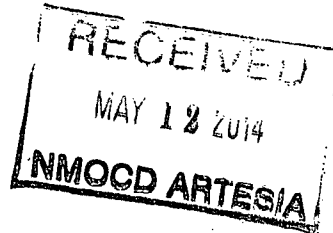
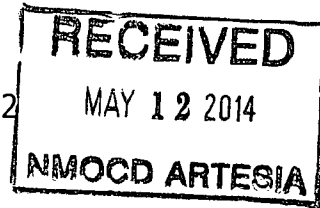




PHOENIX
TECHNOLOGY SERVICES

May 8, 2014

Oil Conservation Division- District 2
State of New Mexico
811 S. First St.
Artesia, New Mexico 88210



Attention: Ms. Diane Crum

Re: RKI Exploration and Production
North Brush Draw Federal 35 9H
Eddy County, NM
API # 30-015-42220
Job No. 1410564

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced well by Phoenix Technology Services, Inc. (P-5 No. 664171). Other information required by your office is as follows:

Name & Title of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Jeff Thomas	9H	665	13,465	04/09/14	04/30/14	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

Dana Robinson

Dana Robinson
Operations Administrator

Certified mail receipt number: 7011 1570 0001 4365 1929

Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER

1410564

OPERATOR

RKI Exploration

WELL NAME

North Brushy Draw Federal 35 9H

COUNTY & STATE

Eddy County, NM

API WELL NUMBER

30-015-42220

PROPOSED DIRECTION

181.42

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
0 ft	00 ft	0 ft	0 ft	00 ft	00 ft	Surface

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
9-Apr-14	665 ft	1.8	198.5

SURVEY INSTRUMENT
TYPE
Phoenix MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
30-Apr-14	13,465 ft	89.3	177.5

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED	PROJECTED		
TD SURVEY	TD SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
30-Apr-14	13,520 ft	89.3	177.5

Jeff Thomas

PRINT YOUR NAME ABOVE

Jeff Thomas

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	
7.41	
DECLINATION OR GRID	DECLINATION

4/30/2014

TODAY'S DATE

MWD SUPERVISOR 1

Jeff Thomas

DIRECTIONAL DRILLER 1

Jonathon Schlottman

MWD SUPERVISOR 2

Shawn Ramnarine

DIRECTIONAL DRILLER 2

Lee Scoggins

1805 Brittmore Road

Houston, Texas 77043

(713)3370609 (Voice), (713)337-0599 (Fax)

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 13354	Pool Name CORRAL CANYON; BONE SPRING, SOUTH
Property Code	Property Name NORTH BRUSHY DRAW FEDERAL 35	Well Number 9H
OGRID No. 246289	Operator Name RKI EXPLORATION & PRODUCTION	Elevation 3032'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	35	25 S	29 E		300	NORTH	260	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	35	25 S	29 E		230	SOUTH	350	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidated Code	Order No.
160			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

NW COR SEC 35 NMSP-E (NAD 83) N (Y) = 397973.5 E (X) = 655831.6' LAT. = 32°05'36.84" N LONG. = 103°57'49.02" W	NORTH BRUSHY DRAW FEDERAL 35 9H SHL NMSP-E (NAD 83) N (Y) = 397687.6' E (X) = 660881.9' LAT. = 32°05'33.84" N LONG. = 103°56'50.29" W NMSP-E (NAD 27) N (Y) = 397629.6' E (X) = 619696.7' LAT. = 32.0926101° N LONG. = 103.9468205° W	FIRST TAKE 330' FNL 350' FEL NE COR SEC 35 NMSP-E (NAD 83) N (Y) = 397988.3 E (X) = 661140.7' LAT. = 32°05'36.81" N LONG. = 103°56'47.27" W
SW COR SEC 35 NMSP-E (NAD 83) N (Y) = 392663.4 E (X) = 655847.1' LAT. = 32°04'44.30" N LONG. = 103°57'49.02" W	NORTH BRUSHY DRAW FEDERAL 35 9H BHL NMSP-E (NAD 83) N (Y) = 392909.6' E (X) = 660813.3' LAT. = 32°04'46.56" N LONG. = 103°56'51.29" W NMSP-E (NAD 27) N (Y) = 392851.7' E (X) = 619627.9' LAT. = 32.0794764° N LONG. = 103.9470980° W	LAST TAKE 330' FSL 545' FEL SE COR SEC 35 NMSP-E (NAD 83) N (Y) = 392680.8 E (X) = 661164.4' LAT. = 32°04'44.28" N LONG. = 103°56'47.21" W

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

Signature _____ Date _____

Print Name _____

E-mail Address _____

SURVEYORS 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.

December 29, 2013
Date of Survey _____

Signature and Seal of Professional Surveyor _____

Job No.: WTC49483
JAMES E. TOMPKINS 14729
Certificate Number _____



RKI Exploration

Eddy County, New Mexico (NAD 83)

North Brushy Draw Federal 35

9H

Wellbore #1 Job #1410564

Survey: Phoenix MWD Surveys

Survey Report

30 April, 2014





Phoenix Technology Services

Survey Report



Company:	RKI Exploration	Local Co-ordinate Reference:	Well 9H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Site:	North Brushy Draw Federal 35	MD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Well:	9H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1410564	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 10)	Database:	Compass 5000 GCR DB

Project: Eddy County, New Mexico (NAD 83)			
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		North Brushy Draw Federal 35				
Site Position:		Northing:	397,687.60	usft	Latitude:	32° 5' 33.84431 N
From:	Map	Easting:	660,881.90	usft	Longitude:	103° 56' 50.29307 W
Position Uncertainty:	0.00	Slot Radius:	13-3/16	"	Grid Convergence:	0.21 °

Well		9H				
Well Position	+N/-S	0.00 usft	Northing:	397,687.60 usft	Latitude:	32° 5' 33.84431 N
	+E/-W	0.00 usft	Easting:	660,881.90 usft	Longitude:	103° 56' 50.29307 W
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,032.00 usft	

Wellbore					
Wellbore #1 Job #1410564					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010_14	04/02/14	7.41	59.93	48,220

Design		Surveys (Silver Oak 10)			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	181.42	

Survey Program		Date: 04/30/14		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
665.00	13,520.00	Phoenix MWD Surveys (Wellbore #1 Job #	MWD	MWD - Standard



Phoenix Technology Services

Survey Report



Company:	RKI Exploration	Local Co-ordinate Reference:	Well 9H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Site:	North Brushy Draw Federal 35	MD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Well:	9H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1410564	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 10)	Database:	Compass 5000 GCR DB

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
0.00	0.00	0.00	0.00	-3,049.00	0.00	0.00	0.00	0.00	0.00	397,687.60	660,881.90
665.00	1.80	198.50	-2,384.11	664.89	-9.91	-3.31	9.98	0.27	397,677.69	660,878.59	
First Phoenix Survey											
726.00	2.20	201.00	-2,323.15	725.85	-11.91	-4.04	12.00	0.67	397,675.69	660,877.86	
818.00	2.70	225.10	-2,231.23	817.77	-15.08	-6.21	15.23	1.23	397,672.52	660,875.69	
910.00	3.50	231.10	-2,139.36	909.64	-18.38	-9.93	18.62	0.94	397,669.22	660,871.97	
1,002.00	5.40	243.70	-2,047.64	1,001.36	-22.06	-15.99	22.45	2.31	397,665.54	660,865.91	
1,093.00	6.70	248.10	-1,957.15	1,091.85	-25.94	-24.76	26.54	1.52	397,661.66	660,857.14	
1,184.00	7.50	241.30	-1,866.85	1,182.15	-30.77	-34.89	31.62	1.27	397,656.83	660,847.01	
1,276.00	6.80	238.90	-1,775.56	1,273.44	-36.47	-44.82	37.57	0.83	397,651.13	660,837.08	
1,368.00	5.50	234.80	-1,684.10	1,364.90	-41.82	-53.09	43.12	1.49	397,645.78	660,828.81	
1,462.00	5.40	239.60	-1,590.52	1,458.48	-46.66	-60.59	48.14	0.50	397,640.94	660,821.31	
1,558.00	5.20	251.00	-1,494.93	1,554.07	-50.36	-68.60	52.04	1.11	397,637.24	660,813.30	
1,653.00	4.20	287.60	-1,400.23	1,648.77	-50.71	-75.98	52.58	3.26	397,636.89	660,805.92	
1,747.00	4.80	296.50	-1,306.52	1,742.48	-47.91	-82.78	49.95	0.98	397,639.69	660,799.12	
1,840.00	5.20	291.40	-1,213.87	1,835.13	-44.64	-90.19	46.86	0.64	397,642.96	660,791.71	
1,935.00	4.40	280.40	-1,119.20	1,929.80	-42.41	-97.78	44.82	1.28	397,645.19	660,784.12	
2,028.00	5.00	274.20	-1,026.51	2,022.49	-41.47	-105.33	44.07	0.84	397,646.13	660,776.57	
2,124.00	5.20	277.40	-930.89	2,118.11	-40.60	-113.82	43.41	0.36	397,647.00	660,768.08	
2,217.00	3.80	270.10	-838.18	2,210.82	-40.05	-121.08	43.04	1.62	397,647.55	660,760.82	
2,311.00	3.40	257.80	-744.37	2,304.63	-40.64	-126.92	43.77	0.92	397,646.96	660,754.98	
2,405.00	3.00	257.00	-650.51	2,398.49	-41.78	-132.04	45.04	0.43	397,645.82	660,749.86	
2,499.00	1.30	270.40	-556.58	2,492.42	-42.33	-135.51	45.67	1.87	397,645.27	660,746.39	
2,592.00	1.10	286.20	-463.60	2,585.40	-42.07	-137.42	45.46	0.41	397,645.53	660,744.48	
2,686.00	0.50	3.20	-369.61	2,679.39	-41.41	-138.26	44.82	1.17	397,646.19	660,743.64	
2,781.00	0.80	37.90	-274.62	2,774.38	-40.47	-137.83	43.87	0.51	397,647.13	660,744.07	
2,876.00	1.30	68.70	-179.63	2,869.37	-39.56	-136.42	42.93	0.78	397,648.04	660,745.48	



Phoenix Technology Services

Survey Report



Company:	RKI Exploration	Local Co-ordinate Reference:	Well 9H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Site:	North Brushy Draw Federal 35	MD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Well:	9H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1410564	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 10)	Database:	Compass 5000 GCR DB

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
2,970.00	3.00	90.80	-85.70	2,963.30	-39.20	-132.97	42.49	1.98	397,648.40	660,748.93	
3,066.00	4.60	98.70	10.09	3,059.09	-39.82	-126.65	42.95	1.75	397,647.78	660,755.25	
3,126.00	5.90	99.80	69.83	3,118.83	-40.71	-121.23	43.70	2.17	397,646.89	660,760.67	
3,254.00	7.50	98.40	196.96	3,245.96	-43.05	-106.48	45.68	1.26	397,644.55	660,775.42	
3,348.00	6.20	112.70	290.29	3,339.29	-45.91	-95.73	48.26	2.27	397,641.69	660,786.17	
3,444.00	5.90	117.60	385.75	3,434.75	-50.19	-86.58	52.32	0.62	397,637.41	660,795.32	
3,540.00	3.80	138.90	481.41	3,530.41	-54.88	-80.11	56.84	2.85	397,632.72	660,801.79	
3,634.00	3.40	142.30	575.23	3,624.23	-59.43	-76.36	61.30	0.48	397,628.17	660,805.54	
3,730.00	2.10	145.00	671.11	3,720.11	-63.12	-73.61	64.93	1.36	397,624.48	660,808.29	
3,824.00	0.80	117.20	765.08	3,814.08	-64.83	-72.04	66.60	1.53	397,622.77	660,809.86	
3,919.00	1.80	283.90	860.07	3,909.07	-64.78	-72.90	66.56	2.72	397,622.82	660,809.00	
4,013.00	1.90	293.10	954.02	4,003.02	-63.81	-75.76	65.67	0.33	397,623.79	660,806.14	
4,109.00	1.80	292.00	1,049.97	4,098.97	-62.62	-78.62	64.55	0.11	397,624.98	660,803.28	
4,204.00	1.90	292.00	1,144.92	4,193.92	-61.47	-81.47	63.47	0.11	397,626.13	660,800.43	
4,300.00	1.90	290.50	1,240.87	4,289.87	-60.32	-84.43	62.39	0.05	397,627.28	660,797.47	
4,584.00	1.80	291.40	1,524.72	4,573.72	-57.04	-93.00	59.33	0.04	397,630.56	660,788.90	
4,866.00	1.20	298.50	1,806.62	4,855.62	-54.02	-99.72	56.47	0.22	397,633.58	660,782.18	
5,129.00	0.80	288.00	2,069.58	5,118.58	-52.14	-103.88	54.70	0.17	397,635.46	660,778.02	
5,432.00	0.80	283.10	2,372.55	5,421.55	-51.00	-107.95	53.66	0.02	397,636.60	660,773.95	
5,713.00	0.90	247.00	2,653.53	5,702.53	-51.42	-111.90	54.18	0.19	397,636.18	660,770.00	
5,994.00	1.10	222.60	2,934.48	5,983.48	-54.27	-115.75	57.12	0.17	397,633.33	660,766.15	
6,277.00	1.30	237.60	3,217.42	6,266.42	-57.99	-120.30	60.95	0.13	397,629.61	660,761.60	
6,560.00	3.40	260.00	3,500.17	6,549.17	-61.17	-131.28	64.40	0.80	397,626.43	660,750.62	
6,846.00	5.40	256.00	3,785.32	6,834.32	-65.90	-152.69	69.66	0.71	397,621.70	660,729.21	
6,940.00	3.30	254.00	3,879.04	6,928.04	-67.71	-159.58	71.65	2.24	397,619.89	660,722.32	
7,035.00	1.20	288.50	3,973.97	7,022.97	-68.15	-163.16	72.17	2.54	397,619.45	660,718.74	
7,128.00	2.10	324.30	4,066.93	7,115.93	-66.46	-165.07	70.53	1.43	397,621.14	660,716.83	



Phoenix Technology Services

Survey Report



Company:	RKI Exploration	Local Co-ordinate Reference:	Well 9H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Site:	North Brushy Draw Federal 35	MD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Well:	9H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1410564	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 10)	Database:	Compass 5000 GCR DB

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
7,223.00	2.20	336.50	4,161.86	7,210.86	-63.37	-166.82	67.49	0.49	397,624.23	660,715.08	
7,318.00	1.50	327.00	4,256.81	7,305.81	-60.66	-168.22	64.81	0.80	397,626.94	660,713.68	
7,412.00	2.00	287.60	4,350.77	7,399.77	-59.13	-170.45	63.33	1.35	397,628.47	660,711.45	
7,506.00	1.20	268.40	4,444.73	7,493.73	-58.66	-173.00	62.93	1.01	397,628.94	660,708.90	
7,599.00	0.30	63.40	4,537.73	7,586.73	-58.58	-173.76	62.87	1.59	397,629.02	660,708.14	
7,693.00	0.80	63.80	4,631.72	7,680.72	-58.18	-172.95	62.45	0.53	397,629.42	660,708.95	
7,787.00	0.20	29.30	4,725.72	7,774.72	-57.75	-172.28	62.00	0.69	397,629.85	660,709.62	
7,881.00	1.70	19.30	4,819.70	7,868.70	-56.29	-171.74	60.53	1.60	397,631.31	660,710.16	
7,974.00	2.00	25.10	4,912.66	7,961.66	-53.51	-170.59	57.73	0.38	397,634.09	660,711.31	
8,067.00	1.50	23.80	5,005.61	8,054.61	-50.93	-169.42	55.11	0.54	397,636.67	660,712.48	
8,161.00	1.10	39.50	5,099.59	8,148.59	-49.11	-168.34	53.27	0.57	397,638.49	660,713.56	
8,255.00	0.90	46.10	5,193.57	8,242.57	-47.90	-167.24	52.03	0.25	397,639.70	660,714.66	
8,307.00	0.50	53.10	5,245.57	8,294.57	-47.48	-166.76	51.60	0.79	397,640.12	660,715.14	
8,349.00	0.60	35.80	5,287.57	8,336.57	-47.19	-166.49	51.30	0.46	397,640.41	660,715.41	
8,380.00	0.10	314.30	5,318.57	8,367.57	-47.04	-166.41	51.15	1.91	397,640.56	660,715.49	
8,411.00	1.50	184.00	5,349.56	8,398.56	-47.43	-166.46	51.54	5.05	397,640.17	660,715.44	
8,442.00	5.00	174.70	5,380.51	8,429.51	-49.18	-166.36	53.29	11.38	397,638.42	660,715.54	
8,473.00	8.50	172.40	5,411.29	8,460.29	-52.80	-165.94	56.89	11.32	397,634.80	660,715.96	
8,505.00	12.00	172.20	5,442.77	8,491.77	-58.44	-165.17	62.51	10.94	397,629.16	660,716.73	
8,536.00	14.90	170.90	5,472.92	8,521.92	-65.57	-164.10	69.61	9.40	397,622.03	660,717.80	
8,567.00	17.00	169.70	5,502.73	8,551.73	-73.96	-162.66	77.97	6.86	397,613.64	660,719.24	
8,598.00	19.20	167.90	5,532.19	8,581.19	-83.41	-160.78	87.37	7.32	397,604.19	660,721.12	
8,629.00	21.60	170.20	5,561.24	8,610.24	-94.02	-158.74	97.92	8.16	397,593.58	660,723.16	
8,660.00	23.70	170.20	5,589.85	8,638.85	-105.78	-156.71	109.63	6.77	397,581.82	660,725.19	
8,691.00	24.80	170.90	5,618.12	8,667.12	-118.34	-154.62	122.13	3.67	397,569.26	660,727.28	
8,722.00	26.60	173.30	5,646.05	8,695.05	-131.65	-152.78	135.40	6.71	397,555.95	660,729.12	
8,753.00	28.20	177.60	5,673.57	8,722.57	-145.87	-151.67	149.58	8.21	397,541.73	660,730.23	



Phoenix Technology Services

Survey Report



Company:	RKI Exploration	Local Co-ordinate Reference:	Well: 9H
Project:	Eddy County- New Mexico (NAD 83)	TVD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Site:	North Brushy Draw Federal 35	MD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Well:	9H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1410564	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 10)	Database:	Compass 5000 GCR DB

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
8,784.00	29.20	182.30	5,700.77	8,749.77	-160.74	-151.66	164.45	7.96	397,526.86	660,730.24	
8,815.00	32.80	183.40	5,727.34	8,776.34	-176.68	-152.47	180.41	11.76	397,510.92	660,729.43	
8,847.00	34.30	184.10	5,754.00	8,803.00	-194.33	-153.62	198.08	4.84	397,493.27	660,728.28	
8,878.00	37.90	181.80	5,779.05	8,828.05	-212.57	-154.55	216.33	12.41	397,475.03	660,727.35	
8,909.00	42.30	181.30	5,802.76	8,851.76	-232.52	-155.08	236.29	14.23	397,455.08	660,726.82	
8,940.00	46.50	179.10	5,824.90	8,873.90	-254.20	-155.14	257.97	14.43	397,433.40	660,726.76	
8,971.00	49.30	179.40	5,845.68	8,894.68	-277.20	-154.85	280.95	9.06	397,410.40	660,727.05	
9,000.00	49.80	181.40	5,864.50	8,913.50	-299.27	-155.00	303.02	5.52	397,388.33	660,726.90	
9,031.00	53.00	178.50	5,883.84	8,932.84	-323.49	-154.97	327.23	12.65	397,364.11	660,726.93	
9,062.00	57.10	178.80	5,901.59	8,950.59	-348.88	-154.37	352.60	13.25	397,338.72	660,727.53	
9,093.00	60.60	178.90	5,917.63	8,966.63	-375.40	-153.84	379.10	11.29	397,312.20	660,728.06	
9,124.00	63.40	178.70	5,932.18	8,981.18	-402.77	-153.26	406.44	9.05	397,284.83	660,728.64	
9,155.00	66.50	180.20	5,945.30	8,994.30	-430.85	-153.00	434.50	10.92	397,256.75	660,728.90	
9,186.00	69.50	181.80	5,956.92	9,005.92	-459.58	-153.50	463.24	10.80	397,228.02	660,728.40	
9,218.00	72.20	183.00	5,967.41	9,016.41	-489.78	-154.77	493.46	9.15	397,197.82	660,727.13	
9,249.00	75.40	183.20	5,976.06	9,025.06	-519.50	-156.38	523.22	10.34	397,168.10	660,725.52	
9,280.00	77.80	183.50	5,983.24	9,032.24	-549.60	-158.15	553.35	7.80	397,138.00	660,723.75	
9,311.00	79.90	182.40	5,989.24	9,038.24	-579.97	-159.71	583.75	7.62	397,107.63	660,722.19	
9,343.00	81.80	182.50	5,994.33	9,043.33	-611.54	-161.06	615.34	5.95	397,076.06	660,720.84	
9,374.00	85.40	182.90	5,997.78	9,046.78	-642.30	-162.51	646.13	11.68	397,045.30	660,719.39	
9,405.00	88.60	182.60	5,999.40	9,048.40	-673.22	-164.00	677.08	10.37	397,014.38	660,717.90	
9,498.00	91.10	182.80	5,999.65	9,048.65	-766.11	-168.38	770.05	2.70	396,921.49	660,713.52	
9,592.00	90.90	183.20	5,998.01	9,047.01	-859.97	-173.30	864.00	0.48	396,827.63	660,708.60	
9,685.00	90.10	181.60	5,997.20	9,046.20	-952.88	-177.19	956.98	1.92	396,734.72	660,704.71	
9,779.00	90.40	178.00	5,996.78	9,045.78	-1,046.86	-176.86	1,050.92	3.84	396,640.74	660,705.04	
9,872.00	89.90	178.40	5,996.54	9,045.54	-1,139.82	-173.94	1,143.78	0.69	396,547.78	660,707.96	
9,966.00	89.10	178.30	5,997.36	9,046.36	-1,233.77	-171.23	1,237.64	0.86	396,453.83	660,710.67	



Phoenix Technology Services

Survey Report



Company:	RKI Exploration	Local Co-ordinate Reference:	Well 9H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Site:	North Brushy Draw Federal 35	MD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Well:	9H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1410564	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 10)	Database:	Compass 5000_GCR DB

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg ("/100usft)	Northing (usft)	Easting (usft)	
10,059.00	90.00	177.50	5,998.09	9,047.09	-1,326.70	-167.83	1,330.46	1.29	396,360.90	660,714.07	
10,152.00	90.00	177.40	5,998.09	9,047.09	-1,419.61	-163.69	1,423.23	0.11	396,267.99	660,718.21	
10,246.00	91.10	176.80	5,997.19	9,046.19	-1,513.49	-158.93	1,516.96	1.33	396,174.11	660,722.97	
10,339.00	90.60	179.10	5,995.81	9,044.81	-1,606.41	-155.61	1,609.77	2.53	396,081.19	660,726.29	
10,432.00	91.60	179.60	5,994.02	9,043.02	-1,699.39	-154.55	1,702.69	1.20	395,988.21	660,727.35	
10,526.00	91.00	179.70	5,991.89	9,040.89	-1,793.36	-153.98	1,796.62	0.65	395,894.24	660,727.92	
10,619.00	93.60	179.90	5,988.16	9,037.16	-1,886.28	-153.65	1,889.50	2.80	395,801.32	660,728.25	
10,712.00	92.90	179.30	5,982.89	9,031.89	-1,979.12	-153.01	1,982.31	0.99	395,708.48	660,728.89	
10,806.00	91.90	180.60	5,978.95	9,027.95	-2,073.04	-152.92	2,076.19	1.74	395,614.56	660,728.98	
10,899.00	91.30	181.00	5,976.35	9,025.35	-2,165.99	-154.22	2,169.15	0.78	395,521.61	660,727.68	
10,992.00	90.90	181.50	5,974.57	9,023.57	-2,258.95	-156.25	2,262.13	0.69	395,428.65	660,725.65	
11,086.00	90.00	182.20	5,973.83	9,022.83	-2,352.90	-159.28	2,356.12	1.21	395,334.70	660,722.62	
11,180.00	89.90	182.60	5,973.91	9,022.91	-2,446.81	-163.22	2,450.11	0.44	395,240.79	660,718.68	
11,274.00	90.90	180.10	5,973.26	9,022.26	-2,540.78	-165.44	2,544.10	2.86	395,146.82	660,716.46	
11,367.00	91.30	179.20	5,971.47	9,020.47	-2,633.76	-164.87	2,637.03	1.06	395,053.84	660,717.03	
11,461.00	92.20	178.40	5,968.60	9,017.60	-2,727.69	-162.90	2,730.89	1.28	394,959.91	660,719.00	
11,555.00	91.80	179.10	5,965.32	9,014.32	-2,821.61	-160.85	2,824.73	0.86	394,865.99	660,721.05	
11,648.00	90.10	179.40	5,963.78	9,012.78	-2,914.59	-159.63	2,917.65	1.86	394,773.01	660,722.27	
11,741.00	88.80	178.30	5,964.67	9,013.67	-3,007.56	-157.77	3,010.55	1.83	394,680.04	660,724.13	
11,834.00	90.10	176.90	5,965.56	9,014.56	-3,100.47	-153.87	3,103.33	2.05	394,587.13	660,728.03	
11,927.00	90.80	176.80	5,964.83	9,013.83	-3,193.33	-148.76	3,196.03	0.76	394,494.27	660,733.14	
12,020.00	90.70	176.00	5,963.62	9,012.62	-3,286.13	-142.92	3,288.67	0.87	394,401.47	660,738.98	
12,114.00	89.60	176.40	5,963.37	9,012.37	-3,379.93	-136.69	3,382.28	1.25	394,307.67	660,745.21	
12,207.00	91.20	175.40	5,962.72	9,011.72	-3,472.68	-130.05	3,474.84	2.03	394,214.92	660,751.85	
12,303.00	91.40	174.80	5,960.54	9,009.54	-3,568.31	-121.85	3,570.23	0.66	394,119.29	660,760.05	
12,396.00	91.80	176.00	5,957.95	9,006.95	-3,660.97	-114.39	3,662.68	1.36	394,026.63	660,767.51	
12,489.00	92.00	178.20	5,954.86	9,003.86	-3,753.79	-109.69	3,755.36	2.37	393,933.81	660,772.21	



Phoenix Technology Services

Survey Report



Company:	RKI Exploration	Local Co-ordinate Reference:	Well 9H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Site:	North Brushy Draw Federal 35	MD Reference:	WELL @ 3049.00usft (Silver Oak 10)
Well:	9H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1410564	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 10)	Database:	Compass 5000 GCR DB

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
12,582.00	91.60	180.30	5,951.94	9,000.94	-3,846.73	-108.47	3,848.24	2.30	393,840.87	660,773.43	
12,675.00	90.40	179.90	5,950.32	8,999.32	-3,939.72	-108.64	3,941.20	1.36	393,747.88	660,773.26	
12,769.00	90.00	179.00	5,949.99	8,998.99	-4,033.71	-107.73	4,035.14	1.05	393,653.89	660,774.17	
12,862.00	90.20	179.00	5,949.83	8,998.83	-4,126.70	-106.11	4,128.06	0.22	393,560.90	660,775.79	
12,956.00	89.20	177.60	5,950.32	8,999.32	-4,220.65	-103.32	4,221.91	1.83	393,466.95	660,778.58	
13,050.00	90.40	177.10	5,950.65	8,999.65	-4,314.55	-98.98	4,315.67	1.38	393,373.05	660,782.92	
13,143.00	92.80	176.70	5,948.05	8,997.05	-4,407.37	-93.95	4,408.34	2.62	393,280.23	660,787.95	
13,236.00	92.00	176.90	5,944.16	8,993.16	-4,500.14	-88.76	4,500.96	0.89	393,187.46	660,793.14	
13,330.00	91.10	177.00	5,941.61	8,990.61	-4,593.97	-83.76	4,594.64	0.96	393,093.63	660,798.14	
13,423.00	89.80	177.20	5,940.88	8,989.88	-4,686.85	-79.06	4,687.37	1.41	393,000.75	660,802.84	
13,465.00	89.30	177.50	5,941.21	8,990.21	-4,728.80	-77.12	4,729.26	1.39	392,958.80	660,804.78	
Final Phoenix Survey											
13,520.00	89.30	177.50	5,941.88	8,990.88	-4,783.74	-74.72	4,784.13	0.00	392,903.86	660,807.18	
Projection to TD											

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
665.00	664.89	-9.91	-3.31	First Phoenix Survey
13,465.00	8,990.21	-4,728.80	-77.12	Final Phoenix Survey
13,520.00	8,990.88	-4,783.74	-74.72	Projection to TD

Checked By: _____	Approved By: _____	Date: _____
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