



Railroad Commission of Texas
Oil and Gas Division
P.O. Box 12967
Capitol Station
Austin, Texas 78711

April 20, 2017


Attn: Pam Johns

Re: SEM Operating Company LLC
University 9C 1207WA
Reagan County, Texas
API#: 383-39819

Enclosed, please find the original of the survey performed on the referenced well by SunDrill Energy Services (Operator No. 829286) Supervised by Cameron Stevens. Other information required by your office is as follows:

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
A Regan	1207WA	0-560	4/9/17-4/12/17	MWD

A certified plat on which the bottom-hole location is oriented to the surface location is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.


Cameron Stevens
MWD Manager
SunDrill Energy Services

Enclosures

SunDrill Energy Services
6230 Bingle Rd Houston, TX 77092
Phone (832) 879-2560



Minimum Curvature Calculation

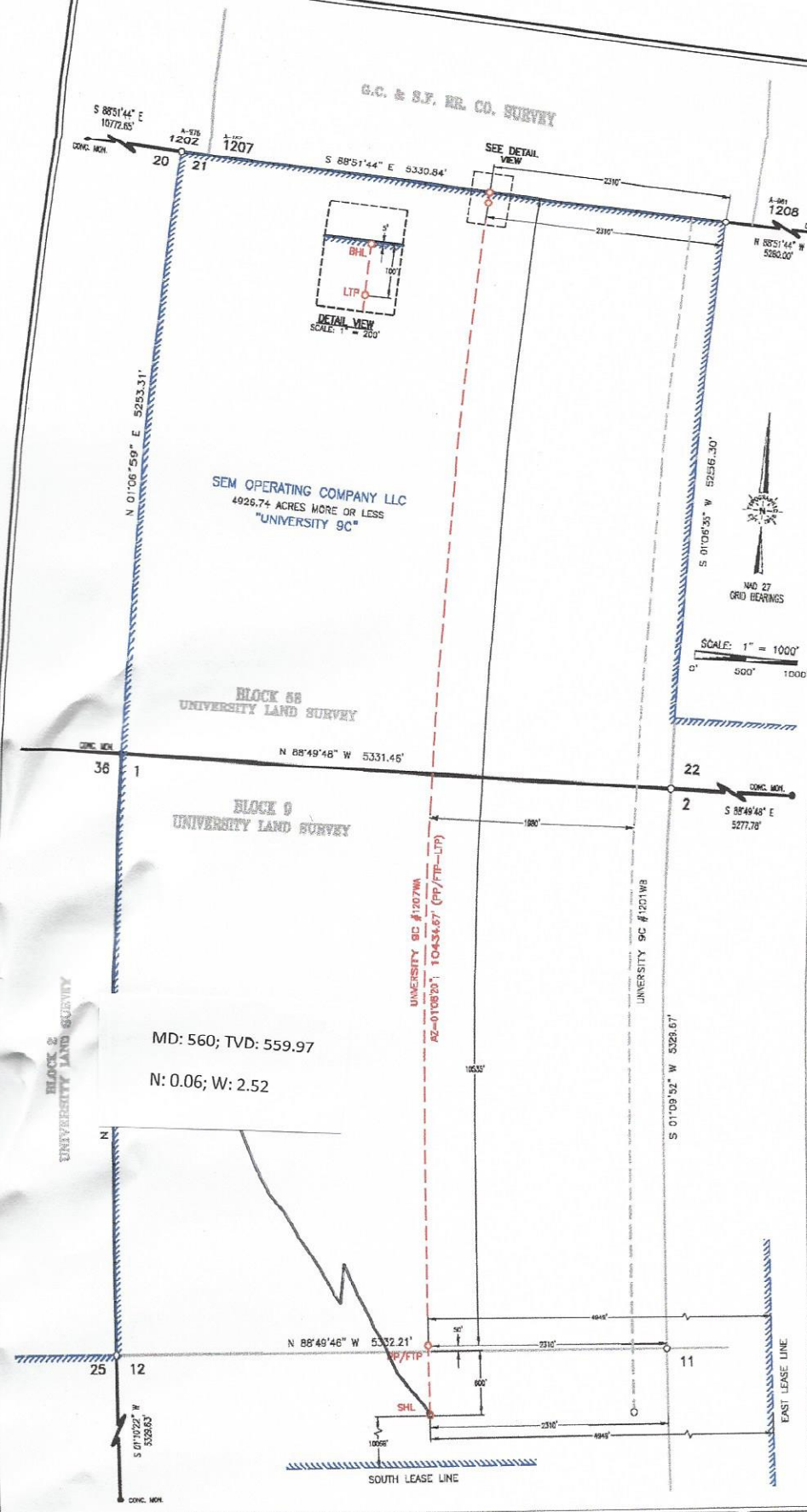
Client: SEM
Well: University 9C 1207WA
County: Reagan Co, TX
Rig: Integrity Services Rig 2

M.W.D. Operators: A. Regan
 Directional Drillers:
 Tool Azimuth to Grid North: 6.68
 Job #: 17-PB-590

Vertical Section Angle: 0.00

API#: 42-383-39819

Sur #	Meas. Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N / -S	+E / -W	DLS
Tie In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	116.00	0.50	274.30	116.00	0.04	0.04	-0.50	0.43
2	180.00	0.40	187.40	180.00	-0.16	-0.16	-0.81	0.97
3	275.00	0.30	117.80	275.00	-0.61	-0.61	-0.63	0.43
4	369.00	0.60	208.80	368.99	-1.15	-1.15	-0.65	0.72
5	401.00	0.30	233.20	400.99	-1.35	-1.35	-0.80	1.09
6	495.00	1.40	326.40	494.98	-0.54	-0.54	-1.63	1.54
7	560.00	0.80	261.90	559.97	0.06	0.06	-2.52	1.97
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Surface Hole Location:
 GROUND ELEVATION:
 SHL Ground Elevation: 2631'
 COORDINATES:
 NAD 27 TX-C ZONE:
 X = 1585818.11 Y = 591738.70
 LAT.: N 31°17'12.97" LONG.: W 101°39'33.55"
 NAD 83 TX-C ZONE:
 X = 1882286.12 Y = 10434315.39
 LAT.: N 31°17'13.51" LONG.: W 101°39'34.99"
 SURVEY LINE PERPENDICULARS:
 600' FNL & 2310' FEL (SEC. 12)
 UNIT LINE PERPENDICULARS:
 10058' FSL & 4949' FEL

**Penetration Point/
 First Take Point:**
 COORDINATES:
 NAD 27 TX-C ZONE:
 X = 1585831.02 Y = 592388.58
 LAT.: N 31°17'19.41" LONG.: W 101°39'33.49"
 NAD 83 TX-C ZONE:
 X = 1882299.04 Y = 10434965.26
 LAT.: N 31°17'19.95" LONG.: W 101°39'34.93"
 SURVEY LINE PERPENDICULARS:
 50' FSL & 2310' FEL (SEC. 1)
 UNIT LINE PERPENDICULARS:
 10535' FNL & 4949' FEL

Last Take Point:
 COORDINATES:
 NAD 27 TX-C ZONE:
 X = 1586038.41 Y = 602821.19
 LAT.: N 31°19'02.69" LONG.: W 101°39'32.54"
 NAD 83 TX-C ZONE:
 X = 1882306.45 Y = 10445397.87
 LAT.: N 31°19'03.22" LONG.: W 101°39'33.97"
 SURVEY LINE PERPENDICULARS:
 100' FNL & 2310' FEL (SEC. 21)
 UNIT LINE PERPENDICULARS:
 100' FNL & 2310' FEL

Bottom Hole Location:
 COORDINATES:
 NAD 27 TX-C ZONE:
 X = 1586040.30 Y = 602916.17
 LAT.: N 31°19'03.63" LONG.: W 101°39'32.53"
 NAD 83 TX-C ZONE:
 X = 1882308.34 Y = 10445492.85
 LAT.: N 31°19'04.16" LONG.: W 101°39'33.96"
 SURVEY LINE PERPENDICULARS:
 5' FNL & 2310' FEL (SEC. 21)
 UNIT LINE PERPENDICULARS:
 5' FNL & 2310' FEL

All Coordinates are in NAD 27 TX-C Zone unless otherwise noted.

REV#-BY	DATE REVISED	REV#-BY	DATE REVISED
MP	01-30-2017	1-XXX	XX/XX/XX
MP	02-21-2017		

SPECIAL NOTES:

Unit Boundary	Section Lines
Block Line	Powerline
Pipeline	Pipeline
Lease Road	Lease Road
Calculated Corner	Calculated Corner

CERTIFICATION:
 This well location shown on this permit plat was surveyed on the ground under my direct supervision. This plat is for Texas Railroad Commission permit purposes only and should not be considered a boundary survey.

William J. Keating
 Texas Reg. No. 5041



TOPOGRAPHIC
 LOYALTY INNOVATION LEGACY
 2903 NORTH BIG SPRING AVE., MIDLAND, TEXAS 79703
 TELEPHONE: (432) 832-1863 OR (800) 787-9863 • FAX: (432) 832-1743
 WWW.TOPOGRAPHIC.COM
 Texas FIRM Registration No. 10042500

**SEM OPERATING
 COMPANY LLC**

LEASE NAME & WELL NO.:
UNIVERSITY 9C #1207WA
 TOPOGRAPHY & VEGETATION:
NATURAL MESQUITE PASTURE
 NEAREST TOWN IN COUNTY:
 ±13.5 MILES NORTHWEST OF BIG LAKE, TEXAS

LOCATION DESCRIPTION:
 SHL: SECTION 12, BLOCK 9, UNIVERSITY LAND SURVEY
 PP/FTP: SECTION 1, BLOCK 9, UNIVERSITY LAND SURVEY
 LTP/BHL: SECTION 21, BLOCK 58, UNIVERSITY LAND SURVEY
 REAGAN COUNTY, TEXAS

Scale: 1" = 1000' Surveyed: 12-30-2016 ORIGINAL DOC. SIZE: 11"x17"
 COGO: 519-89429 Drawn By: MP; 01-24-2017



April 20, 2017

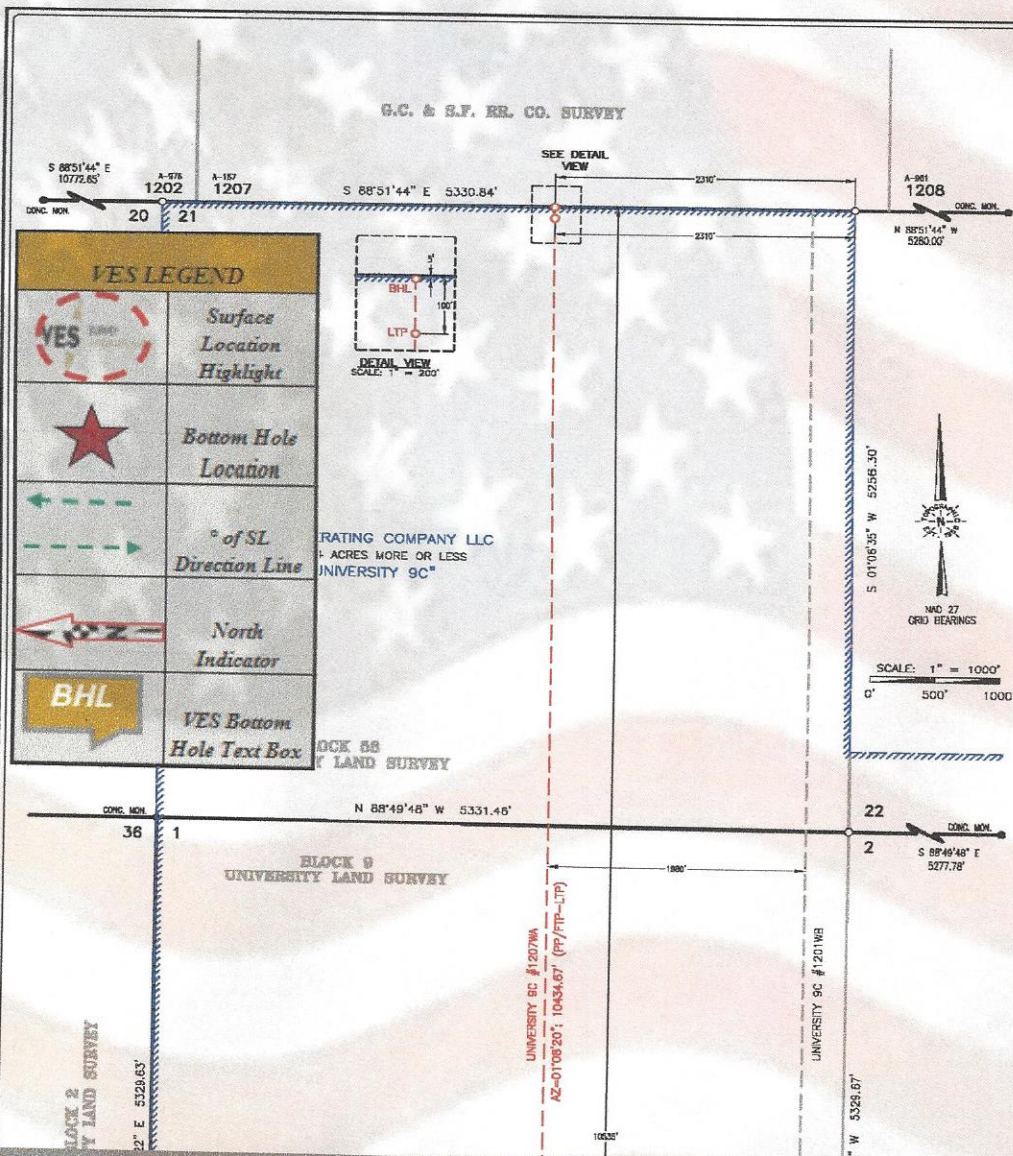
STATE OF TEXAS

COUNTY OF HARRIS

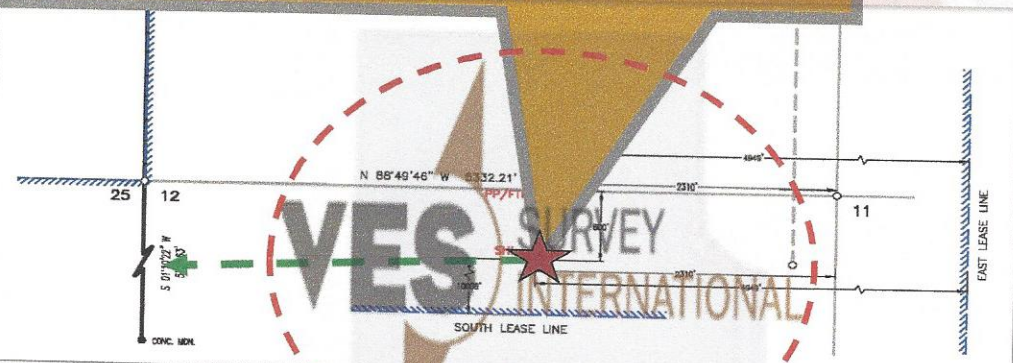
I, Cameron Stevens, certify that; I am employed by SunDrill Energy Services ; that on the day(s) of April 9th 2017,- April 12th 2017 we conducted and or supervised the taking of a MWD survey for University 9C 1207WA from a depth of 0 feet to a depth of 560 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by SunDrill Energy Services; that I am authorized and qualified to make this report; that this survey was conducted at the request of SEM Operating Company LLC ; that I reviewed this report and find it conforms to the principles and procedures as set forth by SunDrill Energy Services .

A handwritten signature in black ink, appearing to read "CST", is written over a horizontal line.

Cameron Stevens
MWD Manager
SunDrill Energy Services



VES Bottom Hole Location is 3.03' @ 269.03° of Surface Location



CERTIFICATION:

This well location shown on this permit plat was surveyed on the ground under my direct supervision. This plat is for the Texas Railroad Commission permit purpose only and should not be considered a boundary survey.

William J. Keating
Texas Reg. No. 5041



SEM OPERATING COMPANY LLC

LEASE NAME & WELL NO.:
UNIVERSITY 9C #1207WA
TOPOGRAPHY & VEGETATION:
NATURAL MESQUITE PASTURE
NEAREST TOWN IN COUNTY:
±13.5 MILES NORTHWEST OF BIG LAKE, TEXAS

LOCATION DESCRIPTION:
SHL: SECTION 12, BLOCK 9, UNIVERSITY LAND SURVEY
PP/FTP: SECTION 1, BLOCK 9, UNIVERSITY LAND SURVEY
LTP/BHL: SECTION 21, BLOCK 58, UNIVERSITY LAND SURVEY
REAGAN COUNTY, TEXAS

Scale: 1" = 1000' Surveyed: 12-30-2016 ORIGINAL DOC. SIZE: 11"x17"
COGO: 519-89429 Drawn By: MP; 01-24-2017

Surface Hole Location:

GROUND ELEVATION:
SHL Ground Elevation: 2631'
COORDINATES:
NAD 27 TX-C ZONE:
X = 1585818.11 Y = 591738.70
LAT.: N 31°17'12.97" LONG.: W 101°39'33.55"
LAT.: N 31.2869370 LONG.: W 101.6593201
NAD 83 TX-C ZONE:
X = 1582286.12 Y = 10434315.38
LAT.: N 31°17'13.51" LONG.: W 101°39'34.99"
LAT.: N 31.2870869 LONG.: W 101.6597191
SURVEY LINE PERPENDICULARS:
600' FNL & 2310' FEL (SEC. 12)
UNIT LINE PERPENDICULARS:
10058' FSL & 4949' FEL

**Penetration Point/
First Take Point:**

COORDINATES:
NAD 27 TX-C ZONE:
X = 1585831.02 Y = 592388.58
LAT.: N 31°17'19.41" LONG.: W 101°39'32.49"
LAT.: N 31.2887241 LONG.: W 101.6593035
NAD 83 TX-C ZONE:
X = 1582299.04 Y = 10434965.26
LAT.: N 31°17'19.95" LONG.: W 101°39'34.93"
LAT.: N 31.2888739 LONG.: W 101.6597026
SURVEY LINE PERPENDICULARS:
50' FSL & 2310' FEL (SEC. 1)
UNIT LINE PERPENDICULARS:
10535' FNL & 4949' FEL

Last Take Point:

COORDINATES:
NAD 27 TX-C ZONE:
X = 1586038.41 Y = 602821.19
LAT.: N 31°19'02.63" LONG.: W 101°39'32.54"
LAT.: N 31.3174126 LONG.: W 101.6590377
NAD 83 TX-C ZONE:
X = 1582506.45 Y = 10445397.87
LAT.: N 31°19'03.22" LONG.: W 101°39'33.97"
LAT.: N 31.3175615 LONG.: W 101.6594367
SURVEY LINE PERPENDICULARS:
100' FNL & 2310' FEL (SEC. 21)
UNIT LINE PERPENDICULARS:
100' FNL & 2310' FEL

Bottom Hole Location:

COORDINATES:
NAD 27 TX-C ZONE:
X = 1586040.50 Y = 602816.17
LAT.: N 31°19'03.63" LONG.: W 101°39'32.53"
LAT.: N 31.3176738 LONG.: W 101.6590352
NAD 83 TX-C ZONE:
X = 1582508.34 Y = 10445492.85
LAT.: N 31°19'04.16" LONG.: W 101°39'33.96"
LAT.: N 31.3178227 LONG.: W 101.6594343
SURVEY LINE PERPENDICULARS:
5' FNL & 2310' FEL (SEC. 21)
UNIT LINE PERPENDICULARS:
5' FNL & 2310' FEL

All Coordinates are in NAD 27 TX-C Zone unless otherwise noted.

REV#	BY	DATE REVISED	REV#	BY	DATE REVISED
MP		01-30-2017	1-XXX		XX/XX/XX
MP		02-21-2017			

SPECIAL NOTES:

Unit Boundary
Section Lines
Block Line
Powerline
Pipeline
Lease Road
Calculated Corner

383-39819

VES Bottom Hole Location is 3.03' @ 269.03° of Surface Location

MD / FT 525.00
North / FT South / FT 0.05



524.99 TVD / FT
East / FT West / FT 3.03

VES SURVEY INTERNATIONAL

823577



Company: SEM OPERATING
Lease/Well: UNIVERSITY 9C/1270WA

Rig Name: INTEGRITY 2
State/County: TEXAS/REAGAN
VS-Azi: 0.00 Degrees
Latitude: 31.28694, Longitude: -102.65932
Grid North = True North +1.20 degs (NAD 27)
Grid Correction Applied = +1.20 degs



Depth Reference : GROUND

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: e-line gyro-de_01.ut

Minimum Curvature Method

Report Date/Time: 4/20/2017 / 12:12

VES Survey International

Midland, Texas

432-563-5444

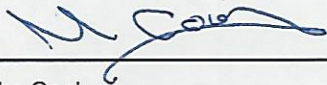
Surveyor: Michael Cook

University 9C 1207WA / API 42-383-39819

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
50.00	0.43	284.14	50.00	0.05	-0.18	0.05	0.19	284.14	0.85
100.00	0.47	256.47	100.00	0.04	-0.56	0.04	0.56	274.35	0.44
150.00	0.44	241.23	150.00	-0.10	-0.93	-0.10	0.93	263.99	0.25
200.00	0.22	211.87	200.00	-0.27	-1.15	-0.27	1.18	256.62	0.53
250.00	0.09	141.22	250.00	-0.39	-1.17	-0.39	1.24	251.77	0.42
300.00	0.34	315.74	300.00	-0.31	-1.25	-0.31	1.29	256.00	0.85
350.00	0.61	270.45	349.99	-0.20	-1.62	-0.20	1.63	262.80	0.88
400.00	0.53	267.30	399.99	-0.21	-2.11	-0.21	2.13	264.24	0.17
450.00	0.22	263.86	449.99	-0.23	-2.44	-0.23	2.45	264.51	0.61
500.00	0.56	292.79	499.99	-0.15	-2.76	-0.15	2.77	266.87	0.75
525.00	0.75	288.88	524.99	-0.05	-3.03	-0.05	3.03	269.03	0.81



I Mike Cook certify that I am employed by VES Survey International. That I did on the day(s) of 04/12/17 through 04/12/17 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 525.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of SEM Operating for the University 9C Well # #1207WA API # 42-383-39819 in Reagan County / Parish Texas; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.



Mike Cook
Service Technician
VES Survey International



· Directional Drilling · Horizontal Drilling · MWD/LWD · Mud Motors

May 8, 2017

Railroad Commission of Texas
Oil and Gas Division
P.O. Box 12967
Capitol Station
Austin, Texas 78711

Attention: Pamela Johns

Re: SEM Operating Company, LLC
University 9C #1207WA
Reagan County, Texas
API No. 42-383-39819

Enclosed, please find the original and one copy of the survey performed on the referenced well by Aim Directional Services, LLC (P-5 No. 009134). Other information required by your office is as follows:

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Date Performed</u>	<u>Type of Survey</u>
Allison Reinert VP Engineering	Original hole	673' – 18914'	04/16/17 – 04/29/17	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and the lease line (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.

Allison Reinert
VP Engineering

Enclosures
cc:



· Directional Drilling · Horizontal Drilling · MWD/LWD · Mud Motors

May 8, 2017

State of Texas
County of Reagan

I, Allison Reinert, certify that; I am employed by Aim Directional Services, LLC; that I did on the day(s) of April 16, 2017 through April 29, 2017 conduct or supervise the taking of a directional MWD survey from a depth of 673 feet to a depth of 18914 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Aim Directional Services, LLC; that I am authorized and qualified to make this report; that this survey was conducted at the request of SEM Operating Company, LLC for University 9C #1207WA API No. 42-383-39819 in Reagan County, Texas; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Aim Directional Services, LLC.

Allison Reinert
VP Engineering

Aim Directional Services, LLC

Survey Report

Company:	SEM Operating Company, LLC	Local Co-ordinate Reference:	Site University 9C #1207WA
Project:	Reagan County, Texas	TVD Reference:	2631'GL+26'KB @ 2657.00usft (Planning)
Site:	University 9C #1207WA	MD Reference:	2631'GL+26'KB @ 2657.00usft (Planning)
Well:	#1207WA	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
Design:	Aim MWD Surveys	Database:	EDM 5000.14 Single User Db

Project	Reagan County, Texas		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Texas Central 4203		

Site	University 9C #1207WA		
Site Position:		Northing:	591,738.70 usft
From:	Map	Easting:	1,585,818.11 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	31° 17' 12.973 N
		Longitude:	101° 39' 33.552 W
		Grid Convergence:	-0.68 °

Well	#1207WA		
Well Position	+N/-S	0.00 usft	Northing: 591,738.70 usft
	+E/-W	0.00 usft	Easting: 1,585,818.11 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	31° 17' 12.973 N
		Longitude:	101° 39' 33.552 W
		Ground Level:	2,631.00 usft

Wellbore	Aim MWD Surveys				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/17/2017	6.05	59.67	47,791.00000000

Design	Aim MWD Surveys				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	525.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	1.14	

Survey Program	Date	5/1/2017			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
50.00	525.00	VES Gyro Surveys (VES Gyro Surveys)	VES_C670Ga_GYROFLEX_	VESSI Gyroflex Gyro	
525.00	18,914.00	Aim MWD Surveys (Aim MWD Surveys)	B001Mb_MWD+HRGM	OWSG MWD + HRGM	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
525.00	0.75	288.88	524.99	-0.04	-3.04	-0.10	0.00	0.00	0.00	
Tie in to VES Gyro Surveys										
673.00	0.62	286.33	672.98	0.49	-4.72	0.40	0.09	-0.09	-1.72	
First Aim MWD Survey										
857.00	0.09	306.28	856.97	0.86	-5.79	0.74	0.29	-0.29	10.84	
1,045.00	0.53	259.70	1,044.97	0.79	-6.77	0.66	0.25	0.23	-24.78	
1,175.00	0.13	286.42	1,174.97	0.73	-7.50	0.58	0.32	-0.31	20.55	
1,363.00	0.57	243.44	1,362.96	0.37	-8.54	0.20	0.26	0.23	-22.86	
1,552.00	0.97	259.17	1,551.95	-0.35	-10.95	-0.57	0.24	0.21	8.32	

Aim Directional Services, LLC

Survey Report

Company:	SEM Operating Company, LLC	Local Co-ordinate Reference:	Site University 9C #1207WA
Project:	Reagan County, Texas	TVD Reference:	2631'GL+26'KB @ 2657.00usft (Planning)
Site:	University 9C #1207WA	MD Reference:	2631'GL+26'KB @ 2657.00usft (Planning)
Well:	#1207WA	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
Design:	Aim MWD Surveys	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,740.00	1.36	273.85	1,739.91	-0.50	-14.74	-0.80	0.26	0.21	7.81
1,929.00	1.27	287.38	1,928.86	0.27	-18.98	-0.10	0.17	-0.05	7.16
2,118.00	0.97	300.83	2,117.82	1.72	-22.35	1.27	0.21	-0.16	7.12
2,307.00	0.62	299.51	2,306.80	3.04	-24.62	2.55	0.19	-0.19	-0.70
2,495.00	0.57	347.24	2,494.79	4.46	-25.71	3.94	0.26	-0.03	25.39
2,684.00	0.48	318.15	2,683.79	5.96	-26.44	5.44	0.15	-0.05	-15.39
2,872.00	0.35	343.20	2,871.78	7.10	-27.13	6.56	0.12	-0.07	13.32
3,060.00	1.01	14.48	3,059.77	9.25	-26.89	8.72	0.39	0.35	16.64
3,249.00	0.84	40.85	3,248.74	11.91	-25.56	11.40	0.24	-0.09	13.95
3,438.00	0.92	41.55	3,437.72	14.10	-23.65	13.62	0.04	0.04	0.37
3,626.00	1.63	24.42	3,625.67	17.66	-21.54	17.23	0.42	0.38	-9.11
3,814.00	1.98	26.79	3,813.58	23.00	-18.98	22.61	0.19	0.19	1.26
4,003.00	1.41	36.11	4,002.50	27.79	-16.13	27.46	0.33	-0.30	4.93
4,191.00	1.89	41.47	4,190.42	31.98	-12.72	31.72	0.27	0.26	2.85
4,380.00	1.58	51.05	4,379.33	35.95	-8.63	35.78	0.22	-0.16	5.07
4,568.00	1.67	74.43	4,567.26	38.32	-3.97	38.23	0.35	0.05	12.44
4,757.00	2.20	78.03	4,756.15	39.81	2.23	39.85	0.29	0.28	1.90
4,945.00	2.24	82.25	4,944.01	41.05	9.40	41.23	0.09	0.02	2.24
5,134.00	2.77	73.81	5,132.83	42.83	17.45	43.16	0.34	0.28	-4.47
5,322.00	2.29	69.86	5,320.65	45.39	25.33	45.88	0.27	-0.26	-2.10
5,511.00	1.89	77.15	5,509.52	47.38	31.92	48.00	0.25	-0.21	3.86
5,699.00	1.41	95.70	5,697.44	47.84	37.24	48.57	0.38	-0.26	9.87
5,888.00	0.84	103.87	5,886.41	47.28	40.90	48.08	0.31	-0.30	4.32
6,076.00	0.70	94.29	6,074.39	46.86	43.38	47.71	0.10	-0.07	-5.10
6,265.00	0.97	103.34	6,263.37	46.40	46.09	47.31	0.16	0.14	4.79
6,453.00	0.53	85.59	6,451.35	46.10	48.51	47.06	0.26	-0.23	-9.44
6,641.00	0.62	59.92	6,639.34	46.68	50.25	47.67	0.14	0.05	-13.65
6,830.00	0.79	44.98	6,828.33	48.11	52.06	49.14	0.13	0.09	-7.90
7,019.00	0.53	72.40	7,017.32	49.30	53.81	50.36	0.21	-0.14	14.51
7,207.00	0.75	77.59	7,205.31	49.83	55.85	50.93	0.12	0.12	2.76
7,332.00	0.84	49.38	7,330.29	50.60	57.34	51.73	0.32	0.07	-22.57
7,489.00	2.29	17.21	7,487.23	54.35	59.14	55.51	1.05	0.92	-20.49
7,520.00	6.55	10.00	7,518.13	56.68	59.63	57.85	13.83	13.74	-23.26
7,552.00	11.69	11.32	7,549.72	61.66	60.59	62.85	16.07	16.06	4.13
7,583.00	15.87	12.73	7,579.82	68.88	62.14	70.10	13.53	13.48	4.55
7,615.00	18.55	11.23	7,610.38	78.14	64.09	79.40	8.49	8.38	-4.69
7,646.00	20.97	6.93	7,639.56	88.48	65.72	89.77	9.10	7.81	-13.87
7,678.00	23.69	5.52	7,669.16	100.57	67.03	101.88	8.66	8.50	-4.41
7,709.00	26.51	3.76	7,697.23	113.67	68.09	115.01	9.41	9.10	-5.68
7,741.00	30.02	3.76	7,725.41	128.79	69.08	130.14	10.97	10.97	0.00
7,772.00	32.70	1.39	7,751.88	144.91	69.79	146.27	9.52	8.65	-7.65
7,803.00	37.14	0.25	7,777.29	162.64	70.03	164.01	14.48	14.32	-3.68
7,835.00	40.04	359.37	7,802.30	182.60	69.96	183.96	9.22	9.06	-2.75

Aim Directional Services, LLC

Survey Report

Company:	SEM Operating Company, LLC	Local Co-ordinate Reference:	Site University 9C #1207WA
Project:	Reagan County, Texas	TVD Reference:	2631'GL+26'KB @ 2657.00usft (Planning)
Site:	University 9C #1207WA	MD Reference:	2631'GL+26'KB @ 2657.00usft (Planning)
Well:	#1207WA	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
Design:	Aim MWD Surveys	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,866.00	42.07	359.28	7,825.67	202.96	69.72	204.31	6.55	6.55	-0.29
7,898.00	45.36	358.22	7,848.80	225.06	69.24	226.40	10.53	10.28	-3.31
7,961.00	47.30	0.60	7,892.30	270.62	68.78	271.94	4.12	3.08	3.78
7,992.00	50.29	1.92	7,912.72	293.94	69.30	295.26	10.16	9.65	4.26
8,023.00	52.70	2.09	7,932.02	318.18	70.15	319.51	7.79	7.77	0.55
8,055.00	55.91	1.30	7,950.69	344.15	70.91	345.50	10.23	10.03	-2.47
8,086.00	57.32	0.51	7,967.75	370.03	71.32	371.38	5.02	4.55	-2.55
8,118.00	58.33	359.20	7,984.79	397.12	71.25	398.46	4.69	3.16	-4.09
8,149.00	59.25	358.31	8,000.85	423.62	70.67	424.95	3.85	2.97	-2.87
8,181.00	60.66	357.79	8,016.87	451.31	69.73	452.61	4.63	4.41	-1.63
8,212.00	63.16	358.49	8,031.47	478.64	68.85	479.91	8.31	8.06	2.26
8,244.00	66.42	359.10	8,045.10	507.58	68.24	508.84	10.33	10.19	1.91
8,276.00	68.66	359.72	8,057.32	537.15	67.94	538.39	7.23	7.00	1.94
8,307.00	71.25	359.54	8,067.95	566.27	67.75	567.50	8.37	8.35	-0.58
8,339.00	72.31	358.66	8,077.95	596.66	67.27	597.88	4.22	3.31	-2.75
8,368.00	76.13	359.19	8,085.84	624.56	66.75	625.76	13.29	13.17	1.83
8,406.00	81.80	0.60	8,093.11	661.84	66.68	663.03	15.36	14.92	3.71
8,431.00	84.18	0.42	8,096.16	686.65	66.90	687.84	9.55	9.52	-0.72
8,462.00	86.64	0.95	8,098.64	717.54	67.27	718.74	8.12	7.94	1.71
8,494.00	89.27	0.42	8,099.78	749.52	67.66	750.72	8.38	8.22	-1.66
8,557.00	90.29	359.72	8,100.02	812.52	67.73	813.70	1.96	1.62	-1.11
8,651.00	92.40	359.98	8,097.82	906.49	67.49	907.65	2.26	2.24	0.28
8,746.00	90.46	358.22	8,095.45	1,001.44	65.99	1,002.55	2.76	-2.04	-1.85
8,840.00	90.64	357.35	8,094.54	1,095.36	62.36	1,096.38	0.95	0.19	-0.93
8,934.00	91.87	357.79	8,092.49	1,189.25	58.38	1,190.18	1.39	1.31	0.47
9,028.00	89.10	354.62	8,091.69	1,283.02	52.16	1,283.80	4.48	-2.95	-3.37
9,123.00	91.08	355.06	8,091.54	1,377.63	43.61	1,378.23	2.14	2.08	0.46
9,217.00	90.07	355.94	8,090.60	1,471.33	36.24	1,471.76	1.43	-1.07	0.94
9,312.00	89.93	359.28	8,090.60	1,566.24	32.28	1,566.57	3.52	-0.15	3.52
9,406.00	90.07	1.48	8,090.60	1,660.23	32.90	1,660.56	2.35	0.15	2.34
9,500.00	90.07	5.08	8,090.48	1,754.06	38.28	1,754.47	3.83	0.00	3.83
9,594.00	90.37	6.49	8,090.12	1,847.58	47.75	1,848.16	1.53	0.32	1.50
9,688.00	88.88	5.08	8,090.74	1,941.09	57.23	1,941.85	2.18	-1.59	-1.50
9,783.00	89.89	5.61	8,091.76	2,035.67	66.08	2,036.58	1.20	1.06	0.56
9,877.00	89.41	4.64	8,092.33	2,129.29	74.47	2,130.35	1.15	-0.51	-1.03
9,972.00	90.11	3.67	8,092.73	2,224.04	81.36	2,225.22	1.26	0.74	-1.02
10,066.00	89.58	2.79	8,092.98	2,317.89	86.65	2,319.16	1.09	-0.56	-0.94
10,160.00	89.19	358.75	8,093.99	2,411.86	87.91	2,413.13	4.32	-0.41	-4.30
10,254.00	90.37	356.29	8,094.35	2,505.76	83.85	2,506.93	2.90	1.26	-2.62
10,349.00	90.02	354.18	8,094.03	2,600.42	75.96	2,601.42	2.25	-0.37	-2.22
10,444.00	89.32	356.12	8,094.58	2,695.08	67.92	2,695.90	2.17	-0.74	2.04
10,538.00	89.85	357.08	8,095.26	2,788.91	62.35	2,789.60	1.17	0.56	1.02
10,632.00	89.23	355.68	8,096.01	2,882.72	56.42	2,883.27	1.63	-0.66	-1.49
10,726.00	90.11	358.05	8,096.55	2,976.57	51.28	2,977.00	2.69	0.94	2.52

Aim Directional Services, LLC

Survey Report

Company:	SEM Operating Company, LLC	Local Co-ordinate Reference:	Site University 9C #1207WA
Project:	Reagan County, Texas	TVD Reference:	2631'GL+26'KB @ 2657.00usft (Planning)
Site:	University 9C #1207WA	MD Reference:	2631'GL+26'KB @ 2657.00usft (Planning)
Well:	#1207WA	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
Design:	Aim MWD Surveys	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,821.00	89.80	359.98	8,096.63	3,071.55	49.64	3,071.93	2.06	-0.33	2.03	
10,915.00	90.29	3.15	8,096.55	3,165.50	52.21	3,165.91	3.41	0.52	3.37	
11,009.00	90.33	5.43	8,096.05	3,259.23	59.24	3,259.76	2.43	0.04	2.43	
11,103.00	89.85	6.13	8,095.90	3,352.75	68.71	3,353.45	0.90	-0.51	0.74	
11,197.00	90.59	5.61	8,095.54	3,446.26	78.32	3,447.13	0.96	0.79	-0.55	
11,292.00	90.37	3.50	8,094.74	3,540.95	85.86	3,541.95	2.23	-0.23	-2.22	
11,385.00	89.27	0.16	8,095.03	3,633.88	88.83	3,634.93	3.78	-1.18	-3.59	
11,480.00	90.42	2.00	8,095.29	3,728.86	90.62	3,729.93	2.28	1.21	1.94	
11,574.00	89.54	358.05	8,095.32	3,822.84	90.66	3,823.89	4.31	-0.94	-4.20	
11,668.00	91.38	0.25	8,094.57	3,916.82	89.27	3,917.82	3.05	1.96	2.34	
11,762.00	91.65	358.66	8,092.08	4,010.78	88.38	4,011.74	1.72	0.29	-1.69	
11,857.00	93.19	357.96	8,088.07	4,105.65	85.58	4,106.54	1.78	1.62	-0.74	
11,951.00	92.18	357.87	8,083.67	4,199.48	82.16	4,200.29	1.08	-1.07	-0.10	
12,045.00	89.93	357.79	8,081.94	4,293.39	78.60	4,294.11	2.40	-2.39	-0.09	
12,140.00	90.07	355.24	8,081.94	4,388.21	72.83	4,388.79	2.69	0.15	-2.68	
12,234.00	90.15	354.62	8,081.76	4,481.84	64.52	4,482.24	0.67	0.09	-0.66	
12,328.00	90.20	353.92	8,081.47	4,575.37	55.14	4,575.56	0.75	0.05	-0.74	
12,422.00	88.79	356.29	8,082.30	4,669.01	47.12	4,669.03	2.93	-1.50	2.52	
12,517.00	89.76	358.93	8,083.50	4,763.91	43.16	4,763.83	2.96	1.02	2.78	
12,611.00	89.71	358.58	8,083.94	4,857.89	41.11	4,857.75	0.38	-0.05	-0.37	
12,705.00	89.19	0.42	8,084.84	4,951.88	40.29	4,951.70	2.03	-0.55	1.96	
12,799.00	90.07	5.26	8,085.45	5,045.73	44.95	5,045.63	5.23	0.94	5.15	
12,893.00	90.07	2.36	8,085.33	5,139.51	51.20	5,139.52	3.09	0.00	-3.09	
12,989.00	89.80	0.60	8,085.44	5,235.48	53.67	5,235.51	1.85	-0.28	-1.83	
13,082.00	90.37	1.92	8,085.30	5,328.45	55.72	5,328.51	1.55	0.61	1.42	
13,176.00	90.59	0.51	8,084.51	5,422.43	57.71	5,422.50	1.52	0.23	-1.50	
13,270.00	90.11	356.64	8,083.94	5,516.38	55.38	5,516.39	4.15	-0.51	-4.12	
13,365.00	89.93	353.39	8,083.91	5,611.01	47.12	5,610.83	3.43	-0.19	-3.42	
13,459.00	94.42	352.42	8,080.34	5,704.19	35.52	5,703.77	4.89	4.78	-1.03	
13,553.00	94.59	354.88	8,072.96	5,797.32	25.16	5,796.67	2.62	0.18	2.62	
13,648.00	94.46	356.91	8,065.46	5,891.78	18.38	5,890.98	2.13	-0.14	2.14	
13,742.00	92.48	359.10	8,059.77	5,985.54	15.12	5,984.65	3.14	-2.11	2.33	
13,836.00	90.90	2.79	8,057.00	6,079.47	16.67	6,078.59	4.27	-1.68	3.93	
13,930.00	89.23	2.71	8,056.89	6,173.35	21.18	6,172.55	1.78	-1.78	-0.09	
14,024.00	88.09	4.55	8,059.09	6,267.13	27.13	6,266.43	2.30	-1.21	1.96	
14,118.00	87.25	5.17	8,062.91	6,360.72	35.08	6,360.16	1.11	-0.89	0.66	
14,213.00	86.07	4.82	8,068.44	6,455.19	43.34	6,454.78	1.30	-1.24	-0.37	
14,307.00	85.54	4.38	8,075.32	6,548.64	50.86	6,548.35	0.73	-0.56	-0.47	
14,401.00	85.41	4.46	8,082.74	6,642.07	58.08	6,641.91	0.16	-0.14	0.09	
14,495.00	86.24	6.75	8,089.58	6,735.36	67.24	6,735.37	2.59	0.88	2.44	
14,590.00	88.44	5.08	8,093.99	6,829.75	77.02	6,829.93	2.91	2.32	-1.76	
14,684.00	92.79	6.57	8,092.98	6,923.23	86.55	6,923.58	4.89	4.63	1.59	
14,778.00	92.97	5.70	8,088.26	7,016.57	96.59	7,017.11	0.94	0.19	-0.93	

Aim Directional Services, LLC

Survey Report

Company:	SEM Operating Company, LLC	Local Co-ordinate Reference:	Site University 9C #1207WA
Project:	Reagan County, Texas	TVD Reference:	2631'GL+26'KB @ 2657.00usft (Planning)
Site:	University 9C #1207WA	MD Reference:	2631'GL+26'KB @ 2657.00usft (Planning)
Well:	#1207WA	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
Design:	Aim MWD Surveys	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,872.00	90.77	3.76	8,085.19	7,110.19	104.33	7,110.86	3.12	-2.34	-2.06
14,967.00	90.07	2.09	8,084.49	7,205.06	109.18	7,205.81	1.91	-0.74	-1.76
15,061.00	89.98	2.18	8,084.45	7,299.00	112.68	7,299.79	0.14	-0.10	0.10
15,155.00	89.54	0.42	8,084.85	7,392.97	114.81	7,393.79	1.93	-0.47	-1.87
15,249.00	90.15	1.92	8,085.10	7,486.95	116.73	7,487.79	1.72	0.65	1.60
15,343.00	89.80	359.89	8,085.14	7,580.93	118.22	7,581.78	2.19	-0.37	-2.16
15,437.00	89.58	359.28	8,085.65	7,674.92	117.54	7,675.74	0.69	-0.23	-0.65
15,531.00	90.02	0.77	8,085.98	7,768.92	117.58	7,769.72	1.65	0.47	1.59
15,625.00	90.37	1.30	8,085.66	7,862.90	119.27	7,863.72	0.68	0.37	0.56
15,720.00	89.41	2.00	8,085.84	7,957.86	122.01	7,958.72	1.25	-1.01	0.74
15,814.00	89.98	359.81	8,086.34	8,051.84	123.49	8,052.71	2.41	0.61	-2.33
15,908.00	89.54	0.86	8,086.74	8,145.84	124.04	8,146.70	1.21	-0.47	1.12
16,002.00	89.93	4.11	8,087.17	8,239.74	128.12	8,240.66	3.48	0.41	3.46
16,096.00	88.22	3.67	8,088.69	8,333.51	134.49	8,334.53	1.88	-1.82	-0.47
16,191.00	87.21	2.44	8,092.48	8,428.29	139.55	8,429.40	1.67	-1.06	-1.29
16,285.00	86.81	2.00	8,097.38	8,522.09	143.19	8,523.25	0.63	-0.43	-0.47
16,379.00	86.64	2.88	8,102.75	8,615.85	147.19	8,617.08	0.95	-0.18	0.94
16,473.00	89.32	3.76	8,106.06	8,709.63	152.63	8,710.94	3.00	2.85	0.94
16,567.00	89.45	4.29	8,107.07	8,803.39	159.22	8,804.82	0.58	0.14	0.56
16,662.00	90.24	3.06	8,107.33	8,898.19	165.31	8,899.72	1.54	0.83	-1.29
16,756.00	90.73	2.36	8,106.53	8,992.08	169.76	8,993.68	0.91	0.52	-0.74
16,850.00	92.22	0.86	8,104.11	9,086.01	172.40	9,087.64	2.25	1.59	-1.60
16,944.00	90.20	0.33	8,102.13	9,179.98	173.37	9,181.61	2.22	-2.15	-0.56
17,038.00	88.18	0.86	8,103.46	9,273.96	174.35	9,275.59	2.22	-2.15	0.56
17,133.00	86.15	359.46	8,108.16	9,368.83	174.61	9,370.45	2.59	-2.14	-1.47
17,227.00	86.81	358.31	8,113.93	9,462.64	172.79	9,464.20	1.41	0.70	-1.22
17,321.00	87.65	358.58	8,118.47	9,556.49	170.24	9,557.99	0.94	0.89	0.29
17,415.00	87.78	358.40	8,122.22	9,650.38	167.77	9,651.81	0.24	0.14	-0.19
17,510.00	89.63	359.63	8,124.36	9,745.34	166.13	9,746.72	2.34	1.95	1.29
17,604.00	90.15	359.37	8,124.55	9,839.34	165.31	9,840.68	0.62	0.55	-0.28
17,698.00	92.22	0.16	8,122.60	9,933.31	164.93	9,934.62	2.36	2.20	0.84
17,793.00	90.86	0.33	8,120.05	10,028.27	165.33	10,029.58	1.44	-1.43	0.18
17,887.00	90.90	0.86	8,118.60	10,122.25	166.31	10,123.56	0.57	0.04	0.56
17,981.00	91.12	0.33	8,116.95	10,216.23	167.29	10,217.54	0.61	0.23	-0.56
18,075.00	92.66	0.33	8,113.85	10,310.18	167.83	10,311.48	1.64	1.64	0.00
18,170.00	92.40	1.12	8,109.65	10,405.08	169.03	10,406.38	0.87	-0.27	0.83
18,264.00	92.31	359.98	8,105.79	10,498.99	169.93	10,500.30	1.22	-0.10	-1.21
18,358.00	92.44	1.30	8,101.90	10,592.90	170.98	10,594.21	1.41	0.14	1.40
18,453.00	90.29	3.06	8,099.63	10,687.80	174.59	10,689.16	2.92	-2.26	1.85
18,547.00	89.14	4.20	8,100.10	10,781.61	180.54	10,783.06	1.72	-1.22	1.21
18,641.00	90.51	5.34	8,100.39	10,875.28	188.36	10,876.87	1.90	1.46	1.21
18,735.00	88.44	5.87	8,101.25	10,968.82	197.54	10,970.58	2.27	-2.20	0.56
18,830.00	89.54	7.37	8,102.92	11,063.17	208.49	11,065.12	1.96	1.16	1.58

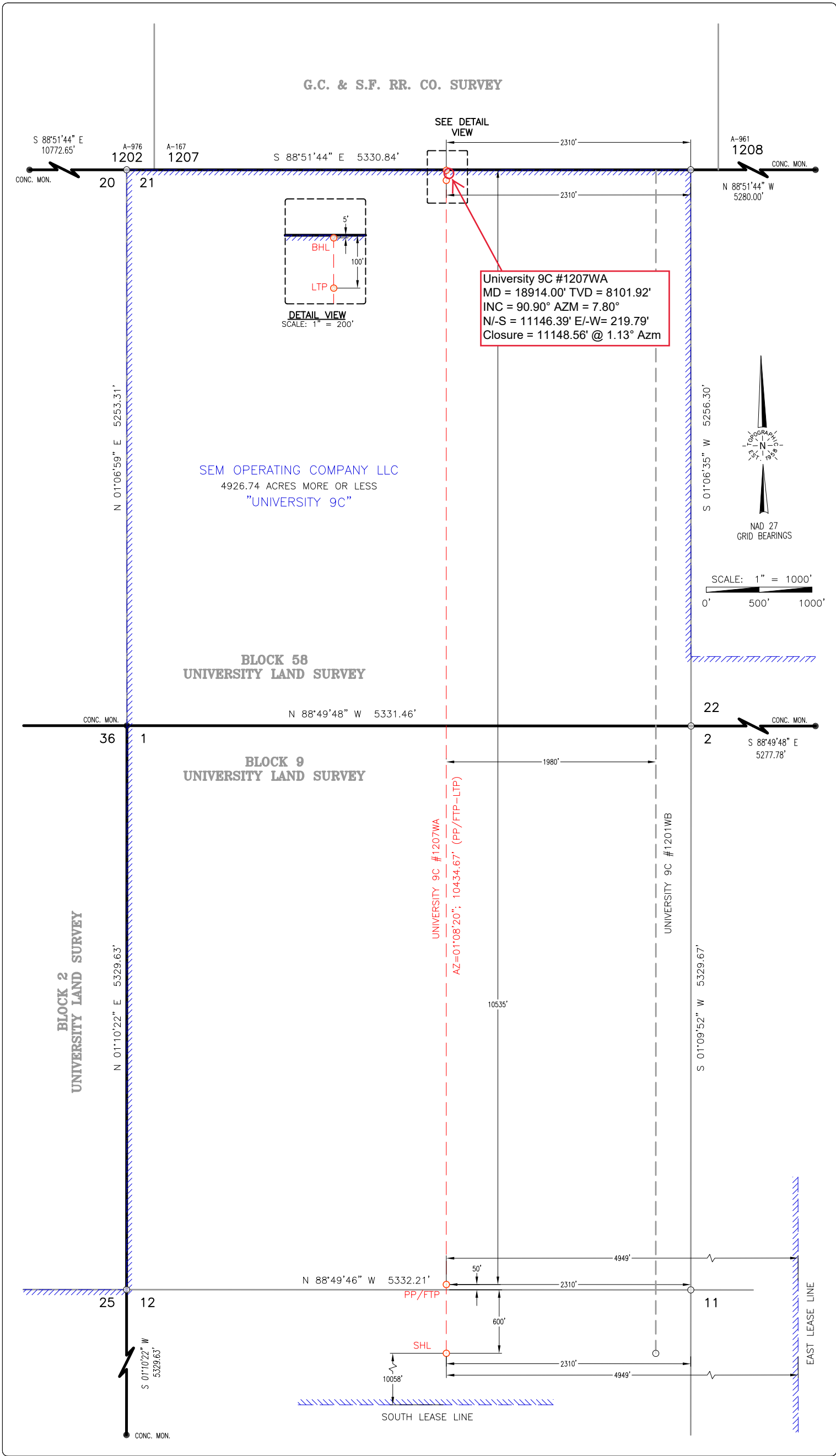
Aim Directional Services, LLC

Survey Report

Company:	SEM Operating Company, LLC	Local Co-ordinate Reference:	Site University 9C #1207WA
Project:	Reagan County, Texas	TVD Reference:	2631'GL+26'KB @ 2657.00usft (Planning)
Site:	University 9C #1207WA	MD Reference:	2631'GL+26'KB @ 2657.00usft (Planning)
Well:	#1207WA	North Reference:	Grid
Wellbore:	Aim MWD Surveys	Survey Calculation Method:	Minimum Curvature
Design:	Aim MWD Surveys	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
18,857.00	90.90	7.80	8,102.82	11,089.93	212.05	11,091.95	5.28	5.04	1.59	
Last Aim MWD Survey										
18,914.00	90.90	7.80	8,101.92	11,146.39	219.79	11,148.56	0.00	0.00	0.00	
Projection to TD										

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
525.00	524.99	-0.04	-3.04	Tie in to VES Gyro Surveys	
673.00	672.98	0.49	-4.72	First Aim MWD Survey	
18,857.00	8,102.82	11,089.93	212.05	Last Aim MWD Survey	
18,914.00	8,101.92	11,146.39	219.79	Projection to TD	



Surface Hole Location:

GROUND ELEVATION:
SHL Ground Elevation: 2631'

COORDINATES:
NAD 27 TX-C ZONE:
X = 1585818.11 Y = 591738.70
LAT.: N 31°17'12.97" LONG.: W 101°39'33.55"
LAT.: N 31.2869370 LONG.: W 101.6593201
NAD 83 TX-C ZONE:
X = 1882286.12 Y = 10434315.38
LAT.: N 31°17'13.51" LONG.: W 101°39'34.99"
LAT.: N 31.2870869 LONG.: W 101.6597191

SURVEY LINE PERPENDICULARS:
600' FNL & 2310' FEL (SEC. 12)

UNIT LINE PERPENDICULARS:
10058' FSL & 4949' FEL

**Penetration Point/
First Take Point:**

COORDINATES:
NAD 27 TX-C ZONE:
X = 1585831.02 Y = 592388.58
LAT.: N 31°17'19.41" LONG.: W 101°39'33.49"
LAT.: N 31.2887241 LONG.: W 101.6593035
NAD 83 TX-C ZONE:
X = 1882299.04 Y = 10434965.26
LAT.: N 31°17'19.95" LONG.: W 101°39'34.93"
LAT.: N 31.2888739 LONG.: W 101.6597026

SURVEY LINE PERPENDICULARS:
50' FSL & 2310' FEL (SEC. 1)

UNIT LINE PERPENDICULARS:
10535' FNL & 4949' FEL

Last Take Point:

COORDINATES:
NAD 27 TX-C ZONE:
X = 1586038.41 Y = 602821.19
LAT.: N 31°19'02.69" LONG.: W 101°39'32.54"
LAT.: N 31.3174126 LONG.: W 101.6590377
NAD 83 TX-C ZONE:
X = 1882506.45 Y = 10445397.87
LAT.: N 31°19'03.22" LONG.: W 101°39'33.97"
LAT.: N 31.3175615 LONG.: W 101.6594367

SURVEY LINE PERPENDICULARS:
100' FNL & 2310' FEL (SEC. 21)

UNIT LINE PERPENDICULARS:
100' FNL & 2310' FEL

Bottom Hole Location:

COORDINATES:
NAD 27 TX-C ZONE:
X = 1586040.30 Y = 602916.17
LAT.: N 31°19'03.63" LONG.: W 101°39'32.53"
LAT.: N 31.3176738 LONG.: W 101.6590352
NAD 83 TX-C ZONE:
X = 1882508.34 Y = 10445492.85
LAT.: N 31°19'04.16" LONG.: W 101°39'33.96"
LAT.: N 31.3178227 LONG.: W 101.6594343

SURVEY LINE PERPENDICULARS:
5' FNL & 2310' FEL (SEC. 21)

UNIT LINE PERPENDICULARS:
5' FNL & 2310' FEL

All Coordinates are in NAD 27 TX-C Zone unless otherwise noted.

REV#-BY	DATE REVISED	REV#-BY	DATE REVISED
MP	01-30-2017	1-XXX	XX/XX/XX
MP	02-21-2017		

SPECIAL NOTES:

LEGEND

- Unit Boundary
- Section Lines
- Block Line
- E Powerline
- Pipeline
- Lease Road
- Calculated Corner

CERTIFICATION:

This well location shown on this permit plat was surveyed on the ground under my direct supervision. This plat is for Texas Railroad Commission permit purpose only and should not be considered a boundary survey.

William J. Keating

Texas Reg. No. 5041

**STATE OF TEXAS
REGISTERED
WILLIAM J. KEATING
5041
PROFESSIONAL
LAND SURVEYOR**

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM
Texas FIRM Registration NO. 10042500
LO_UNIVERSITY_9C_1207WA_REV2

**SEM OPERATING
COMPANY LLC**

LEASE NAME & WELL NO.:
UNIVERSITY 9C #1207WA
TOPOGRAPHY & VEGETATION:
NATURAL MESQUITE PASTURE
NEAREST TOWN IN COUNTY:
±13.5 MILES NORTHWEST OF BIG LAKE, TEXAS

LOCATION DESCRIPTION:
SHL: SECTION 12, BLOCK 9, UNIVERSITY LAND SURVEY
PP/FTP: SECTION 1, BLOCK 9, UNIVERSITY LAND SURVEY
LTP/BHL: SECTION 21, BLOCK 58, UNIVERSITY LAND SURVEY
REAGAN COUNTY, TEXAS

Scale: 1" = 1000'	Surveyed: 12-30-2016	ORIGINAL DOC. SIZE: 11"x17"
COGO: 519-89429		Drawn By: MP; 01-24-2017



· Directional Drilling · Horizontal Drilling · MWD/LWD · Mud Motors

May 8, 2017

State of Texas
County of Reagan

I, Allison Reinert, certify that; I am employed by Aim Directional Services, LLC; that I did on the day(s) of April 16, 2017 through April 29, 2017 conduct or supervise the taking of a directional MWD survey from a depth of 673 feet to a depth of 18914 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Aim Directional Services, LLC; that I am authorized and qualified to make this report; that this survey was conducted at the request of SEM Operating Company, LLC for University 9C #1207WA API No. 42-383-39819 in Reagan County, Texas; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Aim Directional Services, LLC.

Allison Reinert
VP Engineering