38	358.44	-37.88	1,334.39	1,291.89	42.50	31.399			
9,700.00	9,585.40	9,600.11	9,590.21	25.40	17.25	-4.38	358.07	-37.79	1,334.00	1,291.55	42.45	31.422			
9,800.00	9,685.40	9,699.44	9,689.53	25.43	17.17	-4.37	357.75	-37.47	1,333.66	1,291.23	42.42	31.436			
9,851.69	9,737.09	9,747.00	9,737.10	25.45	17.13	-4.36	357.65	-37.24	1,333.53	1,291.13	42.41	31.445			
9,900.00	9,785.40	9,747.00	9,737.10	25.46	17.13	-4.36	357.65	-37.24	1,334.41	1,292.09	42.32	31.534			

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



Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 701H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 176-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,000.00	9,885.23	9,747.00	9,737.10	25.46	17.13	85.39	357.65	-37.24	1,341.45	1,299.39	42.06	31.893		
10,100.00	9,982.95	9,747.00	9,737.10	25.46	17.13	84.08	357.65	-37.24	1,354.51	1,312.75	41.75	32.441		
10,200.00	10,075.59	9,747.00	9,737.10	25.47	17.13	82.21	357.65	-37.24	1,372.97	1,331.55	41.42	33.150		
10,300.00	10,160.35	9,747.00	9,737.10	25.51	17.13	79.87	357.65	-37.24	1,396.07	1,355.00	41.07	33.989		
10,400.00	10,234.66	9,747.00	9,737.10	25.63	17.13	77.14	357.65	-37.24	1,422.90	1,382.15	40.75	34.916		
10,500.00	10,296.24	9,747.00	9,737.10	25.89	17.13	74.14	357.65	-37.24	1,452.47	1,411.99	40.48	35.879		
10,600.00	10,343.23	9,747.00	9,737.10	26.34	17.13	71.00	357.65	-37.24	1,483.74	1,443.44	40.29	36.824		
10,700.00	10,374.21	9,747.00	9,737.10	27.03	17.13	67.84	357.65	-37.24	1,515.68	1,475.47	40.20	37.702		
10,800.00	10,388.23	9,747.00	9,737.10	27.96	17.13	64.79	357.65	-37.24	1,547.31	1,507.10	40.21	38.484		
10,900.00	10,388.24	9,747.00	9,737.10	29.09	17.13	63.69	357.65	-37.24	1,579.17	1,538.92	40.25	39.234		
11,000.00	10,387.02	9,747.00	9,737.10	30.37	17.13	63.69	357.65	-37.24	1,616.10	1,575.77	40.33	40.069		
11,100.00	10,385.79	9,747.00	9,737.10	31.78	17.13	63.69	357.65	-37.24	1,658.25	1,617.79	40.46	40.986		
11,200.00	10,384.57	9,747.00	9,737.10	33.30	17.13	63.69	357.65	-37.24	1,705.23	1,664.61	40.62	41.983		
11,300.00	10,383.34	9,747.00	9,737.10	34.92	17.13	63.69	357.65	-37.24	1,756.65	1,715.85	40.80	43.058		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 702H - Original Hole - rev5													Offset Site Error: 0.00 ft	
Survey Program: Reference		176-MWD, 8797-MWD Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Offset Well Error: 0.00 ft	
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	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-0.28	90.21	-0.44	90.21					
100.00	100.00	99.99	99.99	0.84	0.59	-0.20	90.22	-0.31	90.22	88.80	1.42	63.328		
200.00	200.00	200.01	200.01	1.44	1.21	0.04	90.24	0.06	90.24	87.59	2.65	34.109		
300.00	300.00	300.13	300.13	1.89	1.92	0.25	90.14	0.40	90.14	86.36	3.78	23.851		
329.75	329.75	329.75	329.75	2.00	2.06	0.29	90.12	0.46	90.12	86.09	4.03	22.368		
400.00	400.00	399.69	399.69	2.25	2.39	0.32	90.24	0.50	90.24	85.62	4.62	19.541		
500.00	500.00	499.22	499.22	2.57	2.82	0.20	90.83	0.32	90.83	85.47	5.36	16.934		
600.00	600.00	598.77	598.76	2.85	3.07	-0.16	91.96	-0.26	91.97	86.06	5.91	15.563		
700.00	700.00	698.30	698.26	3.11	3.28	-1.21	93.49	-1.98	93.52	87.14	6.39	14.638		
800.00	800.00	797.82	797.73	3.35	3.51	-2.52	95.58	-4.20	95.70	88.85	6.86	13.961		
900.00	900.00	897.13	897.00	3.58	3.75	-3.41	98.11	-5.85	98.33	91.01	7.31	13.444		
1,000.00	1,000.00	996.08	995.88	3.79	3.98	-4.05	101.54	-7.19	101.88	94.12	7.76	13.135		
1,100.00	1,100.00	1,097.88	1,097.60	3.99	4.77	-5.17	104.70	-9.48	105.15	96.39	8.76	12.003		
1,200.00	1,200.00	1,199.93	1,199.56	4.19	5.55	-7.35	105.61	-13.62	106.48	96.77	9.72	10.956		
1,300.00	1,300.00	1,301.54	1,301.09	4.38	5.93	-9.50	104.60	-17.51	106.06	95.77	10.29	10.311		
1,400.00	1,400.00	1,402.04	1,401.55	4.56	6.02	-10.85	102.82	-19.71	104.70	94.14	10.56	9.915		
1,500.00	1,500.00	1,501.43	1,500.91	4.74	6.12	-11.97	101.13	-21.44	103.39	92.56	10.83	9.547		
1,600.00	1,600.00	1,600.83	1,600.31	4.91	6.24	-12.03	100.68	-21.45	102.94	91.82	11.12	9.254		
1,700.00	1,700.00	1,701.09	1,700.56	5.08	6.35	-11.49	100.52	-20.43	102.58	91.19	11.39	9.004		
1,800.00	1,800.00	1,801.41	1,800.87	5.24	6.43	-11.14	99.92	-19.68	101.85	90.21	11.64	8.753		
1,900.00	1,900.00	1,902.10	1,901.55	5.40	6.52	-10.77	98.94	-18.82	100.73	88.85	11.87	8.484		
2,000.00	2,000.00	2,002.55	2,001.98	5.56	6.60	-10.14	97.33	-17.41	98.90	86.78	12.11	8.166		
2,100.00	2,100.00	2,103.24	2,102.63	5.71	6.70	-9.16	95.31	-15.37	96.57	84.22	12.36	7.815		
2,200.00	2,200.00	2,202.97	2,202.32	5.86	6.79	-8.72	92.80	-14.23	93.91	81.31	12.60	7.451		
2,300.00	2,300.00	2,302.67	2,301.98	6.01	6.90	-9.56	90.30	-15.21	91.59	78.73	12.86	7.123		
2,400.00	2,400.00	2,402.87	2,402.14	6.16	7.02	-10.86	87.68	-16.82	89.30	76.20	13.11	6.813		
2,500.00	2,500.00	2,501.59	2,500.82	6.30	7.14	-12.09	85.73	-18.36	87.68	74.32	13.35	6.567		
2,600.00	2,600.00	2,601.41	2,600.63	6.44	7.26	-13.23	84.58	-19.88	86.89	73.30	13.59	6.394		
2,700.00	2,700.00	2,701.68	2,700.87	6.58	7.39	-14.42	83.23	-21.40	85.94	72.12	13.83	6.216		
2,800.00	2,800.00	2,801.31	2,800.49	6.72	7.53	-15.52	82.10	-22.80	85.21	71.15	14.06	6.060		
2,900.00	2,900.00	2,901.48	2,900.65	6.85	7.67	-16.25	81.20	-23.66	84.58	70.28	14.30	5.915		
3,000.00	3,000.00	3,001.97	3,001.14	6.98	7.82	-16.82	79.97	-24.18	83.55	69.00	14.55	5.744		
3,100.00	3,100.00	3,102.30	3,101.44	7.12	7.98	-17.39	78.13	-24.47	81.88	67.08	14.80	5.532		
3,200.00	3,200.00	3,201.80	3,200.93	7.25	8.14	-17.86	76.42	-24.62	80.30	65.24	15.06	5.333		
3,261.52	3,261.52	3,262.39	3,261.52	7.33	8.27	-17.86	75.99	-24.48	79.84	64.62	15.22	5.245 CC, ES		
3,300.00	3,300.00	3,299.39	3,298.52	7.38	8.50	-17.90	76.30	-24.64	80.19	64.86	15.33	5.232 SF		
3,400.00	3,400.00	3,397.81	3,396.87	7.50	9.37	-18.38	79.37	-26.37	83.69	68.09	15.60	5.364		
3,500.00	3,500.00	3,499.25	3,498.26	7.63	9.82	-18.40	82.29	-27.37	86.74	70.90	15.85	5.474		
3,600.00	3,600.00	3,600.57	3,599.57	7.75	9.86	-18.01	83.54	-27.15	87.84	71.78	16.06	5.470		
3,700.00	3,700.00	3,701.03	3,700.03	7.88	9.89	-17.78	83.79	-26.87	87.99	71.73	16.26	5.411		
3,701.26	3,701.26	3,702.30	3,701.30	7.88	9.89	166.00	83.79	-26.86	87.99	71.73	16.26	5.410		
3,800.00	3,799.98	3,800.76	3,799.76	8.00	9.94	166.25	83.82	-26.89	89.72	73.27	16.45	5.455		
3,900.00	3,899.84	3,900.64	3,899.64	8.38	10.02	166.77	83.97	-27.29	95.08	78.18	16.90	5.627		
4,000.00	3,999.45	4,000.31	3,999.31	8.76	10.12	167.60	84.02	-27.74	103.75	86.38	17.36	5.975		
4,100.00	4,098.70	4,099.84	4,098.84	9.15	10.23	168.60	83.90	-28.24	115.70	97.85	17.85	6.481		
4,200.00	4,197.47	4,197.00	4,196.00	9.54	10.35	169.65	83.43	-28.64	130.72	112.36	18.36	7.121		
4,300.00	4,295.62	4,292.00	4,290.98	9.93	10.61	170.62	84.36	-29.48	150.69	131.82	18.87	7.986		
4,400.00	4,393.06	4,386.00	4,384.89	10.36	10.91	171.40	88.06	-31.26	177.04	157.55	19.49	9.085		
4,500.00	4,490.04	4,476.02	4,474.71	10.63	10.95	172.13	93.60	-33.22	207.39	187.51	19.87	10.435		
4,600.00	4,587.02	4,569.04	4,567.45	10.83	10.98	172.75	100.61	-35.26	239.09	218.93	20.16	11.861		
4,700.00	4,684.00	4,663.94	4,662.03	11.04	11.02	173.24	108.10	-37.41	271.15	250.70	20.45	13.256		
4,800.00	4,780.98	4,760.55	4,758.34	11.27	11.05	173.64	115.38	-39.51	302.88	282.10	20.78	14.573		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 702H - Original Hole - rev5												Offset Site Error:	0.00 ft
Survey Program: 176-MWD, 8797-MWD												Offset Well Error:	0.00 ft
Reference												Rule Assigned:	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
							+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
4,900.00	4,877.97	4,856.82	4,854.34	11.52	11.10	173.91	122.09	-41.81	334.12	312.99	21.13	15.809	
5,000.00	4,974.95	4,952.64	4,949.92	11.79	11.15	174.08	128.43	-44.35	365.08	343.57	21.51	16.976	
5,100.00	5,071.93	5,048.00	5,045.05	12.06	11.21	174.22	134.57	-46.91	395.87	373.98	21.90	18.079	
5,200.00	5,168.91	5,143.00	5,139.82	12.36	11.26	174.34	140.71	-49.41	426.68	404.37	22.31	19.126	
5,300.00	5,265.89	5,237.45	5,234.04	12.66	11.32	174.43	146.90	-52.03	457.61	434.87	22.74	20.123	
5,400.00	5,362.88	5,334.95	5,331.30	12.98	11.39	174.49	153.07	-54.88	488.34	465.14	23.21	21.043	
5,500.00	5,459.86	5,430.97	5,427.11	13.30	11.46	174.57	158.89	-57.32	518.77	495.09	23.68	21.904	
5,600.00	5,556.84	5,526.45	5,522.39	13.64	11.52	174.75	164.74	-58.85	549.12	524.94	24.18	22.712	
5,700.00	5,653.82	5,624.55	5,620.31	13.99	11.57	174.96	170.56	-59.92	579.22	554.51	24.70	23.449	
5,800.00	5,750.80	5,722.82	5,718.43	14.34	11.63	175.13	175.90	-61.08	608.85	583.62	25.24	24.124	
5,900.00	5,847.79	5,819.42	5,814.90	14.70	11.70	175.28	180.77	-62.25	638.13	612.35	25.78	24.753	
6,000.00	5,944.77	5,909.38	5,904.72	15.07	11.77	175.51	185.83	-62.19	667.80	641.50	26.30	25.393	
6,100.00	6,041.75	5,996.93	5,992.06	15.45	11.84	175.82	191.77	-61.15	698.43	671.61	26.82	26.045	
6,200.00	6,138.73	6,096.41	6,091.27	15.83	11.88	176.19	198.84	-59.31	729.29	701.88	27.41	26.608	
6,300.00	6,235.71	6,193.06	6,187.69	16.22	11.96	176.54	205.34	-57.37	759.82	731.82	27.99	27.143	
6,400.00	6,332.69	6,292.96	6,287.37	16.62	12.15	176.84	211.64	-55.64	789.98	761.37	28.61	27.617	
6,500.00	6,429.68	6,391.72	6,385.96	17.02	12.35	177.08	217.13	-54.33	819.50	790.28	29.22	28.046	
6,600.00	6,526.66	6,469.00	6,463.10	17.42	12.52	177.23	221.79	-53.70	849.63	819.90	29.72	28.583	
6,700.00	6,623.64	6,555.96	6,549.82	17.83	12.75	177.36	228.30	-53.57	881.16	850.83	30.33	29.057	
6,800.00	6,720.62	6,647.52	6,641.04	18.24	13.01	177.46	236.19	-53.99	913.78	882.81	30.97	29.505	
6,900.00	6,817.60	6,745.76	6,738.92	18.66	13.28	177.53	244.55	-54.74	946.34	914.69	31.65	29.899	
7,000.00	6,914.59	6,848.57	6,841.40	19.08	13.55	177.58	252.60	-55.90	978.30	945.93	32.37	30.227	
7,100.00	7,011.57	6,951.47	6,944.04	19.51	13.84	177.61	259.77	-57.29	1,009.45	976.37	33.08	30.514	
7,200.00	7,108.55	7,050.38	7,042.74	19.93	14.10	177.64	266.13	-58.51	1,040.10	1,006.32	33.78	30.793	
7,300.00	7,205.53	7,151.40	7,143.58	20.36	14.38	177.66	272.10	-59.75	1,070.24	1,035.75	34.49	31.033	
7,400.00	7,302.51	7,248.41	7,240.43	20.80	14.65	177.68	277.59	-60.99	1,100.16	1,064.98	35.18	31.275	
7,500.00	7,399.50	7,351.01	7,342.87	21.23	14.93	177.70	282.96	-62.19	1,129.65	1,093.75	35.90	31.465	
7,600.00	7,496.48	7,455.88	7,447.63	21.67	15.21	177.70	287.73	-63.72	1,158.52	1,121.89	36.63	31.623	
7,700.00	7,593.46	7,559.69	7,551.36	22.11	15.48	177.69	291.50	-65.33	1,186.52	1,149.17	37.35	31.764	
7,800.00	7,690.44	7,661.17	7,652.76	22.56	15.74	177.67	294.76	-67.01	1,214.15	1,176.09	38.06	31.903	
7,900.00	7,787.91	7,763.79	7,755.34	23.05	16.00	177.68	297.51	-68.72	1,239.20	1,200.40	38.80	31.939	
8,000.00	7,886.41	7,867.67	7,859.18	23.68	16.26	177.68	299.88	-70.13	1,258.75	1,219.08	39.68	31.724	
8,100.00	7,985.67	7,972.70	7,964.18	24.30	16.51	177.67	301.77	-71.45	1,272.68	1,232.14	40.54	31.395	
8,200.00	8,085.43	8,073.11	8,064.58	24.87	16.74	177.65	303.29	-72.64	1,281.12	1,239.81	41.31	31.013	
8,300.00	8,185.40	8,179.26	8,170.71	24.99	16.95	-6.12	304.75	-72.85	1,284.19	1,242.53	41.66	30.828	
8,400.00	8,285.40	8,284.04	8,275.49	25.01	17.12	-6.11	305.83	-72.63	1,285.20	1,243.31	41.88	30.686	
8,500.00	8,385.40	8,388.34	8,379.78	25.04	17.22	-6.07	306.33	-71.87	1,285.59	1,243.54	42.04	30.578	
8,600.00	8,485.40	8,474.42	8,465.85	25.07	17.30	-6.02	307.27	-70.76	1,286.54	1,244.40	42.14	30.529	
8,700.00	8,585.40	8,558.66	8,550.07	25.10	17.46	-6.01	309.11	-70.79	1,288.71	1,246.41	42.30	30.468	
8,800.00	8,685.40	8,653.77	8,645.13	25.13	17.71	-6.06	311.81	-72.17	1,291.68	1,249.13	42.55	30.357	
8,900.00	8,785.40	8,762.91	8,754.21	25.16	17.98	-6.15	314.57	-74.60	1,294.44	1,251.59	42.85	30.210	
9,000.00	8,885.40	8,865.51	8,856.76	25.19	18.22	-6.24	316.65	-76.82	1,296.68	1,253.58	43.09	30.091	
9,100.00	8,985.40	8,964.21	8,955.41	25.22	18.45	-6.34	318.58	-79.28	1,298.90	1,255.58	43.31	29.989	
9,200.00	9,085.40	9,056.01	9,046.12	25.25	18.72	-6.92	319.42	-92.62	1,301.52	1,258.01	43.51	29.914	
9,300.00	9,185.40	9,140.80	9,126.64	25.28	18.97	-8.07	318.94	-118.86	1,305.19	1,261.57	43.63	29.918	
9,400.00	9,285.40	9,215.50	9,193.26	25.31	19.21	-9.53	317.53	-152.49	1,310.87	1,267.14	43.73	29.975	
9,500.00	9,385.40	9,279.32	9,245.87	25.34	19.43	-11.10	315.62	-188.48	1,319.59	1,275.77	43.82	30.114	
9,600.00	9,485.40	9,332.95	9,286.40	25.37	19.63	-12.61	313.54	-223.50	1,332.29	1,288.41	43.88	30.361	
9,700.00	9,585.40	9,377.75	9,317.36	25.40	19.81	-14.00	311.47	-255.80	1,349.65	1,305.75	43.91	30.737	
9,800.00	9,685.40	9,415.22	9,341.03	25.43	19.97	-15.23	309.53	-284.78	1,372.12	1,328.22	43.90	31.255	
9,900.00	9,785.40	9,450.00	9,361.09	25.46	20.13	-16.43	307.56	-313.11	1,399.89	1,356.01	43.88	31.900	
10,000.00	9,885.23	9,480.09	9,376.88	25.46	20.27	70.62	305.74	-338.66	1,431.80	1,388.02	43.78	32.704	

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 702H - Original Hole - rev5													Offset Site Error:	0.00 ft
Survey Program:		176-MWD, 8797-MWD					Rule Assigned:			Offset Well Error:		0.00 ft		
Reference	Offset	Reference	Offset	Semi Major Axis	Offset	Highside Toolface	Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Ellipses (ft)	(ft)			
10,100.00	9,982.95	9,500.00	9,386.50	25.46	20.36	66.90	304.52	-356.04	1,463.54	1,419.97	43.58	33.583		
10,200.00	10,075.59	9,530.41	9,399.91	25.47	20.53	63.26	302.79	-383.27	1,493.65	1,450.12	43.53	34.316		
10,300.00	10,160.35	9,550.90	9,408.04	25.51	20.64	60.32	301.70	-402.05	1,520.95	1,477.54	43.41	35.034		
10,400.00	10,234.66	9,600.00	9,424.48	25.63	20.97	57.46	299.38	-448.24	1,544.24	1,500.49	43.75	35.296		
10,500.00	10,296.24	9,622.81	9,430.63	25.89	21.14	55.62	298.43	-470.18	1,562.68	1,518.80	43.88	35.612		
10,600.00	10,343.23	9,650.00	9,436.70	26.34	21.35	54.29	297.43	-496.67	1,575.81	1,531.62	44.18	35.664		
10,700.00	10,374.21	9,700.00	9,444.24	27.03	21.79	53.46	295.92	-546.05	1,583.16	1,538.17	44.99	35.189		
10,800.00	10,388.23	9,720.61	9,445.97	27.96	21.99	53.36	295.43	-566.59	1,584.15	1,538.64	45.51	34.807		
10,900.00	10,388.24	9,750.00	9,447.03	29.09	22.29	53.47	294.87	-595.94	1,581.14	1,534.92	46.22	34.211		
11,000.00	10,387.02	9,838.46	9,446.02	30.37	23.36	53.46	293.60	-684.39	1,580.32	1,532.40	47.93	32.974		
11,100.00	10,385.79	9,938.46	9,444.76	31.78	24.78	53.44	292.16	-784.37	1,579.63	1,529.58	50.05	31.559		
11,200.00	10,384.57	10,038.46	9,443.49	33.30	26.38	53.42	290.73	-884.35	1,578.94	1,526.53	52.40	30.131		
11,300.00	10,383.34	10,138.45	9,442.23	34.92	28.13	53.40	289.30	-984.32	1,578.24	1,523.30	54.94	28.725		
11,400.00	10,382.12	10,238.45	9,440.96	36.62	29.98	53.38	287.87	-1,084.30	1,577.55	1,519.90	57.65	27.364		
11,500.00	10,380.89	10,338.44	9,439.70	38.40	31.92	53.35	286.44	-1,184.28	1,576.86	1,516.36	60.50	26.063		
11,600.00	10,379.67	10,438.44	9,438.43	40.24	33.93	53.33	285.01	-1,284.26	1,576.16	1,512.69	63.48	24.831		
11,700.00	10,378.44	10,538.44	9,437.16	42.14	36.00	53.31	283.58	-1,384.24	1,575.47	1,508.91	66.56	23.671		
11,800.00	10,377.22	10,638.43	9,435.90	44.09	38.11	53.29	282.15	-1,484.21	1,574.78	1,505.05	69.73	22.583		
11,900.00	10,375.99	10,738.43	9,434.63	46.09	40.26	53.27	280.72	-1,584.19	1,574.09	1,501.10	72.99	21.566		
12,000.00	10,374.77	10,838.42	9,433.37	48.12	42.44	53.25	279.29	-1,684.17	1,573.40	1,497.08	76.32	20.617		
12,100.00	10,373.54	10,938.42	9,432.10	50.19	44.65	53.23	277.86	-1,784.15	1,572.70	1,493.00	79.70	19.732		
12,200.00	10,372.32	11,038.42	9,430.84	52.28	46.88	53.21	276.42	-1,884.12	1,572.01	1,488.87	83.15	18.907		
12,300.00	10,371.09	11,138.41	9,429.57	54.41	49.13	53.19	274.99	-1,984.10	1,571.32	1,484.69	86.63	18.137		
12,400.00	10,369.87	11,238.41	9,428.31	56.56	51.40	53.17	273.56	-2,084.08	1,570.63	1,480.46	90.16	17.420		
12,500.00	10,368.65	11,338.40	9,427.04	58.73	53.68	53.15	272.13	-2,184.06	1,569.94	1,476.21	93.73	16.749		
12,600.00	10,367.42	11,438.40	9,425.78	60.92	55.98	53.13	270.70	-2,284.03	1,569.25	1,471.92	97.33	16.123		
12,700.00	10,366.20	11,538.40	9,424.51	63.13	58.29	53.11	269.27	-2,384.01	1,568.56	1,467.60	100.96	15.537		
12,800.00	10,364.97	11,638.39	9,423.24	65.35	60.60	53.09	267.84	-2,483.99	1,567.87	1,463.26	104.61	14.988		
12,900.00	10,363.75	11,738.39	9,421.98	67.59	62.93	53.07	266.41	-2,583.97	1,567.18	1,458.89	108.28	14.473		
13,000.00	10,362.52	11,838.38	9,420.71	69.84	65.27	53.04	264.98	-2,683.95	1,566.49	1,454.51	111.98	13.989		
13,100.00	10,361.30	11,938.38	9,419.45	72.11	67.61	53.02	263.55	-2,783.92	1,565.80	1,450.11	115.69	13.534		
13,200.00	10,360.07	12,038.38	9,418.18	74.38	69.96	53.00	262.11	-2,883.90	1,565.11	1,445.69	119.42	13.106		
13,300.00	10,358.85	12,138.37	9,416.92	76.67	72.31	52.98	260.68	-2,983.88	1,564.42	1,441.26	123.16	12.702		
13,400.00	10,357.62	12,238.37	9,415.65	78.96	74.67	52.96	259.25	-3,083.86	1,563.73	1,436.81	126.92	12.321		
13,500.00	10,356.40	12,338.36	9,414.39	81.26	77.04	52.94	257.82	-3,183.83	1,563.04	1,432.35	130.69	11.960		
13,600.00	10,355.17	12,438.36	9,413.12	83.57	79.41	52.92	256.39	-3,283.81	1,562.35	1,427.89	134.46	11.619		
13,700.00	10,353.95	12,538.36	9,411.86	85.89	81.78	52.90	254.96	-3,383.79	1,561.66	1,423.41	138.25	11.296		
13,800.00	10,352.72	12,638.35	9,410.59	88.21	84.16	52.88	253.53	-3,483.77	1,560.97	1,418.93	142.05	10.989		
13,900.00	10,351.50	12,738.35	9,409.32	90.54	86.54	52.86	252.10	-3,583.75	1,560.29	1,414.43	145.85	10.698		
14,000.00	10,350.27	12,838.34	9,408.06	92.87	88.92	52.83	250.67	-3,683.72	1,559.60	1,409.93	149.66	10.421		
14,100.00	10,349.05	12,938.34	9,406.79	95.21	91.31	52.81	249.24	-3,783.70	1,558.91	1,405.43	153.48	10.157		
14,200.00	10,347.82	13,038.34	9,405.53	97.56	93.69	52.79	247.80	-3,883.68	1,558.22	1,400.92	157.31	9.906		
14,300.00	10,346.60	13,138.33	9,404.26	99.91	96.09	52.77	246.37	-3,983.66	1,557.54	1,396.40	161.13	9.666		
14,400.00	10,345.37	13,238.33	9,403.00	102.26	98.48	52.75	244.94	-4,083.63	1,556.85	1,391.88	164.97	9.437		
14,500.00	10,344.15	13,338.32	9,401.73	104.62	100.87	52.73	243.51	-4,183.61	1,556.16	1,387.36	168.81	9.219		
14,600.00	10,342.92	13,438.32	9,400.47	106.98	103.27	52.71	242.08	-4,283.59	1,555.48	1,382.83	172.65	9.010		
14,700.00	10,341.70	13,538.32	9,399.20	109.34	105.67	52.69	240.65	-4,383.57	1,554.79	1,378.30	176.49	8.809		
14,800.00	10,340.48	13,638.31	9,397.94	111.71	108.07	52.67	239.22	-4,483.55	1,554.10	1,373.76	180.34	8.618		
14,900.00	10,339.25	13,738.31	9,396.67	114.08	110.47	52.64	237.79	-4,583.52	1,553.42	1,369.23	184.19	8.434		
15,000.00	10,338.03	13,838.30	9,395.40	116.45	112.88	52.62	236.36	-4,683.50	1,552.73	1,364.69	188.04	8.257		
15,100.00	10,336.80	13,938.30	9,394.14	118.82	115.28	52.60	234.93	-4,783.48	1,552.05	1,360.15	191.90	8.088		
15,200.00	10,335.58	14,038.30	9,392.87	121.20	117.69	52.58	233.50	-4,883.46	1,551.36	1,355.61	195.75	7.925		

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



Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 702H - Original Hole - rev5													Offset Site Error:	0.00 ft
Survey Program: 176-MWD, 8797-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:								
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	
15,300.00	10,334.35	14,138.29	9,391.61	123.58	120.10	52.56	232.06	-4,983.43	1,550.68	1,351.06	199.61	7.768		
15,400.00	10,333.13	14,238.29	9,390.34	125.97	122.51	52.54	230.63	-5,083.41	1,549.99	1,346.52	203.47	7.618		
15,500.00	10,331.90	14,338.28	9,389.08	128.35	124.92	52.52	229.20	-5,183.39	1,549.31	1,341.97	207.33	7.473		
15,600.00	10,330.68	14,438.28	9,387.81	130.74	127.33	52.50	227.77	-5,283.37	1,548.62	1,337.42	211.20	7.333		
15,700.00	10,329.45	14,538.28	9,386.55	133.12	129.74	52.47	226.34	-5,383.35	1,547.94	1,332.88	215.06	7.198		
15,800.00	10,328.23	14,638.27	9,385.28	135.51	132.15	52.45	224.91	-5,483.32	1,547.25	1,328.33	218.92	7.068		
15,900.00	10,327.00	14,738.27	9,384.02	137.90	134.57	52.43	223.48	-5,583.30	1,546.57	1,323.78	222.79	6.942		
15,900.85	10,326.99	14,739.12	9,384.01	137.93	134.59	52.43	223.47	-5,584.15	1,546.56	1,323.75	222.82	6.941		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 702H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 176-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum	Separation	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)		
0.00	0.00	0.00	0.00	0.00	0.00	-0.28	90.21	-0.44	90.21				
100.00	100.00	99.99	99.99	0.84	0.59	-0.20	90.22	-0.31	90.22	88.80	1.42	63.328	
200.00	200.00	200.01	200.01	1.44	1.21	0.04	90.24	0.06	90.24	87.59	2.65	34.109	
300.00	300.00	300.13	300.13	1.89	1.92	0.25	90.14	0.40	90.14	86.36	3.78	23.851	
329.75	329.75	329.75	329.75	2.00	2.06	0.29	90.12	0.46	90.12	86.09	4.03	22.368	
400.00	400.00	399.69	399.69	2.25	2.39	0.32	90.24	0.50	90.24	85.62	4.62	19.541	
500.00	500.00	499.22	499.22	2.57	2.82	0.20	90.83	0.32	90.83	85.47	5.36	16.934	
600.00	600.00	598.77	598.76	2.85	3.07	-0.16	91.96	-0.26	91.97	86.06	5.91	15.563	
700.00	700.00	698.30	698.26	3.11	3.28	-1.21	93.49	-1.98	93.52	87.14	6.39	14.638	
800.00	800.00	797.82	797.73	3.35	3.51	-2.52	95.58	-4.20	95.70	88.85	6.86	13.961	
900.00	900.00	897.13	897.00	3.58	3.75	-3.41	98.11	-5.85	98.33	91.01	7.31	13.444	
1,000.00	1,000.00	996.08	995.88	3.79	3.98	-4.05	101.54	-7.19	101.88	94.12	7.76	13.135	
1,100.00	1,100.00	1,097.88	1,097.60	3.99	4.77	-5.17	104.70	-9.48	105.15	96.39	8.76	12.003	
1,200.00	1,200.00	1,199.93	1,199.56	4.19	5.55	-7.35	105.61	-13.62	106.48	96.77	9.72	10.956	
1,300.00	1,300.00	1,301.54	1,301.09	4.38	5.93	-9.50	104.60	-17.51	106.06	95.77	10.29	10.311	
1,400.00	1,400.00	1,402.04	1,401.55	4.56	6.02	-10.85	102.82	-19.71	104.70	94.14	10.56	9.915	
1,500.00	1,500.00	1,501.43	1,500.91	4.74	6.12	-11.97	101.13	-21.44	103.39	92.56	10.83	9.547	
1,600.00	1,600.00	1,600.83	1,600.31	4.91	6.24	-12.03	100.68	-21.45	102.94	91.82	11.12	9.254	
1,700.00	1,700.00	1,701.09	1,700.56	5.08	6.35	-11.49	100.52	-20.43	102.58	91.19	11.39	9.004	
1,800.00	1,800.00	1,801.41	1,800.87	5.24	6.43	-11.14	99.92	-19.68	101.85	90.21	11.64	8.753	
1,900.00	1,900.00	1,902.10	1,901.55	5.40	6.52	-10.77	98.94	-18.82	100.73	88.85	11.87	8.484	
2,000.00	2,000.00	2,002.55	2,001.98	5.56	6.60	-10.14	97.33	-17.41	98.90	86.78	12.11	8.166	
2,100.00	2,100.00	2,103.24	2,102.63	5.71	6.70	-9.16	95.31	-15.37	96.57	84.22	12.36	7.815	
2,200.00	2,200.00	2,202.97	2,202.32	5.86	6.79	-8.72	92.80	-14.23	93.91	81.31	12.60	7.451	
2,300.00	2,300.00	2,302.67	2,301.98	6.01	6.90	-9.56	90.30	-15.21	91.59	78.73	12.86	7.123	
2,400.00	2,400.00	2,402.87	2,402.14	6.16	7.02	-10.86	87.68	-16.82	89.30	76.20	13.11	6.813	
2,500.00	2,500.00	2,501.59	2,500.82	6.30	7.14	-12.09	85.73	-18.36	87.68	74.32	13.35	6.567	
2,600.00	2,600.00	2,601.41	2,600.63	6.44	7.26	-13.23	84.58	-19.88	86.89	73.30	13.59	6.394	
2,700.00	2,700.00	2,701.68	2,700.87	6.58	7.39	-14.42	83.23	-21.40	85.94	72.12	13.83	6.216	
2,800.00	2,800.00	2,801.31	2,800.49	6.72	7.53	-15.52	82.10	-22.80	85.21	71.15	14.06	6.060	
2,900.00	2,900.00	2,901.48	2,900.65	6.85	7.67	-16.25	81.20	-23.66	84.58	70.28	14.30	5.915	
3,000.00	3,000.00	3,001.97	3,001.14	6.98	7.82	-16.82	79.97	-24.18	83.55	69.00	14.55	5.744	
3,100.00	3,100.00	3,102.30	3,101.44	7.12	7.98	-17.39	78.13	-24.47	81.88	67.08	14.80	5.532	
3,200.00	3,200.00	3,201.80	3,200.93	7.25	8.14	-17.86	76.42	-24.62	80.30	65.24	15.06	5.333	
3,261.52	3,261.52	3,262.39	3,261.52	7.33	8.27	-17.86	75.99	-24.48	79.84	64.62	15.22	5.245 CC, ES	
3,300.00	3,300.00	3,299.39	3,298.52	7.38	8.50	-17.90	76.30	-24.64	80.19	64.86	15.33	5.232 SF	
3,400.00	3,400.00	3,397.81	3,396.87	7.50	9.37	-18.38	79.37	-26.37	83.69	68.09	15.60	5.364	
3,500.00	3,500.00	3,499.25	3,498.26	7.63	9.82	-18.40	82.29	-27.37	86.74	70.90	15.85	5.474	
3,600.00	3,600.00	3,600.57	3,599.57	7.75	9.86	-18.01	83.54	-27.15	87.84	71.78	16.06	5.470	
3,700.00	3,700.00	3,701.03	3,700.03	7.88	9.89	-17.78	83.79	-26.87	87.99	71.73	16.26	5.411	
3,701.26	3,701.26	3,702.30	3,701.30	7.88	9.89	166.00	83.79	-26.86	87.99	71.73	16.26	5.410	
3,800.00	3,799.98	3,800.76	3,799.76	8.00	9.94	166.25	83.82	-26.89	89.72	73.27	16.45	5.455	
3,900.00	3,899.84	3,900.64	3,899.64	8.38	10.02	166.77	83.97	-27.29	95.08	78.18	16.90	5.627	
4,000.00	3,999.45	4,000.31	3,999.31	8.76	10.12	167.60	84.02	-27.74	103.75	86.38	17.36	5.975	
4,100.00	4,098.70	4,099.84	4,098.84	9.15	10.23	168.60	83.90	-28.24	115.70	97.85	17.85	6.481	
4,200.00	4,197.47	4,197.00	4,196.00	9.54	10.35	169.65	83.43	-28.64	130.72	112.36	18.36	7.121	
4,300.00	4,295.62	4,292.00	4,290.98	9.93	10.61	170.62	84.36	-29.48	150.69	131.82	18.87	7.986	
4,400.00	4,393.06	4,386.00	4,384.89	10.36	10.91	171.40	88.06	-31.26	177.04	157.55	19.49	9.085	
4,500.00	4,490.04	4,476.02	4,474.71	10.63	10.95	172.13	93.60	-33.22	207.39	187.51	19.87	10.435	
4,600.00	4,587.02	4,569.04	4,567.45	10.83	10.98	172.75	100.61	-35.26	239.09	218.93	20.16	11.861	
4,700.00	4,684.00	4,663.94	4,662.03	11.04	11.02	173.24	108.10	-37.41	271.15	250.70	20.45	13.256	
4,800.00	4,780.98	4,760.55	4,758.34	11.27	11.05	173.64	115.38	-39.51	302.88	282.10	20.78	14.573	

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 702H - Original Hole - Surveys Original Hole											Offset Site Error:	0.00 ft
Survey Program: 176-MWD											Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum	Separation	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	
4,900.00	4,877.97	4,856.82	4,854.34	11.52	11.10	173.91	122.09	-41.81	334.12	312.99	21.13	15.809
5,000.00	4,974.95	4,952.64	4,949.92	11.79	11.15	174.08	128.43	-44.35	365.08	343.57	21.51	16.976
5,100.00	5,071.93	5,048.00	5,045.05	12.06	11.21	174.22	134.57	-46.91	395.87	373.98	21.90	18.079
5,200.00	5,168.91	5,143.00	5,139.82	12.36	11.26	174.34	140.71	-49.41	426.68	404.37	22.31	19.126
5,300.00	5,265.89	5,237.45	5,234.04	12.66	11.32	174.43	146.90	-52.03	457.61	434.87	22.74	20.123
5,400.00	5,362.88	5,334.95	5,331.30	12.98	11.39	174.49	153.07	-54.88	488.34	465.14	23.21	21.043
5,500.00	5,459.86	5,430.97	5,427.11	13.30	11.46	174.57	158.89	-57.32	518.77	495.09	23.68	21.904
5,600.00	5,556.84	5,526.45	5,522.39	13.64	11.52	174.75	164.74	-58.85	549.12	524.94	24.18	22.712
5,700.00	5,653.82	5,624.55	5,620.31	13.99	11.57	174.96	170.56	-59.92	579.22	554.51	24.70	23.449
5,800.00	5,750.80	5,722.82	5,718.43	14.34	11.63	175.13	175.90	-61.08	608.85	583.62	25.24	24.124
5,900.00	5,847.79	5,819.42	5,814.90	14.70	11.70	175.28	180.77	-62.25	638.13	612.35	25.78	24.753
6,000.00	5,944.77	5,909.38	5,904.72	15.07	11.77	175.51	185.83	-62.19	667.80	641.50	26.30	25.393
6,100.00	6,041.75	5,996.93	5,992.06	15.45	11.84	175.82	191.77	-61.15	698.43	671.61	26.82	26.045
6,200.00	6,138.73	6,096.41	6,091.27	15.83	11.88	176.19	198.84	-59.31	729.29	701.88	27.41	26.608
6,300.00	6,235.71	6,193.06	6,187.69	16.22	11.96	176.54	205.34	-57.37	759.82	731.82	27.99	27.143
6,400.00	6,332.69	6,292.96	6,287.37	16.62	12.15	176.84	211.64	-55.64	789.98	761.37	28.61	27.617
6,500.00	6,429.68	6,391.72	6,385.96	17.02	12.35	177.08	217.13	-54.33	819.50	790.28	29.22	28.046
6,600.00	6,526.66	6,469.00	6,463.10	17.42	12.52	177.23	221.79	-53.70	849.63	819.90	29.72	28.583
6,700.00	6,623.64	6,555.96	6,549.82	17.83	12.75	177.36	228.30	-53.57	881.16	850.83	30.33	29.057
6,800.00	6,720.62	6,647.52	6,641.04	18.24	13.01	177.46	236.19	-53.99	913.78	882.81	30.97	29.505
6,900.00	6,817.60	6,745.76	6,738.92	18.66	13.28	177.53	244.55	-54.74	946.34	914.69	31.65	29.899
7,000.00	6,914.59	6,848.57	6,841.40	19.08	13.55	177.58	252.60	-55.90	978.30	945.93	32.37	30.227
7,100.00	7,011.57	6,951.47	6,944.04	19.51	13.84	177.61	259.77	-57.29	1,009.45	976.37	33.08	30.514
7,200.00	7,108.55	7,050.38	7,042.74	19.93	14.10	177.64	266.13	-58.51	1,040.10	1,006.32	33.78	30.793
7,300.00	7,205.53	7,151.40	7,143.58	20.36	14.38	177.66	272.10	-59.75	1,070.24	1,035.75	34.49	31.033
7,400.00	7,302.51	7,248.41	7,240.43	20.80	14.65	177.68	277.59	-60.99	1,100.16	1,064.98	35.18	31.275
7,500.00	7,399.50	7,351.01	7,342.87	21.23	14.93	177.70	282.96	-62.19	1,129.65	1,093.75	35.90	31.465
7,600.00	7,496.48	7,455.88	7,447.63	21.67	15.21	177.70	287.73	-63.72	1,158.52	1,121.89	36.63	31.623
7,700.00	7,593.46	7,559.69	7,551.36	22.11	15.48	177.69	291.50	-65.33	1,186.52	1,149.17	37.35	31.764
7,800.00	7,690.44	7,661.17	7,652.76	22.56	15.74	177.67	294.76	-67.01	1,214.15	1,176.09	38.06	31.903
7,900.00	7,787.91	7,763.79	7,755.34	23.05	16.00	177.68	297.51	-68.72	1,239.20	1,200.40	38.80	31.939
8,000.00	7,886.41	7,867.67	7,859.18	23.68	16.26	177.68	299.88	-70.13	1,258.75	1,219.08	39.68	31.724
8,100.00	7,985.67	7,972.70	7,964.18	24.30	16.51	177.67	301.77	-71.45	1,272.68	1,232.14	40.54	31.395
8,200.00	8,085.43	8,073.11	8,064.58	24.87	16.74	177.65	303.29	-72.64	1,281.12	1,239.81	41.31	31.013
8,300.00	8,185.40	8,179.26	8,170.71	24.99	16.95	-6.12	304.75	-72.85	1,284.19	1,242.53	41.66	30.828
8,400.00	8,285.40	8,284.04	8,275.49	25.01	17.12	-6.11	305.83	-72.63	1,285.20	1,243.31	41.88	30.686
8,500.00	8,385.40	8,388.34	8,379.78	25.04	17.22	-6.07	306.33	-71.87	1,285.59	1,243.54	42.04	30.578
8,600.00	8,485.40	8,474.42	8,465.85	25.07	17.30	-6.02	307.27	-70.76	1,286.54	1,244.40	42.14	30.529
8,700.00	8,585.40	8,558.66	8,550.07	25.10	17.46	-6.01	309.11	-70.79	1,288.71	1,246.41	42.30	30.468
8,800.00	8,685.40	8,653.77	8,645.13	25.13	17.71	-6.06	311.81	-72.17	1,291.68	1,249.13	42.55	30.357
8,900.00	8,785.40	8,762.91	8,754.21	25.16	17.98	-6.15	314.57	-74.60	1,294.44	1,251.59	42.85	30.210
9,000.00	8,885.40	8,867.18	8,858.43	25.19	18.21	-6.24	316.73	-76.89	1,296.73	1,253.64	43.09	30.095
9,100.00	8,985.40	8,965.47	8,956.45	25.22	18.53	-6.51	317.62	-83.04	1,298.34	1,255.03	43.32	29.974
9,200.00	9,085.40	9,039.20	9,028.32	25.25	19.15	-7.22	318.00	-99.21	1,301.58	1,258.10	43.48	29.933
9,300.00	9,185.40	9,109.44	9,094.37	25.28	20.44	-8.25	318.60	-123.00	1,307.30	1,263.63	43.67	29.934
9,400.00	9,285.40	9,198.26	9,176.01	25.31	21.15	-9.76	319.38	-157.97	1,314.92	1,270.99	43.93	29.932
9,500.00	9,385.40	9,269.20	9,238.77	25.34	21.42	-11.17	319.26	-190.94	1,324.38	1,280.28	44.10	30.029
9,600.00	9,485.40	9,286.00	9,253.01	25.37	21.50	-11.55	319.17	-199.86	1,338.24	1,294.29	43.95	30.449
9,700.00	9,585.40	9,286.00	9,253.01	25.40	21.50	-11.55	319.17	-199.86	1,359.18	1,315.54	43.64	31.145
9,800.00	9,685.40	9,286.00	9,253.01	25.43	21.50	-11.55	319.17	-199.86	1,387.03	1,343.73	43.29	32.038
9,900.00	9,785.40	9,286.00	9,253.01	25.46	21.50	-11.55	319.17	-199.86	1,421.38	1,378.45	42.93	33.108
10,000.00	9,885.23	9,286.00	9,253.01	25.46	21.50	75.79	319.17	-199.86	1,460.98	1,418.46	42.52	34.362

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



Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 702H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 176-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,100.00	9,982.95	9,286.00	9,253.01	25.46	21.50	71.41	319.17	-199.86	1,502.51	1,460.45	42.06	35.720		
10,200.00	10,075.59	9,286.00	9,253.01	25.47	21.50	67.09	319.17	-199.86	1,544.49	1,502.89	41.60	37.129		
10,300.00	10,160.35	9,286.00	9,253.01	25.51	21.50	62.99	319.17	-199.86	1,585.65	1,544.50	41.15	38.535		
10,400.00	10,234.66	9,286.00	9,253.01	25.63	21.50	59.26	319.17	-199.86	1,624.84	1,584.10	40.74	39.882		
10,500.00	10,296.24	9,286.00	9,253.01	25.89	21.50	55.98	319.17	-199.86	1,661.07	1,620.66	40.41	41.108		
10,600.00	10,343.23	9,286.00	9,253.01	26.34	21.50	53.19	319.17	-199.86	1,693.44	1,653.27	40.17	42.153		
10,700.00	10,374.21	9,286.00	9,253.01	27.03	21.50	50.91	319.17	-199.86	1,721.23	1,681.17	40.06	42.968		
10,800.00	10,388.23	9,286.00	9,253.01	27.96	21.50	49.13	319.17	-199.86	1,743.82	1,703.75	40.07	43.522		
10,900.00	10,388.24	9,286.00	9,253.01	29.09	21.50	48.59	319.17	-199.86	1,762.94	1,722.85	40.09	43.976		
11,000.00	10,387.02	9,286.00	9,253.01	30.37	21.50	48.59	319.17	-199.86	1,786.68	1,746.52	40.16	44.489		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 703H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 199-MWD, 14905-MWD												Offset Well Error:	0.00 ft
Reference												Rule Assigned:	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
							+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
0.00	0.00	0.00	0.00	0.00	0.00	-0.28	60.02	-0.29	60.02				
100.00	100.00	100.33	100.33	0.84	0.65	-0.08	59.74	-0.08	59.74	58.26	1.48	40.236	
200.00	200.00	200.64	200.64	1.44	1.30	0.54	58.91	0.55	58.92	56.18	2.74	21.523	
300.00	300.00	300.48	300.47	1.89	1.87	1.29	57.95	1.30	57.97	54.22	3.74	15.484	
400.00	400.00	400.26	400.24	2.25	2.25	1.93	57.33	1.93	57.36	52.91	4.45	12.877	
500.00	500.00	500.18	500.16	2.57	2.57	2.51	56.99	2.50	57.04	51.98	5.06	11.264	
600.00	600.00	600.12	600.10	2.85	2.88	3.32	56.68	3.29	56.77	51.17	5.61	10.128	
648.23	648.23	648.25	648.23	2.97	3.02	3.76	56.61	3.72	56.73	50.88	5.84	9.707	
700.00	700.00	699.90	699.87	3.11	3.14	4.16	56.64	4.12	56.79	50.71	6.08	9.345	
800.00	800.00	799.62	799.59	3.35	3.33	4.36	57.08	4.35	57.25	50.75	6.49	8.814	
900.00	900.00	899.59	899.56	3.58	3.50	4.46	57.90	4.52	58.08	51.19	6.89	8.427	
1,000.00	1,000.00	999.89	999.86	3.79	3.67	4.81	58.39	4.91	58.59	51.35	7.25	8.086	
1,100.00	1,100.00	1,099.93	1,099.89	3.99	3.91	5.60	58.52	5.74	58.80	51.17	7.63	7.706	
1,200.00	1,200.00	1,200.01	1,199.97	4.19	4.16	6.32	58.61	6.49	58.96	50.95	8.02	7.353	
1,300.00	1,300.00	1,300.21	1,300.17	4.38	4.41	7.10	58.33	7.27	58.78	50.39	8.39	7.006	
1,400.00	1,400.00	1,400.13	1,400.08	4.56	4.66	8.09	57.96	8.24	58.55	49.80	8.75	6.691	
1,500.00	1,500.00	1,500.09	1,500.03	4.74	4.91	9.04	57.77	9.19	58.49	49.39	9.10	6.428	
1,600.00	1,600.00	1,600.18	1,600.12	4.91	5.17	10.21	57.45	10.34	58.37	48.93	9.44	6.183	
1,700.00	1,700.00	1,700.39	1,700.32	5.08	5.42	11.57	56.86	11.64	58.04	48.26	9.77	5.939	
1,800.00	1,800.00	1,800.68	1,800.59	5.24	5.68	13.34	55.70	13.20	57.25	47.16	10.09	5.671	
1,900.00	1,900.00	1,900.87	1,900.74	5.40	5.94	15.69	53.95	15.15	56.04	45.63	10.41	5.384	
2,000.00	2,000.00	2,001.01	2,000.84	5.56	6.20	18.49	51.78	17.31	54.61	43.89	10.72	5.095	
2,100.00	2,100.00	2,100.71	2,100.49	5.71	6.47	21.45	49.60	19.49	53.29	42.27	11.02	4.835	
2,200.00	2,200.00	2,200.50	2,200.26	5.86	6.72	23.39	48.30	20.89	52.63	41.31	11.32	4.649	
2,300.00	2,300.00	2,300.28	2,300.03	6.01	6.97	24.85	47.49	21.99	52.33	40.72	11.61	4.507	
2,400.00	2,400.00	2,400.58	2,400.32	6.16	7.21	26.20	46.69	22.98	52.04	40.14	11.90	4.374	
2,500.00	2,500.00	2,500.42	2,500.15	6.30	7.44	27.35	45.81	23.69	51.57	39.40	12.18	4.236	
2,600.00	2,600.00	2,600.37	2,600.10	6.44	7.66	28.22	45.21	24.26	51.31	38.86	12.45	4.121	
2,633.59	2,633.59	2,633.85	2,633.59	6.49	7.74	28.45	45.08	24.43	51.27	38.73	12.54	4.088 CC	
2,700.00	2,700.00	2,700.11	2,699.84	6.58	7.88	29.04	44.94	24.95	51.40	38.68	12.72	4.040	
2,800.00	2,800.00	2,800.07	2,799.79	6.72	8.10	29.66	44.92	25.58	51.69	38.69	13.00	3.975	
2,900.00	2,900.00	2,899.70	2,899.42	6.85	8.29	30.27	45.34	26.46	52.49	39.21	13.28	3.952	
3,000.00	3,000.00	2,999.58	2,999.29	6.98	8.46	30.82	46.14	27.52	53.73	40.16	13.57	3.959	
3,100.00	3,100.00	3,099.57	3,099.28	7.12	8.65	31.52	46.94	28.79	55.07	41.20	13.87	3.971	
3,200.00	3,200.00	3,199.97	3,199.66	7.25	8.88	32.69	47.30	30.36	56.20	42.02	14.18	3.962	
3,300.00	3,300.00	3,300.65	3,300.33	7.38	9.08	34.31	46.34	31.62	56.11	41.62	14.48	3.874	
3,400.00	3,400.00	3,400.83	3,400.50	7.50	9.26	35.24	45.12	31.87	55.24	40.52	14.73	3.751	
3,500.00	3,500.00	3,500.87	3,500.50	7.63	9.50	37.90	42.90	33.40	54.37	39.34	15.03	3.616	
3,600.00	3,600.00	3,601.04	3,600.59	7.75	9.80	42.20	39.57	35.88	53.42	38.03	15.39	3.471	
3,700.00	3,700.00	3,701.24	3,700.75	7.88	10.02	44.68	37.06	36.65	52.13	36.46	15.67	3.327	
3,769.35	3,769.34	3,770.67	3,770.17	7.96	10.12	-131.24	35.67	36.55	51.62	35.85	15.77	3.274 ES	
3,800.00	3,799.98	3,801.35	3,800.84	8.00	10.16	-131.61	35.07	36.44	51.72	35.93	15.79	3.275	
3,900.00	3,899.84	3,901.29	3,900.76	8.38	10.26	-134.75	33.19	35.94	53.59	37.62	15.97	3.355	
4,000.00	3,999.45	4,001.81	4,001.25	8.76	10.39	-139.72	30.73	35.32	57.71	41.46	16.25	3.551	
4,100.00	4,098.70	4,103.38	4,102.66	9.15	10.59	-144.43	25.39	34.86	62.75	45.96	16.79	3.737	
4,200.00	4,197.47	4,205.39	4,204.23	9.54	10.90	-148.27	15.99	34.57	67.68	50.10	17.58	3.849	
4,300.00	4,295.62	4,307.05	4,305.06	9.93	11.24	-151.77	2.98	34.19	72.64	54.22	18.43	3.942	
4,400.00	4,393.06	4,406.58	4,403.60	10.36	11.54	-155.49	-11.01	33.77	79.79	60.49	19.30	4.133	
4,500.00	4,490.04	4,505.58	4,501.65	10.63	11.82	-158.98	-24.63	33.60	89.38	69.35	20.04	4.461	
4,600.00	4,587.02	4,604.58	4,599.75	10.83	12.11	-161.73	-37.98	33.61	99.57	78.88	20.69	4.812	
4,700.00	4,684.00	4,703.50	4,697.86	11.04	12.40	-164.05	-50.65	33.61	110.60	89.24	21.36	5.178	
4,800.00	4,780.98	4,804.30	4,797.78	11.27	12.70	-166.56	-63.82	32.33	121.30	99.22	22.08	5.493	

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 703H - Original Hole - Surveys Original Hole													Offset Site Error: 0.00 ft	
Survey Program: Reference		199-MWD, 14905-MWD Offset		Semi Major Axis			Offset Wellbore Centre		Rule Assigned: Distance				Offset Well Error: 0.00 ft	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
4,900.00	4,877.97	4,907.11	4,899.42	11.52	13.04	-168.68	-79.17	30.78	130.32	107.46	22.85	5.702		
5,000.00	4,974.95	5,009.61	5,000.27	11.79	13.42	-170.20	-97.44	29.69	136.60	112.96	23.64	5.778		
5,100.00	5,071.93	5,108.97	5,097.89	12.06	13.77	-171.41	-115.96	28.90	142.17	117.77	24.40	5.827		
5,200.00	5,168.91	5,208.99	5,196.25	12.36	14.12	-172.43	-134.08	28.39	148.34	123.21	25.14	5.902		
5,300.00	5,265.89	5,309.60	5,295.07	12.66	14.48	-173.17	-152.99	28.40	153.91	128.03	25.87	5.949		
5,400.00	5,362.88	5,409.22	5,392.88	12.98	14.84	-173.93	-171.89	28.18	159.30	132.67	26.64	5.981		
5,500.00	5,459.86	5,508.51	5,490.42	13.30	15.20	-174.75	-190.43	27.66	165.02	137.60	27.42	6.018		
5,600.00	5,556.84	5,607.97	5,588.19	13.64	15.56	-175.54	-208.73	27.08	171.04	142.82	28.22	6.062		
5,700.00	5,653.82	5,709.81	5,688.20	13.99	15.94	-176.24	-227.88	26.64	176.69	147.67	29.01	6.090		
5,800.00	5,750.80	5,812.00	5,788.30	14.34	16.34	-176.79	-248.43	26.54	181.03	151.21	29.82	6.071		
5,900.00	5,847.79	5,911.18	5,885.37	14.70	16.73	-177.20	-268.81	26.77	184.93	154.28	30.64	6.035		
6,000.00	5,944.77	6,008.83	5,981.10	15.07	17.12	-177.55	-288.06	27.13	189.69	158.22	31.47	6.028		
6,100.00	6,041.75	6,107.30	6,077.81	15.45	17.51	-177.76	-306.59	27.86	195.34	163.06	32.29	6.050		
6,200.00	6,138.73	6,205.81	6,174.72	15.83	17.90	-177.77	-324.22	29.23	201.92	168.82	33.10	6.101		
6,300.00	6,235.71	6,307.94	6,275.05	16.22	18.32	-177.93	-343.26	30.15	207.76	173.82	33.94	6.122		
6,400.00	6,332.69	6,406.88	6,372.29	16.62	18.73	-178.07	-361.52	31.05	213.78	179.00	34.78	6.146		
6,500.00	6,429.68	6,507.83	6,471.39	17.02	19.14	-178.53	-380.74	30.75	219.27	183.62	35.65	6.151		
6,600.00	6,526.66	6,606.08	6,567.90	17.42	19.53	-179.13	-399.10	29.76	225.15	188.62	36.53	6.163		
6,700.00	6,623.64	6,707.51	6,667.59	17.83	19.94	-179.73	-417.78	28.65	231.35	193.92	37.43	6.181		
6,800.00	6,720.62	6,812.02	6,769.96	18.24	20.38	-179.77	-438.80	27.98	235.80	197.47	38.34	6.151		
6,900.00	6,817.60	6,912.08	6,867.72	18.66	20.81	-179.35	-460.14	27.62	239.02	199.78	39.24	6.091		
7,000.00	6,914.59	7,010.00	6,963.54	19.08	21.22	-179.02	-480.32	27.53	242.96	202.82	40.14	6.053		
7,100.00	7,011.57	7,114.16	7,065.44	19.51	21.68	-178.68	-501.89	27.43	246.83	205.77	41.06	6.011		
7,200.00	7,108.55	7,220.23	7,168.60	19.93	22.17	-178.15	-526.51	26.69	248.19	206.17	42.02	5.906		
7,300.00	7,205.53	7,322.32	7,267.47	20.36	22.64	-177.49	-551.93	25.53	247.88	204.91	42.97	5.768		
7,333.20	7,237.73	7,353.93	7,298.08	20.51	22.78	-177.26	-559.83	25.08	247.77	204.47	43.30	5.722		
7,400.00	7,302.51	7,419.00	7,361.25	20.80	23.07	-176.86	-575.41	24.32	248.24	204.30	43.94	5.650		
7,500.00	7,399.50	7,524.62	7,463.54	21.23	23.59	-176.26	-601.70	23.47	247.97	203.05	44.92	5.521		
7,600.00	7,496.48	7,621.94	7,557.60	21.67	24.05	-175.77	-626.67	23.07	246.89	200.99	45.90	5.379		
7,620.76	7,516.61	7,641.58	7,576.63	21.77	24.14	-175.68	-631.54	23.01	246.84	200.74	46.10	5.355		
7,700.00	7,593.46	7,716.60	7,649.49	22.11	24.48	-175.34	-649.37	22.70	247.53	200.67	46.86	5.282		
7,800.00	7,690.44	7,811.07	7,741.67	22.56	24.93	-175.06	-670.04	22.62	250.27	202.46	47.81	5.234		
7,900.00	7,787.91	7,904.07	7,832.95	23.05	25.37	-174.91	-687.80	22.83	253.65	204.87	48.78	5.199		
8,000.00	7,886.41	8,005.73	7,932.88	23.68	25.82	-174.46	-706.46	22.15	252.74	202.84	49.91	5.064		
8,100.00	7,985.67	8,106.22	8,031.44	24.30	26.24	-173.54	-725.96	20.30	245.79	194.81	50.99	4.821		
8,200.00	8,085.43	8,202.48	8,126.05	24.87	26.65	-172.41	-743.61	18.22	234.85	182.88	51.98	4.518		
8,300.00	8,185.40	8,300.84	8,222.68	24.99	27.07	-12.94	-761.79	15.82	218.91	166.38	52.53	4.167		
8,400.00	8,285.40	8,398.14	8,318.51	25.01	27.49	-14.78	-778.42	13.02	202.96	150.01	52.95	3.833		
8,500.00	8,385.40	8,499.61	8,418.19	25.04	27.99	-16.63	-797.32	11.92	185.26	131.82	53.44	3.467		
8,600.00	8,485.40	8,595.00	8,512.06	25.07	28.51	-18.49	-814.25	11.34	168.50	114.61	53.89	3.127		
8,700.00	8,585.40	8,686.55	8,602.55	25.10	29.00	-20.36	-828.09	10.70	154.49	100.30	54.19	2.851		
8,800.00	8,685.40	8,779.80	8,695.37	25.13	29.47	-21.88	-836.86	9.83	146.00	91.62	54.39	2.685		
8,900.00	8,785.40	8,875.64	8,791.02	25.16	29.84	-23.10	-842.86	9.03	140.53	86.02	54.51	2.578		
9,000.00	8,885.40	8,973.44	8,888.75	25.19	30.13	-24.13	-846.50	7.88	137.59	82.99	54.59	2.520		
9,054.18	8,939.58	9,024.31	8,939.58	25.20	30.47	-24.80	-848.04	6.83	136.59	81.89	54.70	2.497 SF		
9,100.00	8,985.40	9,063.24	8,978.24	25.22	31.03	-26.58	-849.01	2.56	137.75	83.13	54.62	2.522		
9,200.00	9,085.40	9,145.47	9,057.76	25.25	32.32	-33.97	-850.14	-18.02	149.55	96.13	53.43	2.799		
9,300.00	9,185.40	9,229.81	9,135.96	25.28	33.18	-42.86	-849.58	-49.50	174.21	122.59	51.61	3.375		
9,400.00	9,285.40	9,315.35	9,213.28	25.31	33.33	-51.40	-852.22	-85.94	205.11	155.71	49.40	4.152		
9,500.00	9,385.40	9,381.00	9,269.65	25.34	33.45	-57.74	-856.27	-119.28	245.83	198.88	46.95	5.236		
9,600.00	9,485.40	9,419.38	9,299.71	25.37	33.60	-61.29	-858.61	-142.97	300.39	254.48	45.91	6.543		
9,700.00	9,585.40	9,475.00	9,335.37	25.40	33.84	-65.89	-860.37	-185.43	370.48	322.59	47.88	7.737		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 703H - Original Hole - Surveys Original Hole											Offset Site Error:	0.00 ft
Survey Program: 199-MWD, 14905-MWD											Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum	Separation	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	
9,800.00	9,685.40	9,475.00	9,335.37	25.43	33.84	-65.89	-860.37	-185.43	444.14	397.59	46.55	9.540
9,900.00	9,785.40	9,475.00	9,335.37	25.46	33.84	-65.89	-860.37	-185.43	526.56	480.85	45.71	11.521
10,000.00	9,885.23	9,510.00	9,353.00	25.46	34.08	18.52	-860.58	-215.64	609.62	561.32	48.31	12.620
10,100.00	9,982.95	9,531.21	9,362.18	25.46	34.22	14.35	-860.46	-234.76	687.70	637.87	49.83	13.801
10,200.00	10,075.59	9,569.00	9,375.60	25.47	34.49	11.53	-859.79	-270.06	759.39	706.52	52.87	14.365
10,300.00	10,160.35	9,588.20	9,381.35	25.51	34.60	9.89	-859.34	-288.38	822.26	769.27	52.99	15.518
10,400.00	10,234.66	9,647.43	9,397.87	25.63	34.93	8.59	-858.50	-345.24	874.73	820.52	54.21	16.135
10,500.00	10,296.24	9,707.28	9,412.59	25.89	35.31	7.74	-858.52	-403.26	914.83	860.03	54.79	16.696
10,600.00	10,343.23	9,756.00	9,422.89	26.34	35.63	7.22	-859.26	-450.86	942.28	887.33	54.95	17.147
10,700.00	10,374.21	9,819.12	9,433.38	27.03	36.15	6.87	-861.10	-513.07	957.02	901.61	55.41	17.272
10,800.00	10,388.23	9,849.00	9,437.04	27.96	36.39	6.76	-862.29	-542.70	960.01	904.83	55.18	17.396
10,900.00	10,388.24	9,917.86	9,441.70	29.09	37.06	6.61	-866.06	-611.28	953.42	897.77	55.65	17.132
11,000.00	10,387.02	9,977.52	9,441.67	30.37	37.69	6.36	-870.64	-670.75	951.23	895.50	55.74	17.067
11,013.00	10,386.86	9,986.92	9,441.48	30.55	37.80	6.31	-871.50	-680.11	951.21	895.43	55.78	17.053
11,100.00	10,385.79	10,068.90	9,438.68	31.78	38.75	5.80	-880.28	-761.57	952.14	895.71	56.43	16.873
11,200.00	10,384.57	10,181.77	9,437.43	33.30	40.15	5.13	-892.11	-873.80	950.95	893.53	57.42	16.561
11,233.67	10,384.16	10,208.69	9,437.01	33.85	40.50	5.00	-894.42	-900.62	950.83	893.28	57.55	16.523
11,300.00	10,383.34	10,268.73	9,435.68	34.92	41.33	4.77	-898.51	-960.51	951.12	893.23	57.89	16.429
11,400.00	10,382.12	10,391.10	9,433.87	36.62	43.12	4.63	-901.48	-1,082.81	951.36	892.42	58.94	16.142
11,500.00	10,380.89	10,495.15	9,434.98	38.40	44.70	4.70	-900.96	-1,186.84	949.15	889.49	59.66	15.910
11,600.00	10,379.67	10,598.00	9,436.70	40.24	46.30	4.73	-901.22	-1,289.68	946.26	885.87	60.39	15.669
11,699.48	10,378.45	10,674.77	9,437.32	42.13	47.55	4.80	-900.64	-1,366.44	944.52	883.76	60.76	15.545
11,700.00	10,378.44	10,675.12	9,437.31	42.14	47.55	4.80	-900.64	-1,366.80	944.52	883.76	60.76	15.545
11,800.00	10,377.22	10,739.55	9,435.44	44.09	48.62	4.86	-899.86	-1,431.19	946.37	885.40	60.97	15.521
11,900.00	10,375.99	10,868.56	9,428.54	46.09	50.83	4.91	-899.41	-1,559.99	951.12	888.62	62.49	15.220
12,000.00	10,374.77	10,994.69	9,428.61	48.12	53.09	5.02	-898.41	-1,686.11	949.82	886.00	63.83	14.881
12,100.00	10,373.54	11,112.70	9,429.68	50.19	55.27	5.05	-898.65	-1,804.11	947.88	882.92	64.96	14.591
12,200.00	10,372.32	11,205.76	9,433.03	52.28	57.05	4.94	-901.42	-1,897.06	942.97	877.11	65.86	14.318
12,278.29	10,371.36	11,254.00	9,433.07	53.95	57.98	4.89	-902.60	-1,945.29	941.78	875.59	66.19	14.228
12,300.00	10,371.09	11,267.68	9,432.81	54.41	58.25	4.87	-902.88	-1,958.96	941.89	875.61	66.28	14.210
12,400.00	10,369.87	11,347.00	9,429.72	56.56	59.79	4.82	-904.09	-2,038.21	944.34	877.34	67.00	14.095
12,500.00	10,368.65	11,437.73	9,424.90	58.73	61.60	4.86	-903.57	-2,128.81	948.44	880.64	67.80	13.988
12,600.00	10,367.42	11,556.47	9,420.99	60.92	63.99	5.11	-899.72	-2,247.41	950.73	881.68	69.05	13.769
12,700.00	10,366.20	11,628.00	9,417.78	63.13	65.44	5.25	-897.60	-2,318.84	954.28	884.71	69.58	13.715
12,800.00	10,364.97	11,773.68	9,412.49	65.35	68.46	5.41	-895.41	-2,464.38	956.85	885.45	71.40	13.401
12,900.00	10,363.75	11,884.11	9,411.73	67.59	70.82	5.30	-897.97	-2,574.78	956.10	883.46	72.65	13.161
12,968.89	10,362.90	11,945.00	9,411.35	69.14	72.13	5.31	-898.11	-2,635.67	955.73	882.47	73.26	13.046
13,000.00	10,362.52	11,970.81	9,410.97	69.84	72.68	5.32	-898.11	-2,661.48	955.81	882.31	73.51	13.003
13,100.00	10,361.30	12,067.89	9,408.87	72.11	74.75	5.34	-898.10	-2,758.53	956.79	882.24	74.55	12.835
13,200.00	10,360.07	12,207.09	9,408.54	74.38	77.75	5.46	-897.07	-2,897.71	956.06	879.83	76.23	12.542
13,300.00	10,358.85	12,284.89	9,408.90	76.67	79.44	5.58	-895.49	-2,975.49	954.48	877.44	77.04	12.389
13,400.00	10,357.62	12,407.13	9,409.72	78.96	82.11	5.72	-894.02	-3,097.72	952.84	874.35	78.49	12.139
13,500.00	10,356.40	12,524.51	9,414.17	81.26	84.69	5.76	-894.58	-3,215.01	947.72	867.81	79.90	11.861
13,600.00	10,355.17	12,604.04	9,416.44	83.57	86.46	5.69	-896.55	-3,294.47	943.52	862.68	80.83	11.673
13,700.00	10,353.95	12,681.43	9,416.42	85.89	88.18	5.55	-899.44	-3,371.81	941.97	860.24	81.73	11.526
13,743.53	10,353.41	12,720.06	9,415.92	86.90	89.04	5.47	-900.92	-3,410.41	941.85	859.66	82.19	11.459
13,800.00	10,352.72	12,778.13	9,414.95	88.21	90.34	5.36	-902.99	-3,468.43	941.95	859.03	82.91	11.361
13,900.00	10,351.50	12,920.89	9,415.84	90.54	93.55	5.16	-907.26	-3,611.11	940.04	855.30	84.74	11.093
14,000.00	10,350.27	13,024.17	9,419.70	92.87	95.88	5.02	-910.68	-3,714.26	934.84	848.81	86.03	10.866
14,100.00	10,349.05	13,088.34	9,420.96	95.21	97.34	4.97	-912.02	-3,778.40	931.58	844.74	86.84	10.727
14,128.30	10,348.70	13,105.92	9,420.86	95.88	97.74	4.97	-912.11	-3,795.98	931.40	844.34	87.05	10.699
14,200.00	10,347.82	13,164.19	9,419.61	97.56	99.07	5.00	-911.86	-3,854.24	932.07	844.30	87.77	10.619

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 703H - Original Hole - Surveys Original Hole											Offset Site Error:	0.00 ft
Survey Program: 199-MWD, 14905-MWD											Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:	
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
14,300.00	10,346.60	13,272.77	9,417.01	99.91	101.55	5.09	-910.79	-3,962.78	933.41	844.22	89.18	10.466
14,400.00	10,345.37	13,354.57	9,415.92	102.26	103.42	5.31	-907.65	-4,044.50	934.07	843.87	90.21	10.355
14,500.00	10,344.15	13,419.91	9,412.64	104.62	104.92	5.60	-902.99	-4,109.59	938.51	847.56	90.94	10.320
14,600.00	10,342.92	13,593.00	9,403.78	106.98	108.89	6.35	-890.95	-4,281.93	944.94	851.30	93.63	10.092
14,700.00	10,341.70	13,687.04	9,404.29	109.34	111.08	6.48	-889.36	-4,375.95	943.45	848.46	94.99	9.932
14,800.00	10,340.48	13,790.78	9,404.47	111.71	113.47	6.57	-888.59	-4,479.69	942.20	845.80	96.40	9.774
14,900.00	10,339.25	13,874.00	9,404.29	114.08	115.40	6.65	-887.90	-4,562.91	941.42	843.89	97.53	9.653
14,907.03	10,339.16	13,884.90	9,404.19	114.24	115.65	6.66	-887.77	-4,573.81	941.40	843.71	97.68	9.637
15,000.00	10,338.03	13,956.76	9,402.65	116.45	117.32	6.74	-886.82	-4,645.64	942.45	843.80	98.65	9.553
15,100.00	10,336.80	14,062.00	9,399.73	118.82	119.77	6.75	-886.94	-4,750.83	944.01	843.89	100.13	9.428
15,200.00	10,335.58	14,155.00	9,396.59	121.20	121.94	6.64	-889.00	-4,843.75	945.97	844.59	101.38	9.331
15,300.00	10,334.35	14,259.47	9,392.03	123.58	124.37	6.50	-891.56	-4,948.09	948.91	846.11	102.79	9.231
15,400.00	10,333.13	14,384.74	9,390.53	125.97	127.30	6.27	-896.01	-5,073.27	948.29	843.78	104.50	9.074
15,431.88	10,332.74	14,410.12	9,390.20	126.73	127.89	6.21	-897.11	-5,098.62	948.18	843.33	104.85	9.044
15,500.00	10,331.90	14,462.45	9,388.93	128.35	129.11	6.08	-899.51	-5,150.88	948.71	843.17	105.54	8.989
15,600.00	10,330.68	14,552.79	9,384.71	130.74	131.23	5.86	-903.44	-5,241.04	951.66	844.92	106.74	8.915
15,700.00	10,329.45	14,679.05	9,382.79	133.12	134.18	5.52	-909.72	-5,367.11	951.14	842.64	108.50	8.766
15,702.27	10,329.42	14,680.82	9,382.76	133.18	134.23	5.51	-909.81	-5,368.87	951.14	842.61	108.52	8.764
15,800.00	10,328.23	14,759.01	9,380.63	135.51	136.06	5.31	-913.52	-5,446.95	952.20	842.60	109.59	8.688
15,900.00	10,327.00	14,842.30	9,376.76	137.90	137.96	5.08	-917.58	-5,530.05	955.20	844.52	110.68	8.631
15,900.85	10,326.99	14,843.15	9,376.72	137.93	137.97	5.08	-917.62	-5,530.90	955.23	844.55	110.69	8.630

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 707H - Original Hole - rev0													Offset Site Error: 0.00 ft	
Survey Program: 0-MWD		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned:				Offset Well Error: 0.00 ft	
Reference	Vertical	Measured	Vertical	Reference	Offset	Highside			Distance				Warning	
Measured Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+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	176.09	-803.31	54.85	805.24					
100.00	100.00	90.50	90.50	0.84	0.78	176.09	-803.31	54.85	805.18	803.57	1.61	499.054		
200.00	200.00	190.50	190.50	1.44	1.40	176.09	-803.31	54.85	805.18	802.33	2.85	282.998		
300.00	300.00	290.50	290.50	1.89	1.86	176.09	-803.31	54.85	805.18	801.43	3.75	214.755		
400.00	400.00	390.50	390.50	2.25	2.23	176.09	-803.31	54.85	805.18	800.70	4.48	179.724		
500.00	500.00	490.50	490.50	2.57	2.54	176.09	-803.31	54.85	805.18	800.07	5.11	157.508		
600.00	600.00	590.50	590.50	2.85	2.83	176.09	-803.31	54.85	805.18	799.50	5.68	141.796		
700.00	700.00	690.50	690.50	3.11	3.09	176.09	-803.31	54.85	805.18	798.98	6.20	129.920		
800.00	800.00	790.50	790.50	3.35	3.33	176.09	-803.31	54.85	805.18	798.50	6.68	120.531		
900.00	900.00	890.50	890.50	3.58	3.56	176.09	-803.31	54.85	805.18	798.05	7.13	112.863		
1,000.00	1,000.00	990.50	990.50	3.79	3.77	176.09	-803.31	54.85	805.18	797.62	7.56	106.445		
1,100.00	1,100.00	1,090.50	1,090.50	3.99	3.98	176.09	-803.31	54.85	805.18	797.21	7.97	100.968		
1,200.00	1,200.00	1,190.50	1,190.50	4.19	4.18	176.09	-803.31	54.85	805.18	796.81	8.37	96.222		
1,300.00	1,300.00	1,290.50	1,290.50	4.38	4.37	176.09	-803.31	54.85	805.18	796.43	8.75	92.055		
1,400.00	1,400.00	1,390.50	1,390.50	4.56	4.55	176.09	-803.31	54.85	805.18	796.07	9.11	88.359		
1,500.00	1,500.00	1,490.50	1,490.50	4.74	4.73	176.09	-803.31	54.85	805.18	795.71	9.47	85.049		
1,600.00	1,600.00	1,590.50	1,590.50	4.91	4.90	176.09	-803.31	54.85	805.18	795.37	9.81	82.063		
1,700.00	1,700.00	1,690.50	1,690.50	5.08	5.07	176.09	-803.31	54.85	805.18	795.03	10.15	79.350		
1,800.00	1,800.00	1,790.50	1,790.50	5.24	5.23	176.09	-803.31	54.85	805.18	794.71	10.47	76.871		
1,900.00	1,900.00	1,890.50	1,890.50	5.40	5.39	176.09	-803.31	54.85	805.18	794.39	10.79	74.594		
2,000.00	2,000.00	1,990.50	1,990.50	5.56	5.55	176.09	-803.31	54.85	805.18	794.07	11.11	72.492		
2,100.00	2,100.00	2,090.50	2,090.50	5.71	5.70	176.09	-803.31	54.85	805.18	793.77	11.41	70.544		
2,200.00	2,200.00	2,190.50	2,190.50	5.86	5.85	176.09	-803.31	54.85	805.18	793.47	11.71	68.732		
2,300.00	2,300.00	2,290.50	2,290.50	6.01	6.00	176.09	-803.31	54.85	805.18	793.17	12.01	67.040		
2,400.00	2,400.00	2,390.50	2,390.50	6.16	6.15	176.09	-803.31	54.85	805.18	792.88	12.30	65.456		
2,500.00	2,500.00	2,490.50	2,490.50	6.30	6.29	176.09	-803.31	54.85	805.18	792.59	12.59	63.968		
2,600.00	2,600.00	2,590.50	2,590.50	6.44	6.43	176.09	-803.31	54.85	805.18	792.31	12.87	62.567		
2,700.00	2,700.00	2,690.50	2,690.50	6.58	6.57	176.09	-803.31	54.85	805.18	792.03	13.15	61.245		
2,800.00	2,800.00	2,790.50	2,790.50	6.72	6.71	176.09	-803.31	54.85	805.18	791.76	13.42	59.995		
2,900.00	2,900.00	2,890.50	2,890.50	6.85	6.84	176.09	-803.31	54.85	805.18	791.49	13.69	58.809		
3,000.00	3,000.00	2,990.50	2,990.50	6.98	6.97	176.09	-803.31	54.85	805.18	791.22	13.96	57.684		
3,100.00	3,100.00	3,090.50	3,090.50	7.12	7.11	176.09	-803.31	54.85	805.18	790.96	14.22	56.613		
3,200.00	3,200.00	3,190.50	3,190.50	7.25	7.24	176.09	-803.31	54.85	805.18	790.70	14.48	55.593		
3,300.00	3,300.00	3,290.50	3,290.50	7.38	7.37	176.09	-803.31	54.85	805.18	790.44	14.74	54.619		
3,400.00	3,400.00	3,390.50	3,390.50	7.50	7.49	176.09	-803.31	54.85	805.18	790.18	15.00	53.688		
3,500.00	3,500.00	3,490.50	3,490.50	7.63	7.62	176.09	-803.31	54.85	805.18	789.93	15.25	52.798		
3,600.00	3,600.00	3,590.50	3,590.50	7.75	7.75	176.09	-803.31	54.85	805.18	789.68	15.50	51.944		
3,700.00	3,700.00	3,690.50	3,690.50	7.88	7.87	176.09	-803.31	54.85	805.18	789.43	15.75	51.125		
3,800.00	3,799.98	3,790.48	3,790.48	8.00	7.99	-0.13	-803.31	54.85	803.43	787.44	15.99	50.246		
3,900.00	3,899.84	3,890.34	3,890.34	8.38	8.12	-0.13	-803.31	54.85	798.20	781.71	16.49	48.393		
4,000.00	3,999.45	3,989.95	3,989.95	8.76	8.24	-0.14	-803.31	54.85	789.49	772.49	17.00	46.449		
4,100.00	4,098.70	4,095.27	4,095.25	9.15	8.42	-0.02	-803.04	53.29	776.95	759.45	17.50	44.404		
4,200.00	4,197.47	4,200.22	4,200.06	9.54	8.83	0.38	-802.13	47.95	760.13	742.13	18.00	42.227		
4,300.00	4,295.62	4,303.12	4,302.55	9.93	9.17	1.09	-800.60	39.07	739.14	720.65	18.49	39.967		
4,400.00	4,393.06	4,399.50	4,398.42	10.36	9.28	1.94	-798.93	29.32	714.57	695.56	19.01	37.597		
4,500.00	4,490.04	4,495.38	4,493.81	10.63	9.42	2.84	-797.27	19.63	688.27	668.90	19.37	35.531		
4,600.00	4,587.02	4,591.27	4,589.19	10.83	9.58	3.81	-795.60	9.93	662.14	642.47	19.66	33.671		
4,700.00	4,684.00	4,687.16	4,684.56	11.04	9.74	4.86	-793.94	0.24	636.20	616.22	19.98	31.844		
4,800.00	4,780.98	4,783.04	4,779.94	11.27	9.92	5.99	-792.27	-9.46	610.48	590.17	20.31	30.058		
4,900.00	4,877.97	4,878.93	4,875.32	11.52	10.11	7.22	-790.61	-19.15	585.01	564.36	20.66	28.320		
5,000.00	4,974.95	4,974.81	4,970.70	11.79	10.31	8.56	-788.94	-28.85	559.82	538.80	21.02	26.635		
5,100.00	5,071.93	5,070.70	5,066.08	12.06	10.52	10.03	-787.28	-38.54	534.95	513.56	21.39	25.008		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 707H - Original Hole - rev0												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned:							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.00	5,168.91	5,166.58	5,161.46	12.36	10.74	11.63	-785.62	-48.24	510.45	488.67	21.78	23.442	
5,300.00	5,265.89	5,262.47	5,256.84	12.66	10.97	13.39	-783.95	-57.94	486.37	464.20	22.17	21.940	
5,400.00	5,362.88	5,358.35	5,352.22	12.98	11.21	15.33	-782.29	-67.63	462.78	440.21	22.57	20.506	
5,500.00	5,459.86	5,454.24	5,447.60	13.30	11.46	17.47	-780.62	-77.33	439.76	416.78	22.97	19.141	
5,600.00	5,556.84	5,550.13	5,542.98	13.64	11.71	19.83	-778.96	-87.02	417.39	394.01	23.39	17.848	
5,700.00	5,653.82	5,646.01	5,638.36	13.99	11.97	22.44	-777.30	-96.72	395.81	372.00	23.80	16.628	
5,800.00	5,750.80	5,741.90	5,733.74	14.34	12.24	25.34	-775.63	-106.41	375.13	350.90	24.22	15.485	
5,900.00	5,847.79	5,837.78	5,829.12	14.70	12.52	28.55	-773.97	-116.11	355.51	330.86	24.65	14.421	
6,000.00	5,944.77	5,933.67	5,924.50	15.07	12.80	32.10	-772.30	-125.80	337.15	312.06	25.09	13.439	
6,100.00	6,041.75	6,029.55	6,019.88	15.45	13.08	36.03	-770.64	-135.50	320.25	294.72	25.53	12.543	
6,200.00	6,138.73	6,125.44	6,115.26	15.83	13.37	40.35	-768.98	-145.20	305.06	279.07	26.00	11.735	
6,300.00	6,235.71	6,221.33	6,210.64	16.22	13.67	45.06	-767.31	-154.89	291.85	265.38	26.48	11.022	
6,400.00	6,332.69	6,317.21	6,306.02	16.62	13.97	50.15	-765.65	-164.59	280.90	253.91	26.99	10.407	
6,500.00	6,429.68	6,413.10	6,401.40	17.02	14.27	55.57	-763.98	-174.28	272.48	244.94	27.54	9.895	
6,600.00	6,526.66	6,508.98	6,496.78	17.42	14.58	61.26	-762.32	-183.98	266.83	238.71	28.12	9.488	
6,700.00	6,623.64	6,604.87	6,592.16	17.83	14.89	67.12	-760.65	-193.67	264.12	235.37	28.75	9.186	
6,739.13	6,661.59	6,642.39	6,629.48	17.99	15.02	69.43	-760.00	-197.47	263.89	234.88	29.01	9.096	
6,800.00	6,720.62	6,700.75	6,687.54	18.24	15.21	73.02	-758.99	-203.37	264.45	235.03	29.43	8.987	
6,900.00	6,817.60	6,803.85	6,790.21	18.66	15.55	79.18	-757.41	-212.57	266.77	236.61	30.16	8.846	
7,000.00	6,914.59	6,909.61	6,895.80	19.08	15.99	85.09	-756.43	-218.28	268.61	237.58	31.03	8.656	
7,100.00	7,011.57	7,015.90	7,002.07	19.51	16.35	90.71	-756.11	-220.15	269.46	237.59	31.87	8.455	
7,200.00	7,108.55	7,112.88	7,099.05	19.93	16.40	95.72	-756.11	-220.15	270.87	238.43	32.45	8.348	
7,300.00	7,205.53	7,209.86	7,196.03	20.36	16.46	100.64	-756.11	-220.15	274.45	241.41	33.05	8.305	
7,400.00	7,302.51	7,306.85	7,293.01	20.80	16.53	105.41	-756.11	-220.15	280.12	246.47	33.65	8.325	
7,500.00	7,399.50	7,403.83	7,390.00	21.23	16.59	109.97	-756.11	-220.15	287.74	253.49	34.25	8.401	
7,600.00	7,496.48	7,500.81	7,486.98	21.67	16.65	114.28	-756.11	-220.15	297.17	262.33	34.85	8.528	
7,700.00	7,593.46	7,597.79	7,583.96	22.11	16.71	118.32	-756.11	-220.15	308.25	272.82	35.43	8.699	
7,800.00	7,690.44	7,694.77	7,680.94	22.56	16.77	122.08	-756.11	-220.15	320.81	284.79	36.01	8.908	
7,900.00	7,787.91	7,792.24	7,778.41	23.05	16.84	125.55	-756.11	-220.15	333.44	296.87	36.57	9.118	
8,000.00	7,886.41	7,890.74	7,876.91	23.68	16.90	128.11	-756.11	-220.15	343.86	306.73	37.13	9.261	
8,100.00	7,985.67	7,990.00	7,976.17	24.30	16.96	129.82	-756.11	-220.15	351.46	313.81	37.65	9.336	
8,200.00	8,085.43	8,089.76	8,075.93	24.87	17.03	130.76	-756.11	-220.15	355.87	317.78	38.09	9.343	
8,300.00	8,185.40	8,189.73	8,175.90	24.99	17.09	-52.78	-756.11	-220.15	356.97	318.73	38.25	9.333	
8,400.00	8,285.40	8,289.73	8,275.90	25.01	17.16	-52.78	-756.11	-220.15	356.97	318.63	38.34	9.311	
8,500.00	8,385.40	8,389.73	8,375.90	25.04	17.22	-52.78	-756.11	-220.15	356.97	318.54	38.44	9.287	
8,600.00	8,485.40	8,489.73	8,475.90	25.07	17.29	-52.78	-756.11	-220.15	356.97	318.44	38.54	9.264	
8,700.00	8,585.40	8,589.73	8,575.90	25.10	17.35	-52.78	-756.11	-220.15	356.97	318.34	38.63	9.240	
8,800.00	8,685.40	8,689.73	8,675.90	25.13	17.42	-52.78	-756.11	-220.15	356.97	318.24	38.73	9.217	
8,900.00	8,785.40	8,789.73	8,775.90	25.16	17.48	-52.78	-756.11	-220.15	356.97	318.14	38.83	9.193	
9,000.00	8,885.40	8,889.73	8,875.90	25.19	17.55	-52.78	-756.11	-220.15	356.97	318.05	38.93	9.170	
9,100.00	8,985.40	8,989.73	8,975.90	25.22	17.62	-52.78	-756.11	-220.15	356.97	317.95	39.03	9.146	
9,200.00	9,085.40	9,089.73	9,075.90	25.25	17.68	-52.78	-756.11	-220.15	356.97	317.85	39.13	9.123	
9,300.00	9,185.40	9,189.73	9,175.90	25.28	17.75	-52.78	-756.11	-220.15	356.97	317.75	39.23	9.100	
9,400.00	9,285.40	9,289.73	9,275.90	25.31	17.81	-52.78	-756.11	-220.15	356.97	317.64	39.33	9.076	
9,500.00	9,385.40	9,389.73	9,375.90	25.34	17.88	-52.78	-756.11	-220.15	356.97	317.54	39.43	9.053	
9,600.00	9,485.40	9,489.73	9,475.90	25.37	17.95	-52.78	-756.11	-220.15	356.97	317.44	39.53	9.030	
9,700.00	9,585.40	9,589.73	9,575.90	25.40	18.01	-52.78	-756.11	-220.15	356.97	317.34	39.63	9.007	
9,800.00	9,685.40	9,689.73	9,675.90	25.43	18.08	-52.78	-756.11	-220.15	356.97	317.24	39.74	8.984	
9,900.00	9,785.40	9,789.73	9,775.90	25.46	18.15	-52.78	-756.11	-220.15	356.97	317.14	39.84	8.961	
10,000.00	9,885.23	9,889.57	9,875.73	25.46	18.21	38.14	-756.11	-220.15	353.66	313.75	39.92	8.860	
10,100.00	9,982.95	9,987.28	9,973.45	25.46	18.28	41.35	-756.11	-220.15	337.62	297.44	40.18	8.403	
10,200.00	10,075.59	10,079.93	10,066.09	25.47	18.34	47.82	-756.11	-220.15	310.02	269.52	40.50	7.655	

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 707H - Original Hole - rev0												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)			
10,300.00	10,160.35	10,164.69	10,150.85	25.51	18.40	58.28	-756.11	-220.15	274.87	234.03	40.85	6.730	
10,400.00	10,234.66	10,238.99	10,225.16	25.63	18.45	72.34	-756.11	-220.15	239.93	198.83	41.10	5.838	
10,500.00	10,296.24	10,300.57	10,286.74	25.89	18.49	86.73	-756.11	-220.15	218.63	177.62	41.01	5.331	
10,526.78	10,310.32	10,314.65	10,300.82	26.01	18.50	90.00	-756.11	-220.15	217.44	176.51	40.94	5.312 CC, ES, SF	
10,600.00	10,343.23	10,347.56	10,333.73	26.34	18.52	96.72	-756.11	-220.15	227.05	186.48	40.57	5.596	
10,700.00	10,374.21	10,378.54	10,364.71	27.03	18.54	99.46	-756.11	-220.15	270.14	230.03	40.11	6.735	
10,800.00	10,388.23	10,392.56	10,378.73	27.96	18.55	93.65	-756.11	-220.15	338.31	298.59	39.72	8.517	
10,900.00	10,388.24	10,392.57	10,378.74	29.09	18.55	88.84	-756.11	-220.15	419.85	380.44	39.41	10.652	
11,000.00	10,387.02	10,391.35	10,377.52	30.37	18.55	88.52	-756.11	-220.15	508.04	468.82	39.22	12.954	
11,100.00	10,385.79	10,390.12	10,376.29	31.78	18.55	88.20	-756.11	-220.15	599.94	560.83	39.10	15.343	
11,200.00	10,384.57	10,388.90	10,375.07	33.30	18.55	87.87	-756.11	-220.15	694.08	655.05	39.03	17.783	
11,300.00	10,383.34	11,595.79	11,036.33	34.92	25.50	161.82	-760.13	-986.62	697.33	643.77	53.56	13.020	
11,400.00	10,382.12	11,695.79	11,035.22	36.62	27.43	161.82	-760.65	-1,086.61	697.44	642.83	54.61	12.770	
11,500.00	10,380.89	11,795.79	11,034.10	38.40	29.45	161.83	-761.18	-1,186.60	697.55	641.82	55.73	12.517	
11,600.00	10,379.67	11,895.79	11,032.99	40.24	31.54	161.83	-761.70	-1,286.59	697.66	640.76	56.90	12.261	
11,700.00	10,378.44	11,995.79	11,031.88	42.14	33.67	161.83	-762.22	-1,386.58	697.77	639.65	58.12	12.005	
11,800.00	10,377.22	12,095.79	11,030.77	44.09	35.85	161.83	-762.75	-1,486.58	697.88	638.48	59.40	11.749	
11,900.00	10,375.99	12,195.79	11,029.65	46.09	38.05	161.83	-763.27	-1,586.57	697.99	637.27	60.73	11.494	
12,000.00	10,374.77	12,295.79	11,028.54	48.12	40.29	161.84	-763.80	-1,686.56	698.10	636.01	62.09	11.243	
12,100.00	10,373.54	12,395.79	11,027.43	50.19	42.54	161.84	-764.32	-1,786.55	698.21	634.71	63.50	10.995	
12,200.00	10,372.32	12,495.79	11,026.32	52.28	44.82	161.84	-764.85	-1,886.55	698.32	633.37	64.95	10.751	
12,300.00	10,371.09	12,595.79	11,025.20	54.41	47.11	161.84	-765.37	-1,986.54	698.43	631.99	66.44	10.512	
12,400.00	10,369.87	12,695.79	11,024.09	56.56	49.41	161.84	-765.89	-2,086.53	698.54	630.58	67.96	10.279	
12,500.00	10,368.65	12,795.79	11,022.98	58.73	51.73	161.84	-766.42	-2,186.52	698.66	629.14	69.51	10.051	
12,600.00	10,367.42	12,895.79	11,021.86	60.92	54.06	161.85	-766.94	-2,286.52	698.77	627.67	71.10	9.829	
12,700.00	10,366.20	12,995.79	11,020.75	63.13	56.40	161.85	-767.47	-2,386.51	698.88	626.17	72.71	9.612	
12,800.00	10,364.97	13,095.79	11,019.64	65.35	58.75	161.85	-767.99	-2,486.50	698.99	624.64	74.34	9.402	
12,900.00	10,363.75	13,195.79	11,018.53	67.59	61.10	161.85	-768.52	-2,586.49	699.10	623.10	76.00	9.198	
13,000.00	10,362.52	13,295.79	11,017.41	69.84	63.46	161.85	-769.04	-2,686.49	699.21	621.52	77.69	9.001	
13,100.00	10,361.30	13,395.79	11,016.30	72.11	65.83	161.86	-769.56	-2,786.48	699.32	619.93	79.39	8.809	
13,200.00	10,360.07	13,495.79	11,015.19	74.38	68.20	161.86	-770.09	-2,886.47	699.43	618.31	81.11	8.623	
13,300.00	10,358.85	13,595.79	11,014.08	76.67	70.57	161.86	-770.61	-2,986.46	699.54	616.68	82.86	8.443	
13,400.00	10,357.62	13,695.79	11,012.96	78.96	72.95	161.86	-771.14	-3,086.46	699.65	615.03	84.62	8.268	
13,500.00	10,356.40	13,795.79	11,011.85	81.26	75.33	161.86	-771.66	-3,186.45	699.76	613.37	86.39	8.100	
13,600.00	10,355.17	13,895.79	11,010.74	83.57	77.72	161.86	-772.19	-3,286.44	699.87	611.69	88.18	7.936	
13,700.00	10,353.95	13,995.79	11,009.62	85.89	80.11	161.87	-772.71	-3,386.43	699.98	609.99	89.99	7.778	
13,800.00	10,352.72	14,095.79	11,008.51	88.21	82.50	161.87	-773.23	-3,486.42	700.09	608.28	91.81	7.625	
13,900.00	10,351.50	14,195.79	11,007.40	90.54	84.90	161.87	-773.76	-3,586.42	700.20	606.56	93.64	7.477	
14,000.00	10,350.27	14,295.79	11,006.29	92.87	87.30	161.87	-774.28	-3,686.41	700.31	604.83	95.49	7.334	
14,100.00	10,349.05	14,395.79	11,005.17	95.21	89.70	161.87	-774.81	-3,786.40	700.42	603.08	97.34	7.195	
14,200.00	10,347.82	14,495.79	11,004.06	97.56	92.10	161.88	-775.33	-3,886.39	700.53	601.33	99.21	7.061	
14,300.00	10,346.60	14,595.79	11,002.95	99.91	94.50	161.88	-775.85	-3,986.39	700.64	599.56	101.08	6.931	
14,400.00	10,345.37	14,695.79	11,001.83	102.26	96.91	161.88	-776.38	-4,086.38	700.75	597.78	102.97	6.805	
14,500.00	10,344.15	14,795.79	11,000.72	104.62	99.32	161.88	-776.90	-4,186.37	700.87	596.00	104.86	6.684	
14,600.00	10,342.92	14,895.79	10,999.61	106.98	101.73	161.88	-777.43	-4,286.36	700.98	594.21	106.77	6.565	
14,700.00	10,341.70	14,995.79	10,998.50	109.34	104.14	161.89	-777.95	-4,386.36	701.09	592.41	108.68	6.451	
14,800.00	10,340.48	15,095.79	10,997.38	111.71	106.55	161.89	-778.48	-4,486.35	701.20	590.60	110.59	6.340	
14,900.00	10,339.25	15,195.79	10,996.27	114.08	108.96	161.89	-779.00	-4,586.34	701.31	588.79	112.52	6.233	
15,000.00	10,338.03	15,295.79	10,995.16	116.45	111.37	161.89	-779.52	-4,686.33	701.42	586.97	114.45	6.129	
15,100.00	10,336.80	15,395.79	10,994.05	118.82	113.79	161.89	-780.05	-4,786.33	701.53	585.14	116.39	6.027	
15,200.00	10,335.58	15,495.79	10,992.93	121.20	116.20	161.89	-780.57	-4,886.32	701.64	583.31	118.33	5.929	
15,300.00	10,334.35	15,595.79	10,991.82	123.58	118.62	161.90	-781.10	-4,986.31	701.75	581.47	120.28	5.834	

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



Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 707H - Original Hole - rev0													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
15,400.00	10,333.13	15,695.79	10,990.71	125.97	121.04	161.90	-781.62	-5,086.30	701.86	579.62	122.24	5.742		
15,500.00	10,331.90	15,795.79	10,989.59	128.35	123.46	161.90	-782.15	-5,186.30	701.97	577.77	124.20	5.652		
15,600.00	10,330.68	15,895.79	10,988.48	130.74	125.88	161.90	-782.67	-5,286.29	702.08	575.92	126.16	5.565		
15,700.00	10,329.45	15,995.79	10,987.37	133.12	128.30	161.90	-783.19	-5,386.28	702.19	574.06	128.13	5.480		
15,800.00	10,328.23	16,095.79	10,986.26	135.51	130.72	161.91	-783.72	-5,486.27	702.30	572.19	130.11	5.398		
15,900.00	10,327.00	16,195.79	10,985.14	137.90	133.14	161.91	-784.24	-5,586.26	702.41	570.33	132.09	5.318		
15,900.85	10,326.99	16,196.64	10,985.13	137.93	133.16	161.91	-784.25	-5,587.11	702.41	570.31	132.10	5.317		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 708H - Original Hole - rev0													Offset Site Error: 0.00 ft	
Survey Program: Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Offset Well Error: 0.00 ft	
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	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	172.56	-803.31	104.85	810.20					
100.00	100.00	88.50	88.50	0.84	0.76	172.56	-803.31	104.85	810.12	808.53	1.60	507.511		
200.00	200.00	188.50	188.50	1.44	1.39	172.56	-803.31	104.85	810.12	807.29	2.83	285.943		
300.00	300.00	288.50	288.50	1.89	1.85	172.56	-803.31	104.85	810.12	806.38	3.74	216.586		
400.00	400.00	388.50	388.50	2.25	2.22	172.56	-803.31	104.85	810.12	805.65	4.47	181.119		
500.00	500.00	488.50	488.50	2.57	2.54	172.56	-803.31	104.85	810.12	805.02	5.11	158.669		
600.00	600.00	588.50	588.50	2.85	2.82	172.56	-803.31	104.85	810.12	804.45	5.67	142.808		
700.00	700.00	688.50	688.50	3.11	3.08	172.56	-803.31	104.85	810.12	803.93	6.19	130.827		
800.00	800.00	788.50	788.50	3.35	3.33	172.56	-803.31	104.85	810.12	803.45	6.68	121.358		
900.00	900.00	888.50	888.50	3.58	3.55	172.56	-803.31	104.85	810.12	802.99	7.13	113.628		
1,000.00	1,000.00	988.50	988.50	3.79	3.77	172.56	-803.31	104.85	810.12	802.56	7.56	107.159		
1,100.00	1,100.00	1,088.50	1,088.50	3.99	3.98	172.56	-803.31	104.85	810.12	802.15	7.97	101.640		
1,200.00	1,200.00	1,188.50	1,188.50	4.19	4.17	172.56	-803.31	104.85	810.12	801.76	8.36	96.858		
1,300.00	1,300.00	1,288.50	1,288.50	4.38	4.36	172.56	-803.31	104.85	810.12	801.38	8.74	92.660		
1,400.00	1,400.00	1,388.50	1,388.50	4.56	4.55	172.56	-803.31	104.85	810.12	801.01	9.11	88.937		
1,500.00	1,500.00	1,488.50	1,488.50	4.74	4.72	172.56	-803.31	104.85	810.12	800.66	9.46	85.603		
1,600.00	1,600.00	1,588.50	1,588.50	4.91	4.90	172.56	-803.31	104.85	810.12	800.31	9.81	82.596		
1,700.00	1,700.00	1,688.50	1,688.50	5.08	5.06	172.56	-803.31	104.85	810.12	799.98	10.14	79.864		
1,800.00	1,800.00	1,788.50	1,788.50	5.24	5.23	172.56	-803.31	104.85	810.12	799.65	10.47	77.367		
1,900.00	1,900.00	1,888.50	1,888.50	5.40	5.39	172.56	-803.31	104.85	810.12	799.33	10.79	75.074		
2,000.00	2,000.00	1,988.50	1,988.50	5.56	5.54	172.56	-803.31	104.85	810.12	799.02	11.10	72.958		
2,100.00	2,100.00	2,088.50	2,088.50	5.71	5.70	172.56	-803.31	104.85	810.12	798.71	11.41	70.996		
2,200.00	2,200.00	2,188.50	2,188.50	5.86	5.85	172.56	-803.31	104.85	810.12	798.41	11.71	69.172		
2,300.00	2,300.00	2,288.50	2,288.50	6.01	6.00	172.56	-803.31	104.85	810.12	798.12	12.01	67.468		
2,400.00	2,400.00	2,388.50	2,388.50	6.16	6.14	172.56	-803.31	104.85	810.12	797.82	12.30	65.873		
2,500.00	2,500.00	2,488.50	2,488.50	6.30	6.29	172.56	-803.31	104.85	810.12	797.54	12.58	64.375		
2,600.00	2,600.00	2,588.50	2,588.50	6.44	6.43	172.56	-803.31	104.85	810.12	797.26	12.87	62.965		
2,700.00	2,700.00	2,688.50	2,688.50	6.58	6.57	172.56	-803.31	104.85	810.12	796.98	13.14	61.634		
2,800.00	2,800.00	2,788.50	2,788.50	6.72	6.70	172.56	-803.31	104.85	810.12	796.71	13.42	60.375		
2,900.00	2,900.00	2,888.50	2,888.50	6.85	6.84	172.56	-803.31	104.85	810.12	796.43	13.69	59.182		
3,000.00	3,000.00	2,988.50	2,988.50	6.98	6.97	172.56	-803.31	104.85	810.12	796.17	13.96	58.049		
3,100.00	3,100.00	3,088.50	3,088.50	7.12	7.10	172.56	-803.31	104.85	810.12	795.90	14.22	56.971		
3,200.00	3,200.00	3,188.50	3,188.50	7.25	7.23	172.56	-803.31	104.85	810.12	795.64	14.48	55.944		
3,300.00	3,300.00	3,288.50	3,288.50	7.38	7.36	172.56	-803.31	104.85	810.12	795.38	14.74	54.964		
3,400.00	3,400.00	3,388.50	3,388.50	7.50	7.49	172.56	-803.31	104.85	810.12	795.13	14.99	54.027		
3,500.00	3,500.00	3,488.50	3,488.50	7.63	7.62	172.56	-803.31	104.85	810.12	794.88	15.25	53.131		
3,600.00	3,600.00	3,588.50	3,588.50	7.75	7.74	172.56	-803.31	104.85	810.12	794.62	15.50	52.272		
3,700.00	3,700.00	3,688.50	3,688.50	7.88	7.87	172.56	-803.31	104.85	810.12	794.38	15.75	51.447		
3,800.00	3,799.98	3,788.48	3,788.48	8.00	7.99	-3.67	-803.31	104.85	808.38	792.39	15.99	50.563		
3,900.00	3,899.84	3,888.34	3,888.34	8.38	8.11	-3.70	-803.31	104.85	803.16	786.67	16.49	48.705		
4,000.00	3,999.45	3,987.95	3,987.95	8.76	8.23	-3.76	-803.31	104.85	794.46	777.47	16.99	46.756		
4,100.00	4,098.70	4,087.20	4,087.20	9.15	8.35	-3.83	-803.31	104.85	782.30	764.81	17.49	44.718		
4,200.00	4,197.47	4,185.97	4,185.97	9.54	8.47	-3.93	-803.31	104.85	766.69	748.69	18.00	42.595		
4,300.00	4,295.62	4,290.94	4,290.93	9.93	8.65	-3.96	-803.08	103.42	747.28	728.77	18.51	40.377		
4,400.00	4,393.06	4,395.66	4,395.51	10.36	9.03	-3.71	-802.26	98.25	723.44	704.39	19.06	37.965		
4,500.00	4,490.04	4,498.20	4,497.66	10.63	9.33	-3.13	-800.88	89.55	696.79	677.38	19.41	35.891		
4,600.00	4,587.02	4,594.15	4,593.13	10.83	9.44	-2.42	-799.37	80.05	669.84	650.15	19.69	34.016		
4,700.00	4,684.00	4,690.10	4,688.60	11.04	9.57	-1.65	-797.86	70.55	642.99	622.98	20.01	32.141		
4,800.00	4,780.98	4,786.06	4,784.07	11.27	9.72	-0.82	-796.35	61.05	616.26	595.92	20.34	30.300		
4,900.00	4,877.97	4,882.01	4,879.54	11.52	9.88	0.09	-794.85	51.55	589.66	568.97	20.69	28.500		
5,000.00	4,974.95	4,977.96	4,975.01	11.79	10.06	1.08	-793.34	42.05	563.21	542.15	21.06	26.747		
5,100.00	5,071.93	5,073.91	5,070.47	12.06	10.24	2.17	-791.83	32.55	536.94	515.50	21.44	25.045		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 708H - Original Hole - rev0													Offset Site Error:	0.00 ft	
Survey Program:		0-MWD						Rule Assigned:						Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance				Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
5,200.00	5,168.91	5,169.86	5,165.94	12.36	10.44	3.37	-790.32	23.04	510.87	489.03	21.83	23.399			
5,300.00	5,265.89	5,265.81	5,261.41	12.66	10.65	4.70	-788.81	13.54	485.03	462.79	22.24	21.810			
5,400.00	5,362.88	5,361.77	5,356.88	12.98	10.86	6.17	-787.30	4.04	459.47	436.82	22.65	20.283			
5,500.00	5,459.86	5,457.72	5,452.35	13.30	11.09	7.82	-785.79	-5.46	434.23	411.15	23.07	18.818			
5,600.00	5,556.84	5,553.67	5,547.82	13.64	11.32	9.66	-784.28	-14.96	409.37	385.87	23.50	17.419			
5,700.00	5,653.82	5,649.62	5,643.28	13.99	11.57	11.73	-782.78	-24.46	384.97	361.03	23.93	16.086			
5,800.00	5,750.80	5,745.57	5,738.75	14.34	11.82	14.07	-781.27	-33.96	361.11	336.75	24.36	14.821			
5,900.00	5,847.79	5,841.53	5,834.22	14.70	12.07	16.73	-779.76	-43.46	337.92	313.13	24.80	13.628			
6,000.00	5,944.77	5,937.48	5,929.69	15.07	12.34	19.76	-778.25	-52.96	315.54	290.31	25.23	12.508			
6,100.00	6,041.75	6,033.43	6,025.16	15.45	12.61	23.22	-776.74	-62.46	294.16	268.50	25.66	11.465			
6,200.00	6,138.73	6,129.38	6,120.63	15.83	12.88	27.20	-775.23	-71.97	274.00	247.92	26.08	10.505			
6,300.00	6,235.71	6,225.33	6,216.09	16.22	13.16	31.74	-773.72	-81.47	255.37	228.85	26.51	9.632			
6,400.00	6,332.69	6,321.28	6,311.56	16.62	13.45	36.93	-772.21	-90.97	238.61	211.66	26.95	8.854			
6,500.00	6,429.68	6,417.24	6,407.03	17.02	13.74	42.80	-770.71	-100.47	224.15	196.74	27.40	8.180			
6,600.00	6,526.66	6,513.19	6,502.50	17.42	14.04	49.35	-769.20	-109.97	212.45	184.57	27.88	7.620			
6,700.00	6,623.64	6,609.14	6,597.97	17.83	14.34	56.50	-767.69	-119.47	204.00	175.61	28.40	7.184			
6,800.00	6,720.62	6,705.09	6,693.44	18.24	14.64	64.10	-766.18	-128.97	199.21	170.25	28.96	6.878			
6,900.00	6,817.60	6,805.90	6,793.84	18.66	14.95	72.12	-764.77	-137.82	197.40	167.82	29.58	6.673			
7,000.00	6,914.59	6,908.76	6,896.55	19.08	15.37	79.92	-763.90	-143.31	196.31	165.94	30.38	6.462			
7,100.00	7,011.57	7,012.31	7,000.07	19.51	15.74	87.44	-763.61	-145.15	195.30	164.10	31.20	6.259			
7,136.83	7,047.29	7,048.02	7,035.79	19.66	15.76	90.00	-763.61	-145.15	195.10	163.68	31.42	6.209 CC, ES			
7,200.00	7,108.55	7,109.29	7,097.05	19.93	15.79	94.38	-763.61	-145.15	195.71	163.89	31.81	6.152			
7,300.00	7,205.53	7,206.27	7,194.03	20.36	15.85	101.19	-763.61	-145.15	199.11	166.65	32.46	6.134			
7,400.00	7,302.51	7,303.25	7,291.01	20.80	15.92	107.69	-763.61	-145.15	205.38	172.26	33.12	6.201			
7,500.00	7,399.50	7,400.23	7,388.00	21.23	15.98	113.76	-763.61	-145.15	214.25	180.48	33.78	6.343			
7,600.00	7,496.48	7,497.22	7,484.98	21.67	16.05	119.31	-763.61	-145.15	225.43	191.01	34.42	6.550			
7,700.00	7,593.46	7,594.20	7,581.96	22.11	16.11	124.32	-763.61	-145.15	238.58	203.54	35.03	6.810			
7,800.00	7,690.44	7,691.18	7,678.94	22.56	16.18	128.79	-763.61	-145.15	253.40	217.76	35.63	7.112			
7,900.00	7,787.91	7,788.65	7,776.41	23.05	16.24	132.75	-763.61	-145.15	268.18	231.98	36.20	7.407			
8,000.00	7,886.41	7,887.14	7,874.91	23.68	16.31	135.57	-763.61	-145.15	280.27	243.46	36.81	7.614			
8,100.00	7,985.67	7,986.41	7,974.17	24.30	16.38	137.42	-763.61	-145.15	289.02	251.65	37.38	7.733			
8,200.00	8,085.43	8,086.16	8,073.93	24.87	16.44	138.42	-763.61	-145.15	294.09	256.21	37.88	7.764			
8,300.00	8,185.40	8,186.14	8,173.90	24.99	16.51	-45.12	-763.61	-145.15	295.35	257.30	38.05	7.762			
8,400.00	8,285.40	8,286.14	8,273.90	25.01	16.58	-45.12	-763.61	-145.15	295.35	257.21	38.15	7.743			
8,500.00	8,385.40	8,386.14	8,373.90	25.04	16.65	-45.12	-763.61	-145.15	295.35	257.10	38.25	7.722			
8,600.00	8,485.40	8,486.14	8,473.90	25.07	16.71	-45.12	-763.61	-145.15	295.35	257.00	38.35	7.701			
8,700.00	8,585.40	8,586.14	8,573.90	25.10	16.78	-45.12	-763.61	-145.15	295.35	256.90	38.45	7.681			
8,800.00	8,685.40	8,686.14	8,673.90	25.13	16.85	-45.12	-763.61	-145.15	295.35	256.80	38.56	7.660			
8,900.00	8,785.40	8,786.14	8,773.90	25.16	16.92	-45.12	-763.61	-145.15	295.35	256.69	38.66	7.640			
9,000.00	8,885.40	8,886.14	8,873.90	25.19	16.99	-45.12	-763.61	-145.15	295.35	256.59	38.76	7.619			
9,100.00	8,985.40	8,986.14	8,973.90	25.22	17.06	-45.12	-763.61	-145.15	295.35	256.49	38.87	7.599			
9,200.00	9,085.40	9,086.14	9,073.90	25.25	17.12	-45.12	-763.61	-145.15	295.35	256.38	38.97	7.579			
9,300.00	9,185.40	9,186.14	9,173.90	25.28	17.19	-45.12	-763.61	-145.15	295.35	256.28	39.08	7.558			
9,400.00	9,285.40	9,286.14	9,273.90	25.31	17.26	-45.12	-763.61	-145.15	295.35	256.17	39.18	7.538			
9,500.00	9,385.40	9,386.14	9,373.90	25.34	17.33	-45.12	-763.61	-145.15	295.35	256.07	39.29	7.518			
9,600.00	9,485.40	9,486.14	9,473.90	25.37	17.40	-45.12	-763.61	-145.15	295.35	255.96	39.39	7.498			
9,700.00	9,585.40	9,586.14	9,573.90	25.40	17.47	-45.12	-763.61	-145.15	295.35	255.85	39.50	7.478			
9,800.00	9,685.40	9,686.14	9,673.90	25.43	17.54	-45.12	-763.61	-145.15	295.35	255.75	39.60	7.458			
9,900.00	9,785.40	9,786.14	9,773.90	25.46	17.61	-45.12	-763.61	-145.15	295.35	255.64	39.71	7.438			
10,000.00	9,885.23	9,885.97	9,873.73	25.46	17.68	45.98	-763.61	-145.15	292.42	252.63	39.78	7.350			
10,100.00	9,982.95	9,983.69	9,971.45	25.46	17.75	50.07	-763.61	-145.15	278.41	238.39	40.01	6.958			
10,200.00	10,075.59	10,076.33	10,064.09	25.47	17.81	58.15	-763.61	-145.15	255.40	215.10	40.29	6.338			

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



FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 708H - Original Hole - rev0													Offset Site Error: 0.00 ft		
Survey Program: 0-MWD		Offset		Semi Major Axis			Offset Wellbore Centre			Rule Assigned:				Offset Well Error: 0.00 ft	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
10,300.00	10,160.35	10,161.09	10,148.85	25.51	17.87	70.43	-763.61	-145.15	229.33	188.80	40.53	5.658			
10,400.00	10,234.66	10,235.39	10,223.16	25.63	17.92	85.07	-763.61	-145.15	211.20	170.67	40.53	5.211			
10,435.21	10,257.90	10,258.63	10,246.40	25.72	17.94	90.00	-763.61	-145.15	209.54	169.08	40.46	5.179 SF			
10,500.00	10,296.24	10,296.98	10,284.74	25.89	17.96	97.74	-763.61	-145.15	215.94	175.73	40.21	5.370			
10,600.00	10,343.23	10,343.97	10,331.73	26.34	18.00	104.70	-763.61	-145.15	252.18	212.37	39.80	6.335			
10,700.00	10,374.21	10,374.95	10,362.71	27.03	18.02	104.24	-763.61	-145.15	315.04	275.59	39.45	7.985			
10,800.00	10,388.23	10,388.96	10,376.73	27.96	18.03	94.88	-763.61	-145.15	394.40	355.24	39.16	10.071			
10,900.00	10,388.24	10,388.98	10,376.74	29.09	18.03	88.55	-763.61	-145.15	482.04	443.12	38.92	12.384			
11,000.00	10,387.02	10,387.75	10,375.52	30.37	18.03	88.21	-763.61	-145.15	573.74	534.97	38.77	14.798			
11,100.00	10,385.79	10,386.53	10,374.29	31.78	18.03	87.88	-763.61	-145.15	667.83	629.15	38.68	17.267			
11,200.00	10,384.57	10,385.31	10,373.07	33.30	18.03	87.54	-763.61	-145.15	763.42	724.80	38.61	19.770			
11,300.00	10,383.34	10,384.08	10,371.84	34.92	18.03	87.21	-763.61	-145.15	860.01	821.43	38.58	22.293			
11,400.00	10,382.12	10,382.86	10,370.62	36.62	18.02	86.87	-763.61	-145.15	957.29	918.74	38.56	24.829			
11,500.00	10,380.89	10,381.63	10,369.39	38.40	18.02	86.54	-763.61	-145.15	1,055.09	1,016.54	38.55	27.372			
11,600.00	10,379.67	12,359.54	11,418.09	40.24	33.09	168.31	-762.10	-1,290.94	1,072.22	1,016.11	56.10	19.111			
11,700.00	10,378.44	12,459.54	11,416.97	42.14	35.25	168.31	-762.63	-1,390.93	1,072.32	1,015.24	57.08	18.786			
11,800.00	10,377.22	12,559.54	11,415.86	44.09	37.44	168.31	-763.15	-1,490.93	1,072.43	1,014.33	58.10	18.458			
11,900.00	10,375.99	12,659.54	11,414.74	46.09	39.66	168.31	-763.68	-1,590.92	1,072.54	1,013.39	59.16	18.131			
12,000.00	10,374.77	12,759.54	11,413.62	48.12	41.91	168.31	-764.20	-1,690.91	1,072.65	1,012.40	60.25	17.804			
12,100.00	10,373.54	12,859.54	11,412.50	50.19	44.17	168.31	-764.72	-1,790.90	1,072.76	1,011.38	61.38	17.479			
12,200.00	10,372.32	12,959.54	11,411.39	52.28	46.46	168.32	-765.25	-1,890.89	1,072.87	1,010.33	62.54	17.156			
12,300.00	10,371.09	13,059.54	11,410.27	54.41	48.75	168.32	-765.77	-1,990.89	1,072.97	1,009.25	63.73	16.837			
12,400.00	10,369.87	13,159.54	11,409.15	56.56	51.06	168.32	-766.30	-2,090.88	1,073.08	1,008.14	64.95	16.523			
12,500.00	10,368.65	13,259.54	11,408.04	58.73	53.39	168.32	-766.82	-2,190.87	1,073.19	1,007.00	66.19	16.213			
12,600.00	10,367.42	13,359.54	11,406.92	60.92	55.72	168.32	-767.34	-2,290.86	1,073.30	1,005.83	67.47	15.908			
12,700.00	10,366.20	13,459.54	11,405.80	63.13	58.06	168.32	-767.87	-2,390.86	1,073.41	1,004.64	68.77	15.610			
12,800.00	10,364.97	13,559.54	11,404.69	65.35	60.41	168.32	-768.39	-2,490.85	1,073.52	1,003.43	70.09	15.317			
12,900.00	10,363.75	13,659.54	11,403.57	67.59	62.77	168.32	-768.91	-2,590.84	1,073.62	1,002.19	71.43	15.030			
13,000.00	10,362.52	13,759.54	11,402.45	69.84	65.13	168.32	-769.44	-2,690.83	1,073.73	1,000.94	72.80	14.750			
13,100.00	10,361.30	13,859.54	11,401.34	72.11	67.50	168.32	-769.96	-2,790.83	1,073.84	999.66	74.18	14.476			
13,200.00	10,360.07	13,959.54	11,400.22	74.38	69.87	168.32	-770.49	-2,890.82	1,073.95	998.37	75.58	14.209			
13,300.00	10,358.85	14,059.54	11,399.10	76.67	72.24	168.32	-771.01	-2,990.81	1,074.06	997.05	77.01	13.948			
13,400.00	10,357.62	14,159.54	11,397.99	78.96	74.63	168.32	-771.53	-3,090.80	1,074.17	995.72	78.44	13.694			
13,500.00	10,356.40	14,259.54	11,396.87	81.26	77.01	168.32	-772.06	-3,190.80	1,074.28	994.38	79.90	13.446			
13,600.00	10,355.17	14,359.54	11,395.75	83.57	79.40	168.32	-772.58	-3,290.79	1,074.38	993.02	81.36	13.205			
13,700.00	10,353.95	14,459.54	11,394.64	85.89	81.79	168.32	-773.11	-3,390.78	1,074.49	991.64	82.85	12.970			
13,800.00	10,352.72	14,559.54	11,393.52	88.21	84.18	168.32	-773.63	-3,490.77	1,074.60	990.26	84.34	12.741			
13,900.00	10,351.50	14,659.54	11,392.40	90.54	86.58	168.32	-774.15	-3,590.76	1,074.71	988.86	85.85	12.518			
14,000.00	10,350.27	14,759.54	11,391.28	92.87	88.98	168.32	-774.68	-3,690.76	1,074.82	987.44	87.37	12.302			
14,100.00	10,349.05	14,859.54	11,390.17	95.21	91.38	168.32	-775.20	-3,790.75	1,074.93	986.02	88.90	12.091			
14,200.00	10,347.82	14,959.54	11,389.05	97.56	93.78	168.32	-775.73	-3,890.74	1,075.03	984.59	90.45	11.886			
14,300.00	10,346.60	15,059.54	11,387.93	99.91	96.18	168.33	-776.25	-3,990.73	1,075.14	983.14	92.00	11.686			
14,400.00	10,345.37	15,159.54	11,386.82	102.26	98.59	168.33	-776.77	-4,090.73	1,075.25	981.69	93.56	11.492			
14,500.00	10,344.15	15,259.54	11,385.70	104.62	101.00	168.33	-777.30	-4,190.72	1,075.36	980.22	95.14	11.303			
14,600.00	10,342.92	15,359.54	11,384.58	106.98	103.41	168.33	-777.82	-4,290.71	1,075.47	978.75	96.72	11.120			
14,700.00	10,341.70	15,459.54	11,383.47	109.34	105.82	168.33	-778.34	-4,390.70	1,075.58	977.27	98.31	10.941			
14,800.00	10,340.48	15,559.54	11,382.35	111.71	108.23	168.33	-778.87	-4,490.70	1,075.68	975.78	99.90	10.767			
14,900.00	10,339.25	15,659.54	11,381.23	114.08	110.64	168.33	-779.39	-4,590.69	1,075.79	974.28	101.51	10.598			
15,000.00	10,338.03	15,759.54	11,380.12	116.45	113.05	168.33	-779.92	-4,690.68	1,075.90	972.78	103.12	10.433			
15,100.00	10,336.80	15,859.54	11,379.00	118.82	115.47	168.33	-780.44	-4,790.67	1,076.01	971.27	104.74	10.273			
15,200.00	10,335.58	15,959.54	11,377.88	121.20	117.89	168.33	-780.96	-4,890.66	1,076.12	969.75	106.36	10.117			
15,300.00	10,334.35	16,059.54	11,376.77	123.58	120.30	168.33	-781.49	-4,990.66	1,076.23	968.23	108.00	9.965			

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



Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 708H - Original Hole - rev0													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
15,400.00	10,333.13	16,159.54	11,375.65	125.97	122.72	168.33	-782.01	-5,090.65	1,076.33	966.70	109.63	9.817		
15,500.00	10,331.90	16,259.54	11,374.53	128.35	125.14	168.33	-782.54	-5,190.64	1,076.44	965.16	111.28	9.673		
15,600.00	10,330.68	16,359.54	11,373.41	130.74	127.56	168.33	-783.06	-5,290.63	1,076.55	963.62	112.93	9.533		
15,700.00	10,329.45	16,459.54	11,372.30	133.12	129.98	168.33	-783.58	-5,390.63	1,076.66	962.08	114.58	9.396		
15,800.00	10,328.23	16,559.54	11,371.18	135.51	132.40	168.33	-784.11	-5,490.62	1,076.77	960.53	116.24	9.263		
15,900.00	10,327.00	16,659.54	11,370.06	137.90	134.82	168.33	-784.63	-5,590.61	1,076.88	958.98	117.90	9.134		
15,900.85	10,326.99	16,660.39	11,370.05	137.93	134.84	168.33	-784.64	-5,591.46	1,076.88	958.96	117.91	9.133		

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 709H - Original Hole - rev0													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Minimum	Separation	Rule Assigned:						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	173.00	-853.31	104.85	859.85					
100.00	100.00	85.50	85.50	0.84	0.73	173.00	-853.31	104.85	859.73	858.16	1.57	547.406		
200.00	200.00	185.50	185.50	1.44	1.37	173.00	-853.31	104.85	859.73	856.91	2.82	305.392		
300.00	300.00	285.50	285.50	1.89	1.84	173.00	-853.31	104.85	859.73	856.00	3.73	230.667		
400.00	400.00	385.50	385.50	2.25	2.21	173.00	-853.31	104.85	859.73	855.27	4.46	192.675		
500.00	500.00	485.50	485.50	2.57	2.53	173.00	-853.31	104.85	859.73	854.63	5.10	168.695		
600.00	600.00	585.50	585.50	2.85	2.82	173.00	-853.31	104.85	859.73	854.06	5.66	151.778		
700.00	700.00	685.50	685.50	3.11	3.08	173.00	-853.31	104.85	859.73	853.54	6.18	139.011		
800.00	800.00	785.50	785.50	3.35	3.32	173.00	-853.31	104.85	859.73	853.06	6.67	128.929		
900.00	900.00	885.50	885.50	3.58	3.55	173.00	-853.31	104.85	859.73	852.60	7.12	120.700		
1,000.00	1,000.00	985.50	985.50	3.79	3.76	173.00	-853.31	104.85	859.73	852.17	7.55	113.817		
1,100.00	1,100.00	1,085.50	1,085.50	3.99	3.97	173.00	-853.31	104.85	859.73	851.76	7.96	107.947		
1,200.00	1,200.00	1,185.50	1,185.50	4.19	4.17	173.00	-853.31	104.85	859.73	851.37	8.36	102.861		
1,300.00	1,300.00	1,285.50	1,285.50	4.38	4.36	173.00	-853.31	104.85	859.73	850.99	8.74	98.398		
1,400.00	1,400.00	1,385.50	1,385.50	4.56	4.54	173.00	-853.31	104.85	859.73	850.62	9.10	94.439		
1,500.00	1,500.00	1,485.50	1,485.50	4.74	4.72	173.00	-853.31	104.85	859.73	850.27	9.46	90.896		
1,600.00	1,600.00	1,585.50	1,585.50	4.91	4.89	173.00	-853.31	104.85	859.73	849.92	9.80	87.699		
1,700.00	1,700.00	1,685.50	1,685.50	5.08	5.06	173.00	-853.31	104.85	859.73	849.59	10.14	84.796		
1,800.00	1,800.00	1,785.50	1,785.50	5.24	5.22	173.00	-853.31	104.85	859.73	849.26	10.47	82.143		
1,900.00	1,900.00	1,885.50	1,885.50	5.40	5.38	173.00	-853.31	104.85	859.73	848.94	10.79	79.706		
2,000.00	2,000.00	1,985.50	1,985.50	5.56	5.54	173.00	-853.31	104.85	859.73	848.63	11.10	77.458		
2,100.00	2,100.00	2,085.50	2,085.50	5.71	5.69	173.00	-853.31	104.85	859.73	848.32	11.41	75.374		
2,200.00	2,200.00	2,185.50	2,185.50	5.86	5.84	173.00	-853.31	104.85	859.73	848.02	11.71	73.435		
2,300.00	2,300.00	2,285.50	2,285.50	6.01	5.99	173.00	-853.31	104.85	859.73	847.72	12.00	71.626		
2,400.00	2,400.00	2,385.50	2,385.50	6.16	6.14	173.00	-853.31	104.85	859.73	847.43	12.29	69.931		
2,500.00	2,500.00	2,485.50	2,485.50	6.30	6.28	173.00	-853.31	104.85	859.73	847.15	12.58	68.340		
2,600.00	2,600.00	2,585.50	2,585.50	6.44	6.42	173.00	-853.31	104.85	859.73	846.87	12.86	66.842		
2,700.00	2,700.00	2,685.50	2,685.50	6.58	6.56	173.00	-853.31	104.85	859.73	846.59	13.14	65.429		
2,800.00	2,800.00	2,785.50	2,785.50	6.72	6.70	173.00	-853.31	104.85	859.73	846.31	13.41	64.092		
2,900.00	2,900.00	2,885.50	2,885.50	6.85	6.83	173.00	-853.31	104.85	859.73	846.04	13.68	62.825		
3,000.00	3,000.00	2,985.50	2,985.50	6.98	6.97	173.00	-853.31	104.85	859.73	845.78	13.95	61.621		
3,100.00	3,100.00	3,085.50	3,085.50	7.12	7.10	173.00	-853.31	104.85	859.73	845.51	14.22	60.476		
3,200.00	3,200.00	3,185.50	3,185.50	7.25	7.23	173.00	-853.31	104.85	859.73	845.25	14.48	59.386		
3,300.00	3,300.00	3,285.50	3,285.50	7.38	7.36	173.00	-853.31	104.85	859.73	844.99	14.74	58.345		
3,400.00	3,400.00	3,385.50	3,385.50	7.50	7.49	173.00	-853.31	104.85	859.73	844.74	14.99	57.350		
3,500.00	3,500.00	3,485.50	3,485.50	7.63	7.61	173.00	-853.31	104.85	859.73	844.48	15.24	56.398		
3,600.00	3,600.00	3,585.50	3,585.50	7.75	7.74	173.00	-853.31	104.85	859.73	844.23	15.49	55.486		
3,700.00	3,700.00	3,685.50	3,685.50	7.88	7.86	173.00	-853.31	104.85	859.73	843.98	15.74	54.610		
3,800.00	3,799.98	3,785.48	3,785.48	8.00	7.99	-3.24	-853.31	104.85	857.98	842.00	15.98	53.678		
3,900.00	3,899.84	3,885.34	3,885.34	8.38	8.11	-3.27	-853.31	104.85	852.76	836.27	16.49	51.723		
4,000.00	3,999.45	3,984.95	3,984.95	8.76	8.23	-3.31	-853.31	104.85	844.06	827.07	16.99	49.684		
4,100.00	4,098.70	4,084.20	4,084.20	9.15	8.35	-3.37	-853.31	104.85	831.89	814.40	17.49	47.560		
4,200.00	4,197.47	4,182.97	4,182.97	9.54	8.47	-3.46	-853.31	104.85	816.28	798.28	18.00	45.355		
4,300.00	4,295.62	4,264.43	4,264.42	9.93	8.56	-3.53	-854.01	104.67	798.08	779.60	18.48	43.182		
4,400.00	4,393.06	4,342.56	4,342.51	10.36	8.75	-3.55	-856.75	103.97	778.91	759.82	19.09	40.805		
4,500.00	4,490.04	4,421.17	4,420.95	10.63	8.98	-3.51	-861.58	102.74	760.35	740.78	19.56	38.865		
4,600.00	4,587.02	4,509.85	4,509.28	10.83	9.07	-3.39	-869.14	100.82	744.00	724.16	19.84	37.504		
4,700.00	4,684.00	4,608.54	4,607.56	11.04	9.16	-3.24	-877.87	98.60	728.00	707.85	20.14	36.144		
4,800.00	4,780.98	4,707.23	4,705.84	11.27	9.27	-3.08	-886.60	96.38	711.99	691.51	20.49	34.754		
4,900.00	4,877.97	4,805.92	4,804.12	11.52	9.40	-2.92	-895.32	94.17	696.00	675.14	20.86	33.362		
5,000.00	4,974.95	4,904.62	4,902.41	11.79	9.54	-2.75	-904.05	91.95	680.01	658.74	21.27	31.976		
5,100.00	5,071.93	5,003.31	5,000.69	12.06	9.69	-2.58	-912.78	89.73	664.02	642.32	21.70	30.603		

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



FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 709H - Original Hole - rev0												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Rule Assigned:												Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,168.91	5,102.00	5,098.97	12.36	9.86	-2.39	-921.51	87.51	648.04	625.89	22.16	29.250	
5,300.00	5,265.89	5,200.69	5,197.25	12.66	10.03	-2.19	-930.23	85.29	632.07	609.43	22.64	27.922	
5,400.00	5,362.88	5,299.39	5,295.53	12.98	10.22	-1.99	-938.96	83.07	616.11	592.97	23.14	26.623	
5,500.00	5,459.86	5,398.08	5,393.81	13.30	10.42	-1.77	-947.69	80.85	600.15	576.48	23.67	25.356	
5,600.00	5,556.84	5,496.77	5,492.09	13.64	10.64	-1.54	-956.41	78.64	584.21	559.99	24.22	24.125	
5,700.00	5,653.82	5,595.47	5,590.37	13.99	10.86	-1.30	-965.14	76.42	568.27	543.49	24.78	22.930	
5,800.00	5,750.80	5,694.16	5,688.65	14.34	11.09	-1.04	-973.87	74.20	552.34	526.97	25.37	21.774	
5,900.00	5,847.79	5,792.85	5,786.93	14.70	11.33	-0.77	-982.59	71.98	536.43	510.46	25.97	20.657	
6,000.00	5,944.77	5,891.54	5,885.22	15.07	11.57	-0.49	-991.32	69.76	520.52	493.94	26.59	19.579	
6,100.00	6,041.75	5,990.24	5,983.50	15.45	11.83	-0.18	-1,000.05	67.54	504.63	477.41	27.22	18.540	
6,200.00	6,138.73	6,088.93	6,081.78	15.83	12.09	0.14	-1,008.78	65.32	488.76	460.89	27.87	17.540	
6,300.00	6,235.71	6,187.62	6,180.06	16.22	12.36	0.49	-1,017.50	63.11	472.90	444.37	28.53	16.578	
6,400.00	6,332.69	6,286.31	6,278.34	16.62	12.63	0.86	-1,026.23	60.89	457.06	427.86	29.20	15.653	
6,500.00	6,429.68	6,385.01	6,376.62	17.02	12.91	1.26	-1,034.96	58.67	441.24	411.36	29.89	14.765	
6,600.00	6,526.66	6,483.70	6,474.90	17.42	13.20	1.69	-1,043.68	56.45	425.44	394.86	30.58	13.912	
6,700.00	6,623.64	6,582.39	6,573.18	17.83	13.49	2.15	-1,052.41	54.23	409.67	378.38	31.29	13.093	
6,800.00	6,720.62	6,681.08	6,671.46	18.24	13.78	2.64	-1,061.14	52.01	393.93	361.92	32.01	12.308	
6,900.00	6,817.60	6,779.78	6,769.75	18.66	14.08	3.18	-1,069.86	49.80	378.21	345.48	32.73	11.554	
7,000.00	6,914.59	6,878.47	6,868.03	19.08	14.39	3.77	-1,078.59	47.58	362.53	329.06	33.47	10.832	
7,100.00	7,011.57	6,977.16	6,966.31	19.51	14.69	4.40	-1,087.32	45.36	346.90	312.68	34.21	10.139	
7,200.00	7,108.55	7,075.86	7,064.59	19.93	15.00	5.10	-1,096.05	43.14	331.30	296.34	34.97	9.475	
7,300.00	7,205.53	7,174.55	7,162.87	20.36	15.32	5.87	-1,104.77	40.92	315.76	280.04	35.72	8.839	
7,400.00	7,302.51	7,275.83	7,263.74	20.80	15.63	6.73	-1,113.62	38.67	300.19	263.73	36.46	8.233	
7,500.00	7,399.50	7,384.99	7,372.67	21.23	16.02	7.66	-1,120.34	36.96	282.08	244.88	37.20	7.582	
7,600.00	7,496.48	7,492.56	7,480.20	21.67	16.42	8.57	-1,123.01	36.28	260.38	222.46	37.92	6.866	
7,700.00	7,593.46	7,591.32	7,578.96	22.11	16.49	9.47	-1,123.08	36.27	236.35	197.94	38.41	6.154	
7,800.00	7,690.44	7,688.30	7,675.94	22.56	16.54	10.55	-1,123.08	36.27	212.31	173.41	38.90	5.458	
7,900.00	7,787.91	7,785.77	7,773.41	23.05	16.58	11.65	-1,123.08	36.27	190.40	150.97	39.42	4.830	
8,000.00	7,886.41	7,884.27	7,871.91	23.68	16.63	12.69	-1,123.08	36.27	173.57	133.49	40.07	4.331	
8,100.00	7,985.67	7,983.53	7,971.17	24.30	16.68	13.54	-1,123.08	36.27	161.85	121.14	40.71	3.976	
8,200.00	8,085.43	8,083.29	8,070.93	24.87	16.73	14.08	-1,123.08	36.27	155.23	113.95	41.28	3.760	
8,300.00	8,185.40	8,183.26	8,170.90	24.99	16.78	-169.55	-1,123.08	36.27	153.60	112.15	41.45	3.706	
8,400.00	8,285.40	8,283.26	8,270.90	25.01	16.83	-169.55	-1,123.08	36.27	153.60	112.07	41.52	3.699	
8,500.00	8,385.40	8,383.26	8,370.90	25.04	16.88	-169.55	-1,123.08	36.27	153.60	111.99	41.60	3.692	
8,600.00	8,485.40	8,483.26	8,470.90	25.07	16.94	-169.55	-1,123.08	36.27	153.60	111.91	41.68	3.685	
8,700.00	8,585.40	8,583.26	8,570.90	25.10	16.99	-169.55	-1,123.08	36.27	153.60	111.83	41.76	3.678	
8,800.00	8,685.40	8,683.26	8,670.90	25.13	17.04	-169.55	-1,123.08	36.27	153.60	111.75	41.84	3.671	
8,900.00	8,785.40	8,783.26	8,770.90	25.16	17.09	-169.55	-1,123.08	36.27	153.60	111.67	41.93	3.664	
9,000.00	8,885.40	8,883.26	8,870.90	25.19	17.14	-169.55	-1,123.08	36.27	153.60	111.59	42.01	3.656	
9,100.00	8,985.40	8,983.26	8,970.90	25.22	17.19	-169.55	-1,123.08	36.27	153.60	111.51	42.09	3.649	
9,200.00	9,085.40	9,083.26	9,070.90	25.25	17.25	-169.55	-1,123.08	36.27	153.60	111.42	42.17	3.642	
9,300.00	9,185.40	9,183.26	9,170.90	25.28	17.30	-169.55	-1,123.08	36.27	153.60	111.34	42.26	3.635	
9,400.00	9,285.40	9,283.26	9,270.90	25.31	17.35	-169.55	-1,123.08	36.27	153.60	111.26	42.34	3.628	
9,500.00	9,385.40	9,383.26	9,370.90	25.34	17.41	-169.55	-1,123.08	36.27	153.60	111.17	42.42	3.621	
9,600.00	9,485.40	9,483.26	9,470.90	25.37	17.46	-169.55	-1,123.08	36.27	153.60	111.09	42.51	3.613	
9,700.00	9,585.40	9,583.26	9,570.90	25.40	17.51	-169.55	-1,123.08	36.27	153.60	111.00	42.59	3.606	
9,800.00	9,685.40	9,683.26	9,670.90	25.43	17.57	-169.55	-1,123.08	36.27	153.60	110.92	42.68	3.599	
9,900.00	9,785.40	9,783.26	9,770.90	25.46	17.62	-169.55	-1,123.08	36.27	153.60	110.83	42.76	3.592	
10,000.00	9,885.23	9,883.09	9,870.73	25.46	17.67	-80.85	-1,123.08	36.27	152.87	109.98	42.89	3.564	
10,100.00	9,982.95	9,980.81	9,968.45	25.46	17.73	-88.61	-1,123.08	36.27	150.95	107.98	42.97	3.513 SF	
10,112.68	9,995.04	9,992.90	9,980.54	25.46	17.73	-90.00	-1,123.08	36.27	150.90	107.96	42.94	3.514 CC, ES	
10,200.00	10,075.59	10,073.45	10,061.09	25.47	17.78	-101.19	-1,123.08	36.27	154.57	112.35	42.21	3.662	

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

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 709H - Original Hole - rev0											Offset Site Error:	0.00 ft
Survey Program: 0-MWD											Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Minimum	Separation	Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	Factor
10,300.00	10,160.35	10,158.22	10,145.85	25.51	17.82	-114.57	-1,123.08	36.27	173.83	133.58	40.25	4.319
10,400.00	10,234.66	10,232.52	10,220.16	25.63	17.87	-124.70	-1,123.08	36.27	214.92	176.76	38.16	5.632
10,500.00	10,296.24	10,294.10	10,281.74	25.89	17.90	-129.95	-1,123.08	36.27	276.48	239.57	36.90	7.492
10,600.00	10,343.23	10,341.09	10,328.73	26.34	17.93	-129.71	-1,123.08	36.27	353.61	317.22	36.39	9.718
10,700.00	10,374.21	10,372.07	10,359.71	27.03	17.94	-121.86	-1,123.08	36.27	441.34	405.10	36.24	12.179
10,800.00	10,388.23	10,386.09	10,373.73	27.96	17.95	-100.33	-1,123.08	36.27	535.33	499.10	36.23	14.775
10,900.00	10,388.24	10,386.10	10,373.74	29.09	17.95	-87.15	-1,123.08	36.27	631.89	595.61	36.28	17.418
11,000.00	10,387.02	10,384.88	10,372.52	30.37	17.95	-86.69	-1,123.08	36.27	729.38	693.04	36.34	20.072
11,100.00	10,385.79	10,383.65	10,371.29	31.78	17.95	-86.22	-1,123.08	36.27	827.46	791.06	36.40	22.732
11,200.00	10,384.57	11,913.69	11,197.58	33.30	28.22	-169.67	-1,127.92	-886.56	841.19	792.58	48.61	17.306
11,300.00	10,383.34	12,013.69	11,196.46	34.92	30.12	-169.68	-1,128.45	-986.55	841.29	792.07	49.22	17.094
11,400.00	10,382.12	12,113.69	11,195.34	36.62	32.10	-169.68	-1,128.97	-1,086.54	841.39	791.51	49.88	16.868
11,500.00	10,380.89	12,213.69	11,194.23	38.40	34.13	-169.68	-1,129.50	-1,186.53	841.50	790.90	50.60	16.631
11,600.00	10,379.67	12,313.69	11,193.11	40.24	36.22	-169.68	-1,130.02	-1,286.52	841.60	790.24	51.37	16.384
11,700.00	10,378.44	12,413.69	11,192.00	42.14	38.35	-169.68	-1,130.55	-1,386.52	841.71	789.52	52.19	16.129
11,800.00	10,377.22	12,513.69	11,190.88	44.09	40.52	-169.69	-1,131.07	-1,486.51	841.81	788.76	53.05	15.868
11,900.00	10,375.99	12,613.69	11,189.76	46.09	42.71	-169.69	-1,131.60	-1,586.50	841.92	787.96	53.96	15.603
12,000.00	10,374.77	12,713.69	11,188.65	48.12	44.93	-169.69	-1,132.12	-1,686.49	842.02	787.11	54.91	15.334
12,100.00	10,373.54	12,813.69	11,187.53	50.19	47.17	-169.69	-1,132.65	-1,786.49	842.13	786.23	55.90	15.064
12,200.00	10,372.32	12,913.69	11,186.42	52.28	49.44	-169.69	-1,133.18	-1,886.48	842.23	785.30	56.93	14.793
12,300.00	10,371.09	13,013.69	11,185.30	54.41	51.71	-169.70	-1,133.70	-1,986.47	842.34	784.34	58.00	14.523
12,400.00	10,369.87	13,113.69	11,184.18	56.56	54.00	-169.70	-1,134.23	-2,086.46	842.44	783.34	59.10	14.254
12,500.00	10,368.65	13,213.69	11,183.07	58.73	56.31	-169.70	-1,134.75	-2,186.46	842.55	782.32	60.23	13.988
12,600.00	10,367.42	13,313.69	11,181.95	60.92	58.62	-169.70	-1,135.28	-2,286.45	842.65	781.26	61.40	13.725
12,700.00	10,366.20	13,413.69	11,180.84	63.13	60.94	-169.71	-1,135.80	-2,386.44	842.76	780.17	62.59	13.465
12,800.00	10,364.97	13,513.69	11,179.72	65.35	63.28	-169.71	-1,136.33	-2,486.43	842.86	779.06	63.81	13.210
12,900.00	10,363.75	13,613.69	11,178.60	67.59	65.62	-169.71	-1,136.85	-2,586.43	842.97	777.92	65.05	12.959
13,000.00	10,362.52	13,713.69	11,177.49	69.84	67.96	-169.71	-1,137.38	-2,686.42	843.07	776.76	66.32	12.713
13,100.00	10,361.30	13,813.69	11,176.37	72.11	70.32	-169.71	-1,137.91	-2,786.41	843.18	775.57	67.61	12.471
13,200.00	10,360.07	13,913.69	11,175.26	74.38	72.67	-169.72	-1,138.43	-2,886.40	843.28	774.36	68.92	12.235
13,300.00	10,358.85	14,013.69	11,174.14	76.67	75.04	-169.72	-1,138.96	-2,986.39	843.39	773.13	70.25	12.005
13,400.00	10,357.62	14,113.69	11,173.02	78.96	77.41	-169.72	-1,139.48	-3,086.39	843.49	771.89	71.61	11.780
13,500.00	10,356.40	14,213.69	11,171.91	81.26	79.78	-169.72	-1,140.01	-3,186.38	843.60	770.62	72.98	11.560
13,600.00	10,355.17	14,313.69	11,170.79	83.57	82.16	-169.72	-1,140.53	-3,286.37	843.70	769.34	74.36	11.346
13,700.00	10,353.95	14,413.69	11,169.68	85.89	84.54	-169.73	-1,141.06	-3,386.36	843.81	768.04	75.77	11.137
13,800.00	10,352.72	14,513.69	11,168.56	88.21	86.92	-169.73	-1,141.58	-3,486.36	843.91	766.73	77.18	10.934
13,900.00	10,351.50	14,613.69	11,167.44	90.54	89.30	-169.73	-1,142.11	-3,586.35	844.02	765.40	78.62	10.736
14,000.00	10,350.27	14,713.69	11,166.33	92.87	91.69	-169.73	-1,142.64	-3,686.34	844.12	764.06	80.06	10.543
14,100.00	10,349.05	14,813.69	11,165.21	95.21	94.09	-169.73	-1,143.16	-3,786.33	844.23	762.71	81.52	10.356
14,200.00	10,347.82	14,913.69	11,164.09	97.56	96.48	-169.74	-1,143.69	-3,886.33	844.33	761.34	82.99	10.174
14,300.00	10,346.60	15,013.69	11,162.98	99.91	98.88	-169.74	-1,144.21	-3,986.32	844.44	759.96	84.47	9.996
14,400.00	10,345.37	15,113.69	11,161.86	102.26	101.27	-169.74	-1,144.74	-4,086.31	844.54	758.57	85.97	9.824
14,500.00	10,344.15	15,213.69	11,160.75	104.62	103.67	-169.74	-1,145.26	-4,186.30	844.65	757.17	87.47	9.656
14,600.00	10,342.92	15,313.69	11,159.63	106.98	106.07	-169.75	-1,145.79	-4,286.29	844.75	755.77	88.99	9.493
14,700.00	10,341.70	15,413.69	11,158.51	109.34	108.48	-169.75	-1,146.31	-4,386.29	844.86	754.35	90.51	9.335
14,800.00	10,340.48	15,513.69	11,157.40	111.71	110.88	-169.75	-1,146.84	-4,486.28	844.96	752.92	92.04	9.180
14,900.00	10,339.25	15,613.69	11,156.28	114.08	113.29	-169.75	-1,147.37	-4,586.27	845.07	751.49	93.58	9.030
15,000.00	10,338.03	15,713.69	11,155.17	116.45	115.70	-169.75	-1,147.89	-4,686.26	845.17	750.04	95.13	8.884
15,100.00	10,336.80	15,813.69	11,154.05	118.82	118.11	-169.76	-1,148.42	-4,786.26	845.28	748.59	96.69	8.743
15,200.00	10,335.58	15,913.69	11,152.93	121.20	120.52	-169.76	-1,148.94	-4,886.25	845.38	747.13	98.25	8.605
15,300.00	10,334.35	16,013.69	11,151.82	123.58	122.93	-169.76	-1,149.47	-4,986.24	845.49	745.67	99.82	8.470
15,400.00	10,333.13	16,113.69	11,150.70	125.97	125.34	-169.76	-1,149.99	-5,086.23	845.59	744.20	101.39	8.340

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



Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 709H - Original Hole - rev0													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
15,500.00	10,331.90	16,213.69	11,149.59	128.35	127.75	-169.76	-1,150.52	-5,186.23	845.70	742.72	102.98	8.212		
15,600.00	10,330.68	16,313.69	11,148.47	130.74	130.17	-169.77	-1,151.04	-5,286.22	845.80	741.23	104.57	8.089		
15,700.00	10,329.45	16,413.69	11,147.35	133.12	132.58	-169.77	-1,151.57	-5,386.21	845.91	739.75	106.16	7.968		
15,800.00	10,328.23	16,513.69	11,146.24	135.51	135.00	-169.77	-1,152.10	-5,486.20	846.01	738.25	107.76	7.851		
15,900.00	10,327.00	16,613.69	11,145.12	137.90	137.41	-169.77	-1,152.62	-5,586.20	846.12	736.76	109.36	7.737		
15,900.85	10,326.99	16,614.54	11,145.11	137.93	137.43	-169.77	-1,152.63	-5,587.04	846.12	736.74	109.37	7.736		

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

FLAT CREEK
RESOURCES

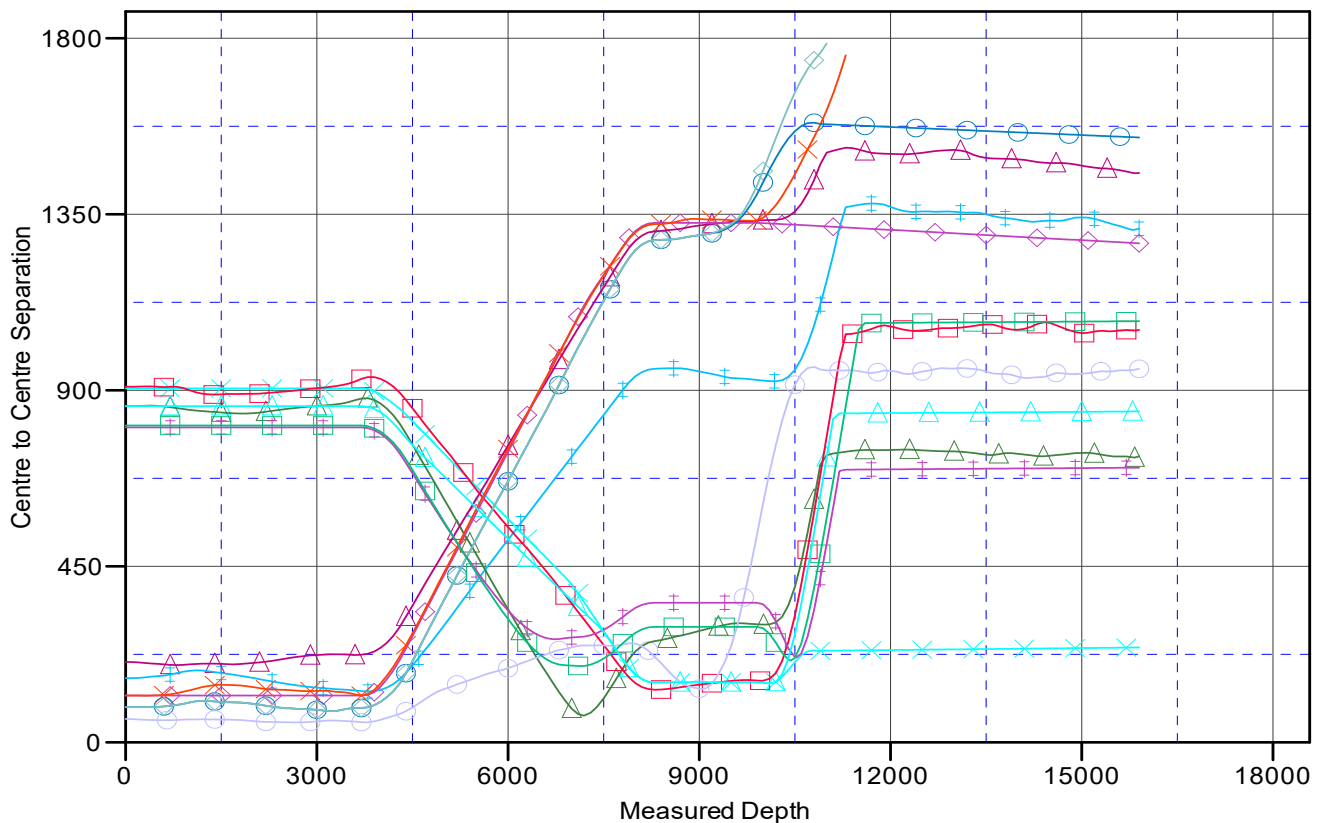
Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=3129+26.5 @ 3155.50ft (H&P 47
Offset Depths are relative to Offset Datum
Central Meridian is -104.333333333

Coordinates are relative to: Phantom Bank 31 Fed Com No. 501H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 300
Grid Convergence at Surface is: 0.28°

Ladder Plot



LEGEND

Phantom Bank 31 Fed Com No. 502H, Original Hole, Surveys Original Hole V0	Phantom Bank 31 Fed Com No. 701H, Original Hole, rev3 V0	Phantom Bank 31 Fed Com No. 707H, Original Hole, rev0 V0
Phantom Bank 31 Fed Com No. 504H, Original Hole, Surveys Original Hole V0	Phantom Bank 31 Fed Com No. 701H, Original Hole, Surveys Original Hole V0	Phantom Bank 31 Fed Com No. 708H, Original Hole, rev0 V0
Phantom Bank 31 Fed Com No. 505H, Original Hole, rev0 as per plat V0	Phantom Bank 31 Fed Com No. 702H, Original Hole, rev5 V0	Phantom Bank 31 Fed Com No. 709H, Original Hole, rev0 V0
Phantom Bank 31 Fed Com No. 506H, Original Hole, Surveys Original Hole V0	Phantom Bank 31 Fed Com No. 702H, Original Hole, Surveys Original Hole V0	
Phantom Bank 31 Fed Com No. 508H, Original Hole, Surveys Original Hole V0	Phantom Bank 31 Fed Com No. 703H, Original Hole, Surveys Original Hole V0	

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



Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 501H
Project:	Eddy County, New Mexico NAD27 NM	TVD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+26.5 @ 3155.50ft (H&P 474)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Feb1422LT
Reference Design:	rev5	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=3129+26.5 @ 3155.50ft (H&P 47

Offset Depths are relative to Offset Datum

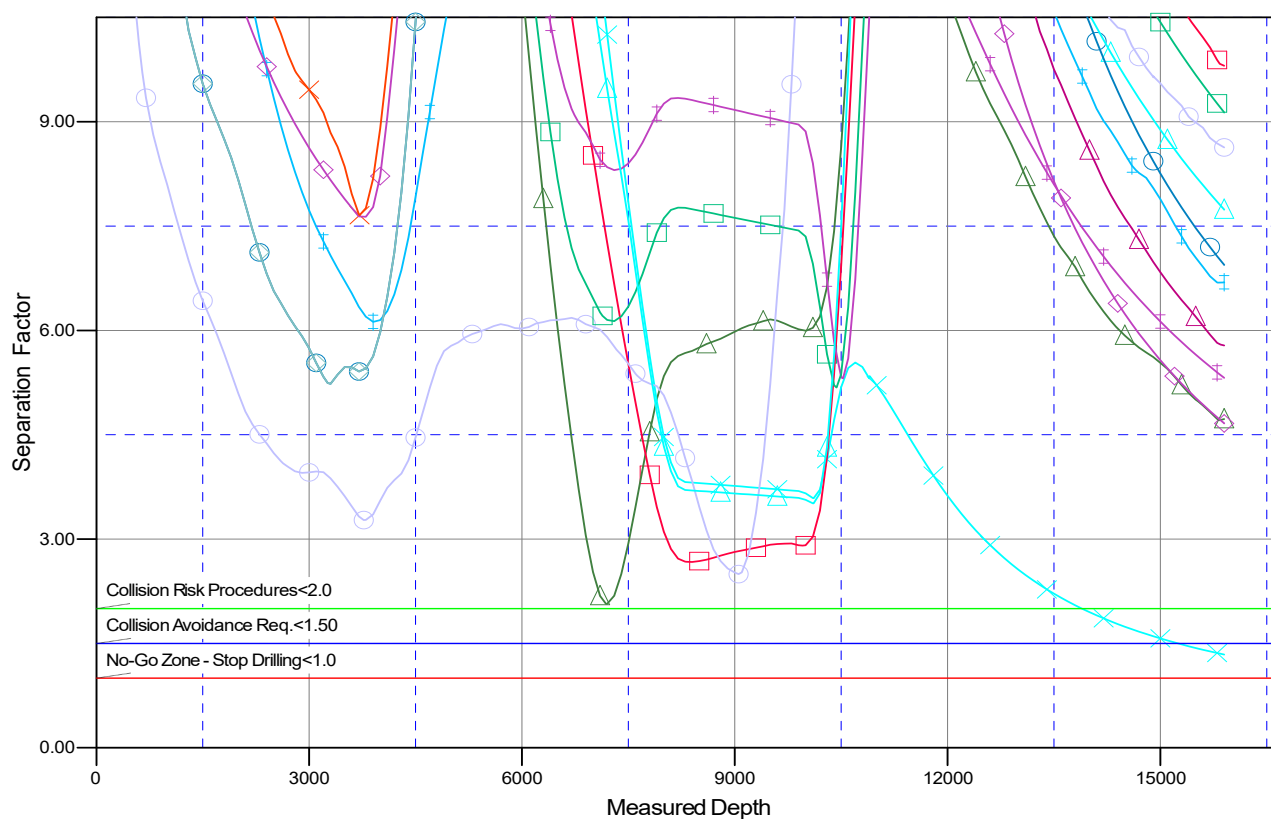
Central Meridian is -104.333333333

Coordinates are relative to: Phantom Bank 31 Fed Com No. 501H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 300

Grid Convergence at Surface is: 0.28°

Separation Factor Plot



LEGEND

Phantom Bank 31 Fed Com No. 502H, Original Hole, Surveys Original Hole V0	Phantom Bank 31 Fed Com No. 701H, Original Hole, rev3 V0	Phantom Bank 31 Fed Com No. 707H, Original Hole, rev0 V0
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District II
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District III
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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 88319

CONDITIONS

Operator: Flat Creek Resources, LLC 777 Main St. Fort Worth, TX 76102	OGRID: 374034
	Action Number: 88319
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD Conditions of Approval	3/9/2022