

Well Name: PHANTOM BANK 31 FED	Well Location: T26S / R31E / SEC 32 / NWNW / 32.004658 / -103.807788	County or Parish/State: EDDY / NM
Well Number: 561H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM138868	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001553701	Operator: FLAT CREEK RESOURCES LLC	

Notice of Intent

Sundry ID: 2748097

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 08/25/2023	Time Sundry Submitted: 05:04
Date proposed operation will begin: 10/01/2023	

Procedure Description: Request to change SHL from 550' FNL & 350' FWL, Sec 32 26S 31E to 711' FNL & 400' FWL, Sec 32 26S 31E. Request to change BHL from 1050' FNL & 30' FWL, Sec 31 26S 31E to 1010' FNL & 230' FWL, Sec 31 26S 31E. TVD has changed from 10163' to 11757'. MD has changed from 15753' to 16955'. Well type has changed from oil to gas. Field and pool have changed from Wildcat; Bone Spring to Purple Sage; Wolfcamp (Gas). Pad has been built. No change in pad footprint. Revised C102 and drilling documents attached.

NOI Attachments

Procedure Description

Revised_APD_Docs_20240321104335.pdf

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Lease Number: NMNM138868	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001553701	Operator: FLAT CREEK RESOURCES LLC	

Conditions of Approval

Additional

32_26_31_D_Sundry_ID_2748097_Phantom_Bank_31_Fed_Com_561H_Eddy_NMNM138868_FLAT_CREEK_RESOU
RCES_LLC_13_22d_12_23_2022_LV_20240419131844.pdf

Phantom_Bank_31_Fed_561H_Dr_COA_20240419131844.pdf

Operator

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

Operator Electronic Signature: BRIAN WOOD Signed on: MAR 21, 2024 10:43 AM

Name: FLAT CREEK RESOURCES LLC

Title: Permitting Agent

Street Address: 37 VERANO LOOP

City: SANTA FE State: NM

Phone: (505) 466-8120

Email address: AFMSS@PERMITSWEST.COM

Field

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: 05/02/2024
Signature: Chris Walls	

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

PRE-PERF PLAT

¹⁰ Surface Location

¹¹ Bottom Hole Location If Different From Surface

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
259.65			

16

A

SEC. 36
T-26-S
R-30-E

BHL
MD = 16,955'
1,010' FNL, 230' FWL

LTP
MD = 16,855'
1,010' FNL, 330' FWL

NMNM 138868

FTP/PPP1
MD = 12,181'
1,010' FNL, 330' FEL

LOT 1

LOT 2

LOT 3

SEC. 31
T-26-S
R-31-E

LOT 4

LOT 5

SHL
781' FNL, 400' FWL

SEC. 32
PRIVATE

KOP
MD = 11,270'
1,008' FNL, 254' FWL

LOT 4

NEW MEXICO

TEXAS

D

E

F

CORNER COORDINATES (NAD 83 NME)

A - Y=	366,302.4 N	A - X=	698,556.6 E
B - Y=	366,341.1 N	B - X=	701,226.8 E
C - Y=	366,378.4 N	C - X=	703,889.9 E
D - Y=	364,167.4 N	D - X=	698,568.2 E
E - Y=	364,181.0 N	E - X=	701,238.8 E
F - Y=	364,195.3 N	F - X=	703,902.1 E

CORNER COORDINATES (NAD 27 NME)

A - Y =	366,245.3 N	A - X =	657,370.0 E
B - Y =	366,284.1 N	B - X =	660,040.1 E
C - Y =	366,321.4 N	C - X =	662,703.2 E
D - Y =	364,110.4 N	D - X =	657,381.5 E
E - Y =	364,124.0 N	E - X =	660,052.1 E
F - Y =	364,138.3 N	F - X =	662,715.4 E

COORDINATE TABLE

SHL (NAD 83 NME)
Y = 365,669.6 N
X = 704,293.9 E
LAT. = 32.004217 °N
LONG. = 103.807626 °W

KOP (NAD 83 NME)
Y = 365,372.0 N
X = 704,149.4 E
LAT. = 32.003400 °N
LONG. = 103.808097 °W

FTP/PPP1 (NAD 83 NME)
Y = 365,363.6 N
X = 703,565.6 E
LAT. = 32.003385 °N
LONG. = 103.809981 °W

LTP (NAD 83 NME)
Y = 365,296.8 N
X = 698,892.1 E
LAT. = 32.003263 °N
LONG. = 103.825058 °W

BHL (NAD 83 NME)
Y = 365,295.4 N
X = 698,792.1 E
LAT. = 32.003260 °N
LONG. = 103.825381 °W

SHL (NAD 27 NME)
Y = 365,612.7 N
X = 663,107.2 E
LAT. = 32.004092 °N
LONG. = 103.807152 °W

KOP (NAD 27 NME)
Y = 365,315.0 N
X = 662,962.7 E
LAT. = 32.003275 °N
LONG. = 103.807623 °W

LTP (NAD 27 NME)
Y = 365,239.8 N
X = 657,705.5 E
LAT. = 32.003138 °N
LONG. = 103.824583 °W

BHL (NAD 27 NME)
Y = 365,238.4 N
X = 657,605.5 E
LAT. = 32.003135 °N
LONG. = 103.824905 °W

¹⁷OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Rodney Littleton July 31, 2023
Signature Date

Rodney Littleton
Printed Name

rodney.littleton@flatcreekresources.com
E-mail Address

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

07-03-2023

Date of Survey

Signature and Seal of
Professional Surveyor:

MARK DILLON HARP 23786
Certificate Number

AR

618.005003.00-02



Flat Creek Resources, LLC
 Phantom Bank 31 Federal 561H
 SHL 711' FNL & 400' FWL 32-26S-31E
 BHL 1010' FNL & 230' FWL 31-26S-31E
 Eddy County, NM

DRILL PLAN PAGE 1

30-015-53701

"fee/fee/Fed"

SHL was at 550' FNL & 350' FWL 32-26s-31e. BHL was at 1050' FNL and 30' FWL 31-26s-31e. SHL has now moved 168' SE to 711' FNL & 400' FWL 32-26s-31e. BHL has now moved 203' ENE to 1010' FNL & 230' FWL 31-26s-31e. Well type has changed from oil to gas. Field and pool have changed from Wildcat; Bone Spring to Purple Sage; Wolfcamp (Gas). Pad has been built. No change in pad footprint.

1. ESTIMATED TOPS

Formation	TVD	MD	Bearing
Quaternary caliche	0'	0'	water
Rustler anhydrite	791'	791'	N/A
Salt top	1518'	1518'	N/A
Salt base	3597'	3598'	water
Lamar limestone	3796'	3797'	N/A
Bell Canyon sandstone	3835'	3837'	N/A
Cherry Canyon sandstone	4755'	4761'	hydrocarbons
Brushy Canyon sandstone	6090'	6101'	hydrocarbons
Bone Spring limestone	7719'	7734'	hydrocarbons
Upper Avalon shale	7865'	7880'	N/A
Lower Avalon shale	8342'	8357'	N/A
First Bone Spring sandstone	8701'	8716'	hydrocarbons
Second Bone Spring shale	9015'	9030'	hydrocarbons
Second Bone Spring sandstone	9341'	9356'	hydrocarbons
Third Bone Spring shale	9783'	9798'	hydrocarbons
Third Bone Spring sandstone	10637'	10652'	hydrocarbons
Wolfcamp XY sandstone	10998'	11013'	hydrocarbons
Wolfcamp A siltstone	11168'	11183'	hydrocarbons
(KOP	11270'	11254'	hydrocarbons
Wolfcamp B siltstone	11613'	11657'	hydrocarbons
Wolfcamp C siltstone	11812'	12035'	hydrocarbons
TD (toe-up)	11983'	17174'	hydrocarbons

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"fee/fee/Fed"

2. NOTABLE ZONES

Wolfcamp C is the goal. Depth to water was 318' in C 02165 (24-26s-30e).

3. PRESSURE CONTROL

A 20,000', 10,000 psi BOP stack will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer, and an annular preventer (5000-psi WP). Both units will be hydraulically operated. The ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with 43 CFR 3172. See BOP and choke diagrams submitted with the APD for additional information.

A variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

BOP Testing Procedures:

1. Use water to test BOPE.
2. Make up test assembly (test plug) and set in the wellhead profile. Ensure the casing valve is left open. Monitor the casing valve outlet while testing for potential leak past the test plug.
3. Circulate through the choke/kill lines, choke manifold, standpipe manifold, and valves to ensure that all lines are full of water. This will prevent pressure drop (compression) while testing.
4. Line up test unit, test rams, valves, and lines as per the following chart.
5. Pressure tests must be low and high, respectively, and the pressure will be maintained for at least 10 minutes. If a test plug is used, no bleed-off of pressure is acceptable. For a test not using a test plug, if a decline in

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 SHL 711' FNL & 400' FWL 32-26S-31E
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 Eddy County, NM

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"fee/fee/Fed"

pressure of more than 10% in 30 minutes occurs, then the test will be considered to have failed. Pressure will be recorded on a chart recorder.

6. Any equipment that does not pass the pressure test must be reported to the drilling supervisor. Equipment must be repaired and retested.
7. Continue with pressure testing until all equipment has been tested as per the specific rig requirements.
8. Rig down test assembly.
9. All tests and drills will be recorded in the drilling log.

Casing & BOP Equipment Test			
Component	High Test	Low Test	Duration
Wellhead Test	5000 psi	250 psi	10 min
BOP Rams	5000 psi	250 psi	10 min
Annular	3500 psi	250 psi	10 min
HCR	5000 psi	250 psi	10 min
Manifold	5000 psi	250 psi	10 min
Upper/Lower Kelly valves	5000 psi	250 psi	10 min
TIW safety valves/dart	5000 psi	250 psi	10 min
Standpipe/mudlines	5000 psi	250 psi	10 min
Orbit valve/rotating head	300 psi	-	10 min
Surface casing	1500 psi	-	30 min
Production casing	10000 psi	-	30 min

Speed head (see APD) will be installed by a third-party welder under the supervision of the vendor's representative.

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"fee/fee/Fed"

4. CASING & CEMENT

All casing will be new and API.

Hole OD	Set MD	Set TVD	Casing OD	Weight (lb/ft)	Grade	Joint	Collapse	Burst	Tension
17.5"	0' – 950'	0' – 950'	13.375" surface	54.5	J-55	BTC	2.6	6.3	16.5
12.25"	0' – 3700'	0' – 3699'	10.75" intermed. 1	45.5	J-55	BTC	1.1	1.9	4.2
9.875"	0' – 11582'	0' – 11560'	7.625" intermed. 2	29.7	P-110 HC	BTC	1.2	1.7	2.7
6.75"	0' – 11000'	0' – 10983'	5.5" production	20	P-110 HP	GB CD	1.9	1.8	3.1
	11000' – 16955'	10983' – 11757'				Anaconda SP	1.8	1.6	HZ

Name	Type	Sacks	Yield	Cu. Ft.	Weight	Blend
Surface	Lead GL – 650'	540	1.68	907	12.8	35/65 Poz Premium C + 5% salt + 6% bentonite gel + 0.4% CPT-503P + 1/8 #/sk Dura-fiber
	Tail 650' – 900'	315	1.34	422	14.8	Class C + 1% CaCl ₂ + ¼ #/sk cellophane flakes
TOC = GL		100% Excess			Centralizers per Onshore Order 1	
Intermediate 1	Lead GL – 3000'	510	1.68	856	12.8	35/65 Poz Premium C + 5% salt + 6% bentonite gel + 0.4% CPT-503P + 1/8 #/sk Dura-fiber
	Tail 3000' – 3700'	120	1.74	208	14.8	Class C + 1% CaCl ₂ + 4% bentonite gel + 0.4% CPT-503P + 1/8 #/sk Dura-fiber
TOC = GL		35% excess			Bow spring centralizers	
Intermediate 2	Lead GL – 8300'	1135	2.82	3200	10.4	Class C +10% bwoc light weight bead + 5% silica fume alternative + 0.2%

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						suspension aid + 0.3% fluid loss additive + 0.3% dispersant + 0.2% retarder
	Tail 8300' – 11550'	120	1.42	170	13.5	35/65 Poz Premium H + 0.2% CPT-23
TOC = GL		35% excess			Bow spring centralizers	
Production	Lead GL – 11000'	375	2.82	1057	10.4	Class C + 10% light weight bead + 5% silica fume alternative + 0.2% suspension aid + 0.3% fluid loss additive + 0.3% dispersant + 0.2% retarder
	Tail 11000' – 17714'	405	1.42	575	13.2	35/65 Poz Premium H + 0.2% CPT-23
TOC = GL		15% Excess			Bow & solid body centralizers	

5. MUD PROGRAM

A closed loop system will be used. An electronic pit volume totalizer (PVT) mud system complying with 43 CFR 3172 will monitor pit volumes for gains or losses, flow rate, pump pressures, and stroke rate. Sufficient mud materials (e. g., barite, bentonite, LCM) to maintain mud properties and meet minimum lost circulation and weight increase requirements will always be on site.

Hole	Type	Interval (MD)	lb/gal	Viscosity	Fluid Loss
Surface	fresh water	0' - 950'	8.8	45 - 60	NC
Intermediate 1	brine	950' - 3700'	10.0	28 - 29	NC
Intermediate 2	cut brine	3700' - 11582'	9.2	28 - 29	NC
Production	water base	11582' - 16955'	13.0	38 - 42	6 - 8

Flat Creek Resources, LLC
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SHL 711' FNL & 400' FWL 32-26S-31E
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DRILL PLAN PAGE 6

30-015-53701

"fee/fee/Fed"

6. CORES, TESTS, & LOGS

No core is planned. GR, resistivity, directional survey, MWD, and mud logs will be run.

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈ 6748 psi. Expected bottom hole temperature is $\approx 207^{\circ}$ F.

An H2S plan was attached to the APD per 43 CFR 3176. H2S monitoring equipment will be used from surface casing setting point to TD per 43 CFR 3176.

8. OTHER INFORMATION

Anticipated spud date is upon approval. It is expected it will take ≈ 2 months to drill and complete the well.



FLAT CREEK
RESOURCES

Well: Phantom Bank 31 Fed Com No. 561H
Site: Phantom Bank 31 Fed Com
Project: Eddy County, New Mexico NAD27 NME
Design: rev2

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+25 @ 3154.00ft

Northing: 365611.800 Easting: 663107.100 Latitude: 32.004089246 Longitude: -103.807152279

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Add 6.13°

SECTION DETAILS

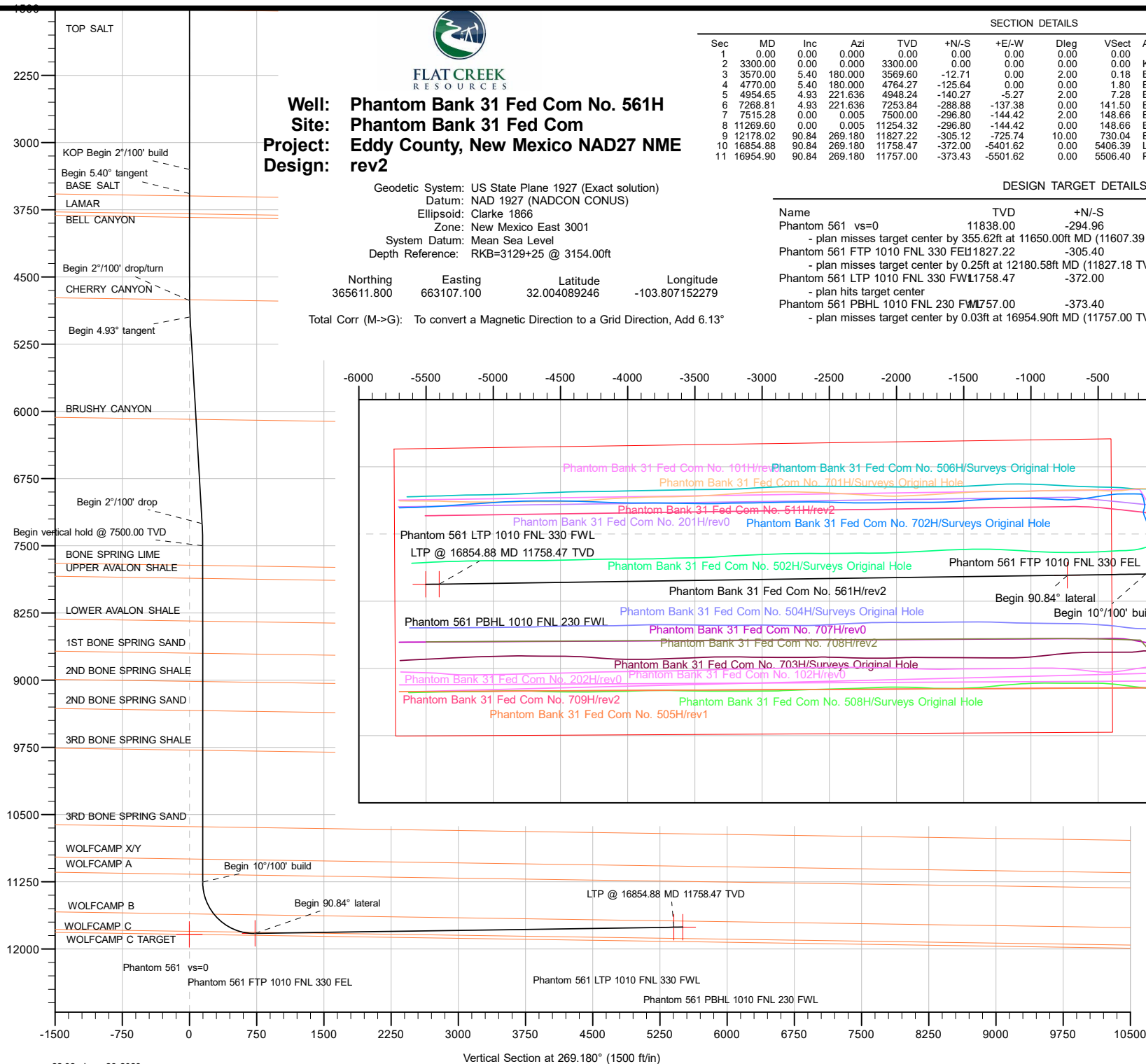
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	V/Sect	Annotation
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	
2	3300.00	0.00	0.000	3300.00	0.00	0.00	0.00	0.00	KOP Begin 2°/100' build
3	3570.00	5.40	180.000	3569.60	-12.71	0.00	2.00	0.18	Begin 5.40° tangent
4	4770.00	5.40	180.000	4764.27	-125.64	0.00	0.00	1.80	Begin 2°/100' drop/turn
5	4954.65	4.93	221.636	4948.24	-140.27	-5.27	2.00	7.28	Begin 4.93° tangent
6	7268.81	4.93	221.636	7253.84	-288.88	-137.38	0.00	141.50	Begin 2°/100' drop
7	7515.28	0.00	0.005	7500.00	-296.80	-144.42	2.00	148.66	Begin vertical hold @ 7500.00 TVD
8	11269.60	0.00	0.005	11254.32	-296.80	-144.42	0.00	148.66	Begin 10°/100' build
9	12178.02	90.84	269.180	11827.22	-305.12	-725.74	10.00	730.04	Begin 90.84° lateral
10	16854.88	90.84	269.180	11758.47	-372.00	-5401.62	0.00	5406.39	LTP @ 16854.88 MD 11758.47 TVD
11	16954.90	90.84	269.180	11757.00	-373.43	-5501.62	0.00	5506.40	PBHL/TD @ 16954.90 MD 11757.00 TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
Phantom 561 vs=0	11838.00	-294.96	4.56	365316.840	663111.660
- plan misses target center by 355.62ft at 11650.00ft MD (11607.39 TVD, -298.54 N, -266.12 E)					
Phantom 561 FTP 1010 FNL 330 FEL 1827.22	-305.40	-728.30		365306.400	662378.800
- plan misses target center by 0.25ft at 12180.58ft MD (11827.18 TVD, -305.15 N, -728.30 E)					
Phantom 561 LTP 1010 FNL 330 FWL 1758.47	-372.00	-5401.62		365239.800	657705.490
- plan hits target center					
Phantom 561 PBHL 1010 FNL 230 FWL 157.00	-373.40	-5501.62		365238.400	657605.490
- plan misses target center by 0.03ft at 16954.90ft MD (11757.00 TVD, -373.43 N, -5501.62 E)					

True Vertical Depth (1500 ft/in)

South (-) North (+) 1000 ft/in



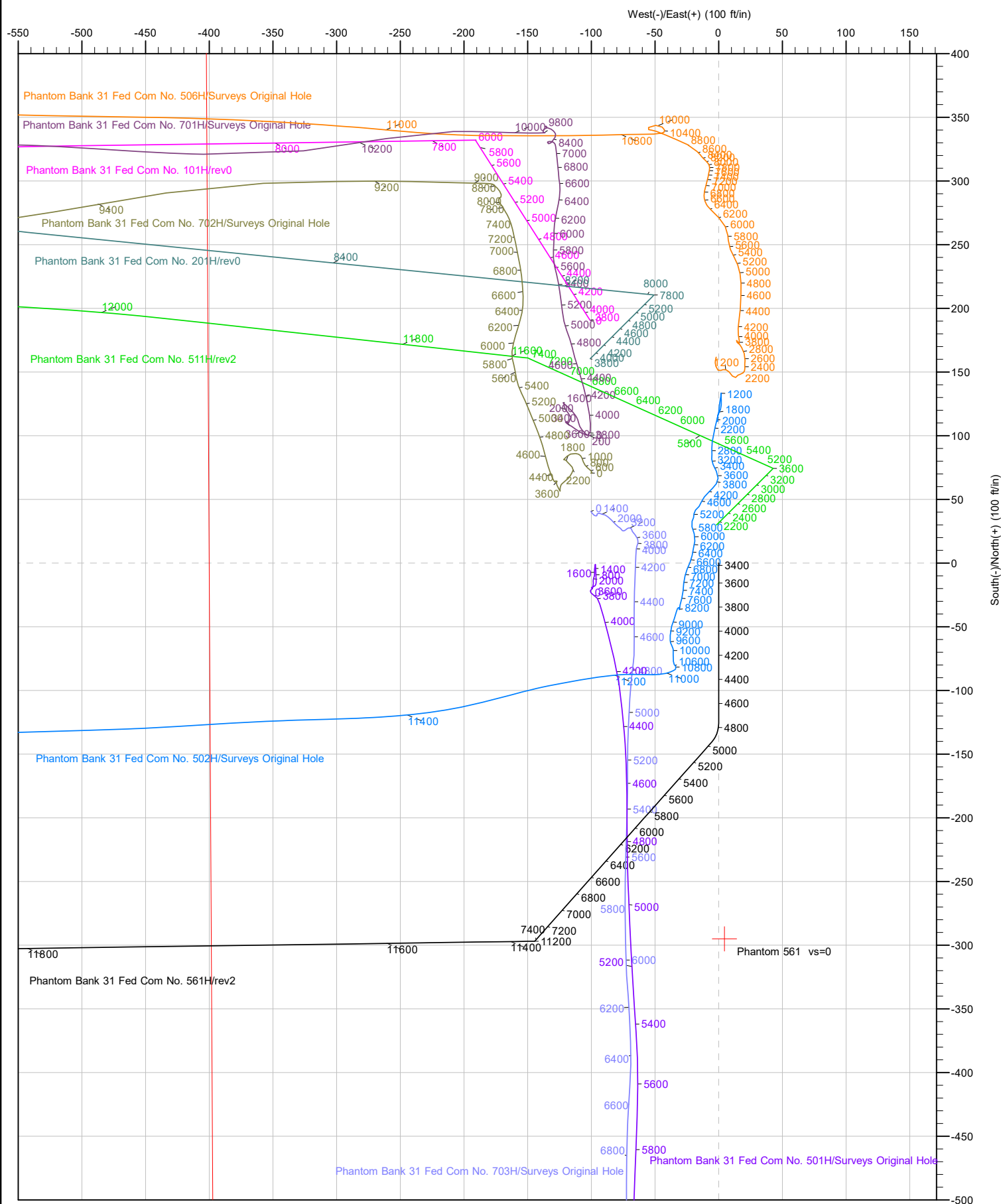
Azimuths to Grid North
True North: -0.28°
Magnetic North: 6.13°

Magnetic Field
Strength: 47139.6nT
Dip Angle: 59.60°
Date: 5/24/2023
Model: IGRF2020

TRUE
Directional Services, LLC



Well: Phantom Bank 31 Fed Com No. 561H
Site: Phantom Bank 31 Fed Com
Project: Eddy County, New Mexico NAD27 NME
Design: rev2





Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+25 @ 3154.00ft
Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

Project	Eddy County, New Mexico NAD27 NME		
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. 561H, Surf loc: 400 FWL 711 FNL Section 32-T26S-R31E		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
Grid Convergence:	0.28 °		
		Latitude:	32.004089246
		Longitude:	-103.807152279
		Ground Level:	3,129.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	5/24/2023	6.41	59.60	47,139.55234927

Design	rev2			
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	269.180

Plan Survey Tool Program	Date	6/28/2023		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,954.52	rev2 (Original Hole)	MWD
				OWSG MWD - Standard



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+25 @ 3154.00ft
Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

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	
3,300.00	0.00	0.000	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,570.00	5.40	180.000	3,569.60	-12.71	0.00	2.00	2.00	0.00	180.00	
4,770.00	5.40	180.000	4,764.27	-125.64	0.00	0.00	0.00	0.00	0.00	
4,954.65	4.93	221.636	4,948.24	-140.27	-5.27	2.00	-0.25	22.55	117.58	
7,268.81	4.93	221.636	7,253.84	-288.88	-137.38	0.00	0.00	0.00	0.00	
7,515.28	0.00	0.005	7,500.00	-296.80	-144.42	2.00	-2.00	0.00	180.00	
11,269.60	0.00	0.005	11,254.32	-296.80	-144.42	0.00	0.00	0.00	0.01	
12,178.02	90.84	269.180	11,827.22	-305.12	-725.74	10.00	10.00	-10.00	269.18	
16,854.88	90.84	269.180	11,758.47	-372.00	-5,401.62	0.00	0.00	0.00	0.00	Phantom 561 LTP 10'
16,954.90	90.84	269.180	11,757.00	-373.43	-5,501.62	0.00	0.00	0.00	0.00	Phantom 561 PBHL 1

FLAT CREEK
RESOURCES

Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+25 @ 3154.00ft
Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

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
25.00	0.00	0.000	25.00	0.00	0.00	0.00	0.00	0.00	0.00
ALLUVIUM									
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
791.00	0.00	0.000	791.00	0.00	0.00	0.00	0.00	0.00	0.00
RUSLTER									
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
1,518.00	0.00	0.000	1,518.00	0.00	0.00	0.00	0.00	0.00	0.00
TOP SALT									
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
KOP Begin 2°/100' build									
3,400.00	2.00	180.000	3,399.98	-1.75	0.00	0.02	2.00	2.00	0.00
3,500.00	4.00	180.000	3,499.84	-6.98	0.00	0.10	2.00	2.00	0.00
3,570.00	5.40	180.000	3,569.60	-12.71	0.00	0.18	2.00	2.00	0.00
Begin 5.40° tangent									
3,597.52	5.40	180.000	3,597.00	-15.30	0.00	0.22	0.00	0.00	0.00
BASE SALT									
3,600.00	5.40	180.000	3,599.47	-15.54	0.00	0.22	0.00	0.00	0.00
3,700.00	5.40	180.000	3,699.02	-24.95	0.00	0.36	0.00	0.00	0.00
3,797.42	5.40	180.000	3,796.01	-34.12	0.00	0.49	0.00	0.00	0.00
LAMAR									
3,800.00	5.40	180.000	3,798.58	-34.36	0.00	0.49	0.00	0.00	0.00
3,836.59	5.40	180.000	3,835.01	-37.80	0.00	0.54	0.00	0.00	0.00

FLAT CREEK
RESOURCES

Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+25 @ 3154.00ft
Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

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)	
BELL CANYON										
3,900.00	5.40	180.000	3,898.14	-43.77	0.00	0.63	0.00	0.00	0.00	
4,000.00	5.40	180.000	3,997.69	-53.18	0.00	0.76	0.00	0.00	0.00	
4,100.00	5.40	180.000	4,097.25	-62.59	0.00	0.90	0.00	0.00	0.00	
4,200.00	5.40	180.000	4,196.80	-72.00	0.00	1.03	0.00	0.00	0.00	
4,300.00	5.40	180.000	4,296.36	-81.41	0.00	1.17	0.00	0.00	0.00	
4,400.00	5.40	180.000	4,395.92	-90.82	0.00	1.30	0.00	0.00	0.00	
4,500.00	5.40	180.000	4,495.47	-100.23	0.00	1.43	0.00	0.00	0.00	
4,600.00	5.40	180.000	4,595.03	-109.65	0.00	1.57	0.00	0.00	0.00	
4,700.00	5.40	180.000	4,694.59	-119.06	0.00	1.70	0.00	0.00	0.00	
4,760.71	5.40	180.000	4,755.03	-124.77	0.00	1.79	0.00	0.00	0.00	
CHERRY CANYON										
4,770.00	5.40	180.000	4,764.27	-125.64	0.00	1.80	0.00	0.00	0.00	
Begin 2°/100' drop/turn										
4,800.00	5.15	185.935	4,794.15	-128.39	-0.14	1.98	2.00	-0.83	19.78	
4,900.00	4.79	208.812	4,893.78	-136.51	-2.61	4.57	2.00	-0.36	22.88	
4,954.65	4.93	221.636	4,948.24	-140.27	-5.27	7.28	2.00	0.26	23.47	
Begin 4.93° tangent										
5,000.00	4.93	221.636	4,993.42	-143.18	-7.86	9.91	0.00	0.00	0.00	
5,100.00	4.93	221.636	5,093.05	-149.60	-13.57	15.71	0.00	0.00	0.00	
5,200.00	4.93	221.636	5,192.68	-156.02	-19.28	21.51	0.00	0.00	0.00	
5,300.00	4.93	221.636	5,292.31	-162.44	-24.99	27.31	0.00	0.00	0.00	
5,400.00	4.93	221.636	5,391.94	-168.87	-30.70	33.11	0.00	0.00	0.00	
5,500.00	4.93	221.636	5,491.57	-175.29	-36.41	38.91	0.00	0.00	0.00	
5,600.00	4.93	221.636	5,591.20	-181.71	-42.11	44.71	0.00	0.00	0.00	
5,700.00	4.93	221.636	5,690.83	-188.13	-47.82	50.51	0.00	0.00	0.00	
5,800.00	4.93	221.636	5,790.46	-194.55	-53.53	56.31	0.00	0.00	0.00	
5,900.00	4.93	221.636	5,890.09	-200.98	-59.24	62.11	0.00	0.00	0.00	
6,000.00	4.93	221.636	5,989.72	-207.40	-64.95	67.91	0.00	0.00	0.00	
6,100.00	4.93	221.636	6,089.35	-213.82	-70.66	73.71	0.00	0.00	0.00	
6,100.73	4.93	221.636	6,090.08	-213.87	-70.70	73.75	0.00	0.00	0.00	
BRUSHY CANYON										
6,200.00	4.93	221.636	6,188.98	-220.24	-76.37	79.51	0.00	0.00	0.00	
6,300.00	4.93	221.636	6,288.61	-226.66	-82.08	85.31	0.00	0.00	0.00	
6,400.00	4.93	221.636	6,388.24	-233.09	-87.79	91.11	0.00	0.00	0.00	
6,500.00	4.93	221.636	6,487.87	-239.51	-93.49	96.91	0.00	0.00	0.00	
6,600.00	4.93	221.636	6,587.50	-245.93	-99.20	102.71	0.00	0.00	0.00	
6,700.00	4.93	221.636	6,687.13	-252.35	-104.91	108.51	0.00	0.00	0.00	
6,800.00	4.93	221.636	6,786.76	-258.77	-110.62	114.31	0.00	0.00	0.00	
6,900.00	4.93	221.636	6,886.39	-265.20	-116.33	120.11	0.00	0.00	0.00	
7,000.00	4.93	221.636	6,986.02	-271.62	-122.04	125.91	0.00	0.00	0.00	
7,100.00	4.93	221.636	7,085.65	-278.04	-127.75	131.71	0.00	0.00	0.00	
7,200.00	4.93	221.636	7,185.28	-284.46	-133.46	137.51	0.00	0.00	0.00	
7,268.81	4.93	221.636	7,253.84	-288.88	-137.38	141.50	0.00	0.00	0.00	
Begin 2°/100' drop										
7,300.00	4.31	221.636	7,284.93	-290.76	-139.05	143.20	2.00	-2.00	0.00	
7,400.00	2.31	221.636	7,384.76	-295.07	-142.88	147.09	2.00	-2.00	0.00	
7,500.00	0.31	221.636	7,484.72	-296.77	-144.40	148.63	2.00	-2.00	0.00	
7,515.28	0.00	0.005	7,500.00	-296.80	-144.42	148.66	2.00	-2.00	0.00	
Begin vertical hold @ 7500.00 TVD										
7,600.00	0.00	0.000	7,584.72	-296.80	-144.42	148.66	0.00	0.00	0.00	
7,700.00	0.00	0.000	7,684.72	-296.80	-144.42	148.66	0.00	0.00	0.00	
7,734.46	0.00	0.000	7,719.18	-296.80	-144.42	148.66	0.00	0.00	0.00	

FLAT CREEK
RESOURCES

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Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

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)
BONE SPRING LIME									
7,800.00	0.00	0.000	7,784.72	-296.80	-144.42	148.66	0.00	0.00	0.00
7,880.46	0.00	0.000	7,865.18	-296.80	-144.42	148.66	0.00	0.00	0.00
UPPER AVALON SHALE									
7,900.00	0.00	0.000	7,884.72	-296.80	-144.42	148.66	0.00	0.00	0.00
8,000.00	0.00	0.000	7,984.72	-296.80	-144.42	148.66	0.00	0.00	0.00
8,100.00	0.00	0.000	8,084.72	-296.80	-144.42	148.66	0.00	0.00	0.00
8,200.00	0.00	0.000	8,184.72	-296.80	-144.42	148.66	0.00	0.00	0.00
8,300.00	0.00	0.000	8,284.72	-296.80	-144.42	148.66	0.00	0.00	0.00
8,357.46	0.00	0.000	8,342.18	-296.80	-144.42	148.66	0.00	0.00	0.00
LOWER AVALON SHALE									
8,400.00	0.00	0.000	8,384.72	-296.80	-144.42	148.66	0.00	0.00	0.00
8,500.00	0.00	0.000	8,484.72	-296.80	-144.42	148.66	0.00	0.00	0.00
8,600.00	0.00	0.000	8,584.72	-296.80	-144.42	148.66	0.00	0.00	0.00
8,700.00	0.00	0.000	8,684.72	-296.80	-144.42	148.66	0.00	0.00	0.00
8,716.46	0.00	0.000	8,701.18	-296.80	-144.42	148.66	0.00	0.00	0.00
1ST BONE SPRING SAND									
8,800.00	0.00	0.000	8,784.72	-296.80	-144.42	148.66	0.00	0.00	0.00
8,900.00	0.00	0.000	8,884.72	-296.80	-144.42	148.66	0.00	0.00	0.00
9,000.00	0.00	0.000	8,984.72	-296.80	-144.42	148.66	0.00	0.00	0.00
9,030.46	0.00	0.000	9,015.18	-296.80	-144.42	148.66	0.00	0.00	0.00
2ND BONE SPRING SHALE									
9,100.00	0.00	0.000	9,084.72	-296.80	-144.42	148.66	0.00	0.00	0.00
9,200.00	0.00	0.000	9,184.72	-296.80	-144.42	148.66	0.00	0.00	0.00
9,300.00	0.00	0.000	9,284.72	-296.80	-144.42	148.66	0.00	0.00	0.00
9,356.46	0.00	0.000	9,341.18	-296.80	-144.42	148.66	0.00	0.00	0.00
2ND BONE SPRING SAND									
9,400.00	0.00	0.000	9,384.72	-296.80	-144.42	148.66	0.00	0.00	0.00
9,500.00	0.00	0.000	9,484.72	-296.80	-144.42	148.66	0.00	0.00	0.00
9,600.00	0.00	0.000	9,584.72	-296.80	-144.42	148.66	0.00	0.00	0.00
9,700.00	0.00	0.000	9,684.72	-296.80	-144.42	148.66	0.00	0.00	0.00
9,798.46	0.00	0.000	9,783.18	-296.80	-144.42	148.66	0.00	0.00	0.00
3RD BONE SPRING SHALE									
9,800.00	0.00	0.000	9,784.72	-296.80	-144.42	148.66	0.00	0.00	0.00
9,900.00	0.00	0.000	9,884.72	-296.80	-144.42	148.66	0.00	0.00	0.00
10,000.00	0.00	0.000	9,984.72	-296.80	-144.42	148.66	0.00	0.00	0.00
10,100.00	0.00	0.000	10,084.72	-296.80	-144.42	148.66	0.00	0.00	0.00
10,200.00	0.00	0.000	10,184.72	-296.80	-144.42	148.66	0.00	0.00	0.00
10,300.00	0.00	0.000	10,284.72	-296.80	-144.42	148.66	0.00	0.00	0.00
10,400.00	0.00	0.000	10,384.72	-296.80	-144.42	148.66	0.00	0.00	0.00
10,500.00	0.00	0.000	10,484.72	-296.80	-144.42	148.66	0.00	0.00	0.00
10,600.00	0.00	0.000	10,584.72	-296.80	-144.42	148.66	0.00	0.00	0.00
10,652.46	0.00	0.000	10,637.18	-296.80	-144.42	148.66	0.00	0.00	0.00
3RD BONE SPRING SAND									
10,700.00	0.00	0.000	10,684.72	-296.80	-144.42	148.66	0.00	0.00	0.00
10,800.00	0.00	0.000	10,784.72	-296.80	-144.42	148.66	0.00	0.00	0.00
10,900.00	0.00	0.000	10,884.72	-296.80	-144.42	148.66	0.00	0.00	0.00
11,000.00	0.00	0.000	10,984.72	-296.80	-144.42	148.66	0.00	0.00	0.00
11,013.46	0.00	0.000	10,998.18	-296.80	-144.42	148.66	0.00	0.00	0.00
WOLFCAMP X/Y									
11,100.00	0.00	0.000	11,084.72	-296.80	-144.42	148.66	0.00	0.00	0.00
11,183.46	0.00	0.000	11,168.18	-296.80	-144.42	148.66	0.00	0.00	0.00
WOLFCAMP A									

FLAT CREEK
RESOURCES

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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)
11,200.00	0.00	0.000	11,184.72	-296.80	-144.42	148.66	0.00	0.00	0.00
11,269.60	0.00	0.000	11,254.32	-296.80	-144.42	148.66	0.00	0.00	0.00
Begin 10°/100' build									
11,300.00	3.04	269.180	11,284.71	-296.81	-145.23	149.46	10.00	10.00	0.00
11,350.00	8.04	269.180	11,334.46	-296.88	-150.06	154.29	10.00	10.00	0.00
11,400.00	13.04	269.180	11,383.60	-297.01	-159.20	163.43	10.00	10.00	0.00
11,450.00	18.04	269.180	11,431.76	-297.20	-172.59	176.82	10.00	10.00	0.00
11,500.00	23.04	269.180	11,478.56	-297.45	-190.12	194.36	10.00	10.00	0.00
11,550.00	28.04	269.180	11,523.66	-297.76	-211.67	215.91	10.00	10.00	0.00
11,600.00	33.04	269.180	11,566.71	-298.13	-237.07	241.31	10.00	10.00	0.00
11,650.00	38.04	269.180	11,607.39	-298.54	-266.12	270.37	10.00	10.00	0.00
11,657.20	38.76	269.180	11,613.03	-298.60	-270.59	274.84	10.00	10.00	0.00
WOLFCAMP B									
11,700.00	43.04	269.180	11,645.37	-299.01	-298.61	302.86	10.00	10.00	0.00
11,750.00	48.04	269.180	11,680.38	-299.52	-334.28	338.53	10.00	10.00	0.00
11,800.00	53.04	269.180	11,712.15	-300.07	-372.87	377.12	10.00	10.00	0.00
11,850.00	58.04	269.180	11,740.43	-300.66	-414.08	418.34	10.00	10.00	0.00
11,900.00	63.04	269.180	11,765.01	-301.28	-457.59	461.86	10.00	10.00	0.00
11,950.00	68.04	269.180	11,785.71	-301.93	-503.09	507.36	10.00	10.00	0.00
12,000.00	73.04	269.180	11,802.36	-302.60	-550.21	554.48	10.00	10.00	0.00
12,035.38	76.58	269.180	11,811.63	-303.09	-584.35	588.63	10.00	10.00	0.00
WOLFCAMP C									
12,050.00	78.04	269.180	11,814.84	-303.30	-598.61	602.89	10.00	10.00	0.00
12,100.00	83.04	269.180	11,823.06	-304.00	-647.91	652.19	10.00	10.00	0.00
12,150.00	88.04	269.180	11,826.94	-304.71	-697.73	702.02	10.00	10.00	0.00
12,178.02	90.84	269.180	11,827.22	-305.12	-725.74	730.04	10.00	10.00	0.00
Begin 90.84° lateral									
12,200.00	90.84	269.180	11,826.89	-305.43	-747.72	752.02	0.00	0.00	0.00
12,300.00	90.84	269.180	11,825.42	-306.86	-847.70	852.01	0.00	0.00	0.00
12,400.00	90.84	269.180	11,823.95	-308.29	-947.68	951.99	0.00	0.00	0.00
12,500.00	90.84	269.180	11,822.48	-309.72	-1,047.66	1,051.98	0.00	0.00	0.00
12,600.00	90.84	269.180	11,821.01	-311.15	-1,147.64	1,151.97	0.00	0.00	0.00
12,700.00	90.84	269.180	11,819.54	-312.58	-1,247.62	1,251.96	0.00	0.00	0.00
12,800.00	90.84	269.180	11,818.07	-314.01	-1,347.60	1,351.95	0.00	0.00	0.00
12,900.00	90.84	269.180	11,816.60	-315.44	-1,447.57	1,451.94	0.00	0.00	0.00
13,000.00	90.84	269.180	11,815.13	-316.87	-1,547.55	1,551.93	0.00	0.00	0.00
13,100.00	90.84	269.180	11,813.66	-318.30	-1,647.53	1,651.92	0.00	0.00	0.00
13,200.00	90.84	269.180	11,812.19	-319.73	-1,747.51	1,751.91	0.00	0.00	0.00
13,300.00	90.84	269.180	11,810.72	-321.16	-1,847.49	1,851.90	0.00	0.00	0.00
13,400.00	90.84	269.180	11,809.25	-322.59	-1,947.47	1,951.89	0.00	0.00	0.00
13,500.00	90.84	269.180	11,807.78	-324.02	-2,047.45	2,051.88	0.00	0.00	0.00
13,600.00	90.84	269.180	11,806.31	-325.45	-2,147.43	2,151.87	0.00	0.00	0.00
13,700.00	90.84	269.180	11,804.84	-326.88	-2,247.41	2,251.85	0.00	0.00	0.00
13,800.00	90.84	269.180	11,803.37	-328.31	-2,347.39	2,351.84	0.00	0.00	0.00
13,900.00	90.84	269.180	11,801.90	-329.74	-2,447.36	2,451.83	0.00	0.00	0.00
14,000.00	90.84	269.180	11,800.43	-331.17	-2,547.34	2,551.82	0.00	0.00	0.00
14,100.00	90.84	269.180	11,798.96	-332.60	-2,647.32	2,651.81	0.00	0.00	0.00
14,200.00	90.84	269.180	11,797.49	-334.03	-2,747.30	2,751.80	0.00	0.00	0.00
14,300.00	90.84	269.180	11,796.02	-335.46	-2,847.28	2,851.79	0.00	0.00	0.00
14,400.00	90.84	269.180	11,794.55	-336.89	-2,947.26	2,951.78	0.00	0.00	0.00
14,500.00	90.84	269.180	11,793.08	-338.32	-3,047.24	3,051.77	0.00	0.00	0.00
14,600.00	90.84	269.180	11,791.62	-339.75	-3,147.22	3,151.76	0.00	0.00	0.00
14,700.00	90.84	269.180	11,790.15	-341.18	-3,247.20	3,251.75	0.00	0.00	0.00

FLAT CREEK
RESOURCES

Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+25 @ 3154.00ft
Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

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)
14,800.00	90.84	269.180	11,788.68	-342.61	-3,347.17	3,351.74	0.00	0.00	0.00
14,900.00	90.84	269.180	11,787.21	-344.04	-3,447.15	3,451.72	0.00	0.00	0.00
15,000.00	90.84	269.180	11,785.74	-345.47	-3,547.13	3,551.71	0.00	0.00	0.00
15,100.00	90.84	269.180	11,784.27	-346.90	-3,647.11	3,651.70	0.00	0.00	0.00
15,200.00	90.84	269.180	11,782.80	-348.33	-3,747.09	3,751.69	0.00	0.00	0.00
15,300.00	90.84	269.180	11,781.33	-349.76	-3,847.07	3,851.68	0.00	0.00	0.00
15,400.00	90.84	269.180	11,779.86	-351.19	-3,947.05	3,951.67	0.00	0.00	0.00
15,500.00	90.84	269.180	11,778.39	-352.62	-4,047.03	4,051.66	0.00	0.00	0.00
15,600.00	90.84	269.180	11,776.92	-354.05	-4,147.01	4,151.65	0.00	0.00	0.00
15,700.00	90.84	269.180	11,775.45	-355.48	-4,246.99	4,251.64	0.00	0.00	0.00
15,800.00	90.84	269.180	11,773.98	-356.91	-4,346.96	4,351.63	0.00	0.00	0.00
15,900.00	90.84	269.180	11,772.51	-358.34	-4,446.94	4,451.62	0.00	0.00	0.00
16,000.00	90.84	269.180	11,771.04	-359.77	-4,546.92	4,551.61	0.00	0.00	0.00
16,100.00	90.84	269.180	11,769.57	-361.20	-4,646.90	4,651.59	0.00	0.00	0.00
16,200.00	90.84	269.180	11,768.10	-362.64	-4,746.88	4,751.58	0.00	0.00	0.00
16,300.00	90.84	269.180	11,766.63	-364.07	-4,846.86	4,851.57	0.00	0.00	0.00
16,400.00	90.84	269.180	11,765.16	-365.50	-4,946.84	4,951.56	0.00	0.00	0.00
16,500.00	90.84	269.180	11,763.69	-366.93	-5,046.82	5,051.55	0.00	0.00	0.00
16,600.00	90.84	269.180	11,762.22	-368.36	-5,146.80	5,151.54	0.00	0.00	0.00
16,700.00	90.84	269.180	11,760.75	-369.79	-5,246.78	5,251.53	0.00	0.00	0.00
16,800.00	90.84	269.180	11,759.28	-371.22	-5,346.75	5,351.52	0.00	0.00	0.00
16,854.88	90.84	269.180	11,758.47	-372.00	-5,401.62	5,406.39	0.00	0.00	0.00
LTP @ 16854.88 MD 11758.47 TVD									
16,900.00	90.84	269.180	11,757.81	-372.65	-5,446.73	5,451.51	0.00	0.00	0.00
16,954.90	90.84	269.180	11,757.00	-373.43	-5,501.62	5,506.40	0.00	0.00	0.00
PBHL/TD @ 16954.90 MD 11757.00 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 561 PBHL 101 - plan misses target center by 0.03ft at 16954.90ft MD (11757.00 TVD, -373.43 N, -5501.62 E) - Point	0.00	0.000	11,757.00	-373.40	-5,501.62	365,238.400	657,605.490	32.003135145	-103.824905447
Phantom 561 LTP 1010 - plan hits target center - Point	0.00	0.000	11,758.47	-372.00	-5,401.62	365,239.800	657,705.490	32.003137701	-103.824582841
Phantom 561 FTP 1010 - plan misses target center by 0.25ft at 12180.58ft MD (11827.18 TVD, -305.15 N, -728.30 E) - Point	0.00	0.000	11,827.22	-305.40	-728.30	365,306.400	662,378.800	32.003259431	-103.809506453
Phantom 561 vs=0 - plan misses target center by 355.44ft at 11657.20ft MD (11613.03 TVD, -298.60 N, -270.59 E) - Point	0.00	0.000	11,838.00	-294.96	4.56	365,316.840	663,111.660	32.003278347	-103.807142200

FLAT CREEK
RESOURCES

Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+25 @ 3154.00ft
Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
25.00	25.00	ALLUVIUM		0.84	269.180	
791.00	791.00	RUSLTER		0.84	269.180	
1,518.00	1,518.00	TOP SALT		0.84	269.180	
3,597.52	3,597.00	BASE SALT		0.84	269.180	
3,797.42	3,796.01	LAMAR		0.84	269.180	
3,836.59	3,835.01	BELL CANYON		0.84	269.180	
4,760.71	4,755.03	CHERRY CANYON		0.84	269.180	
6,100.73	6,090.08	BRUSHY CANYON		0.84	269.180	
7,734.46	7,719.18	BONE SPRING LIME		0.84	269.180	
7,880.46	7,865.18	UPPER AVALON SHALE		0.84	269.180	
8,357.46	8,342.18	LOWER AVALON SHALE		0.84	269.180	
8,716.46	8,701.18	1ST BONE SPRING SAND		0.84	269.180	
9,030.46	9,015.18	2ND BONE SPRING SHALE		0.84	269.180	
9,356.46	9,341.18	2ND BONE SPRING SAND		0.84	269.180	
9,798.46	9,783.18	3RD BONE SPRING SHALE		0.84	269.180	
10,652.46	10,637.18	3RD BONE SPRING SAND		0.84	269.180	
11,013.46	10,998.18	WOLFCAMP X/Y		0.84	269.180	
11,183.46	11,168.18	WOLFCAMP A		0.84	269.180	
11,657.20	11,613.03	WOLFCAMP B		0.84	269.180	
12,035.38	11,811.63	WOLFCAMP C		0.84	269.180	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
3,300.00	3,300.00	0.00	0.00	KOP Begin 2°/100' build	
3,570.00	3,569.60	-12.71	0.00	Begin 5.40° tangent	
4,770.00	4,764.27	-125.64	0.00	Begin 2°/100' drop/turn	
4,954.65	4,948.24	-140.27	-5.27	Begin 4.93° tangent	
7,268.81	7,253.84	-288.88	-137.38	Begin 2°/100' drop	
7,515.28	7,500.00	-296.80	-144.42	Begin vertical hold @ 7500.00 TVD	
11,269.60	11,254.32	-296.80	-144.42	Begin 10°/100' build	
12,178.02	11,827.22	-305.12	-725.74	Begin 90.84° lateral	
16,854.88	11,758.47	-372.00	-5,401.62	LTP @ 16854.88 MD 11758.47 TVD	
16,954.90	11,757.00	-373.43	-5,501.62	PBHL/TD @ 16954.90 MD 11757.00 TVD	

FLAT CREEK
RESOURCES

Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+25 @ 3154.00ft
Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

Project	Eddy County, New Mexico NAD27 NME		
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. 561H, Surf loc: 400 FWL 711 FNL Section 32-T26S-R31E		
Well Position	+N/-S	0.00 ft	Northing: 365,611.800 usft
	+E/-W	0.00 ft	Easting: 663,107.100 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	5/24/2023	6.41	59.60	47,139.55234927

Design	rev2			
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	269.180

Plan Survey Tool Program	Date	6/28/2023		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,954.52 rev2 (Original Hole)	MWD	
			OWSG MWD - Standard	



Planning Report - Geographic

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Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

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	
3,300.00	0.00	0.000	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,570.00	5.40	180.000	3,569.60	-12.71	0.00	2.00	2.00	0.00	180.00	
4,770.00	5.40	180.000	4,764.27	-125.64	0.00	0.00	0.00	0.00	0.00	
4,954.65	4.93	221.636	4,948.24	-140.27	-5.27	2.00	-0.25	22.55	117.58	
7,268.81	4.93	221.636	7,253.84	-288.88	-137.38	0.00	0.00	0.00	0.00	
7,515.28	0.00	0.005	7,500.00	-296.80	-144.42	2.00	-2.00	0.00	180.00	
11,269.60	0.00	0.005	11,254.32	-296.80	-144.42	0.00	0.00	0.00	0.01	
12,178.02	90.84	269.180	11,827.22	-305.12	-725.74	10.00	10.00	-10.00	269.18	
16,854.88	90.84	269.180	11,758.47	-372.00	-5,401.62	0.00	0.00	0.00	0.00	Phantom 561 LTP 10'
16,954.90	90.84	269.180	11,757.00	-373.43	-5,501.62	0.00	0.00	0.00	0.00	Phantom 561 PBHL 1

FLAT CREEK
RESOURCES

Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+25 @ 3154.00ft
Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

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	365,611.800	663,107.100	32.004089246	-103.807152279	
25.00	0.00	0.000	25.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
ALLUVIUM										
100.00	0.00	0.000	100.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
200.00	0.00	0.000	200.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
300.00	0.00	0.000	300.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
400.00	0.00	0.000	400.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
500.00	0.00	0.000	500.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
600.00	0.00	0.000	600.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
700.00	0.00	0.000	700.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
791.00	0.00	0.000	791.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
RUSLTER										
800.00	0.00	0.000	800.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
900.00	0.00	0.000	900.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
1,100.00	0.00	0.000	1,100.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
1,200.00	0.00	0.000	1,200.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
1,300.00	0.00	0.000	1,300.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
1,400.00	0.00	0.000	1,400.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
1,500.00	0.00	0.000	1,500.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
1,518.00	0.00	0.000	1,518.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
TOP SALT										
1,600.00	0.00	0.000	1,600.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
1,700.00	0.00	0.000	1,700.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
1,800.00	0.00	0.000	1,800.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
1,900.00	0.00	0.000	1,900.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
2,000.00	0.00	0.000	2,000.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
2,100.00	0.00	0.000	2,100.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
2,200.00	0.00	0.000	2,200.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
2,300.00	0.00	0.000	2,300.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
2,400.00	0.00	0.000	2,400.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
2,500.00	0.00	0.000	2,500.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
2,600.00	0.00	0.000	2,600.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
2,700.00	0.00	0.000	2,700.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
2,800.00	0.00	0.000	2,800.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
2,900.00	0.00	0.000	2,900.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
3,000.00	0.00	0.000	3,000.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
3,100.00	0.00	0.000	3,100.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
3,200.00	0.00	0.000	3,200.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
3,300.00	0.00	0.000	3,300.00	0.00	0.00	365,611.800	663,107.100	32.004089246	-103.807152279	
KOP Begin 2°/100' build										
3,400.00	2.00	180.000	3,399.98	-1.75	0.00	365,610.054	663,107.100	32.004084448	-103.807152306	
3,500.00	4.00	180.000	3,499.84	-6.98	0.00	365,604.821	663,107.100	32.004070062	-103.807152389	
3,570.00	5.40	180.000	3,569.60	-12.71	0.00	365,599.086	663,107.100	32.004054295	-103.807152479	
Begin 5.40° tangent										
3,597.52	5.40	180.000	3,597.00	-15.30	0.00	365,596.495	663,107.100	32.004047174	-103.807152519	
BASE SALT										
3,600.00	5.40	180.000	3,599.47	-15.54	0.00	365,596.262	663,107.100	32.004046534	-103.807152523	
3,700.00	5.40	180.000	3,699.02	-24.95	0.00	365,586.852	663,107.100	32.004020664	-103.807152671	
3,797.42	5.40	180.000	3,796.01	-34.12	0.00	365,577.684	663,107.100	32.003995462	-103.807152815	
LAMAR										
3,800.00	5.40	180.000	3,798.58	-34.36	0.00	365,577.441	663,107.100	32.003994794	-103.807152819	
3,836.59	5.40	180.000	3,835.01	-37.80	0.00	365,573.997	663,107.100	32.003985328	-103.807152873	
BELL CANYON										

FLAT CREEK
RESOURCES

Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+25 @ 3154.00ft
Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
3,900.00	5.40	180.000	3,898.14	-43.77	0.00	365,568.030	663,107.100	32.003968924	-103.807152966	
4,000.00	5.40	180.000	3,997.69	-53.18	0.00	365,558.619	663,107.100	32.003943054	-103.807153114	
4,100.00	5.40	180.000	4,097.25	-62.59	0.00	365,549.208	663,107.100	32.003917184	-103.807153262	
4,200.00	5.40	180.000	4,196.80	-72.00	0.00	365,539.798	663,107.100	32.003891314	-103.807153410	
4,300.00	5.40	180.000	4,296.36	-81.41	0.00	365,530.387	663,107.100	32.003865444	-103.807153557	
4,400.00	5.40	180.000	4,395.92	-90.82	0.00	365,520.976	663,107.100	32.003839573	-103.807153705	
4,500.00	5.40	180.000	4,495.47	-100.23	0.00	365,511.565	663,107.100	32.003813703	-103.807153853	
4,600.00	5.40	180.000	4,595.03	-109.65	0.00	365,502.154	663,107.100	32.003787833	-103.807154001	
4,700.00	5.40	180.000	4,694.59	-119.06	0.00	365,492.743	663,107.100	32.003761963	-103.807154148	
4,760.71	5.40	180.000	4,755.03	-124.77	0.00	365,487.030	663,107.100	32.003746257	-103.807154238	
CHERRY CANYON										
4,770.00	5.40	180.000	4,764.27	-125.64	0.00	365,486.156	663,107.100	32.003743854	-103.807154252	
Begin 2°/100' drop/turn										
4,800.00	5.15	185.935	4,794.15	-128.39	-0.14	365,483.405	663,106.960	32.003736294	-103.807154744	
4,900.00	4.79	208.812	4,893.78	-136.51	-2.61	365,475.286	663,104.486	32.003714007	-103.807162854	
4,954.65	4.93	221.636	4,948.24	-140.27	-5.27	365,471.533	663,101.827	32.003703727	-103.807171490	
Begin 4.93° tangent										
5,000.00	4.93	221.636	4,993.42	-143.18	-7.86	365,468.621	663,099.238	32.003695756	-103.807179887	
5,100.00	4.93	221.636	5,093.05	-149.60	-13.57	365,462.199	663,093.529	32.003678179	-103.807198404	
5,200.00	4.93	221.636	5,192.68	-156.02	-19.28	365,455.777	663,087.820	32.003660601	-103.807216920	
5,300.00	4.93	221.636	5,292.31	-162.44	-24.99	365,449.355	663,082.112	32.003643024	-103.807235437	
5,400.00	4.93	221.636	5,391.94	-168.87	-30.70	365,442.933	663,076.403	32.003625446	-103.807253954	
5,500.00	4.93	221.636	5,491.57	-175.29	-36.41	365,436.511	663,070.694	32.003607869	-103.807272470	
5,600.00	4.93	221.636	5,591.20	-181.71	-42.11	365,430.089	663,064.985	32.003590292	-103.807290987	
5,700.00	4.93	221.636	5,690.83	-188.13	-47.82	365,423.667	663,059.276	32.003572714	-103.807309504	
5,800.00	4.93	221.636	5,790.46	-194.55	-53.53	365,417.245	663,053.567	32.003555137	-103.807328020	
5,900.00	4.93	221.636	5,890.09	-200.98	-59.24	365,410.823	663,047.859	32.003537559	-103.807346537	
6,000.00	4.93	221.636	5,989.72	-207.40	-64.95	365,404.401	663,042.150	32.003519982	-103.807365054	
6,100.00	4.93	221.636	6,089.35	-213.82	-70.66	365,397.979	663,036.441	32.003502404	-103.807383570	
6,100.73	4.93	221.636	6,090.08	-213.87	-70.70	365,397.932	663,036.399	32.003502276	-103.807383706	
BRUSHY CANYON										
6,200.00	4.93	221.636	6,188.98	-220.24	-76.37	365,391.558	663,030.732	32.003484827	-103.807402087	
6,300.00	4.93	221.636	6,288.61	-226.66	-82.08	365,385.136	663,025.023	32.003467250	-103.807420603	
6,400.00	4.93	221.636	6,388.24	-233.09	-87.79	365,378.714	663,019.314	32.003449672	-103.807439120	
6,500.00	4.93	221.636	6,487.87	-239.51	-93.49	365,372.292	663,013.606	32.003432095	-103.807457637	
6,600.00	4.93	221.636	6,587.50	-245.93	-99.20	365,365.870	663,007.897	32.003414517	-103.807476153	
6,700.00	4.93	221.636	6,687.13	-252.35	-104.91	365,359.448	663,002.188	32.003396940	-103.807494670	
6,800.00	4.93	221.636	6,786.76	-258.77	-110.62	365,353.026	662,996.479	32.003379362	-103.807513186	
6,900.00	4.93	221.636	6,886.39	-265.20	-116.33	365,346.604	662,990.770	32.003361785	-103.807531703	
7,000.00	4.93	221.636	6,986.02	-271.62	-122.04	365,340.182	662,985.061	32.003344207	-103.807550219	
7,100.00	4.93	221.636	7,085.65	-278.04	-127.75	365,333.760	662,979.353	32.003326630	-103.807568736	
7,200.00	4.93	221.636	7,185.28	-284.46	-133.46	365,327.338	662,973.644	32.003309053	-103.807587252	
7,268.81	4.93	221.636	7,253.84	-288.88	-137.38	365,322.919	662,969.715	32.003296957	-103.807599994	
Begin 2°/100' drop										
7,300.00	4.31	221.636	7,284.93	-290.76	-139.05	365,321.043	662,968.047	32.003291821	-103.807605404	
7,400.00	2.31	221.636	7,384.76	-295.07	-142.88	365,316.733	662,964.217	32.003280027	-103.807617829	
7,500.00	0.31	221.636	7,484.72	-296.77	-144.40	365,315.031	662,962.703	32.003275366	-103.807622739	
7,515.28	0.00	0.005	7,500.00	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
Begin vertical hold @ 7500.00 TVD										
7,600.00	0.00	0.000	7,584.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
7,700.00	0.00	0.000	7,684.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
7,734.46	0.00	0.000	7,719.18	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
BONE SPRING LIME										
7,800.00	0.00	0.000	7,784.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	



FLAT CREEK
RESOURCES

Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+25 @ 3154.00ft
Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
7,880.46	0.00	0.000	7,865.18	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
UPPER AVALON SHALE										
7,900.00	0.00	0.000	7,884.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
8,000.00	0.00	0.000	7,984.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
8,100.00	0.00	0.000	8,084.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
8,200.00	0.00	0.000	8,184.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
8,300.00	0.00	0.000	8,284.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
8,357.46	0.00	0.000	8,342.18	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
LOWER AVALON SHALE										
8,400.00	0.00	0.000	8,384.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
8,500.00	0.00	0.000	8,484.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
8,600.00	0.00	0.000	8,584.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
8,700.00	0.00	0.000	8,684.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
8,716.46	0.00	0.000	8,701.18	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
1ST BONE SPRING SAND										
8,800.00	0.00	0.000	8,784.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
8,900.00	0.00	0.000	8,884.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
9,000.00	0.00	0.000	8,984.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
9,030.46	0.00	0.000	9,015.18	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
2ND BONE SPRING SHALE										
9,100.00	0.00	0.000	9,084.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
9,200.00	0.00	0.000	9,184.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
9,300.00	0.00	0.000	9,284.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
9,356.46	0.00	0.000	9,341.18	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
2ND BONE SPRING SAND										
9,400.00	0.00	0.000	9,384.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
9,500.00	0.00	0.000	9,484.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
9,600.00	0.00	0.000	9,584.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
9,700.00	0.00	0.000	9,684.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
9,798.46	0.00	0.000	9,783.18	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
3RD BONE SPRING SHALE										
9,800.00	0.00	0.000	9,784.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
9,900.00	0.00	0.000	9,884.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
10,000.00	0.00	0.000	9,984.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
10,100.00	0.00	0.000	10,084.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
10,200.00	0.00	0.000	10,184.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
10,300.00	0.00	0.000	10,284.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
10,400.00	0.00	0.000	10,384.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
10,500.00	0.00	0.000	10,484.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
10,600.00	0.00	0.000	10,584.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
10,652.46	0.00	0.000	10,637.18	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
3RD BONE SPRING SAND										
10,700.00	0.00	0.000	10,684.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
10,800.00	0.00	0.000	10,784.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
10,900.00	0.00	0.000	10,884.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
11,000.00	0.00	0.000	10,984.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
11,013.46	0.00	0.000	10,998.18	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
WOLFCAMP X/Y										
11,100.00	0.00	0.000	11,084.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
11,183.46	0.00	0.000	11,168.18	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
WOLFCAMP A										
11,200.00	0.00	0.000	11,184.72	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	

FLAT CREEK
RESOURCES

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Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
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Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
11,269.60	0.00	0.000	11,254.32	-296.80	-144.42	365,315.000	662,962.676	32.003275283	-103.807622826	
Begin 10°/100' build										
11,300.00	3.04	269.180	11,284.71	-296.81	-145.23	365,314.989	662,961.869	32.003275262	-103.807625428	
11,350.00	8.04	269.180	11,334.46	-296.88	-150.06	365,314.920	662,957.044	32.003275137	-103.807640995	
11,400.00	13.04	269.180	11,383.60	-297.01	-159.20	365,314.789	662,947.901	32.003274899	-103.807670490	
11,450.00	18.04	269.180	11,431.76	-297.20	-172.59	365,314.597	662,934.511	32.003274552	-103.807713688	
11,500.00	23.04	269.180	11,478.56	-297.45	-190.12	365,314.347	662,916.975	32.003274097	-103.807770260	
11,550.00	28.04	269.180	11,523.66	-297.76	-211.67	365,314.038	662,895.427	32.003273537	-103.807839776	
11,600.00	33.04	269.180	11,566.71	-298.13	-237.07	365,313.675	662,870.030	32.003272878	-103.807921707	
11,650.00	38.04	269.180	11,607.39	-298.54	-266.12	365,313.259	662,840.979	32.003272124	-103.808015430	
11,657.20	38.76	269.180	11,613.03	-298.60	-270.59	365,313.195	662,836.506	32.003272007	-103.808029857	
WOLFCAMP B										
11,700.00	43.04	269.180	11,645.37	-299.01	-298.61	365,312.795	662,808.493	32.003271280	-103.808120230	
11,750.00	48.04	269.180	11,680.38	-299.52	-334.28	365,312.284	662,772.821	32.003270354	-103.808235311	
11,800.00	53.04	269.180	11,712.15	-300.07	-372.87	365,311.733	662,734.233	32.003269351	-103.808359797	
11,850.00	58.04	269.180	11,740.43	-300.66	-414.08	365,311.143	662,693.025	32.003268281	-103.808492739	
11,900.00	63.04	269.180	11,765.01	-301.28	-457.59	365,310.521	662,649.508	32.003267151	-103.808633127	
11,950.00	68.04	269.180	11,785.71	-301.93	-503.09	365,309.870	662,604.014	32.003265969	-103.808779892	
12,000.00	73.04	269.180	11,802.36	-302.60	-550.21	365,309.196	662,556.890	32.003264744	-103.808931917	
12,035.38	76.58	269.180	11,811.63	-303.09	-584.35	365,308.707	662,522.752	32.003263857	-103.809042049	
WOLFCAMP C										
12,050.00	78.04	269.180	11,814.84	-303.30	-598.61	365,308.503	662,508.495	32.003263486	-103.809088045	
12,100.00	83.04	269.180	11,823.06	-304.00	-647.91	365,307.798	662,459.195	32.003262205	-103.809247088	
12,150.00	88.04	269.180	11,826.94	-304.71	-697.73	365,307.086	662,409.368	32.003260909	-103.809407835	
12,178.02	90.84	269.180	11,827.22	-305.12	-725.74	365,306.685	662,381.357	32.003260181	-103.809498200	
Begin 90.84° lateral										
12,200.00	90.84	269.180	11,826.89	-305.43	-747.72	365,306.370	662,359.379	32.003259609	-103.809569100	
12,300.00	90.84	269.180	11,825.42	-306.86	-847.70	365,304.940	662,259.401	32.003257009	-103.809891638	
12,400.00	90.84	269.180	11,823.95	-308.29	-947.68	365,303.510	662,159.422	32.003254408	-103.810214176	
12,500.00	90.84	269.180	11,822.48	-309.72	-1,047.66	365,302.080	662,059.443	32.003251806	-103.810536714	
12,600.00	90.84	269.180	11,821.01	-311.15	-1,147.64	365,300.650	661,959.464	32.003249203	-103.810859252	
12,700.00	90.84	269.180	11,819.54	-312.58	-1,247.62	365,299.220	661,859.486	32.003246600	-103.811181790	
12,800.00	90.84	269.180	11,818.07	-314.01	-1,347.60	365,297.790	661,759.507	32.003243996	-103.811504328	
12,900.00	90.84	269.180	11,816.60	-315.44	-1,447.57	365,296.360	661,659.528	32.003241390	-103.811826866	
13,000.00	90.84	269.180	11,815.13	-316.87	-1,547.55	365,294.929	661,559.549	32.003238784	-103.812149404	
13,100.00	90.84	269.180	11,813.66	-318.30	-1,647.53	365,293.499	661,459.570	32.003236178	-103.812471942	
13,200.00	90.84	269.180	11,812.19	-319.73	-1,747.51	365,292.069	661,359.592	32.003233570	-103.812794479	
13,300.00	90.84	269.180	11,810.72	-321.16	-1,847.49	365,290.639	661,259.613	32.003230961	-103.813117017	
13,400.00	90.84	269.180	11,809.25	-322.59	-1,947.47	365,289.209	661,159.634	32.003228352	-103.813439555	
13,500.00	90.84	269.180	11,807.78	-324.02	-2,047.45	365,287.779	661,059.655	32.003225742	-103.813762093	
13,600.00	90.84	269.180	11,806.31	-325.45	-2,147.43	365,286.349	660,959.677	32.003223131	-103.814084631	
13,700.00	90.84	269.180	11,804.84	-326.88	-2,247.41	365,284.919	660,859.698	32.003220519	-103.814407169	
13,800.00	90.84	269.180	11,803.37	-328.31	-2,347.39	365,283.488	660,759.719	32.003217907	-103.814729707	
13,900.00	90.84	269.180	11,801.90	-329.74	-2,447.36	365,282.058	660,659.740	32.003215293	-103.815052244	
14,000.00	90.84	269.180	11,800.43	-331.17	-2,547.34	365,280.628	660,559.762	32.003212679	-103.815374782	
14,100.00	90.84	269.180	11,798.96	-332.60	-2,647.32	365,279.198	660,459.783	32.003210064	-103.815697320	
14,200.00	90.84	269.180	11,797.49	-334.03	-2,747.30	365,277.768	660,359.804	32.003207448	-103.816019858	
14,300.00	90.84	269.180	11,796.02	-335.46	-2,847.28	365,276.338	660,259.825	32.003204832	-103.816342396	
14,400.00	90.84	269.180	11,794.55	-336.89	-2,947.26	365,274.908	660,159.847	32.003202214	-103.816664933	
14,500.00	90.84	269.180	11,793.08	-338.32	-3,047.24	365,273.477	660,059.868	32.003199596	-103.816987471	
14,600.00	90.84	269.180	11,791.62	-339.75	-3,147.22	365,272.047	659,959.889	32.003196977	-103.817310009	
14,700.00	90.84	269.180	11,790.15	-341.18	-3,247.20	365,270.617	659,859.910	32.003194357	-103.817632547	
14,800.00	90.84	269.180	11,788.68	-342.61	-3,347.17	365,269.187	659,759.931	32.003191736	-103.817955085	
14,900.00	90.84	269.180	11,787.21	-344.04	-3,447.15	365,267.757	659,659.953	32.003189114	-103.818277622	

FLAT CREEK
RESOURCES

Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+25 @ 3154.00ft
Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,000.00	90.84	269.180	11,785.74	-345.47	-3,547.13	365,266.327	659,559.974	32.003186492	-103.818600160
15,100.00	90.84	269.180	11,784.27	-346.90	-3,647.11	365,264.897	659,459.995	32.003183869	-103.818922698
15,200.00	90.84	269.180	11,782.80	-348.33	-3,747.09	365,263.467	659,360.016	32.003181245	-103.819245236
15,300.00	90.84	269.180	11,781.33	-349.76	-3,847.07	365,262.036	659,260.038	32.003178620	-103.819567773
15,400.00	90.84	269.180	11,779.86	-351.19	-3,947.05	365,260.606	659,160.059	32.003175994	-103.819890311
15,500.00	90.84	269.180	11,778.39	-352.62	-4,047.03	365,259.176	659,060.080	32.003173368	-103.820212849
15,600.00	90.84	269.180	11,776.92	-354.05	-4,147.01	365,257.746	658,960.101	32.003170740	-103.820535387
15,700.00	90.84	269.180	11,775.45	-355.48	-4,246.99	365,256.316	658,860.123	32.003168112	-103.820857924
15,800.00	90.84	269.180	11,773.98	-356.91	-4,346.96	365,254.886	658,760.144	32.003165483	-103.821180462
15,900.00	90.84	269.180	11,772.51	-358.34	-4,446.94	365,253.456	658,660.165	32.003162853	-103.821503000
16,000.00	90.84	269.180	11,771.04	-359.77	-4,546.92	365,252.026	658,560.186	32.003160223	-103.821825537
16,100.00	90.84	269.180	11,769.57	-361.20	-4,646.90	365,250.595	658,460.208	32.003157591	-103.822148075
16,200.00	90.84	269.180	11,768.10	-362.64	-4,746.88	365,249.165	658,360.229	32.003154959	-103.822470613
16,300.00	90.84	269.180	11,766.63	-364.07	-4,846.86	365,247.735	658,260.250	32.003152326	-103.822793150
16,400.00	90.84	269.180	11,765.16	-365.50	-4,946.84	365,246.305	658,160.271	32.003149692	-103.823115688
16,500.00	90.84	269.180	11,763.69	-366.93	-5,046.82	365,244.875	658,060.292	32.003147057	-103.823438226
16,600.00	90.84	269.180	11,762.22	-368.36	-5,146.80	365,243.445	657,960.314	32.003144422	-103.823760763
16,700.00	90.84	269.180	11,760.75	-369.79	-5,246.78	365,242.015	657,860.335	32.003141785	-103.824083301
16,800.00	90.84	269.180	11,759.28	-371.22	-5,346.75	365,240.584	657,760.356	32.003139148	-103.824405839
16,854.88	90.84	269.180	11,758.47	-372.00	-5,401.62	365,239.800	657,705.490	32.003137701	-103.824582841
LTP @ 16854.88 MD 11758.47 TVD									
16,900.00	90.84	269.180	11,757.81	-372.65	-5,446.73	365,239.154	657,660.377	32.003136510	-103.824728376
16,954.90	90.84	269.180	11,757.00	-373.43	-5,501.62	365,238.369	657,605.490	32.003135062	-103.824905446
PBHL/TD @ 16954.90 MD 11757.00 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 561 vs=0 - plan misses target center by 355.44ft at 11657.20ft MD (11613.03 TVD, -298.60 N, -270.59 E) - Point	0.00	0.000	11,838.00	-294.96	4.56	365,316.840	663,111.660	32.003278347	-103.807142200	
Phantom 561 FTP 1010 - plan misses target center by 0.25ft at 12180.58ft MD (11827.18 TVD, -305.15 N, -728.30 E) - Point	0.00	0.000	11,827.22	-305.40	-728.30	365,306.400	662,378.800	32.003259431	-103.809506453	
Phantom 561 LTP 1010 - plan hits target center - Point	0.00	0.000	11,758.47	-372.00	-5,401.62	365,239.800	657,705.490	32.003137701	-103.824582841	
Phantom 561 PBHL 101 - plan misses target center by 0.03ft at 16954.90ft MD (11757.00 TVD, -373.43 N, -5501.62 E) - Point	0.00	0.000	11,757.00	-373.40	-5,501.62	365,238.400	657,605.490	32.003135145	-103.824905447	

FLAT CREEK
RESOURCES

Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	TVD Reference:	RKB=3129+25 @ 3154.00ft
Project:	Eddy County, New Mexico NAD27 NME	MD Reference:	RKB=3129+25 @ 3154.00ft
Site:	Phantom Bank 31 Fed Com	North Reference:	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
25.00	25.00	ALLUVIUM		0.84	269.180	
791.00	791.00	RUSLTER		0.84	269.180	
1,518.00	1,518.00	TOP SALT		0.84	269.180	
3,597.52	3,597.00	BASE SALT		0.84	269.180	
3,797.42	3,796.01	LAMAR		0.84	269.180	
3,836.59	3,835.01	BELL CANYON		0.84	269.180	
4,760.71	4,755.03	CHERRY CANYON		0.84	269.180	
6,100.73	6,090.08	BRUSHY CANYON		0.84	269.180	
7,734.46	7,719.18	BONE SPRING LIME		0.84	269.180	
7,880.46	7,865.18	UPPER AVALON SHALE		0.84	269.180	
8,357.46	8,342.18	LOWER AVALON SHALE		0.84	269.180	
8,716.46	8,701.18	1ST BONE SPRING SAND		0.84	269.180	
9,030.46	9,015.18	2ND BONE SPRING SHALE		0.84	269.180	
9,356.46	9,341.18	2ND BONE SPRING SAND		0.84	269.180	
9,798.46	9,783.18	3RD BONE SPRING SHALE		0.84	269.180	
10,652.46	10,637.18	3RD BONE SPRING SAND		0.84	269.180	
11,013.46	10,998.18	WOLFCAMP X/Y		0.84	269.180	
11,183.46	11,168.18	WOLFCAMP A		0.84	269.180	
11,657.20	11,613.03	WOLFCAMP B		0.84	269.180	
12,035.38	11,811.63	WOLFCAMP C		0.84	269.180	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
3,300.00	3,300.00	0.00	0.00	KOP Begin 2°/100' build	
3,570.00	3,569.60	-12.71	0.00	Begin 5.40° tangent	
4,770.00	4,764.27	-125.64	0.00	Begin 2°/100' drop/turn	
4,954.65	4,948.24	-140.27	-5.27	Begin 4.93° tangent	
7,268.81	7,253.84	-288.88	-137.38	Begin 2°/100' drop	
7,515.28	7,500.00	-296.80	-144.42	Begin vertical hold @ 7500.00 TVD	
11,269.60	11,254.32	-296.80	-144.42	Begin 10°/100' build	
12,178.02	11,827.22	-305.12	-725.74	Begin 90.84° lateral	
16,854.88	11,758.47	-372.00	-5,401.62	LTP @ 16854.88 MD 11758.47 TVD	
16,954.90	11,757.00	-373.43	-5,501.62	PBHL/TD @ 16954.90 MD 11757.00 TVD	

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Reference	rev2		
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 1,895.49ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	6/28/2023		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	16,954.52	rev2 (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. 101H - Original Hole - re	3,300.00	3,301.50	215.84	201.18	14.722	CC, ES
Phantom Bank 31 Fed Com No. 101H - Original Hole - re	3,500.00	3,501.34	222.03	206.66	14.442	SF
Phantom Bank 31 Fed Com No. 102H - Original Hole - re	7,912.23	7,901.64	739.47	709.36	24.560	CC, ES
Phantom Bank 31 Fed Com No. 102H - Original Hole - re	8,100.00	8,037.62	748.32	717.33	24.153	SF
Phantom Bank 31 Fed Com No. 201H - Original Hole - re	3,300.00	3,302.50	189.60	174.94	12.931	CC, ES
Phantom Bank 31 Fed Com No. 201H - Original Hole - re	3,500.00	3,502.34	195.55	180.19	12.737	SF
Phantom Bank 31 Fed Com No. 202H - Original Hole - re	8,094.06	8,071.09	796.62	765.19	25.344	CC
Phantom Bank 31 Fed Com No. 202H - Original Hole - re	8,100.00	8,076.80	796.62	765.18	25.330	ES
Phantom Bank 31 Fed Com No. 202H - Original Hole - re	8,400.00	8,313.50	809.73	776.96	24.710	SF
Phantom Bank 31 Fed Com No. 501H - Original Hole - S	4,262.24	4,265.22	80.31	63.99	4.922	CC, ES
Phantom Bank 31 Fed Com No. 501H - Original Hole - S	4,400.00	4,401.28	82.94	65.87	4.859	SF
Phantom Bank 31 Fed Com No. 502H - Original Hole - S	3,386.64	3,392.61	76.51	57.34	3.990	CC
Phantom Bank 31 Fed Com No. 502H - Original Hole - S	3,400.00	3,406.00	76.54	57.31	3.981	ES
Phantom Bank 31 Fed Com No. 502H - Original Hole - S	16,954.90	16,746.21	423.33	291.23	3.205	SF
Phantom Bank 31 Fed Com No. 504H - Original Hole - S	10,797.69	10,808.18	407.82	362.93	9.085	CC
Phantom Bank 31 Fed Com No. 504H - Original Hole - S	10,800.00	10,809.94	407.82	362.93	9.084	ES
Phantom Bank 31 Fed Com No. 504H - Original Hole - S	16,954.90	16,205.43	838.92	701.14	6.089	SF
Phantom Bank 31 Fed Com No. 505H - Original Hole - re	10,272.93	10,260.01	846.25	811.42	24.299	CC
Phantom Bank 31 Fed Com No. 505H - Original Hole - re	10,300.00	10,284.22	846.33	811.38	24.221	ES
Phantom Bank 31 Fed Com No. 505H - Original Hole - re	16,954.90	15,729.73	1,473.53	1,304.13	8.698	SF
Phantom Bank 31 Fed Com No. 506H - Original Hole - S	1,732.84	1,740.57	146.08	132.99	11.156	CC, ES
Phantom Bank 31 Fed Com No. 506H - Original Hole - S	16,954.90	16,335.19	1,010.26	819.14	5.286	SF
Phantom Bank 31 Fed Com No. 508H - Original Hole - S	7,373.98	7,324.57	820.25	780.54	20.653	CC
Phantom Bank 31 Fed Com No. 508H - Original Hole - S	16,954.90	16,621.05	891.10	642.07	3.578	ES, SF
Phantom Bank 31 Fed Com No. 511H - Original Hole - re	2,000.00	2,000.00	30.04	19.04	2.729	CC, ES
Phantom Bank 31 Fed Com No. 511H - Original Hole - re	16,954.90	17,175.07	557.83	312.86	2.277	SF
Phantom Bank 31 Fed Com No. 701H - Original Hole - S	0.00	1.50	142.19			
Phantom Bank 31 Fed Com No. 701H - Original Hole - S	400.00	400.27	143.21	138.47	30.213	ES
Phantom Bank 31 Fed Com No. 701H - Original Hole - S	3,700.00	3,706.45	162.73	146.11	9.792	SF
Phantom Bank 31 Fed Com No. 702H - Original Hole - S	353.88	355.38	121.99	117.86	29.564	CC
Phantom Bank 31 Fed Com No. 702H - Original Hole - S	500.00	500.54	122.55	117.27	23.251	ES
Phantom Bank 31 Fed Com No. 702H - Original Hole - S	3,400.00	3,398.28	140.62	125.25	9.150	SF
Phantom Bank 31 Fed Com No. 703H - Original Hole - S	5,369.80	5,375.47	46.48	26.54	2.330	CC
Phantom Bank 31 Fed Com No. 703H - Original Hole - S	5,400.00	5,405.36	46.68	26.49	2.312	ES
Phantom Bank 31 Fed Com No. 703H - Original Hole - S	5,500.00	5,504.50	49.78	28.11	2.297	SF
Phantom Bank 31 Fed Com No. 707H - Original Hole - re	7,474.97	7,455.70	509.04	478.65	16.752	CC
Phantom Bank 31 Fed Com No. 707H - Original Hole - re	10,500.05	10,487.71	510.67	476.24	14.833	ES

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

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. 707H - Original Hole - re	16,954.90	15,997.94	872.70	716.82	5.599	SF
Phantom Bank 31 Fed Com No. 708H - Original Hole - re	16,954.90	17,131.85	486.28	251.82	2.074	CC, ES, SF
Phantom Bank 31 Fed Com No. 709H - Original Hole - re	16,954.90	17,153.60	797.92	532.23	3.003	CC, ES, SF

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 101H - Original Hole - rev0													Offset Site Error: 0.00 ft		
Survey Program: Reference		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		
0.00	0.00	1.50	1.50	0.00	0.01	-27.89	190.76	-100.97	215.84						
100.00	100.00	101.50	101.50	0.43	0.43	-27.89	190.76	-100.97	215.84	214.98	0.86	251.016			
200.00	200.00	201.50	201.50	1.25	1.25	-27.89	190.76	-100.97	215.84	213.33	2.51	86.089			
300.00	300.00	301.50	301.50	1.75	1.75	-27.89	190.76	-100.97	215.84	212.34	3.50	61.741			
400.00	400.00	401.50	401.50	2.13	2.13	-27.89	190.76	-100.97	215.84	211.57	4.27	50.582			
500.00	500.00	501.50	501.50	2.46	2.46	-27.89	190.76	-100.97	215.84	210.91	4.92	43.833			
600.00	600.00	601.50	601.50	2.75	2.75	-27.89	190.76	-100.97	215.84	210.33	5.51	39.185			
700.00	700.00	701.50	701.50	3.02	3.02	-27.89	190.76	-100.97	215.84	209.80	6.04	35.733			
800.00	800.00	801.50	801.50	3.27	3.27	-27.89	190.76	-100.97	215.84	209.30	6.53	33.037			
900.00	900.00	901.50	901.50	3.50	3.50	-27.89	190.76	-100.97	215.84	208.84	7.00	30.854			
1,000.00	1,000.00	1,001.50	1,001.50	3.72	3.72	-27.89	190.76	-100.97	215.84	208.40	7.43	29.040			
1,100.00	1,100.00	1,101.50	1,101.50	3.92	3.92	-27.89	190.76	-100.97	215.84	207.99	7.85	27.500			
1,200.00	1,200.00	1,201.50	1,201.50	4.12	4.12	-27.89	190.76	-100.97	215.84	207.59	8.25	26.172			
1,300.00	1,300.00	1,301.50	1,301.50	4.31	4.32	-27.89	190.76	-100.97	215.84	207.21	8.63	25.010			
1,400.00	1,400.00	1,401.50	1,401.50	4.50	4.50	-27.89	190.76	-100.97	215.84	206.84	9.00	23.983			
1,500.00	1,500.00	1,501.50	1,501.50	4.68	4.68	-27.89	190.76	-100.97	215.84	206.48	9.36	23.065			
1,600.00	1,600.00	1,601.50	1,601.50	4.85	4.85	-27.89	190.76	-100.97	215.84	206.13	9.71	22.240			
1,700.00	1,700.00	1,701.50	1,701.50	5.02	5.02	-27.89	190.76	-100.97	215.84	205.79	10.04	21.491			
1,800.00	1,800.00	1,801.50	1,801.50	5.19	5.19	-27.89	190.76	-100.97	215.84	205.46	10.37	20.808			
1,900.00	1,900.00	1,901.50	1,901.50	5.35	5.35	-27.89	190.76	-100.97	215.84	205.14	10.69	20.181			
2,000.00	2,000.00	2,001.50	2,001.50	5.50	5.51	-27.89	190.76	-100.97	215.84	204.83	11.01	19.604			
2,100.00	2,100.00	2,101.50	2,101.50	5.66	5.66	-27.89	190.76	-100.97	215.84	204.52	11.32	19.069			
2,200.00	2,200.00	2,201.50	2,201.50	5.81	5.81	-27.89	190.76	-100.97	215.84	204.22	11.62	18.573			
2,300.00	2,300.00	2,301.50	2,301.50	5.96	5.96	-27.89	190.76	-100.97	215.84	203.92	11.92	18.109			
2,400.00	2,400.00	2,401.50	2,401.50	6.10	6.11	-27.89	190.76	-100.97	215.84	203.63	12.21	17.676			
2,500.00	2,500.00	2,501.50	2,501.50	6.25	6.25	-27.89	190.76	-100.97	215.84	203.34	12.50	17.269			
2,600.00	2,600.00	2,601.50	2,601.50	6.39	6.39	-27.89	190.76	-100.97	215.84	203.06	12.78	16.887			
2,700.00	2,700.00	2,701.50	2,701.50	6.53	6.53	-27.89	190.76	-100.97	215.84	202.78	13.06	16.526			
2,800.00	2,800.00	2,801.50	2,801.50	6.67	6.67	-27.89	190.76	-100.97	215.84	202.50	13.34	16.185			
2,900.00	2,900.00	2,901.50	2,901.50	6.80	6.80	-27.89	190.76	-100.97	215.84	202.23	13.61	15.862			
3,000.00	3,000.00	3,001.50	3,001.50	6.94	6.94	-27.89	190.76	-100.97	215.84	201.96	13.88	15.556			
3,100.00	3,100.00	3,101.50	3,101.50	7.07	7.07	-27.89	190.76	-100.97	215.84	201.70	14.14	15.264			
3,200.00	3,200.00	3,201.50	3,201.50	7.20	7.20	-27.89	190.76	-100.97	215.84	201.44	14.40	14.987			
3,300.00	3,300.00	3,301.50	3,301.50	7.33	7.33	-27.89	190.76	-100.97	215.84	201.18	14.66	14.722	CC, ES		
3,400.00	3,399.98	3,401.48	3,401.48	7.46	7.46	152.31	190.76	-100.97	217.38	202.48	14.90	14.585			
3,500.00	3,499.84	3,501.34	3,501.34	7.87	7.59	152.89	190.76	-100.97	222.03	206.66	15.37	14.442	SF		
3,600.00	3,599.47	3,600.97	3,600.97	8.04	7.71	153.82	190.76	-100.97	229.68	214.04	15.65	14.677			
3,700.00	3,699.02	3,700.52	3,700.52	8.14	7.83	154.82	190.76	-100.97	238.17	222.30	15.88	15.003			
3,800.00	3,798.58	3,800.00	3,800.00	8.28	7.96	155.75	190.76	-100.97	246.73	230.60	16.13	15.298			
3,900.00	3,898.14	3,891.55	3,891.53	8.42	8.16	156.49	192.00	-101.76	256.92	240.45	16.47	15.599			

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 101H - 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)			
4,000.00	3,997.69	3,982.37	3,982.25	8.59	8.53	157.08	195.66	-104.09	270.26	253.29	16.97	15.922	
4,100.00	4,097.25	4,075.06	4,074.66	8.77	8.71	157.52	201.76	-107.97	286.57	269.26	17.30	16.561	
4,200.00	4,196.80	4,173.58	4,172.81	8.96	8.85	157.91	208.86	-112.49	303.63	286.01	17.62	17.234	
4,300.00	4,296.36	4,272.09	4,270.96	9.17	9.00	158.27	215.96	-117.01	320.70	302.73	17.97	17.847	
4,400.00	4,395.92	4,370.61	4,369.12	9.38	9.18	158.58	223.06	-121.53	337.78	319.43	18.35	18.410	
4,500.00	4,495.47	4,469.12	4,467.27	9.61	9.36	158.87	230.16	-126.05	354.87	336.12	18.75	18.929	
4,600.00	4,595.03	4,567.63	4,565.42	9.85	9.56	159.13	237.26	-130.57	371.97	352.80	19.17	19.406	
4,700.00	4,694.59	4,666.15	4,663.58	10.10	9.77	159.37	244.36	-135.08	389.07	369.46	19.61	19.842	
4,800.00	4,794.15	4,764.68	4,761.75	10.33	9.99	153.62	251.46	-139.60	406.07	386.04	20.03	20.269	
4,900.00	4,893.78	4,863.48	4,860.19	10.58	10.22	131.08	258.58	-144.14	421.14	400.63	20.51	20.530	
5,000.00	4,993.42	4,962.51	4,958.86	10.79	10.45	118.91	265.72	-148.68	433.97	413.05	20.92	20.741	
5,100.00	5,093.05	5,061.58	5,057.56	11.01	10.70	119.62	272.86	-153.22	446.48	425.14	21.34	20.922	
5,200.00	5,192.68	5,160.64	5,156.26	11.24	10.95	120.30	280.00	-157.77	459.06	437.28	21.78	21.080	
5,300.00	5,292.31	5,259.71	5,254.97	11.49	11.22	120.94	287.14	-162.31	471.69	449.47	22.22	21.224	
5,400.00	5,391.94	5,358.77	5,353.67	11.74	11.48	121.54	294.28	-166.86	484.38	461.70	22.68	21.356	
5,500.00	5,491.57	5,457.84	5,452.37	12.00	11.76	122.11	301.42	-171.40	497.12	473.97	23.15	21.476	
5,600.00	5,591.20	5,556.90	5,551.08	12.27	12.04	122.66	308.56	-175.95	509.91	486.29	23.62	21.584	
5,700.00	5,690.83	5,655.97	5,649.78	12.55	12.33	123.18	315.70	-180.49	522.74	498.63	24.11	21.683	
5,800.00	5,790.46	5,755.03	5,748.48	12.82	12.60	123.67	322.84	-185.03	535.61	511.03	24.59	21.786	
5,900.00	5,890.09	5,874.49	5,867.66	13.11	12.99	124.31	329.58	-189.33	546.80	521.60	25.20	21.697	
6,000.00	5,989.72	5,996.14	5,989.26	13.40	13.43	125.10	332.15	-190.96	554.07	528.18	25.89	21.402	
6,100.00	6,089.35	6,097.73	6,090.85	13.69	13.59	125.84	332.16	-190.97	559.08	532.79	26.29	21.264	
6,200.00	6,188.98	6,197.36	6,190.48	13.99	13.67	126.54	332.16	-190.97	564.17	537.56	26.61	21.200	
6,300.00	6,288.61	6,296.99	6,290.11	14.30	13.75	127.24	332.16	-190.97	569.34	542.40	26.94	21.137	
6,400.00	6,388.24	6,396.62	6,389.74	14.61	13.83	127.92	332.16	-190.97	574.59	547.33	27.26	21.075	
6,500.00	6,487.87	6,496.25	6,489.37	14.92	13.91	128.58	332.16	-190.97	579.92	552.32	27.60	21.013	
6,600.00	6,587.50	6,595.88	6,589.00	15.23	13.99	129.24	332.16	-190.97	585.33	557.40	27.94	20.952	
6,700.00	6,687.13	6,695.51	6,688.63	15.55	14.07	129.88	332.16	-190.97	590.82	562.54	28.28	20.891	
6,800.00	6,786.76	6,795.14	6,788.26	15.87	14.15	130.52	332.16	-190.97	596.38	567.75	28.63	20.832	
6,900.00	6,886.39	6,894.77	6,887.89	16.20	14.24	131.14	332.16	-190.97	602.01	573.02	28.98	20.773	
7,000.00	6,986.02	6,994.40	6,987.52	16.53	14.32	131.75	332.16	-190.97	607.70	578.37	29.34	20.714	
7,100.00	7,085.65	7,094.03	7,087.15	16.86	14.40	132.34	332.16	-190.97	613.47	583.77	29.70	20.657	
7,200.00	7,185.28	7,193.66	7,186.78	17.19	14.48	132.93	332.16	-190.97	619.30	589.24	30.06	20.601	
7,300.00	7,284.93	7,293.30	7,286.43	17.50	14.56	133.52	332.16	-190.97	625.08	594.67	30.41	20.557	
7,400.00	7,384.76	7,393.13	7,386.26	17.86	14.64	133.96	332.16	-190.97	629.07	598.30	30.77	20.443	
7,500.00	7,484.72	7,493.10	7,486.22	18.23	14.72	134.13	332.16	-190.97	630.66	599.54	31.12	20.265	
7,600.00	7,584.72	7,593.10	7,586.22	18.26	14.81	-4.23	332.16	-190.97	630.68	599.44	31.24	20.188	
7,700.00	7,684.72	7,687.82	7,680.74	18.30	14.94	-4.66	332.10	-195.72	631.01	599.70	31.30	20.157	
7,800.00	7,784.72	7,777.49	7,768.41	18.34	15.25	-6.33	331.83	-214.13	632.74	601.41	31.33	20.197	
7,900.00	7,884.72	7,859.67	7,845.34	18.38	15.61	-8.90	331.42	-242.83	637.20	605.87	31.33	20.340	
8,000.00	7,984.72	7,932.38	7,909.37	18.42	15.96	-11.94	330.93	-277.16	646.20	614.88	31.32	20.629	
8,100.00	8,084.72	8,000.00	7,964.59	18.47	16.29	-15.31	330.38	-316.13	661.54	630.20	31.34	21.109	
8,200.00	8,184.72	8,050.00	8,002.25	18.51	16.53	-18.08	329.91	-348.98	684.44	653.08	31.36	21.827	
8,300.00	8,284.72	8,100.00	8,036.91	18.55	16.76	-21.02	329.40	-384.99	715.65	684.21	31.44	22.764	
8,400.00	8,384.72	8,133.17	8,058.12	18.59	16.91	-23.03	329.03	-410.50	755.06	723.55	31.51	23.964	
8,500.00	8,484.72	8,166.21	8,077.74	18.63	17.06	-25.07	328.65	-437.07	802.31	770.67	31.64	25.359	
8,600.00	8,584.72	8,200.00	8,096.18	18.67	17.22	-27.18	328.25	-465.37	856.64	824.80	31.84	26.903	
8,700.00	8,684.72	8,219.01	8,105.81	18.72	17.31	-28.36	328.02	-481.76	917.10	885.09	32.00	28.655	
8,800.00	8,784.72	8,250.00	8,120.34	18.76	17.47	-30.29	327.63	-509.13	983.02	950.71	32.31	30.426	
8,900.00	8,884.72	8,250.00	8,120.34	18.80	17.47	-30.29	327.63	-509.13	1,053.33	1,020.92	32.40	32.509	
9,000.00	8,984.72	8,275.22	8,131.05	18.85	17.61	-31.84	327.30	-531.95	1,127.39	1,094.64	32.74	34.432	
9,100.00	9,084.72	8,300.00	8,140.59	18.89	17.75	-33.34	326.97	-554.82	1,204.88	1,171.78	33.11	36.393	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 101H - 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:	
Measured Depth	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)			
9,200.00	9,184.72	8,300.00	8,140.59	18.93	17.75	-33.34	326.97	-554.82	1,284.86	1,251.58	33.28	38.611		
9,300.00	9,284.72	8,300.00	8,140.59	18.98	17.75	-33.34	326.97	-554.82	1,367.48	1,334.01	33.46	40.864		
9,400.00	9,384.72	8,324.61	8,149.08	19.02	17.92	-34.81	326.64	-577.91	1,451.60	1,417.71	33.89	42.834		
9,500.00	9,484.72	8,350.00	8,156.78	19.07	18.11	-36.30	326.30	-602.10	1,537.90	1,503.57	34.33	44.794		
9,600.00	9,584.72	8,350.00	8,156.78	19.11	18.11	-36.30	326.30	-602.10	1,625.12	1,590.56	34.56	47.024		
9,700.00	9,684.72	8,350.00	8,156.78	19.16	18.11	-36.30	326.30	-602.10	1,713.74	1,678.95	34.80	49.251		
9,800.00	9,784.72	8,350.00	8,156.78	19.20	18.11	-36.30	326.30	-602.10	1,803.55	1,768.51	35.04	51.468		
9,900.00	9,884.72	8,350.00	8,156.78	19.25	18.11	-36.30	326.30	-602.10	1,894.38	1,859.09	35.30	53.671		

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 102H - 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	
0.00	0.00	0.00	0.00	0.00	0.00	-174.15	-923.08	-94.62	928.01				
100.00	100.00	86.50	86.50	0.43	0.36	-174.15	-923.08	-94.62	927.91	927.12	0.79	1,173.249	
200.00	200.00	186.50	186.50	1.25	1.14	-174.15	-923.08	-94.62	927.91	925.53	2.39	388.595	
300.00	300.00	286.50	286.50	1.75	1.68	-174.15	-923.08	-94.62	927.91	924.49	3.42	271.074	
400.00	400.00	386.50	386.50	2.13	2.08	-174.15	-923.08	-94.62	927.91	923.70	4.21	220.410	
500.00	500.00	486.50	486.50	2.46	2.41	-174.15	-923.08	-94.62	927.91	923.04	4.88	190.328	
600.00	600.00	586.50	586.50	2.75	2.71	-174.15	-923.08	-94.62	927.91	922.45	5.46	169.802	
700.00	700.00	686.50	686.50	3.02	2.98	-174.15	-923.08	-94.62	927.91	921.91	6.00	154.636	
800.00	800.00	786.50	786.50	3.27	3.23	-174.15	-923.08	-94.62	927.91	921.42	6.50	142.833	
900.00	900.00	886.50	886.50	3.50	3.46	-174.15	-923.08	-94.62	927.91	920.95	6.96	133.304	
1,000.00	1,000.00	986.50	986.50	3.72	3.68	-174.15	-923.08	-94.62	927.91	920.51	7.40	125.398	
1,100.00	1,100.00	1,086.50	1,086.50	3.92	3.89	-174.15	-923.08	-94.62	927.91	920.10	7.82	118.698	
1,200.00	1,200.00	1,186.50	1,186.50	4.12	4.09	-174.15	-923.08	-94.62	927.91	919.70	8.22	112.925	
1,300.00	1,300.00	1,286.50	1,286.50	4.31	4.29	-174.15	-923.08	-94.62	927.91	919.31	8.60	107.881	
1,400.00	1,400.00	1,386.50	1,386.50	4.50	4.47	-174.15	-923.08	-94.62	927.91	918.94	8.97	103.424	
1,500.00	1,500.00	1,486.50	1,486.50	4.68	4.65	-174.15	-923.08	-94.62	927.91	918.58	9.33	99.446	
1,600.00	1,600.00	1,586.50	1,586.50	4.85	4.83	-174.15	-923.08	-94.62	927.91	918.23	9.68	95.868	
1,700.00	1,700.00	1,686.50	1,686.50	5.02	5.00	-174.15	-923.08	-94.62	927.91	917.90	10.02	92.625	
1,800.00	1,800.00	1,786.50	1,786.50	5.19	5.16	-174.15	-923.08	-94.62	927.91	917.57	10.35	89.669	
1,900.00	1,900.00	1,886.50	1,886.50	5.35	5.32	-174.15	-923.08	-94.62	927.91	917.24	10.67	86.958	
2,000.00	2,000.00	1,986.50	1,986.50	5.50	5.48	-174.15	-923.08	-94.62	927.91	916.93	10.99	84.461	
2,100.00	2,100.00	2,086.50	2,086.50	5.66	5.64	-174.15	-923.08	-94.62	927.91	916.62	11.30	82.149	
2,200.00	2,200.00	2,186.50	2,186.50	5.81	5.79	-174.15	-923.08	-94.62	927.91	916.32	11.60	80.002	
2,300.00	2,300.00	2,286.50	2,286.50	5.96	5.94	-174.15	-923.08	-94.62	927.91	916.02	11.90	78.001	
2,400.00	2,400.00	2,386.50	2,386.50	6.10	6.08	-174.15	-923.08	-94.62	927.91	915.73	12.19	76.128	
2,500.00	2,500.00	2,486.50	2,486.50	6.25	6.23	-174.15	-923.08	-94.62	927.91	915.44	12.48	74.372	
2,600.00	2,600.00	2,586.50	2,586.50	6.39	6.37	-174.15	-923.08	-94.62	927.91	915.15	12.76	72.720	
2,700.00	2,700.00	2,686.50	2,686.50	6.53	6.51	-174.15	-923.08	-94.62	927.91	914.87	13.04	71.162	
2,800.00	2,800.00	2,786.50	2,786.50	6.67	6.65	-174.15	-923.08	-94.62	927.91	914.60	13.31	69.690	
2,900.00	2,900.00	2,886.50	2,886.50	6.80	6.78	-174.15	-923.08	-94.62	927.91	914.33	13.59	68.296	
3,000.00	3,000.00	2,986.50	2,986.50	6.94	6.92	-174.15	-923.08	-94.62	927.91	914.06	13.86	66.973	
3,100.00	3,100.00	3,086.50	3,086.50	7.07	7.05	-174.15	-923.08	-94.62	927.91	913.79	14.12	65.715	
3,200.00	3,200.00	3,186.50	3,186.50	7.20	7.18	-174.15	-923.08	-94.62	927.91	913.53	14.38	64.517	
3,300.00	3,300.00	3,286.50	3,286.50	7.33	7.31	-174.15	-923.08	-94.62	927.91	913.27	14.64	63.375	
3,400.00	3,399.98	3,386.48	3,386.48	7.46	7.44	5.87	-923.08	-94.62	926.18	911.28	14.90	62.176	
3,500.00	3,499.84	3,486.34	3,486.34	7.87	7.57	5.91	-923.08	-94.62	920.97	905.54	15.43	59.682	
3,600.00	3,599.47	3,585.97	3,585.97	8.04	7.69	5.98	-923.08	-94.62	912.46	896.73	15.73	58.015	
3,700.00	3,699.02	3,685.52	3,685.52	8.14	7.82	6.04	-923.08	-94.62	903.10	887.15	15.95	56.609	
3,800.00	3,798.58	3,785.08	3,785.08	8.28	7.94	6.10	-923.08	-94.62	893.74	877.53	16.21	55.143	
3,900.00	3,898.14	3,884.64	3,884.64	8.42	8.06	6.17	-923.08	-94.62	884.38	867.91	16.48	53.673	
4,000.00	3,997.69	3,984.19	3,984.19	8.59	8.18	6.24	-923.08	-94.62	875.03	858.27	16.76	52.205	
4,100.00	4,097.25	4,083.75	4,083.75	8.77	8.30	6.30	-923.08	-94.62	865.67	848.61	17.06	50.745	
4,200.00	4,196.80	4,183.30	4,183.30	8.96	8.42	6.37	-923.08	-94.62	856.32	838.95	17.37	49.300	
4,300.00	4,296.36	4,282.86	4,282.86	9.17	8.54	6.44	-923.08	-94.62	846.97	829.27	17.69	47.873	
4,400.00	4,395.92	4,382.42	4,382.42	9.38	8.66	6.51	-923.08	-94.62	837.61	819.59	18.03	46.468	
4,500.00	4,495.47	4,481.97	4,481.97	9.61	8.77	6.59	-923.08	-94.62	828.26	809.90	18.37	45.089	
4,600.00	4,595.03	4,565.34	4,565.34	9.85	8.86	6.63	-923.76	-94.33	819.72	801.03	18.69	43.850	
4,700.00	4,694.59	4,645.38	4,645.32	10.10	9.03	6.58	-926.46	-93.16	813.55	794.47	19.08	42.644	
4,800.00	4,794.15	4,734.00	4,733.77	10.33	9.19	0.52	-931.55	-90.96	809.63	790.21	19.42	41.684	
4,900.00	4,893.78	4,833.85	4,833.39	10.58	9.26	-22.67	-937.67	-88.31	807.09	787.34	19.75	40.871	
5,000.00	4,993.42	4,933.53	4,932.85	10.79	9.35	-36.02	-943.77	-85.67	805.74	785.69	20.05	40.187	
5,100.00	5,093.05	5,033.18	5,032.28	11.01	9.46	-36.60	-949.87	-83.03	804.67	784.29	20.38	39.480	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 102H - 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	
5,200.00	5,192.68	5,132.83	5,131.71	11.24	9.58	-37.19	-955.97	-80.40	803.69	782.95	20.73	38.762	
5,300.00	5,292.31	5,232.48	5,231.14	11.49	9.71	-37.78	-962.08	-77.76	802.79	781.69	21.10	38.049	
5,400.00	5,391.94	5,332.13	5,330.56	11.74	9.85	-38.38	-968.18	-75.12	801.98	780.50	21.47	37.345	
5,500.00	5,491.57	5,431.78	5,429.99	12.00	10.01	-38.97	-974.28	-72.48	801.25	779.39	21.86	36.650	
5,600.00	5,591.20	5,531.43	5,529.42	12.27	10.17	-39.56	-980.38	-69.84	800.61	778.35	22.26	35.967	
5,700.00	5,690.83	5,631.09	5,628.85	12.55	10.35	-40.16	-986.48	-67.20	800.06	777.39	22.67	35.297	
5,800.00	5,790.46	5,730.74	5,728.28	12.82	10.53	-40.75	-992.59	-64.56	799.59	776.51	23.08	34.641	
5,900.00	5,890.09	5,830.39	5,827.71	13.11	10.73	-41.35	-998.69	-61.92	799.21	775.71	23.51	34.000	
6,000.00	5,989.72	5,930.04	5,927.13	13.40	10.93	-41.95	-1,004.79	-59.29	798.92	774.98	23.94	33.374	
6,100.00	6,089.35	6,029.69	6,026.56	13.69	11.14	-42.54	-1,010.89	-56.65	798.72	774.34	24.38	32.764	
6,200.00	6,188.98	6,129.34	6,125.99	13.99	11.36	-43.14	-1,016.99	-54.01	798.60	773.78	24.82	32.171	
6,283.44	6,272.11	6,212.48	6,208.95	14.25	11.54	-43.64	-1,022.09	-51.81	798.57	773.37	25.20	31.689	
6,300.00	6,288.61	6,228.99	6,225.42	14.30	11.58	-43.74	-1,023.10	-51.37	798.57	773.30	25.28	31.595	
6,400.00	6,388.24	6,334.29	6,330.49	14.61	11.82	-44.37	-1,029.47	-48.61	798.57	772.84	25.74	31.028	
6,500.00	6,487.87	6,469.22	6,465.32	14.92	12.07	-45.07	-1,033.88	-46.71	795.80	769.61	26.19	30.381	
6,600.00	6,587.50	6,577.90	6,574.00	15.23	12.22	-45.56	-1,034.08	-46.62	789.90	763.32	26.58	29.717	
6,700.00	6,687.13	6,677.53	6,673.63	15.55	12.31	-46.01	-1,034.08	-46.62	783.89	756.98	26.91	29.129	
6,800.00	6,786.76	6,777.16	6,773.26	15.87	12.39	-46.46	-1,034.08	-46.62	777.94	750.72	27.22	28.576	
6,900.00	6,886.39	6,876.79	6,872.89	16.20	12.46	-46.92	-1,034.08	-46.62	772.03	744.50	27.53	28.040	
7,000.00	6,986.02	6,976.42	6,972.52	16.53	12.54	-47.39	-1,034.08	-46.62	766.18	738.34	27.84	27.521	
7,100.00	7,085.65	7,076.05	7,072.15	16.86	12.61	-47.87	-1,034.08	-46.62	760.38	732.23	28.14	27.018	
7,200.00	7,185.28	7,175.68	7,171.78	17.19	12.69	-48.35	-1,034.08	-46.62	754.63	726.18	28.44	26.530	
7,300.00	7,284.93	7,275.32	7,271.43	17.50	12.76	-48.80	-1,034.08	-46.62	749.04	720.33	28.72	26.082	
7,400.00	7,384.76	7,375.15	7,371.26	17.86	12.84	-49.08	-1,034.08	-46.62	745.25	716.23	29.02	25.680	
7,500.00	7,484.72	7,475.12	7,471.22	18.23	12.91	-49.19	-1,034.08	-46.62	743.76	714.43	29.33	25.359	
7,589.74	7,574.47	7,564.86	7,560.97	18.26	12.98	-49.21	-1,034.08	-46.62	743.59	714.16	29.43	25.268	
7,600.00	7,584.72	7,575.12	7,571.22	18.26	12.99	-172.44	-1,034.08	-46.62	743.74	714.30	29.44	25.263	
7,700.00	7,684.72	7,687.10	7,682.82	18.30	13.01	-173.00	-1,034.25	-53.84	743.09	713.56	29.53	25.165	
7,800.00	7,784.72	7,795.53	7,787.63	18.34	13.06	-175.09	-1,034.93	-80.99	741.03	711.30	29.73	24.924	
7,900.00	7,884.72	7,890.99	7,874.24	18.38	13.19	-178.17	-1,035.91	-120.86	739.49	709.43	30.06	24.599	
7,912.23	7,896.96	7,901.64	7,883.45	18.39	13.21	-178.59	-1,036.04	-126.18	739.47	709.36	30.11	24.560 CC, ES	
8,000.00	7,984.72	7,971.41	7,941.23	18.42	13.38	-178.39	-1,037.00	-165.21	741.10	710.61	30.49	24.303	
8,100.00	8,084.72	8,037.62	7,991.29	18.47	13.58	-175.06	-1,038.07	-208.48	748.32	717.33	30.98	24.153 SF	
8,200.00	8,184.72	8,091.73	8,028.27	18.51	13.74	-172.06	-1,039.04	-247.94	762.94	731.46	31.48	24.234	
8,300.00	8,284.72	8,136.04	8,055.68	18.55	13.87	-169.46	-1,039.90	-282.74	786.00	754.05	31.95	24.599	
8,400.00	8,384.72	8,172.59	8,076.20	18.59	14.00	-167.23	-1,040.65	-312.96	817.77	785.41	32.36	25.270	
8,500.00	8,484.72	8,200.00	8,090.31	18.63	14.12	-165.54	-1,041.23	-336.45	857.99	825.33	32.66	26.270	
8,600.00	8,584.72	8,228.60	8,103.81	18.67	14.30	-163.75	-1,041.85	-361.65	905.96	872.99	32.98	27.474	
8,700.00	8,684.72	8,250.00	8,113.08	18.72	14.46	-162.40	-1,042.33	-380.93	960.87	927.68	33.19	28.947	
8,800.00	8,784.72	8,268.97	8,120.69	18.76	14.64	-161.20	-1,042.76	-398.31	1,021.81	988.41	33.40	30.594	
8,900.00	8,884.72	8,285.11	8,126.71	18.80	14.80	-160.19	-1,043.12	-413.27	1,087.93	1,054.35	33.58	32.400	
9,000.00	8,984.72	8,300.00	8,131.89	18.85	14.94	-159.26	-1,043.47	-427.23	1,158.44	1,124.68	33.76	34.316	
9,100.00	9,084.72	8,300.00	8,131.89	18.89	14.94	-159.26	-1,043.47	-427.23	1,232.82	1,199.02	33.80	36.476	
9,200.00	9,184.72	8,322.53	8,139.03	18.93	15.20	-157.85	-1,044.00	-448.59	1,310.06	1,275.95	34.11	38.407	
9,300.00	9,284.72	8,332.29	8,141.86	18.98	15.32	-157.24	-1,044.23	-457.93	1,390.11	1,355.81	34.30	40.526	
9,400.00	9,384.72	8,350.00	8,146.59	19.02	15.52	-156.15	-1,044.65	-474.99	1,472.51	1,437.92	34.59	42.565	
9,500.00	9,484.72	8,350.00	8,146.59	19.07	15.52	-156.15	-1,044.65	-474.99	1,556.67	1,521.94	34.73	44.825	
9,600.00	9,584.72	8,350.00	8,146.59	19.11	15.52	-156.15	-1,044.65	-474.99	1,642.60	1,607.72	34.88	47.089	
9,700.00	9,684.72	8,350.00	8,146.59	19.16	15.52	-156.15	-1,044.65	-474.99	1,730.05	1,694.99	35.06	49.348	
9,800.00	9,784.72	8,350.00	8,146.59	19.20	15.52	-156.15	-1,044.65	-474.99	1,818.79	1,783.54	35.25	51.596	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 201H - 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	Rule Assigned:				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)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	2.50	2.50	0.00	0.01	-32.12	160.57	-100.82	189.60				
100.00	100.00	102.50	102.50	0.43	0.44	-32.12	160.57	-100.82	189.60	188.73	0.87	218.399	
200.00	200.00	202.50	202.50	1.25	1.26	-32.12	160.57	-100.82	189.60	187.09	2.51	75.475	
300.00	300.00	302.50	302.50	1.75	1.75	-32.12	160.57	-100.82	189.60	186.10	3.50	54.176	
400.00	400.00	402.50	402.50	2.13	2.14	-32.12	160.57	-100.82	189.60	185.33	4.27	44.399	
500.00	500.00	502.50	502.50	2.46	2.47	-32.12	160.57	-100.82	189.60	184.67	4.93	38.482	
600.00	600.00	602.50	602.50	2.75	2.76	-32.12	160.57	-100.82	189.60	184.09	5.51	34.405	
700.00	700.00	702.50	702.50	3.02	3.02	-32.12	160.57	-100.82	189.60	183.56	6.04	31.377	
800.00	800.00	802.50	802.50	3.27	3.27	-32.12	160.57	-100.82	189.60	183.07	6.54	29.010	
900.00	900.00	902.50	902.50	3.50	3.50	-32.12	160.57	-100.82	189.60	182.60	7.00	27.095	
1,000.00	1,000.00	1,002.50	1,002.50	3.72	3.72	-32.12	160.57	-100.82	189.60	182.17	7.43	25.503	
1,100.00	1,100.00	1,102.50	1,102.50	3.92	3.93	-32.12	160.57	-100.82	189.60	181.75	7.85	24.151	
1,200.00	1,200.00	1,202.50	1,202.50	4.12	4.13	-32.12	160.57	-100.82	189.60	181.35	8.25	22.985	
1,300.00	1,300.00	1,302.50	1,302.50	4.31	4.32	-32.12	160.57	-100.82	189.60	180.97	8.63	21.965	
1,400.00	1,400.00	1,402.50	1,402.50	4.50	4.50	-32.12	160.57	-100.82	189.60	180.60	9.00	21.063	
1,500.00	1,500.00	1,502.50	1,502.50	4.68	4.68	-32.12	160.57	-100.82	189.60	180.24	9.36	20.258	
1,600.00	1,600.00	1,602.50	1,602.50	4.85	4.85	-32.12	160.57	-100.82	189.60	179.89	9.71	19.533	
1,700.00	1,700.00	1,702.50	1,702.50	5.02	5.02	-32.12	160.57	-100.82	189.60	179.56	10.04	18.875	
1,800.00	1,800.00	1,802.50	1,802.50	5.19	5.19	-32.12	160.57	-100.82	189.60	179.23	10.37	18.276	
1,900.00	1,900.00	1,902.50	1,902.50	5.35	5.35	-32.12	160.57	-100.82	189.60	178.90	10.70	17.725	
2,000.00	2,000.00	2,002.50	2,002.50	5.50	5.51	-32.12	160.57	-100.82	189.60	178.59	11.01	17.218	
2,100.00	2,100.00	2,102.50	2,102.50	5.66	5.66	-32.12	160.57	-100.82	189.60	178.28	11.32	16.749	
2,200.00	2,200.00	2,202.50	2,202.50	5.81	5.81	-32.12	160.57	-100.82	189.60	177.98	11.62	16.313	
2,300.00	2,300.00	2,302.50	2,302.50	5.96	5.96	-32.12	160.57	-100.82	189.60	177.68	11.92	15.906	
2,400.00	2,400.00	2,402.50	2,402.50	6.10	6.11	-32.12	160.57	-100.82	189.60	177.39	12.21	15.526	
2,500.00	2,500.00	2,502.50	2,502.50	6.25	6.25	-32.12	160.57	-100.82	189.60	177.10	12.50	15.169	
2,600.00	2,600.00	2,602.50	2,602.50	6.39	6.39	-32.12	160.57	-100.82	189.60	176.82	12.78	14.833	
2,700.00	2,700.00	2,702.50	2,702.50	6.53	6.53	-32.12	160.57	-100.82	189.60	176.54	13.06	14.516	
2,800.00	2,800.00	2,802.50	2,802.50	6.67	6.67	-32.12	160.57	-100.82	189.60	176.26	13.34	14.216	
2,900.00	2,900.00	2,902.50	2,902.50	6.80	6.81	-32.12	160.57	-100.82	189.60	175.99	13.61	13.933	
3,000.00	3,000.00	3,002.50	3,002.50	6.94	6.94	-32.12	160.57	-100.82	189.60	175.72	13.88	13.663	
3,100.00	3,100.00	3,102.50	3,102.50	7.07	7.07	-32.12	160.57	-100.82	189.60	175.46	14.14	13.407	
3,200.00	3,200.00	3,202.50	3,202.50	7.20	7.20	-32.12	160.57	-100.82	189.60	175.20	14.40	13.164	
3,300.00	3,300.00	3,302.50	3,302.50	7.33	7.33	-32.12	160.57	-100.82	189.60	174.94	14.66	12.931 CC, ES	
3,400.00	3,399.98	3,402.48	3,402.48	7.46	7.46	148.14	160.57	-100.82	191.08	176.18	14.90	12.822	
3,500.00	3,499.84	3,502.34	3,502.34	7.87	7.59	148.90	160.57	-100.82	195.55	180.19	15.35	12.737 SF	
3,600.00	3,599.47	3,601.97	3,601.97	8.04	7.71	150.10	160.57	-100.82	202.93	187.31	15.62	12.990	
3,700.00	3,699.02	3,701.52	3,701.52	8.14	7.84	151.37	160.57	-100.82	211.15	195.30	15.85	13.323	
3,800.00	3,798.58	3,800.00	3,800.00	8.28	7.96	152.53	160.57	-100.82	219.46	203.36	16.10	13.631	
3,900.00	3,898.14	3,898.09	3,898.07	8.42	8.17	154.01	161.76	-99.64	228.42	212.04	16.38	13.945	
4,000.00	3,997.69	3,996.44	3,996.33	8.59	8.27	155.96	164.77	-96.63	238.44	221.82	16.62	14.346	
4,100.00	4,097.25	4,095.60	4,095.39	8.77	8.39	157.80	167.92	-93.47	248.78	231.86	16.92	14.706	
4,200.00	4,196.80	4,194.76	4,194.44	8.96	8.54	159.50	171.07	-90.32	259.36	242.12	17.24	15.047	
4,300.00	4,296.36	4,293.91	4,293.50	9.17	8.69	161.06	174.23	-87.17	270.15	252.57	17.57	15.373	
4,400.00	4,395.92	4,393.07	4,392.56	9.38	8.85	162.50	177.38	-84.02	281.11	263.19	17.92	15.683	
4,500.00	4,495.47	4,492.22	4,491.61	9.61	9.03	163.83	180.53	-80.86	292.25	273.96	18.29	15.977	
4,600.00	4,595.03	4,591.38	4,590.67	9.85	9.21	165.07	183.68	-77.71	303.53	284.85	18.67	16.255	
4,700.00	4,694.59	4,690.54	4,689.72	10.10	9.40	166.21	186.84	-74.56	314.93	295.86	19.07	16.515	
4,800.00	4,794.15	4,789.70	4,788.78	10.33	9.59	161.34	189.99	-71.41	326.36	306.91	19.45	16.783	
4,900.00	4,893.78	4,888.89	4,887.88	10.58	9.80	139.75	193.14	-68.25	336.23	316.36	19.87	16.922	
5,000.00	4,993.42	4,988.05	4,986.94	10.79	10.01	128.59	196.29	-65.10	344.38	324.14	20.24	17.016	
5,100.00	5,093.05	5,087.20	5,085.98	11.01	10.22	130.27	199.45	-61.95	352.51	331.89	20.63	17.090	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 201H - 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)	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	
5,200.00	5,192.68	5,186.34	5,185.02	11.24	10.44	131.87	202.60	-58.80	360.93	339.90	21.04	17.156	
5,300.00	5,292.31	5,285.48	5,284.07	11.49	10.67	133.39	205.75	-55.64	369.63	348.16	21.47	17.219	
5,400.00	5,391.94	5,385.78	5,384.26	11.74	10.89	134.86	208.92	-52.48	378.55	356.66	21.89	17.294	
5,500.00	5,491.57	5,495.02	5,493.47	12.00	11.11	136.11	210.57	-50.83	386.12	363.73	22.40	17.239	
5,600.00	5,591.20	5,595.25	5,593.70	12.27	11.26	136.99	210.57	-50.82	392.38	369.52	22.86	17.166	
5,700.00	5,690.83	5,694.88	5,693.33	12.55	11.36	137.83	210.57	-50.82	398.72	375.48	23.24	17.157	
5,800.00	5,790.46	5,794.51	5,792.96	12.82	11.45	138.64	210.57	-50.82	405.14	381.51	23.62	17.152	
5,900.00	5,890.09	5,894.14	5,892.59	13.11	11.54	139.43	210.57	-50.82	411.63	387.63	24.01	17.146	
6,000.00	5,989.72	5,993.77	5,992.22	13.40	11.64	140.20	210.57	-50.82	418.21	393.81	24.40	17.141	
6,100.00	6,089.35	6,093.40	6,091.85	13.69	11.73	140.94	210.57	-50.82	424.86	400.06	24.79	17.137	
6,200.00	6,188.98	6,193.03	6,191.48	13.99	11.82	141.65	210.57	-50.82	431.57	406.38	25.19	17.133	
6,300.00	6,288.61	6,292.66	6,291.11	14.30	11.92	142.35	210.57	-50.82	438.35	412.76	25.59	17.129	
6,400.00	6,388.24	6,392.29	6,390.74	14.61	12.01	143.02	210.57	-50.82	445.19	419.20	26.00	17.125	
6,500.00	6,487.87	6,491.92	6,490.37	14.92	12.10	143.68	210.57	-50.82	452.10	425.69	26.40	17.122	
6,600.00	6,587.50	6,591.55	6,590.00	15.23	12.20	144.31	210.57	-50.82	459.06	432.24	26.82	17.119	
6,700.00	6,687.13	6,691.18	6,689.63	15.55	12.29	144.93	210.57	-50.82	466.07	438.84	27.23	17.116	
6,800.00	6,786.76	6,790.81	6,789.26	15.87	12.38	145.53	210.57	-50.82	473.14	445.49	27.65	17.113	
6,900.00	6,886.39	6,890.44	6,888.89	16.20	12.47	146.11	210.57	-50.82	480.26	452.19	28.07	17.111	
7,000.00	6,986.02	6,990.07	6,988.52	16.53	12.56	146.67	210.57	-50.82	487.42	458.93	28.49	17.109	
7,100.00	7,085.65	7,089.70	7,088.15	16.86	12.66	147.21	210.57	-50.82	494.63	465.72	28.91	17.107	
7,200.00	7,185.28	7,189.33	7,187.78	17.19	12.75	147.75	210.57	-50.82	501.88	472.54	29.34	17.106	
7,300.00	7,284.93	7,288.97	7,287.43	17.50	12.84	148.27	210.57	-50.82	509.03	479.29	29.75	17.112	
7,400.00	7,384.76	7,388.80	7,387.26	17.86	12.93	148.66	210.57	-50.82	513.95	483.77	30.18	17.030	
7,500.00	7,484.72	7,488.77	7,487.22	18.23	13.02	148.81	210.57	-50.82	515.90	485.30	30.60	16.858	
7,600.00	7,584.72	7,588.77	7,587.22	18.26	13.11	10.45	210.57	-50.82	515.93	485.20	30.73	16.788	
7,700.00	7,684.72	7,688.77	7,687.22	18.30	13.21	10.45	210.57	-50.82	515.93	485.07	30.87	16.715	
7,800.00	7,784.72	7,788.77	7,787.22	18.34	13.30	10.45	210.57	-50.82	515.93	484.93	31.00	16.643	
7,900.00	7,884.72	7,888.77	7,887.22	18.38	13.39	10.45	210.57	-50.82	515.93	484.80	31.14	16.571	
8,000.00	7,984.72	7,993.33	7,991.65	18.42	13.43	10.05	210.93	-54.45	515.66	484.47	31.19	16.531	
8,100.00	8,084.72	8,096.66	8,092.72	18.47	13.64	7.74	213.00	-75.15	514.52	483.42	31.10	16.543	
8,156.86	8,141.58	8,151.18	8,144.08	18.49	13.81	5.71	214.82	-93.27	514.17	483.17	30.99	16.589	
8,200.00	8,184.72	8,189.94	8,179.44	18.51	13.94	3.94	216.40	-109.07	514.47	483.58	30.89	16.653	
8,300.00	8,284.72	8,270.46	8,249.00	18.55	14.23	-0.54	220.42	-149.28	518.65	488.01	30.64	16.927	
8,400.00	8,384.72	8,338.13	8,302.62	18.59	14.45	-5.03	224.52	-190.31	530.13	499.71	30.42	17.427	
8,500.00	8,484.72	8,400.00	8,347.07	18.63	14.63	-9.57	228.79	-233.08	551.14	520.85	30.29	18.196	
8,600.00	8,584.72	8,440.91	8,373.81	18.67	14.74	-12.73	231.87	-263.87	582.50	552.19	30.31	19.218	
8,700.00	8,684.72	8,479.66	8,397.04	18.72	14.83	-15.78	234.96	-294.72	624.15	593.70	30.45	20.496	
8,800.00	8,784.72	8,512.12	8,414.85	18.76	14.90	-18.35	237.66	-321.73	675.09	644.39	30.70	21.992	
8,900.00	8,884.72	8,550.00	8,433.65	18.80	14.98	-21.33	240.93	-354.44	734.16	703.12	31.05	23.648	
9,000.00	8,984.72	8,562.92	8,439.56	18.85	15.02	-22.34	242.07	-365.87	799.60	768.21	31.39	25.472	
9,100.00	9,084.72	8,583.02	8,448.23	18.89	15.08	-23.89	243.88	-383.92	870.63	838.84	31.79	27.386	
9,200.00	9,184.72	8,600.00	8,455.06	18.93	15.15	-25.18	245.42	-399.38	946.08	913.88	32.20	29.384	
9,300.00	9,284.72	8,615.68	8,460.96	18.98	15.25	-26.36	246.87	-413.83	1,025.12	992.51	32.61	31.432	
9,400.00	9,384.72	8,629.08	8,465.68	19.02	15.36	-27.35	248.12	-426.31	1,107.09	1,074.06	33.02	33.523	
9,500.00	9,484.72	8,650.00	8,472.46	19.07	15.55	-28.87	250.09	-446.01	1,191.55	1,158.07	33.48	35.592	
9,600.00	9,584.72	8,650.00	8,472.46	19.11	15.55	-28.87	250.09	-446.01	1,277.79	1,243.97	33.82	37.783	
9,700.00	9,684.72	8,650.00	8,472.46	19.16	15.55	-28.87	250.09	-446.01	1,365.90	1,331.75	34.16	39.991	
9,800.00	9,784.72	8,669.56	8,478.14	19.20	15.77	-30.26	251.95	-464.63	1,455.11	1,420.50	34.61	42.045	
9,900.00	9,884.72	8,677.30	8,480.21	19.25	15.86	-30.80	252.69	-472.05	1,545.62	1,510.63	34.99	44.173	
10,000.00	9,984.72	8,700.00	8,485.71	19.29	16.13	-32.36	254.88	-493.96	1,637.40	1,601.94	35.46	46.171	
10,100.00	10,084.72	8,700.00	8,485.71	19.34	16.13	-32.36	254.88	-493.96	1,729.56	1,693.76	35.80	48.313	
10,200.00	10,184.72	8,700.00	8,485.71	19.39	16.13	-32.36	254.88	-493.96	1,822.55	1,786.42	36.13	50.439	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum



FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 202H - 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)					
0.00	0.00	0.00	0.00	0.00	0.00	-174.34	-952.91	-94.48	957.67						
100.00	100.00	86.50	86.50	0.43	0.36	-174.34	-952.91	-94.48	957.58	956.79	0.79	1,210.755			
200.00	200.00	186.50	186.50	1.25	1.14	-174.34	-952.91	-94.48	957.58	955.19	2.39	401.017			
300.00	300.00	286.50	286.50	1.75	1.68	-174.34	-952.91	-94.48	957.58	954.15	3.42	279.740			
400.00	400.00	386.50	386.50	2.13	2.08	-174.34	-952.91	-94.48	957.58	953.37	4.21	227.456			
500.00	500.00	486.50	486.50	2.46	2.41	-174.34	-952.91	-94.48	957.58	952.70	4.88	196.413			
600.00	600.00	586.50	586.50	2.75	2.71	-174.34	-952.91	-94.48	957.58	952.11	5.46	175.231			
700.00	700.00	686.50	686.50	3.02	2.98	-174.34	-952.91	-94.48	957.58	951.58	6.00	159.579			
800.00	800.00	786.50	786.50	3.27	3.23	-174.34	-952.91	-94.48	957.58	951.08	6.50	147.399			
900.00	900.00	886.50	886.50	3.50	3.46	-174.34	-952.91	-94.48	957.58	950.62	6.96	137.565			
1,000.00	1,000.00	986.50	986.50	3.72	3.68	-174.34	-952.91	-94.48	957.58	950.18	7.40	129.406			
1,100.00	1,100.00	1,086.50	1,086.50	3.92	3.89	-174.34	-952.91	-94.48	957.58	949.76	7.82	122.493			
1,200.00	1,200.00	1,186.50	1,186.50	4.12	4.09	-174.34	-952.91	-94.48	957.58	949.36	8.22	116.535			
1,300.00	1,300.00	1,286.50	1,286.50	4.31	4.29	-174.34	-952.91	-94.48	957.58	948.98	8.60	111.330			
1,400.00	1,400.00	1,386.50	1,386.50	4.50	4.47	-174.34	-952.91	-94.48	957.58	948.61	8.97	106.730			
1,500.00	1,500.00	1,486.50	1,486.50	4.68	4.65	-174.34	-952.91	-94.48	957.58	948.25	9.33	102.625			
1,600.00	1,600.00	1,586.50	1,586.50	4.85	4.83	-174.34	-952.91	-94.48	957.58	947.90	9.68	98.933			
1,700.00	1,700.00	1,686.50	1,686.50	5.02	5.00	-174.34	-952.91	-94.48	957.58	947.56	10.02	95.586			
1,800.00	1,800.00	1,786.50	1,786.50	5.19	5.16	-174.34	-952.91	-94.48	957.58	947.23	10.35	92.535			
1,900.00	1,900.00	1,886.50	1,886.50	5.35	5.32	-174.34	-952.91	-94.48	957.58	946.91	10.67	89.738			
2,000.00	2,000.00	1,986.50	1,986.50	5.50	5.48	-174.34	-952.91	-94.48	957.58	946.59	10.99	87.161			
2,100.00	2,100.00	2,086.50	2,086.50	5.66	5.64	-174.34	-952.91	-94.48	957.58	946.28	11.30	84.776			
2,200.00	2,200.00	2,186.50	2,186.50	5.81	5.79	-174.34	-952.91	-94.48	957.58	945.98	11.60	82.560			
2,300.00	2,300.00	2,286.50	2,286.50	5.96	5.94	-174.34	-952.91	-94.48	957.58	945.68	11.90	80.494			
2,400.00	2,400.00	2,386.50	2,386.50	6.10	6.08	-174.34	-952.91	-94.48	957.58	945.39	12.19	78.562			
2,500.00	2,500.00	2,486.50	2,486.50	6.25	6.23	-174.34	-952.91	-94.48	957.58	945.10	12.48	76.750			
2,600.00	2,600.00	2,586.50	2,586.50	6.39	6.37	-174.34	-952.91	-94.48	957.58	944.82	12.76	75.045			
2,700.00	2,700.00	2,686.50	2,686.50	6.53	6.51	-174.34	-952.91	-94.48	957.58	944.54	13.04	73.437			
2,800.00	2,800.00	2,786.50	2,786.50	6.67	6.65	-174.34	-952.91	-94.48	957.58	944.26	13.31	71.918			
2,900.00	2,900.00	2,886.50	2,886.50	6.80	6.78	-174.34	-952.91	-94.48	957.58	943.99	13.59	70.479			
3,000.00	3,000.00	2,986.50	2,986.50	6.94	6.92	-174.34	-952.91	-94.48	957.58	943.72	13.86	69.114			
3,100.00	3,100.00	3,086.50	3,086.50	7.07	7.05	-174.34	-952.91	-94.48	957.58	943.46	14.12	67.816			
3,200.00	3,200.00	3,186.50	3,186.50	7.20	7.18	-174.34	-952.91	-94.48	957.58	943.20	14.38	66.580			
3,300.00	3,300.00	3,286.50	3,286.50	7.33	7.31	-174.34	-952.91	-94.48	957.58	942.94	14.64	65.401			
3,400.00	3,399.98	3,386.48	3,386.48	7.46	7.44	5.68	-952.91	-94.48	955.84	940.94	14.90	64.168			
3,500.00	3,499.84	3,486.34	3,486.34	7.87	7.57	5.72	-952.91	-94.48	950.63	935.20	15.43	61.603			
3,600.00	3,599.47	3,585.97	3,585.97	8.04	7.69	5.78	-952.91	-94.48	942.12	926.39	15.73	59.899			
3,700.00	3,699.02	3,685.52	3,685.52	8.14	7.82	5.84	-952.91	-94.48	932.75	916.80	15.95	58.466			
3,800.00	3,798.58	3,785.08	3,785.08	8.28	7.94	5.90	-952.91	-94.48	923.39	907.18	16.21	56.971			
3,900.00	3,898.14	3,864.19	3,864.19	8.42	8.03	5.95	-953.61	-94.60	914.98	898.53	16.45	55.630			
4,000.00	3,997.69	3,939.96	3,939.91	8.59	8.14	6.01	-956.27	-95.08	909.16	892.45	16.71	54.418			
4,100.00	4,097.25	4,033.31	4,033.11	8.77	8.21	6.09	-961.35	-95.98	905.29	888.34	16.95	53.405			
4,200.00	4,196.80	4,133.23	4,132.87	8.96	8.29	6.18	-966.87	-96.96	901.51	884.29	17.23	52.328			
4,300.00	4,296.36	4,233.15	4,232.63	9.17	8.39	6.27	-972.38	-97.94	897.74	880.20	17.54	51.186			
4,400.00	4,395.92	4,333.06	4,332.39	9.38	8.51	6.36	-977.90	-98.93	893.97	876.10	17.87	50.014			
4,500.00	4,495.47	4,432.98	4,432.16	9.61	8.64	6.45	-983.41	-99.91	890.21	871.97	18.23	48.822			
4,600.00	4,595.03	4,532.90	4,531.92	9.85	8.78	6.54	-988.93	-100.89	886.44	867.83	18.62	47.618			
4,700.00	4,694.59	4,632.82	4,631.68	10.10	8.94	6.63	-994.45	-101.87	882.68	863.66	19.02	46.412			
4,800.00	4,794.15	4,732.74	4,731.45	10.33	9.10	0.79	-999.96	-102.86	878.98	859.57	19.41	45.290			
4,900.00	4,893.78	4,832.69	4,831.24	10.58	9.28	-22.14	-1,005.48	-103.84	876.22	856.38	19.84	44.170			
5,000.00	4,993.42	4,932.59	4,930.98	10.79	9.46	-35.20	-1,011.00	-104.82	874.59	854.35	20.23	43.223			
5,100.00	5,093.05	5,032.48	5,030.71	11.01	9.65	-35.50	-1,016.51	-105.80	873.17	852.51	20.66	42.263			

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 202H - 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	
5,200.00	5,192.68	5,132.36	5,130.44	11.24	9.86	-35.81	-1,022.02	-106.78	871.77	850.67	21.11	41.306	
5,300.00	5,292.31	5,232.25	5,230.16	11.49	10.07	-36.11	-1,027.54	-107.77	870.40	848.84	21.56	40.369	
5,400.00	5,391.94	5,332.13	5,329.89	11.74	10.28	-36.41	-1,033.05	-108.75	869.06	847.03	22.03	39.454	
5,500.00	5,491.57	5,432.02	5,429.62	12.00	10.51	-36.72	-1,038.57	-109.73	867.74	845.24	22.50	38.563	
5,600.00	5,591.20	5,531.90	5,529.34	12.27	10.74	-37.02	-1,044.08	-110.71	866.44	843.46	22.98	37.697	
5,700.00	5,690.83	5,631.78	5,629.07	12.55	10.98	-37.33	-1,049.59	-111.69	865.17	841.70	23.47	36.856	
5,800.00	5,790.46	5,731.67	5,728.80	12.82	11.22	-37.64	-1,055.11	-112.68	863.93	839.96	23.97	36.040	
5,900.00	5,890.09	5,831.55	5,828.52	13.11	11.47	-37.95	-1,060.62	-113.66	862.71	838.23	24.47	35.249	
6,000.00	5,989.72	5,931.44	5,928.25	13.40	11.73	-38.26	-1,066.14	-114.64	861.51	836.53	24.98	34.484	
6,100.00	6,089.35	6,031.32	6,027.98	13.69	11.98	-38.57	-1,071.65	-115.62	860.34	834.85	25.50	33.745	
6,200.00	6,188.98	6,131.20	6,127.70	13.99	12.25	-38.88	-1,077.16	-116.60	859.20	833.18	26.01	33.029	
6,300.00	6,288.61	6,231.09	6,227.43	14.30	12.51	-39.19	-1,082.68	-117.58	858.08	831.54	26.53	32.339	
6,400.00	6,388.24	6,330.97	6,327.16	14.61	12.78	-39.50	-1,088.19	-118.57	856.98	829.94	27.05	31.685	
6,500.00	6,487.87	6,467.57	6,463.65	14.92	13.05	-39.96	-1,093.08	-119.44	854.03	826.48	27.55	30.996	
6,600.00	6,587.50	6,577.92	6,574.00	15.23	13.20	-40.37	-1,093.31	-119.48	847.62	819.67	27.94	30.332	
6,700.00	6,687.13	6,677.55	6,673.63	15.55	13.28	-40.75	-1,093.31	-119.48	841.08	812.81	28.27	29.752	
6,800.00	6,786.76	6,777.18	6,773.26	15.87	13.34	-41.13	-1,093.31	-119.48	834.58	806.00	28.58	29.203	
6,900.00	6,886.39	6,876.81	6,872.89	16.20	13.40	-41.52	-1,093.31	-119.48	828.12	799.23	28.89	28.669	
7,000.00	6,986.02	6,976.44	6,972.52	16.53	13.46	-41.92	-1,093.31	-119.48	821.69	792.50	29.19	28.149	
7,100.00	7,085.65	7,076.07	7,072.15	16.86	13.53	-42.32	-1,093.31	-119.48	815.31	785.81	29.49	27.643	
7,200.00	7,185.28	7,175.70	7,171.78	17.19	13.59	-42.73	-1,093.31	-119.48	808.96	779.17	29.80	27.150	
7,300.00	7,284.93	7,275.34	7,271.43	17.50	13.65	-43.11	-1,093.31	-119.48	802.79	772.71	30.07	26.695	
7,400.00	7,384.76	7,375.17	7,371.26	17.86	13.72	-43.34	-1,093.31	-119.48	798.58	768.20	30.38	26.283	
7,500.00	7,484.72	7,475.14	7,471.22	18.23	13.78	-43.43	-1,093.31	-119.48	796.93	766.22	30.71	25.953	
7,589.74	7,574.47	7,564.88	7,560.97	18.26	13.84	-43.44	-1,093.31	-119.48	796.73	765.94	30.80	25.872	
7,600.00	7,584.72	7,575.14	7,571.22	18.26	13.84	178.21	-1,093.31	-119.48	796.90	766.09	30.81	25.867	
7,700.00	7,684.72	7,675.14	7,671.22	18.30	13.91	178.21	-1,093.31	-119.48	796.90	765.98	30.91	25.779	
7,800.00	7,784.72	7,775.14	7,771.22	18.34	13.97	178.21	-1,093.31	-119.48	796.90	765.87	31.02	25.689	
7,900.00	7,884.72	7,875.14	7,871.22	18.38	14.04	178.21	-1,093.31	-119.48	796.90	765.77	31.13	25.599	
8,000.00	7,984.72	7,975.14	7,971.22	18.42	14.09	178.44	-1,093.32	-122.73	796.82	765.59	31.23	25.516	
8,094.06	8,078.79	8,071.09	8,065.29	18.46	14.21	179.71	-1,093.41	-140.32	796.62	765.19	31.43	25.344 CC	
8,100.00	8,084.72	8,076.80	8,070.78	18.47	14.22	179.82	-1,093.42	-141.88	796.62	765.18	31.45	25.330 ES	
8,200.00	8,184.72	8,167.45	8,155.54	18.51	14.42	-177.89	-1,093.58	-173.75	797.48	765.67	31.81	25.073	
8,300.00	8,284.72	8,246.46	8,224.53	18.55	14.66	-175.14	-1,093.78	-212.13	801.21	768.95	32.26	24.837	
8,400.00	8,384.72	8,313.50	8,278.47	18.59	14.91	-172.32	-1,093.99	-251.88	809.73	776.96	32.77	24.710 SF	
8,500.00	8,484.72	8,369.66	8,319.82	18.63	15.15	-169.66	-1,094.18	-289.84	824.55	791.27	33.29	24.772	
8,600.00	8,584.72	8,416.53	8,351.36	18.67	15.37	-167.28	-1,094.36	-324.51	846.68	812.91	33.77	25.072	
8,700.00	8,684.72	8,450.00	8,372.09	18.72	15.53	-165.50	-1,094.49	-350.77	876.57	842.44	34.13	25.682	
8,800.00	8,784.72	8,488.78	8,394.14	18.76	15.74	-163.37	-1,094.66	-382.67	914.07	879.51	34.56	26.451	
8,900.00	8,884.72	8,516.79	8,408.70	18.80	15.91	-161.81	-1,094.78	-406.58	958.87	924.01	34.86	27.507	
9,000.00	8,984.72	8,550.00	8,424.43	18.85	16.12	-159.94	-1,094.93	-435.83	1,010.40	975.19	35.21	28.693	
9,100.00	9,084.72	8,550.00	8,424.43	18.89	16.12	-159.94	-1,094.93	-435.83	1,067.84	1,032.65	35.19	30.349	
9,200.00	9,184.72	8,579.29	8,436.87	18.93	16.34	-158.28	-1,095.07	-462.34	1,130.30	1,094.78	35.52	31.825	
9,300.00	9,284.72	8,600.00	8,444.84	18.98	16.50	-157.11	-1,095.16	-481.46	1,197.45	1,161.70	35.75	33.491	
9,400.00	9,384.72	8,600.00	8,444.84	19.02	16.50	-157.11	-1,095.16	-481.46	1,268.53	1,232.75	35.78	35.458	
9,500.00	9,484.72	8,621.06	8,452.23	19.07	16.69	-155.93	-1,095.27	-501.17	1,342.82	1,306.76	36.06	37.236	
9,600.00	9,584.72	8,632.00	8,455.79	19.11	16.79	-155.31	-1,095.32	-511.52	1,420.07	1,383.81	36.25	39.170	
9,700.00	9,684.72	8,650.00	8,461.20	19.16	16.96	-154.30	-1,095.41	-528.69	1,499.86	1,463.32	36.54	41.047	
9,800.00	9,784.72	8,650.00	8,461.20	19.20	16.96	-154.30	-1,095.41	-528.69	1,581.64	1,544.99	36.66	43.148	
9,900.00	9,884.72	8,650.00	8,461.20	19.25	16.96	-154.30	-1,095.41	-528.69	1,665.41	1,628.62	36.80	45.261	
10,000.00	9,984.72	8,650.00	8,461.20	19.29	16.96	-154.30	-1,095.41	-528.69	1,750.89	1,713.93	36.96	47.378	
10,100.00	10,084.72	8,672.62	8,467.24	19.34	17.21	-153.05	-1,095.52	-550.48	1,837.28	1,799.92	37.36	49.177	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 501H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 176-MWD, 1024-MWD, 3709-MWD, 15915-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	1.51	1.51	0.00	0.01	-101.04	-19.49	-99.95	101.83					
100.00	100.00	102.07	102.07	0.43	0.61	-100.96	-19.30	-99.69	101.54	100.51	1.03	98.152		
200.00	200.00	202.64	202.63	1.25	1.21	-100.73	-18.75	-98.93	100.70	98.24	2.46	40.994		
300.00	300.00	302.83	302.81	1.75	1.75	-100.49	-18.09	-97.69	99.36	95.87	3.49	28.499		
400.00	400.00	402.41	402.38	2.13	2.15	-100.13	-17.27	-96.72	98.25	93.99	4.26	23.064		
500.00	500.00	502.07	502.03	2.46	2.50	-99.33	-15.82	-96.25	97.54	92.64	4.90	19.896		
600.00	600.00	601.87	601.82	2.75	2.82	-98.19	-13.84	-96.13	97.12	91.66	5.46	17.785		
700.00	700.00	701.60	701.52	3.02	3.13	-96.91	-11.66	-96.23	96.93	90.97	5.96	16.263		
800.00	800.00	802.03	801.92	3.27	3.44	-95.38	-9.08	-96.34	96.77	90.34	6.42	15.064		
859.93	859.93	861.58	861.43	3.40	3.62	-94.28	-7.22	-96.34	96.61	89.93	6.68	14.459		
900.00	900.00	901.31	901.15	3.50	3.75	-93.51	-5.92	-96.50	96.68	89.83	6.85	14.110		
971.27	971.27	972.97	972.77	3.65	3.91	-92.14	-3.61	-96.60	96.67	89.56	7.11	13.604		
1,000.00	1,000.00	1,001.62	1,001.40	3.72	3.97	-91.67	-2.81	-96.64	96.68	89.46	7.22	13.387		
1,100.00	1,100.00	1,101.66	1,101.43	3.92	4.12	-90.51	-0.87	-96.80	96.80	89.22	7.58	12.774		
1,200.00	1,200.00	1,201.61	1,201.38	4.12	4.25	-90.69	-1.17	-96.87	96.88	88.83	8.04	12.045		
1,300.00	1,300.00	1,301.45	1,301.20	4.31	4.42	-91.51	-2.56	-97.09	97.13	88.59	8.53	11.381		
1,400.00	1,400.00	1,401.52	1,401.26	4.50	4.57	-92.41	-4.09	-97.31	97.40	88.52	8.88	10.973		
1,500.00	1,500.00	1,501.60	1,501.33	4.68	4.73	-93.36	-5.72	-97.45	97.62	88.41	9.21	10.600		
1,600.00	1,600.00	1,601.67	1,601.39	4.85	4.90	-94.18	-7.12	-97.49	97.75	88.21	9.53	10.252		
1,700.00	1,700.00	1,701.70	1,701.41	5.02	5.07	-94.89	-8.34	-97.50	97.86	88.00	9.85	9.932		
1,800.00	1,800.00	1,801.53	1,801.23	5.19	5.25	-95.55	-9.48	-97.53	97.99	87.83	10.16	9.643		
1,900.00	1,900.00	1,901.22	1,900.91	5.35	5.43	-96.33	-10.84	-97.83	98.43	87.96	10.47	9.402		
2,000.00	2,000.00	2,001.24	2,000.92	5.50	5.63	-97.16	-12.35	-98.28	99.06	88.29	10.77	9.195		
2,100.00	2,100.00	2,101.61	2,101.28	5.66	5.83	-98.04	-13.91	-98.51	99.48	88.41	11.07	8.984		
2,200.00	2,200.00	2,201.73	2,201.40	5.81	6.02	-98.83	-15.29	-98.45	99.63	88.26	11.36	8.767		
2,300.00	2,300.00	2,301.50	2,301.15	5.96	6.23	-99.60	-16.66	-98.45	99.85	88.20	11.65	8.569		
2,400.00	2,400.00	2,401.38	2,401.03	6.10	6.43	-100.25	-17.85	-98.67	100.27	88.33	11.94	8.396		
2,500.00	2,500.00	2,501.51	2,501.15	6.25	6.63	-100.71	-18.71	-98.92	100.68	88.44	12.23	8.231		
2,600.00	2,600.00	2,601.53	2,601.17	6.39	6.83	-101.10	-19.44	-99.13	101.02	88.50	12.52	8.071		
2,700.00	2,700.00	2,701.58	2,701.22	6.53	7.03	-101.35	-19.94	-99.33	101.31	88.52	12.80	7.917		
2,800.00	2,800.00	2,801.54	2,801.18	6.67	7.21	-101.55	-20.34	-99.54	101.60	88.52	13.08	7.768		
2,900.00	2,900.00	2,901.37	2,901.00	6.80	7.39	-101.71	-20.70	-99.86	101.98	88.62	13.36	7.632		
3,000.00	3,000.00	3,001.31	3,000.95	6.94	7.58	-101.93	-21.21	-100.34	102.56	88.91	13.65	7.514		
3,100.00	3,100.00	3,101.63	3,101.26	7.07	7.77	-102.17	-21.71	-100.65	102.97	89.04	13.93	7.393		
3,200.00	3,200.00	3,201.93	3,201.56	7.20	7.95	-102.45	-22.22	-100.61	103.04	88.85	14.18	7.265		
3,300.00	3,300.00	3,302.03	3,301.66	7.33	8.13	-102.86	-22.91	-100.32	102.91	88.48	14.42	7.134		
3,400.00	3,399.98	3,402.51	3,402.14	7.46	8.29	77.66	-23.62	-99.82	102.19	87.62	14.58	7.011		
3,500.00	3,499.84	3,502.59	3,502.21	7.87	8.45	80.01	-24.49	-98.83	100.37	85.69	14.69	6.835		
3,600.00	3,599.47	3,602.77	3,602.37	8.04	8.61	84.20	-25.62	-97.54	98.07	83.35	14.72	6.663		
3,700.00	3,699.02	3,702.02	3,701.61	8.14	8.71	89.02	-26.70	-96.25	96.27	81.49	14.79	6.511		
3,800.00	3,798.58	3,802.26	3,801.83	8.28	8.83	93.91	-28.00	-94.94	95.17	80.22	14.95	6.365		
3,900.00	3,898.14	3,903.92	3,903.23	8.42	9.29	95.92	-34.47	-92.63	93.16	77.83	15.33	6.078		
4,000.00	3,997.69	4,005.29	4,003.77	8.59	10.01	94.30	-46.88	-89.09	89.43	73.75	15.68	5.704		
4,100.00	4,097.25	4,105.68	4,102.56	8.77	10.53	89.23	-64.09	-84.61	84.71	68.84	15.87	5.339		
4,200.00	4,196.80	4,204.28	4,198.90	8.96	10.87	81.14	-84.58	-79.99	80.97	64.88	16.09	5.032		
4,262.24	4,258.77	4,265.22	4,258.41	9.09	11.00	75.81	-97.46	-77.86	80.31	63.99	16.32	4.922 CC, ES		
4,300.00	4,296.36	4,302.31	4,294.66	9.17	11.06	72.61	-105.28	-76.85	80.53	64.04	16.49	4.884		
4,400.00	4,395.92	4,401.28	4,391.39	9.38	11.22	64.51	-126.09	-74.83	82.94	65.87	17.07	4.859 SF		
4,500.00	4,495.47	4,499.88	4,487.77	9.61	11.41	57.10	-146.82	-73.02	87.10	69.33	17.77	4.902		
4,600.00	4,495.03	4,597.49	4,582.95	9.85	11.60	50.35	-168.44	-72.16	94.06	75.53	18.54	5.074		
4,700.00	4,694.59	4,696.58	4,679.39	10.10	11.82	44.47	-191.23	-72.09	103.36	84.01	19.35	5.342		
4,800.00	4,794.15	4,797.07	4,777.41	10.33	12.06	33.89	-213.33	-71.88	112.67	92.54	20.13	5.598		

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 501H - Original Hole - Surveys Original Hole											Offset Site Error:	0.00 ft
Survey Program: 176-MWD, 1024-MWD, 3709-MWD, 15915-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
4,900.00	4,893.78	4,893.00	4,870.90	10.58	12.41	6.14	-234.84	-71.54	122.53	101.48	21.04	5.823
5,000.00	4,993.42	4,991.39	4,966.21	10.79	12.76	-12.98	-259.21	-70.77	135.07	112.97	22.09	6.113
5,100.00	5,093.05	5,090.67	5,062.56	11.01	13.04	-18.53	-283.15	-69.76	148.37	125.35	23.03	6.443
5,200.00	5,192.68	5,189.58	5,158.69	11.24	13.32	-23.12	-306.43	-68.60	162.21	138.35	23.86	6.798
5,300.00	5,292.31	5,289.11	5,255.53	11.49	13.61	-27.00	-329.36	-67.29	176.40	151.77	24.63	7.162
5,400.00	5,391.94	5,389.85	5,353.79	11.74	13.92	-30.28	-351.56	-65.95	190.24	164.88	25.36	7.503
5,500.00	5,491.57	5,488.47	5,450.17	12.00	14.23	-33.03	-372.41	-64.56	203.69	177.66	26.02	7.827
5,600.00	5,591.20	5,581.55	5,540.79	12.27	14.56	-35.24	-393.59	-63.64	219.21	192.58	26.63	8.232
5,700.00	5,690.83	5,676.92	5,633.25	12.55	14.91	-37.03	-416.97	-63.59	236.87	209.63	27.24	8.696
5,800.00	5,790.46	5,774.73	5,727.93	12.82	15.24	-38.47	-441.52	-64.22	255.35	227.50	27.85	9.168
5,900.00	5,890.09	5,874.62	5,824.70	13.11	15.59	-39.66	-466.28	-65.20	273.67	245.19	28.49	9.607
6,000.00	5,989.72	5,975.34	5,922.48	13.40	15.95	-40.73	-490.43	-66.10	291.27	262.14	29.13	10.000
6,100.00	6,089.35	6,070.60	6,015.03	13.69	16.31	-41.69	-512.95	-66.60	308.61	278.89	29.72	10.383
6,200.00	6,188.98	6,164.64	6,105.92	13.99	16.69	-42.73	-537.08	-65.98	328.09	297.76	30.33	10.817
6,300.00	6,288.61	6,266.87	6,204.85	14.30	17.10	-43.81	-562.80	-64.83	347.21	316.21	31.00	11.199
6,400.00	6,388.24	6,372.27	6,307.25	14.61	17.51	-44.92	-587.72	-63.07	364.94	333.26	31.68	11.519
6,500.00	6,487.87	6,465.26	6,397.81	14.92	17.91	-45.92	-608.73	-60.82	381.80	349.52	32.28	11.827
6,600.00	6,587.50	6,563.32	6,492.86	15.23	18.34	-46.81	-632.69	-58.85	400.57	367.64	32.93	12.164
6,700.00	6,687.13	6,661.89	6,588.62	15.55	18.74	-47.64	-656.01	-56.79	418.64	385.09	33.55	12.479
6,800.00	6,786.76	6,754.52	6,678.45	15.87	19.11	-48.36	-678.54	-54.78	437.47	403.37	34.11	12.827
6,900.00	6,886.39	6,856.50	6,777.20	16.20	19.52	-49.10	-703.90	-52.41	456.95	422.20	34.75	13.151
7,000.00	6,986.02	6,955.08	6,872.87	16.53	19.92	-49.78	-727.52	-50.06	475.58	440.22	35.36	13.451
7,100.00	7,085.65	7,045.24	6,960.21	16.86	20.30	-50.36	-749.80	-47.72	495.05	459.14	35.91	13.785
7,200.00	7,185.28	7,147.55	7,059.15	17.19	20.74	-50.99	-775.67	-44.83	515.19	478.62	36.57	14.087
7,300.00	7,284.93	7,251.95	7,160.43	17.50	21.18	-51.69	-800.78	-41.78	534.28	497.07	37.21	14.359
7,400.00	7,384.76	7,359.22	7,264.88	17.86	21.62	-52.38	-825.00	-38.57	553.58	515.69	37.89	14.610
7,500.00	7,484.72	7,463.70	7,366.97	18.23	22.05	-52.79	-846.98	-35.37	573.45	534.89	38.56	14.872
7,600.00	7,584.72	7,565.18	7,466.27	18.26	22.47	-52.79	-867.79	-32.75	594.05	555.00	39.05	15.213
7,700.00	7,684.72	7,671.59	7,570.62	18.30	22.91	-52.79	-888.44	-30.14	613.56	574.00	39.56	15.510
7,800.00	7,784.72	7,780.09	7,677.32	18.34	23.35	-52.79	-907.88	-27.32	631.65	591.59	40.06	15.766
7,900.00	7,884.72	7,895.57	7,791.31	18.38	23.82	-52.79	-926.13	-24.17	647.71	607.13	40.58	15.962
8,000.00	7,984.72	8,010.15	7,904.82	18.42	24.28	-52.79	-941.34	-20.87	661.31	620.25	41.05	16.108
8,100.00	8,084.72	8,137.81	8,031.82	18.47	24.79	-52.79	-953.86	-17.71	671.37	629.85	41.52	16.168
8,200.00	8,184.72	8,263.98	8,157.73	18.51	25.27	-52.79	-961.35	-15.20	677.60	635.67	41.93	16.162
8,300.00	8,284.72	8,371.01	8,264.69	18.55	25.60	-52.79	-964.98	-13.95	681.14	638.87	42.27	16.116
8,400.00	8,384.72	8,476.30	8,369.94	18.59	25.87	-52.79	-967.66	-12.42	683.92	641.38	42.54	16.077
8,500.00	8,484.72	8,581.15	8,474.74	18.63	26.07	-52.79	-969.25	-9.79	685.89	643.14	42.75	16.043
8,600.00	8,584.72	8,681.02	8,574.58	18.67	26.27	-52.79	-970.53	-8.11	687.48	644.50	42.99	15.993
8,700.00	8,684.72	8,777.07	8,670.61	18.72	26.49	-52.79	-972.50	-6.23	689.47	646.18	43.28	15.929
8,800.00	8,784.72	8,876.00	8,769.51	18.76	26.74	-52.79	-975.07	-4.66	691.92	648.33	43.59	15.872
8,900.00	8,884.72	8,978.06	8,871.54	18.80	27.00	-52.79	-977.45	-3.11	694.15	650.25	43.90	15.814
9,000.00	8,984.72	9,078.64	8,972.09	18.85	27.26	-52.79	-979.61	-1.61	696.21	652.02	44.20	15.753
9,100.00	9,084.72	9,178.60	9,072.03	18.89	27.50	-52.79	-981.76	-0.11	698.23	653.74	44.49	15.693
9,200.00	9,184.72	9,280.43	9,173.83	18.93	27.73	-52.79	-983.98	0.38	700.18	655.41	44.77	15.640
9,300.00	9,284.72	9,385.04	9,278.42	18.98	27.93	-52.79	-985.82	0.81	701.66	656.66	45.00	15.594
9,400.00	9,384.72	9,494.18	9,387.54	19.02	28.03	-52.79	-986.72	1.19	702.16	657.05	45.10	15.569
9,500.00	9,484.72	9,595.16	9,488.50	19.07	28.04	-52.79	-986.82	1.50	701.91	656.75	45.16	15.544
9,600.00	9,584.72	9,696.15	9,589.47	19.11	28.04	-52.79	-986.74	1.76	701.51	656.31	45.19	15.523
9,700.00	9,684.72	9,796.40	9,689.71	19.16	28.00	-52.79	-986.54	1.98	701.02	655.82	45.20	15.509
9,775.61	9,760.33	9,868.53	9,761.84	19.19	27.99	-52.79	-986.36	2.10	700.71	655.47	45.25	15.486
9,800.00	9,784.72	9,889.94	9,783.24	19.20	28.01	-52.79	-986.49	2.24	700.77	655.47	45.29	15.472
9,900.00	9,884.72	10,000.43	9,893.03	19.25	28.39	-52.79	-988.73	2.30	701.32	655.58	45.74	15.334

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 501H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 176-MWD, 1024-MWD, 3709-MWD, 15915-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	9,984.72	10,148.34	10,030.42	19.29	29.21	175.01	-988.93	-83.98	696.17	649.35	46.82	14.869	
10,100.00	10,084.72	10,218.00	10,091.87	19.34	29.42	177.71	-989.02	-116.77	692.80	645.23	47.56	14.566	
10,105.64	10,090.37	10,218.00	10,091.87	19.34	29.42	177.71	-989.02	-116.77	692.77	645.17	47.60	14.553	
10,200.00	10,184.72	10,271.05	10,137.27	19.39	29.60	179.97	-991.12	-144.12	696.04	647.75	48.29	14.413	
10,300.00	10,284.72	10,327.09	10,183.04	19.43	29.78	-177.40	-995.52	-176.13	707.01	658.02	48.99	14.431	
10,400.00	10,384.72	10,390.65	10,232.04	19.48	29.95	-174.19	-1,001.44	-216.15	724.87	675.18	49.69	14.588	
10,500.00	10,484.72	10,437.10	10,265.47	19.53	30.08	-171.69	-1,006.14	-248.03	750.09	699.76	50.33	14.903	
10,600.00	10,584.72	10,473.75	10,289.67	19.57	30.18	-169.61	-1,010.39	-275.21	783.75	732.83	50.92	15.391	
10,700.00	10,684.72	10,499.00	10,305.12	19.62	30.25	-168.14	-1,013.59	-294.92	825.64	774.25	51.40	16.064	
10,800.00	10,784.72	10,535.86	10,325.46	19.67	30.42	-165.92	-1,018.10	-325.31	874.81	822.58	52.23	16.749	
10,900.00	10,884.72	10,559.58	10,336.95	19.72	30.53	-164.45	-1,020.63	-345.91	930.71	877.81	52.91	17.592	
11,000.00	10,984.72	10,592.00	10,350.51	19.76	30.68	-162.38	-1,023.61	-375.19	992.79	938.94	53.85	18.437	
11,100.00	11,084.72	10,592.00	10,350.51	19.81	30.68	-162.38	-1,023.61	-375.19	1,059.61	1,005.57	54.05	19.606	
11,200.00	11,184.72	10,592.00	10,350.51	19.86	30.68	-162.38	-1,023.61	-375.19	1,131.34	1,077.13	54.21	20.870	
11,300.00	11,284.71	10,629.49	10,363.45	19.91	31.04	-65.93	-1,026.07	-410.28	1,205.63	1,150.21	55.42	21.754	
11,400.00	11,383.60	10,647.95	10,368.87	20.16	31.22	-55.37	-1,026.79	-427.91	1,279.66	1,223.49	56.17	22.782	
11,500.00	11,478.56	10,686.00	10,377.99	20.48	31.61	-46.30	-1,027.28	-464.84	1,350.06	1,292.55	57.52	23.472	
11,600.00	11,566.71	10,686.00	10,377.99	20.84	31.61	-40.54	-1,027.28	-464.84	1,414.27	1,356.54	57.73	24.498	
11,700.00	11,645.37	10,732.12	10,385.47	21.24	32.36	-35.25	-1,025.34	-510.28	1,470.88	1,411.81	59.07	24.899	
11,800.00	11,712.15	10,779.00	10,389.11	21.66	33.12	-31.39	-1,019.88	-556.67	1,518.66	1,458.20	60.45	25.122	
11,900.00	11,765.01	10,779.00	10,389.11	22.15	33.12	-29.31	-1,019.88	-556.67	1,556.74	1,496.16	60.58	25.696	
12,000.00	11,802.36	10,827.80	10,389.38	22.76	33.84	-27.35	-1,013.12	-605.00	1,583.86	1,522.15	61.71	25.666	
12,100.00	11,823.06	10,873.00	10,387.09	23.58	34.51	-26.24	-1,008.17	-649.86	1,600.67	1,537.90	62.77	25.501	
12,200.00	11,826.89	10,914.27	10,383.87	24.64	34.97	-25.84	-1,004.51	-690.84	1,605.80	1,542.50	63.30	25.369	
12,300.00	11,825.42	11,034.42	10,376.67	25.96	36.37	-25.49	-997.96	-810.53	1,606.94	1,542.19	64.75	24.819	
12,400.00	11,823.95	11,154.00	10,374.09	27.50	37.90	-25.37	-996.31	-930.04	1,606.28	1,540.07	66.22	24.258	
12,500.00	11,822.48	11,289.71	10,375.89	29.20	39.80	-25.46	-999.10	-1,065.68	1,603.92	1,535.96	67.96	23.601	
12,600.00	11,821.01	11,379.41	10,377.22	31.02	41.15	-25.50	-1,000.59	-1,155.36	1,601.33	1,532.13	69.20	23.140	
12,700.00	11,819.54	11,468.72	10,377.86	32.94	42.54	-25.51	-1,001.08	-1,244.67	1,599.00	1,528.54	70.46	22.692	
12,800.00	11,818.07	11,546.79	10,376.94	34.92	43.80	-25.47	-1,001.05	-1,322.73	1,598.08	1,526.43	71.64	22.307	
12,900.00	11,816.60	11,659.42	10,375.84	36.97	45.70	-25.46	-1,002.02	-1,435.35	1,597.39	1,524.10	73.29	21.795	
13,000.00	11,815.13	11,848.45	10,381.88	39.07	49.06	-25.61	-1,005.00	-1,624.18	1,593.08	1,517.11	75.97	20.971	
13,100.00	11,813.66	11,905.00	10,384.88	41.20	50.10	-25.66	-1,005.56	-1,680.66	1,587.17	1,509.98	77.19	20.561	
13,200.00	11,812.19	11,978.50	10,386.45	43.37	51.49	-25.65	-1,005.14	-1,754.13	1,583.31	1,504.69	78.61	20.140	
13,295.95	11,810.78	12,037.09	10,385.27	45.48	52.61	-25.58	-1,003.82	-1,812.69	1,582.22	1,502.39	79.83	19.820	
13,300.00	11,810.72	12,039.66	10,385.18	45.57	52.66	-25.57	-1,003.74	-1,815.26	1,582.22	1,502.34	79.88	19.807	
13,400.00	11,809.25	12,105.17	10,381.69	47.79	53.93	-25.42	-1,001.31	-1,880.62	1,583.46	1,502.30	81.16	19.510	
13,500.00	11,807.78	12,243.30	10,373.54	50.04	56.64	-25.09	-996.01	-2,018.35	1,585.49	1,502.21	83.29	19.037	
13,600.00	11,806.31	12,409.64	10,375.45	52.30	59.99	-24.96	-992.24	-2,184.57	1,580.39	1,494.51	85.89	18.401	
13,700.00	11,804.84	12,467.00	10,375.81	54.57	61.16	-24.92	-991.43	-2,241.93	1,577.36	1,490.13	87.23	18.082	
13,795.69	11,803.44	12,537.66	10,374.86	56.76	62.63	-24.87	-991.00	-2,312.58	1,576.48	1,487.79	88.69	17.775	
13,800.00	11,803.37	12,540.68	10,374.79	56.86	62.69	-24.87	-990.99	-2,315.60	1,576.48	1,487.73	88.75	17.762	
13,900.00	11,801.90	12,609.69	10,372.57	59.17	64.13	-24.83	-991.12	-2,384.57	1,577.54	1,487.32	90.22	17.485	
14,000.00	11,800.43	12,708.34	10,367.63	61.48	66.20	-24.73	-991.34	-2,483.10	1,580.25	1,488.21	92.04	17.169	
14,100.00	11,798.96	12,842.22	10,363.96	63.80	69.06	-24.68	-992.57	-2,616.91	1,581.15	1,486.81	94.34	16.761	
14,108.98	11,798.83	12,853.63	10,363.79	64.01	69.30	-24.68	-992.70	-2,628.33	1,581.14	1,486.60	94.54	16.725	
14,200.00	11,797.49	12,935.00	10,362.53	66.13	71.05	-24.68	-993.92	-2,709.67	1,581.23	1,485.03	96.20	16.437	
14,300.00	11,796.02	13,006.49	10,360.77	68.47	72.61	-24.69	-995.43	-2,781.13	1,582.47	1,484.64	97.83	16.176	
14,400.00	11,794.55	13,212.10	10,362.90	70.82	77.11	-24.86	-1,001.16	-2,986.55	1,580.10	1,478.79	101.31	15.597	
14,500.00	11,793.08	13,287.16	10,365.56	73.17	78.76	-24.93	-1,002.64	-3,061.54	1,575.95	1,472.75	103.20	15.270	
14,600.00	11,791.62	13,347.58	10,365.71	75.53	80.10	-24.95	-1,003.45	-3,121.94	1,574.36	1,469.48	104.88	15.011	
14,613.08	11,791.42	13,355.45	10,365.59	75.83	80.28	-24.94	-1,003.52	-3,129.82	1,574.34	1,469.25	105.09	14.981	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 501H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 176-MWD, 1024-MWD, 3709-MWD, 15915-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	
14,700.00	11,790.15	13,412.02	10,363.80	77.89	81.54	-24.91	-1,003.81	-3,186.36	1,575.28	1,468.77	106.51	14.790		
14,800.00	11,788.68	13,520.84	10,360.12	80.26	83.97	-24.86	-1,004.84	-3,295.11	1,576.80	1,468.16	108.65	14.513		
14,900.00	11,787.21	13,608.53	10,358.31	82.63	85.95	-24.93	-1,008.31	-3,382.70	1,578.43	1,467.74	110.69	14.260		
15,000.00	11,785.74	13,684.00	10,355.84	85.00	87.66	-24.99	-1,011.98	-3,458.05	1,581.47	1,468.88	112.59	14.046		
15,100.00	11,784.27	13,835.62	10,351.32	87.38	91.10	-25.05	-1,017.11	-3,609.50	1,583.74	1,468.26	115.48	13.715		
15,200.00	11,782.80	13,926.08	10,349.94	89.76	93.16	-25.07	-1,018.77	-3,699.94	1,584.01	1,466.46	117.55	13.476		
15,300.00	11,781.33	14,040.25	10,347.40	92.15	95.76	-25.05	-1,020.23	-3,814.05	1,584.63	1,464.76	119.87	13.220		
15,400.00	11,779.86	14,190.47	10,348.14	94.54	99.21	-25.07	-1,021.78	-3,964.26	1,582.43	1,459.81	122.62	12.905		
15,500.00	11,778.39	14,280.38	10,350.14	96.93	101.28	-25.12	-1,023.03	-4,054.14	1,579.13	1,454.31	124.82	12.651		
15,595.16	11,776.99	14,338.00	10,349.96	99.20	102.60	-25.13	-1,023.72	-4,111.75	1,578.02	1,451.46	126.56	12.468		
15,600.00	11,776.92	14,338.00	10,349.96	99.32	102.60	-25.13	-1,023.72	-4,111.75	1,578.03	1,451.41	126.61	12.463		
15,700.00	11,775.45	14,407.22	10,348.16	101.71	104.20	-25.12	-1,024.92	-4,180.94	1,579.23	1,450.75	128.48	12.292		
15,800.00	11,773.98	14,551.26	10,345.47	104.11	107.54	-25.20	-1,029.58	-4,324.85	1,580.47	1,449.08	131.39	12.029		
15,875.27	11,772.87	14,618.00	10,345.29	105.92	109.09	-25.24	-1,031.53	-4,391.57	1,580.15	1,447.06	133.09	11.873		
15,900.00	11,772.51	14,618.00	10,345.29	106.51	109.09	-25.24	-1,031.53	-4,391.57	1,580.34	1,446.98	133.36	11.850		
16,000.00	11,771.04	14,712.00	10,342.55	108.91	111.27	-25.25	-1,033.55	-4,485.50	1,581.96	1,446.41	135.55	11.670		
16,100.00	11,769.57	14,816.72	10,338.27	111.31	113.71	-25.22	-1,035.67	-4,590.10	1,584.62	1,446.78	137.84	11.496		
16,200.00	11,768.10	14,933.77	10,336.52	113.72	116.44	-25.28	-1,039.14	-4,707.09	1,585.23	1,444.78	140.45	11.287		
16,300.00	11,766.63	15,041.07	10,334.00	116.12	118.95	-25.28	-1,041.05	-4,814.34	1,586.22	1,443.40	142.82	11.107		
16,400.00	11,765.16	15,147.33	10,333.34	118.53	121.44	-25.30	-1,042.79	-4,920.58	1,585.51	1,440.28	145.23	10.917		
16,422.35	11,764.83	15,165.18	10,333.23	119.07	121.86	-25.31	-1,043.33	-4,938.42	1,585.47	1,439.75	145.72	10.880		
16,500.00	11,763.69	15,234.71	10,332.51	120.94	123.50	-25.35	-1,045.46	-5,007.91	1,585.72	1,438.20	147.52	10.749		
16,600.00	11,762.22	15,379.96	10,331.54	123.35	126.91	-25.40	-1,048.51	-5,153.12	1,585.49	1,435.09	150.39	10.542		
16,700.00	11,760.75	15,467.73	10,330.91	125.76	129.00	-25.35	-1,047.71	-5,240.87	1,583.77	1,431.29	152.48	10.387		
16,800.00	11,759.28	15,571.18	10,327.21	128.17	131.47	-25.03	-1,040.44	-5,343.98	1,582.08	1,428.07	154.01	10.273		
16,900.00	11,757.81	15,725.10	10,324.06	130.58	135.13	-24.63	-1,031.11	-5,497.53	1,579.90	1,424.21	155.69	10.148		
16,954.90	11,757.00	15,791.60	10,325.95	131.91	136.34	-24.58	-1,029.08	-5,563.98	1,576.69	1,420.02	156.67	10.064		

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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)	Offset Vertical Depth (ft)	Semi Major Axis Reference Offset		Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft) +E/-W (ft)		Distance Between Centres (ft) Between Ellipses (ft)		Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	2.48	2.48	0.00	0.02	-0.39	111.22	-0.76	111.22				
100.00	100.00	101.79	101.79	0.43	0.70	-0.40	111.55	-0.78	111.55	110.42	1.13	98.947	
200.00	200.00	201.09	201.08	1.25	1.38	-0.43	112.49	-0.84	112.50	109.87	2.63	42.733	
300.00	300.00	300.26	300.24	1.75	1.94	-0.45	114.08	-0.89	114.11	110.42	3.69	30.937	
400.00	400.00	400.19	400.15	2.13	2.34	-0.30	116.13	-0.62	116.15	111.68	4.47	25.977	
500.00	500.00	502.23	502.18	2.46	2.76	-0.09	117.29	-0.18	117.30	112.09	5.21	22.522	
600.00	600.00	599.79	599.73	2.75	3.32	0.28	118.60	0.57	118.64	112.63	6.01	19.750	
700.00	700.00	698.51	698.40	3.02	4.09	0.75	121.41	1.59	121.49	114.48	7.02	17.317	
800.00	800.00	797.37	797.19	3.27	4.77	0.97	125.23	2.13	125.37	117.44	7.92	15.822	
900.00	900.00	897.85	897.57	3.50	5.03	0.85	129.50	1.93	129.60	121.17	8.44	15.360	
1,000.00	1,000.00	999.83	999.51	3.72	5.32	0.75	132.48	1.74	132.52	123.57	8.96	14.798	
1,100.00	1,100.00	1,102.09	1,101.76	3.92	5.58	0.92	134.04	2.14	134.06	124.62	9.44	14.209	
1,200.00	1,200.00	1,205.10	1,204.76	4.12	5.96	0.94	133.45	2.18	133.49	123.66	9.83	13.578	
1,300.00	1,300.00	1,306.00	1,305.63	4.31	7.10	0.78	131.12	1.78	131.17	120.89	10.28	12.755	
1,400.00	1,400.00	1,405.74	1,405.35	4.50	8.39	0.59	128.83	1.33	128.87	118.11	10.77	11.971	
1,500.00	1,500.00	1,505.93	1,505.51	4.68	8.89	0.41	126.58	0.90	126.62	115.40	11.22	11.285	
1,600.00	1,600.00	1,606.24	1,605.79	4.85	9.13	0.29	124.06	0.62	124.10	112.44	11.66	10.641	
1,700.00	1,700.00	1,706.32	1,705.83	5.02	9.37	0.18	121.35	0.39	121.40	109.30	12.10	10.032	
1,800.00	1,800.00	1,806.36	1,805.83	5.19	9.61	0.00	118.57	0.01	118.62	106.08	12.54	9.462	
1,900.00	1,900.00	1,906.55	1,905.98	5.35	9.83	-0.27	115.66	-0.55	115.71	102.74	12.97	8.922	
2,000.00	2,000.00	2,006.71	2,006.09	5.50	10.05	-0.68	112.54	-1.33	112.61	99.21	13.40	8.403	
2,100.00	2,100.00	2,106.77	2,106.09	5.66	10.27	-1.13	109.30	-2.16	109.38	95.54	13.83	7.907	
2,200.00	2,200.00	2,206.73	2,205.99	5.81	10.49	-1.58	105.96	-2.93	106.06	91.80	14.26	7.436	
2,300.00	2,300.00	2,306.44	2,305.64	5.96	10.70	-2.00	102.78	-3.59	102.89	88.20	14.69	7.003	
2,400.00	2,400.00	2,406.23	2,405.39	6.10	10.91	-2.39	99.81	-4.16	99.94	84.82	15.12	6.609	
2,500.00	2,500.00	2,506.13	2,505.25	6.25	11.11	-2.81	96.92	-4.75	97.07	81.53	15.55	6.244	
2,600.00	2,600.00	2,606.11	2,605.18	6.39	11.31	-3.24	94.07	-5.33	94.25	78.28	15.97	5.901	
2,700.00	2,700.00	2,706.16	2,705.19	6.53	11.51	-3.43	91.16	-5.46	91.36	74.97	16.39	5.574	
2,800.00	2,800.00	2,805.89	2,804.88	6.67	11.71	-3.39	88.29	-5.23	88.47	71.67	16.80	5.265	
2,900.00	2,900.00	2,905.46	2,904.42	6.80	11.90	-3.50	85.83	-5.25	86.01	68.79	17.22	4.995	
3,000.00	3,000.00	3,005.19	3,004.13	6.94	12.09	-3.71	83.75	-5.44	83.95	66.32	17.63	4.762	
3,100.00	3,100.00	3,104.99	3,103.91	7.07	12.27	-3.83	81.92	-5.48	82.11	64.08	18.03	4.554	
3,200.00	3,200.00	3,205.36	3,204.26	7.20	12.46	-3.73	80.01	-5.22	80.20	61.76	18.43	4.351	
3,300.00	3,300.00	3,305.78	3,304.65	7.33	12.64	-3.24	77.56	-4.39	77.71	58.88	18.83	4.127	
3,386.64	3,386.63	3,392.61	3,391.44	7.44	12.80	177.52	75.09	-3.31	76.51	57.34	19.17	3.990 CC	
3,400.00	3,399.98	3,406.00	3,404.82	7.46	12.83	177.66	74.69	-3.12	76.54	57.31	19.23	3.981 ES	
3,500.00	3,499.84	3,506.11	3,504.87	7.87	13.01	178.88	71.55	-1.53	78.58	58.68	19.91	3.948	
3,600.00	3,599.47	3,605.58	3,604.29	8.04	13.19	179.64	68.60	-0.53	84.17	63.82	20.34	4.137	
3,700.00	3,699.02	3,705.04	3,703.72	8.14	13.37	179.62	66.06	-0.61	91.04	70.32	20.71	4.395	
3,800.00	3,798.58	3,804.71	3,803.35	8.28	13.54	179.26	63.70	-1.27	98.09	76.97	21.12	4.644	
3,900.00	3,898.14	3,904.19	3,902.80	8.42	13.70	178.73	61.45	-2.32	105.27	83.74	21.54	4.888	
4,000.00	3,997.69	4,003.34	4,001.93	8.59	13.85	178.06	59.63	-3.81	112.89	90.94	21.95	5.144	
4,100.00	4,097.25	4,102.99	4,101.55	8.77	14.01	177.31	58.17	-5.66	120.90	98.54	22.37	5.405	
4,200.00	4,196.80	4,203.26	4,201.79	8.96	14.17	176.72	56.36	-7.33	128.60	105.80	22.80	5.640	
4,300.00	4,296.36	4,302.94	4,301.43	9.17	14.33	176.27	54.27	-8.83	136.00	112.75	23.24	5.851	
4,400.00	4,395.92	4,402.21	4,400.67	9.38	14.51	175.73	52.42	-10.66	143.66	119.96	23.70	6.062	
4,500.00	4,495.47	4,502.25	4,500.68	9.61	14.71	175.26	50.66	-12.49	151.43	127.27	24.16	6.267	
4,600.00	4,595.03	4,602.61	4,601.02	9.85	14.93	175.14	48.58	-13.42	158.83	134.19	24.64	6.446	
4,700.00	4,694.59	4,701.92	4,700.30	10.10	15.17	175.14	46.43	-14.04	166.11	140.98	25.13	6.609	
4,800.00	4,794.15	4,801.06	4,799.41	10.33	15.42	169.02	44.57	-15.32	173.65	148.05	25.60	6.784	
4,900.00	4,893.78	4,900.50	4,898.82	10.58	15.69	146.59	42.94	-16.86	180.04	153.95	26.09	6.901	
5,000.00	4,993.42	5,000.02	4,998.33	10.79	15.95	135.08	41.52	-18.26	185.00	158.47	26.54	6.971	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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:													
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	Warning
5,100.00	5,093.05	5,100.19	5,098.48	11.01	16.19	136.63	40.05	-19.15	189.75	162.74	27.01	7.026	
5,200.00	5,192.68	5,200.15	5,198.43	11.24	16.43	138.31	38.41	-19.30	194.46	166.95	27.51	7.069	
5,300.00	5,292.31	5,299.74	5,298.00	11.49	16.69	139.91	36.78	-19.44	199.33	171.30	28.03	7.111	
5,400.00	5,391.94	5,399.40	5,397.65	11.74	16.94	141.36	35.22	-19.82	204.40	175.85	28.56	7.158	
5,500.00	5,491.57	5,499.15	5,497.39	12.00	17.21	142.67	33.69	-20.47	209.61	180.53	29.09	7.206	
5,600.00	5,591.20	5,599.75	5,597.97	12.27	17.47	143.91	32.05	-21.21	214.82	185.19	29.63	7.250	
5,700.00	5,690.83	5,701.14	5,699.33	12.55	17.72	145.33	29.62	-21.15	219.47	189.28	30.18	7.271	
5,800.00	5,790.46	5,801.18	5,799.32	12.82	17.98	146.88	26.60	-20.33	223.72	192.97	30.75	7.276	
5,900.00	5,890.09	5,900.52	5,898.61	13.11	18.23	148.39	23.68	-19.40	228.25	196.93	31.32	7.288	
6,000.00	5,989.72	6,000.69	5,998.74	13.40	18.50	149.81	20.81	-18.64	232.95	201.06	31.89	7.305	
6,100.00	6,089.35	6,101.20	6,099.21	13.69	18.77	151.02	17.77	-18.58	237.49	205.02	32.47	7.315	
6,200.00	6,188.98	6,201.01	6,198.97	13.99	19.06	152.06	14.69	-19.05	241.94	208.89	33.06	7.319	
6,300.00	6,288.61	6,300.77	6,298.68	14.30	19.35	153.00	11.70	-19.75	246.50	212.84	33.65	7.325	
6,400.00	6,388.24	6,400.42	6,398.28	14.61	19.64	153.91	8.75	-20.42	251.15	216.91	34.25	7.333	
6,500.00	6,487.87	6,500.14	6,497.96	14.92	19.92	154.84	5.79	-20.85	255.94	221.09	34.85	7.344	
6,600.00	6,587.50	6,600.40	6,598.17	15.23	20.21	155.68	2.82	-21.57	260.71	225.26	35.45	7.354	
6,700.00	6,687.13	6,700.47	6,698.18	15.55	20.50	156.37	-0.15	-22.86	265.36	229.30	36.06	7.360	
6,800.00	6,786.76	6,799.90	6,797.57	15.87	20.79	157.04	-3.03	-24.11	270.11	233.45	36.66	7.367	
6,900.00	6,886.39	6,899.57	6,897.19	16.20	21.08	157.72	-5.85	-25.15	275.03	237.76	37.27	7.379	
7,000.00	6,986.02	6,999.61	6,997.19	16.53	21.37	158.40	-8.77	-26.08	279.95	242.07	37.89	7.389	
7,100.00	7,085.65	7,099.43	7,098.96	16.86	21.66	159.10	-11.78	-26.88	284.86	246.36	38.50	7.399	
7,200.00	7,185.28	7,199.04	7,196.52	17.19	21.96	159.83	-14.86	-27.36	289.86	250.75	39.11	7.411	
7,300.00	7,284.93	7,298.90	7,296.33	17.50	22.25	160.58	-17.99	-27.60	294.79	255.09	39.71	7.424	
7,400.00	7,384.76	7,399.02	7,396.40	17.86	22.54	161.15	-21.18	-27.88	297.19	256.85	40.34	7.367	
7,500.00	7,484.72	7,498.86	7,496.19	18.23	22.84	161.45	-24.33	-28.27	296.29	255.30	40.99	7.229	
7,600.00	7,584.72	7,598.59	7,595.87	18.26	23.13	162.11	-27.33	-28.85	293.34	252.03	41.31	7.101	
7,700.00	7,684.72	7,698.14	7,695.38	18.30	23.42	162.81	-30.15	-29.54	290.46	248.83	41.63	6.977	
7,800.00	7,784.72	7,796.00	7,793.20	18.34	23.71	163.53	-32.76	-30.25	287.73	245.78	41.95	6.859	
7,900.00	7,884.72	7,895.04	7,892.22	18.38	23.96	164.27	-34.94	-30.73	285.52	243.29	42.23	6.761	
8,000.00	7,984.72	7,992.49	7,989.65	18.42	24.20	165.00	-36.33	-30.71	284.23	241.74	42.49	6.690	
8,100.00	8,084.72	8,090.10	8,087.26	18.47	24.25	165.73	-36.80	-30.68	283.79	241.22	42.57	6.666	
8,101.67	8,086.40	8,091.73	8,088.90	18.47	24.25	165.73	-36.80	-30.69	283.79	241.22	42.57	6.666	
8,200.00	8,184.72	8,188.22	8,185.38	18.51	24.28	166.47	-36.26	-30.97	284.18	241.54	42.64	6.664	
8,300.00	8,284.72	8,288.48	8,285.64	18.55	24.25	167.21	-35.59	-30.99	284.78	242.13	42.65	6.677	
8,400.00	8,384.72	8,389.03	8,386.19	18.59	24.22	167.95	-35.25	-30.52	285.28	242.60	42.67	6.685	
8,500.00	8,484.72	8,490.19	8,487.34	18.63	24.23	168.69	-35.01	-30.66	285.44	242.70	42.74	6.679	
8,600.00	8,584.72	8,593.00	8,590.15	18.67	24.32	169.43	-35.00	-31.67	285.06	242.17	42.89	6.646	
8,700.00	8,684.72	8,697.67	8,694.80	18.72	24.51	170.17	-36.66	-32.71	283.21	240.07	43.13	6.566	
8,800.00	8,784.72	8,799.19	8,796.27	18.76	24.77	170.91	-39.72	-33.63	280.08	236.64	43.44	6.448	
8,900.00	8,884.72	8,899.25	8,896.28	18.80	25.06	171.65	-42.86	-34.56	276.83	233.06	43.78	6.324	
9,000.00	8,984.72	8,999.69	8,996.66	18.85	25.36	172.39	-46.07	-35.60	273.49	229.37	44.11	6.200	
9,100.00	9,084.72	9,100.21	9,097.12	18.89	25.65	173.13	-49.43	-36.86	269.93	225.47	44.46	6.072	
9,200.00	9,184.72	9,200.15	9,196.98	18.93	25.95	173.87	-52.99	-37.87	266.26	221.47	44.79	5.945	
9,300.00	9,284.72	9,299.76	9,296.52	18.98	26.25	174.61	-56.88	-38.06	262.61	217.49	45.11	5.821	
9,400.00	9,384.72	9,399.39	9,392.11	19.02	26.55	175.35	-59.75	-37.98	259.90	214.46	45.44	5.720	
9,500.00	9,484.72	9,499.60	9,488.31	19.07	26.85	176.09	-60.83	-38.07	258.83	213.08	45.76	5.657	
9,600.00	9,584.72	9,599.60	9,589.31	19.11	27.12	176.83	-61.53	-38.02	258.22	212.15	46.07	5.605	
9,700.00	9,684.72	9,699.49	9,690.18	19.16	27.39	177.57	-62.83	-37.60	257.22	210.86	46.37	5.548	
9,800.00	9,784.72	9,794.03	9,790.71	19.20	27.62	178.31	-64.54	-36.90	255.97	209.35	46.61	5.491	
9,900.00	9,884.72	9,894.12	9,890.78	19.25	27.84	179.05	-66.53	-36.02	254.53	207.70	46.84	5.434	
10,000.00	9,984.72	9,995.04	9,991.68	19.29	28.06	179.79	-68.35	-35.51	253.12	206.05	47.07	5.377	
10,100.00	10,084.72	10,097.78	10,094.38	19.34	28.31	180.53	-70.99	-35.49	250.81	203.46	47.35	5.297	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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	Rule Assigned:											
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis 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)			
10,200.00	10,184.72	10,197.31	10,193.86	19.39	28.57	26.02	-74.18	-35.76	247.81	200.18	47.63	5.203	
10,300.00	10,284.72	10,294.99	10,291.52	19.43	28.84	26.29	-76.63	-35.67	245.60	197.70	47.90	5.127	
10,400.00	10,384.72	10,393.47	10,389.98	19.48	29.08	26.55	-78.36	-35.27	244.21	196.06	48.14	5.073	
10,500.00	10,484.72	10,492.27	10,488.77	19.53	29.31	26.75	-79.51	-34.92	243.33	194.95	48.38	5.030	
10,600.00	10,584.72	10,591.40	10,587.89	19.57	29.47	26.90	-80.20	-34.52	242.88	194.34	48.54	5.004	
10,700.00	10,684.72	10,690.92	10,687.42	19.62	29.62	27.08	-80.64	-33.92	242.77	194.08	48.69	4.986	
10,800.00	10,784.72	10,793.24	10,789.72	19.67	29.76	27.23	-81.43	-33.62	242.21	193.36	48.85	4.958	
10,900.00	10,884.72	10,894.90	10,891.38	19.72	29.97	27.35	-82.94	-33.79	240.82	191.74	49.09	4.906	
11,000.00	10,984.72	11,009.60	11,005.71	19.76	30.43	26.17	-86.44	-41.04	235.12	185.40	49.72	4.728	
11,100.00	11,084.72	11,108.86	11,103.83	19.81	30.58	22.94	-87.58	-55.86	227.80	177.66	50.14	4.543	
11,200.00	11,184.72	11,233.61	11,223.42	19.86	30.87	14.62	-88.91	-90.21	217.87	167.17	50.70	4.297	
11,300.00	11,284.71	11,352.77	11,322.23	19.91	31.39	88.58	-101.23	-154.76	198.92	149.29	49.63	4.008	
11,393.02	11,376.79	11,421.85	11,369.97	20.14	31.62	76.64	-113.19	-203.11	189.57	141.87	47.70	3.974	
11,400.00	11,383.60	11,425.92	11,372.56	20.16	31.64	75.87	-113.80	-206.19	189.63	142.03	47.60	3.984	
11,500.00	11,478.56	11,485.93	11,408.85	20.48	31.87	64.71	-119.96	-253.53	201.84	154.87	46.98	4.297	
11,600.00	11,566.71	11,546.70	11,439.41	20.84	32.10	54.40	-122.54	-305.94	228.96	181.44	47.53	4.818	
11,700.00	11,645.37	11,601.00	11,459.42	21.24	32.32	46.09	-124.29	-356.31	263.38	214.73	48.65	5.414	
11,800.00	11,712.15	11,660.12	11,471.83	21.66	32.59	38.56	-127.45	-413.96	300.74	251.07	49.67	6.055	
11,900.00	11,765.01	11,710.00	11,474.14	22.15	32.85	33.04	-130.19	-463.66	339.67	289.30	50.37	6.743	
12,000.00	11,802.36	11,780.95	11,470.20	22.76	33.29	28.36	-132.39	-534.46	375.79	324.97	50.83	7.394	
12,100.00	11,823.06	11,866.00	11,463.20	23.58	33.92	25.34	-135.06	-619.16	400.84	349.54	51.30	7.813	
12,200.00	11,826.89	11,953.45	11,452.03	24.64	34.73	23.82	-137.96	-705.85	414.97	363.24	51.73	8.022	
12,300.00	11,825.42	12,066.69	11,442.69	25.96	36.03	23.85	-135.94	-818.65	422.45	370.03	52.42	8.059	
12,400.00	11,823.95	12,181.51	11,437.99	27.50	37.50	24.46	-131.27	-933.26	427.14	373.85	53.29	8.015	
12,500.00	11,822.48	12,282.85	11,437.70	29.20	38.91	25.43	-125.31	-1,034.43	429.15	374.99	54.16	7.924	
12,600.00	11,821.01	12,378.00	11,436.29	31.02	40.32	26.19	-120.31	-1,129.43	432.08	377.03	55.05	7.849	
12,700.00	11,819.54	12,479.89	11,434.16	32.94	41.91	26.93	-115.16	-1,231.17	435.55	379.36	56.19	7.752	
12,800.00	11,818.07	12,596.31	11,433.27	34.92	43.87	27.56	-111.85	-1,347.52	436.89	379.20	57.69	7.573	
12,900.00	11,816.60	12,706.67	11,434.54	36.97	45.84	27.80	-112.92	-1,457.86	434.75	375.59	59.17	7.348	
13,000.00	11,815.13	12,805.53	11,435.56	39.07	47.63	27.75	-116.02	-1,556.67	431.74	371.24	60.50	7.136	
13,100.00	11,813.66	12,901.49	11,435.44	41.20	49.41	27.57	-119.59	-1,652.57	429.49	367.68	61.81	6.949	
13,200.00	11,812.19	12,998.67	11,433.94	43.37	51.25	27.19	-124.16	-1,749.62	428.05	364.96	63.08	6.785	
13,295.87	11,810.78	13,089.75	11,431.17	45.48	53.01	26.58	-129.84	-1,840.48	427.32	363.15	64.17	6.660	
13,300.00	11,810.72	13,093.51	11,431.02	45.57	53.09	26.55	-130.09	-1,844.23	427.32	363.11	64.21	6.655	
13,400.00	11,809.25	13,185.62	11,426.47	47.79	54.91	25.85	-135.62	-1,936.06	428.41	363.17	65.24	6.567	
13,500.00	11,807.78	13,283.17	11,421.35	50.04	56.88	25.41	-138.97	-2,033.42	430.94	364.43	66.51	6.479	
13,600.00	11,806.31	13,395.68	11,417.96	52.30	59.20	25.35	-140.19	-2,145.86	432.55	364.16	68.39	6.325	
13,700.00	11,804.84	13,497.47	11,418.13	54.57	61.32	25.56	-140.74	-2,247.64	431.43	361.15	70.29	6.138	
13,800.00	11,803.37	13,599.31	11,417.71	56.86	63.47	25.66	-141.85	-2,349.48	430.63	358.47	72.16	5.968	
13,900.00	11,801.90	13,694.21	11,416.91	59.17	65.48	25.65	-143.62	-2,444.36	429.89	356.04	73.85	5.821	
13,900.43	11,801.90	13,694.62	11,416.91	59.18	65.49	25.65	-143.62	-2,444.76	429.89	356.03	73.86	5.821	
14,000.00	11,800.43	13,789.32	11,415.15	61.48	67.54	25.69	-144.44	-2,539.45	430.47	354.84	75.63	5.692	
14,100.00	11,798.96	13,894.04	11,413.80	63.80	69.82	25.95	-143.83	-2,644.15	431.19	353.31	77.88	5.537	
14,200.00	11,797.49	13,991.56	11,412.44	66.13	71.95	26.08	-144.21	-2,741.66	431.59	351.69	79.89	5.402	
14,300.00	11,796.02	14,102.34	11,411.51	68.47	74.39	25.98	-146.97	-2,852.40	430.51	348.52	81.99	5.251	
14,400.00	11,794.55	14,201.39	11,410.56	70.82	76.59	25.77	-150.34	-2,951.38	429.19	345.44	83.75	5.125	
14,500.00	11,793.08	14,311.91	11,411.82	73.17	79.05	25.67	-154.16	-3,061.83	425.91	340.06	85.85	4.961	
14,600.00	11,791.62	14,411.47	11,413.60	75.53	81.27	25.49	-158.66	-3,161.27	421.64	333.99	87.65	4.810	
14,700.00	11,790.15	14,507.63	11,414.18	77.89	83.43	25.12	-163.95	-3,257.29	418.03	328.88	89.14	4.689	
14,800.00	11,788.68	14,599.05	11,413.05	80.26	85.49	24.55	-169.90	-3,348.50	415.70	325.47	90.23	4.607	
14,836.93	11,788.13	14,631.60	11,412.12	81.13	86.23	24.35	-171.79	-3,380.98	415.50	324.91	90.60	4.586	
14,900.00	11,787.21	14,690.46	11,409.99	82.63	87.56	24.03	-174.58	-3,439.74	415.88	324.56	91.32	4.554	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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		Reference		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		
15,000.00	11,785.74	14,788.57	11,406.49	85.00	89.80	23.77	-177.11	-3,537.75	417.33	324.42	92.91	4.492			
15,100.00	11,784.27	14,895.55	11,403.58	87.38	92.25	23.62	-179.27	-3,644.67	418.26	323.37	94.89	4.408			
15,194.19	11,782.88	14,988.96	11,402.15	89.62	94.39	23.46	-181.82	-3,738.03	417.83	321.27	96.55	4.327			
15,200.00	11,782.80	14,994.47	11,402.02	89.76	94.52	23.45	-181.99	-3,743.53	417.83	321.19	96.64	4.323			
15,300.00	11,781.33	15,087.38	11,399.24	92.15	96.66	23.22	-184.57	-3,836.37	418.70	320.58	98.12	4.267			
15,400.00	11,779.86	15,177.69	11,395.26	94.54	98.74	23.11	-185.53	-3,926.58	421.56	321.84	99.71	4.228			
15,500.00	11,778.39	15,295.52	11,390.70	96.93	101.46	23.19	-185.37	-4,044.30	424.53	322.07	102.46	4.143			
15,600.00	11,776.92	15,406.15	11,391.48	99.32	104.03	23.46	-185.88	-4,154.92	422.90	317.59	105.31	4.016			
15,700.00	11,775.45	15,504.92	11,392.62	101.71	106.33	23.57	-187.49	-4,253.68	420.41	312.79	107.62	3.906			
15,800.00	11,773.98	15,603.25	11,393.10	104.11	108.62	23.52	-190.12	-4,351.97	418.12	308.50	109.62	3.814			
15,900.00	11,772.51	15,709.27	11,392.97	106.51	111.09	23.44	-192.95	-4,457.95	416.45	304.72	111.72	3.727			
16,000.00	11,771.04	15,823.68	11,398.66	108.91	113.76	23.73	-195.49	-4,572.17	410.07	295.32	114.75	3.574			
16,100.00	11,769.57	15,910.13	11,402.68	111.31	115.78	23.96	-197.29	-4,658.52	404.29	287.03	117.26	3.448			
16,195.07	11,768.17	15,990.53	11,402.93	113.60	117.67	24.08	-198.12	-4,738.90	402.84	283.51	119.33	3.376			
16,200.00	11,768.10	15,994.99	11,402.89	113.72	117.77	24.09	-198.13	-4,743.36	402.84	283.40	119.45	3.373			
16,300.00	11,766.63	16,087.37	11,401.15	116.12	119.94	24.31	-197.58	-4,835.72	404.04	282.07	121.97	3.313			
16,400.00	11,765.16	16,183.67	11,397.88	118.53	122.21	24.44	-197.09	-4,931.97	406.59	282.19	124.40	3.268			
16,500.00	11,763.69	16,280.27	11,393.33	120.94	124.48	24.35	-197.81	-5,028.45	409.83	283.54	126.29	3.245			
16,600.00	11,762.22	16,378.64	11,387.45	123.35	126.80	24.10	-199.17	-5,126.63	413.96	286.09	127.87	3.237			
16,700.00	11,760.75	16,477.98	11,381.32	125.76	129.14	23.76	-201.17	-5,225.77	418.02	288.78	129.24	3.235			
16,800.00	11,759.28	16,586.75	11,374.75	128.17	131.70	23.32	-204.09	-5,334.30	421.75	291.13	130.63	3.229			
16,900.00	11,757.81	16,693.51	11,370.67	130.58	134.22	22.85	-208.32	-5,440.89	422.92	291.11	131.81	3.208			
16,954.90	11,757.00	16,746.21	11,368.61	131.91	135.47	22.53	-211.11	-5,493.48	423.33	291.23	132.10	3.205 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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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 (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	179.68	-872.80	4.90	872.89				
100.00	100.00	86.95	86.95	0.43	0.80	179.68	-872.88	4.85	872.89	871.66	1.23	708.399	
200.00	200.00	185.20	185.19	1.25	1.71	179.69	-873.15	4.68	873.17	870.21	2.96	294.592	
300.00	300.00	283.44	283.44	1.75	2.62	179.71	-873.63	4.40	873.65	869.28	4.37	200.086	
400.00	400.00	387.52	387.52	2.13	3.33	179.74	-874.09	3.90	874.09	868.64	5.45	160.369	
500.00	500.00	493.99	493.98	2.46	3.95	179.80	-873.81	3.05	873.84	867.45	6.39	136.717	
600.00	600.00	603.89	603.86	2.75	4.23	179.88	-872.47	1.90	872.60	865.67	6.94	125.775	
700.00	700.00	706.21	706.16	3.02	4.63	179.94	-870.53	0.85	870.71	863.11	7.60	114.621	
800.00	800.00	808.57	808.50	3.27	5.01	-180.00	-868.32	-0.03	868.55	860.34	8.21	105.810	
900.00	900.00	911.08	910.97	3.50	5.32	-179.97	-865.81	-0.44	866.10	857.36	8.74	99.138	
1,000.00	1,000.00	1,005.44	1,005.31	3.72	5.64	-179.94	-863.66	-0.86	863.82	854.55	9.27	93.188	
1,100.00	1,100.00	1,100.19	1,100.04	3.92	5.98	-179.87	-862.12	-1.90	862.20	852.40	9.80	87.981	
1,200.00	1,200.00	1,197.82	1,197.65	4.12	6.37	-179.79	-860.95	-3.22	861.00	850.63	10.37	83.042	
1,300.00	1,300.00	1,296.44	1,296.26	4.31	6.78	-179.69	-860.02	-4.59	860.06	849.14	10.93	78.696	
1,400.00	1,400.00	1,398.40	1,398.20	4.50	7.18	-179.61	-858.97	-5.92	859.05	847.57	11.48	74.808	
1,500.00	1,500.00	1,498.83	1,498.62	4.68	7.57	-179.52	-857.75	-7.12	857.84	845.82	12.02	71.384	
1,600.00	1,600.00	1,596.86	1,596.64	4.85	7.94	-179.44	-856.70	-8.32	856.77	844.25	12.52	68.416	
1,700.00	1,700.00	1,693.73	1,693.50	5.02	8.28	-179.36	-855.90	-9.63	855.97	842.98	12.99	65.883	
1,800.00	1,800.00	1,789.32	1,789.07	5.19	8.60	-179.24	-855.57	-11.32	855.65	842.22	13.42	63.746	
1,812.89	1,812.89	1,801.65	1,801.39	5.21	8.65	-179.23	-855.56	-11.57	855.64	842.17	13.48	63.486	
1,900.00	1,900.00	1,883.74	1,883.47	5.35	8.87	-179.11	-855.76	-13.26	855.88	842.08	13.80	62.019	
2,000.00	2,000.00	1,977.15	1,976.87	5.50	9.08	-179.03	-856.65	-14.53	856.85	842.72	14.13	60.634	
2,100.00	2,100.00	2,072.07	2,071.77	5.66	9.30	-178.99	-858.25	-15.16	858.54	844.07	14.47	59.335	
2,200.00	2,200.00	2,168.36	2,168.03	5.81	9.51	-178.94	-860.32	-15.93	860.71	845.89	14.81	58.106	
2,300.00	2,300.00	2,267.67	2,267.31	5.96	9.73	-178.87	-862.77	-16.95	863.20	848.03	15.17	56.919	
2,400.00	2,400.00	2,369.12	2,368.72	6.10	9.97	-178.80	-865.15	-18.07	865.57	850.04	15.52	55.758	
2,500.00	2,500.00	2,470.63	2,470.20	6.25	10.21	-178.73	-867.36	-19.18	867.76	851.88	15.89	54.627	
2,600.00	2,600.00	2,572.17	2,571.72	6.39	10.46	-178.67	-869.39	-20.11	869.78	853.54	16.25	53.538	
2,700.00	2,700.00	2,672.90	2,672.43	6.53	10.69	-178.63	-871.27	-20.86	871.66	855.06	16.61	52.488	
2,800.00	2,800.00	2,773.64	2,773.15	6.67	10.93	-178.59	-873.07	-21.45	873.47	856.51	16.96	51.492	
2,900.00	2,900.00	2,876.47	2,875.97	6.80	11.18	-178.54	-874.69	-22.30	875.07	857.75	17.32	50.535	
3,000.00	3,000.00	2,978.42	2,977.89	6.94	11.42	-178.45	-875.96	-23.70	876.35	858.68	17.66	49.613	
3,100.00	3,100.00	3,077.34	3,076.80	7.07	11.64	-178.39	-877.19	-24.66	877.62	859.63	17.99	48.774	
3,200.00	3,200.00	3,175.47	3,174.92	7.20	11.84	-178.38	-878.57	-24.79	879.03	860.71	18.32	47.979	
3,300.00	3,300.00	3,272.02	3,271.45	7.33	11.99	-178.45	-880.28	-23.88	880.77	862.12	18.64	47.242	
3,400.00	3,399.98	3,365.91	3,365.30	7.46	12.13	1.43	-882.38	-21.93	881.21	862.25	18.96	46.476	
3,500.00	3,499.84	3,455.64	3,454.94	7.87	12.25	1.26	-885.33	-19.27	879.19	859.63	19.56	44.949	
3,600.00	3,599.47	3,551.39	3,550.54	8.04	12.38	1.03	-889.50	-15.66	874.91	854.98	19.93	43.893	
3,700.00	3,699.02	3,660.97	3,659.95	8.14	12.54	0.75	-893.65	-11.39	869.21	848.94	20.27	42.880	
3,800.00	3,798.58	3,776.43	3,775.30	8.28	12.67	0.47	-896.46	-7.10	862.21	841.59	20.62	41.823	
3,900.00	3,898.14	3,895.61	3,894.41	8.42	12.80	0.22	-896.75	-3.31	853.02	832.07	20.96	40.707	
4,000.00	3,997.69	3,996.19	3,994.95	8.59	12.89	0.04	-895.80	-0.61	842.67	821.40	21.27	39.623	
4,100.00	4,097.25	4,097.86	4,096.59	8.77	13.00	-0.11	-894.64	1.64	832.12	810.53	21.59	38.540	
4,200.00	4,196.80	4,202.90	4,201.60	8.96	13.10	-0.23	-892.91	3.26	821.08	799.17	21.91	37.472	
4,300.00	4,296.36	4,308.65	4,307.32	9.17	13.22	-0.29	-890.42	4.13	809.33	787.08	22.25	36.375	
4,400.00	4,395.92	4,415.54	4,414.15	9.38	13.35	-0.36	-886.94	4.92	796.69	774.08	22.61	35.242	
4,500.00	4,495.47	4,517.07	4,515.59	9.61	13.49	-0.42	-882.87	5.69	783.30	760.32	22.98	34.093	
4,600.00	4,595.03	4,615.57	4,614.01	9.85	13.62	-0.47	-878.93	6.22	769.92	746.56	23.36	32.965	
4,700.00	4,694.59	4,713.32	4,711.69	10.10	13.77	-0.50	-875.13	6.50	756.65	732.89	23.76	31.852	
4,800.00	4,794.15	4,810.87	4,809.17	10.33	13.92	-6.49	-871.55	6.43	743.66	719.53	24.13	30.815	
4,900.00	4,893.78	4,913.30	4,911.53	10.58	14.09	-29.68	-867.73	6.21	731.86	707.30	24.55	29.809	
5,000.00	4,993.42	5,016.59	5,014.72	10.79	14.26	-43.02	-863.32	6.24	721.02	696.11	24.92	28.936	

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FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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				Reference		Offset		Semi Major Axis		Highside		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)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning						
5,100.00	5,093.05	5,113.81	5,111.86	11.01	14.43	-43.50	-859.04	6.44	710.37	685.06	25.31	28.070							
5,200.00	5,192.68	5,211.05	5,209.01	11.24	14.60	-44.01	-855.01	6.73	700.02	674.31	25.71	27.231							
5,300.00	5,292.31	5,306.40	5,304.30	11.49	14.78	-44.51	-851.48	6.96	690.17	664.06	26.11	26.431							
5,400.00	5,391.94	5,403.76	5,401.61	11.74	14.96	-45.03	-848.42	7.02	680.93	654.40	26.52	25.674							
5,500.00	5,491.57	5,512.95	5,510.71	12.00	15.16	-45.64	-844.20	7.34	671.04	644.10	26.94	24.908							
5,600.00	5,591.20	5,616.20	5,613.82	12.27	15.36	-46.29	-838.87	8.06	659.96	632.60	27.36	24.121							
5,700.00	5,690.83	5,712.09	5,709.59	12.55	15.55	-46.92	-834.09	8.78	649.13	621.35	27.78	23.365							
5,800.00	5,790.46	5,807.89	5,805.29	12.82	15.75	-47.55	-829.79	9.43	638.89	610.69	28.20	22.652							
5,900.00	5,890.09	5,903.62	5,900.95	13.11	15.95	-48.17	-826.06	9.77	629.28	600.66	28.63	21.983							
6,000.00	5,989.72	6,003.71	6,000.98	13.40	16.15	-48.81	-822.58	9.89	620.13	591.08	29.05	21.347							
6,100.00	6,089.35	6,107.56	6,104.73	13.69	16.37	-49.58	-818.23	10.77	610.47	581.00	29.47	20.716							
6,200.00	6,188.98	6,206.46	6,203.51	13.99	16.58	-50.39	-813.56	12.18	600.45	570.57	29.88	20.094							
6,300.00	6,288.61	6,303.56	6,300.51	14.30	16.79	-51.20	-809.30	13.39	590.86	560.57	30.29	19.506							
6,400.00	6,388.24	6,401.04	6,397.90	14.61	16.99	-52.03	-805.32	14.70	581.72	551.03	30.69	18.957							
6,500.00	6,487.87	6,498.51	6,495.27	14.92	17.20	-52.97	-801.48	16.81	573.01	541.94	31.07	18.444							
6,600.00	6,587.50	6,600.43	6,597.08	15.23	17.41	-53.98	-797.43	18.99	564.41	532.97	31.44	17.951							
6,700.00	6,687.13	6,702.87	6,699.42	15.55	17.64	-54.89	-793.03	19.77	555.38	523.56	31.82	17.455							
6,800.00	6,786.76	6,802.18	6,798.64	15.87	17.88	-55.74	-788.64	19.85	546.20	513.99	32.21	16.957							
6,900.00	6,886.39	6,901.42	6,897.79	16.20	18.12	-56.60	-784.28	19.79	537.12	504.52	32.60	16.477							
7,000.00	6,986.02	7,000.30	6,996.57	16.53	18.36	-57.46	-780.05	19.46	528.21	495.23	32.98	16.015							
7,100.00	7,085.65	7,098.58	7,094.76	16.86	18.60	-58.30	-776.02	18.83	519.52	486.16	33.36	15.573							
7,200.00	7,185.28	7,195.17	7,191.29	17.19	18.84	-59.16	-772.42	18.40	511.34	477.62	33.72	15.163							
7,300.00	7,284.93	7,294.74	7,290.80	17.50	19.09	-60.05	-769.05	18.34	503.82	469.77	34.05	14.795							
7,400.00	7,384.76	7,400.14	7,396.11	17.86	19.35	-60.68	-764.62	18.20	496.94	462.52	34.42	14.438							
7,500.00	7,484.72	7,501.02	7,496.86	18.23	19.61	-60.98	-759.48	17.90	490.91	456.11	34.81	14.105							
7,600.00	7,584.72	7,598.33	7,594.06	18.26	19.87	-60.51	-754.86	17.70	486.35	451.27	35.08	13.866							
7,700.00	7,684.72	7,695.87	7,691.51	18.30	20.12	-60.36	-750.74	17.54	482.32	446.96	35.36	13.642							
7,800.00	7,784.72	7,793.55	7,789.12	18.34	20.37	-60.27	-747.19	17.15	478.76	443.12	35.64	13.433							
7,900.00	7,884.72	7,891.47	7,886.99	18.38	20.62	-60.22	-744.21	16.48	475.66	439.73	35.93	13.239							
8,000.00	7,984.72	7,989.49	7,984.98	18.42	20.85	-60.24	-741.78	15.45	472.97	436.75	36.22	13.057							
8,100.00	8,084.72	8,090.34	8,085.79	18.47	21.10	-60.29	-739.53	14.19	470.45	433.92	36.53	12.880							
8,200.00	8,184.72	8,191.86	8,187.28	18.51	21.35	-60.31	-736.86	13.07	467.61	430.78	36.83	12.697							
8,300.00	8,284.72	8,293.51	8,288.88	18.55	21.60	-60.24	-733.63	12.49	464.42	427.30	37.12	12.512							
8,400.00	8,384.72	8,394.93	8,390.22	18.59	21.86	-60.03	-729.68	12.85	460.88	423.48	37.39	12.325							
8,500.00	8,484.72	8,494.79	8,490.00	18.63	22.13	-59.84	-725.69	13.06	457.20	419.52	37.67	12.135							
8,600.00	8,584.72	8,595.07	8,590.20	18.67	22.39	-59.75	-722.00	12.43	453.53	415.55	37.97	11.944							
8,700.00	8,684.72	8,696.59	8,691.64	18.72	22.67	-59.67	-718.05	11.65	449.61	411.32	38.28	11.744							
8,800.00	8,784.72	8,797.72	8,792.68	18.76	22.95	-59.55	-713.69	11.00	445.35	406.76	38.59	11.540							
8,900.00	8,884.72	8,898.29	8,893.15	18.80	23.23	-59.43	-709.17	10.35	440.91	402.00	38.90	11.333							
9,000.00	8,984.72	8,997.28	8,992.03	18.85	23.51	-59.31	-704.67	9.65	436.41	397.19	39.22	11.129							
9,100.00	9,084.72	9,094.89	9,089.56	18.89	23.78	-59.23	-700.77	8.82	432.36	392.83	39.53	10.938							
9,200.00	9,184.72	9,195.62	9,190.22	18.93	24.06	-59.20	-697.19	7.65	428.64	388.78	39.85	10.755							
9,300.00	9,284.72	9,298.37	9,292.87	18.98	24.33	-59.28	-693.28	5.52	424.34	384.14	40.20	10.556							
9,400.00	9,384.72	9,392.90	9,387.30	19.02	24.56	-59.47	-690.04	2.81	420.13	379.61	40.52	10.369							
9,500.00	9,484.72	9,485.18	9,479.52	19.07	24.77	-59.79	-688.75	-0.16	417.70	376.86	40.84	10.227							
9,600.00	9,584.72	9,582.12	9,576.40	19.11	24.94	-60.24	-688.95	-3.54	416.70	375.56	41.14	10.128							
9,700.00	9,684.72	9,680.58	9,674.80	19.16	25.10	-60.73	-689.61	-7.08	416.13	374.69	41.44	10.042							
9,800.00	9,784.72	9,779.21	9,773.37	19.20	25.18	-61.20	-690.55	-10.40	415.93	374.28	41.65	9.987							
9,810.83	9,795.56	9,789.90	9,784.06	19.21	25.19	-61.25	-690.65	-10.72	415.93	374.26	41.67	9.982							
9,900.00	9,884.72	9,877.92	9,872.04	19.25	25.25	-61.58	-691.54	-12.97	416.06	374.23	41.83	9.947							
10,000.00	9,984.72	9,973.37	9,967.45	19.29	25.26	-61.93	-693.06	-15.11	416.87	374.93	41.94	9.940							
10,100.00	10,084.72	10,071.00	10,065.02	19.34	25.27	-62.35	-695.84	-17.45	418.84	376.78	42.06	9.959							

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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	Rule Assigned:											
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis 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)			
10,200.00	10,184.72	10,169.03	10,162.95	19.39	25.25	162.82	-699.21	-20.00	421.33	379.19	42.14	9.998	
10,300.00	10,284.72	10,269.69	10,263.51	19.43	25.24	163.32	-702.57	-22.84	423.70	381.47	42.23	10.033	
10,400.00	10,384.72	10,370.89	10,364.59	19.48	25.24	163.95	-705.97	-26.69	425.86	383.52	42.34	10.058	
10,500.00	10,484.72	10,495.23	10,488.28	19.53	25.55	165.48	-709.35	-37.60	426.43	383.60	42.82	9.958	
10,600.00	10,584.72	10,626.41	10,614.06	19.57	26.62	170.26	-707.53	-73.96	418.73	374.73	44.01	9.515	
10,700.00	10,684.72	10,716.57	10,695.08	19.62	27.35	175.66	-706.24	-113.33	411.20	366.68	44.52	9.236	
10,797.69	10,782.41	10,808.18	10,770.91	19.67	28.05	-177.17	-704.12	-164.55	407.82	362.93	44.89	9.085 CC	
10,800.00	10,784.72	10,809.94	10,772.30	19.67	28.06	-177.02	-704.07	-165.63	407.82	362.93	44.90	9.084 ES	
10,900.00	10,884.72	10,879.54	10,824.79	19.72	28.73	-170.64	-702.04	-211.24	413.56	368.40	45.16	9.158	
11,000.00	10,984.72	10,957.00	10,876.30	19.76	29.08	-162.75	-697.00	-268.73	430.12	384.51	45.61	9.430	
11,100.00	11,084.72	11,002.45	10,902.39	19.81	29.19	-157.84	-692.65	-305.67	460.31	414.17	46.14	9.977	
11,200.00	11,184.72	11,035.00	10,919.76	19.86	29.27	-154.33	-689.21	-332.98	503.77	457.06	46.71	10.785	
11,300.00	11,284.71	11,082.00	10,942.23	19.91	29.40	-56.78	-684.09	-373.92	558.42	511.01	47.41	11.779	
11,400.00	11,383.60	11,100.92	10,950.23	20.16	29.45	-49.48	-682.15	-390.96	616.46	568.36	48.09	12.818	
11,500.00	11,478.56	11,129.00	10,961.15	20.48	29.53	-42.64	-679.61	-416.70	673.30	624.52	48.78	13.803	
11,600.00	11,566.71	11,176.00	10,976.94	20.84	29.66	-36.45	-676.15	-460.82	726.20	676.67	49.53	14.662	
11,700.00	11,645.37	11,209.38	10,986.28	21.24	29.76	-32.35	-674.09	-492.80	773.16	723.08	50.08	15.438	
11,800.00	11,712.15	11,254.61	10,996.50	21.66	29.93	-29.06	-671.58	-536.78	812.84	762.18	50.66	16.045	
11,900.00	11,765.01	11,330.17	11,010.35	22.15	30.28	-26.40	-667.96	-610.97	842.78	791.33	51.44	16.383	
12,000.00	11,802.36	11,409.00	11,024.02	22.76	30.82	-24.95	-665.30	-688.55	859.50	807.27	52.22	16.459	
12,100.00	11,823.06	11,456.00	11,029.45	23.58	31.24	-24.56	-665.25	-735.23	865.92	813.22	52.70	16.431	
12,200.00	11,826.89	11,503.00	11,031.63	24.64	31.72	-24.64	-665.17	-782.17	863.06	809.96	53.10	16.253	
12,300.00	11,825.42	11,579.47	11,032.52	25.96	32.62	-24.59	-664.55	-858.63	859.45	805.77	53.68	16.012	
12,400.00	11,823.95	11,676.06	11,033.23	27.50	33.92	-24.50	-663.49	-955.21	856.39	801.83	54.56	15.697	
12,500.00	11,822.48	11,774.59	11,032.97	29.20	35.40	-24.32	-661.41	-1,053.72	853.84	798.30	55.53	15.375	
12,600.00	11,821.01	11,873.71	11,032.78	31.02	37.00	-24.11	-658.85	-1,152.81	851.02	794.44	56.59	15.039	
12,700.00	11,819.54	11,966.35	11,031.70	32.94	38.60	-23.88	-656.16	-1,245.40	848.97	791.37	57.60	14.739	
12,800.00	11,818.07	12,065.28	11,029.75	34.92	40.39	-23.57	-652.88	-1,344.25	847.52	788.77	58.75	14.426	
12,900.00	11,816.60	12,158.05	11,029.32	36.97	42.16	-23.53	-653.09	-1,437.02	846.14	786.19	59.95	14.114	
12,936.76	11,816.06	12,189.13	11,028.90	37.74	42.75	-23.52	-653.36	-1,468.09	846.02	785.66	60.36	14.015	
13,000.00	11,815.13	12,253.40	11,027.81	39.07	44.00	-23.50	-654.10	-1,532.35	846.09	784.84	61.25	13.814	
13,100.00	11,813.66	12,356.71	11,026.91	41.20	46.03	-23.54	-655.95	-1,635.64	845.67	782.93	62.74	13.479	
13,200.00	11,812.19	12,459.07	11,025.76	43.37	48.09	-23.50	-656.63	-1,737.99	845.05	780.82	64.24	13.155	
13,300.00	11,810.72	12,563.81	11,024.75	45.57	50.24	-23.42	-656.59	-1,842.72	844.00	778.20	65.81	12.826	
13,400.00	11,809.25	12,662.35	11,024.13	47.79	52.29	-23.36	-656.65	-1,941.26	842.69	775.36	67.33	12.516	
13,500.00	11,807.78	12,753.78	11,022.99	50.04	54.23	-23.29	-656.80	-2,032.68	841.99	773.22	68.77	12.244	
13,552.18	11,807.02	12,804.60	11,022.19	51.22	55.31	-23.28	-657.37	-2,083.49	841.97	772.37	69.60	12.097	
13,600.00	11,806.31	12,851.92	11,021.45	52.30	56.33	-23.28	-657.97	-2,130.80	841.98	771.60	70.39	11.962	
13,700.00	11,804.84	12,949.99	11,020.22	54.57	58.45	-23.34	-660.29	-2,228.84	842.15	770.05	72.11	11.679	
13,800.00	11,803.37	13,050.98	11,019.66	56.86	60.65	-23.54	-664.49	-2,329.74	842.40	768.36	74.04	11.378	
13,900.00	11,801.90	13,154.72	11,019.93	59.17	62.93	-23.83	-669.88	-2,433.33	842.34	766.17	76.17	11.059	
14,000.00	11,800.43	13,254.54	11,020.71	61.48	65.13	-24.16	-675.60	-2,532.99	842.03	763.70	78.33	10.750	
14,037.50	11,799.88	13,290.19	11,020.73	62.35	65.93	-24.24	-677.24	-2,568.60	841.99	762.89	79.10	10.645	
14,100.00	11,798.96	13,353.75	11,020.18	63.80	67.35	-24.31	-679.12	-2,632.13	842.04	761.65	80.39	10.475	
14,200.00	11,797.49	13,457.39	11,019.17	66.13	69.70	-24.30	-680.20	-2,735.76	841.42	759.02	82.39	10.212	
14,252.77	11,796.72	13,505.73	11,018.14	67.37	70.79	-24.23	-679.84	-2,784.08	841.26	757.99	83.27	10.103	
14,300.00	11,796.02	13,550.49	11,016.81	68.47	71.81	-24.13	-679.12	-2,828.82	841.33	757.29	84.04	10.012	
14,400.00	11,794.55	13,645.86	11,013.47	70.82	73.98	-23.88	-677.39	-2,924.11	841.87	756.24	85.63	9.831	
14,500.00	11,793.08	13,742.58	11,009.98	73.17	76.18	-23.69	-676.68	-3,020.76	842.95	755.63	87.32	9.654	
14,600.00	11,791.62	13,841.72	11,006.76	75.53	78.45	-23.59	-677.23	-3,119.85	844.23	755.07	89.16	9.469	
14,700.00	11,790.15	13,936.53	11,003.63	77.89	80.62	-23.52	-678.14	-3,214.60	845.72	754.76	90.97	9.297	
14,800.00	11,788.68	14,048.17	10,999.53	80.26	83.20	-23.42	-679.22	-3,326.17	847.63	754.55	93.07	9.107	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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							Rule Assigned:				Offset Well Error:	0.00 ft
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	Warning	
14,900.00	11,787.21	14,186.85	10,998.30	82.63	86.42	-23.19	-677.16	-3,464.81	845.96	750.51	95.44	8.863		
15,000.00	11,785.74	14,278.30	10,999.17	85.00	88.54	-23.07	-675.71	-3,556.25	842.53	745.34	97.19	8.669		
15,100.00	11,784.27	14,359.00	10,998.43	87.38	90.42	-22.96	-674.84	-3,636.93	840.97	742.23	98.75	8.517		
15,105.85	11,784.18	14,359.00	10,998.43	87.52	90.42	-22.96	-674.84	-3,636.93	840.95	742.19	98.76	8.515		
15,200.00	11,782.80	14,443.50	10,995.89	89.76	92.39	-22.81	-674.23	-3,721.39	841.50	741.22	100.28	8.392		
15,300.00	11,781.33	14,542.58	10,992.65	92.15	94.71	-22.70	-674.61	-3,820.42	842.76	740.63	102.13	8.252		
15,400.00	11,779.86	14,643.40	10,990.02	94.54	97.07	-22.69	-676.44	-3,921.18	843.95	739.75	104.20	8.099		
15,500.00	11,778.39	14,738.73	10,987.68	96.93	99.30	-22.76	-679.18	-4,016.45	845.42	739.11	106.31	7.953		
15,600.00	11,776.92	14,850.45	10,985.05	99.32	101.93	-22.80	-681.85	-4,128.11	846.62	737.92	108.71	7.788		
15,700.00	11,775.45	14,970.24	10,984.08	101.71	104.75	-22.72	-682.03	-4,247.89	845.47	734.45	111.02	7.615		
15,800.00	11,773.98	15,074.11	10,984.81	104.11	107.21	-22.72	-682.59	-4,351.75	843.12	729.91	113.21	7.447		
15,900.00	11,772.51	15,173.07	10,985.84	106.51	109.55	-22.77	-683.65	-4,450.70	840.67	725.26	115.41	7.284		
16,000.00	11,771.04	15,274.42	10,987.19	108.91	111.94	-22.87	-685.62	-4,552.02	838.29	720.48	117.80	7.116		
16,100.00	11,769.57	15,371.82	10,988.95	111.31	114.24	-23.05	-688.51	-4,649.36	835.86	715.55	120.32	6.947		
16,200.00	11,768.10	15,464.54	10,989.86	113.72	116.44	-23.18	-690.89	-4,742.04	834.06	711.39	122.67	6.799		
16,300.00	11,766.63	15,563.28	10,989.62	116.12	118.79	-23.20	-692.16	-4,840.77	832.88	707.98	124.90	6.669		
16,364.79	11,765.67	15,618.21	10,989.39	117.68	120.09	-23.24	-693.27	-4,895.69	832.42	706.18	126.23	6.594		
16,400.00	11,765.16	15,646.75	10,988.90	118.53	120.77	-23.25	-693.80	-4,924.22	832.56	705.66	126.90	6.561		
16,500.00	11,763.69	15,737.65	10,985.97	120.94	122.93	-23.19	-694.92	-5,015.06	834.08	705.28	128.79	6.476		
16,600.00	11,762.22	15,833.21	10,981.88	123.35	125.20	-23.06	-695.29	-5,110.54	836.25	705.68	130.57	6.405		
16,700.00	11,760.75	15,933.80	10,977.65	125.76	127.60	-22.97	-696.56	-5,211.02	838.70	706.14	132.57	6.327		
16,800.00	11,759.28	16,059.35	10,974.22	128.17	130.59	-22.86	-697.23	-5,336.52	839.51	704.53	134.98	6.219		
16,900.00	11,757.81	16,156.33	10,972.69	130.58	132.91	-22.75	-696.87	-5,433.49	838.91	702.08	136.84	6.131		
16,926.16	11,757.42	16,179.72	10,972.23	131.21	133.47	-22.72	-696.83	-5,456.88	838.87	701.58	137.29	6.110		
16,954.90	11,757.00	16,205.43	10,971.65	131.91	134.08	-22.69	-696.81	-5,482.57	838.92	701.14	137.79	6.089 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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 505H - Original Hole - rev1													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	-177.20	-922.80	-45.10	924.01				
100.00	100.00	86.00	86.00	0.43	0.37	-177.20	-922.80	-45.10	923.90	923.11	0.80	1,158.810	
200.00	200.00	186.00	186.00	1.25	1.14	-177.20	-922.80	-45.10	923.90	921.51	2.39	386.628	
300.00	300.00	286.00	286.00	1.75	1.68	-177.20	-922.80	-45.10	923.90	920.48	3.42	269.782	
400.00	400.00	386.00	386.00	2.13	2.08	-177.20	-922.80	-45.10	923.90	919.69	4.21	219.389	
500.00	500.00	486.00	486.00	2.46	2.42	-177.20	-922.80	-45.10	923.90	919.03	4.88	189.461	
600.00	600.00	586.00	586.00	2.75	2.71	-177.20	-922.80	-45.10	923.90	918.44	5.47	169.036	
700.00	700.00	686.00	686.00	3.02	2.98	-177.20	-922.80	-45.10	923.90	917.90	6.00	153.943	
800.00	800.00	786.00	786.00	3.27	3.23	-177.20	-922.80	-45.10	923.90	917.41	6.50	142.196	
900.00	900.00	886.00	886.00	3.50	3.46	-177.20	-922.80	-45.10	923.90	916.94	6.96	132.711	
1,000.00	1,000.00	986.00	986.00	3.72	3.68	-177.20	-922.80	-45.10	923.90	916.50	7.40	124.842	
1,100.00	1,100.00	1,086.00	1,086.00	3.92	3.89	-177.20	-922.80	-45.10	923.90	916.09	7.82	118.174	
1,200.00	1,200.00	1,186.00	1,186.00	4.12	4.09	-177.20	-922.80	-45.10	923.90	915.69	8.22	112.427	
1,300.00	1,300.00	1,286.00	1,286.00	4.31	4.29	-177.20	-922.80	-45.10	923.90	915.30	8.60	107.406	
1,400.00	1,400.00	1,386.00	1,386.00	4.50	4.47	-177.20	-922.80	-45.10	923.90	914.93	8.97	102.969	
1,500.00	1,500.00	1,486.00	1,486.00	4.68	4.65	-177.20	-922.80	-45.10	923.90	914.57	9.33	99.009	
1,600.00	1,600.00	1,586.00	1,586.00	4.85	4.83	-177.20	-922.80	-45.10	923.90	914.22	9.68	95.447	
1,700.00	1,700.00	1,686.00	1,686.00	5.02	5.00	-177.20	-922.80	-45.10	923.90	913.88	10.02	92.219	
1,800.00	1,800.00	1,786.00	1,786.00	5.19	5.16	-177.20	-922.80	-45.10	923.90	913.55	10.35	89.276	
1,900.00	1,900.00	1,886.00	1,886.00	5.35	5.32	-177.20	-922.80	-45.10	923.90	913.23	10.67	86.577	
2,000.00	2,000.00	1,986.00	1,986.00	5.50	5.48	-177.20	-922.80	-45.10	923.90	912.92	10.99	84.091	
2,100.00	2,100.00	2,086.00	2,086.00	5.66	5.64	-177.20	-922.80	-45.10	923.90	912.61	11.30	81.790	
2,200.00	2,200.00	2,186.00	2,186.00	5.81	5.79	-177.20	-922.80	-45.10	923.90	912.30	11.60	79.653	
2,300.00	2,300.00	2,286.00	2,286.00	5.96	5.94	-177.20	-922.80	-45.10	923.90	912.01	11.90	77.660	
2,400.00	2,400.00	2,386.00	2,386.00	6.10	6.08	-177.20	-922.80	-45.10	923.90	911.71	12.19	75.796	
2,500.00	2,500.00	2,486.00	2,486.00	6.25	6.23	-177.20	-922.80	-45.10	923.90	911.43	12.48	74.048	
2,600.00	2,600.00	2,586.00	2,586.00	6.39	6.37	-177.20	-922.80	-45.10	923.90	911.14	12.76	72.403	
2,700.00	2,700.00	2,686.00	2,686.00	6.53	6.51	-177.20	-922.80	-45.10	923.90	910.86	13.04	70.852	
2,800.00	2,800.00	2,786.00	2,786.00	6.67	6.65	-177.20	-922.80	-45.10	923.90	910.59	13.32	69.386	
2,900.00	2,900.00	2,886.00	2,886.00	6.80	6.78	-177.20	-922.80	-45.10	923.90	910.32	13.59	67.998	
3,000.00	3,000.00	2,986.00	2,986.00	6.94	6.92	-177.20	-922.80	-45.10	923.90	910.05	13.86	66.681	
3,100.00	3,100.00	3,086.00	3,086.00	7.07	7.05	-177.20	-922.80	-45.10	923.90	909.78	14.12	65.429	
3,200.00	3,200.00	3,186.00	3,186.00	7.20	7.18	-177.20	-922.80	-45.10	923.90	909.52	14.38	64.236	
3,300.00	3,300.00	3,286.00	3,286.00	7.33	7.31	-177.20	-922.80	-45.10	923.90	909.26	14.64	63.099	
3,400.00	3,399.98	3,385.98	3,385.98	7.46	7.44	2.80	-922.80	-45.10	922.16	907.26	14.90	61.903	
3,500.00	3,499.84	3,485.84	3,485.84	7.87	7.57	2.83	-922.80	-45.10	916.93	901.50	15.44	59.406	
3,600.00	3,599.47	3,585.47	3,585.47	8.04	7.69	2.86	-922.80	-45.10	908.38	892.65	15.73	57.739	
3,700.00	3,699.02	3,685.02	3,685.02	8.14	7.82	2.89	-922.80	-45.10	898.99	883.03	15.96	56.332	
3,800.00	3,798.58	3,784.58	3,784.58	8.28	7.94	2.92	-922.80	-45.10	889.59	873.37	16.21	54.867	
3,900.00	3,898.14	3,864.57	3,864.57	8.42	8.03	2.95	-923.51	-45.26	881.12	864.67	16.45	53.551	
4,000.00	3,997.69	3,941.24	3,941.18	8.59	8.23	3.01	-926.20	-45.87	875.25	858.45	16.80	52.085	
4,100.00	4,097.25	4,018.08	4,017.87	8.77	8.49	3.09	-930.89	-46.94	872.02	854.80	17.22	50.637	
4,200.00	4,196.80	4,104.09	4,103.55	8.96	8.59	3.20	-938.26	-48.61	871.24	853.73	17.51	49.767	
4,300.00	4,296.36	4,204.07	4,203.10	9.17	8.69	3.33	-947.26	-50.66	870.94	853.13	17.81	48.907	
4,400.00	4,395.92	4,304.05	4,302.65	9.38	8.81	3.47	-956.25	-52.70	870.64	852.50	18.15	47.973	
4,500.00	4,495.47	4,404.02	4,402.20	9.61	8.95	3.61	-965.24	-54.75	870.36	851.84	18.52	47.005	
4,600.00	4,595.03	4,504.00	4,501.75	9.85	9.10	3.74	-974.24	-56.79	870.07	851.16	18.91	46.013	
4,700.00	4,694.59	4,603.98	4,601.31	10.10	9.26	3.88	-983.23	-58.83	869.80	850.47	19.33	45.006	
4,787.61	4,781.82	4,691.58	4,688.53	10.30	9.42	-1.17	-991.11	-60.62	869.72	850.04	19.68	44.189	
4,800.00	4,794.15	4,703.96	4,700.86	10.33	9.44	-1.91	-992.22	-60.88	869.59	849.85	19.73	44.069	
4,900.00	4,893.78	4,803.95	4,800.42	10.58	9.63	-24.72	-1,001.22	-62.92	870.43	850.25	20.18	43.133	
5,000.00	4,993.42	4,903.87	4,899.92	10.79	9.84	-37.69	-1,010.21	-64.97	872.54	851.95	20.59	42.372	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 505H - Original Hole - rev1												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	
5,100.00	5,093.05	5,003.77	4,999.39	11.01	10.05	-37.94	-1,019.20	-67.01	874.87	853.84	21.03	41.597	
5,200.00	5,192.68	5,103.67	5,098.86	11.24	10.28	-38.19	-1,028.18	-69.05	877.22	855.72	21.49	40.814	
5,300.00	5,292.31	5,203.57	5,198.34	11.49	10.52	-38.44	-1,037.17	-71.09	879.58	857.61	21.97	40.042	
5,400.00	5,391.94	5,303.47	5,297.81	11.74	10.76	-38.69	-1,046.16	-73.14	881.96	859.51	22.45	39.284	
5,500.00	5,491.57	5,403.37	5,397.29	12.00	11.01	-38.93	-1,055.14	-75.18	884.36	861.41	22.95	38.542	
5,600.00	5,591.20	5,503.27	5,496.76	12.27	11.28	-39.18	-1,064.13	-77.22	886.77	863.32	23.45	37.816	
5,700.00	5,690.83	5,603.17	5,596.23	12.55	11.54	-39.42	-1,073.12	-79.26	889.20	865.24	23.96	37.108	
5,800.00	5,790.46	5,703.07	5,695.71	12.82	11.82	-39.66	-1,082.10	-81.30	891.65	867.16	24.48	36.419	
5,900.00	5,890.09	5,802.97	5,795.18	13.11	12.10	-39.90	-1,091.09	-83.35	894.11	869.10	25.01	35.749	
6,000.00	5,989.72	5,902.87	5,894.65	13.40	12.39	-40.14	-1,100.08	-85.39	896.58	871.04	25.54	35.098	
6,100.00	6,089.35	6,002.77	5,994.13	13.69	12.68	-40.38	-1,109.06	-87.43	899.08	872.99	26.08	34.467	
6,200.00	6,188.98	6,102.67	6,093.60	13.99	12.98	-40.61	-1,118.05	-89.47	901.58	874.95	26.63	33.855	
6,300.00	6,288.61	6,202.57	6,193.08	14.30	13.29	-40.85	-1,127.04	-91.52	904.11	876.93	27.18	33.264	
6,400.00	6,388.24	6,327.98	6,318.05	14.61	13.67	-41.16	-1,137.16	-93.82	905.84	878.04	27.80	32.582	
6,500.00	6,487.87	6,472.32	6,462.27	14.92	14.23	-41.60	-1,142.56	-95.05	903.13	874.57	28.56	31.623	
6,600.00	6,587.50	6,583.55	6,573.50	15.23	14.37	-42.00	-1,142.80	-95.10	896.88	867.95	28.93	31.003	
6,700.00	6,687.13	6,683.18	6,673.13	15.55	14.43	-42.37	-1,142.80	-95.10	890.50	861.28	29.22	30.474	
6,800.00	6,786.76	6,782.81	6,772.76	15.87	14.48	-42.75	-1,142.80	-95.10	884.16	854.65	29.52	29.956	
6,900.00	6,886.39	6,882.44	6,872.39	16.20	14.54	-43.13	-1,142.80	-95.10	877.86	848.06	29.81	29.451	
7,000.00	6,986.02	6,982.07	6,972.02	16.53	14.60	-43.51	-1,142.80	-95.10	871.60	841.50	30.10	28.959	
7,100.00	7,085.65	7,081.70	7,071.65	16.86	14.66	-43.90	-1,142.80	-95.10	865.38	834.99	30.39	28.480	
7,200.00	7,185.28	7,181.34	7,171.28	17.19	14.71	-44.30	-1,142.80	-95.10	859.20	828.52	30.67	28.013	
7,300.00	7,284.93	7,280.98	7,270.93	17.50	14.77	-44.67	-1,142.80	-95.10	853.18	822.24	30.93	27.581	
7,400.00	7,384.76	7,380.81	7,370.76	17.86	14.83	-44.89	-1,142.80	-95.10	849.08	817.85	31.23	27.188	
7,500.00	7,484.72	7,480.78	7,470.72	18.23	14.89	-44.97	-1,142.80	-95.10	847.47	815.93	31.54	26.870	
7,589.74	7,574.47	7,570.52	7,560.47	18.26	14.94	-44.98	-1,142.80	-95.10	847.28	815.66	31.62	26.792	
7,600.00	7,584.72	7,580.78	7,570.72	18.26	14.95	176.66	-1,142.80	-95.10	847.44	815.80	31.64	26.788	
7,700.00	7,684.72	7,680.78	7,670.72	18.30	15.01	176.66	-1,142.80	-95.10	847.44	815.70	31.74	26.702	
7,800.00	7,784.72	7,780.78	7,770.72	18.34	15.07	176.66	-1,142.80	-95.10	847.44	815.60	31.84	26.615	
7,900.00	7,884.72	7,880.78	7,870.72	18.38	15.13	176.66	-1,142.80	-95.10	847.44	815.49	31.95	26.528	
8,000.00	7,984.72	7,980.78	7,970.72	18.42	15.19	176.66	-1,142.80	-95.10	847.44	815.39	32.05	26.441	
8,100.00	8,084.72	8,080.78	8,070.72	18.47	15.25	176.66	-1,142.80	-95.10	847.44	815.28	32.16	26.354	
8,200.00	8,184.72	8,180.78	8,170.72	18.51	15.31	176.66	-1,142.80	-95.10	847.44	815.18	32.26	26.268	
8,300.00	8,284.72	8,280.78	8,270.72	18.55	15.37	176.66	-1,142.80	-95.10	847.44	815.07	32.37	26.181	
8,400.00	8,384.72	8,380.78	8,370.72	18.59	15.43	176.66	-1,142.80	-95.10	847.44	814.96	32.47	26.095	
8,500.00	8,484.72	8,480.78	8,470.72	18.63	15.49	176.66	-1,142.80	-95.10	847.44	814.86	32.58	26.009	
8,600.00	8,584.72	8,580.78	8,570.72	18.67	15.55	176.66	-1,142.80	-95.10	847.44	814.75	32.69	25.924	
8,700.00	8,684.72	8,680.78	8,670.72	18.72	15.61	176.66	-1,142.80	-95.10	847.44	814.64	32.80	25.838	
8,800.00	8,784.72	8,780.78	8,770.72	18.76	15.67	176.66	-1,142.80	-95.10	847.44	814.53	32.91	25.753	
8,900.00	8,884.72	8,880.78	8,870.72	18.80	15.73	176.66	-1,142.80	-95.10	847.44	814.42	33.02	25.668	
9,000.00	8,984.72	8,980.78	8,970.72	18.85	15.79	176.66	-1,142.80	-95.10	847.44	814.31	33.13	25.583	
9,100.00	9,084.72	9,080.78	9,070.72	18.89	15.86	176.66	-1,142.80	-95.10	847.44	814.20	33.23	25.498	
9,200.00	9,184.72	9,180.78	9,170.72	18.93	15.92	176.66	-1,142.80	-95.10	847.44	814.09	33.35	25.414	
9,300.00	9,284.72	9,280.78	9,270.72	18.98	15.98	176.66	-1,142.80	-95.10	847.44	813.98	33.46	25.330	
9,400.00	9,384.72	9,380.78	9,370.72	19.02	16.04	176.66	-1,142.80	-95.10	847.44	813.87	33.57	25.246	
9,500.00	9,484.72	9,480.78	9,470.72	19.07	16.10	176.66	-1,142.80	-95.10	847.44	813.76	33.68	25.162	
9,600.00	9,584.72	9,580.78	9,570.72	19.11	16.17	176.66	-1,142.80	-95.10	847.44	813.65	33.79	25.079	
9,700.00	9,684.72	9,680.78	9,670.72	19.16	16.23	176.66	-1,142.80	-95.10	847.44	813.54	33.90	24.996	
9,800.00	9,784.72	9,780.78	9,770.72	19.20	16.29	176.66	-1,142.80	-95.10	847.44	813.42	34.02	24.913	
9,900.00	9,884.72	9,880.78	9,870.72	19.25	16.36	176.66	-1,142.80	-95.10	847.44	813.31	34.13	24.830	
10,000.00	9,984.72	9,980.78	9,970.72	19.29	16.42	176.66	-1,142.80	-95.10	847.44	813.20	34.24	24.748	
10,100.00	10,084.72	10,084.32	10,074.22	19.34	16.48	176.78	-1,142.81	-96.80	847.36	813.02	34.34	24.678	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 505H - Original Hole - rev1													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)			
10,200.00	10,184.72	10,189.77	10,177.75	19.39	16.62	178.07	-1,142.91	-115.86	846.62	812.06	34.56	24.497	
10,272.93	10,257.66	10,260.01	10,243.67	19.42	16.78	179.70	-1,143.04	-139.98	846.25	811.42	34.83	24.299 CC	
10,300.00	10,284.72	10,284.22	10,265.55	19.43	16.84	-179.60	-1,143.09	-150.31	846.33	811.38	34.94	24.221 ES	
10,400.00	10,384.72	10,364.25	10,334.07	19.48	17.07	-176.82	-1,143.31	-191.52	848.61	813.17	35.44	23.946	
10,500.00	10,484.72	10,430.01	10,385.11	19.53	17.30	-174.03	-1,143.52	-232.91	855.63	819.60	36.03	23.748	
10,600.00	10,584.72	10,483.40	10,422.45	19.57	17.51	-171.50	-1,143.72	-271.03	869.08	832.37	36.70	23.678	
10,700.00	10,684.72	10,526.75	10,449.78	19.62	17.69	-169.29	-1,143.90	-304.68	889.99	852.53	37.45	23.763	
10,800.00	10,784.72	10,562.21	10,469.99	19.67	17.85	-167.40	-1,144.05	-333.81	918.77	880.52	38.25	24.018	
10,900.00	10,884.72	10,600.00	10,489.29	19.72	18.04	-165.33	-1,144.22	-366.28	955.43	916.28	39.14	24.409	
11,000.00	10,984.72	10,615.93	10,496.71	19.76	18.13	-164.44	-1,144.30	-380.38	999.31	959.38	39.92	25.031	
11,100.00	11,084.72	10,650.00	10,511.11	19.81	18.34	-162.53	-1,144.46	-411.25	1,050.18	1,009.34	40.84	25.715	
11,200.00	11,184.72	10,650.00	10,511.11	19.86	18.34	-162.53	-1,144.46	-411.25	1,106.71	1,065.20	41.50	26.665	
11,300.00	11,284.71	10,669.58	10,518.47	19.91	18.47	-68.30	-1,144.55	-429.39	1,168.45	1,126.16	42.30	27.626	
11,400.00	11,383.60	10,700.00	10,528.53	20.16	18.70	-59.70	-1,144.70	-458.09	1,230.98	1,187.76	43.23	28.478	
11,500.00	11,478.56	10,700.00	10,528.53	20.48	18.70	-53.50	-1,144.70	-458.09	1,290.66	1,246.73	43.93	29.379	
11,600.00	11,566.71	10,731.76	10,537.23	20.84	18.97	-47.42	-1,144.86	-488.64	1,345.91	1,301.01	44.89	29.980	
11,700.00	11,645.37	10,756.97	10,542.80	21.24	19.20	-42.85	-1,144.99	-513.22	1,395.26	1,349.49	45.77	30.486	
11,800.00	11,712.15	10,783.57	10,547.38	21.66	19.47	-39.37	-1,145.13	-539.42	1,437.41	1,390.82	46.59	30.855	
11,900.00	11,765.01	10,800.00	10,549.53	22.15	19.65	-36.93	-1,145.21	-555.71	1,471.53	1,424.24	47.29	31.118	
12,000.00	11,802.36	10,850.00	10,552.93	22.76	20.25	-35.03	-1,145.47	-605.57	1,496.59	1,448.23	48.37	30.943	
12,100.00	11,823.06	10,875.30	10,552.91	23.58	20.58	-34.04	-1,145.61	-630.87	1,512.12	1,463.00	49.11	30.788	
12,200.00	11,826.89	10,975.08	10,551.90	24.64	22.03	-33.70	-1,146.13	-730.64	1,515.64	1,465.06	50.58	29.966	
12,300.00	11,825.42	11,075.07	10,550.90	25.96	23.67	-33.68	-1,146.65	-830.63	1,514.75	1,462.71	52.04	29.109	
12,400.00	11,823.95	11,175.07	10,549.90	27.50	25.45	-33.66	-1,147.18	-930.62	1,513.86	1,460.23	53.63	28.229	
12,500.00	11,822.48	11,275.06	10,548.89	29.20	27.34	-33.64	-1,147.70	-1,030.61	1,512.97	1,457.64	55.33	27.343	
12,600.00	11,821.01	11,375.06	10,547.89	31.02	29.31	-33.62	-1,148.23	-1,130.60	1,512.08	1,454.94	57.14	26.462	
12,700.00	11,819.54	11,475.05	10,546.88	32.94	31.35	-33.60	-1,148.75	-1,230.58	1,511.19	1,452.15	59.05	25.593	
12,800.00	11,818.07	11,575.05	10,545.88	34.92	33.44	-33.58	-1,149.28	-1,330.57	1,510.30	1,449.27	61.03	24.745	
12,900.00	11,816.60	11,675.04	10,544.87	36.97	35.58	-33.57	-1,149.80	-1,430.56	1,509.42	1,446.32	63.10	23.921	
13,000.00	11,815.13	11,775.04	10,543.87	39.07	37.76	-33.55	-1,150.32	-1,530.55	1,508.53	1,443.29	65.23	23.125	
13,100.00	11,813.66	11,875.03	10,542.86	41.20	39.96	-33.53	-1,150.85	-1,630.54	1,507.64	1,440.21	67.43	22.358	
13,200.00	11,812.19	11,975.03	10,541.86	43.37	42.19	-33.51	-1,151.37	-1,730.53	1,506.75	1,437.07	69.68	21.623	
13,300.00	11,810.72	12,075.02	10,540.85	45.57	44.44	-33.49	-1,151.90	-1,830.51	1,505.86	1,433.88	71.99	20.919	
13,400.00	11,809.25	12,175.02	10,539.85	47.79	46.72	-33.47	-1,152.42	-1,930.50	1,504.98	1,430.64	74.33	20.246	
13,500.00	11,807.78	12,275.01	10,538.84	50.04	49.00	-33.45	-1,152.95	-2,030.49	1,504.09	1,427.36	76.72	19.604	
13,600.00	11,806.31	12,375.01	10,537.84	52.30	51.30	-33.43	-1,153.47	-2,130.48	1,503.20	1,424.05	79.15	18.992	
13,700.00	11,804.84	12,475.00	10,536.83	54.57	53.62	-33.41	-1,153.99	-2,230.47	1,502.31	1,420.70	81.61	18.409	
13,800.00	11,803.37	12,575.00	10,535.83	56.86	55.94	-33.39	-1,154.52	-2,330.46	1,501.43	1,417.33	84.10	17.853	
13,900.00	11,801.90	12,674.99	10,534.82	59.17	58.28	-33.38	-1,155.04	-2,430.45	1,500.54	1,413.92	86.62	17.324	
14,000.00	11,800.43	12,774.99	10,533.82	61.48	60.62	-33.36	-1,155.57	-2,530.43	1,499.65	1,410.49	89.16	16.820	
14,100.00	11,798.96	12,874.98	10,532.81	63.80	62.97	-33.34	-1,156.09	-2,630.42	1,498.77	1,407.04	91.73	16.340	
14,200.00	11,797.49	12,974.98	10,531.81	66.13	65.32	-33.32	-1,156.62	-2,730.41	1,497.88	1,403.57	94.31	15.882	
14,300.00	11,796.02	13,074.97	10,530.80	68.47	67.68	-33.30	-1,157.14	-2,830.40	1,496.99	1,400.08	96.92	15.446	
14,400.00	11,794.55	13,174.97	10,529.80	70.82	70.05	-33.28	-1,157.66	-2,930.39	1,496.11	1,396.57	99.54	15.031	
14,500.00	11,793.08	13,274.96	10,528.79	73.17	72.42	-33.26	-1,158.19	-3,030.38	1,495.22	1,393.05	102.18	14.634	
14,600.00	11,791.62	13,374.96	10,527.79	75.53	74.80	-33.24	-1,158.71	-3,130.36	1,494.34	1,389.51	104.83	14.255	
14,700.00	11,790.15	13,474.95	10,526.79	77.89	77.18	-33.22	-1,159.24	-3,230.35	1,493.45	1,385.96	107.49	13.894	
14,800.00	11,788.68	13,574.95	10,525.78	80.26	79.56	-33.20	-1,159.76	-3,330.34	1,492.57	1,382.40	110.17	13.548	
14,900.00	11,787.21	13,674.94	10,524.78	82.63	81.94	-33.18	-1,160.28	-3,430.33	1,491.68	1,378.82	112.86	13.218	
15,000.00	11,785.74	13,774.93	10,523.77	85.00	84.33	-33.16	-1,160.81	-3,530.32	1,490.80	1,375.24	115.55	12.901	
15,100.00	11,784.27	13,874.93	10,522.77	87.38	86.73	-33.14	-1,161.33	-3,630.31	1,489.91	1,371.65	118.26	12.599	
15,200.00	11,782.80	13,974.92	10,521.76	89.76	89.12	-33.13	-1,161.86	-3,730.29	1,489.03	1,368.05	120.97	12.309	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 505H - Original Hole - rev1												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)			
15,300.00	11,781.33	14,074.92	10,520.76	92.15	91.52	-33.11	-1,162.38	-3,830.28	1,488.14	1,364.45	123.70	12.031	
15,400.00	11,779.86	14,174.91	10,519.75	94.54	93.92	-33.09	-1,162.91	-3,930.27	1,487.26	1,360.83	126.42	11.764	
15,500.00	11,778.39	14,274.91	10,518.75	96.93	96.32	-33.07	-1,163.43	-4,030.26	1,486.37	1,357.21	129.16	11.508	
15,600.00	11,776.92	14,374.90	10,517.74	99.32	98.72	-33.05	-1,163.95	-4,130.25	1,485.49	1,353.59	131.90	11.262	
15,700.00	11,775.45	14,474.90	10,516.74	101.71	101.12	-33.03	-1,164.48	-4,230.24	1,484.60	1,349.96	134.65	11.026	
15,800.00	11,773.98	14,574.89	10,515.73	104.11	103.53	-33.01	-1,165.00	-4,330.22	1,483.72	1,346.32	137.40	10.799	
15,900.00	11,772.51	14,674.89	10,514.73	106.51	105.94	-32.99	-1,165.53	-4,430.21	1,482.84	1,342.68	140.15	10.580	
16,000.00	11,771.04	14,774.88	10,513.72	108.91	108.35	-32.97	-1,166.05	-4,530.20	1,481.95	1,339.04	142.91	10.370	
16,100.00	11,769.57	14,874.88	10,512.72	111.31	110.76	-32.95	-1,166.58	-4,630.19	1,481.07	1,335.39	145.68	10.167	
16,200.00	11,768.10	14,974.87	10,511.71	113.72	113.17	-32.93	-1,167.10	-4,730.18	1,480.19	1,331.75	148.44	9.971	
16,300.00	11,766.63	15,074.87	10,510.71	116.12	115.58	-32.91	-1,167.62	-4,830.17	1,479.31	1,328.09	151.21	9.783	
16,400.00	11,765.16	15,174.86	10,509.70	118.53	118.00	-32.89	-1,168.15	-4,930.15	1,478.42	1,324.44	153.98	9.601	
16,500.00	11,763.69	15,274.86	10,508.70	120.94	120.41	-32.87	-1,168.67	-5,030.14	1,477.54	1,320.78	156.76	9.426	
16,600.00	11,762.22	15,374.85	10,507.69	123.35	122.83	-32.85	-1,169.20	-5,130.13	1,476.66	1,317.12	159.54	9.256	
16,700.00	11,760.75	15,474.85	10,506.69	125.76	125.24	-32.83	-1,169.72	-5,230.12	1,475.78	1,313.46	162.31	9.092	
16,800.00	11,759.28	15,574.84	10,505.68	128.17	127.66	-32.81	-1,170.25	-5,330.11	1,474.89	1,309.80	165.09	8.934	
16,900.00	11,757.81	15,674.84	10,504.68	130.58	130.08	-32.79	-1,170.77	-5,430.10	1,474.01	1,306.14	167.87	8.780	
16,954.90	11,757.00	15,729.73	10,504.13	131.91	131.41	-32.78	-1,171.06	-5,484.99	1,473.53	1,304.13	169.40	8.698 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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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
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	
0.00	0.00	7.59	7.59	0.00	0.05	-0.69	161.78	-1.94	161.79				
100.00	100.00	108.82	108.81	0.43	0.72	-0.72	161.34	-2.04	161.35	160.21	1.15	140.719	
200.00	200.00	210.03	210.02	1.25	1.39	-0.83	160.12	-2.31	160.16	157.52	2.64	60.717	
300.00	300.00	309.70	309.68	1.75	2.32	-0.93	158.60	-2.58	158.64	154.57	4.07	38.974	
400.00	400.00	409.25	409.22	2.13	3.29	-0.95	157.38	-2.62	157.42	152.00	5.42	29.062	
500.00	500.00	509.98	509.95	2.46	3.91	-0.90	156.05	-2.44	156.09	149.71	6.37	24.485	
600.00	600.00	610.48	610.42	2.75	4.52	-0.78	154.25	-2.09	154.29	147.02	7.27	21.223	
700.00	700.00	709.96	709.88	3.02	5.01	-0.50	152.54	-1.34	152.57	144.54	8.03	19.008	
800.00	800.00	808.92	808.83	3.27	5.43	-0.03	151.22	-0.09	151.22	142.54	8.69	17.406	
860.03	860.03	867.63	867.53	3.40	5.58	0.27	150.96	0.72	150.96	141.99	8.97	16.825	
900.00	900.00	906.72	906.62	3.50	5.68	0.48	151.07	1.26	151.08	141.92	9.16	16.490	
1,000.00	1,000.00	1,006.87	1,006.76	3.72	5.89	1.00	151.82	2.64	151.85	142.29	9.56	15.883	
1,100.00	1,100.00	1,107.56	1,107.44	3.92	6.15	1.54	151.98	4.08	152.04	142.04	10.00	15.204	
1,200.00	1,200.00	1,207.83	1,207.70	4.12	6.48	2.04	151.90	5.41	152.00	141.50	10.50	14.480	
1,300.00	1,300.00	1,308.56	1,308.42	4.31	6.85	2.51	151.53	6.63	151.68	140.66	11.02	13.768	
1,400.00	1,400.00	1,409.52	1,409.36	4.50	7.23	3.00	150.54	7.89	150.76	139.21	11.54	13.059	
1,500.00	1,500.00	1,510.12	1,509.95	4.68	7.62	3.55	148.99	9.23	149.30	137.22	12.08	12.363	
1,600.00	1,600.00	1,610.62	1,610.42	4.85	8.01	4.19	147.06	10.77	147.48	134.88	12.60	11.703	
1,700.00	1,700.00	1,708.49	1,708.26	5.02	8.26	4.80	145.65	12.22	146.17	133.19	12.98	11.264	
1,732.84	1,732.84	1,740.57	1,740.34	5.08	8.34	4.96	145.54	12.63	146.08	132.99	13.09	11.156 CC, ES	
1,800.00	1,800.00	1,806.18	1,805.94	5.19	8.50	5.23	145.82	13.34	146.44	133.11	13.33	10.982	
1,900.00	1,900.00	1,906.20	1,905.96	5.35	8.76	5.57	146.79	14.33	147.49	133.77	13.72	10.750	
2,000.00	2,000.00	2,006.24	2,005.99	5.50	9.03	5.93	147.72	15.34	148.53	134.42	14.10	10.531	
2,100.00	2,100.00	2,106.36	2,106.09	5.66	9.31	6.45	148.55	16.79	149.50	135.02	14.48	10.323	
2,200.00	2,200.00	2,205.92	2,205.63	5.81	9.62	7.20	149.26	18.85	150.46	135.62	14.84	10.138	
2,300.00	2,300.00	2,303.89	2,303.57	5.96	10.02	7.64	150.97	20.25	152.38	137.23	15.15	10.059	
2,400.00	2,400.00	2,402.63	2,402.26	6.10	10.43	7.62	154.06	20.60	155.52	140.04	15.48	10.050	
2,500.00	2,500.00	2,502.90	2,502.48	6.25	10.86	7.49	157.35	20.69	158.78	142.94	15.84	10.025	
2,600.00	2,600.00	2,603.15	2,602.68	6.39	11.17	7.35	160.45	20.70	161.85	145.65	16.20	9.990	
2,700.00	2,700.00	2,703.35	2,702.84	6.53	11.34	7.09	163.43	20.33	164.75	148.19	16.56	9.949	
2,800.00	2,800.00	2,803.82	2,803.27	6.67	11.51	6.70	166.26	19.53	167.46	150.54	16.92	9.899	
2,900.00	2,900.00	2,904.48	2,903.89	6.80	11.66	6.21	168.75	18.37	169.79	152.51	17.27	9.830	
3,000.00	3,000.00	3,004.89	3,004.27	6.94	11.81	5.68	170.90	17.00	171.77	154.15	17.63	9.746	
3,100.00	3,100.00	3,105.22	3,104.57	7.07	11.95	5.20	172.82	15.72	173.56	155.58	17.97	9.656	
3,200.00	3,200.00	3,206.49	3,205.82	7.20	12.10	4.81	174.29	14.68	174.92	156.61	18.31	9.553	
3,300.00	3,300.00	3,307.94	3,307.26	7.33	12.24	4.60	174.91	14.06	175.47	156.83	18.64	9.414	
3,400.00	3,399.98	3,409.76	3,409.08	7.46	12.44	-175.45	174.52	14.02	176.83	157.97	18.86	9.377	
3,500.00	3,499.84	3,510.74	3,510.05	7.87	12.65	-175.35	173.07	14.64	180.66	161.28	19.38	9.320	
3,600.00	3,599.47	3,608.29	3,607.60	8.04	12.90	-175.30	172.11	15.37	188.28	168.52	19.76	9.527	
3,700.00	3,699.02	3,705.78	3,705.08	8.14	13.13	-175.34	172.29	15.99	197.89	177.83	20.06	9.864	
3,800.00	3,798.58	3,803.59	3,802.88	8.28	13.30	-175.50	173.38	16.26	208.40	188.03	20.37	10.231	
3,900.00	3,898.14	3,901.58	3,900.85	8.42	13.47	-175.77	175.26	16.11	219.68	198.98	20.70	10.611	
4,000.00	3,997.69	4,000.05	3,999.30	8.59	13.63	-176.07	177.62	15.73	231.41	210.34	21.07	10.982	
4,100.00	4,097.25	4,096.71	4,095.91	8.77	13.80	-176.37	180.45	15.28	243.68	222.17	21.51	11.327	
4,200.00	4,196.80	4,190.97	4,190.07	8.96	13.99	-176.54	184.77	15.37	257.62	235.59	22.03	11.694	
4,300.00	4,296.36	4,287.42	4,286.33	9.17	14.20	-176.59	190.75	16.03	273.20	250.62	22.58	12.100	
4,400.00	4,395.92	4,386.75	4,385.46	9.38	14.44	-176.65	197.00	16.68	288.87	265.70	23.16	12.472	
4,500.00	4,495.47	4,486.30	4,484.83	9.61	14.68	-176.73	203.05	17.18	304.32	280.64	23.68	12.852	
4,600.00	4,495.03	4,586.05	4,584.41	9.85	14.89	-176.84	208.85	17.41	319.49	295.33	24.16	13.224	
4,700.00	4,494.59	4,686.99	4,685.20	10.10	15.11	-176.97	214.31	17.46	334.25	309.59	24.66	13.556	
4,800.00	4,794.15	4,788.55	4,786.65	10.33	15.33	176.96	219.06	17.56	348.23	323.10	25.14	13.854	
4,900.00	4,893.78	4,888.68	4,886.69	10.58	15.54	154.22	223.23	17.49	360.60	334.96	25.64	14.064	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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
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	
5,000.00	4,993.42	4,988.73	4,986.66	10.79	15.76	141.97	227.22	16.89	371.50	345.39	26.10	14.232	
5,100.00	5,093.05	5,088.87	5,086.72	11.01	15.96	142.59	231.03	15.94	382.02	355.44	26.58	14.371	
5,200.00	5,192.68	5,189.09	5,186.87	11.24	16.17	143.15	234.65	14.79	392.38	365.31	27.08	14.492	
5,300.00	5,292.31	5,289.52	5,287.23	11.49	16.36	143.64	238.07	13.36	402.54	374.97	27.57	14.602	
5,400.00	5,391.94	5,389.57	5,387.22	11.74	16.56	144.07	241.26	11.64	412.49	384.42	28.06	14.699	
5,500.00	5,491.57	5,488.54	5,486.13	12.00	16.76	144.50	244.42	10.08	422.48	393.92	28.56	14.793	
5,600.00	5,591.20	5,586.69	5,584.21	12.27	16.98	144.93	247.68	8.82	432.64	403.58	29.06	14.886	
5,700.00	5,690.83	5,683.50	5,680.95	12.55	17.20	145.38	251.34	7.91	443.33	413.75	29.58	14.989	
5,800.00	5,790.46	5,782.23	5,779.60	12.82	17.40	145.86	255.50	7.35	454.52	424.45	30.07	15.115	
5,900.00	5,890.09	5,883.32	5,880.61	13.11	17.59	146.35	259.46	7.00	465.49	434.93	30.56	15.231	
6,000.00	5,989.72	5,984.46	5,981.66	13.40	17.80	146.72	263.18	5.76	476.12	445.04	31.07	15.322	
6,100.00	6,089.35	6,084.31	6,081.43	13.69	18.01	146.97	266.71	3.61	486.48	454.90	31.59	15.402	
6,200.00	6,188.98	6,183.53	6,180.54	13.99	18.22	147.13	270.34	0.88	496.88	464.78	32.10	15.478	
6,300.00	6,288.61	6,284.70	6,281.60	14.30	18.43	147.24	274.00	-2.36	507.18	474.56	32.61	15.552	
6,400.00	6,388.24	6,386.47	6,383.26	14.61	18.64	147.33	277.27	-5.83	517.04	483.92	33.12	15.609	
6,500.00	6,487.87	6,483.07	6,479.76	14.92	18.86	147.45	280.34	-8.74	526.94	493.31	33.63	15.669	
6,600.00	6,587.50	6,579.28	6,575.89	15.23	19.07	147.67	283.82	-10.56	537.46	503.32	34.14	15.744	
6,700.00	6,687.13	6,680.33	6,676.88	15.55	19.33	148.01	287.45	-11.42	548.13	513.42	34.70	15.795	
6,800.00	6,786.76	6,781.34	6,777.83	15.87	19.60	148.44	290.60	-11.33	558.52	523.24	35.27	15.834	
6,900.00	6,886.39	6,882.12	6,878.58	16.20	19.86	148.90	293.39	-10.79	568.67	532.82	35.85	15.861	
7,000.00	6,986.02	6,982.58	6,979.00	16.53	20.13	149.36	295.90	-10.12	578.63	542.19	36.44	15.881	
7,100.00	7,085.65	7,082.18	7,078.57	16.86	20.39	149.81	298.30	-9.46	588.53	551.52	37.01	15.901	
7,200.00	7,185.28	7,182.87	7,179.23	17.19	20.65	150.24	300.67	-8.88	598.40	560.80	37.60	15.917	
7,300.00	7,284.93	7,285.15	7,281.49	17.50	20.91	150.67	302.69	-8.39	607.76	569.60	38.16	15.926	
7,400.00	7,384.76	7,385.64	7,381.97	17.86	21.16	151.01	304.32	-8.01	614.46	575.71	38.75	15.857	
7,500.00	7,484.72	7,484.83	7,481.14	18.23	21.41	151.14	306.01	-7.69	618.19	578.86	39.33	15.718	
7,600.00	7,584.72	7,586.04	7,582.33	18.26	21.66	12.77	307.76	-7.41	619.97	580.35	39.62	15.648	
7,700.00	7,684.72	7,688.10	7,684.39	18.30	21.92	12.76	309.20	-7.18	621.39	581.48	39.91	15.569	
7,800.00	7,784.72	7,788.96	7,785.24	18.34	22.16	12.75	310.39	-7.06	622.57	582.39	40.19	15.491	
7,900.00	7,884.72	7,889.64	7,885.91	18.38	22.39	12.72	311.51	-7.12	623.64	583.18	40.46	15.412	
8,000.00	7,984.72	7,989.88	7,986.14	18.42	22.61	12.67	312.61	-7.48	624.63	583.92	40.71	15.342	
8,100.00	8,084.72	8,090.06	8,086.31	18.47	22.82	12.58	313.76	-8.23	625.59	584.63	40.96	15.274	
8,200.00	8,184.72	8,189.93	8,186.17	18.51	23.02	12.46	314.97	-9.29	626.54	585.36	41.18	15.214	
8,300.00	8,284.72	8,289.55	8,285.78	18.55	23.22	12.31	316.26	-10.61	627.53	586.12	41.41	15.154	
8,400.00	8,384.72	8,388.52	8,384.73	18.59	23.43	12.17	317.67	-11.92	628.64	587.00	41.64	15.098	
8,500.00	8,484.72	8,486.34	8,482.52	18.63	23.64	12.03	319.25	-13.19	629.95	588.08	41.87	15.047	
8,600.00	8,584.72	8,582.21	8,578.34	18.67	23.86	11.80	321.51	-15.25	631.81	589.72	42.10	15.009	
8,700.00	8,684.72	8,681.41	8,677.44	18.72	24.07	11.46	324.62	-18.42	634.23	591.92	42.32	14.988	
8,800.00	8,784.72	8,785.33	8,781.23	18.76	24.29	11.04	327.60	-22.63	636.26	593.70	42.56	14.951	
8,900.00	8,884.72	8,888.05	8,883.81	18.80	24.49	10.57	330.07	-27.45	637.75	594.99	42.76	14.915	
9,000.00	8,984.72	8,990.03	8,985.67	18.85	24.68	10.12	332.15	-32.16	638.92	595.98	42.94	14.878	
9,100.00	9,084.72	9,089.69	9,085.21	18.89	24.87	9.70	333.95	-36.59	639.94	596.82	43.13	14.839	
9,200.00	9,184.72	9,188.68	9,184.09	18.93	25.06	9.30	335.85	-40.82	641.12	597.82	43.31	14.804	
9,300.00	9,284.72	9,290.73	9,286.04	18.98	25.24	8.90	337.70	-45.04	642.27	598.78	43.49	14.768	
9,400.00	9,384.72	9,393.24	9,388.45	19.02	25.43	8.52	339.15	-49.21	643.05	599.38	43.67	14.725	
9,500.00	9,484.72	9,495.89	9,491.03	19.07	25.58	8.18	340.08	-52.84	643.44	599.62	43.82	14.684	
9,600.00	9,584.72	9,596.51	9,591.61	19.11	25.74	7.95	340.47	-55.44	643.45	599.47	43.98	14.632	
9,700.00	9,684.72	9,690.15	9,685.25	19.16	25.92	7.89	341.11	-56.06	644.04	599.88	44.16	14.584	
9,800.00	9,784.72	9,786.14	9,781.22	19.20	26.14	8.01	342.38	-54.49	645.57	601.19	44.39	14.545	
9,900.00	9,884.72	9,889.92	9,884.95	19.25	26.46	8.26	343.44	-51.50	646.99	602.24	44.75	14.458	
10,000.00	9,984.72	9,995.41	9,990.38	19.29	26.65	8.58	343.72	-47.80	647.77	602.77	45.00	14.395	
10,100.00	10,084.72	10,103.26	10,098.18	19.34	26.64	8.84	342.94	-44.95	647.45	602.35	45.10	14.356	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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	
10,200.00	10,184.72	10,204.60	10,199.50	19.39	26.61	9.00	341.49	-43.37	646.28	601.14	45.14	14.317	
10,300.00	10,284.72	10,303.11	10,298.00	19.43	26.55	9.08	340.36	-42.61	645.27	600.11	45.16	14.288	
10,400.00	10,384.72	10,402.51	10,397.39	19.48	26.46	9.09	339.54	-42.61	644.46	599.33	45.12	14.282	
10,500.00	10,484.72	10,504.76	10,499.64	19.53	26.38	9.08	338.58	-42.91	643.48	598.40	45.08	14.275	
10,600.00	10,584.72	10,603.58	10,598.44	19.57	26.37	8.97	337.69	-44.32	642.37	597.28	45.09	14.247	
10,700.00	10,684.72	10,714.28	10,708.90	19.62	26.46	8.36	336.88	-51.29	640.71	595.54	45.17	14.185	
10,800.00	10,784.72	10,841.06	10,829.91	19.67	26.61	5.21	336.21	-86.75	636.75	591.54	45.21	14.085	
10,900.00	10,884.72	10,927.21	10,900.40	19.72	26.77	0.77	335.52	-135.88	632.43	587.20	45.23	13.983	
10,916.00	10,900.72	10,937.74	10,908.22	19.72	26.80	0.14	335.53	-142.93	632.33	587.10	45.23	13.980	
11,000.00	10,984.72	10,992.00	10,946.67	19.76	26.92	-3.33	335.73	-181.20	635.23	589.96	45.27	14.032	
11,100.00	11,084.72	11,031.22	10,972.34	19.81	27.10	-5.99	336.52	-210.83	647.98	602.49	45.49	14.244	
11,200.00	11,184.72	11,086.00	11,003.93	19.86	27.35	-9.89	339.69	-255.43	672.98	627.13	45.84	14.680	
11,300.00	11,284.71	11,086.00	11,003.93	19.91	27.35	79.68	339.69	-255.43	707.38	661.13	46.25	15.294	
11,400.00	11,383.60	11,121.65	11,021.08	20.16	27.59	72.79	342.38	-286.54	749.63	702.39	47.24	15.868	
11,500.00	11,478.56	11,151.87	11,032.87	20.48	27.80	66.25	344.43	-314.28	795.49	747.03	48.46	16.415	
11,600.00	11,566.71	11,180.00	11,041.47	20.84	28.00	60.19	346.12	-341.00	842.42	792.62	49.80	16.916	
11,700.00	11,645.37	11,214.90	11,049.08	21.24	28.22	54.56	347.87	-375.00	888.17	836.74	51.43	17.269	
11,800.00	11,712.15	11,274.00	11,054.48	21.66	28.59	49.16	349.80	-433.76	931.92	877.96	53.96	17.270	
11,900.00	11,765.01	11,291.55	11,054.67	22.15	28.72	45.83	350.17	-451.30	969.40	914.70	54.69	17.724	
12,000.00	11,802.36	11,368.00	11,055.13	22.76	29.31	42.53	351.48	-527.74	998.97	942.75	56.22	17.770	
12,100.00	11,823.06	11,462.00	11,054.59	23.58	30.19	40.66	354.31	-621.69	1,017.93	960.50	57.43	17.726	
12,200.00	11,826.89	11,540.75	11,053.32	24.64	31.07	40.29	358.10	-700.34	1,025.95	967.54	58.42	17.563	
12,300.00	11,825.42	11,629.50	11,051.30	25.96	32.15	40.51	362.73	-788.94	1,030.89	971.36	59.53	17.318	
12,400.00	11,823.95	11,750.20	11,048.45	27.50	33.79	40.80	368.64	-909.46	1,035.75	974.50	61.26	16.909	
12,500.00	11,822.48	11,867.92	11,047.51	29.20	35.59	41.06	372.59	-1,027.11	1,038.38	975.22	63.16	16.441	
12,600.00	11,821.01	12,003.22	11,047.50	31.02	37.87	41.21	372.48	-1,162.38	1,038.05	972.56	65.49	15.851	
12,700.00	11,819.54	12,125.06	11,048.59	32.94	40.05	41.17	367.37	-1,284.10	1,034.25	966.49	67.76	15.263	
12,800.00	11,818.07	12,219.83	11,048.26	34.92	41.77	41.06	362.34	-1,378.73	1,030.84	961.10	69.74	14.781	
12,900.00	11,816.60	12,303.00	11,047.32	36.97	43.32	40.91	357.34	-1,461.74	1,027.73	956.11	71.63	14.348	
13,000.00	11,815.13	12,397.00	11,045.73	39.07	45.15	40.80	353.61	-1,555.65	1,026.25	952.48	73.77	13.912	
13,009.88	11,814.99	12,397.00	11,045.73	39.28	45.15	40.80	353.61	-1,555.65	1,026.20	952.36	73.85	13.897	
13,100.00	11,813.66	12,472.58	11,043.95	41.20	46.66	40.78	352.75	-1,631.20	1,026.95	951.24	75.72	13.563	
13,200.00	11,812.19	12,569.06	11,041.12	43.37	48.59	40.77	352.21	-1,727.64	1,028.63	950.57	78.06	13.178	
13,300.00	11,810.72	12,667.33	11,038.14	45.57	50.59	40.75	351.78	-1,825.86	1,030.46	949.97	80.50	12.801	
13,400.00	11,809.25	12,767.07	11,035.19	47.79	52.65	40.75	351.60	-1,925.56	1,032.40	949.37	83.03	12.434	
13,500.00	11,807.78	12,868.64	11,032.50	50.04	54.79	40.77	351.70	-2,027.09	1,034.30	948.62	85.68	12.072	
13,600.00	11,806.31	12,985.62	11,031.51	52.30	57.28	40.89	352.17	-2,144.07	1,034.98	946.26	88.73	11.665	
13,700.00	11,804.84	13,076.33	11,031.43	54.57	59.24	41.02	352.89	-2,234.77	1,035.41	944.02	91.39	11.329	
13,800.00	11,803.37	13,164.03	11,030.21	56.86	61.15	41.14	354.50	-2,322.44	1,037.44	943.40	94.05	11.031	
13,900.00	11,801.90	13,297.21	11,030.77	59.17	64.07	41.37	355.86	-2,455.61	1,037.49	939.81	97.67	10.622	
14,000.00	11,800.43	13,399.67	11,032.04	61.48	66.34	41.52	355.71	-2,558.07	1,036.31	935.56	100.74	10.287	
14,100.00	11,798.96	13,493.35	11,032.79	63.80	68.43	41.65	355.42	-2,651.73	1,035.35	931.67	103.68	9.986	
14,200.00	11,797.49	13,601.33	11,033.32	66.13	70.86	41.77	355.05	-2,759.72	1,034.63	927.72	106.91	9.677	
14,300.00	11,796.02	13,726.28	11,034.58	68.47	73.68	41.83	351.92	-2,884.61	1,032.07	921.70	110.37	9.351	
14,400.00	11,794.55	13,828.27	11,035.96	70.82	75.99	41.80	347.14	-2,986.48	1,027.78	914.40	113.39	9.064	
14,500.00	11,793.08	13,905.50	11,035.03	73.17	77.74	41.68	343.00	-3,063.58	1,024.96	909.02	115.94	8.840	
14,600.00	11,791.62	13,989.00	11,031.32	75.53	79.63	41.43	337.92	-3,146.85	1,024.08	905.68	118.40	8.650	
14,601.22	11,791.60	13,989.00	11,031.32	75.55	79.63	41.43	337.92	-3,146.85	1,024.08	905.67	118.41	8.648	
14,700.00	11,790.15	14,070.07	11,026.42	77.89	81.48	41.16	333.61	-3,227.65	1,024.95	904.22	120.73	8.489	
14,800.00	11,788.68	14,163.19	11,021.45	80.26	83.63	40.98	331.23	-3,320.61	1,027.11	903.70	123.41	8.323	
14,900.00	11,787.21	14,271.49	11,017.73	82.63	86.14	40.95	330.70	-3,428.84	1,029.22	902.61	126.61	8.129	
15,000.00	11,785.74	14,389.26	11,015.86	85.00	88.87	40.97	329.79	-3,546.59	1,029.70	899.62	130.08	7.916	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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	Rule Assigned:											Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (ft)		Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
							+N/-S (ft)	+E/-W (ft)					
15,039.46	11,785.16	14,427.50	11,015.45	85.94	89.75	40.99	329.39	-3,584.82	1,029.68	898.37	131.31	7.842	
15,100.00	11,784.27	14,487.80	11,014.71	87.38	91.15	41.00	328.74	-3,645.11	1,029.71	896.50	133.21	7.730	
15,200.00	11,782.80	14,600.10	11,013.59	89.76	93.77	41.02	327.22	-3,757.40	1,029.44	892.85	136.59	7.537	
15,300.00	11,781.33	14,712.60	11,013.73	92.15	96.39	41.03	324.21	-3,869.86	1,027.39	887.45	139.94	7.341	
15,400.00	11,779.86	14,789.59	11,013.34	94.54	98.19	41.01	321.98	-3,946.81	1,025.80	883.12	142.68	7.189	
15,404.75	11,779.79	14,792.83	11,013.26	94.65	98.26	41.01	321.90	-3,950.04	1,025.80	883.00	142.80	7.184	
15,500.00	11,778.39	14,865.96	11,010.28	96.93	99.97	40.91	320.21	-4,023.10	1,027.05	881.85	145.20	7.073	
15,600.00	11,776.92	14,967.95	11,005.28	99.32	102.36	40.77	318.51	-4,124.95	1,029.50	881.35	148.15	6.949	
15,700.00	11,775.45	15,075.91	11,001.83	101.71	104.89	40.70	316.88	-4,232.84	1,030.74	879.39	151.34	6.811	
15,800.00	11,773.98	15,223.31	11,001.11	104.11	108.36	40.77	315.18	-4,380.20	1,030.43	874.96	155.47	6.628	
15,900.00	11,772.51	15,342.07	11,005.22	106.51	111.16	40.90	311.63	-4,498.83	1,025.60	866.41	159.19	6.443	
16,000.00	11,771.04	15,433.43	11,008.03	108.91	113.31	40.97	308.25	-4,590.09	1,020.69	858.26	162.43	6.284	
16,100.00	11,769.57	15,520.75	11,009.05	111.31	115.37	40.95	304.62	-4,677.32	1,016.90	851.45	165.45	6.146	
16,200.00	11,768.10	15,608.27	11,008.68	113.72	117.44	40.89	301.02	-4,764.77	1,014.36	846.02	168.34	6.026	
16,300.00	11,766.63	15,696.82	11,007.35	116.12	119.54	40.81	297.89	-4,853.25	1,013.00	841.81	171.19	5.917	
16,383.05	11,765.41	15,771.63	11,005.66	118.12	121.31	40.74	295.68	-4,928.01	1,012.67	839.12	173.55	5.835	
16,400.00	11,765.16	15,787.27	11,005.24	118.53	121.68	40.72	295.26	-4,943.64	1,012.69	838.65	174.04	5.819	
16,500.00	11,763.69	15,882.49	11,002.34	120.94	123.94	40.62	292.88	-5,038.78	1,013.18	836.24	176.94	5.726	
16,600.00	11,762.22	15,996.65	11,000.45	123.35	126.65	40.61	291.16	-5,152.92	1,013.30	832.89	180.40	5.617	
16,700.00	11,760.75	16,111.74	11,000.53	125.76	129.39	40.63	288.50	-5,267.97	1,011.52	827.58	183.94	5.499	
16,800.00	11,759.28	16,196.43	11,000.21	128.17	131.40	40.61	285.90	-5,352.62	1,009.69	822.81	186.88	5.403	
16,832.14	11,758.80	16,220.83	10,999.67	128.95	131.98	40.58	285.20	-5,377.01	1,009.56	821.84	187.72	5.378	
16,900.00	11,757.81	16,282.51	10,997.66	130.58	133.45	40.51	283.47	-5,438.63	1,009.87	820.27	189.60	5.326	
16,954.90	11,757.00	16,335.19	10,995.70	131.91	134.70	40.43	281.90	-5,491.25	1,010.26	819.14	191.12	5.286 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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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	
0.00	0.00	0.00	0.00	0.00	0.00	179.70	-922.80	4.90	922.93				
100.00	100.00	84.63	84.63	0.43	0.78	179.69	-922.84	4.99	922.86	921.65	1.21	764.977	
200.00	200.00	183.62	183.62	1.25	1.70	179.67	-922.99	5.31	923.00	920.06	2.94	313.964	
300.00	300.00	282.60	282.59	1.75	2.61	179.63	-923.24	5.88	923.26	918.92	4.34	212.544	
400.00	400.00	390.28	390.27	2.13	3.37	179.58	-923.26	6.75	923.30	917.82	5.48	168.513	
500.00	500.00	501.44	501.42	2.46	4.07	179.51	-922.01	7.85	922.18	915.68	6.49	142.041	
600.00	600.00	587.63	587.60	2.75	4.83	179.42	-921.22	9.30	921.26	913.68	7.58	121.513	
616.54	616.54	602.08	602.04	2.80	4.97	179.40	-921.20	9.64	921.25	913.49	7.76	118.772	
700.00	700.00	685.00	684.92	3.02	5.74	179.25	-921.71	12.07	921.79	913.06	8.73	105.613	
800.00	800.00	804.93	804.80	3.27	6.87	179.04	-921.19	15.45	921.52	911.41	10.11	91.122	
900.00	900.00	929.53	929.29	3.50	8.09	178.90	-916.59	17.63	917.81	906.60	11.20	81.921	
1,000.00	1,000.00	1,043.91	1,043.46	3.72	8.94	178.73	-910.18	20.12	912.24	900.37	11.87	76.835	
1,100.00	1,100.00	1,127.52	1,126.93	3.92	9.24	178.64	-905.46	21.45	906.66	894.22	12.44	72.859	
1,200.00	1,200.00	1,208.96	1,208.31	4.12	9.50	178.68	-902.59	20.82	903.12	890.12	12.99	69.506	
1,300.00	1,300.00	1,294.12	1,293.43	4.31	9.79	178.82	-901.26	18.61	901.49	887.93	13.55	66.520	
1,361.90	1,361.90	1,348.11	1,347.40	4.43	9.99	178.90	-901.05	17.23	901.21	887.31	13.90	64.832	
1,400.00	1,400.00	1,381.35	1,380.62	4.50	10.11	178.96	-901.15	16.42	901.32	887.20	14.12	63.855	
1,500.00	1,500.00	1,476.88	1,476.12	4.68	10.38	179.10	-902.18	14.21	902.34	887.75	14.59	61.848	
1,600.00	1,600.00	1,581.13	1,580.34	4.85	10.60	179.26	-903.06	11.74	903.15	888.17	14.97	60.317	
1,700.00	1,700.00	1,682.86	1,682.04	5.02	10.81	179.40	-903.53	9.40	903.58	888.23	15.35	58.872	
1,800.00	1,800.00	1,783.50	1,782.67	5.19	11.02	179.51	-903.89	7.68	903.93	888.21	15.72	57.508	
1,900.00	1,900.00	1,882.80	1,881.96	5.35	11.22	179.60	-904.24	6.25	904.27	888.19	16.08	56.247	
2,000.00	2,000.00	1,981.82	1,980.96	5.50	11.43	179.72	-904.69	4.40	904.72	888.29	16.43	55.067	
2,100.00	2,100.00	2,075.98	2,075.09	5.66	11.61	179.86	-905.47	2.25	905.53	888.77	16.76	54.037	
2,200.00	2,200.00	2,174.00	2,173.06	5.81	11.80	-179.97	-906.94	-0.40	907.03	889.94	17.09	53.076	
2,300.00	2,300.00	2,273.46	2,272.49	5.96	11.97	-179.84	-908.58	-2.59	908.67	891.27	17.40	52.209	
2,400.00	2,400.00	2,376.37	2,375.38	6.10	12.14	-179.79	-909.83	-3.41	909.89	892.16	17.73	51.325	
2,500.00	2,500.00	2,472.79	2,471.80	6.25	12.30	-179.77	-911.09	-3.72	911.20	893.15	18.05	50.489	
2,600.00	2,600.00	2,569.55	2,568.54	6.39	12.44	-179.74	-912.72	-4.09	912.89	894.55	18.34	49.773	
2,700.00	2,700.00	2,668.74	2,667.71	6.53	12.50	-179.72	-914.66	-4.40	914.85	896.29	18.55	49.311	
2,800.00	2,800.00	2,769.28	2,768.23	6.67	12.55	-179.70	-916.51	-4.83	916.68	897.93	18.76	48.870	
2,900.00	2,900.00	2,868.52	2,867.45	6.80	12.60	-179.67	-918.50	-5.28	918.69	899.73	18.97	48.440	
3,000.00	3,000.00	2,974.06	2,972.98	6.94	12.65	-179.66	-920.32	-5.52	920.42	901.24	19.18	47.985	
3,100.00	3,100.00	3,074.24	3,073.15	7.07	12.76	-179.69	-921.52	-5.03	921.61	902.17	19.44	47.407	
3,200.00	3,200.00	3,169.77	3,168.66	7.20	12.89	-179.78	-923.03	-3.60	923.19	903.47	19.72	46.810	
3,300.00	3,300.00	3,265.43	3,264.27	7.33	13.05	-179.91	-925.01	-1.37	925.26	905.23	20.03	46.190	
3,400.00	3,399.98	3,361.16	3,359.94	7.46	13.23	-0.07	-927.43	1.11	926.04	905.69	20.35	45.501	
3,500.00	3,499.84	3,448.53	3,447.22	7.87	13.50	-0.23	-930.30	3.66	924.12	903.11	21.01	43.986	
3,600.00	3,599.47	3,532.61	3,531.14	8.04	13.80	-0.42	-934.48	6.68	920.54	899.09	21.44	42.927	
3,700.00	3,699.02	3,627.56	3,625.83	8.14	14.13	-0.65	-940.55	10.34	917.54	895.68	21.86	41.967	
3,800.00	3,798.58	3,734.16	3,732.21	8.28	14.49	-0.77	-946.96	12.30	914.16	891.79	22.37	40.868	
3,900.00	3,898.14	3,841.17	3,839.07	8.42	14.76	-0.77	-952.63	12.27	910.03	887.23	22.81	39.901	
4,000.00	3,997.69	3,948.26	3,946.05	8.59	14.98	-0.75	-957.45	11.89	905.11	881.88	23.23	38.964	
4,100.00	4,097.25	4,048.92	4,046.63	8.77	15.19	-0.72	-961.54	11.25	899.74	876.09	23.65	38.048	
4,200.00	4,196.80	4,149.45	4,147.07	8.96	15.39	-0.66	-965.55	10.27	894.30	870.23	24.07	37.156	
4,300.00	4,296.36	4,250.56	4,248.10	9.17	15.53	-0.59	-969.48	9.20	888.76	864.32	24.44	36.367	
4,400.00	4,395.92	4,352.64	4,350.11	9.38	15.72	-0.55	-973.24	8.47	883.01	858.14	24.87	35.501	
4,500.00	4,495.47	4,452.86	4,450.27	9.61	15.89	-0.54	-976.71	8.23	877.05	851.75	25.30	34.668	
4,600.00	4,495.03	4,551.39	4,548.73	9.85	16.06	-0.55	-980.29	8.32	871.26	845.54	25.72	33.871	
4,700.00	4,494.59	4,652.72	4,649.99	10.10	16.27	-0.56	-983.90	8.52	865.41	839.21	26.20	33.032	
4,800.00	4,794.15	4,747.44	4,744.65	10.33	16.48	-6.52	-987.29	8.66	859.66	833.00	26.66	32.250	
4,900.00	4,893.78	4,836.49	4,833.61	10.58	16.70	-29.51	-991.49	8.34	856.26	829.11	27.15	31.541	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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						Rule Assigned:						Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Distance		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)	Minimum Separation (ft)	Separation Factor				
5,000.00	4,993.42	4,936.63	4,933.58	10.79	16.95	-42.59	-997.20	7.49	855.36	827.74	27.62	30.967				
5,100.00	5,093.05	5,051.83	5,048.66	11.01	17.24	-43.00	-1,002.28	6.96	853.45	825.30	28.15	30.316				
5,200.00	5,192.68	5,154.66	5,151.44	11.24	17.43	-43.38	-1,005.58	6.61	850.37	821.78	28.58	29.750				
5,300.00	5,292.31	5,257.37	5,254.10	11.49	17.65	-43.74	-1,008.67	5.94	847.12	818.08	29.04	29.169				
5,400.00	5,391.94	5,353.00	5,349.70	11.74	17.86	-44.10	-1,011.19	5.62	843.56	814.07	29.49	28.603				
5,500.00	5,491.57	5,445.12	5,441.76	12.00	18.19	-44.47	-1,014.25	5.64	840.76	810.70	30.06	27.970				
5,600.00	5,591.20	5,540.00	5,536.52	12.27	18.53	-44.87	-1,019.08	6.04	839.72	809.08	30.64	27.410				
5,700.00	5,690.83	5,635.45	5,631.81	12.55	18.88	-45.27	-1,024.46	6.50	839.28	808.05	31.22	26.880				
5,800.00	5,790.46	5,740.36	5,736.60	12.82	19.26	-45.70	-1,029.63	6.69	838.17	806.33	31.84	26.327				
5,900.00	5,890.09	5,834.98	5,831.10	13.11	19.52	-46.07	-1,034.38	6.64	837.19	804.85	32.33	25.891				
6,000.00	5,989.72	5,929.97	5,925.94	13.40	19.79	-46.43	-1,039.76	6.44	836.87	804.03	32.84	25.487				
6,008.22	5,997.91	5,937.92	5,933.88	13.42	19.81	-46.46	-1,040.23	6.42	836.87	803.99	32.88	25.454				
6,100.00	6,089.35	6,026.75	6,022.54	13.69	20.08	-46.79	-1,045.69	6.08	837.03	803.68	33.35	25.099				
6,200.00	6,188.98	6,125.26	6,120.83	13.99	20.36	-47.13	-1,052.08	5.55	837.58	803.71	33.87	24.730				
6,300.00	6,288.61	6,230.11	6,225.48	14.30	20.67	-47.50	-1,058.58	4.87	837.86	803.45	34.41	24.351				
6,400.00	6,388.24	6,334.31	6,329.51	14.61	20.98	-47.85	-1,064.45	4.08	837.59	802.66	34.94	23.973				
6,500.00	6,487.87	6,437.67	6,432.73	14.92	21.28	-48.21	-1,069.82	3.28	836.92	801.45	35.46	23.601				
6,600.00	6,587.50	6,542.02	6,536.96	15.23	21.58	-48.57	-1,074.76	2.45	835.81	799.83	35.98	23.232				
6,700.00	6,687.13	6,646.96	6,641.81	15.55	21.87	-48.94	-1,079.11	1.49	834.15	797.66	36.49	22.860				
6,800.00	6,786.76	6,749.22	6,743.99	15.87	22.16	-49.29	-1,082.87	0.51	832.04	795.05	36.98	22.498				
6,900.00	6,886.39	6,850.91	6,845.61	16.20	22.44	-49.66	-1,086.36	-0.36	829.73	792.26	37.47	22.144				
7,000.00	6,986.02	6,949.56	6,944.20	16.53	22.71	-50.02	-1,089.69	-1.11	827.41	789.46	37.95	21.802				
7,100.00	7,085.65	7,048.54	7,043.12	16.86	22.99	-50.39	-1,093.17	-1.81	825.27	786.84	38.43	21.475				
7,200.00	7,185.28	7,150.09	7,144.61	17.19	23.27	-50.78	-1,096.65	-2.47	823.10	784.19	38.91	21.155				
7,300.00	7,284.93	7,251.01	7,245.48	17.50	23.56	-51.15	-1,099.91	-3.10	820.87	781.51	39.36	20.855				
7,373.98	7,358.76	7,324.57	7,319.00	17.77	23.76	-51.34	-1,102.26	-3.49	820.25	780.54	39.72	20.653	CC			
7,400.00	7,384.76	7,350.45	7,344.87	17.86	23.84	-51.38	-1,103.09	-3.61	820.33	780.49	39.84	20.589				
7,500.00	7,484.72	7,450.37	7,444.73	18.23	24.12	-51.47	-1,106.31	-4.01	822.02	781.69	40.34	20.379				
7,600.00	7,584.72	7,550.93	7,545.24	18.26	24.40	-51.70	-1,109.50	-4.35	825.06	784.41	40.66	20.294				
7,700.00	7,684.72	7,651.79	7,646.05	18.30	24.69	-51.78	-1,112.60	-4.64	828.05	787.06	40.98	20.204				
7,800.00	7,784.72	7,752.91	7,747.13	18.34	24.97	-51.82	-1,115.55	-4.79	830.89	789.58	41.31	20.114				
7,900.00	7,884.72	7,854.92	7,849.10	18.38	25.26	-51.86	-1,118.32	-4.79	833.57	791.93	41.63	20.022				
8,000.00	7,984.72	7,957.37	7,951.52	18.42	25.54	-51.89	-1,120.78	-4.69	835.95	794.00	41.96	19.925				
8,100.00	8,084.72	8,068.11	8,062.25	18.47	25.72	-51.91	-1,122.68	-4.87	837.63	795.46	42.17	19.865				
8,200.00	8,184.72	8,177.12	8,171.25	18.51	25.89	-51.93	-1,123.16	-6.01	837.88	795.52	42.35	19.783				
8,212.64	8,197.37	8,188.74	8,182.87	18.51	25.91	-51.93	-1,123.18	-6.17	837.87	795.49	42.38	19.771				
8,300.00	8,284.72	8,269.04	8,263.16	18.55	26.03	-51.94	-1,123.70	-7.24	838.24	795.69	42.54	19.702				
8,400.00	8,384.72	8,361.57	8,355.66	18.59	26.19	-51.95	-1,125.14	-8.40	839.56	796.81	42.75	19.640				
8,500.00	8,484.72	8,458.22	8,452.29	18.63	26.44	-51.96	-1,127.19	-9.37	841.49	798.45	43.04	19.550				
8,600.00	8,584.72	8,555.62	8,549.66	18.67	26.69	-51.97	-1,129.58	-10.02	843.81	800.47	43.34	19.469				
8,700.00	8,684.72	8,656.35	8,650.36	18.72	26.97	-51.98	-1,132.09	-10.42	846.20	802.54	43.66	19.381				
8,800.00	8,784.72	8,757.26	8,751.24	18.76	27.25	-51.99	-1,134.47	-10.60	848.50	804.52	43.98	19.294				
8,900.00	8,884.72	8,858.53	8,852.48	18.80	27.52	-51.99	-1,136.71	-10.77	850.66	806.37	44.30	19.204				
9,000.00	8,984.72	8,959.68	8,953.62	18.85	27.79	-51.99	-1,138.80	-10.95	852.68	808.07	44.61	19.114				
9,100.00	9,084.72	9,060.72	9,054.63	18.89	28.06	-51.99	-1,140.73	-10.92	854.56	809.64	44.92	19.024				
9,200.00	9,184.72	9,159.83	9,153.73	18.93	28.31	-51.99	-1,142.56	-10.86	856.40	811.18	45.22	18.939				
9,300.00	9,284.72	9,257.80	9,251.67	18.98	28.57	-51.99	-1,144.68	-11.50	858.44	812.92	45.52	18.858				
9,400.00	9,384.72	9,363.47	9,357.31	19.02	28.80	-51.99	-1,146.93	-12.53	860.40	814.60	45.79	18.789				
9,500.00	9,484.72	9,466.63	9,460.46	19.07	29.03	-51.99	-1,148.32	-12.95	861.67	815.61	46.06	18.707				
9,600.00	9,584.72	9,569.20	9,563.03	19.11	29.26	-51.99	-1,149.41	-13.25	862.67	816.35	46.32	18.623				
9,700.00	9,684.72	9,682.80	9,676.63	19.16	29.29	-51.99	-1,149.49	-13.45	862.72	816.34	46.37	18.603				
9,800.00	9,784.72	9,788.60	9,782.42	19.20	29.29	-51.99	-1,148.06	-13.49	861.35	814.94	46.42	18.557				

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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	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)			
9,900.00	9,884.72	9,881.33	9,875.14	19.25	29.23	171.22	-1,147.07	-13.14	860.36	813.91	46.45	18.523	
9,978.02	9,962.74	9,954.44	9,948.24	19.28	29.21	171.18	-1,146.80	-12.56	860.17	813.68	46.49	18.503	
10,000.00	9,984.72	9,976.04	9,969.85	19.29	29.23	171.17	-1,146.78	-12.38	860.17	813.65	46.52	18.489	
10,100.00	10,084.72	10,074.33	10,068.14	19.34	29.33	171.13	-1,146.83	-11.78	860.31	813.63	46.69	18.428	
10,200.00	10,184.72	10,172.80	10,166.60	19.39	29.47	171.12	-1,147.12	-11.53	860.65	813.76	46.89	18.355	
10,300.00	10,284.72	10,271.47	10,265.27	19.43	29.66	171.11	-1,147.60	-11.38	861.15	814.01	47.14	18.267	
10,400.00	10,384.72	10,371.74	10,365.54	19.48	29.85	171.11	-1,148.19	-11.26	861.75	814.36	47.39	18.184	
10,500.00	10,484.72	10,473.38	10,467.18	19.53	30.04	171.10	-1,148.62	-11.05	862.20	814.57	47.63	18.101	
10,600.00	10,584.72	10,573.82	10,567.61	19.57	30.18	171.09	-1,148.89	-10.80	862.51	814.67	47.83	18.032	
10,700.00	10,684.72	10,671.38	10,665.17	19.62	30.35	171.09	-1,149.28	-10.71	862.92	814.86	48.06	17.956	
10,800.00	10,784.72	10,768.18	10,761.98	19.67	30.54	171.11	-1,150.07	-10.94	863.69	815.39	48.30	17.881	
10,900.00	10,884.72	10,868.01	10,861.76	19.72	30.76	171.26	-1,151.43	-13.02	864.72	816.13	48.58	17.799	
11,000.00	10,984.72	11,041.84	11,029.79	19.76	30.98	173.90	-1,151.03	-53.09	861.17	812.17	49.00	17.576	
11,100.00	11,084.72	11,199.17	11,162.29	19.81	31.10	179.43	-1,146.24	-136.02	854.46	804.84	49.62	17.220	
11,200.00	11,184.72	11,289.54	11,226.02	19.86	31.23	-176.26	-1,138.18	-199.43	845.02	794.79	50.22	16.825	
11,300.00	11,284.71	11,356.96	11,265.43	19.91	31.38	-81.77	-1,131.74	-253.71	841.96	791.16	50.80	16.574	
11,304.46	11,289.16	11,360.22	11,267.18	19.92	31.39	-81.59	-1,131.39	-256.44	841.95	791.12	50.83	16.564	
11,400.00	11,383.60	11,418.79	11,297.05	20.16	31.58	-78.29	-1,124.95	-306.39	844.00	792.58	51.42	16.414	
11,500.00	11,478.56	11,476.64	11,323.55	20.48	31.82	-74.98	-1,118.53	-357.40	849.64	797.54	52.10	16.309	
11,600.00	11,566.71	11,527.54	11,345.58	20.84	32.08	-72.17	-1,113.69	-403.03	857.55	804.74	52.81	16.239	
11,700.00	11,645.37	11,575.47	11,364.42	21.24	32.37	-69.74	-1,110.66	-446.99	867.06	813.48	53.59	16.181	
11,800.00	11,712.15	11,618.18	11,378.91	21.66	32.67	-67.75	-1,109.19	-487.13	877.12	822.70	54.42	16.119	
11,900.00	11,765.01	11,665.08	11,390.85	22.15	33.03	-65.97	-1,109.19	-532.46	887.52	832.10	55.41	16.016	
12,000.00	11,802.36	11,736.00	11,403.42	22.76	33.63	-64.40	-1,109.56	-602.25	895.37	838.48	56.89	15.738	
12,100.00	11,823.06	11,808.71	11,411.68	23.58	34.33	-63.66	-1,109.39	-674.48	898.26	839.67	58.59	15.330	
12,200.00	11,826.89	11,890.89	11,415.15	24.64	35.22	-63.74	-1,109.95	-756.56	897.30	836.67	60.63	14.800	
12,300.00	11,825.42	11,979.02	11,413.82	25.96	36.28	-63.66	-1,108.75	-844.67	894.84	831.89	62.94	14.217	
12,372.66	11,824.36	12,037.43	11,411.82	27.07	37.03	-63.57	-1,108.45	-903.04	894.21	829.57	64.64	13.834	
12,400.00	11,823.95	12,058.37	11,411.01	27.50	37.32	-63.53	-1,108.59	-923.96	894.31	829.04	65.27	13.701	
12,500.00	11,822.48	12,135.28	11,407.81	29.20	38.39	-63.43	-1,110.39	-1,000.78	896.33	828.63	67.70	13.240	
12,600.00	11,821.01	12,215.33	11,404.87	31.02	39.60	-63.42	-1,114.73	-1,080.66	900.86	830.52	70.34	12.807	
12,700.00	11,819.54	12,313.10	11,403.30	32.94	41.19	-63.59	-1,122.19	-1,178.13	906.47	832.92	73.56	12.324	
12,800.00	11,818.07	12,410.40	11,404.47	34.92	42.78	-63.95	-1,131.21	-1,275.00	912.34	835.48	76.86	11.870	
12,900.00	11,816.60	12,554.71	11,407.74	36.97	45.26	-64.54	-1,143.83	-1,418.69	917.92	836.58	81.34	11.285	
13,000.00	11,815.13	12,671.73	11,412.95	39.07	47.41	-65.01	-1,148.38	-1,535.51	917.53	832.19	85.34	10.752	
13,100.00	11,813.66	12,803.98	11,415.89	41.20	50.13	-65.25	-1,149.11	-1,667.70	915.18	825.35	89.83	10.188	
13,200.00	11,812.19	12,913.33	11,413.81	43.37	52.35	-65.06	-1,144.32	-1,776.91	910.04	816.31	93.74	9.709	
13,300.00	11,810.72	12,994.84	11,410.43	45.57	53.97	-64.80	-1,140.45	-1,858.25	905.64	808.51	97.13	9.324	
13,400.00	11,809.25	13,072.52	11,406.35	47.79	55.51	-64.55	-1,138.74	-1,935.81	903.93	803.50	100.43	9.001	
13,443.07	11,808.62	13,109.91	11,404.34	48.76	56.27	-64.45	-1,138.45	-1,973.14	903.80	801.87	101.93	8.867	
13,500.00	11,807.78	13,159.44	11,401.78	50.04	57.27	-64.33	-1,138.50	-2,022.61	904.03	800.11	103.92	8.699	
13,600.00	11,806.31	13,247.25	11,398.35	52.30	59.06	-64.22	-1,140.21	-2,110.33	905.55	798.06	107.49	8.425	
13,700.00	11,804.84	13,341.31	11,396.75	54.57	61.01	-64.28	-1,144.26	-2,204.28	908.23	796.93	111.31	8.160	
13,800.00	11,803.37	13,461.25	11,395.62	56.86	63.52	-64.39	-1,148.56	-2,324.14	909.95	794.20	115.74	7.862	
13,900.00	11,801.90	13,569.06	11,396.16	59.17	65.80	-64.53	-1,151.05	-2,431.92	909.87	789.90	119.97	7.584	
13,954.45	11,801.10	13,621.47	11,396.68	60.43	66.91	-64.62	-1,152.32	-2,484.31	909.78	787.62	122.16	7.448	
14,000.00	11,800.43	13,662.66	11,397.06	61.48	67.80	-64.69	-1,153.48	-2,525.49	909.89	785.94	123.95	7.341	
14,100.00	11,798.96	13,752.17	11,397.28	63.80	69.72	-64.82	-1,156.51	-2,614.94	910.92	783.07	127.86	7.125	
14,200.00	11,797.49	13,850.61	11,395.25	66.13	71.85	-64.84	-1,159.80	-2,713.30	912.91	780.99	131.91	6.920	
14,300.00	11,796.02	13,945.70	11,394.09	68.47	73.93	-64.91	-1,163.17	-2,808.33	914.72	778.77	135.95	6.728	
14,400.00	11,794.55	14,089.06	11,393.93	70.82	77.11	-65.08	-1,167.55	-2,951.59	916.03	774.96	141.07	6.493	
14,500.00	11,793.08	14,186.10	11,394.92	73.17	79.28	-65.20	-1,168.09	-3,048.64	914.17	768.90	145.27	6.293	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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
14,600.00	11,791.62	14,292.13	11,396.66	75.53	81.65	-65.34	-1,167.98	-3,154.64	911.46	761.80	149.66	6.090
14,700.00	11,790.15	14,379.73	11,397.09	77.89	83.61	-65.41	-1,168.08	-3,242.24	909.44	755.74	153.70	5.917
14,800.00	11,788.68	14,474.68	11,396.46	80.26	85.75	-65.44	-1,168.90	-3,337.19	908.58	750.73	157.85	5.756
14,900.00	11,787.21	14,584.35	11,394.17	82.63	88.24	-65.34	-1,168.22	-3,446.83	906.95	744.78	162.17	5.592
15,000.00	11,785.74	14,676.85	11,388.97	85.00	90.34	-65.03	-1,166.15	-3,539.16	905.38	739.37	166.01	5.454
15,100.00	11,784.27	14,774.89	11,382.37	87.38	92.57	-64.65	-1,164.57	-3,636.96	904.85	734.99	169.86	5.327
15,200.00	11,782.80	14,882.28	11,378.66	89.76	95.03	-64.46	-1,163.35	-3,744.26	903.37	729.32	174.05	5.190
15,300.00	11,781.33	14,981.43	11,378.88	92.15	97.31	-64.53	-1,163.87	-3,843.41	901.82	723.46	178.36	5.056
15,400.00	11,779.86	15,074.38	11,382.39	94.54	99.45	-64.84	-1,166.22	-3,936.26	900.58	717.77	182.81	4.926
15,500.00	11,778.39	15,175.90	11,387.71	96.93	101.79	-65.30	-1,170.22	-4,037.55	900.04	712.44	187.60	4.798
15,600.00	11,776.92	15,276.14	11,390.87	99.32	104.11	-65.59	-1,172.70	-4,137.71	899.06	706.84	192.22	4.677
15,700.00	11,775.45	15,375.75	11,391.10	101.71	106.42	-65.69	-1,173.98	-4,237.30	898.23	701.60	196.63	4.568
15,763.46	11,774.51	15,431.76	11,389.33	103.24	107.72	-65.61	-1,174.03	-4,293.29	897.91	698.75	199.15	4.509
15,800.00	11,773.98	15,462.85	11,387.85	104.11	108.44	-65.55	-1,174.12	-4,324.34	898.02	697.47	200.55	4.478
15,900.00	11,772.51	15,557.25	11,381.72	106.51	110.64	-65.24	-1,174.38	-4,418.54	899.06	694.67	204.40	4.399
16,000.00	11,771.04	15,666.43	11,373.24	108.91	113.17	-64.79	-1,173.77	-4,527.39	899.94	691.58	208.35	4.319
16,100.00	11,769.57	15,796.12	11,364.55	111.31	116.20	-64.24	-1,169.80	-4,656.71	898.01	685.54	212.47	4.227
16,200.00	11,768.10	15,889.73	11,359.39	113.72	118.40	-63.88	-1,166.35	-4,750.12	895.19	678.97	216.22	4.140
16,300.00	11,766.63	15,978.02	11,357.31	116.12	120.48	-63.79	-1,165.71	-4,838.38	893.64	673.44	220.20	4.058
16,400.00	11,765.16	16,072.80	11,358.65	118.53	122.71	-63.96	-1,167.75	-4,933.12	893.02	668.35	224.67	3.975
16,495.31	11,763.76	16,164.64	11,359.82	120.83	124.87	-64.13	-1,169.99	-5,024.92	892.73	663.78	228.95	3.899
16,500.00	11,763.69	16,168.87	11,359.83	120.94	124.97	-64.14	-1,170.08	-5,029.15	892.73	663.58	229.15	3.896
16,600.00	11,762.22	16,268.11	11,358.54	123.35	127.31	-64.16	-1,172.08	-5,128.36	893.18	659.68	233.49	3.825
16,700.00	11,760.75	16,377.74	11,356.40	125.76	129.90	-64.10	-1,172.59	-5,237.96	892.50	654.59	237.91	3.751
16,800.00	11,759.28	16,476.15	11,356.21	128.17	132.22	-64.17	-1,173.63	-5,336.37	891.61	649.30	242.31	3.680
16,900.00	11,757.81	16,571.04	11,356.30	130.58	134.46	-64.26	-1,175.15	-5,431.24	891.08	644.40	246.68	3.612
16,925.71	11,757.43	16,595.09	11,356.28	131.20	135.03	-64.28	-1,175.63	-5,455.29	891.06	643.26	247.80	3.596
16,954.90	11,757.00	16,621.05	11,356.19	131.91	135.65	-64.30	-1,176.18	-5,481.24	891.10	642.07	249.03	3.578 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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 511H - Original Hole - rev2												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
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	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-3.11	30.00	-1.63	30.04				
100.00	100.00	100.00	100.00	0.43	0.43	-3.11	30.00	-1.63	30.04	29.19	0.86	35.045	
200.00	200.00	200.00	200.00	1.25	1.25	-3.11	30.00	-1.63	30.04	27.54	2.50	11.994	
300.00	300.00	300.00	300.00	1.75	1.75	-3.11	30.00	-1.63	30.04	26.55	3.49	8.599	
400.00	400.00	400.00	400.00	2.13	2.13	-3.11	30.00	-1.63	30.04	25.78	4.27	7.044	
500.00	500.00	500.00	500.00	2.46	2.46	-3.11	30.00	-1.63	30.04	25.12	4.92	6.103	
600.00	600.00	600.00	600.00	2.75	2.75	-3.11	30.00	-1.63	30.04	24.54	5.51	5.456	
700.00	700.00	700.00	700.00	3.02	3.02	-3.11	30.00	-1.63	30.04	24.01	6.04	4.975	
800.00	800.00	800.00	800.00	3.27	3.27	-3.11	30.00	-1.63	30.04	23.51	6.53	4.600	
900.00	900.00	900.00	900.00	3.50	3.50	-3.11	30.00	-1.63	30.04	23.05	6.99	4.296	
1,000.00	1,000.00	1,000.00	1,000.00	3.72	3.72	-3.11	30.00	-1.63	30.04	22.61	7.43	4.043	
1,100.00	1,100.00	1,100.00	1,100.00	3.92	3.92	-3.11	30.00	-1.63	30.04	22.20	7.85	3.829	
1,200.00	1,200.00	1,200.00	1,200.00	4.12	4.12	-3.11	30.00	-1.63	30.04	21.80	8.25	3.644	
1,300.00	1,300.00	1,300.00	1,300.00	4.31	4.31	-3.11	30.00	-1.63	30.04	21.42	8.63	3.482	
1,400.00	1,400.00	1,400.00	1,400.00	4.50	4.50	-3.11	30.00	-1.63	30.04	21.05	9.00	3.339	
1,500.00	1,500.00	1,500.00	1,500.00	4.68	4.68	-3.11	30.00	-1.63	30.04	20.69	9.36	3.211	
1,600.00	1,600.00	1,600.00	1,600.00	4.85	4.85	-3.11	30.00	-1.63	30.04	20.34	9.70	3.096	
1,700.00	1,700.00	1,700.00	1,700.00	5.02	5.02	-3.11	30.00	-1.63	30.04	20.00	10.04	2.992	
1,800.00	1,800.00	1,800.00	1,800.00	5.19	5.19	-3.11	30.00	-1.63	30.04	19.67	10.37	2.897	
1,900.00	1,900.00	1,900.00	1,900.00	5.35	5.35	-3.11	30.00	-1.63	30.04	19.35	10.69	2.809	
2,000.00	2,000.00	2,000.00	2,000.00	5.50	5.50	-3.11	30.00	-1.63	30.04	19.04	11.01	2.729 CC, ES	
2,100.00	2,100.00	2,099.64	2,099.64	5.66	5.65	-1.90	30.61	-1.02	30.63	19.32	11.31	2.709	
2,200.00	2,200.00	2,199.22	2,199.18	5.81	5.81	1.45	32.45	0.82	32.47	20.86	11.61	2.797	
2,300.00	2,300.00	2,298.68	2,298.55	5.96	5.98	6.23	35.50	3.87	35.74	23.83	11.92	3.000	
2,400.00	2,400.00	2,398.54	2,398.27	6.10	6.17	10.93	39.20	7.57	39.96	27.72	12.24	3.265	
2,500.00	2,500.00	2,498.40	2,497.99	6.25	6.37	14.72	42.89	11.27	44.39	31.82	12.57	3.531	
2,600.00	2,600.00	2,598.26	2,597.72	6.39	6.58	17.80	46.59	14.96	48.99	36.07	12.92	3.792	
2,700.00	2,700.00	2,698.13	2,697.45	6.53	6.80	20.36	50.29	18.66	53.70	40.42	13.27	4.045	
2,800.00	2,800.00	2,797.99	2,797.17	6.67	7.03	22.49	53.98	22.35	58.49	44.86	13.64	4.289	
2,900.00	2,900.00	2,897.85	2,896.90	6.80	7.27	24.30	57.68	26.05	63.36	49.35	14.01	4.522	
3,000.00	3,000.00	2,997.72	2,996.62	6.94	7.52	25.86	61.37	29.74	68.28	53.89	14.39	4.744	
3,100.00	3,100.00	3,097.58	3,096.35	7.07	7.78	27.20	65.07	33.44	73.25	58.47	14.78	4.956	
3,200.00	3,200.00	3,197.44	3,196.08	7.20	8.04	28.37	68.76	37.14	78.25	63.08	15.17	5.157	
3,300.00	3,300.00	3,298.68	3,297.21	7.33	8.30	29.26	71.91	40.28	82.47	66.90	15.57	5.297	
3,400.00	3,399.98	3,400.03	3,398.53	7.46	8.55	-150.80	73.79	42.17	86.52	70.60	15.93	5.432	
3,500.00	3,499.84	3,501.35	3,499.84	7.87	8.73	-152.21	74.41	42.78	91.95	75.53	16.42	5.600	
3,600.00	3,599.47	3,600.97	3,599.47	8.04	8.83	-154.46	74.41	42.78	99.60	82.94	16.66	5.979	
3,700.00	3,699.02	3,700.53	3,699.02	8.14	8.93	-156.61	74.41	42.78	108.18	91.33	16.85	6.420	
3,800.00	3,798.58	3,800.09	3,798.58	8.28	9.04	-158.44	74.41	42.78	116.88	99.81	17.07	6.847	
3,900.00	3,898.14	3,899.64	3,898.14	8.42	9.14	-160.02	74.41	42.78	125.69	108.38	17.31	7.262	
4,000.00	3,997.69	3,999.20	3,997.69	8.59	9.24	-161.39	74.41	42.78	134.57	117.01	17.56	7.664	
4,100.00	4,097.25	4,098.76	4,097.25	8.77	9.35	-162.59	74.41	42.78	143.53	125.70	17.83	8.051	
4,200.00	4,196.80	4,198.31	4,196.80	8.96	9.45	-163.64	74.41	42.78	152.54	134.43	18.11	8.423	
4,300.00	4,296.36	4,297.87	4,296.36	9.17	9.55	-164.58	74.41	42.78	161.59	143.18	18.41	8.779	
4,400.00	4,395.92	4,397.42	4,395.92	9.38	9.65	-165.42	74.41	42.78	170.68	151.97	18.72	9.119	
4,500.00	4,495.47	4,496.98	4,495.47	9.61	9.75	-166.18	74.41	42.78	179.81	160.77	19.04	9.445	
4,600.00	4,595.03	4,596.54	4,595.03	9.85	9.85	-166.86	74.41	42.78	188.96	169.59	19.37	9.755	
4,700.00	4,694.59	4,696.09	4,694.59	10.10	9.95	-167.48	74.41	42.78	198.14	178.43	19.71	10.050	
4,800.00	4,794.15	4,795.66	4,794.15	10.33	10.05	-173.96	74.41	42.78	207.30	187.26	20.04	10.347	
4,900.00	4,893.78	4,895.29	4,893.78	10.58	10.15	-163.28	74.41	42.78	215.76	195.37	20.39	10.582	
5,000.00	4,993.42	4,994.93	4,993.42	10.79	10.25	-151.38	74.41	42.78	223.41	202.70	20.71	10.789	
5,100.00	5,093.05	5,093.23	5,091.70	11.01	10.49	-152.03	75.01	41.44	231.26	210.04	21.22	10.899	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 511H - Original Hole - rev2												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Rule Assigned:													
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
							+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
5,200.00	5,192.68	5,191.39	5,189.74	11.24	10.80	151.84	76.99	37.05	239.75	217.91	21.83	10.981	
5,300.00	5,292.31	5,289.57	5,287.58	11.49	10.84	150.91	80.33	29.63	248.89	226.71	22.18	11.220	
5,400.00	5,391.94	5,389.00	5,386.57	11.74	10.88	149.78	84.18	21.08	258.35	235.82	22.53	11.469	
5,500.00	5,491.57	5,488.43	5,485.55	12.00	10.95	148.74	88.03	12.53	267.90	245.01	22.89	11.705	
5,600.00	5,591.20	5,587.86	5,584.54	12.27	11.03	147.77	91.89	3.97	277.53	254.28	23.26	11.934	
5,700.00	5,690.83	5,687.28	5,683.52	12.55	11.12	146.86	95.74	-4.58	287.24	263.61	23.63	12.157	
5,800.00	5,790.46	5,786.71	5,782.51	12.82	11.22	146.01	99.59	-13.14	297.01	273.01	24.00	12.373	
5,900.00	5,890.09	5,886.14	5,881.49	13.11	11.34	145.22	103.44	-21.69	306.84	282.46	24.39	12.583	
6,000.00	5,989.72	5,985.57	5,980.47	13.40	11.47	144.47	107.29	-30.25	316.73	291.96	24.77	12.786	
6,100.00	6,089.35	6,085.00	6,079.46	13.69	11.61	143.77	111.14	-38.80	326.67	301.51	25.16	12.984	
6,200.00	6,188.98	6,184.42	6,178.44	13.99	11.76	143.12	115.00	-47.36	336.66	311.10	25.56	13.173	
6,300.00	6,288.61	6,283.85	6,277.43	14.30	11.92	142.50	118.85	-55.91	346.68	320.73	25.95	13.358	
6,400.00	6,388.24	6,383.28	6,376.41	14.61	12.09	141.91	122.70	-64.47	356.75	330.39	26.35	13.537	
6,500.00	6,487.87	6,482.71	6,475.40	14.92	12.27	141.36	126.55	-73.02	366.84	340.09	26.76	13.710	
6,600.00	6,587.50	6,582.14	6,574.38	15.23	12.45	140.83	130.40	-81.58	376.97	349.81	27.17	13.877	
6,700.00	6,687.13	6,681.56	6,673.37	15.55	12.65	140.34	134.25	-90.13	387.13	359.56	27.58	14.038	
6,800.00	6,786.76	6,780.99	6,772.35	15.87	12.86	139.87	138.11	-98.69	397.32	369.33	27.99	14.194	
6,900.00	6,886.39	6,880.42	6,871.33	16.20	13.08	139.42	141.96	-107.24	407.53	379.12	28.41	14.344	
7,000.00	6,986.02	6,979.85	6,970.32	16.53	13.30	138.99	145.81	-115.80	417.77	388.94	28.83	14.490	
7,100.00	7,085.65	7,079.28	7,069.30	16.86	13.54	138.59	149.66	-124.35	428.03	398.77	29.26	14.630	
7,200.00	7,185.28	7,178.70	7,168.29	17.19	13.77	138.20	153.51	-132.91	438.31	408.62	29.68	14.765	
7,300.00	7,284.93	7,280.78	7,269.93	17.50	14.00	137.88	157.35	-141.43	448.37	418.29	30.08	14.908	
7,400.00	7,384.76	7,387.57	7,376.51	17.86	14.31	137.74	160.06	-147.44	455.22	424.69	30.53	14.912	
7,500.00	7,484.72	7,494.72	7,483.62	18.23	14.65	137.68	161.13	-149.83	457.93	426.96	30.97	14.786	
7,600.00	7,584.72	7,595.82	7,584.72	18.26	14.72	-0.68	161.15	-149.87	457.98	426.90	31.08	14.736	
7,700.00	7,684.72	7,695.82	7,684.72	18.30	14.79	-0.68	161.15	-149.87	457.98	426.79	31.20	14.681	
7,800.00	7,784.72	7,795.82	7,784.72	18.34	14.87	-0.68	161.15	-149.87	457.98	426.66	31.32	14.623	
7,900.00	7,884.72	7,895.82	7,884.72	18.38	14.94	-0.68	161.15	-149.87	457.98	426.54	31.44	14.566	
8,000.00	7,984.72	7,995.82	7,984.72	18.42	15.02	-0.68	161.15	-149.87	457.98	426.42	31.56	14.510	
8,100.00	8,084.72	8,095.82	8,084.72	18.47	15.09	-0.68	161.15	-149.87	457.98	426.30	31.69	14.453	
8,200.00	8,184.72	8,195.82	8,184.72	18.51	15.16	-0.68	161.15	-149.87	457.98	426.17	31.81	14.397	
8,300.00	8,284.72	8,295.82	8,284.72	18.55	15.24	-0.68	161.15	-149.87	457.98	426.05	31.93	14.342	
8,400.00	8,384.72	8,395.82	8,384.72	18.59	15.31	-0.68	161.15	-149.87	457.98	425.92	32.06	14.286	
8,500.00	8,484.72	8,495.82	8,484.72	18.63	15.39	-0.68	161.15	-149.87	457.98	425.80	32.18	14.231	
8,600.00	8,584.72	8,595.82	8,584.72	18.67	15.46	-0.68	161.15	-149.87	457.98	425.68	32.31	14.176	
8,700.00	8,684.72	8,695.82	8,684.72	18.72	15.54	-0.68	161.15	-149.87	457.98	425.55	32.43	14.122	
8,800.00	8,784.72	8,795.82	8,784.72	18.76	15.61	-0.68	161.15	-149.87	457.98	425.43	32.56	14.067	
8,900.00	8,884.72	8,895.82	8,884.72	18.80	15.69	-0.68	161.15	-149.87	457.98	425.30	32.68	14.014	
9,000.00	8,984.72	8,995.82	8,984.72	18.85	15.76	-0.68	161.15	-149.87	457.98	425.18	32.81	13.960	
9,100.00	9,084.72	9,095.82	9,084.72	18.89	15.84	-0.68	161.15	-149.87	457.98	425.05	32.93	13.906	
9,200.00	9,184.72	9,195.82	9,184.72	18.93	15.91	-0.68	161.15	-149.87	457.98	424.92	33.06	13.853	
9,300.00	9,284.72	9,295.82	9,284.72	18.98	15.99	-0.68	161.15	-149.87	457.98	424.80	33.19	13.801	
9,400.00	9,384.72	9,395.82	9,384.72	19.02	16.06	-0.68	161.15	-149.87	457.98	424.67	33.31	13.748	
9,500.00	9,484.72	9,495.82	9,484.72	19.07	16.14	-0.68	161.15	-149.87	457.98	424.54	33.44	13.696	
9,600.00	9,584.72	9,595.82	9,584.72	19.11	16.21	-0.68	161.15	-149.87	457.98	424.42	33.57	13.644	
9,700.00	9,684.72	9,695.82	9,684.72	19.16	16.29	-0.68	161.15	-149.87	457.98	424.29	33.69	13.592	
9,800.00	9,784.72	9,795.82	9,784.72	19.20	16.36	-0.68	161.15	-149.87	457.98	424.16	33.82	13.541	
9,900.00	9,884.72	9,895.82	9,884.72	19.25	16.44	-0.68	161.15	-149.87	457.98	424.03	33.95	13.490	
10,000.00	9,984.72	9,995.82	9,984.72	19.29	16.51	-0.68	161.15	-149.87	457.98	423.90	34.08	13.439	
10,100.00	10,084.72	10,095.82	10,084.72	19.34	16.59	-0.68	161.15	-149.87	457.98	423.78	34.21	13.389	
10,200.00	10,184.72	10,195.82	10,184.72	19.39	16.66	-0.68	161.15	-149.87	457.98	423.65	34.34	13.338	
10,300.00	10,284.72	10,295.82	10,284.72	19.43	16.74	-0.68	161.15	-149.87	457.98	423.52	34.46	13.289	

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FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 511H - Original Hole - rev2													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)			
10,400.00	10,384.72	10,395.82	10,384.72	19.48	16.82	-0.68	161.15	-149.87	457.98	423.39	34.59	13.239	
10,500.00	10,484.72	10,495.82	10,484.72	19.53	16.89	-0.68	161.15	-149.87	457.98	423.26	34.72	13.189	
10,600.00	10,584.72	10,595.82	10,584.72	19.57	16.97	-0.68	161.15	-149.87	457.98	423.13	34.85	13.140	
10,700.00	10,684.72	10,695.82	10,684.72	19.62	17.04	-0.68	161.15	-149.87	457.98	423.00	34.98	13.092	
10,800.00	10,784.72	10,795.82	10,784.72	19.67	17.12	-0.68	161.15	-149.87	457.98	422.87	35.11	13.043	
10,900.00	10,884.72	10,895.82	10,884.72	19.72	17.19	-0.68	161.15	-149.87	457.98	422.74	35.24	12.995	
11,000.00	10,984.72	10,995.82	10,984.72	19.76	17.27	-0.68	161.15	-149.87	457.98	422.61	35.37	12.947	
11,100.00	11,084.72	11,095.82	11,084.72	19.81	17.35	-0.68	161.15	-149.87	457.98	422.48	35.51	12.899	
11,200.00	11,184.72	11,195.82	11,184.72	19.86	17.42	-0.68	161.15	-149.87	457.98	422.35	35.64	12.851	
11,200.59	11,185.32	11,196.41	11,185.32	19.86	17.42	90.14	161.15	-149.87	457.98	422.34	35.64	12.851	
11,300.00	11,284.71	11,295.81	11,284.71	19.91	17.50	90.24	161.15	-149.87	457.99	422.23	35.75	12.809	
11,400.00	11,383.60	11,394.70	11,383.60	20.16	17.57	91.93	161.15	-149.87	458.26	422.30	35.96	12.744	
11,500.00	11,478.56	11,489.65	11,478.56	20.48	17.64	95.37	161.15	-149.87	460.37	424.08	36.29	12.687	
11,600.00	11,566.71	11,583.10	11,571.58	20.84	17.89	99.26	161.98	-157.52	466.96	430.27	36.68	12.729	
11,700.00	11,645.37	11,683.28	11,668.49	21.24	18.37	102.88	164.67	-182.27	478.61	441.34	37.27	12.843	
11,800.00	11,712.15	11,791.86	11,766.87	21.66	18.94	106.12	169.59	-227.56	494.66	456.45	38.21	12.946	
11,900.00	11,765.01	11,910.69	11,862.57	22.15	19.54	108.87	177.16	-297.24	513.94	474.22	39.72	12.938	
12,000.00	11,802.36	12,041.56	11,948.75	22.76	20.14	111.00	187.76	-394.78	534.83	492.91	41.92	12.759	
12,100.00	11,823.06	12,228.56	12,029.02	23.58	21.08	113.14	201.97	-562.15	552.98	507.66	45.32	12.201	
12,200.00	11,826.89	12,427.08	12,052.45	24.64	23.28	113.86	204.59	-758.33	557.77	508.98	48.80	11.431	
12,300.00	11,825.42	12,527.08	12,050.99	25.96	24.83	113.86	203.16	-858.31	557.77	506.26	51.51	10.829	
12,400.00	11,823.95	12,627.08	12,049.52	27.50	26.55	113.86	201.72	-958.29	557.77	503.34	54.43	10.247	
12,500.00	11,822.48	12,727.08	12,048.06	29.20	28.38	113.86	200.29	-1,058.27	557.77	500.21	57.56	9.690	
12,600.00	11,821.01	12,827.08	12,046.60	31.02	30.31	113.86	198.86	-1,158.25	557.77	496.91	60.86	9.164	
12,700.00	11,819.54	12,927.08	12,045.13	32.94	32.31	113.86	197.43	-1,258.23	557.77	493.46	64.31	8.673	
12,800.00	11,818.07	13,027.08	12,043.67	34.92	34.36	113.86	195.99	-1,358.21	557.77	489.89	67.88	8.217	
12,900.00	11,816.60	13,127.08	12,042.21	36.97	36.47	113.86	194.56	-1,458.19	557.77	486.21	71.56	7.794	
13,000.00	11,815.13	13,227.08	12,040.75	39.07	38.62	113.86	193.13	-1,558.16	557.77	482.44	75.33	7.404	
13,100.00	11,813.66	13,327.08	12,039.28	41.20	40.80	113.86	191.69	-1,658.14	557.77	478.60	79.18	7.045	
13,200.00	11,812.19	13,427.08	12,037.82	43.37	43.00	113.86	190.26	-1,758.12	557.77	474.69	83.09	6.713	
13,300.00	11,810.72	13,527.08	12,036.36	45.57	45.24	113.86	188.83	-1,858.10	557.77	470.72	87.06	6.407	
13,400.00	11,809.25	13,627.08	12,034.89	47.79	47.49	113.86	187.39	-1,958.08	557.77	466.70	91.07	6.124	
13,500.00	11,807.78	13,727.08	12,033.43	50.04	49.76	113.87	185.96	-2,058.06	557.77	462.64	95.14	5.863	
13,600.00	11,806.31	13,827.08	12,031.97	52.30	52.04	113.87	184.53	-2,158.04	557.77	458.54	99.24	5.621	
13,700.00	11,804.84	13,927.08	12,030.51	54.57	54.34	113.87	183.10	-2,258.02	557.77	454.40	103.37	5.396	
13,800.00	11,803.37	14,027.08	12,029.04	56.86	56.65	113.87	181.66	-2,358.00	557.78	450.24	107.54	5.187	
13,900.00	11,801.90	14,127.08	12,027.58	59.17	58.97	113.87	180.23	-2,457.98	557.78	446.05	111.73	4.992	
14,000.00	11,800.43	14,227.08	12,026.12	61.48	61.30	113.87	178.80	-2,557.95	557.78	441.84	115.94	4.811	
14,100.00	11,798.96	14,327.08	12,024.65	63.80	63.64	113.87	177.36	-2,657.93	557.78	437.60	120.17	4.641	
14,200.00	11,797.49	14,427.08	12,023.19	66.13	65.99	113.87	175.93	-2,757.91	557.78	433.35	124.43	4.483	
14,300.00	11,796.02	14,527.08	12,021.73	68.47	68.34	113.87	174.50	-2,857.89	557.78	429.08	128.70	4.334	
14,400.00	11,794.55	14,627.08	12,020.27	70.82	70.70	113.87	173.07	-2,957.87	557.78	424.79	132.98	4.194	
14,500.00	11,793.08	14,727.08	12,018.80	73.17	73.06	113.87	171.63	-3,057.85	557.78	420.49	137.28	4.063	
14,600.00	11,791.62	14,827.08	12,017.34	75.53	75.43	113.87	170.20	-3,157.83	557.78	416.18	141.60	3.939	
14,700.00	11,790.15	14,927.08	12,015.88	77.89	77.80	113.87	168.77	-3,257.81	557.78	411.86	145.92	3.822	
14,800.00	11,788.68	15,027.08	12,014.41	80.26	80.18	113.88	167.33	-3,357.79	557.78	407.52	150.26	3.712	
14,900.00	11,787.21	15,127.08	12,012.95	82.63	82.56	113.88	165.90	-3,457.77	557.78	403.18	154.60	3.608	
15,000.00	11,785.74	15,227.08	12,011.49	85.00	84.94	113.88	164.47	-3,557.74	557.78	398.83	158.95	3.509	
15,100.00	11,784.27	15,327.08	12,010.03	87.38	87.33	113.88	163.03	-3,657.72	557.78	394.47	163.31	3.415	
15,200.00	11,782.80	15,427.08	12,008.56	89.76	89.72	113.88	161.60	-3,757.70	557.78	390.10	167.68	3.326	
15,300.00	11,781.33	15,527.08	12,007.10	92.15	92.11	113.88	160.17	-3,857.68	557.78	385.72	172.06	3.242	
15,400.00	11,779.86	15,627.08	12,005.64	94.54	94.51	113.88	158.74	-3,957.66	557.78	381.34	176.44	3.161	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 511H - Original Hole - rev2												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)			
15,500.00	11,778.39	15,727.08	12,004.17	96.93	96.91	113.88	157.30	-4,057.64	557.78	376.95	180.83	3.085	
15,600.00	11,776.92	15,827.08	12,002.71	99.32	99.31	113.88	155.87	-4,157.62	557.78	372.56	185.22	3.011	
15,700.00	11,775.45	15,927.08	12,001.25	101.71	101.71	113.88	154.44	-4,257.60	557.78	368.16	189.62	2.942	
15,800.00	11,773.98	16,027.08	11,999.79	104.11	104.11	113.88	153.00	-4,357.58	557.78	363.76	194.02	2.875	
15,900.00	11,772.51	16,127.08	11,998.32	106.51	106.52	113.88	151.57	-4,457.56	557.78	359.35	198.43	2.811	
16,000.00	11,771.04	16,227.08	11,996.86	108.91	108.92	113.89	150.14	-4,557.54	557.78	354.94	202.84	2.750	
16,100.00	11,769.57	16,327.08	11,995.40	111.31	111.33	113.89	148.70	-4,657.51	557.78	350.52	207.26	2.691	
16,200.00	11,768.10	16,427.08	11,993.93	113.72	113.74	113.89	147.27	-4,757.49	557.78	346.11	211.68	2.635	
16,300.00	11,766.63	16,527.08	11,992.47	116.12	116.15	113.89	145.84	-4,857.47	557.78	341.68	216.10	2.581	
16,400.00	11,765.16	16,627.08	11,991.01	118.53	118.56	113.89	144.41	-4,957.45	557.78	337.26	220.52	2.529	
16,500.00	11,763.69	16,727.08	11,989.55	120.94	120.97	113.89	142.97	-5,057.43	557.78	332.83	224.95	2.480	
16,600.00	11,762.22	16,827.08	11,988.08	123.35	123.39	113.89	141.54	-5,157.41	557.78	328.40	229.39	2.432	
16,700.00	11,760.75	16,927.08	11,986.62	125.76	125.80	113.89	140.11	-5,257.39	557.78	323.96	233.82	2.386	
16,800.00	11,759.28	17,027.08	11,985.16	128.17	128.22	113.89	138.67	-5,357.37	557.78	319.53	238.26	2.341	
16,900.00	11,757.81	17,127.08	11,983.69	130.58	130.63	113.89	137.24	-5,457.35	557.78	315.09	242.69	2.298	
16,903.49	11,757.76	17,130.57	11,983.64	130.67	130.72	113.89	137.19	-5,460.84	557.78	314.94	242.85	2.297	
16,954.90	11,757.00	17,175.07	11,982.99	131.91	131.79	113.89	136.55	-5,505.33	557.83	312.86	244.97	2.277 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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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, 1175-MWD, 9827-MWD, 15717-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	1.50	1.50	0.00	0.01	-44.99	100.55	-100.53	142.19				
100.00	100.00	101.33	101.33	0.43	0.60	-45.06	100.47	-100.69	142.25	141.22	1.02	138.870	
200.00	200.00	201.19	201.19	1.25	1.23	-45.25	100.26	-101.15	142.42	139.96	2.47	57.692	
300.00	300.00	301.12	301.12	1.75	1.96	-45.44	100.09	-101.64	142.65	138.97	3.68	38.759	
400.00	400.00	400.27	400.27	2.13	2.65	-45.60	100.20	-102.31	143.21	138.47	4.74	30.213 ES	
500.00	500.00	499.47	499.46	2.46	3.24	-45.75	100.72	-103.41	144.37	138.71	5.65	25.536	
600.00	600.00	598.62	598.59	2.75	3.59	-45.80	101.78	-104.65	146.02	139.73	6.29	23.210	
700.00	700.00	697.26	697.20	3.02	4.06	-45.75	103.54	-106.30	148.46	141.42	7.04	21.088	
800.00	800.00	796.57	796.46	3.27	4.44	-45.61	106.05	-108.34	151.69	144.02	7.67	19.775	
900.00	900.00	896.57	896.40	3.50	4.67	-45.13	109.29	-109.77	154.98	146.83	8.15	19.018	
1,000.00	1,000.00	996.11	995.87	3.72	4.87	-44.44	112.97	-110.77	158.31	149.74	8.57	18.473	
1,100.00	1,100.00	1,093.89	1,093.55	3.92	5.11	-44.08	116.64	-112.94	162.55	153.53	9.02	18.023	
1,200.00	1,200.00	1,193.10	1,192.61	4.12	5.32	-43.97	120.70	-116.44	167.94	158.51	9.43	17.811	
1,300.00	1,300.00	1,296.99	1,296.42	4.31	5.57	-44.06	123.41	-119.41	171.79	161.92	9.88	17.392	
1,400.00	1,400.00	1,398.57	1,397.97	4.50	5.81	-44.12	125.25	-121.45	174.50	164.20	10.30	16.947	
1,500.00	1,500.00	1,501.69	1,501.08	4.68	5.97	-44.12	126.00	-122.17	175.51	164.87	10.64	16.493	
1,600.00	1,600.00	1,603.29	1,602.68	4.85	6.06	-44.05	125.92	-121.83	175.21	164.30	10.91	16.062	
1,700.00	1,700.00	1,703.44	1,702.83	5.02	6.15	-44.08	125.28	-121.31	174.39	163.23	11.16	15.629	
1,800.00	1,800.00	1,803.47	1,802.85	5.19	6.24	-44.31	124.29	-121.31	173.68	162.27	11.41	15.218	
1,900.00	1,900.00	1,905.01	1,904.38	5.35	6.33	-44.64	122.77	-121.25	172.57	160.91	11.67	14.792	
2,000.00	2,000.00	2,006.97	2,006.31	5.50	6.43	-44.89	120.62	-120.16	170.32	158.40	11.92	14.289	
2,100.00	2,100.00	2,107.90	2,107.19	5.66	6.53	-45.08	117.97	-118.29	167.15	154.98	12.18	13.725	
2,200.00	2,200.00	2,205.51	2,204.76	5.81	6.65	-45.27	115.65	-116.73	164.35	151.90	12.45	13.202	
2,300.00	2,300.00	2,302.60	2,301.84	5.96	6.76	-45.32	114.80	-116.07	163.25	150.53	12.72	12.837	
2,400.00	2,400.00	2,402.86	2,402.10	6.10	6.87	-45.37	114.53	-116.02	163.03	150.06	12.97	12.569	
2,500.00	2,500.00	2,502.76	2,501.99	6.25	6.98	-45.61	113.80	-116.26	162.69	149.47	13.22	12.302	
2,600.00	2,600.00	2,603.00	2,602.23	6.39	7.09	-45.98	112.81	-116.73	162.33	148.86	13.48	12.047	
2,700.00	2,700.00	2,703.44	2,702.65	6.53	7.20	-46.53	111.22	-117.31	161.66	147.94	13.73	11.778	
2,781.15	2,781.15	2,783.44	2,782.65	6.64	7.28	-46.84	110.39	-117.71	161.37	147.45	13.92	11.592	
2,800.00	2,800.00	2,801.93	2,801.13	6.67	7.30	-46.88	110.32	-117.80	161.39	147.43	13.96	11.561	
2,900.00	2,900.00	2,900.55	2,899.76	6.80	7.37	-47.05	110.50	-118.70	162.18	148.01	14.17	11.449	
3,000.00	3,000.00	3,001.03	3,000.23	6.94	7.43	-47.16	110.91	-119.60	163.12	148.75	14.37	11.352	
3,100.00	3,100.00	3,102.15	3,101.35	7.07	7.51	-47.32	110.94	-120.31	163.65	149.07	14.58	11.225	
3,200.00	3,200.00	3,205.21	3,204.40	7.20	7.63	-47.37	110.36	-119.90	162.99	148.16	14.83	10.992	
3,300.00	3,300.00	3,305.47	3,304.64	7.33	7.83	-47.34	108.75	-118.03	160.52	145.36	15.15	10.594	
3,343.29	3,343.28	3,347.27	3,346.43	7.38	7.92	132.80	108.43	-117.47	160.09	144.80	15.29	10.471	
3,400.00	3,399.98	3,405.66	3,404.80	7.46	8.03	133.29	108.05	-116.61	160.20	144.75	15.45	10.367	
3,500.00	3,499.84	3,510.30	3,509.38	7.87	8.28	134.97	106.16	-113.54	160.48	144.55	15.94	10.070	
3,567.56	3,567.19	3,579.68	3,578.64	7.99	8.45	136.56	103.74	-110.22	160.31	144.13	16.18	9.906	
3,600.00	3,599.47	3,612.38	3,611.27	8.04	8.53	137.57	102.60	-108.41	160.68	144.38	16.30	9.857	
3,700.00	3,699.02	3,706.45	3,705.19	8.14	8.72	140.43	100.48	-103.56	162.73	146.11	16.62	9.792 SF	
3,800.00	3,798.58	3,797.40	3,796.08	8.28	9.05	143.23	101.98	-101.14	169.80	152.79	17.01	9.980	
3,900.00	3,898.14	3,890.34	3,888.85	8.42	9.45	146.08	107.42	-100.53	181.88	164.50	17.37	10.468	
4,000.00	3,997.69	3,986.98	3,985.21	8.59	9.61	148.62	114.75	-101.16	196.54	178.97	17.58	11.182	
4,100.00	4,097.25	4,085.01	4,082.95	8.77	9.66	150.71	122.29	-102.42	211.95	194.22	17.72	11.959	
4,200.00	4,196.80	4,183.98	4,181.62	8.96	9.70	152.42	129.74	-104.09	227.63	209.73	17.90	12.719	
4,300.00	4,296.36	4,283.58	4,280.95	9.17	9.75	153.88	136.86	-105.78	243.15	225.04	18.10	13.432	
4,400.00	4,395.92	4,383.86	4,381.00	9.38	9.81	155.13	143.47	-107.43	258.28	239.94	18.34	14.083	
4,500.00	4,495.47	4,483.34	4,480.29	9.61	9.87	156.17	149.51	-109.11	273.05	254.44	18.60	14.677	
4,600.00	4,495.03	4,479.00	4,475.76	9.85	9.93	156.99	154.98	-111.03	287.72	268.84	18.88	15.240	
4,700.00	4,494.59	4,473.32	4,469.83	10.10	10.01	157.80	161.62	-113.02	303.71	284.49	19.23	15.797	
4,800.00	4,794.15	4,774.67	4,770.83	10.33	10.11	152.70	169.71	-115.09	320.46	300.86	19.60	16.353	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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, 1175-MWD, 9827-MWD, 15717-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 (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
4,900.00	4,893.78	4,874.27	4,870.14	10.58	10.20	130.73	176.99	-117.27	334.76	314.80	19.96	16.771	
5,000.00	4,993.42	4,973.13	4,968.72	10.79	10.29	119.06	183.99	-119.77	346.77	326.51	20.26	17.120	
5,100.00	5,093.05	5,070.79	5,066.09	11.01	10.39	120.33	191.26	-121.72	358.74	338.18	20.56	17.448	
5,200.00	5,192.68	5,167.50	5,162.45	11.24	10.49	121.66	199.33	-122.83	371.49	350.60	20.89	17.781	
5,300.00	5,292.31	5,267.32	5,261.92	11.49	10.60	122.96	207.75	-123.96	384.52	363.26	21.26	18.086	
5,400.00	5,391.94	5,368.26	5,362.52	11.74	10.72	124.16	215.89	-125.14	397.39	375.73	21.65	18.352	
5,500.00	5,491.57	5,470.64	5,464.62	12.00	10.86	125.25	223.28	-126.49	409.62	387.55	22.07	18.561	
5,600.00	5,591.20	5,571.50	5,565.26	12.27	11.00	126.22	229.85	-127.97	421.31	398.82	22.49	18.733	
5,700.00	5,690.83	5,669.38	5,662.93	12.55	11.15	127.11	236.09	-129.37	432.99	410.08	22.92	18.896	
5,800.00	5,790.46	5,767.19	5,760.49	12.82	11.30	128.10	243.02	-129.76	445.28	421.92	23.36	19.064	
5,900.00	5,890.09	5,868.38	5,861.43	13.11	11.47	129.17	250.16	-129.42	457.56	433.73	23.83	19.202	
6,000.00	5,989.72	5,970.06	5,962.90	13.40	11.65	130.15	256.65	-129.20	469.33	445.01	24.31	19.304	
6,100.00	6,089.35	6,073.68	6,066.35	13.69	11.84	131.08	262.54	-129.09	480.56	455.75	24.81	19.368	
6,200.00	6,188.98	6,165.46	6,157.98	13.99	12.04	131.89	267.73	-128.76	491.85	466.55	25.30	19.439	
6,300.00	6,288.61	6,260.59	6,252.84	14.30	12.26	132.83	274.74	-127.35	504.82	478.99	25.83	19.542	
6,400.00	6,388.24	6,363.65	6,355.62	14.61	12.49	133.80	282.21	-125.86	517.82	491.44	26.38	19.626	
6,500.00	6,487.87	6,464.96	6,456.72	14.92	12.72	134.64	288.70	-124.86	530.15	503.22	26.93	19.689	
6,600.00	6,587.50	6,561.90	6,553.46	15.23	12.96	135.34	294.86	-124.63	542.56	515.10	27.46	19.761	
6,700.00	6,687.13	6,659.92	6,651.26	15.55	13.22	135.91	301.35	-125.37	555.34	527.34	28.00	19.834	
6,800.00	6,786.76	6,762.47	6,753.60	15.87	13.48	136.50	307.92	-125.92	567.96	539.39	28.57	19.879	
6,900.00	6,886.39	6,864.62	6,855.57	16.20	13.76	137.06	313.87	-126.51	580.06	550.92	29.14	19.905	
7,000.00	6,986.02	6,966.57	6,957.37	16.53	14.03	137.60	319.30	-127.10	591.71	562.00	29.71	19.915	
7,100.00	7,085.65	7,069.69	7,060.37	16.86	14.30	138.12	324.27	-127.66	602.91	572.62	30.29	19.906	
7,200.00	7,185.28	7,179.63	7,170.24	17.19	14.58	138.66	328.42	-128.23	613.13	582.25	30.88	19.856	
7,300.00	7,284.93	7,290.58	7,281.17	17.50	14.82	139.17	330.17	-129.25	621.03	589.64	31.39	19.787	
7,400.00	7,384.76	7,392.95	7,383.52	17.86	14.97	139.45	330.75	-130.65	625.94	594.14	31.81	19.680	
7,500.00	7,484.72	7,495.29	7,485.85	18.23	15.09	139.51	331.06	-131.88	627.96	595.79	32.17	19.519	
7,600.00	7,584.72	7,596.39	7,586.95	18.26	15.17	1.05	331.03	-132.93	627.94	595.69	32.25	19.473	
7,700.00	7,684.72	7,698.25	7,688.80	18.30	15.23	0.95	330.79	-134.07	627.69	595.39	32.30	19.436	
7,800.00	7,784.72	7,798.46	7,789.01	18.34	15.20	0.92	330.37	-134.38	627.25	594.96	32.30	19.422	
7,900.00	7,884.72	7,899.79	7,890.34	18.38	15.11	0.97	329.77	-133.87	626.67	594.39	32.28	19.414	
8,000.00	7,984.72	7,996.34	7,986.89	18.42	15.05	0.99	329.40	-133.61	626.30	594.03	32.27	19.408	
8,023.82	8,008.54	8,019.50	8,010.04	18.43	15.05	0.99	329.39	-133.55	626.28	594.00	32.28	19.399	
8,100.00	8,084.72	8,093.93	8,084.47	18.47	15.05	1.04	329.50	-133.06	626.41	594.07	32.34	19.371	
8,200.00	8,184.72	8,193.18	8,183.72	18.51	15.10	1.12	329.78	-132.18	626.70	594.22	32.48	19.295	
8,300.00	8,284.72	8,288.42	8,278.95	18.55	15.20	1.19	330.46	-131.36	627.44	594.78	32.65	19.215	
8,400.00	8,384.72	8,380.51	8,371.01	18.59	15.34	1.31	332.05	-130.01	629.20	596.33	32.87	19.144	
8,500.00	8,484.72	8,471.71	8,462.15	18.63	15.52	1.47	334.90	-128.17	632.37	599.25	33.11	19.097	
8,600.00	8,584.72	8,571.26	8,561.60	18.67	15.77	1.36	338.94	-129.31	636.40	602.97	33.43	19.038	
8,700.00	8,684.72	8,684.78	8,674.94	18.72	16.14	0.86	342.11	-134.88	639.08	605.25	33.83	18.890	
8,800.00	8,784.72	8,794.94	8,785.07	18.76	16.42	0.75	343.26	-136.03	640.11	605.96	34.15	18.743	
8,900.00	8,884.72	8,901.14	8,891.27	18.80	16.46	0.85	342.76	-134.98	639.65	605.39	34.26	18.670	
9,000.00	8,984.72	8,999.81	8,989.94	18.85	16.38	0.85	341.98	-134.96	638.86	604.63	34.23	18.663	
9,100.00	9,084.72	9,097.39	9,087.51	18.89	16.34	0.83	341.62	-135.15	638.49	604.26	34.22	18.656	
9,200.00	9,184.72	9,198.98	9,189.10	18.93	16.35	0.76	341.37	-135.91	638.23	603.98	34.26	18.631	
9,300.00	9,284.72	9,301.94	9,292.05	18.98	16.33	0.66	340.69	-137.12	637.55	603.29	34.26	18.609	
9,400.00	9,384.72	9,402.88	9,392.99	19.02	16.26	0.61	339.68	-137.65	636.55	602.33	34.22	18.603	
9,500.00	9,484.72	9,499.00	9,489.10	19.07	16.18	0.59	338.96	-137.82	635.80	601.62	34.18	18.601	
9,600.00	9,584.72	9,598.26	9,588.36	19.11	16.12	0.60	338.58	-137.74	635.42	601.25	34.17	18.596	
9,700.00	9,684.72	9,697.92	9,688.02	19.16	16.07	0.63	338.26	-137.43	635.10	600.92	34.18	18.582	
9,800.00	9,784.72	9,797.32	9,787.42	19.20	16.05	0.69	338.07	-136.82	634.92	600.69	34.22	18.552	
9,900.00	9,884.72	9,898.42	9,888.48	19.25	18.45	0.60	337.90	-137.79	634.74	598.04	36.70	17.293	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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, 1175-MWD, 9827-MWD, 15717-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
9,963.69	9,948.42	9,960.35	9,949.92	19.28	21.16	-0.07	337.70	-145.25	634.50	595.09	39.41	16.102
10,000.00	9,984.72	9,991.16	9,979.80	19.29	22.45	-0.75	337.78	-152.68	634.67	593.99	40.68	15.602
10,100.00	10,084.72	10,077.48	10,059.25	19.34	24.20	-3.76	338.71	-186.15	637.45	595.19	42.25	15.087
10,200.00	10,184.72	10,197.06	10,160.57	19.39	24.62	-9.38	334.72	-248.80	640.60	598.32	42.29	15.150
10,300.00	10,284.72	10,274.31	10,219.12	19.43	25.24	-13.85	327.24	-298.27	646.22	603.60	42.62	15.163
10,400.00	10,384.72	10,312.00	10,244.45	19.48	25.58	-16.31	323.76	-325.95	661.93	618.90	43.02	15.386
10,500.00	10,484.72	10,312.00	10,244.45	19.53	25.58	-16.31	323.76	-325.95	690.29	646.91	43.38	15.913
10,600.00	10,584.72	10,361.09	10,273.64	19.57	26.09	-19.67	321.02	-365.27	726.77	682.42	44.35	16.387
10,700.00	10,684.72	10,406.00	10,295.60	19.62	26.55	-22.82	321.03	-404.41	775.82	730.24	45.58	17.022
10,800.00	10,784.72	10,406.00	10,295.60	19.67	26.55	-22.82	321.03	-404.41	830.68	784.39	46.28	17.949
10,900.00	10,884.72	10,406.00	10,295.60	19.72	26.55	-22.82	321.03	-404.41	893.39	846.46	46.93	19.038
11,000.00	10,984.72	10,406.00	10,295.60	19.76	26.55	-22.82	321.03	-404.41	962.43	914.92	47.51	20.255
11,100.00	11,084.72	10,440.77	10,309.79	19.81	26.91	-25.23	322.24	-436.12	1,034.96	986.09	48.87	21.179
11,200.00	11,184.72	10,454.12	10,314.74	19.86	27.05	-26.14	322.85	-448.51	1,111.72	1,061.97	49.75	22.346
11,300.00	11,284.71	10,466.31	10,319.00	19.91	27.18	60.28	323.47	-459.90	1,191.33	1,140.75	50.58	23.553
11,400.00	11,383.60	10,499.00	10,329.25	20.16	27.53	48.61	325.47	-490.88	1,269.77	1,217.85	51.93	24.453
11,500.00	11,478.56	10,499.00	10,329.25	20.48	27.53	41.10	325.47	-490.88	1,342.71	1,290.36	52.35	25.647
11,600.00	11,566.71	10,536.53	10,339.31	20.84	27.88	34.82	327.55	-526.97	1,409.15	1,355.96	53.19	26.491
11,700.00	11,645.37	10,593.00	10,351.81	21.24	28.40	30.23	328.80	-582.01	1,466.85	1,412.58	54.27	27.029
11,800.00	11,712.15	10,622.05	10,357.09	21.66	28.71	27.36	328.76	-610.58	1,514.00	1,459.25	54.75	27.655
11,900.00	11,765.01	10,686.00	10,366.38	22.15	29.38	25.23	327.89	-673.84	1,550.16	1,494.63	55.53	27.916
12,000.00	11,802.36	10,735.22	10,372.07	22.76	29.90	24.03	326.88	-722.71	1,573.54	1,517.57	55.97	28.114
12,100.00	11,823.06	10,812.51	10,380.11	23.58	30.77	23.52	325.49	-799.58	1,582.93	1,526.33	56.61	27.964
12,200.00	11,826.89	10,874.00	10,385.46	24.64	31.51	23.64	323.82	-860.81	1,578.22	1,521.25	56.97	27.702
12,300.00	11,825.42	10,910.77	10,387.33	25.96	31.99	23.65	322.71	-897.51	1,572.03	1,514.92	57.11	27.528
12,400.00	11,823.95	10,967.00	10,386.18	27.50	32.74	23.63	321.41	-953.69	1,571.01	1,513.47	57.54	27.303
12,418.09	11,823.69	10,967.00	10,386.18	27.81	32.74	23.63	321.41	-953.69	1,570.91	1,513.43	57.48	27.331
12,500.00	11,822.48	10,980.52	10,385.31	29.20	32.93	23.62	321.14	-967.19	1,572.97	1,515.62	57.35	27.426
12,600.00	11,821.01	11,103.21	10,377.09	31.02	34.74	23.47	317.65	-1,089.54	1,577.34	1,518.64	58.70	26.873
12,700.00	11,819.54	11,215.38	10,374.10	32.94	36.57	23.50	317.58	-1,201.66	1,578.88	1,519.08	59.81	26.400
12,800.00	11,818.07	11,447.49	10,373.99	34.92	40.76	23.53	313.78	-1,433.60	1,578.37	1,515.94	62.42	25.285
12,900.00	11,816.60	11,507.36	10,374.70	36.97	41.86	23.45	309.85	-1,493.34	1,573.69	1,510.60	63.09	24.946
13,000.00	11,815.13	11,566.54	10,374.11	39.07	42.96	23.35	305.87	-1,552.38	1,571.21	1,507.44	63.77	24.640
13,037.95	11,814.58	11,587.39	10,373.51	39.88	43.35	23.31	304.60	-1,573.18	1,571.00	1,506.99	64.01	24.541
13,100.00	11,813.66	11,623.00	10,371.99	41.20	44.02	23.25	302.60	-1,608.70	1,571.55	1,507.12	64.43	24.391
13,200.00	11,812.19	11,741.70	10,365.99	43.37	46.32	22.99	294.97	-1,727.00	1,572.93	1,507.05	65.89	23.873
13,298.41	11,810.75	11,848.25	10,362.85	45.54	48.43	22.81	288.72	-1,833.31	1,572.52	1,505.29	67.24	23.387
13,300.00	11,810.72	11,849.37	10,362.82	45.57	48.45	22.81	288.67	-1,834.43	1,572.52	1,505.27	67.25	23.382
13,400.00	11,809.25	11,996.00	10,360.24	47.79	51.43	22.68	283.08	-1,980.90	1,572.24	1,502.97	69.27	22.697
13,500.00	11,807.78	12,057.47	10,361.19	50.04	52.75	22.73	282.73	-2,042.36	1,570.08	1,499.78	70.31	22.332
13,600.00	11,806.31	12,200.05	10,364.00	52.30	55.83	23.08	289.14	-2,184.72	1,569.63	1,496.90	72.72	21.584
13,700.00	11,804.84	12,277.00	10,367.27	54.57	57.48	23.33	293.56	-2,261.47	1,567.19	1,493.01	74.18	21.127
13,800.00	11,803.37	12,361.01	10,369.64	56.86	59.29	23.58	298.18	-2,345.31	1,566.01	1,490.28	75.73	20.678
13,838.95	11,802.80	12,388.54	10,370.19	57.76	59.89	23.66	299.74	-2,372.79	1,565.89	1,489.61	76.28	20.529
13,900.00	11,801.90	12,428.26	10,370.44	59.17	60.75	23.76	301.83	-2,412.46	1,566.36	1,489.29	77.07	20.324
14,000.00	11,800.43	12,499.74	10,369.29	61.48	62.31	23.90	305.04	-2,483.85	1,568.85	1,490.37	78.48	19.991
14,100.00	11,798.96	12,583.12	10,366.21	63.80	64.14	24.00	307.75	-2,567.13	1,572.75	1,492.68	80.07	19.642
14,200.00	11,797.49	12,704.00	10,361.61	66.13	66.82	24.16	312.03	-2,687.84	1,577.02	1,494.69	82.33	19.154
14,300.00	11,796.02	12,867.35	10,361.46	68.47	70.49	24.39	315.73	-2,851.12	1,576.82	1,491.44	85.37	18.470
14,343.14	11,795.39	12,894.89	10,361.24	69.48	71.12	24.40	315.41	-2,878.65	1,576.60	1,490.62	85.98	18.337
14,400.00	11,794.55	12,931.73	10,360.31	70.82	71.96	24.38	314.62	-2,915.48	1,576.97	1,490.21	86.76	18.176
14,500.00	11,793.08	13,067.23	10,358.14	73.17	75.02	24.26	309.07	-3,050.83	1,575.59	1,486.48	89.11	17.681

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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, 1175-MWD, 9827-MWD, 15717-MWD					Rule Assigned:							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)	Minimum Separation (ft)	Separation Factor			
14,542.16	11,792.47	13,093.96	10,357.48	74.16	75.62	24.23	307.76	-3,077.52	1,575.39	1,485.72	89.67	17.568			
14,600.00	11,791.62	13,160.79	10,355.16	75.53	77.13	24.12	304.29	-3,144.22	1,575.60	1,484.79	90.81	17.350			
14,700.00	11,790.15	13,278.82	10,353.06	77.89	79.80	23.92	296.53	-3,261.98	1,573.67	1,480.90	92.76	16.964			
14,800.00	11,788.68	13,359.57	10,350.91	80.26	81.64	23.75	290.91	-3,342.50	1,572.53	1,478.30	94.23	16.688			
14,834.41	11,788.17	13,386.59	10,350.02	81.07	82.25	23.70	289.24	-3,369.46	1,572.45	1,477.72	94.73	16.599			
14,900.00	11,787.21	13,448.16	10,347.88	82.63	83.66	23.60	285.89	-3,430.90	1,572.59	1,476.77	95.82	16.412			
15,000.00	11,785.74	13,627.36	10,347.22	85.00	87.78	23.50	279.52	-3,609.93	1,571.06	1,472.30	98.76	15.908			
15,100.00	11,784.27	13,728.75	10,351.69	87.38	90.13	23.59	278.16	-3,711.21	1,565.69	1,464.75	100.94	15.511			
15,200.00	11,782.80	13,804.18	10,353.87	89.76	91.88	23.64	276.94	-3,786.60	1,561.62	1,458.89	102.73	15.202			
15,300.00	11,781.33	13,869.00	10,354.44	92.15	93.38	23.63	275.19	-3,851.39	1,559.13	1,454.84	104.28	14.951			
15,377.30	11,780.19	13,929.94	10,353.70	93.99	94.80	23.59	273.13	-3,912.29	1,558.42	1,452.84	105.58	14.760			
15,400.00	11,779.86	13,944.89	10,353.30	94.54	95.14	23.58	272.60	-3,927.22	1,558.48	1,452.56	105.91	14.714			
15,500.00	11,778.39	14,054.48	10,350.53	96.93	97.69	23.48	268.46	-4,036.70	1,558.50	1,450.54	107.96	14.436			
15,600.00	11,776.92	14,134.04	10,348.16	99.32	99.55	23.36	264.42	-4,116.11	1,558.55	1,449.02	109.54	14.229			
15,611.86	11,776.74	14,194.85	10,346.50	99.60	100.96	23.24	260.17	-4,176.74	1,558.10	1,447.78	110.32	14.123			
15,700.00	11,775.45	14,361.58	10,349.15	101.71	104.85	22.95	247.19	-4,342.88	1,552.75	1,440.06	112.68	13.780			
15,800.00	11,773.98	14,431.00	10,351.75	104.11	106.48	22.92	243.90	-4,412.17	1,546.68	1,432.33	114.35	13.525			
15,900.00	11,772.51	14,488.62	10,353.19	106.51	107.86	22.95	242.91	-4,469.76	1,542.97	1,427.02	115.96	13.307			
15,971.46	11,771.46	14,525.00	10,353.34	108.23	108.73	22.97	242.76	-4,506.14	1,542.08	1,425.09	117.00	13.180			
16,000.00	11,771.04	14,545.98	10,353.15	108.91	109.22	22.99	242.77	-4,527.12	1,542.11	1,424.60	117.52	13.123			
16,100.00	11,769.57	14,618.00	10,350.91	111.31	110.92	23.00	242.70	-4,599.10	1,543.96	1,424.73	119.24	12.949			
16,200.00	11,768.10	14,658.11	10,348.39	113.72	111.86	22.99	242.58	-4,639.13	1,548.45	1,428.16	120.29	12.873			
16,300.00	11,766.63	14,712.00	10,343.20	116.12	113.13	22.94	242.34	-4,692.76	1,556.24	1,434.82	121.43	12.816			
16,400.00	11,765.16	15,046.63	10,333.08	118.53	121.02	22.92	239.15	-5,026.59	1,557.92	1,430.45	127.46	12.222			
16,500.00	11,763.69	15,129.38	10,337.53	120.94	122.98	23.03	238.61	-5,109.22	1,552.02	1,422.37	129.65	11.970			
16,600.00	11,762.22	15,180.00	10,339.33	123.35	124.18	23.10	239.05	-5,159.80	1,548.54	1,417.18	131.37	11.788			
16,680.83	11,761.03	15,235.62	10,340.03	125.30	125.51	23.18	239.95	-5,215.41	1,547.61	1,414.64	132.97	11.639			
16,700.00	11,760.75	15,246.71	10,339.98	125.76	125.77	23.20	240.13	-5,226.49	1,547.66	1,414.36	133.30	11.610			
16,800.00	11,759.28	15,310.66	10,338.69	128.17	127.30	23.26	241.37	-5,290.42	1,549.44	1,414.36	135.08	11.471			
16,900.00	11,757.81	15,403.92	10,335.49	130.58	129.52	23.39	244.62	-5,383.57	1,553.14	1,415.65	137.49	11.296			
16,954.90	11,757.00	15,496.78	10,333.36	131.91	131.74	23.47	245.95	-5,476.39	1,554.12	1,414.59	139.53	11.138			

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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, 1171-MWD, 14756-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 (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	1.50	1.50	0.00	0.01	-54.84	70.72	-100.39	122.80				
100.00	100.00	101.75	101.75	0.43	0.60	-54.80	70.73	-100.25	122.69	121.66	1.03	119.204	
200.00	200.00	201.93	201.92	1.25	1.23	-54.69	70.74	-99.87	122.39	119.92	2.48	49.441	
300.00	300.00	301.84	301.84	1.75	1.92	-54.64	70.64	-99.54	122.06	118.40	3.66	33.306	
353.88	353.88	355.38	355.38	1.95	2.18	-54.62	70.64	-99.46	121.99	117.86	4.13	29.564 CC	
400.00	400.00	401.21	401.21	2.13	2.40	-54.57	70.75	-99.44	122.04	117.52	4.52	26.984	
500.00	500.00	500.54	500.54	2.46	2.82	-54.39	71.35	-99.63	122.55	117.27	5.27	23.251 ES	
600.00	600.00	599.45	599.43	2.75	3.07	-54.12	72.48	-100.21	123.69	117.89	5.80	21.323	
700.00	700.00	698.01	697.97	3.02	3.28	-54.02	73.99	-101.92	126.00	119.72	6.27	20.079	
800.00	800.00	797.76	797.68	3.27	3.51	-53.85	76.09	-104.15	129.04	122.30	6.74	19.151	
900.00	900.00	897.80	897.66	3.50	3.75	-53.38	78.64	-105.81	131.89	124.69	7.20	18.321	
1,000.00	1,000.00	996.91	996.71	3.72	3.98	-52.55	82.08	-107.15	135.06	127.43	7.63	17.699	
1,100.00	1,100.00	1,096.56	1,096.29	3.92	4.76	-52.09	85.18	-109.39	138.74	130.45	8.29	16.744	
1,200.00	1,200.00	1,196.99	1,196.62	4.12	5.53	-52.80	86.12	-113.44	142.51	133.61	8.90	16.011	
1,300.00	1,300.00	1,299.66	1,299.20	4.31	5.95	-54.05	85.14	-117.39	145.03	135.67	9.37	15.481	
1,400.00	1,400.00	1,401.28	1,400.79	4.50	6.09	-55.14	83.34	-119.64	145.81	136.11	9.69	15.044	
1,500.00	1,500.00	1,501.73	1,501.21	4.68	6.23	-56.08	81.64	-121.39	146.29	136.30	9.99	14.638	
1,600.00	1,600.00	1,603.03	1,602.51	4.85	6.39	-56.22	81.18	-121.38	146.03	135.72	10.31	14.162	
1,700.00	1,700.00	1,703.42	1,702.89	5.02	6.51	-56.05	81.02	-120.35	145.09	134.49	10.60	13.682	
1,800.00	1,800.00	1,803.49	1,802.96	5.19	6.62	-56.09	80.42	-119.61	144.14	133.26	10.88	13.250	
1,900.00	1,900.00	1,904.44	1,903.90	5.35	6.75	-56.22	79.42	-118.74	142.87	131.71	11.16	12.806	
2,000.00	2,000.00	2,005.52	2,004.95	5.50	6.88	-56.45	77.79	-117.30	140.79	129.35	11.44	12.311	
2,100.00	2,100.00	2,106.50	2,105.89	5.66	7.01	-56.69	75.74	-115.25	137.98	126.25	11.73	11.767	
2,200.00	2,200.00	2,203.66	2,203.01	5.81	7.15	-57.30	73.29	-114.18	135.68	123.65	12.04	11.273	
2,298.00	2,298.00	2,300.19	2,299.50	5.96	7.31	-58.38	70.87	-115.12	135.18	122.85	12.33	10.962	
2,300.00	2,300.00	2,302.16	2,301.47	5.96	7.31	-58.41	70.82	-115.15	135.18	122.85	12.34	10.956	
2,400.00	2,400.00	2,402.21	2,401.48	6.10	7.48	-59.71	68.21	-116.76	135.22	122.65	12.57	10.755	
2,500.00	2,500.00	2,501.34	2,500.57	6.25	7.63	-60.76	66.24	-118.31	135.59	122.79	12.80	10.595	
2,600.00	2,600.00	2,601.16	2,600.38	6.39	7.78	-61.49	65.09	-119.83	136.37	123.35	13.02	10.471	
2,700.00	2,700.00	2,701.42	2,700.61	6.53	7.93	-62.29	63.75	-121.34	137.07	123.82	13.25	10.345	
2,800.00	2,800.00	2,801.42	2,800.59	6.67	8.08	-62.98	62.61	-122.75	137.79	124.32	13.48	10.224	
2,900.00	2,900.00	2,902.17	2,901.34	6.80	8.25	-63.47	61.70	-123.61	138.16	124.45	13.71	10.076	
3,000.00	3,000.00	3,002.79	3,001.95	6.94	8.43	-64.03	60.46	-124.13	138.07	124.12	13.95	9.900	
3,100.00	3,100.00	3,103.19	3,102.33	7.07	8.62	-64.77	58.62	-124.41	137.54	123.36	14.18	9.700	
3,200.00	3,200.00	3,203.14	3,202.26	7.20	8.80	-65.44	56.92	-124.57	136.96	122.55	14.41	9.505	
3,261.34	3,261.34	3,263.72	3,262.84	7.28	8.93	-65.58	56.50	-124.43	136.65	122.06	14.60	9.360	
3,300.00	3,300.00	3,300.23	3,299.35	7.33	9.10	-65.49	56.82	-124.60	136.96	122.14	14.82	9.244	
3,400.00	3,399.98	3,398.28	3,397.33	7.46	9.75	115.94	59.89	-126.32	140.62	125.25	15.37	9.150 SF	
3,500.00	3,499.84	3,500.64	3,499.66	7.87	10.12	118.63	62.83	-127.32	145.21	129.48	15.74	9.227	
3,600.00	3,599.47	3,601.90	3,600.90	8.04	10.14	121.94	64.06	-127.10	149.96	134.10	15.86	9.456	
3,700.00	3,699.02	3,701.75	3,700.75	8.14	10.16	125.02	64.30	-126.81	155.07	139.05	16.01	9.683	
3,800.00	3,798.58	3,800.55	3,799.55	8.28	10.20	127.75	64.33	-126.83	160.70	144.51	16.20	9.923	
3,900.00	3,898.14	3,899.98	3,898.98	8.42	10.28	130.25	64.48	-127.24	167.06	150.66	16.40	10.189	
4,000.00	3,997.69	3,999.60	3,998.59	8.59	10.38	132.53	64.53	-127.69	173.66	157.04	16.62	10.449	
4,100.00	4,097.25	4,099.39	4,098.39	8.77	10.49	134.60	64.41	-128.18	180.44	163.58	16.87	10.698	
4,200.00	4,196.80	4,197.00	4,196.00	8.96	10.62	136.42	63.93	-128.58	187.13	169.99	17.14	10.919	
4,300.00	4,296.36	4,292.00	4,290.98	9.17	10.87	138.25	64.87	-129.42	195.44	178.03	17.41	11.224	
4,400.00	4,395.92	4,386.00	4,384.89	9.38	11.14	140.20	68.56	-131.21	206.83	189.04	17.79	11.629	
4,500.00	4,495.47	4,482.85	4,481.53	9.61	11.16	142.32	74.60	-133.30	220.40	202.24	18.15	12.141	
4,600.00	4,595.03	4,579.69	4,578.07	9.85	11.17	144.37	81.96	-135.46	235.38	216.90	18.48	12.740	
4,700.00	4,694.59	4,678.80	4,676.84	10.10	11.19	146.25	89.77	-137.68	250.86	232.06	18.81	13.338	
4,800.00	4,794.15	4,778.64	4,776.38	10.33	11.21	141.95	97.19	-139.86	266.05	246.92	19.12	13.913	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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, 1171-MWD, 14756-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 (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
4,900.00	4,893.78	4,878.05	4,875.52	10.58	11.24	120.66	104.02	-142.30	278.86	259.35	19.51	14.296	
5,000.00	4,993.42	4,977.53	4,974.75	10.79	11.29	109.58	110.55	-144.98	289.11	269.30	19.81	14.595	
5,100.00	5,093.05	5,076.85	5,073.83	11.01	11.33	111.27	116.92	-147.62	299.05	278.94	20.12	14.867	
5,200.00	5,192.68	5,175.51	5,172.25	11.24	11.38	112.85	123.34	-150.23	309.31	288.87	20.44	15.130	
5,300.00	5,292.31	5,274.85	5,271.34	11.49	11.43	114.30	129.83	-153.07	319.90	299.11	20.79	15.389	
5,400.00	5,391.94	5,375.38	5,371.64	11.74	11.49	115.66	136.04	-155.94	330.34	309.20	21.15	15.621	
5,500.00	5,491.57	5,475.55	5,471.59	12.00	11.54	117.02	142.11	-158.12	340.62	319.09	21.52	15.826	
5,600.00	5,591.20	5,575.97	5,571.82	12.27	11.59	118.46	148.25	-159.34	350.79	328.87	21.92	16.006	
5,700.00	5,690.83	5,676.77	5,672.45	12.55	11.64	119.81	153.97	-160.46	360.72	338.40	22.32	16.161	
5,800.00	5,790.46	5,777.36	5,772.90	12.82	11.69	121.05	159.19	-161.70	370.40	347.67	22.73	16.294	
5,900.00	5,890.09	5,875.45	5,870.85	13.11	11.75	122.28	164.31	-162.37	380.13	356.98	23.15	16.421	
6,000.00	5,989.72	5,970.64	5,965.84	13.40	11.81	123.67	170.39	-161.45	390.74	367.16	23.58	16.573	
6,100.00	6,089.35	6,070.41	6,065.34	13.69	11.84	125.17	177.55	-159.82	402.21	378.17	24.04	16.734	
6,200.00	6,188.98	6,170.29	6,164.97	13.99	11.88	126.65	184.34	-157.74	413.47	388.97	24.50	16.875	
6,300.00	6,288.61	6,271.24	6,265.69	14.30	11.92	128.00	190.83	-155.94	424.68	399.70	24.98	17.000	
6,400.00	6,388.24	6,373.67	6,367.95	14.61	11.98	129.25	196.67	-154.48	435.44	409.97	25.47	17.097	
6,500.00	6,487.87	6,469.00	6,463.10	14.92	12.06	130.28	202.30	-153.65	446.65	420.71	25.94	17.219	
6,600.00	6,587.50	6,566.60	6,560.46	15.23	12.17	131.14	208.86	-153.52	459.64	433.23	26.41	17.405	
6,700.00	6,687.13	6,665.80	6,647.29	15.55	12.35	131.97	217.24	-153.98	473.96	447.02	26.93	17.597	
6,800.00	6,786.76	6,764.79	6,747.91	15.87	12.56	132.75	225.80	-154.77	488.25	460.79	27.47	17.776	
6,900.00	6,886.39	6,858.01	6,850.82	16.20	12.80	133.45	233.80	-155.97	501.94	473.93	28.01	17.920	
7,000.00	6,986.02	6,960.82	6,953.37	16.53	13.04	134.08	240.89	-157.36	514.86	486.30	28.55	18.033	
7,100.00	7,085.65	7,062.03	7,054.37	16.86	13.28	134.68	247.36	-158.60	527.32	498.24	29.09	18.128	
7,200.00	7,185.28	7,163.66	7,155.82	17.19	13.53	135.25	253.30	-159.85	539.30	509.67	29.63	18.201	
7,300.00	7,284.93	7,264.18	7,256.16	17.50	13.78	135.82	258.97	-161.13	551.00	520.86	30.15	18.278	
7,400.00	7,384.76	7,367.24	7,359.08	17.86	14.04	136.27	264.26	-162.34	560.32	529.64	30.68	18.260	
7,500.00	7,484.72	7,472.06	7,463.79	18.23	14.30	136.38	268.88	-163.91	566.43	535.23	31.20	18.154	
7,600.00	7,584.72	7,575.06	7,566.72	18.26	14.55	-2.12	272.53	-165.52	570.05	538.59	31.46	18.119	
7,700.00	7,684.72	7,678.00	7,669.59	18.30	14.79	-2.28	275.76	-167.24	573.25	541.54	31.72	18.074	
7,800.00	7,784.72	7,780.36	7,771.90	18.34	15.03	-2.44	278.43	-168.91	575.93	543.96	31.97	18.016	
7,900.00	7,884.72	7,883.02	7,874.52	18.38	15.27	-2.56	280.69	-170.27	578.19	545.97	32.21	17.948	
8,000.00	7,984.72	7,985.62	7,977.11	18.42	15.50	-2.68	282.47	-171.56	579.98	547.53	32.45	17.873	
8,100.00	8,084.72	8,085.81	8,077.28	18.47	15.71	-2.79	283.99	-172.72	581.55	548.88	32.68	17.798	
8,200.00	8,184.72	8,188.03	8,179.49	18.51	15.90	-2.79	285.36	-172.75	582.89	549.98	32.91	17.713	
8,300.00	8,284.72	8,290.50	8,281.95	18.55	16.06	-2.76	286.39	-172.57	583.88	550.75	33.13	17.625	
8,400.00	8,384.72	8,391.58	8,383.03	18.59	16.15	-2.68	286.86	-171.77	584.31	551.01	33.30	17.549	
8,500.00	8,484.72	8,484.66	8,476.09	18.63	16.25	-2.57	287.95	-170.62	585.43	551.96	33.47	17.493	
8,600.00	8,584.72	8,578.45	8,569.86	18.67	16.44	-2.59	290.15	-170.95	587.78	554.08	33.70	17.444	
8,700.00	8,684.72	8,678.05	8,669.40	18.72	16.68	-2.73	293.01	-172.60	590.72	556.76	33.96	17.397	
8,800.00	8,784.72	8,781.99	8,773.28	18.76	16.92	-2.95	295.49	-174.98	593.22	559.02	34.20	17.347	
8,900.00	8,884.72	8,886.12	8,877.36	18.80	17.13	-3.17	297.54	-177.33	595.31	560.91	34.41	17.303	
9,000.00	8,984.72	8,984.60	8,975.31	18.85	17.53	-4.01	298.23	-186.18	596.59	561.99	34.60	17.240	
9,100.00	9,084.72	9,070.50	9,058.09	18.89	18.87	-6.17	298.74	-208.83	599.68	564.91	34.76	17.252	
9,200.00	9,184.72	9,157.70	9,138.85	18.93	20.21	-9.26	299.56	-241.67	606.09	571.17	34.92	17.357	
9,300.00	9,284.72	9,239.00	9,212.53	18.98	20.68	-12.43	299.91	-275.95	615.46	580.38	35.09	17.540	
9,400.00	9,384.72	9,309.71	9,272.60	19.02	21.16	-15.80	299.49	-313.17	630.04	594.66	35.38	17.810	
9,500.00	9,484.72	9,379.00	9,325.75	19.07	21.97	-19.70	298.26	-357.50	652.11	616.18	35.93	18.150	
9,600.00	9,584.72	9,413.81	9,349.12	19.11	22.64	-21.92	296.68	-383.20	682.24	645.26	36.98	18.451	
9,700.00	9,684.72	9,446.82	9,367.94	19.16	23.30	-24.22	293.87	-410.16	721.67	683.22	38.45	18.768	
9,800.00	9,784.72	9,474.00	9,380.74	19.20	23.85	-26.23	290.64	-433.90	770.26	730.08	40.18	19.171	
9,900.00	9,884.72	9,474.00	9,380.74	19.25	23.85	-26.23	290.64	-433.90	827.28	786.23	41.05	20.151	
10,000.00	9,984.72	9,506.80	9,393.44	19.29	24.16	-28.72	285.97	-463.77	890.50	847.30	43.21	20.611	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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, 1171-MWD, 14756-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	10,084.72	9,520.48	9,398.01	19.34	24.29	-29.76	283.86	-476.49	959.73	915.06	44.67	21.487		
10,200.00	10,184.72	9,531.86	9,401.47	19.39	24.39	-30.63	282.03	-487.18	1,033.61	987.61	46.00	22.468		
10,300.00	10,284.72	9,569.00	9,410.63	19.43	24.74	-33.45	275.62	-522.58	1,112.35	1,063.63	48.72	22.832		
10,400.00	10,384.72	9,569.00	9,410.63	19.48	24.74	-33.45	275.62	-522.58	1,192.66	1,143.24	49.42	24.134		
10,500.00	10,484.72	9,569.00	9,410.63	19.53	24.74	-33.45	275.62	-522.58	1,275.76	1,225.72	50.04	25.496		
10,600.00	10,584.72	9,569.00	9,410.63	19.57	24.74	-33.45	275.62	-522.58	1,361.13	1,310.54	50.59	26.903		
10,700.00	10,684.72	9,569.00	9,410.63	19.62	24.74	-33.45	275.62	-522.58	1,448.38	1,397.27	51.10	28.341		
10,800.00	10,784.72	9,569.00	9,410.63	19.67	24.74	-33.45	275.62	-522.58	1,537.18	1,485.60	51.58	29.802		
10,900.00	10,884.72	9,569.00	9,410.63	19.72	24.74	-33.45	275.62	-522.58	1,627.28	1,575.25	52.03	31.279		
11,000.00	10,984.72	9,595.30	9,415.79	19.76	24.79	-35.40	271.11	-547.97	1,718.03	1,665.14	52.89	32.482		
11,100.00	11,084.72	9,603.77	9,417.39	19.81	24.80	-36.01	269.77	-556.18	1,809.85	1,756.40	53.44	33.865		

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
				Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
0.00	0.00	1.51	1.51	0.00	0.01	-67.99	40.53	-100.24	108.12				
100.00	100.00	102.16	102.16	0.43	0.66	-68.08	40.24	-100.02	107.81	106.72	1.09	99.022	
200.00	200.00	202.76	202.75	1.25	1.31	-68.37	39.40	-99.37	106.91	104.35	2.56	41.765	
300.00	300.00	302.48	302.47	1.75	1.88	-68.71	38.44	-98.63	105.86	102.25	3.61	29.289	
400.00	400.00	402.27	402.25	2.13	2.25	-68.89	37.83	-98.00	105.06	100.69	4.36	24.075	
500.00	500.00	502.25	502.23	2.46	2.58	-68.95	37.49	-97.43	104.40	99.38	5.02	20.803	
600.00	600.00	602.46	602.44	2.75	2.88	-68.96	37.18	-96.64	103.55	97.93	5.62	18.431	
700.00	700.00	701.97	701.94	3.02	3.14	-68.81	37.15	-95.82	102.77	96.62	6.15	16.713	
744.28	744.28	745.80	745.78	3.13	3.24	-68.71	37.28	-95.67	102.67	96.32	6.36	16.148	
800.00	800.00	801.37	801.34	3.27	3.33	-68.53	37.60	-95.59	102.72	96.13	6.59	15.576	
900.00	900.00	901.56	901.52	3.50	3.51	-68.07	38.42	-95.43	102.87	95.87	7.00	14.694	
1,000.00	1,000.00	1,001.92	1,001.88	3.72	3.68	-67.74	38.90	-95.03	102.68	95.30	7.38	13.915	
1,100.00	1,100.00	1,102.41	1,102.38	3.92	3.91	-67.49	39.03	-94.19	101.96	94.14	7.81	13.050	
1,200.00	1,200.00	1,202.18	1,202.14	4.12	4.17	-67.29	39.11	-93.44	101.30	93.05	8.26	12.271	
1,300.00	1,300.00	1,302.53	1,302.48	4.31	4.41	-67.26	38.83	-92.66	100.47	91.78	8.69	11.557	
1,400.00	1,400.00	1,402.55	1,402.50	4.50	4.67	-67.24	38.47	-91.69	99.44	90.31	9.13	10.892	
1,500.00	1,500.00	1,502.58	1,502.53	4.68	4.92	-67.13	38.27	-90.73	98.48	88.92	9.56	10.303	
1,600.00	1,600.00	1,602.83	1,602.76	4.85	5.17	-67.04	37.95	-89.57	97.29	87.30	9.99	9.743	
1,700.00	1,700.00	1,703.13	1,703.06	5.02	5.43	-67.07	37.34	-88.27	95.85	85.44	10.41	9.206	
1,800.00	1,800.00	1,803.69	1,803.59	5.19	5.69	-67.35	36.17	-86.69	93.95	83.11	10.84	8.665	
1,900.00	1,900.00	1,904.02	1,903.90	5.35	5.95	-67.91	34.39	-84.73	91.48	80.20	11.28	8.113	
2,000.00	2,000.00	2,004.41	2,004.24	5.50	6.21	-68.69	32.21	-82.55	88.66	76.95	11.71	7.572	
2,100.00	2,100.00	2,103.61	2,103.39	5.66	6.48	-69.50	30.06	-80.41	85.86	73.73	12.13	7.077	
2,200.00	2,200.00	2,202.88	2,202.64	5.81	6.73	-69.99	28.79	-79.03	84.12	71.58	12.54	6.709	
2,300.00	2,300.00	2,302.88	2,302.63	5.96	6.98	-70.25	27.98	-77.92	82.80	69.87	12.94	6.400	
2,400.00	2,400.00	2,402.55	2,402.29	6.10	7.22	-70.55	27.18	-76.96	81.62	68.30	13.32	6.128	
2,500.00	2,500.00	2,502.54	2,502.28	6.25	7.45	-70.97	26.30	-76.24	80.65	66.96	13.69	5.893	
2,600.00	2,600.00	2,602.21	2,601.94	6.39	7.67	-71.24	25.71	-75.68	79.93	65.89	14.05	5.691	
2,700.00	2,700.00	2,702.43	2,702.16	6.53	7.89	-71.25	25.44	-74.98	79.18	64.78	14.41	5.497	
2,800.00	2,800.00	2,802.17	2,801.90	6.67	8.10	-71.12	25.43	-74.36	78.59	63.83	14.76	5.324	
2,900.00	2,900.00	2,902.39	2,902.11	6.80	8.29	-70.61	25.86	-73.46	77.88	62.79	15.09	5.161	
3,000.00	3,000.00	3,002.38	3,002.09	6.94	8.47	-69.77	26.67	-72.39	77.15	61.74	15.40	5.008	
3,100.00	3,100.00	3,102.64	3,102.34	7.07	8.66	-68.88	27.47	-71.11	76.24	60.51	15.72	4.849	
3,200.00	3,200.00	3,202.96	3,202.65	7.20	8.88	-68.21	27.80	-69.55	74.90	58.84	16.07	4.662	
3,300.00	3,300.00	3,302.55	3,302.22	7.33	9.09	-68.56	26.83	-68.31	73.40	56.99	16.41	4.473	
3,334.48	3,334.48	3,336.63	3,336.30	7.37	9.15	-111.35	26.45	-68.20	73.23	56.73	16.50	4.439	
3,400.00	3,399.98	3,402.74	3,402.41	7.46	9.26	-111.90	25.60	-68.06	73.35	56.68	16.67	4.400	
3,500.00	3,499.84	3,504.27	3,503.90	7.87	9.51	-114.57	23.31	-66.47	73.08	56.05	17.04	4.289	
3,557.18	3,556.84	3,561.52	3,561.09	7.97	9.68	-116.83	21.34	-64.88	72.71	55.47	17.24	4.217	
3,600.00	3,599.47	3,603.48	3,603.02	8.04	9.80	-119.06	20.01	-64.03	73.26	55.86	17.40	4.210	
3,700.00	3,699.02	3,702.02	3,701.52	8.14	10.02	-123.82	17.55	-63.30	76.25	55.55	17.70	4.307	
3,800.00	3,798.58	3,801.32	3,800.80	8.28	10.16	-128.09	15.57	-63.50	80.79	62.84	17.95	4.500	
3,900.00	3,898.14	3,900.80	3,900.27	8.42	10.26	-131.83	13.71	-64.01	86.03	67.85	18.19	4.731	
4,000.00	3,997.69	4,001.58	4,001.01	8.59	10.39	-134.86	11.24	-64.62	91.27	72.81	18.46	4.944	
4,100.00	4,097.25	4,104.28	4,103.56	8.77	10.59	-136.49	5.84	-65.09	94.56	75.71	18.86	5.015	
4,200.00	4,196.80	4,206.99	4,205.82	8.96	10.91	-136.43	-3.69	-65.38	94.86	75.49	19.37	4.897	
4,300.00	4,296.36	4,308.77	4,306.75	9.17	11.25	-134.76	-16.75	-65.76	92.66	72.81	19.85	4.669	
4,400.00	4,395.92	4,408.66	4,405.66	9.38	11.54	-132.45	-30.79	-66.19	89.73	69.49	20.24	4.433	
4,500.00	4,495.47	4,508.54	4,504.59	9.61	11.83	-130.25	-44.53	-66.35	86.97	66.37	20.60	4.222	
4,600.00	4,495.03	4,608.30	4,603.44	9.85	12.12	-128.15	-57.96	-66.34	84.38	63.44	20.94	4.030	
4,700.00	4,694.59	4,707.62	4,701.94	10.10	12.41	-126.29	-70.66	-66.36	82.34	61.07	21.27	3.871	
4,800.00	4,794.15	4,807.34	4,800.79	10.33	12.71	-117.74	-83.73	-67.67	81.12	59.64	21.49	3.776	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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		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	
4,900.00	4,893.78	4,908.40	4,900.70	10.58	13.05	91.01	-98.87	-69.18	76.66	55.00	21.66	3.539		
5,000.00	4,993.42	5,008.65	4,999.33	10.79	13.41	71.69	-116.75	-70.25	67.90	46.44	21.46	3.164		
5,100.00	5,093.05	5,107.87	5,096.80	11.01	13.77	62.64	-135.25	-71.04	59.28	38.32	20.96	2.829		
5,200.00	5,192.68	5,207.32	5,194.61	11.24	14.11	51.52	-153.26	-71.55	52.35	32.02	20.33	2.575		
5,300.00	5,292.31	5,306.44	5,291.97	11.49	14.46	36.89	-171.88	-71.55	47.54	27.72	19.82	2.399		
5,369.80	5,361.85	5,375.47	5,359.74	11.67	14.71	25.32	-185.00	-71.64	46.48	26.54	19.95	2.330 CC		
5,400.00	5,391.94	5,405.36	5,389.09	11.74	14.82	20.32	-190.65	-71.75	46.68	26.49	20.19	2.312 ES		
5,500.00	5,491.57	5,504.50	5,486.48	12.00	15.18	4.95	-209.18	-72.27	49.78	28.11	21.67	2.297 SF		
5,600.00	5,591.20	5,603.70	5,583.98	12.27	15.55	-7.66	-227.44	-72.84	55.78	32.21	23.57	2.367		
5,700.00	5,690.83	5,702.34	5,680.87	12.55	15.92	-17.64	-245.93	-73.29	64.19	38.87	25.32	2.535		
5,800.00	5,790.46	5,800.45	5,777.00	12.82	16.30	-25.65	-265.53	-73.40	75.21	48.41	26.79	2.807		
5,900.00	5,890.09	5,899.49	5,873.93	13.11	16.69	-31.84	-285.92	-73.23	87.88	59.87	28.01	3.138		
6,000.00	5,989.72	5,999.55	5,971.99	13.40	17.08	-36.57	-305.77	-72.85	100.54	71.51	29.03	3.463		
6,100.00	6,089.35	6,099.33	6,069.98	13.69	17.48	-40.36	-324.61	-72.17	112.75	82.83	29.92	3.768		
6,200.00	6,188.98	6,199.42	6,168.43	13.99	17.88	-43.73	-342.58	-70.81	124.44	93.71	30.73	4.050		
6,300.00	6,288.61	6,296.72	6,264.04	14.30	18.28	-46.26	-360.62	-69.87	137.02	105.58	31.43	4.359		
6,400.00	6,388.24	6,396.71	6,362.29	14.61	18.69	-48.40	-379.14	-68.97	149.80	117.66	32.14	4.661		
6,500.00	6,487.87	6,494.85	6,458.65	14.92	19.09	-49.78	-397.75	-69.09	163.03	130.25	32.78	4.973		
6,600.00	6,587.50	6,595.28	6,557.29	15.23	19.49	-50.73	-416.61	-70.06	176.03	142.58	33.45	5.263		
6,700.00	6,687.13	6,693.76	6,654.09	15.55	19.88	-51.50	-434.66	-71.17	188.60	154.51	34.08	5.533		
6,800.00	6,786.76	6,788.95	6,747.40	15.87	20.28	-52.20	-453.49	-71.85	202.70	168.01	34.69	5.843		
6,900.00	6,886.39	6,886.27	6,842.49	16.20	20.70	-52.81	-474.17	-72.26	218.34	183.01	35.33	6.181		
7,000.00	6,986.02	6,986.95	6,940.97	16.53	21.12	-53.45	-495.13	-72.42	233.64	197.65	35.99	6.491		
7,100.00	7,085.65	7,084.05	7,036.03	16.86	21.54	-54.05	-514.90	-72.41	248.55	211.93	36.62	6.787		
7,200.00	7,185.28	7,177.06	7,126.69	17.19	21.97	-54.35	-535.68	-72.92	265.30	228.07	37.24	7.125		
7,300.00	7,284.93	7,271.50	7,218.28	17.50	22.41	-54.54	-558.67	-73.75	284.05	246.18	37.86	7.502		
7,400.00	7,384.76	7,371.31	7,314.93	17.86	22.86	-54.43	-583.57	-75.09	304.82	266.22	38.61	7.896		
7,500.00	7,484.72	7,466.82	7,407.67	18.23	23.31	-54.02	-606.38	-76.05	326.65	287.32	39.33	8.305		
7,600.00	7,584.72	7,559.81	7,497.52	18.26	23.76	168.52	-630.33	-76.66	351.71	311.83	39.88	8.820		
7,700.00	7,684.72	7,662.74	7,597.14	18.30	24.23	169.38	-656.19	-77.01	376.35	335.83	40.52	9.288		
7,800.00	7,784.72	7,769.04	7,700.60	18.34	24.73	170.09	-680.58	-77.36	398.90	357.72	41.17	9.688		
7,900.00	7,884.72	7,881.44	7,810.69	18.38	25.26	170.60	-703.22	-77.17	418.82	376.96	41.85	10.007		
8,000.00	7,984.72	7,979.32	7,906.94	18.42	25.70	171.03	-721.02	-77.48	436.72	394.34	42.38	10.304		
8,100.00	8,084.72	8,072.64	7,998.53	18.47	26.10	171.57	-738.86	-78.94	455.41	412.55	42.86	10.625		
8,200.00	8,184.72	8,180.06	8,104.00	18.51	26.56	172.22	-759.08	-81.23	473.77	430.34	43.43	10.908		
8,300.00	8,284.72	8,273.66	8,195.98	18.55	26.95	172.75	-776.27	-83.42	491.69	447.78	43.92	11.196		
8,400.00	8,384.72	8,381.71	8,302.33	18.59	27.41	173.37	-795.09	-86.52	508.61	464.13	44.48	11.434		
8,500.00	8,484.72	8,466.75	8,385.92	18.63	27.81	173.71	-810.60	-87.83	526.55	481.60	44.95	11.715		
8,600.00	8,584.72	8,575.96	8,493.31	18.67	28.40	174.02	-830.50	-88.49	544.60	498.97	45.64	11.934		
8,700.00	8,684.72	8,715.14	8,630.97	18.72	29.15	174.34	-850.75	-89.51	559.40	512.97	46.43	12.048		
8,800.00	8,784.72	8,837.50	8,752.94	18.76	29.72	174.54	-860.31	-90.56	567.05	520.06	46.99	12.067		
8,900.00	8,884.72	8,952.43	8,867.75	18.80	30.07	174.71	-865.30	-91.81	571.23	523.89	47.34	12.066		
9,000.00	8,984.72	9,066.45	8,981.42	18.85	31.08	175.35	-868.57	-97.91	573.68	525.31	48.37	11.860		
9,100.00	9,084.72	9,191.02	9,100.35	18.89	33.08	178.96	-869.29	-134.06	572.76	522.34	50.42	11.359		
9,139.92	9,124.65	9,219.09	9,126.15	18.91	33.16	-179.93	-869.04	-145.13	572.24	521.59	50.65	11.297		
9,200.00	9,184.72	9,259.53	9,163.05	18.93	33.24	-178.28	-869.52	-161.64	573.45	522.52	50.92	11.261		
9,300.00	9,284.72	9,327.69	9,224.13	18.98	33.36	-175.30	-872.37	-191.72	580.84	529.57	51.27	11.329		
9,400.00	9,384.72	9,392.46	9,279.03	19.02	33.49	-172.01	-876.55	-225.76	595.16	543.64	51.53	11.550		
9,500.00	9,484.72	9,446.15	9,318.15	19.07	33.71	-168.56	-879.20	-262.26	617.51	565.59	51.92	11.894		
9,600.00	9,584.72	9,475.00	9,335.37	19.11	33.84	-166.41	-879.86	-285.37	650.19	598.03	52.16	12.465		
9,700.00	9,684.72	9,511.06	9,353.49	19.16	34.08	-163.56	-880.07	-316.54	693.21	640.44	52.78	13.135		
9,800.00	9,784.72	9,533.01	9,362.90	19.20	34.24	-161.78	-879.94	-336.36	745.71	692.40	53.31	13.987		

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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:		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,900.00	9,884.72	9,569.00	9,375.60	19.25	34.49	-158.83	-879.28	-370.01	806.79	752.10	54.69	14.752		
10,000.00	9,984.72	9,569.00	9,375.60	19.29	34.49	-158.83	-879.28	-370.01	873.52	818.81	54.71	15.966		
10,100.00	10,084.72	9,569.00	9,375.60	19.34	34.49	-158.83	-879.28	-370.01	946.13	891.44	54.69	17.301		
10,200.00	10,184.72	9,598.37	9,384.32	19.39	34.65	-156.45	-878.63	-398.05	1,022.70	967.51	55.19	18.529		
10,300.00	10,284.72	9,615.93	9,389.31	19.43	34.75	-155.06	-878.34	-414.88	1,102.63	1,047.10	55.53	19.857		
10,400.00	10,384.72	9,632.41	9,393.85	19.48	34.84	-153.78	-878.13	-430.72	1,185.20	1,129.33	55.88	21.211		
10,500.00	10,484.72	9,662.00	9,401.65	19.53	35.01	-151.55	-877.91	-459.26	1,270.08	1,213.58	56.50	22.478		
10,600.00	10,584.72	9,662.00	9,401.65	19.57	35.01	-151.55	-877.91	-459.26	1,356.47	1,299.88	56.60	23.967		
10,700.00	10,684.72	9,662.00	9,401.65	19.62	35.01	-151.55	-877.91	-459.26	1,444.62	1,387.92	56.71	25.476		
10,800.00	10,784.72	9,686.96	9,407.84	19.67	35.17	-149.74	-877.90	-483.44	1,533.80	1,476.76	57.05	26.886		
10,900.00	10,884.72	9,698.13	9,410.48	19.72	35.25	-148.95	-877.95	-494.29	1,624.18	1,566.90	57.28	28.353		
11,000.00	10,984.72	9,708.65	9,412.90	19.76	35.32	-148.22	-878.03	-504.54	1,715.48	1,657.95	57.53	29.820		
11,100.00	11,084.72	9,718.59	9,415.11	19.81	35.38	-147.54	-878.13	-514.23	1,807.57	1,749.79	57.78	31.283		

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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)			
0.00	0.00	0.00	0.00	0.00	0.00	-176.86	-822.80	-45.10	824.08				
100.00	100.00	92.00	92.00	0.43	0.39	-176.86	-822.80	-45.10	824.04	823.21	0.82	1,001.253	
200.00	200.00	192.00	192.00	1.25	1.19	-176.86	-822.80	-45.10	824.04	821.60	2.44	337.848	
300.00	300.00	292.00	292.00	1.75	1.71	-176.86	-822.80	-45.10	824.04	820.58	3.45	238.554	
400.00	400.00	392.00	392.00	2.13	2.10	-176.86	-822.80	-45.10	824.04	819.80	4.23	194.606	
500.00	500.00	492.00	492.00	2.46	2.43	-176.86	-822.80	-45.10	824.04	819.14	4.90	168.301	
600.00	600.00	592.00	592.00	2.75	2.73	-176.86	-822.80	-45.10	824.04	818.55	5.48	150.283	
700.00	700.00	692.00	692.00	3.02	3.00	-176.86	-822.80	-45.10	824.04	818.02	6.02	136.939	
800.00	800.00	792.00	792.00	3.27	3.25	-176.86	-822.80	-45.10	824.04	817.52	6.51	126.537	
900.00	900.00	892.00	892.00	3.50	3.48	-176.86	-822.80	-45.10	824.04	817.06	6.98	118.131	
1,000.00	1,000.00	992.00	992.00	3.72	3.70	-176.86	-822.80	-45.10	824.04	816.62	7.41	111.151	
1,100.00	1,100.00	1,092.00	1,092.00	3.92	3.91	-176.86	-822.80	-45.10	824.04	816.21	7.83	105.232	
1,200.00	1,200.00	1,192.00	1,192.00	4.12	4.11	-176.86	-822.80	-45.10	824.04	815.81	8.23	100.129	
1,300.00	1,300.00	1,292.00	1,292.00	4.31	4.30	-176.86	-822.80	-45.10	824.04	815.42	8.61	95.668	
1,400.00	1,400.00	1,392.00	1,392.00	4.50	4.48	-176.86	-822.80	-45.10	824.04	815.05	8.98	91.725	
1,500.00	1,500.00	1,492.00	1,492.00	4.68	4.66	-176.86	-822.80	-45.10	824.04	814.69	9.34	88.206	
1,600.00	1,600.00	1,592.00	1,592.00	4.85	4.84	-176.86	-822.80	-45.10	824.04	814.35	9.69	85.039	
1,700.00	1,700.00	1,692.00	1,692.00	5.02	5.01	-176.86	-822.80	-45.10	824.04	814.01	10.03	82.168	
1,800.00	1,800.00	1,792.00	1,792.00	5.19	5.17	-176.86	-822.80	-45.10	824.04	813.68	10.36	79.550	
1,900.00	1,900.00	1,892.00	1,892.00	5.35	5.33	-176.86	-822.80	-45.10	824.04	813.36	10.68	77.149	
2,000.00	2,000.00	1,992.00	1,992.00	5.50	5.49	-176.86	-822.80	-45.10	824.04	813.04	11.00	74.937	
2,100.00	2,100.00	2,092.00	2,092.00	5.66	5.65	-176.86	-822.80	-45.10	824.04	812.73	11.31	72.890	
2,200.00	2,200.00	2,192.00	2,192.00	5.81	5.80	-176.86	-822.80	-45.10	824.04	812.43	11.61	70.987	
2,300.00	2,300.00	2,292.00	2,292.00	5.96	5.95	-176.86	-822.80	-45.10	824.04	812.13	11.91	69.214	
2,400.00	2,400.00	2,392.00	2,392.00	6.10	6.09	-176.86	-822.80	-45.10	824.04	811.84	12.20	67.555	
2,500.00	2,500.00	2,492.00	2,492.00	6.25	6.24	-176.86	-822.80	-45.10	824.04	811.55	12.49	65.998	
2,600.00	2,600.00	2,592.00	2,592.00	6.39	6.38	-176.86	-822.80	-45.10	824.04	811.27	12.77	64.534	
2,700.00	2,700.00	2,692.00	2,692.00	6.53	6.52	-176.86	-822.80	-45.10	824.04	810.99	13.05	63.153	
2,800.00	2,800.00	2,792.00	2,792.00	6.67	6.66	-176.86	-822.80	-45.10	824.04	810.71	13.32	61.848	
2,900.00	2,900.00	2,892.00	2,892.00	6.80	6.79	-176.86	-822.80	-45.10	824.04	810.44	13.60	60.612	
3,000.00	3,000.00	2,992.00	2,992.00	6.94	6.93	-176.86	-822.80	-45.10	824.04	810.17	13.86	59.439	
3,100.00	3,100.00	3,092.00	3,092.00	7.07	7.06	-176.86	-822.80	-45.10	824.04	809.91	14.13	58.324	
3,200.00	3,200.00	3,192.00	3,192.00	7.20	7.19	-176.86	-822.80	-45.10	824.04	809.65	14.39	57.261	
3,300.00	3,300.00	3,292.00	3,292.00	7.33	7.32	-176.86	-822.80	-45.10	824.04	809.39	14.65	56.248	
3,400.00	3,399.98	3,391.98	3,391.98	7.46	7.45	3.15	-822.80	-45.10	822.29	807.39	14.90	55.171	
3,500.00	3,499.84	3,491.84	3,491.84	7.87	7.57	3.17	-822.80	-45.10	817.07	801.63	15.44	52.911	
3,600.00	3,599.47	3,591.47	3,591.47	8.04	7.70	3.21	-822.80	-45.10	808.52	792.78	15.74	51.368	
3,700.00	3,699.02	3,691.02	3,691.02	8.14	7.82	3.25	-822.80	-45.10	799.13	783.16	15.97	50.053	
3,800.00	3,798.58	3,790.58	3,790.58	8.28	7.95	3.29	-822.80	-45.10	789.73	773.51	16.22	48.687	
3,900.00	3,898.14	3,890.14	3,890.14	8.42	8.07	3.33	-822.80	-45.10	780.34	763.85	16.49	47.320	
4,000.00	3,997.69	3,989.69	3,989.69	8.59	8.19	3.37	-822.80	-45.10	770.94	754.17	16.78	45.957	
4,100.00	4,097.25	4,091.86	4,091.84	8.77	8.37	3.52	-822.56	-46.55	761.39	744.33	17.06	44.628	
4,200.00	4,196.80	4,193.98	4,193.83	8.96	8.76	3.96	-821.71	-51.57	751.49	734.14	17.35	43.305	
4,300.00	4,296.36	4,294.02	4,293.57	9.17	8.87	4.61	-820.41	-59.26	741.39	723.77	17.61	42.093	
4,400.00	4,395.92	4,393.13	4,392.36	9.38	8.99	5.29	-819.08	-67.08	731.36	713.44	17.92	40.812	
4,500.00	4,495.47	4,492.24	4,491.15	9.61	9.13	5.99	-817.76	-74.91	721.44	703.19	18.25	39.538	
4,600.00	4,595.03	4,591.35	4,589.94	9.85	9.29	6.71	-816.44	-82.74	711.62	693.04	18.58	38.292	
4,700.00	4,694.59	4,690.46	4,688.74	10.10	9.46	7.45	-815.11	-90.57	701.93	683.00	18.93	37.077	
4,800.00	4,794.15	4,789.59	4,787.55	10.33	9.64	2.23	-813.79	-98.40	692.40	673.15	19.26	35.959	
4,900.00	4,893.78	4,888.99	4,886.63	10.58	9.83	-20.16	-812.46	-106.25	683.85	664.24	19.61	34.872	
5,000.00	4,993.42	4,988.63	4,985.95	10.79	10.03	-32.69	-811.13	-114.13	676.35	656.42	19.93	33.939	
5,100.00	5,093.05	5,088.31	5,085.30	11.01	10.24	-32.41	-809.80	-122.00	669.04	648.77	20.27	33.002	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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		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
5,200.00	5,192.68	5,187.98	5,184.66	11.24	10.47	-32.11	-808.47	-129.87	661.75	641.12	20.63	32.075
5,300.00	5,292.31	5,287.66	5,284.01	11.49	10.70	-31.81	-807.14	-137.75	654.48	633.48	21.00	31.170
5,400.00	5,391.94	5,387.33	5,383.37	11.74	10.94	-31.50	-805.80	-145.62	647.22	625.85	21.37	30.288
5,500.00	5,491.57	5,487.01	5,482.72	12.00	11.19	-31.18	-804.47	-153.49	639.99	618.24	21.75	29.428
5,600.00	5,591.20	5,586.69	5,582.08	12.27	11.44	-30.86	-803.14	-161.37	632.77	610.64	22.13	28.591
5,700.00	5,690.83	5,686.36	5,681.43	12.55	11.70	-30.53	-801.81	-169.24	625.58	603.05	22.52	27.776
5,800.00	5,790.46	5,786.04	5,780.79	12.82	11.97	-30.19	-800.48	-177.12	618.40	595.48	22.92	26.983
5,900.00	5,890.09	5,885.71	5,880.14	13.11	12.24	-29.85	-799.15	-184.99	611.25	587.93	23.32	26.211
6,000.00	5,989.72	5,985.39	5,979.50	13.40	12.52	-29.49	-797.82	-192.86	604.12	580.39	23.73	25.461
6,100.00	6,089.35	6,085.06	6,078.85	13.69	12.81	-29.13	-796.49	-200.74	597.01	572.87	24.14	24.731
6,200.00	6,188.98	6,184.74	6,178.21	13.99	13.09	-28.76	-795.15	-208.61	589.93	565.37	24.56	24.021
6,300.00	6,288.61	6,284.41	6,277.56	14.30	13.39	-28.38	-793.82	-216.48	582.87	557.89	24.98	23.331
6,400.00	6,388.24	6,384.09	6,376.91	14.61	13.69	-27.99	-792.49	-224.36	575.84	550.43	25.41	22.661
6,500.00	6,487.87	6,483.76	6,476.27	14.92	13.99	-27.59	-791.16	-232.23	568.84	543.00	25.85	22.009
6,600.00	6,587.50	6,583.44	6,575.62	15.23	14.29	-27.18	-789.83	-240.10	561.87	535.58	26.29	21.376
6,700.00	6,687.13	6,683.11	6,674.98	15.55	14.60	-26.76	-788.50	-247.98	554.92	528.19	26.73	20.760
6,800.00	6,786.76	6,782.79	6,774.33	15.87	14.91	-26.33	-787.17	-255.85	548.00	520.82	27.18	20.162
6,900.00	6,886.39	6,882.46	6,873.69	16.20	15.23	-25.89	-785.83	-263.73	541.12	513.48	27.64	19.580
7,000.00	6,986.02	6,982.14	6,973.04	16.53	15.55	-25.44	-784.50	-271.60	534.27	506.17	28.10	19.015
7,100.00	7,085.65	7,081.81	7,072.40	16.86	15.87	-24.98	-783.17	-279.47	527.45	498.89	28.56	18.466
7,200.00	7,185.28	7,181.49	7,171.75	17.19	16.19	-24.50	-781.84	-287.35	520.67	491.63	29.04	17.932
7,300.00	7,284.93	7,281.17	7,271.11	17.50	16.52	-23.99	-780.51	-295.22	514.08	484.59	29.49	17.430
7,400.00	7,384.76	7,380.92	7,370.55	17.86	16.85	-23.33	-779.18	-303.10	509.97	479.97	30.00	16.999
7,474.97	7,459.69	7,455.70	7,445.09	18.14	17.09	-22.75	-778.18	-309.01	509.04	478.65	30.39	16.752 CC
7,500.00	7,484.72	7,480.67	7,469.97	18.23	17.17	-22.53	-777.84	-310.98	509.14	478.63	30.52	16.684
7,600.00	7,584.72	7,583.60	7,572.70	18.26	17.52	-160.19	-776.77	-317.31	510.18	479.47	30.70	16.616
7,700.00	7,684.72	7,686.89	7,675.94	18.30	17.91	-159.89	-776.32	-320.00	510.65	479.79	30.87	16.545
7,800.00	7,784.72	7,787.67	7,776.72	18.34	18.00	-159.88	-776.30	-320.10	510.67	479.69	30.98	16.486
7,900.00	7,884.72	7,887.67	7,876.72	18.38	18.06	-159.88	-776.30	-320.10	510.67	479.57	31.10	16.421
8,000.00	7,984.72	7,987.67	7,976.72	18.42	18.12	-159.88	-776.30	-320.10	510.67	479.45	31.22	16.355
8,100.00	8,084.72	8,087.67	8,076.72	18.47	18.17	-159.88	-776.30	-320.10	510.67	479.32	31.35	16.290
8,200.00	8,184.72	8,187.67	8,176.72	18.51	18.23	-159.88	-776.30	-320.10	510.67	479.20	31.47	16.225
8,300.00	8,284.72	8,287.67	8,276.72	18.55	18.29	-159.88	-776.30	-320.10	510.67	479.07	31.60	16.160
8,400.00	8,384.72	8,387.67	8,376.72	18.59	18.35	-159.88	-776.30	-320.10	510.67	478.94	31.73	16.096
8,500.00	8,484.72	8,487.67	8,476.72	18.63	18.41	-159.88	-776.30	-320.10	510.67	478.82	31.85	16.032
8,600.00	8,584.72	8,587.67	8,576.72	18.67	18.47	-159.88	-776.30	-320.10	510.67	478.69	31.98	15.969
8,700.00	8,684.72	8,687.67	8,676.72	18.72	18.53	-159.88	-776.30	-320.10	510.67	478.56	32.11	15.906
8,800.00	8,784.72	8,787.67	8,776.72	18.76	18.59	-159.88	-776.30	-320.10	510.67	478.44	32.23	15.843
8,900.00	8,884.72	8,887.67	8,876.72	18.80	18.65	-159.88	-776.30	-320.10	510.67	478.31	32.36	15.780
9,000.00	8,984.72	8,987.67	8,976.72	18.85	18.71	-159.88	-776.30	-320.10	510.67	478.18	32.49	15.719
9,100.00	9,084.72	9,087.67	9,076.72	18.89	18.77	-159.88	-776.30	-320.10	510.67	478.05	32.62	15.657
9,200.00	9,184.72	9,187.67	9,176.72	18.93	18.83	-159.88	-776.30	-320.10	510.67	477.93	32.74	15.596
9,300.00	9,284.72	9,287.67	9,276.72	18.98	18.89	-159.88	-776.30	-320.10	510.67	477.80	32.87	15.535
9,400.00	9,384.72	9,387.67	9,376.72	19.02	18.95	-159.88	-776.30	-320.10	510.67	477.67	33.00	15.475
9,500.00	9,484.72	9,487.67	9,476.72	19.07	19.01	-159.88	-776.30	-320.10	510.67	477.54	33.13	15.414
9,600.00	9,584.72	9,587.67	9,576.72	19.11	19.07	-159.88	-776.30	-320.10	510.67	477.41	33.26	15.355
9,700.00	9,684.72	9,687.67	9,676.72	19.16	19.13	-159.88	-776.30	-320.10	510.67	477.28	33.39	15.295
9,800.00	9,784.72	9,787.67	9,776.72	19.20	19.19	-159.88	-776.30	-320.10	510.67	477.15	33.52	15.236
9,900.00	9,884.72	9,887.67	9,876.72	19.25	19.25	-159.88	-776.30	-320.10	510.67	477.02	33.65	15.178
10,000.00	9,984.72	9,987.67	9,976.72	19.29	19.31	-159.88	-776.30	-320.10	510.67	476.89	33.78	15.119
10,100.00	10,084.72	10,087.67	10,076.72	19.34	19.37	-159.88	-776.30	-320.10	510.67	476.76	33.91	15.061
10,200.00	10,184.72	10,187.67	10,176.72	19.39	19.44	-159.88	-776.30	-320.10	510.67	476.63	34.04	15.004

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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	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)			
10,300.00	10,284.72	10,287.67	10,276.72	19.43	19.50	-159.88	-776.30	-320.10	510.67	476.50	34.17	14.947	
10,400.00	10,384.72	10,387.67	10,376.72	19.48	19.56	-159.88	-776.30	-320.10	510.67	476.37	34.30	14.890	
10,500.00	10,484.72	10,487.67	10,476.72	19.53	19.62	-159.88	-776.30	-320.10	510.67	476.24	34.43	14.833	
10,500.05	10,484.77	10,487.71	10,476.77	19.53	19.62	-159.88	-776.30	-320.10	510.67	476.24	34.43	14.833 ES	
10,600.00	10,584.72	10,572.64	10,561.65	19.57	19.79	-159.69	-776.31	-321.92	511.53	476.95	34.57	14.795	
10,700.00	10,684.72	10,650.00	10,637.97	19.62	20.34	-158.42	-776.37	-334.07	517.16	482.24	34.92	14.809	
10,800.00	10,784.72	10,713.64	10,698.86	19.67	20.85	-156.55	-776.47	-352.45	528.60	493.12	35.48	14.897	
10,900.00	10,884.72	10,775.97	10,755.89	19.72	21.34	-154.09	-776.60	-377.51	546.94	510.68	36.26	15.083	
11,000.00	10,984.72	10,831.51	10,803.86	19.76	21.75	-151.46	-776.74	-405.45	573.03	535.80	37.23	15.391	
11,100.00	11,084.72	10,880.26	10,843.31	19.81	22.09	-148.90	-776.89	-434.05	607.33	568.99	38.34	15.840	
11,200.00	11,184.72	10,922.67	10,875.34	19.86	22.35	-146.54	-777.04	-461.85	649.78	610.27	39.52	16.442	
11,300.00	11,284.71	10,950.00	10,894.72	19.91	22.52	-52.68	-777.14	-481.10	699.59	658.91	40.69	17.195	
11,400.00	11,383.60	11,000.00	10,927.48	20.16	22.78	-46.04	-777.33	-518.85	748.91	706.87	42.04	17.813	
11,500.00	11,478.56	11,034.11	10,947.69	20.48	22.94	-41.40	-777.47	-546.32	794.17	750.80	43.36	18.314	
11,600.00	11,566.71	11,072.46	10,968.19	20.84	23.10	-37.70	-777.64	-578.71	833.89	789.25	44.64	18.682	
11,700.00	11,645.37	11,100.00	10,981.43	21.24	23.21	-35.10	-777.77	-602.87	867.21	821.45	45.76	18.951	
11,800.00	11,712.15	11,150.00	11,002.11	21.66	23.37	-32.97	-778.00	-648.36	892.85	845.89	46.95	19.015	
11,900.00	11,765.01	11,200.00	11,018.35	22.15	23.50	-31.61	-778.25	-695.64	910.93	862.84	48.09	18.941	
12,000.00	11,802.36	11,229.65	11,025.80	22.76	23.55	-30.99	-778.40	-724.33	920.53	871.57	48.96	18.800	
12,100.00	11,823.06	11,269.35	11,033.21	23.58	23.62	-30.88	-778.60	-763.32	921.87	872.01	49.85	18.491	
12,200.00	11,826.89	11,300.00	11,036.89	24.64	23.66	-31.18	-778.76	-793.74	915.25	864.78	50.48	18.133	
12,300.00	11,825.42	11,352.84	11,039.00	25.96	23.71	-31.24	-779.03	-846.52	910.43	859.16	51.27	17.756	
12,400.00	11,823.95	11,443.27	11,038.04	27.50	23.87	-31.21	-779.50	-936.94	909.56	857.13	52.43	17.349	
12,500.00	11,822.48	11,543.27	11,036.97	29.20	24.70	-31.18	-780.01	-1,036.93	908.75	854.98	53.76	16.903	
12,600.00	11,821.01	11,643.26	11,035.90	31.02	26.41	-31.14	-780.53	-1,136.92	907.93	852.71	55.21	16.444	
12,700.00	11,819.54	11,743.26	11,034.84	32.94	28.36	-31.10	-781.05	-1,236.91	907.11	850.34	56.77	15.980	
12,800.00	11,818.07	11,843.25	11,033.77	34.92	30.40	-31.07	-781.57	-1,336.90	906.29	847.88	58.41	15.515	
12,900.00	11,816.60	11,943.25	11,032.71	36.97	32.50	-31.03	-782.09	-1,436.88	905.48	845.33	60.15	15.054	
13,000.00	11,815.13	12,043.24	11,031.64	39.07	34.66	-30.99	-782.60	-1,536.87	904.66	842.70	61.96	14.601	
13,100.00	11,813.66	12,143.24	11,030.57	41.20	36.85	-30.96	-783.12	-1,636.86	903.85	840.00	63.84	14.157	
13,200.00	11,812.19	12,243.23	11,029.51	43.37	39.07	-30.92	-783.64	-1,736.85	903.03	837.24	65.79	13.726	
13,300.00	11,810.72	12,343.23	11,028.44	45.57	41.31	-30.88	-784.16	-1,836.84	902.22	834.42	67.80	13.307	
13,400.00	11,809.25	12,443.22	11,027.37	47.79	43.58	-30.85	-784.68	-1,936.82	901.40	831.55	69.86	12.904	
13,500.00	11,807.78	12,543.22	11,026.31	50.04	45.86	-30.81	-785.19	-2,036.81	900.59	828.63	71.96	12.515	
13,600.00	11,806.31	12,643.21	11,025.24	52.30	48.16	-30.77	-785.71	-2,136.80	899.77	825.66	74.11	12.141	
13,700.00	11,804.84	12,743.21	11,024.18	54.57	50.47	-30.74	-786.23	-2,236.79	898.96	822.66	76.30	11.782	
13,800.00	11,803.37	12,843.20	11,023.11	56.86	52.80	-30.70	-786.75	-2,336.78	898.15	819.63	78.52	11.438	
13,900.00	11,801.90	12,943.20	11,022.04	59.17	55.13	-30.66	-787.27	-2,436.76	897.34	816.56	80.77	11.109	
14,000.00	11,800.43	13,043.19	11,020.98	61.48	57.48	-30.63	-787.78	-2,536.75	896.52	813.47	83.06	10.794	
14,100.00	11,798.96	13,143.19	11,019.91	63.80	59.83	-30.59	-788.30	-2,636.74	895.71	810.35	85.36	10.493	
14,200.00	11,797.49	13,243.18	11,018.84	66.13	62.18	-30.55	-788.82	-2,736.73	894.90	807.20	87.70	10.205	
14,300.00	11,796.02	13,343.18	11,017.78	68.47	64.55	-30.52	-789.34	-2,836.72	894.09	804.04	90.05	9.929	
14,400.00	11,794.55	13,443.17	11,016.71	70.82	66.92	-30.48	-789.86	-2,936.70	893.28	800.86	92.42	9.665	
14,500.00	11,793.08	13,543.17	11,015.65	73.17	69.29	-30.44	-790.37	-3,036.69	892.47	797.66	94.81	9.413	
14,600.00	11,791.62	13,643.16	11,014.58	75.53	71.67	-30.40	-790.89	-3,136.68	891.66	794.45	97.21	9.172	
14,700.00	11,790.15	13,743.16	11,013.51	77.89	74.05	-30.37	-791.41	-3,236.67	890.85	791.22	99.63	8.942	
14,800.00	11,788.68	13,843.15	11,012.45	80.26	76.43	-30.33	-791.93	-3,336.66	890.04	787.98	102.06	8.721	
14,900.00	11,787.21	13,943.15	11,011.38	82.63	78.82	-30.29	-792.44	-3,436.64	889.23	784.73	104.50	8.509	
15,000.00	11,785.74	14,043.14	11,010.31	85.00	81.22	-30.25	-792.96	-3,536.63	888.42	781.47	106.95	8.307	
15,100.00	11,784.27	14,143.14	11,009.25	87.38	83.61	-30.22	-793.48	-3,636.62	887.61	778.20	109.42	8.112	
15,200.00	11,782.80	14,243.13	11,008.18	89.76	86.01	-30.18	-794.00	-3,736.61	886.81	774.92	111.89	7.926	
15,300.00	11,781.33	14,343.13	11,007.12	92.15	88.41	-30.14	-794.52	-3,836.60	886.00	771.64	114.36	7.747	

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FLAT CREEK
RESOURCES

Anticollision Report

Company:	Flat Creek Resources, LLC	Local Co-ordinate Reference:	Well Phantom Bank 31 Fed Com No. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	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)			
15,400.00	11,779.86	14,443.12	11,006.05	94.54	90.81	-30.10	-795.03	-3,936.58	885.19	768.34	116.85	7.576	
15,500.00	11,778.39	14,543.12	11,004.98	96.93	93.21	-30.06	-795.55	-4,036.57	884.38	765.05	119.34	7.411	
15,600.00	11,776.92	14,643.11	11,003.92	99.32	95.62	-30.03	-796.07	-4,136.56	883.58	761.75	121.83	7.253	
15,700.00	11,775.45	14,743.11	11,002.85	101.71	98.02	-29.99	-796.59	-4,236.55	882.77	758.44	124.33	7.100	
15,800.00	11,773.98	14,843.10	11,001.78	104.11	100.43	-29.95	-797.11	-4,336.54	881.97	755.14	126.83	6.954	
15,900.00	11,772.51	14,943.10	11,000.72	106.51	102.84	-29.91	-797.62	-4,436.52	881.16	751.82	129.34	6.813	
16,000.00	11,771.04	15,043.09	10,999.65	108.91	105.25	-29.87	-798.14	-4,536.51	880.36	748.51	131.85	6.677	
16,100.00	11,769.57	15,143.09	10,998.59	111.31	107.66	-29.83	-798.66	-4,636.50	879.55	745.19	134.36	6.546	
16,200.00	11,768.10	15,243.08	10,997.52	113.72	110.08	-29.80	-799.18	-4,736.49	878.75	741.88	136.87	6.420	
16,300.00	11,766.63	15,343.08	10,996.45	116.12	112.49	-29.76	-799.70	-4,836.48	877.95	738.56	139.39	6.299	
16,400.00	11,765.16	15,443.07	10,995.39	118.53	114.91	-29.72	-800.21	-4,936.46	877.14	735.24	141.91	6.181	
16,500.00	11,763.69	15,543.07	10,994.32	120.94	117.32	-29.68	-800.73	-5,036.45	876.34	731.92	144.42	6.068	
16,600.00	11,762.22	15,643.06	10,993.25	123.35	119.74	-29.64	-801.25	-5,136.44	875.54	728.60	146.94	5.958	
16,700.00	11,760.75	15,743.06	10,992.19	125.76	122.16	-29.60	-801.77	-5,236.43	874.74	725.28	149.46	5.853	
16,800.00	11,759.28	15,843.05	10,991.12	128.17	124.58	-29.56	-802.29	-5,336.42	873.94	721.96	151.98	5.750	
16,900.00	11,757.81	15,943.05	10,990.06	130.58	127.00	-29.52	-802.80	-5,436.40	873.14	718.64	154.50	5.651	
16,954.90	11,757.00	15,997.94	10,989.47	131.91	128.33	-29.50	-803.09	-5,491.30	872.70	716.82	155.88	5.599 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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 708H - Original Hole - rev2													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	-174.01	-893.01	-93.74	898.04				
100.00	100.00	85.00	85.00	0.43	0.36	-174.01	-893.01	-93.74	897.92	897.12	0.79	1,132.303	
200.00	200.00	185.00	185.00	1.25	1.13	-174.01	-893.01	-93.74	897.92	895.53	2.38	377.052	
300.00	300.00	285.00	285.00	1.75	1.67	-174.01	-893.01	-93.74	897.92	894.50	3.42	262.572	
400.00	400.00	385.00	385.00	2.13	2.07	-174.01	-893.01	-93.74	897.92	893.71	4.21	213.414	
500.00	500.00	485.00	485.00	2.46	2.41	-174.01	-893.01	-93.74	897.92	893.04	4.87	184.256	
600.00	600.00	585.00	585.00	2.75	2.71	-174.01	-893.01	-93.74	897.92	892.45	5.46	164.369	
700.00	700.00	685.00	685.00	3.02	2.98	-174.01	-893.01	-93.74	897.92	891.92	6.00	149.679	
800.00	800.00	785.00	785.00	3.27	3.23	-174.01	-893.01	-93.74	897.92	891.42	6.49	138.248	
900.00	900.00	885.00	885.00	3.50	3.46	-174.01	-893.01	-93.74	897.92	890.96	6.96	129.021	
1,000.00	1,000.00	985.00	985.00	3.72	3.68	-174.01	-893.01	-93.74	897.92	890.52	7.40	121.366	
1,100.00	1,100.00	1,085.00	1,085.00	3.92	3.89	-174.01	-893.01	-93.74	897.92	890.10	7.82	114.880	
1,200.00	1,200.00	1,185.00	1,185.00	4.12	4.09	-174.01	-893.01	-93.74	897.92	889.70	8.22	109.291	
1,300.00	1,300.00	1,285.00	1,285.00	4.31	4.29	-174.01	-893.01	-93.74	897.92	889.32	8.60	104.408	
1,400.00	1,400.00	1,385.00	1,385.00	4.50	4.47	-174.01	-893.01	-93.74	897.92	888.94	8.97	100.093	
1,500.00	1,500.00	1,485.00	1,485.00	4.68	4.65	-174.01	-893.01	-93.74	897.92	888.59	9.33	96.243	
1,600.00	1,600.00	1,585.00	1,585.00	4.85	4.83	-174.01	-893.01	-93.74	897.92	888.24	9.68	92.779	
1,700.00	1,700.00	1,685.00	1,685.00	5.02	5.00	-174.01	-893.01	-93.74	897.92	887.90	10.02	89.640	
1,800.00	1,800.00	1,785.00	1,785.00	5.19	5.16	-174.01	-893.01	-93.74	897.92	887.57	10.35	86.779	
1,900.00	1,900.00	1,885.00	1,885.00	5.35	5.32	-174.01	-893.01	-93.74	897.92	887.25	10.67	84.155	
2,000.00	2,000.00	1,985.00	1,985.00	5.50	5.48	-174.01	-893.01	-93.74	897.92	886.93	10.99	81.737	
2,100.00	2,100.00	2,085.00	2,085.00	5.66	5.64	-174.01	-893.01	-93.74	897.92	886.62	11.29	79.501	
2,200.00	2,200.00	2,185.00	2,185.00	5.81	5.79	-174.01	-893.01	-93.74	897.92	886.32	11.60	77.422	
2,300.00	2,300.00	2,285.00	2,285.00	5.96	5.94	-174.01	-893.01	-93.74	897.92	886.02	11.90	75.485	
2,400.00	2,400.00	2,385.00	2,385.00	6.10	6.08	-174.01	-893.01	-93.74	897.92	885.73	12.19	73.673	
2,500.00	2,500.00	2,485.00	2,485.00	6.25	6.23	-174.01	-893.01	-93.74	897.92	885.44	12.48	71.973	
2,600.00	2,600.00	2,585.00	2,585.00	6.39	6.37	-174.01	-893.01	-93.74	897.92	885.16	12.76	70.374	
2,700.00	2,700.00	2,685.00	2,685.00	6.53	6.51	-174.01	-893.01	-93.74	897.92	884.88	13.04	68.866	
2,800.00	2,800.00	2,785.00	2,785.00	6.67	6.65	-174.01	-893.01	-93.74	897.92	884.60	13.31	67.442	
2,900.00	2,900.00	2,885.00	2,885.00	6.80	6.78	-174.01	-893.01	-93.74	897.92	884.33	13.59	66.092	
3,000.00	3,000.00	2,985.00	2,985.00	6.94	6.92	-174.01	-893.01	-93.74	897.92	884.06	13.85	64.812	
3,100.00	3,100.00	3,085.00	3,085.00	7.07	7.05	-174.01	-893.01	-93.74	897.92	883.80	14.12	63.594	
3,200.00	3,200.00	3,185.00	3,185.00	7.20	7.18	-174.01	-893.01	-93.74	897.92	883.53	14.38	62.435	
3,300.00	3,300.00	3,285.00	3,285.00	7.33	7.31	-174.01	-893.01	-93.74	897.92	883.27	14.64	61.329	
3,400.00	3,399.98	3,384.98	3,384.98	7.46	7.44	6.01	-893.01	-93.74	896.18	881.29	14.90	60.166	
3,500.00	3,499.84	3,484.84	3,484.84	7.87	7.57	6.05	-893.01	-93.74	890.98	875.55	15.43	57.741	
3,600.00	3,599.47	3,584.47	3,584.47	8.04	7.69	6.13	-893.01	-93.74	882.46	866.74	15.73	56.112	
3,700.00	3,699.02	3,684.02	3,684.02	8.14	7.82	6.19	-893.01	-93.74	873.11	857.16	15.95	54.733	
3,800.00	3,798.58	3,783.58	3,783.58	8.28	7.94	6.26	-893.01	-93.74	863.75	847.55	16.21	53.296	
3,900.00	3,898.14	3,883.14	3,883.14	8.42	8.06	6.33	-893.01	-93.74	854.40	837.92	16.48	51.857	
4,000.00	3,997.69	3,982.69	3,982.69	8.59	8.18	6.40	-893.01	-93.74	845.04	828.28	16.76	50.420	
4,100.00	4,097.25	4,082.25	4,082.25	8.77	8.30	6.47	-893.01	-93.74	835.69	818.63	17.06	48.992	
4,200.00	4,196.80	4,181.80	4,181.80	8.96	8.42	6.54	-893.01	-93.74	826.34	808.97	17.37	47.578	
4,300.00	4,296.36	4,281.36	4,281.36	9.17	8.54	6.62	-893.01	-93.74	816.99	799.30	17.69	46.182	
4,400.00	4,395.92	4,380.92	4,380.92	9.38	8.66	6.69	-893.01	-93.74	807.64	789.62	18.02	44.809	
4,500.00	4,495.47	4,480.47	4,480.47	9.61	8.77	6.77	-893.01	-93.74	798.30	779.93	18.37	43.461	
4,600.00	4,595.03	4,580.03	4,580.03	9.85	8.89	6.85	-893.01	-93.74	788.95	770.23	18.72	42.142	
4,700.00	4,694.59	4,679.59	4,679.59	10.10	9.00	6.94	-893.01	-93.74	779.61	760.53	19.08	40.852	
4,800.00	4,794.15	4,779.15	4,779.15	10.33	9.12	1.05	-893.01	-93.74	770.32	750.90	19.42	39.664	
4,900.00	4,893.78	4,878.78	4,878.78	10.58	9.23	-22.01	-893.01	-93.74	761.96	742.18	19.79	38.506	
5,000.00	4,993.42	4,978.42	4,978.42	10.79	9.34	-35.20	-893.01	-93.74	754.73	734.62	20.11	37.524	
5,100.00	5,093.05	5,094.91	5,094.89	11.01	9.55	-35.56	-891.82	-94.77	746.84	726.33	20.51	36.417	

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

FLAT CREEK
RESOURCES

Anticollision Report

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Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design:		Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 708H - Original Hole - rev2											Offset Site Error:		0.00 ft
Survey Program:		0-MWD							Rule Assigned:				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)					
5,200.00	5,192.68	5,215.62	5,215.42	11.24	9.97	-35.65	-886.88	-99.05	736.16	715.17	20.99	35.067			
5,300.00	5,292.31	5,325.24	5,324.58	11.49	10.18	-35.51	-879.38	-105.54	723.00	701.63	21.37	33.838			
5,400.00	5,391.94	5,424.30	5,423.18	11.74	10.31	-35.35	-872.18	-111.77	709.48	687.75	21.73	32.648			
5,500.00	5,491.57	5,523.36	5,521.79	12.00	10.46	-35.17	-864.98	-118.00	695.97	673.86	22.12	31.468			
5,600.00	5,591.20	5,622.42	5,620.39	12.27	10.62	-34.99	-857.78	-124.23	682.47	659.96	22.51	30.315			
5,700.00	5,690.83	5,721.48	5,718.99	12.55	10.80	-34.81	-850.58	-130.46	668.97	646.05	22.92	29.189			
5,800.00	5,790.46	5,820.54	5,817.59	12.82	10.99	-34.61	-843.38	-136.70	655.48	632.15	23.33	28.090			
5,900.00	5,890.09	5,919.60	5,916.19	13.11	11.19	-34.41	-836.17	-142.93	642.00	618.24	23.76	27.020			
6,000.00	5,989.72	6,018.66	6,014.80	13.40	11.39	-34.20	-828.97	-149.16	628.53	604.34	24.19	25.978			
6,100.00	6,089.35	6,117.72	6,113.40	13.69	11.61	-33.97	-821.77	-155.39	615.07	590.43	24.64	24.966			
6,200.00	6,188.98	6,216.79	6,212.00	13.99	11.84	-33.74	-814.57	-161.62	601.61	576.53	25.09	23.981			
6,300.00	6,288.61	6,315.85	6,310.60	14.30	12.07	-33.50	-807.37	-167.86	588.17	562.62	25.54	23.025			
6,400.00	6,388.24	6,414.91	6,409.20	14.61	12.31	-33.25	-800.17	-174.09	574.74	548.73	26.00	22.104			
6,500.00	6,487.87	6,500.00	6,493.98	14.92	12.51	-33.09	-794.62	-178.89	562.04	535.58	26.45	21.248			
6,600.00	6,587.50	6,592.83	6,586.66	15.23	12.86	-33.13	-790.70	-182.28	551.25	524.29	26.97	20.443			
6,700.00	6,687.13	6,681.40	6,675.20	15.55	13.15	-33.40	-789.09	-183.67	542.49	514.97	27.53	19.708			
6,800.00	6,786.76	6,777.96	6,771.76	15.87	13.33	-33.88	-789.01	-183.74	535.25	507.24	28.01	19.108			
6,900.00	6,886.39	6,877.59	6,871.39	16.20	13.42	-34.40	-789.01	-183.74	528.13	499.72	28.41	18.589			
7,000.00	6,986.02	6,977.22	6,971.02	16.53	13.51	-34.93	-789.01	-183.74	521.06	492.26	28.79	18.097			
7,100.00	7,085.65	7,076.85	7,070.65	16.86	13.59	-35.48	-789.01	-183.74	514.03	484.86	29.17	17.621			
7,200.00	7,185.28	7,176.48	7,170.28	17.19	13.68	-36.04	-789.01	-183.74	507.05	477.50	29.55	17.161			
7,300.00	7,284.93	7,276.13	7,269.93	17.50	13.76	-36.59	-789.01	-183.74	500.25	470.35	29.90	16.732			
7,400.00	7,384.76	7,375.96	7,369.76	17.86	13.85	-36.93	-789.01	-183.74	495.63	465.35	30.28	16.369			
7,500.00	7,484.72	7,475.92	7,469.72	18.23	13.94	-37.07	-789.01	-183.74	493.81	463.15	30.66	16.105			
7,589.74	7,574.47	7,565.67	7,559.47	18.26	14.01	-37.08	-789.01	-183.74	493.60	462.82	30.78	16.038			
7,600.00	7,584.72	7,575.92	7,569.72	18.26	14.02	-175.43	-789.01	-183.74	493.78	462.99	30.79	16.037			
7,700.00	7,684.72	7,675.92	7,669.72	18.30	14.11	-175.43	-789.01	-183.74	493.78	462.85	30.92	15.968			
7,800.00	7,784.72	7,775.92	7,769.72	18.34	14.19	-175.43	-789.01	-183.74	493.78	462.72	31.06	15.900			
7,900.00	7,884.72	7,875.92	7,869.72	18.38	14.28	-175.43	-789.01	-183.74	493.78	462.59	31.19	15.832			
8,000.00	7,984.72	7,975.92	7,969.72	18.42	14.36	-175.43	-789.01	-183.74	493.78	462.45	31.32	15.764			
8,100.00	8,084.72	8,075.92	8,069.72	18.47	14.45	-175.43	-789.01	-183.74	493.78	462.32	31.46	15.697			
8,200.00	8,184.72	8,175.92	8,169.72	18.51	14.54	-175.43	-789.01	-183.74	493.78	462.19	31.59	15.631			
8,300.00	8,284.72	8,275.92	8,269.72	18.55	14.62	-175.43	-789.01	-183.74	493.78	462.05	31.72	15.564			
8,400.00	8,384.72	8,375.92	8,369.72	18.59	14.71	-175.43	-789.01	-183.74	493.78	461.92	31.86	15.499			
8,500.00	8,484.72	8,475.92	8,469.72	18.63	14.79	-175.43	-789.01	-183.74	493.78	461.78	31.99	15.434			
8,600.00	8,584.72	8,575.92	8,569.72	18.67	14.88	-175.43	-789.01	-183.74	493.78	461.65	32.13	15.369			
8,700.00	8,684.72	8,675.92	8,669.72	18.72	14.96	-175.43	-789.01	-183.74	493.78	461.51	32.26	15.305			
8,800.00	8,784.72	8,775.92	8,769.72	18.76	15.05	-175.43	-789.01	-183.74	493.78	461.38	32.40	15.241			
8,900.00	8,884.72	8,875.92	8,869.72	18.80	15.13	-175.43	-789.01	-183.74	493.78	461.24	32.53	15.178			
9,000.00	8,984.72	8,975.92	8,969.72	18.85	15.22	-175.43	-789.01	-183.74	493.78	461.11	32.67	15.115			
9,100.00	9,084.72	9,075.92	9,069.72	18.89	15.30	-175.43	-789.01	-183.74	493.78	460.97	32.80	15.053			
9,200.00	9,184.72	9,175.92	9,169.72	18.93	15.39	-175.43	-789.01	-183.74	493.78	460.84	32.94	14.991			
9,300.00	9,284.72	9,275.92	9,269.72	18.98	15.47	-175.43	-789.01	-183.74	493.78	460.70	33.07	14.929			
9,400.00	9,384.72	9,375.92	9,369.72	19.02	15.56	-175.43	-789.01	-183.74	493.78	460.57	33.21	14.868			
9,500.00	9,484.72	9,475.92	9,469.72	19.07	15.64	-175.43	-789.01	-183.74	493.78	460.43	33.35	14.808			
9,600.00	9,584.72	9,575.92	9,569.72	19.11	15.73	-175.43	-789.01	-183.74	493.78	460.29	33.48	14.748			
9,700.00	9,684.72	9,675.92	9,669.72	19.16	15.81	-175.43	-789.01	-183.74	493.78	460.16	33.62	14.688			
9,800.00	9,784.72	9,775.92	9,769.72	19.20	15.90	-175.43	-789.01	-183.74	493.78	460.02	33.75	14.628			
9,900.00	9,884.72	9,875.92	9,869.72	19.25	15.98	-175.43	-789.01	-183.74	493.78	459.89	33.89	14.569			
10,000.00	9,984.72	9,975.92	9,969.72	19.29	16.07	-175.43	-789.01	-183.74	493.78	459.75	34.03	14.511			
10,100.00	10,084.72	10,075.92	10,069.72	19.34	16.15	-175.43	-789.01	-183.74	493.78	459.61	34.16	14.453			
10,200.00	10,184.72	10,175.92	10,169.72	19.39	16.24	-175.43	-789.01	-183.74	493.78	459.47	34.30	14.395			

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 708H - Original Hole - rev2													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	
10,300.00	10,284.72	10,275.92	10,269.72	19.43	16.32	-175.43	-789.01	-183.74	493.78	459.34	34.44	14.338	
10,400.00	10,384.72	10,375.92	10,369.72	19.48	16.41	-175.43	-789.01	-183.74	493.78	459.20	34.58	14.281	
10,500.00	10,484.72	10,475.92	10,469.72	19.53	16.49	-175.43	-789.01	-183.74	493.78	459.06	34.71	14.224	
10,600.00	10,584.72	10,575.92	10,569.72	19.57	16.58	-175.43	-789.01	-183.74	493.78	458.93	34.85	14.168	
10,700.00	10,684.72	10,675.92	10,669.72	19.62	16.66	-175.43	-789.01	-183.74	493.78	458.79	34.99	14.112	
10,800.00	10,784.72	10,775.92	10,769.72	19.67	16.75	-175.43	-789.01	-183.74	493.78	458.65	35.13	14.057	
10,900.00	10,884.72	10,875.92	10,869.72	19.72	16.83	-175.43	-789.01	-183.74	493.78	458.51	35.27	14.002	
11,000.00	10,984.72	10,975.92	10,969.72	19.76	16.92	-175.43	-789.01	-183.74	493.78	458.37	35.40	13.947	
11,100.00	11,084.72	11,075.92	11,069.72	19.81	17.00	-175.43	-789.01	-183.74	493.78	458.23	35.54	13.893	
11,200.00	11,184.72	11,175.92	11,169.72	19.86	17.08	-175.43	-789.01	-183.74	493.78	458.10	35.68	13.839	
11,300.00	11,284.71	11,275.91	11,269.71	19.91	17.17	-84.71	-789.01	-183.74	493.70	457.90	35.80	13.790	
11,400.00	11,383.60	11,374.80	11,368.60	20.16	17.25	-86.42	-789.01	-183.74	492.61	456.71	35.90	13.722	
11,500.00	11,478.56	11,469.77	11,463.56	20.48	17.33	-89.93	-789.01	-183.74	491.60	455.69	35.91	13.690	
11,501.66	11,480.09	11,471.29	11,465.09	20.49	17.33	-90.00	-789.01	-183.74	491.60	455.69	35.91	13.690	
11,600.00	11,566.71	11,566.79	11,560.35	20.84	17.49	-94.55	-788.85	-189.06	493.14	457.31	35.83	13.762	
11,700.00	11,645.37	11,673.22	11,663.84	21.24	17.92	-99.29	-788.11	-213.19	497.63	461.64	35.99	13.826	
11,800.00	11,712.15	11,790.57	11,770.60	21.66	18.47	-103.98	-786.64	-261.41	504.55	467.82	36.72	13.739	
11,900.00	11,765.01	11,921.23	11,875.10	22.15	19.06	-108.48	-784.26	-339.33	512.74	474.41	38.33	13.376	
12,000.00	11,802.36	12,066.93	11,967.46	22.76	19.62	-112.54	-780.83	-451.46	520.47	479.58	40.89	12.729	
12,100.00	11,823.06	12,215.06	12,029.38	23.58	20.22	-115.51	-777.69	-585.53	526.55	482.68	43.87	12.003	
12,200.00	11,826.89	12,371.18	12,055.33	24.64	21.73	-117.31	-776.77	-738.99	530.56	483.50	47.06	11.273	
12,300.00	11,825.42	12,481.73	12,054.09	25.96	23.34	-117.40	-777.30	-849.52	529.80	480.20	49.60	10.682	
12,400.00	11,823.95	12,581.72	12,052.35	27.50	24.99	-117.42	-777.81	-949.50	528.86	476.65	52.22	10.128	
12,500.00	11,822.48	12,681.72	12,050.61	29.20	26.78	-117.43	-778.33	-1,049.48	527.93	472.88	55.05	9.590	
12,600.00	11,821.01	12,781.72	12,048.86	31.02	28.66	-117.45	-778.85	-1,149.46	526.99	468.91	58.08	9.073	
12,700.00	11,819.54	12,881.71	12,047.12	32.94	30.63	-117.47	-779.36	-1,249.44	526.05	464.78	61.27	8.585	
12,800.00	11,818.07	12,981.71	12,045.38	34.92	32.67	-117.49	-779.88	-1,349.41	525.12	460.51	64.61	8.128	
12,900.00	11,816.60	13,081.70	12,043.63	36.97	34.75	-117.51	-780.40	-1,449.39	524.18	456.12	68.06	7.702	
13,000.00	11,815.13	13,181.70	12,041.89	39.07	36.88	-117.53	-780.91	-1,549.37	523.24	451.64	71.61	7.307	
13,100.00	11,813.66	13,281.69	12,040.15	41.20	39.05	-117.55	-781.43	-1,649.35	522.31	447.06	75.25	6.941	
13,200.00	11,812.19	13,381.69	12,038.40	43.37	41.25	-117.57	-781.95	-1,749.33	521.37	442.41	78.96	6.603	
13,300.00	11,810.72	13,481.68	12,036.66	45.57	43.47	-117.59	-782.46	-1,849.31	520.43	437.70	82.74	6.290	
13,400.00	11,809.25	13,581.68	12,034.92	47.79	45.72	-117.61	-782.98	-1,949.29	519.50	432.93	86.57	6.001	
13,500.00	11,807.78	13,681.67	12,033.17	50.04	47.98	-117.63	-783.50	-2,049.27	518.56	428.11	90.45	5.733	
13,600.00	11,806.31	13,781.67	12,031.43	52.30	50.27	-117.65	-784.01	-2,149.25	517.63	423.25	94.38	5.485	
13,700.00	11,804.84	13,881.67	12,029.68	54.57	52.56	-117.67	-784.53	-2,249.22	516.69	418.35	98.34	5.254	
13,800.00	11,803.37	13,981.66	12,027.94	56.86	54.87	-117.69	-785.05	-2,349.20	515.75	413.42	102.33	5.040	
13,900.00	11,801.90	14,081.66	12,026.20	59.17	57.19	-117.71	-785.56	-2,449.18	514.82	408.47	106.35	4.841	
14,000.00	11,800.43	14,181.65	12,024.45	61.48	59.52	-117.73	-786.08	-2,549.16	513.88	403.48	110.40	4.655	
14,100.00	11,798.96	14,281.65	12,022.71	63.80	61.86	-117.75	-786.60	-2,649.14	512.95	398.48	114.47	4.481	
14,200.00	11,797.49	14,381.64	12,020.97	66.13	64.20	-117.77	-787.11	-2,749.12	512.01	393.45	118.56	4.319	
14,300.00	11,796.02	14,481.64	12,019.22	68.47	66.56	-117.79	-787.63	-2,849.10	511.07	388.41	122.66	4.167	
14,400.00	11,794.55	14,581.63	12,017.48	70.82	68.92	-117.81	-788.14	-2,949.08	510.14	383.35	126.78	4.024	
14,500.00	11,793.08	14,681.63	12,015.74	73.17	71.28	-117.83	-788.66	-3,049.06	509.20	378.28	130.92	3.889	
14,600.00	11,791.62	14,781.62	12,013.99	75.53	73.65	-117.86	-789.18	-3,149.03	508.27	373.20	135.07	3.763	
14,700.00	11,790.15	14,881.62	12,012.25	77.89	76.02	-117.88	-789.69	-3,249.01	507.33	368.10	139.23	3.644	
14,800.00	11,788.68	14,981.62	12,010.51	80.26	78.40	-117.90	-790.21	-3,348.99	506.40	362.99	143.40	3.531	
14,900.00	11,787.21	15,081.61	12,008.76	82.63	80.78	-117.92	-790.73	-3,448.97	505.46	357.88	147.58	3.425	
15,000.00	11,785.74	15,181.61	12,007.02	85.00	83.17	-117.94	-791.24	-3,548.95	504.52	352.75	151.77	3.324	
15,100.00	11,784.27	15,281.60	12,005.28	87.38	85.56	-117.96	-791.76	-3,648.93	503.59	347.62	155.97	3.229	
15,200.00	11,782.80	15,381.60	12,003.53	89.76	87.95	-117.98	-792.28	-3,748.91	502.65	342.48	160.17	3.138	
15,300.00	11,781.33	15,481.59	12,001.79	92.15	90.34	-118.00	-792.79	-3,848.89	501.72	337.34	164.38	3.052	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 708H - Original Hole - rev2											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		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
15,400.00	11,779.86	15,581.59	12,000.05	94.54	92.74	-118.02	-793.31	-3,948.87	500.78	332.19	168.60	2.970
15,500.00	11,778.39	15,681.58	11,998.30	96.93	95.14	-118.05	-793.83	-4,048.84	499.85	327.03	172.82	2.892
15,600.00	11,776.92	15,781.58	11,996.56	99.32	97.54	-118.07	-794.34	-4,148.82	498.91	321.87	177.04	2.818
15,700.00	11,775.45	15,881.57	11,994.82	101.71	99.94	-118.09	-794.86	-4,248.80	497.98	316.71	181.27	2.747
15,800.00	11,773.98	15,981.57	11,993.07	104.11	102.35	-118.11	-795.38	-4,348.78	497.04	311.54	185.50	2.679
15,900.00	11,772.51	16,081.57	11,991.33	106.51	104.75	-118.13	-795.89	-4,448.76	496.11	306.37	189.74	2.615
16,000.00	11,771.04	16,181.56	11,989.59	108.91	107.16	-118.15	-796.41	-4,548.74	495.17	301.20	193.98	2.553
16,100.00	11,769.57	16,281.56	11,987.84	111.31	109.57	-118.18	-796.93	-4,648.72	494.24	296.02	198.22	2.493
16,200.00	11,768.10	16,381.55	11,986.10	113.72	111.98	-118.20	-797.44	-4,748.70	493.31	290.85	202.46	2.437
16,300.00	11,766.63	16,481.55	11,984.35	116.12	114.39	-118.22	-797.96	-4,848.68	492.37	285.67	206.71	2.382
16,400.00	11,765.16	16,581.54	11,982.61	118.53	116.81	-118.24	-798.48	-4,948.66	491.44	280.48	210.95	2.330
16,500.00	11,763.69	16,681.54	11,980.87	120.94	119.22	-118.27	-798.99	-5,048.63	490.50	275.30	215.20	2.279
16,600.00	11,762.22	16,781.53	11,979.12	123.35	121.64	-118.29	-799.51	-5,148.61	489.57	270.12	219.45	2.231
16,700.00	11,760.75	16,881.53	11,977.38	125.76	124.05	-118.31	-800.03	-5,248.59	488.63	264.93	223.70	2.184
16,800.00	11,759.28	16,981.52	11,975.64	128.17	126.47	-118.33	-800.54	-5,348.57	487.70	259.74	227.96	2.139
16,900.00	11,757.81	17,081.52	11,973.89	130.58	128.89	-118.36	-801.06	-5,448.55	486.77	254.56	232.21	2.096
16,954.82	11,757.00	17,131.85	11,973.02	131.91	130.10	-118.37	-801.32	-5,498.87	486.28	251.82	234.46	2.074
16,954.90	11,757.00	17,131.85	11,973.02	131.91	130.10	-118.37	-801.32	-5,498.87	486.28	251.82	234.46	2.074 CC, 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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 709H - Original Hole - rev2													Offset Site Error: 0.00 ft
Survey Program: 0-MWD													Offset Well Error: 0.00 ft
Rule Assigned:													
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	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-174.14	-923.06	-94.66	928.02				
100.00	100.00	85.00	85.00	0.43	0.36	-174.14	-923.06	-94.66	927.90	927.11	0.79	1,170.114	
200.00	200.00	185.00	185.00	1.25	1.13	-174.14	-923.06	-94.66	927.90	925.52	2.38	389.643	
300.00	300.00	285.00	285.00	1.75	1.67	-174.14	-923.06	-94.66	927.90	924.48	3.42	271.340	
400.00	400.00	385.00	385.00	2.13	2.07	-174.14	-923.06	-94.66	927.90	923.69	4.21	220.540	
500.00	500.00	485.00	485.00	2.46	2.41	-174.14	-923.06	-94.66	927.90	923.03	4.87	190.409	
600.00	600.00	585.00	585.00	2.75	2.71	-174.14	-923.06	-94.66	927.90	922.44	5.46	169.858	
700.00	700.00	685.00	685.00	3.02	2.98	-174.14	-923.06	-94.66	927.90	921.90	6.00	154.677	
800.00	800.00	785.00	785.00	3.27	3.23	-174.14	-923.06	-94.66	927.90	921.40	6.49	142.865	
900.00	900.00	885.00	885.00	3.50	3.46	-174.14	-923.06	-94.66	927.90	920.94	6.96	133.330	
1,000.00	1,000.00	985.00	985.00	3.72	3.68	-174.14	-923.06	-94.66	927.90	920.50	7.40	125.419	
1,100.00	1,100.00	1,085.00	1,085.00	3.92	3.89	-174.14	-923.06	-94.66	927.90	920.08	7.82	118.716	
1,200.00	1,200.00	1,185.00	1,185.00	4.12	4.09	-174.14	-923.06	-94.66	927.90	919.68	8.22	112.941	
1,300.00	1,300.00	1,285.00	1,285.00	4.31	4.29	-174.14	-923.06	-94.66	927.90	919.30	8.60	107.895	
1,400.00	1,400.00	1,385.00	1,385.00	4.50	4.47	-174.14	-923.06	-94.66	927.90	918.93	8.97	103.436	
1,500.00	1,500.00	1,485.00	1,485.00	4.68	4.65	-174.14	-923.06	-94.66	927.90	918.57	9.33	99.457	
1,600.00	1,600.00	1,585.00	1,585.00	4.85	4.83	-174.14	-923.06	-94.66	927.90	918.22	9.68	95.877	
1,700.00	1,700.00	1,685.00	1,685.00	5.02	5.00	-174.14	-923.06	-94.66	927.90	917.88	10.02	92.634	
1,800.00	1,800.00	1,785.00	1,785.00	5.19	5.16	-174.14	-923.06	-94.66	927.90	917.55	10.35	89.676	
1,900.00	1,900.00	1,885.00	1,885.00	5.35	5.32	-174.14	-923.06	-94.66	927.90	917.23	10.67	86.965	
2,000.00	2,000.00	1,985.00	1,985.00	5.50	5.48	-174.14	-923.06	-94.66	927.90	916.91	10.99	84.467	
2,100.00	2,100.00	2,075.04	2,075.03	5.66	5.66	-174.20	-923.55	-93.81	928.36	917.11	11.25	82.526	
2,200.00	2,200.00	2,163.18	2,163.09	5.81	6.04	-174.41	-925.38	-90.64	930.07	918.51	11.56	80.486	
2,300.00	2,300.00	2,252.86	2,252.54	5.96	6.33	-174.77	-928.61	-85.04	933.06	921.26	11.81	79.038	
2,400.00	2,400.00	2,352.52	2,351.85	6.10	6.46	-175.23	-932.74	-77.89	936.57	924.52	12.05	77.700	
2,500.00	2,500.00	2,449.14	2,448.14	6.25	6.59	-175.67	-936.76	-70.98	940.17	927.87	12.29	76.482	
2,600.00	2,600.00	2,528.21	2,526.95	6.39	6.69	-175.97	-941.09	-66.25	945.20	932.69	12.51	75.550	
2,700.00	2,700.00	2,622.60	2,621.00	6.53	6.82	-176.27	-947.67	-61.86	951.84	939.08	12.76	74.610	
2,800.00	2,800.00	2,722.24	2,720.30	6.67	7.02	-176.57	-954.67	-57.28	958.58	945.52	13.06	73.397	
2,900.00	2,900.00	2,821.89	2,819.59	6.80	7.23	-176.86	-961.68	-52.70	965.34	951.96	13.38	72.132	
3,000.00	3,000.00	2,921.54	2,918.89	6.94	7.46	-177.16	-968.68	-48.13	972.13	958.41	13.72	70.877	
3,100.00	3,100.00	3,021.18	3,018.18	7.07	7.70	-177.44	-975.69	-43.55	978.94	964.88	14.06	69.638	
3,200.00	3,200.00	3,120.83	3,117.48	7.20	7.95	-177.73	-982.69	-38.97	985.78	971.37	14.41	68.418	
3,300.00	3,300.00	3,220.48	3,216.77	7.33	8.21	-178.01	-989.70	-34.39	992.64	977.87	14.77	67.221	
3,400.00	3,399.98	3,320.23	3,316.17	7.46	8.49	1.71	-996.71	-29.81	997.78	982.65	15.13	65.944	
3,500.00	3,499.84	3,420.10	3,415.69	7.87	8.77	1.45	-1,003.73	-25.22	999.46	983.67	15.79	63.300	
3,600.00	3,599.47	3,519.98	3,515.21	8.04	9.06	1.18	-1,010.75	-20.63	997.83	981.62	16.22	61.536	
3,700.00	3,699.02	3,619.84	3,614.73	8.14	9.35	0.92	-1,017.77	-16.04	995.36	978.79	16.58	60.037	
3,800.00	3,798.58	3,719.71	3,714.24	8.28	9.66	0.66	-1,024.79	-11.45	992.92	975.94	16.98	58.475	
3,900.00	3,898.14	3,819.58	3,813.75	8.42	9.97	0.40	-1,031.81	-6.86	990.50	973.09	17.40	56.912	
4,000.00	3,997.69	3,919.44	3,913.27	8.59	10.28	0.13	-1,038.83	-2.27	988.09	970.24	17.85	55.357	
4,100.00	4,097.25	4,019.31	4,012.78	8.77	10.60	-0.13	-1,045.85	2.32	985.71	967.39	18.32	53.819	
4,200.00	4,196.80	4,119.17	4,112.29	8.96	10.92	-0.40	-1,052.87	6.91	983.35	964.55	18.80	52.305	
4,300.00	4,296.36	4,219.04	4,211.81	9.17	11.25	-0.67	-1,059.89	11.49	981.01	961.71	19.30	50.821	
4,400.00	4,395.92	4,318.91	4,311.32	9.38	11.58	-0.94	-1,066.91	16.08	978.69	958.87	19.82	49.371	
4,500.00	4,495.47	4,418.77	4,410.83	9.61	11.92	-1.21	-1,073.93	20.67	976.40	956.04	20.36	47.960	
4,600.00	4,595.03	4,518.64	4,510.35	9.85	12.25	-1.49	-1,080.95	25.26	974.13	953.22	20.91	46.589	
4,700.00	4,694.59	4,618.50	4,609.86	10.10	12.59	-1.76	-1,087.97	29.85	971.87	950.40	21.47	45.261	
4,800.00	4,794.15	4,718.36	4,709.37	10.33	12.94	-2.96	-1,094.99	34.44	969.72	947.71	22.02	44.046	
4,895.02	4,888.82	4,813.14	4,803.81	10.57	13.26	-29.97	-1,101.65	38.79	968.91	946.34	22.57	42.925	
4,900.00	4,893.78	4,818.10	4,808.75	10.58	13.28	-31.19	-1,102.00	39.02	968.91	946.31	22.60	42.869	
5,000.00	4,993.42	4,917.62	4,907.92	10.79	13.63	-44.54	-1,108.99	43.59	969.75	946.61	23.14	41.902	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design:		Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 709H - Original Hole - rev2											Offset Site Error:		0.00 ft	
Survey Program:		0-MWD						Rule Assigned:						Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			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)	Minimum Separation (ft)					
5,100.00	5,093.05	5,017.08	5,007.03	11.01	13.97	-45.14	-1,115.98	48.16	970.95	947.25	23.70	40.969				
5,200.00	5,192.68	5,116.55	5,106.15	11.24	14.32	-45.74	-1,122.98	52.73	972.27	948.00	24.27	40.063				
5,300.00	5,292.31	5,216.02	5,205.26	11.49	14.67	-46.34	-1,129.97	57.31	973.69	948.85	24.84	39.202				
5,400.00	5,391.94	5,334.96	5,323.84	11.74	15.08	-47.03	-1,137.72	62.37	974.76	949.30	25.46	38.287				
5,500.00	5,491.57	5,477.67	5,466.44	12.00	15.65	-47.70	-1,142.09	65.23	972.19	946.00	26.19	37.125				
5,600.00	5,591.20	5,587.43	5,576.20	12.27	15.78	-48.12	-1,142.26	65.34	966.54	940.00	26.54	36.422				
5,700.00	5,690.83	5,687.06	5,675.83	12.55	15.82	-48.50	-1,142.26	65.34	960.81	933.98	26.83	35.813				
5,800.00	5,790.46	5,786.69	5,775.46	12.82	15.86	-48.89	-1,142.26	65.34	955.13	928.01	27.12	35.216				
5,900.00	5,890.09	5,886.32	5,875.09	13.11	15.91	-49.28	-1,142.26	65.34	949.49	922.08	27.42	34.634				
6,000.00	5,989.72	5,985.95	5,974.72	13.40	15.95	-49.67	-1,142.26	65.34	943.90	916.19	27.71	34.066				
6,100.00	6,089.35	6,085.58	6,074.35	13.69	15.99	-50.07	-1,142.26	65.34	938.35	910.35	28.00	33.513				
6,200.00	6,188.98	6,185.21	6,173.98	13.99	16.04	-50.48	-1,142.26	65.34	932.84	904.55	28.29	32.974				
6,300.00	6,288.61	6,284.84	6,273.61	14.30	16.08	-50.89	-1,142.26	65.34	927.39	898.81	28.58	32.449				
6,400.00	6,388.24	6,384.47	6,373.24	14.61	16.13	-51.30	-1,142.26	65.34	921.98	893.11	28.87	31.939				
6,500.00	6,487.87	6,484.10	6,472.87	14.92	16.18	-51.72	-1,142.26	65.34	916.62	887.46	29.15	31.442				
6,600.00	6,587.50	6,583.73	6,572.50	15.23	16.22	-52.14	-1,142.26	65.34	911.31	881.87	29.44	30.958				
6,700.00	6,687.13	6,683.36	6,672.13	15.55	16.27	-52.57	-1,142.26	65.34	906.05	876.33	29.72	30.488				
6,800.00	6,786.76	6,782.99	6,771.76	15.87	16.31	-53.00	-1,142.26	65.34	900.84	870.84	30.00	30.030				
6,900.00	6,886.39	6,882.62	6,871.39	16.20	16.36	-53.44	-1,142.26	65.34	895.68	865.41	30.27	29.585				
7,000.00	6,986.02	6,982.25	6,971.02	16.53	16.41	-53.88	-1,142.26	65.34	890.58	860.03	30.55	29.152				
7,100.00	7,085.65	7,081.88	7,070.65	16.86	16.46	-54.33	-1,142.26	65.34	885.53	854.71	30.82	28.732				
7,200.00	7,185.28	7,181.51	7,170.28	17.19	16.50	-54.78	-1,142.26	65.34	880.53	849.44	31.09	28.323				
7,300.00	7,284.93	7,281.16	7,269.93	17.50	16.55	-55.21	-1,142.26	65.34	875.69	844.36	31.33	27.950				
7,400.00	7,384.76	7,380.99	7,369.76	17.86	16.60	-55.47	-1,142.26	65.34	872.41	840.81	31.59	27.616				
7,500.00	7,484.72	7,480.96	7,469.72	18.23	16.65	-55.57	-1,142.26	65.34	871.12	839.27	31.85	27.354				
7,589.74	7,574.47	7,570.70	7,559.47	18.26	16.69	-55.58	-1,142.26	65.34	870.97	839.04	31.92	27.282				
7,600.00	7,584.72	7,580.95	7,569.72	18.26	16.70	166.07	-1,142.26	65.34	871.09	839.16	31.93	27.278				
7,700.00	7,684.72	7,680.95	7,669.72	18.30	16.75	166.07	-1,142.26	65.34	871.09	839.06	32.03	27.196				
7,800.00	7,784.72	7,780.95	7,769.72	18.34	16.79	166.07	-1,142.26	65.34	871.09	838.96	32.13	27.113				
7,900.00	7,884.72	7,880.95	7,869.72	18.38	16.84	166.07	-1,142.26	65.34	871.09	838.87	32.23	27.030				
8,000.00	7,984.72	7,980.96	7,969.72	18.42	16.89	166.07	-1,142.26	65.34	871.09	838.77	32.33	26.947				
8,100.00	8,084.72	8,080.96	8,069.72	18.47	16.94	166.07	-1,142.26	65.34	871.09	838.67	32.43	26.864				
8,200.00	8,184.72	8,180.96	8,169.72	18.51	16.99	166.07	-1,142.26	65.34	871.09	838.57	32.53	26.781				
8,300.00	8,284.72	8,280.96	8,269.72	18.55	17.05	166.07	-1,142.26	65.34	871.09	838.46	32.63	26.698				
8,400.00	8,384.72	8,380.96	8,369.72	18.59	17.10	166.07	-1,142.26	65.34	871.09	838.36	32.73	26.615				
8,500.00	8,484.72	8,480.96	8,469.72	18.63	17.15	166.07	-1,142.26	65.34	871.09	838.26	32.83	26.533				
8,600.00	8,584.72	8,580.96	8,569.72	18.67	17.20	166.07	-1,142.26	65.34	871.09	838.16	32.93	26.450				
8,700.00	8,684.72	8,680.96	8,669.72	18.72	17.25	166.07	-1,142.26	65.34	871.09	838.06	33.04	26.368				
8,800.00	8,784.72	8,780.96	8,769.72	18.76	17.30	166.07	-1,142.26	65.34	871.09	837.95	33.14	26.286				
8,900.00	8,884.72	8,880.96	8,869.72	18.80	17.35	166.07	-1,142.26	65.34	871.09	837.85	33.24	26.204				
9,000.00	8,984.72	8,980.96	8,969.72	18.85	17.41	166.07	-1,142.26	65.34	871.09	837.74	33.35	26.122				
9,100.00	9,084.72	9,080.96	9,069.72	18.89	17.46	166.07	-1,142.26	65.34	871.09	837.64	33.45	26.040				
9,200.00	9,184.72	9,180.96	9,169.72	18.93	17.51	166.07	-1,142.26	65.34	871.09	837.53	33.56	25.958				
9,300.00	9,284.72	9,280.96	9,269.72	18.98	17.56	166.07	-1,142.26	65.34	871.09	837.43	33.66	25.877				
9,400.00	9,384.72	9,380.96	9,369.72	19.02	17.62	166.07	-1,142.26	65.34	871.09	837.32	33.77	25.796				
9,500.00	9,484.72	9,480.96	9,469.72	19.07	17.67	166.07	-1,142.26	65.34	871.09	837.22	33.88	25.714				
9,600.00	9,584.72	9,580.96	9,569.72	19.11	17.72	166.07	-1,142.26	65.34	871.09	837.11	33.98	25.633				
9,700.00	9,684.72	9,680.96	9,669.72	19.16	17.78	166.07	-1,142.26	65.34	871.09	837.00	34.09	25.553				
9,800.00	9,784.72	9,780.96	9,769.72	19.20	17.83	166.07	-1,142.26	65.34	871.09	836.89	34.20	25.472				
9,900.00	9,884.72	9,880.96	9,869.72	19.25	17.89	166.07	-1,142.26	65.34	871.09	836.79	34.31	25.392				
10,000.00	9,984.72	9,980.96	9,969.72	19.29	17.94	166.07	-1,142.26	65.34	871.09	836.68	34.42	25.311				
10,100.00	10,084.72	10,080.96	10,069.72	19.34	17.99	166.07	-1,142.26	65.34	871.09	836.57	34.52	25.231				

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 709H - Original Hole - rev2												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	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)			
10,200.00	10,184.72	10,180.96	10,169.72	19.39	18.05	166.07	-1,142.26	65.34	871.09	836.46	34.63	25.151	
10,300.00	10,284.72	10,280.96	10,269.72	19.43	18.10	166.07	-1,142.26	65.34	871.09	836.35	34.74	25.072	
10,400.00	10,384.72	10,380.96	10,369.72	19.48	18.16	166.07	-1,142.26	65.34	871.09	836.24	34.85	24.992	
10,500.00	10,484.72	10,480.96	10,469.72	19.53	18.22	166.07	-1,142.26	65.34	871.09	836.13	34.97	24.913	
10,600.00	10,584.72	10,580.96	10,569.72	19.57	18.27	166.07	-1,142.26	65.34	871.09	836.02	35.08	24.834	
10,700.00	10,684.72	10,680.96	10,669.72	19.62	18.33	166.07	-1,142.26	65.34	871.09	835.90	35.19	24.755	
10,800.00	10,784.72	10,780.96	10,769.72	19.67	18.38	166.07	-1,142.26	65.34	871.09	835.79	35.30	24.676	
10,900.00	10,884.72	10,880.96	10,869.72	19.72	18.44	166.07	-1,142.26	65.34	871.09	835.68	35.41	24.598	
11,000.00	10,984.72	10,980.96	10,969.72	19.76	18.49	166.07	-1,142.26	65.34	871.09	835.57	35.53	24.520	
11,100.00	11,084.72	11,080.96	11,069.72	19.81	18.55	166.07	-1,142.26	65.34	871.09	835.45	35.64	24.442	
11,200.00	11,184.72	11,180.96	11,169.72	19.86	18.61	166.07	-1,142.26	65.34	871.09	835.34	35.75	24.364	
11,300.00	11,284.71	11,290.31	11,279.07	19.91	18.64	-103.14	-1,142.26	64.75	871.19	835.37	35.81	24.326	
11,400.00	11,383.60	11,445.63	11,431.39	20.16	18.61	-102.84	-1,142.41	36.86	870.10	834.27	35.83	24.281	
11,500.00	11,478.56	11,596.12	11,566.64	20.48	18.59	-101.88	-1,142.75	-28.13	866.83	830.80	36.03	24.060	
11,600.00	11,566.71	11,737.94	11,674.55	20.84	18.67	-100.40	-1,143.23	-119.58	862.03	825.58	36.44	23.655	
11,700.00	11,645.37	11,869.33	11,751.72	21.24	18.93	-98.57	-1,143.78	-225.56	856.57	819.38	37.19	23.032	
11,800.00	11,712.15	11,990.26	11,799.75	21.66	19.49	-96.53	-1,144.36	-336.31	851.29	812.88	38.41	22.165	
11,900.00	11,765.01	12,101.74	11,822.55	22.15	20.38	-94.39	-1,144.93	-445.24	846.85	806.68	40.17	21.082	
12,000.00	11,802.36	12,203.09	11,825.37	22.76	21.52	-92.31	-1,145.46	-546.47	843.72	801.30	42.42	19.889	
12,100.00	11,823.06	12,300.42	11,823.67	23.58	22.83	-90.99	-1,145.96	-643.78	842.12	797.04	45.08	18.681	
12,200.00	11,826.89	12,400.16	11,821.93	24.64	24.36	-90.69	-1,146.49	-743.50	841.13	793.05	48.08	17.494	
12,300.00	11,825.42	12,500.16	11,820.18	25.96	26.05	-90.67	-1,147.01	-843.48	840.22	788.86	51.36	16.361	
12,400.00	11,823.95	12,600.15	11,818.44	27.50	27.85	-90.66	-1,147.53	-943.46	839.31	784.43	54.87	15.295	
12,500.00	11,822.48	12,700.15	11,816.70	29.20	29.76	-90.64	-1,148.05	-1,043.44	838.39	779.81	58.59	14.310	
12,600.00	11,821.01	12,800.14	11,814.95	31.02	31.74	-90.62	-1,148.58	-1,143.42	837.48	775.02	62.46	13.408	
12,700.00	11,819.54	12,900.14	11,813.21	32.94	33.78	-90.60	-1,149.10	-1,243.40	836.57	770.11	66.47	12.586	
12,800.00	11,818.07	13,000.13	11,811.46	34.92	35.88	-90.58	-1,149.62	-1,343.37	835.66	765.08	70.59	11.839	
12,900.00	11,816.60	13,100.13	11,809.72	36.97	38.02	-90.56	-1,150.14	-1,443.35	834.75	759.96	74.80	11.160	
13,000.00	11,815.13	13,200.12	11,807.97	39.07	40.19	-90.55	-1,150.67	-1,543.33	833.84	754.76	79.08	10.544	
13,100.00	11,813.66	13,300.12	11,806.23	41.20	42.40	-90.53	-1,151.19	-1,643.31	832.93	749.49	83.44	9.983	
13,200.00	11,812.19	13,400.11	11,804.48	43.37	44.62	-90.51	-1,151.71	-1,743.29	832.02	744.18	87.85	9.471	
13,300.00	11,810.72	13,500.11	11,802.74	45.57	46.88	-90.49	-1,152.23	-1,843.27	831.11	738.81	92.30	9.004	
13,400.00	11,809.25	13,600.11	11,800.99	47.79	49.15	-90.47	-1,152.76	-1,943.25	830.20	733.40	96.80	8.576	
13,500.00	11,807.78	13,700.10	11,799.25	50.04	51.43	-90.45	-1,153.28	-2,043.23	829.29	727.96	101.34	8.184	
13,600.00	11,806.31	13,800.10	11,797.50	52.30	53.73	-90.44	-1,153.80	-2,143.21	828.38	722.48	105.90	7.822	
13,700.00	11,804.84	13,900.09	11,795.76	54.57	56.04	-90.42	-1,154.32	-2,243.19	827.47	716.98	110.50	7.489	
13,800.00	11,803.37	14,000.09	11,794.01	56.86	58.36	-90.40	-1,154.85	-2,343.16	826.56	711.45	115.11	7.181	
13,900.00	11,801.90	14,100.08	11,792.27	59.17	60.70	-90.38	-1,155.37	-2,443.14	825.66	705.91	119.75	6.895	
14,000.00	11,800.43	14,200.08	11,790.53	61.48	63.04	-90.36	-1,155.89	-2,543.12	824.75	700.34	124.41	6.629	
14,100.00	11,798.96	14,300.07	11,788.78	63.80	65.38	-90.34	-1,156.41	-2,643.10	823.84	694.76	129.08	6.382	
14,200.00	11,797.49	14,400.07	11,787.04	66.13	67.74	-90.32	-1,156.94	-2,743.08	822.93	689.16	133.77	6.152	
14,300.00	11,796.02	14,500.07	11,785.29	68.47	70.10	-90.31	-1,157.46	-2,843.06	822.02	683.55	138.47	5.936	
14,400.00	11,794.55	14,600.06	11,783.55	70.82	72.47	-90.29	-1,157.98	-2,943.04	821.11	677.92	143.19	5.735	
14,500.00	11,793.08	14,700.06	11,781.80	73.17	74.84	-90.27	-1,158.50	-3,043.02	820.20	672.29	147.91	5.545	
14,600.00	11,791.62	14,800.05	11,780.06	75.53	77.21	-90.25	-1,159.03	-3,143.00	819.29	666.65	152.65	5.367	
14,700.00	11,790.15	14,900.05	11,778.31	77.89	79.59	-90.23	-1,159.55	-3,242.97	818.38	660.99	157.39	5.200	
14,800.00	11,788.68	15,000.04	11,776.57	80.26	81.97	-90.21	-1,160.07	-3,342.95	817.47	655.33	162.14	5.042	
14,900.00	11,787.21	15,100.04	11,774.82	82.63	84.36	-90.19	-1,160.59	-3,442.93	816.57	649.66	166.90	4.892	
15,000.00	11,785.74	15,200.03	11,773.08	85.00	86.75	-90.17	-1,161.12	-3,542.91	815.66	643.99	171.67	4.751	
15,100.00	11,784.27	15,300.03	11,771.33	87.38	89.14	-90.15	-1,161.64	-3,642.89	814.75	638.30	176.45	4.618	
15,200.00	11,782.80	15,400.02	11,769.59	89.76	91.54	-90.13	-1,162.16	-3,742.87	813.84	632.62	181.22	4.491	
15,300.00	11,781.33	15,500.02	11,767.85	92.15	93.93	-90.11	-1,162.68	-3,842.85	812.93	626.92	186.01	4.370	

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Offset Design: Phantom Bank 31 Fed Com - Phantom Bank 31 Fed Com No. 709H - Original Hole - rev2											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		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
15,400.00	11,779.86	15,600.02	11,766.10	94.54	96.33	-90.10	-1,163.21	-3,942.83	812.02	621.22	190.80	4.256
15,500.00	11,778.39	15,700.01	11,764.36	96.93	98.73	-90.08	-1,163.73	-4,042.81	811.12	615.52	195.59	4.147
15,600.00	11,776.92	15,800.01	11,762.61	99.32	101.14	-90.06	-1,164.25	-4,142.78	810.21	609.82	200.39	4.043
15,700.00	11,775.45	15,900.00	11,760.87	101.71	103.54	-90.04	-1,164.77	-4,242.76	809.30	604.10	205.20	3.944
15,800.00	11,773.98	16,000.00	11,759.12	104.11	105.95	-90.02	-1,165.30	-4,342.74	808.39	598.39	210.00	3.849
15,900.00	11,772.51	16,099.99	11,757.38	106.51	108.36	-90.00	-1,165.82	-4,442.72	807.49	592.67	214.81	3.759
16,000.00	11,771.04	16,199.99	11,755.63	108.91	110.77	-89.98	-1,166.34	-4,542.70	806.58	586.95	219.63	3.672
16,100.00	11,769.57	16,299.98	11,753.89	111.31	113.18	-89.96	-1,166.86	-4,642.68	805.67	581.23	224.44	3.590
16,200.00	11,768.10	16,399.98	11,752.14	113.72	115.59	-89.94	-1,167.39	-4,742.66	804.76	575.50	229.26	3.510
16,300.00	11,766.63	16,499.98	11,750.40	116.12	118.01	-89.92	-1,167.91	-4,842.64	803.86	569.77	234.08	3.434
16,400.00	11,765.16	16,599.97	11,748.65	118.53	120.42	-89.90	-1,168.43	-4,942.62	802.95	564.04	238.91	3.361
16,500.00	11,763.69	16,699.97	11,746.91	120.94	122.84	-89.88	-1,168.95	-5,042.59	802.04	558.31	243.74	3.291
16,600.00	11,762.22	16,799.96	11,745.17	123.35	125.25	-89.86	-1,169.48	-5,142.57	801.14	552.57	248.56	3.223
16,700.00	11,760.75	16,899.96	11,743.42	125.76	127.67	-89.84	-1,170.00	-5,242.55	800.23	546.83	253.40	3.158
16,800.00	11,759.28	16,999.95	11,741.68	128.17	130.09	-89.82	-1,170.52	-5,342.53	799.32	541.09	258.23	3.095
16,900.00	11,757.81	17,099.95	11,739.93	130.58	132.51	-89.80	-1,171.04	-5,442.51	798.41	535.36	263.06	3.035
16,954.90	11,757.00	17,153.60	11,739.00	131.91	133.81	-89.79	-1,171.33	-5,496.15	797.92	532.23	265.69	3.003 CC, 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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=3129+25 @ 3154.00ft

Offset Depths are relative to Offset Datum

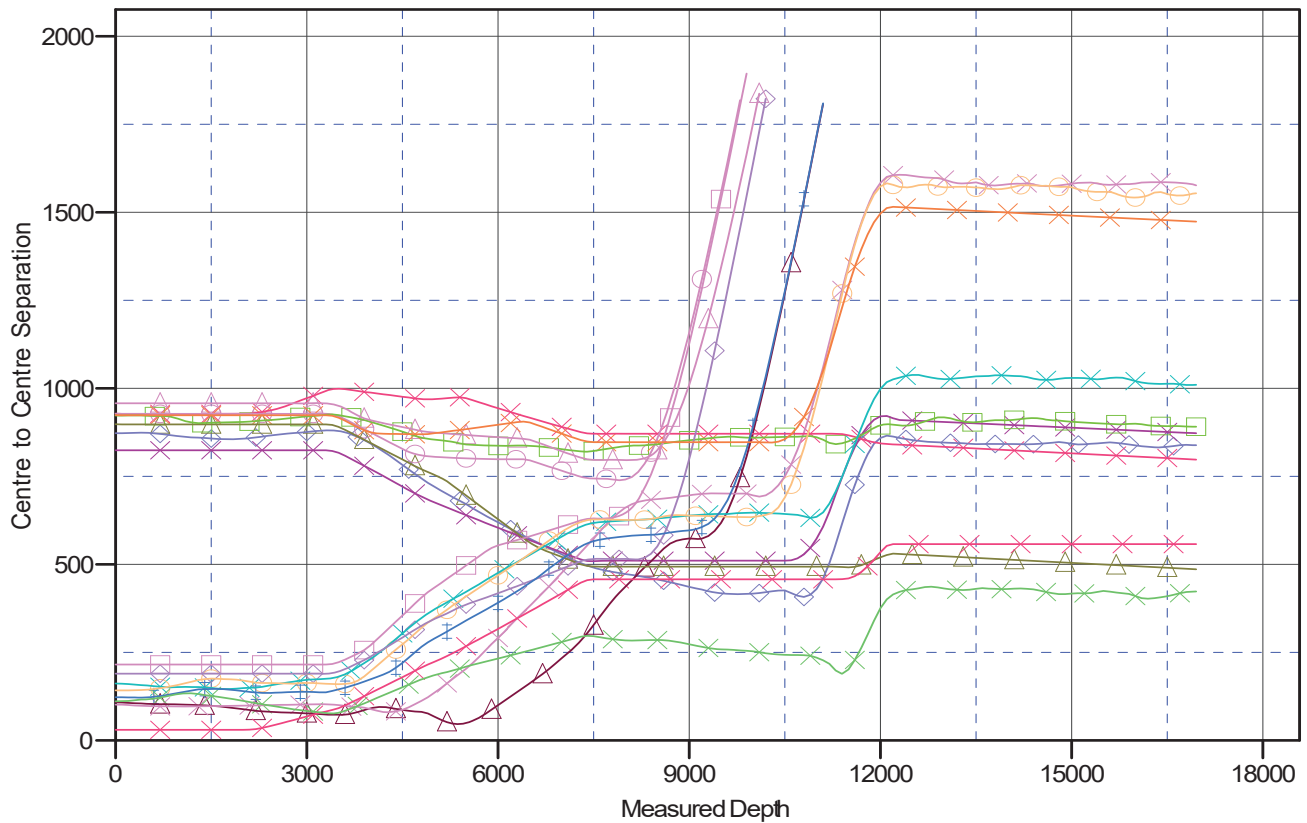
Central Meridian is -104.33333333

Coordinates are relative to: Phantom Bank 31 Fed Com No. 561H

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

Grid Convergence at Surface is: 0.28°

Ladder Plot



LEGEND

PhantomBank31 Fed ComNo. 504HOriginalHole, SurveysOriginalHole V0	PhantomBank31 Fed ComNo. 101HOriginalHole, rev0 V0	PhantomBank31 Fed ComNo. 201HOriginalHole, rev0 V0
PhantomBank31 Fed ComNo. 703HOriginalHole, SurveysOriginalHole V0	PhantomBank31 Fed ComNo. 102HOriginalHole, rev0 V0	PhantomBank31 Fed ComNo. 702HOriginalHole, SurveysOriginalHole V0
PhantomBank31 Fed ComNo. 511HOriginalHole, rev0 V0	PhantomBank31 Fed ComNo. 508HOriginalHole, SurveysOriginalHole V0	PhantomBank31 Fed ComNo. 202HOriginalHole, rev0 V0
PhantomBank31 Fed ComNo. 501HOriginalHole, SurveysOriginalHole V0	PhantomBank31 Fed ComNo. 506HOriginalHole, SurveysOriginalHole V0	PhantomBank31 Fed ComNo. 505HOriginalHole, rev0 V0
PhantomBank31 Fed ComNo. 709HOriginalHole, rev2 V0	PhantomBank31 Fed ComNo. 701HOriginalHole, SurveysOriginalHole V0	PhantomBank31 Fed ComNo. 502HOriginalHole, SurveysOriginalHole V0
PhantomBank31 Fed ComNo. 708HOriginalHole, rev2 V0		

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. 561H
Project:	Eddy County, New Mexico NAD27 NME	TVD Reference:	RKB=3129+25 @ 3154.00ft
Reference Site:	Phantom Bank 31 Fed Com	MD Reference:	RKB=3129+25 @ 3154.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Phantom Bank 31 Fed Com No. 561H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=3129+25 @ 3154.00ft

Offset Depths are relative to Offset Datum

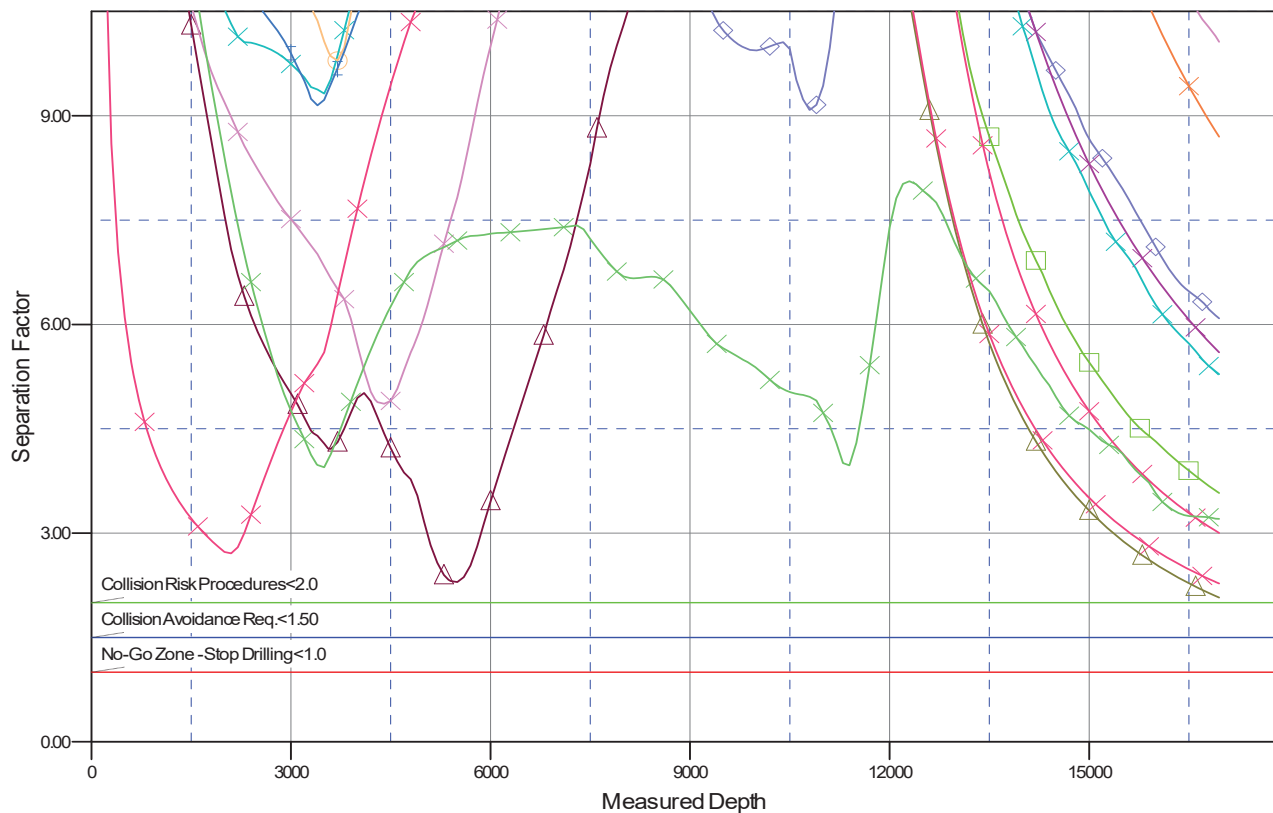
Central Meridian is -104.33333333

Coordinates are relative to: Phantom Bank 31 Fed Com No. 561H

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

Grid Convergence at Surface is: 0.28°

Separation Factor Plot



LEGEND

PhantomBank31 Fed ComNo. 504H Original Hole, Survey Original Hole V0	PhantomBank31 Fed ComNo. 101H Original Hole, rev0 V0	PhantomBank31 Fed ComNo. 201H Original Hole, rev0 V0
PhantomBank31 Fed ComNo. 707H Original Hole, rev0 V0	PhantomBank31 Fed ComNo. 102H Original Hole, rev0 V0	PhantomBank31 Fed ComNo. 702H Original Hole, Survey Original Hole V0
PhantomBank31 Fed ComNo. 703H Original Hole, Survey Original Hole V0	PhantomBank31 Fed ComNo. 511H Original Hole, rev2 V0	PhantomBank31 Fed ComNo. 202H Original Hole, rev0 V0
PhantomBank31 Fed ComNo. 501H Original Hole, Survey Original Hole V0	PhantomBank31 Fed ComNo. 508H Original Hole, Survey Original Hole V0	PhantomBank31 Fed ComNo. 505H Original Hole, rev0 V0
PhantomBank31 Fed ComNo. 709H Original Hole, rev2 V0	PhantomBank31 Fed ComNo. 506H Original Hole, Survey Original Hole V0	PhantomBank31 Fed ComNo. 502H Original Hole, Survey Original Hole V0
PhantomBank31 Fed ComNo. 708H Original Hole, rev2 V0	PhantomBank31 Fed ComNo. 701H Original Hole, Survey Original Hole V0	

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

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 340620

CONDITIONS

Operator: Flat Creek Resources, LLC 777 Main St. Fort Worth, TX 76102	OGRID: 374034
	Action Number: 340620
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing.	4/29/2025
ward.rikala	If cement is not circulated to surface during cementing operations, a Cement Bond Log (CBL) is required.	4/29/2025
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	4/29/2025