



PHOENIX

TECHNOLOGY SERVICES USA INC.

Celebrating 20 Years of Focused Solutions

3610 Elkins Road, Midland, Texas 79705 T. 432.684.0057 F. 432.686.7964 www.phxtech.com

November 7, 2016

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

Dear District 2 - Artesia

Attention: Regulatory Department

Re: BC Operating
Sterling 20 State #14
Eddy County, NM
API #30-015-42731
Job No. 60503

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 17 2016

RECEIVED

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 of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Noe Garza	14	0	413	11/3/16	11/3/16	Gyro

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,

Brittany Carley

Brittany Carley
Operations Administrator

SURVEY CERTIFICATION FORM



3610 Elkins Road Midland, TX 79705 t:432-684-0057 f: 432-686-7964

Company: BC Operating

Job #: 60503

Well Name: Sterling 20 State # 14

County/State: Eddy Co., New Mexico

Survey Instrument Type: North Seek Rate Gyro

API # 30-015-42731

TIE-IN DATA

Measure Depth (ft)	Vertical Depth (ft)	Inclination (°)	Azimuth (°)	N-S Coordinates	E-W Coordinates	Data Source
0	0	0	0	0	0	Surface

First Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2016-11-03	0	0	0

Last Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2016-11-03	413	1.6	342.34

Projected TD Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
0	0	0	0

Grid Correction
-0.07

Gyro Operator: Phoenix Technology Services USA Ltd.

Gyro Supervisor: Jaime Stephenson

To the best of my knowledge I certify this survey data to be correct and true

Date: 11-03-16

Print Name: Noe Garza

Signature: 



PHOENIX

TECHNOLOGY SERVICES

Company: BC Operating
Well: Sterling 20 State # 14
Location: Eddy Co., New Mexico
Rig: Patterson 244

Job Number: 60503
Grid Corr.: -0.07
Lat: 32.30
Long: -104.21

Date: 11-03-16
Calculation Method: Minimum Curvature
Proposed Azimuth: 180.9
RKB - MSL in feet: 28.5
Tie Into: Surface

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
Enter Tie-In Survey on Line 10													
FIELD COPY, NON-DEFINITIVE													
TIE IN	0			0	0	0	0						
Gyro	107.55	0.11	164.58	108	107.55	0.10	0.10	S	0.03	E	0.10	0.10	153.03
	206.89	0.53	53.75	99	206.89	-0.09	0.08	N	0.42	E	0.43	0.42	-111.57
	296.12	0.99	0.81	89	296.11	-1.11	1.10	N	0.77	E	1.34	0.89	-59.33
	388.08	1.54	346.21	92	388.05	-3.10	3.09	N	0.48	E	3.13	0.69	375.60
	413.00	1.60	342.34	25	412.96	-3.75	3.75	N	0.30	E	3.76	0.49	-15.53