



**PHOENIX
TECHNOLOGY SERVICES**

April 23, 2018

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

Dear District 2 - Artesia

Re: Delaware Energy
Johelen SWD 1
Eddy Co., New Mexico
API #30-015-44866
Job No. 62711

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. 606018). Other information required by your office is as follows:

Name & Title of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Andy Askew	1	0	430	4/22/18	4/22/18	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

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MAY 14 2018

DISTRICT II-ARTESIA O.C.D.

SURVEY CERTIFICATION FORM



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

Company: Delaware Energy

Job #: 62711

Well Name: Johelen SWD 1

County/State: Eddy/ NM

Survey Instrument Type: North Seek Rate Gyro

API # 30-015-44866

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 (°)
2018-04-22	0	0	0

Last Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2018-04-22	430	1.41	151.15

Projected TD Survey

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

Grid Correction
-0.05

Gyro Operator: Phoenix Technology Services USA Ltd.

Gyro Supervisor: Angel Guebara

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

Date: 4/23/18

Print Name: Andy Askew

Signature:



Company: Delaware Energy
 Well: Johelen SWD 1
 Location: Eddy Co., NM
 Rig: UDI 50

Job Number: 62711
 Grid Corr.: -0.05
 Lat: 32.05
 Long: -104.24

Date: 04-22-18
 Calculation Method: Minimum Curvature
 Proposed Azimuth: _____
 RKB - MSL in feet: 26.5
 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	0					
Gyro	100.00	0.38	140.62	100	100.00	-0.26	0.26 S	0.21 E	0.33	140.62	0.38	0.38	140.62
	200.00	0.74	130.48	100	199.99	-0.93	0.93 S	0.91 E	1.30	135.62	0.37	0.36	-10.14
	300.00	1.04	142.21	100	299.98	-2.07	2.07 S	1.96 E	2.85	136.55	0.35	0.30	11.73
	400.00	1.40	138.50	100	399.96	-3.70	3.70 S	3.32 E	4.97	138.06	0.37	0.36	-3.71
	430.00	1.41	151.15	30	429.95	-4.30	4.30 S	3.75 E	5.70	138.93	1.03	0.03	42.17

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MAY 14 2018

Form C-102
Revised August 1, 2011

DISTRICT I
1825 N. Fritch Dr., Hobbs, NM 88240
Phone (575) 393-0161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1243 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 834-0170 Fax: (505) 834-0170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 478-9480 Fax: (505) 478-9425

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

to appropriate District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-015-44866	Pool Code 96101	Pool Name SWO; Deuma
Code 321176	Property Name JOHELEN SWD	
OGRID No. 371195	Operator Name DELAWARE ENERGY	Well Number 1
		Elevation 3245'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	12	26 S	26 E		975	SOUTH	2373	WEST	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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SURFACE LOCATION
 Lot - N 32.052481'
 Long - W 104.247541'
 NMSPC - N 382841.0 E 367918.9
 (NAD-83)

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 undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

[Signature] **3/8/2018**
 Signature Date
Mike McCurdy
 Printed Name
m.mccurdy@delawareenergy.com
 Email Address

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.

DECEMBER 12 2018
 Date Surveyed
[Signature]
 Signature of Professional Surveyor
7977
 Certificate No.
BASIN

0' 1000' 2000' 3000' 4000'
 SCALE: 1" = 2000'
 WO Num.: 33462

BWP 4-13-18