EDGE SERVICES
580-254-3216
Woodward, OK

INVOICE

DATE	INVOICE #
9/12/2013	4202

BILL TO
SANDRIDGE ENERGY, INC. ATTN: PURCHASING MANAGER 123 ROBERT S. KERR AVENUE OKLAHOMA CITY, OK 73102

REMIT TO
EDGE SERVICES, INC. PO BOX 609 WOODWARD, OK 73802

COUNTY	STARTING D...	WORK ORDER	RIG NUMBER	LEASE NAME	Terms
EDWARDS, KS	9/11/2013	3274	HORIZON 4	BIAGGI 2520 1-28H	Due on rec...

Description
DRILLED 120' OF 30" CONDUCTOR HOLE FURNISHED AND SET 6' X 6' TINHORN CELLAR FURNISHED 120' OF 20" CONDUCTOR PIPE FURNISHED 25' MOUSE HOLE SHUCK FURNISHED 1 LOAD(S) MUD FURNISHED WELDER AND MATERIALS FURNISHED 12 YARDS OF GRADE A CEMENT FURNISHED GROUT PUMP DRILL MOUSE HOLE FURNISHED 25' OF 14" CONDUCTOR PIPE FOR MOUSE HOLE TOTAL BID $ 17,000.00

Sales Tax (7.3%)	$214.66
TOTAL	$17,214.66

JOB SUMMARY

PROJECT NUMBER	TICKET DATE
SOK 3089	10/13/13

COUNTY	State	COMPANY	CUSTOMER REP
Edwards	Kansas	dridge Exploration & Produc	Luis Solis

LEASE NAME	Well No.	JOB TYPE	EMPLOYEE NAME
Biaggi 2520	1-28H	Surface	Daniel Wells

EMP NAME							
Daniel Wells		0					
Vontray Watkins							
Wallace Berry							
Nate Cotta							

Form. Name _____ Type: _____

Packer Type _____ Set At 0

Bottom Hole Temp. 80 Pressure _____

Retainer Depth _____ Total Depth 1250

	Called Out	On Location	Job Started	Job Completed
Date	10/12/2013	10/12/2013	10/13/2013	10/13/2013
Time	1400	1800	0140	0240

Tools and Accessories

Type and Size	Qty	Make
Auto Fill Tube	0	IR
Insert Float Val	0	IR
Centralizers	0	IR
Top Plug	1	IR
HEAD	1	IR
Limit clamp	0	IR
Weld-A	0	IR
Texas Pattern Guide Shoe	0	IR
Cement Basket	0	IR

Well Data

	New/Used	Weight	Size Grade	From	To	Max. Allow
Casing		36#	9⅝"	Surface	1,234	1,500
Liner						
Liner						
Tubing			0			
Drill Pipe						
Open Hole			12¼"	Surface	1,230	Shots/Ft.
Perforations						
Perforations						
Perforations						

Materials

Mud Type	WBM	Density 9		Lb/Gal
Disp. Fluid	Fresh Water	Density 8.33		Lb/Gal
Spacer type	resh Wate	BBL. 10		8.33
Spacer type		BBL.		
Acid Type		Gal.	%	
Acid Type		Gal.	%	
Surfactant		Gal.	In	
NE Agent		Gal.	In	
Fluid Loss		Gal/Lb	In	
Gelling Agent		Gal/Lb	In	
Fric. Red.		Gal/Lb	In	
MISC.		Gal/Lb	In	

Perfpac Balls _____ Qty. _____

Other _____

Other _____

Other _____

Other _____

Other _____

Hours On Location

Date	Hours
10/12	8.0
Total	8.0

Operating Hours

Date	Hours
10/13	1.0
Total	1.0

Description of Job

Surface

Pressures

MAX 1,500 PSI AVG. 180

Average Rates in BPM

MAX 6 BPM AVG 5

Cement Left in Pipe

Feet 44.67' Reason SHOE JOINT

Cement Data

Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	250	TEX Lite Premium Plus 65	(6% Gel) 2% Calcium Chloride - ¼pps Cello-Flake - .5% C-41P	11.11	2.01	12.40
2	130	Premium Plus (Class C)	2% Calcium Chloride - ¼pps Cello-Flake	6.32	1.32	14.80

Summary

Preflush _____ Type: _____

Breakdown _____ MAXIMUM 1,500 PSI

_____ Lost Returns-N NO/FULL

_____ Actual TOC SURFACE

Average _____ Bump Plug PSI: 830

ISIP _____ 5 Min. _____ 10 Min _____ 15 Min _____

Preflush: BBl 10.00 Type: Fresh Water

Load & Bkdn: Gal - BBl N/A Pad:Bbl -Gal N/A

Excess /Return BBl 40 Calc.Disp Bbl 92

Calc. TOC: SURFACE Actual Disp. 91.94

Final Circ. PSI: 260 Disp:Bbl 91.94

Cement Slurry: BBl 120.1

Total Volume BBl 222.04

CUSTOMER REPRESENTATIVE _____ SIGNATURE

JOB SUMMARY

PROJECT NUMBER	TICKET DATE
SOK 3126	10/24/13

COUNTY	State	COMPANY	CUSTOMER REP
Edwards	Kansas	Sandridge Exploration & Production	Luis Garza

LEASE NAME	Well No.	JOB TYPE	EMPLOYEE NAME
Biaggi 2520	1-28H	Intermediate	ROBERT BURRID

EMP NAME							
Robert Burris		0					
Mike Hall							
Cheryl Newton							
JARED GREEN							

Form. Name _____ Type: _____

Packer Type _____ Set At 3,996

Bottom Hole Temp. 155 Pressure _____

Retainer Depth _____ Total Depth 5390

	Called Out	On Location	Job Started	Job Completed
Date	23-Oct	23-Oct	10/24/2013	10/24/2013
Time	15:00	19:00	07:48	10:00

Tools and Accessories

Type and Size	Qty	Make
Auto Fill Tube	0	IR
Insert Float Val	0	IR
Centralizers	0	IR
Top Plug	0	IR
HEAD	0	IR
Limit clamp	0	IR
Weld-A	0	IR
Texas Pattern Guide Shoe	0	IR
Cement Basket	0	IR

Well Data

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing		26#	7"		Surface	5,395	5,000
Liner							
Liner							
Tubing			0				
Drill Pipe							
Open Hole			8¾"		Surface	5,390	Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials

Mud Type	WBM	Density 9	Lb/Gal	
Disp. Fluid	Fresh Water	Density 8.33	Lb/Gal	
Spacer type	GEL	BBL. 30		8.33
Spacer type		BBL.		
Acid Type		Gal.	%	
Acid Type		Gal.	%	
Surfactant		Gal.	In	
NE Agent		Gal.	In	
Fluid Loss		Gal/Lb	In	
Gelling Agent		Gal/Lb	In	
Fric. Red.		Gal/Lb	In	
MISC.		Gal/Lb	In	

Perfpac Balls _____ Qty. _____

Other _____

Other _____

Other _____

Other _____

Other _____

Hours On Location

Date	Hours
10/23	15.0
Total	15.0

Operating Hours

Date	Hours
10/24	1.2
Total	1.2

Description of Job

Intermediate

Pressures

MAX 5,000 PSI AVG. 675

Average Rates in BPM

MAX 8 BPM AVG 5

Cement Left in Pipe

Feet 89 Reason SHOE JOINT

Cement Data

Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	130	50/50 POZ PREMIUM	4% Gel - 0.2% FL-17 - 0.1% C-51 - 0.4% C-41P	6.93	1.43	13.60
2	100	Premium	0.2% FL-17 - 0.1% C-51 - 0.1% C-20 - 0.4% C-41P	5.19	1.19	15.60
3	0	0	0	0.00	0.00	0.00

Summary

Preflush _____ Type: _____

Breakdown _____ MAXIMUM 5,000 PSI

_____ Lost Returns-N NO/FULL

_____ Actual TOC 4,029

Average _____ Bump Plug PSI: 1,500

ISIP _____ 5 Min. _____ 10 Min _____ 15 Min _____

Preflush:	BBl	30.00	Type: Gel Spacer
Load & Bkdn:	Gal - BBl	N/A	Pad:Bbl -Gal N/A
Excess /Return	BBl	N/A	Calc.Disp Bbl 203
Calc. TOC:		4,029	Actual Disp. 201.00
Final Circ.	PSI:	975	Disp:Bbl
Cement Slurry:	BBl	54.0	
Total Volume	BBl	285.00	

CUSTOMER REPRESENTATIVE _____

SIGNATURE

Sandridge

Location Kansas | Installation Edwards County
Field Sec 28 - 25S - 20W | Well Biaggi 2520 1-28H

Installation Data

Name	Latitude	Longitude	Northing	Easting
Edwards County	N37 50 24.24	W99 30 53.25	428846.00	1706957.00
Coordinate System	Kansas State Planes, Southern Zone			

Slot Data

Name	North [ft]	East [ft]	Latitude	Longitude	Northing	Easting
Biaggi 2520 1-28H	350.11 N	-649.35 E	N37 50 27.63	W99 31 1.39	429196.09	1706307.69

Elevation Data

Slot - Mean Sea Level [ft]	Mean Sea Level - Mudline/Ground level [ft]	Slot - Mudline/Ground level [ft]
0.00	0.00	0.00

WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00
KOP	3996.82	0.00	0.00	3996.82	0.00	0.00	0.00	-0.00
Target Biaggi 2520 1-2	5124.93	90.00	181.28	4715.00	-718.00	-16.04	7.98	718.18
T.D. & Target Biaggi 25	7446.80	90.00	181.27	4715.00	-3039.29	-67.69	0.00	3040.04

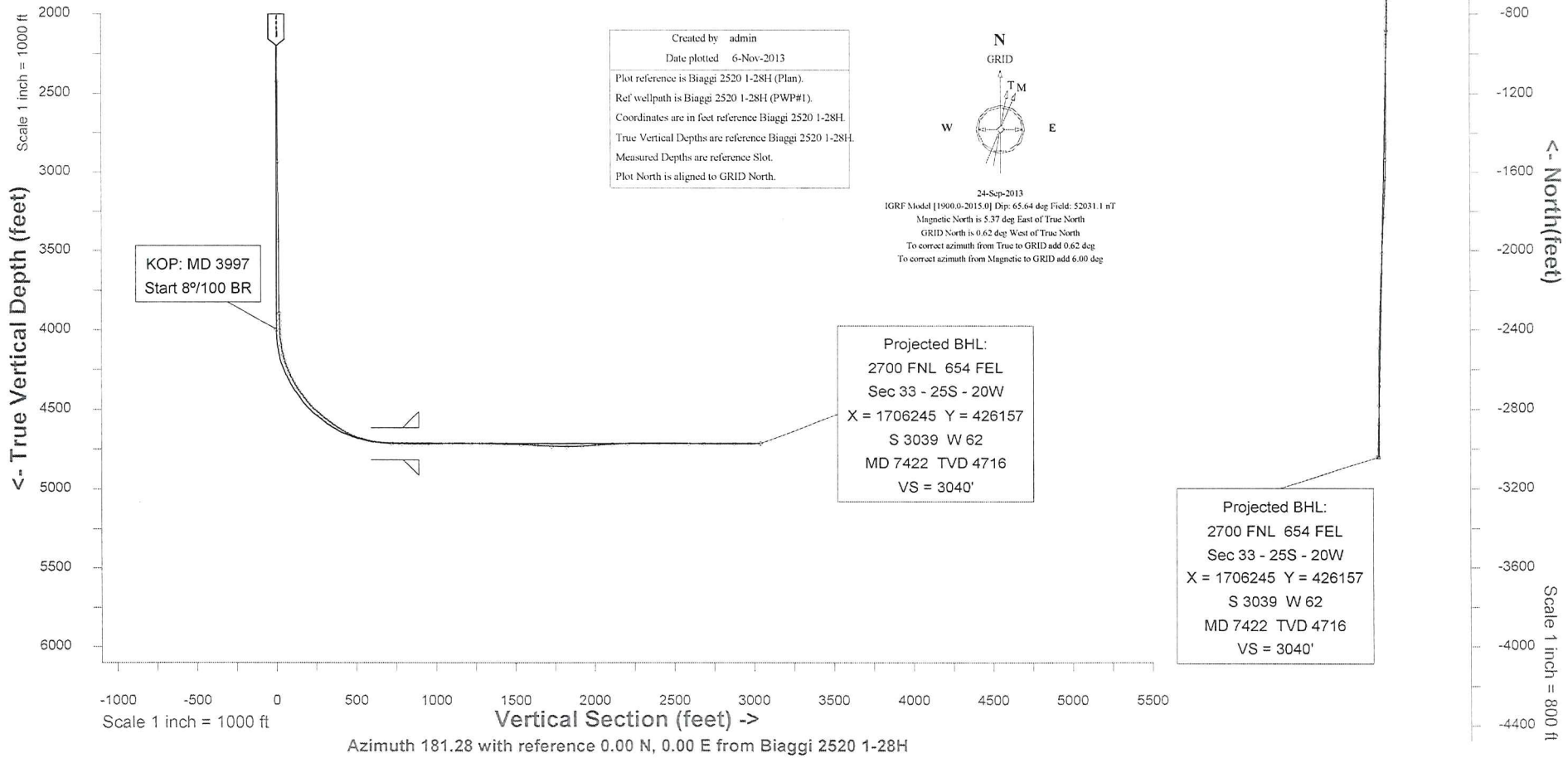
TARGET DATA

MD	Inc	Azi	TVD	North	East	Name	Position
-	-	-	4712.58	-691.03	-15.32	Biaggi 2520 1-28H - 88°	1706292.37 East : 428505.11 North
5124.93	90.00	181.28	4715.00	-718.00	-16.04	Biaggi 2520 1-28H - LP	1706291.65 East : 428478.14 North
7446.80	90.00	181.27	4715.00	-3039.29	-67.69	Biaggi 2520 1-28H - BHL	1706240.00 East : 426157.00 North
-	-	-	4719.56	-890.86	-19.75	Biaggi 2520 1-28H - End 88°	1706287.94 East : 428305.29 North

Target Line: 10-28-13
Target: 4715 KBTVD @ 0 VS
90° @ 181.28 Azimuth Plane

SandRidge ENERGY

DrillRight TECHNOLOGY, INC.
9630 Pole Rd.
Oklahoma City, OK 73160
Tel: (405) 604-2969



Created by admin
Date plotted 6-Nov-2013
Plot reference is Biaggi 2520 1-28H (Plan).
Ref wellpath is Biaggi 2520 1-28H (PWP#1).
Coordinates are in feet reference Biaggi 2520 1-28H.
True Vertical Depths are reference Biaggi 2520 1-28H.
Measured Depths are reference Slot.
Plot North is aligned to GRID North.

N
GRID
TM
W
E

24-Sep-2013
IGRF Model [1900.0-2015.0] Dip: 65.64 deg Field: 52031.1 nT
Magnetic North is 5.37 deg East of True North
GRID North is 0.62 deg West of True North
To correct azimuth from True to GRID add 0.62 deg
To correct azimuth from Magnetic to GRID add 6.00 deg

Standard Wellpath Report
Sandridge
Sec 28 - 25S - 20W, Kansas
Edwards County
Wellbore: Biaggi 2520 1-28H (Actual)

Wellpath (Grid) Report

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Easting	Northing
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	1706307.69	429196.09
1258.00	0.70	110.500	1257.97	2.69S	7.20E	0.06	2.53	1706314.89	429193.40
1416.00	0.50	107.300	1415.96	3.23S	8.76E	0.13	3.04	1706316.45	429192.86
1921.00	0.70	100.000	1920.93	4.43S	13.90E	0.04	4.11	1706321.59	429191.67
2425.00	0.50	180.600	2424.91	7.16S	16.91E	0.16	6.78	1706324.60	429188.93
2930.00	0.50	156.300	2929.89	11.38S	17.77E	0.04	10.98	1706325.46	429184.71
3435.00	0.50	164.800	3434.87	15.52S	19.24E	==>	15.09	1706326.93	429180.57
3897.00	0.80	167.700	3896.84	20.62S	20.45E	0.07	20.16	1706328.14	429175.47
3941.00	0.50	165.800	3940.84	21.11S	20.56E	0.68	20.64	1706328.25	429174.98
3972.00	1.00	190.700	3971.84	21.50S	20.55E	1.89	21.04	1706328.24	429174.59
4004.00	2.60	198.800	4003.82	22.46S	20.26E	5.05	22.01	1706327.95	429173.63
4036.00	5.30	194.900	4035.74	24.58S	19.65E	8.47	24.14	1706327.34	429171.51
4067.00	7.10	192.900	4066.56	27.83S	18.85E	5.85	27.41	1706326.54	429168.26
4098.00	8.80	198.300	4097.26	31.95S	17.68E	5.98	31.55	1706325.37	429164.14
4129.00	10.90	196.900	4127.80	37.01S	16.08E	6.82	36.64	1706323.77	429159.08
4161.00	13.50	193.600	4159.08	43.53S	14.32E	8.41	43.20	1706322.01	429152.56
4192.00	16.20	194.600	4189.04	51.24S	12.38E	8.75	50.95	1706320.07	429144.86
4224.00	18.90	193.100	4219.55	60.61S	10.08E	8.55	60.37	1706317.77	429135.49
4254.00	21.20	190.900	4247.73	70.67S	7.96E	8.07	70.47	1706315.65	429125.43
4286.00	23.80	189.100	4277.29	82.73S	5.84E	8.40	82.58	1706313.53	429113.37
4317.00	26.00	188.300	4305.41	95.63S	3.87E	7.18	95.52	1706311.56	429100.47
4349.00	28.80	186.900	4333.81	110.22S	1.93E	8.98	110.15	1706309.62	429085.87
4380.00	31.60	184.400	4360.60	125.74S	0.41E	9.90	125.70	1706308.10	429070.36
4412.00	34.20	183.800	4387.47	143.07S	0.83W	8.19	143.06	1706306.86	429053.03
4444.00	37.20	183.100	4413.45	161.71S	1.95W	9.46	161.71	1706305.74	429034.39
4475.00	39.90	183.300	4437.70	181.00S	3.03W	8.72	181.02	1706304.66	429015.10
4507.00	42.40	183.000	4461.79	202.02S	4.18W	7.84	202.06	1706303.51	428994.08
4539.00	44.70	183.000	4484.98	224.04S	5.34W	7.19	224.10	1706302.35	428972.07
4570.00	46.70	183.500	4506.63	246.19S	6.60W	6.55	246.27	1706301.09	428949.92
4601.00	48.40	183.900	4527.55	269.01S	8.07W	5.57	269.13	1706299.62	428927.10
4633.00	49.50	183.300	4548.57	293.10S	9.59W	3.72	293.24	1706298.10	428903.01
4665.00	51.10	181.500	4569.01	317.69S	10.61W	6.61	317.85	1706297.08	428878.42
4697.00	54.20	180.600	4588.42	343.12S	11.08W	9.94	343.29	1706296.61	428852.99
4729.00	56.40	180.200	4606.64	369.43S	11.26W	6.95	369.59	1706296.43	428826.68
4760.00	59.30	180.500	4623.13	395.67S	11.42W	9.39	395.83	1706296.27	428800.44
4792.00	62.50	180.700	4638.69	423.63S	11.71W	10.01	423.78	1706295.98	428772.49
4823.00	64.60	181.800	4652.50	451.37S	12.32W	7.48	451.54	1706295.37	428744.74
4854.00	67.60	182.500	4665.06	479.69S	13.39W	9.90	479.87	1706294.30	428716.43
4885.00	70.50	183.000	4676.14	508.61S	14.78W	9.48	508.81	1706292.91	428687.52
4917.00	73.40	182.300	4686.05	539.00S	16.18W	9.30	539.22	1706291.51	428657.13
4949.00	75.80	181.600	4694.55	569.83S	17.23W	7.79	570.07	1706290.46	428626.30
4980.00	78.80	180.600	4701.37	600.06S	17.81W	10.18	600.31	1706289.88	428596.07
5010.00	81.20	180.300	4706.58	629.60S	18.04W	8.06	629.85	1706289.65	428566.53
5041.00	84.00	179.800	4710.57	660.34S	18.07W	9.17	660.58	1706289.62	428535.79
5072.00	85.70	180.300	4713.35	691.21S	18.09W	5.71	691.44	1706289.60	428504.92
5104.00	86.40	180.700	4715.55	723.14S	18.37W	2.52	723.36	1706289.32	428473.00
5136.00	87.60	181.300	4717.23	755.09S	18.93W	4.19	755.32	1706288.76	428441.05
5167.00	88.50	181.400	4718.28	786.06S	19.66W	2.92	786.30	1706288.03	428410.08
5198.00	89.40	181.400	4718.85	817.04S	20.42W	2.90	817.30	1706287.27	428379.10
5230.00	89.80	180.900	4719.08	849.04S	21.06W	2.00	849.29	1706286.63	428347.11
5261.00	90.20	181.200	4719.08	880.03S	21.63W	1.61	880.29	1706286.06	428316.12
5292.00	90.50	181.000	4718.89	911.02S	22.22W	1.16	911.29	1706285.47	428285.12
5324.00	91.00	181.000	4718.47	943.02S	22.78W	1.56	943.29	1706284.91	428253.13
5340.00	91.30	180.700	4718.15	959.01S	23.02W	2.65	959.29	1706284.67	428237.14
5408.00	90.90	180.800	4716.84	1026.99S	23.91W	0.61	1027.27	1706283.78	428169.16
5472.00	90.40	179.600	4716.12	1090.99S	24.13W	2.03	1091.25	1706283.56	428105.17
5536.00	90.40	180.100	4715.67	1154.99S	23.96W	0.78	1155.23	1706283.73	428041.18
5599.00	90.40	180.000	4715.23	1217.98S	24.02W	0.16	1218.22	1706283.67	427978.19
5663.00	88.80	179.900	4715.68	1281.98S	23.96W	2.50	1282.20	1706283.73	427914.19
5727.00	87.60	180.000	4717.69	1345.95S	23.91W	1.88	1346.15	1706283.78	427850.23
5822.00	88.60	181.000	4720.84	1440.89S	24.74W	1.49	1441.08	1706282.95	427755.29
5918.00	87.90	180.800	4723.77	1536.83S	26.24W	0.76	1537.04	1706281.45	427659.36
6014.00	88.00	181.400	4727.20	1632.75S	28.09W	0.63	1632.97	1706279.61	427563.44
6109.00	85.30	181.700	4732.75	1727.55S	30.65W	2.86	1727.80	1706277.04	427468.66
6205.00	91.70	183.500	4735.26	1823.36S	35.00W	6.92	1823.69	1706272.69	427372.85
6301.00	93.10	183.400	4731.24	1919.10S	40.78W	1.46	1919.53	1706266.92	427277.11
6396.00	93.30	181.900	4725.94	2013.85S	45.16W	1.59	2014.35	1706262.53	427182.37
6492.00	92.70	181.900	4720.92	2109.66S	48.34W	0.63	2110.22	1706259.35	427086.56
6587.00	92.40	182.600	4716.69	2204.50S	52.07W	0.80	2205.11	1706255.63	426991.74
6684.00	90.60	181.800	4714.15	2301.39S	55.79W	2.03	2302.06	1706251.91	426894.85
6779.00	89.70	181.500	4713.90	2396.35S	58.52W	1.00	2397.05	1706249.17	426799.90
6875.00	88.70	180.600	4715.24	2492.32S	60.28W	1.40	2493.04	1706247.41	426703.93

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Slot and TVD's are from Slot (Biaggi 2520 1-28H 0.00ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 181.280 degrees
Bottom hole distance is 3039.91 Feet on azimuth 181.18 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 6-Nov-2013

Standard Wellpath Report
Sandridge
Sec 28 - 25S - 20W, Kansas
Edwards County
Wellbore: Biaggi 2520 1-28H (Actual)

Wellpath (Grid) Report

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Easting	Northing
6971.00	89.10	181.100	4717.09	2588.29S	61.71W	0.67	2589.02	1706245.99	426607.97
7066.00	90.10	180.500	4717.75	2683.28S	63.03W	1.23	2684.01	1706244.66	426512.99
7162.00	90.60	179.800	4717.16	2779.27S	63.28W	0.90	2779.99	1706244.41	426417.00
7258.00	89.70	179.700	4716.91	2875.27S	62.86W	0.94	2875.96	1706244.83	426321.01
7353.00	90.40	179.900	4716.83	2970.27S	62.53W	0.77	2970.93	1706245.16	426226.01
7422.00	90.40	179.900	4716.35	3039.27S	62.41W	==>	3039.90	1706245.28	426157.02

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Slot and TVD's are from Slot (Biaggi 2520 1-28H 0.00ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 181.280 degrees
Bottom hole distance is 3039.91 Feet on azimuth 181.18 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 6-Nov-2013

SHAMROCK GAS ANALYSIS, INC.

LABORATORY REFERENCE NUMBER : **R16033.S02235**

SANDRIDGE ENERGY, INC.

ID: **KS03R0271**
AREA: **NOT/REC**
METER: **BIAGGI 1-28H**
LEASE: **BIAGGI 1-28H**
OPERATOR: **SANDRIDGE**
STATION: **KS03R0271**
SAMPLE DATE: **12/30/2013**
SAMPLE OF: **GAS**

LINE PRESSURE: **56.08 PSI**
LINE TEMPERATURE: **39.61 F**
CYLINDER NUMBER: **715**
EFFECTIVE DATE: **12/1/2013**
SAMPLED BY: **NOT/REC**
ANALYZED BY: **BRENNAN**
ANALYZED DATE: **1/6/2014**
SAMPLE TYPE: **SPOT**

For: SANDRIDGE ENERGY, INC.
Attn: JULIE COSTELLO
123 ROBERT S. KERR AVENUE

OKLAHOMA CITY, OK 73102-6406

Physical Properties per GPA 2145-09 — Calculations per GPA 2172-09

Note: Zero = Less than detection limit

	MOL%	GPM @ 14.696
HYDROGEN	0.428	0.038
HELIUM	1.416	0.143
HYDROGEN SULFIDE	0.030	0.004
NITROGEN	39.380	4.316
CARBON DIOXIDE	32.556	5.535
METHANE	23.594	3.985
ETHANE	1.935	0.516
PROPANE	0.318	0.087
ISOBUTANE	0.061	0.020
N-BUTANE	0.107	0.034
ISOPENTANE	0.029	0.011
N-PENTANE	0.040	0.014
HEXANES PLUS	0.106	0.047
	100.000	14.750

BTU	Vol. IDEAL Gas Fuel	Vol. Real Gas Fuel
BTU @ 14.65 PSIA (DRY)	295.0	295.6
BTU @ 14.65 PSIA (SAT.)	289.9	290.5
Specific Gravity	1.0424	1.0440
Compressibility (Z)	0.9980	

Gasoline Content (Gallons Per Thousand - GPM)

Ethane & Heavier	0.729
Propane & Heavier	0.213
Butane & Heavier	0.126
Pentane & Heavier	0.072
Total 26 psi Reid V.P. Gasoline GPM	0.115

Secondary BTU Psia Base

	Vol. IDEAL Gas Fuel	Vol. Real Gas Fuel
BTU @ 14.73 PSIA (DRY)	296.6	297.2
BTU @ 14.73 PSIA (SAT.)	291.5	292.1
Compressibility (Z) at 14.73 =	0.9980	

Remarks: Field H2S ppm = 300 NO PREVIOUS BTU AVAILABLE RUSH SAMPLE
Remarks: 47-36-17 HEXANES SPLIT AS PER K. HARPER 05/02/11

SHAMROCK GAS ANALYSIS, INC.

LABORATORY REFERENCE NUMBER : **R16036.Q05864**

SANDRIDGE ENERGY, INC.

ID: **KS03R0271**
AREA: **NOT/REC**
METER: **BIAGGI 1-28H**
LEASE: **BIAGGI 1-28H**
OPERATOR: **SANDRIDGE**
STATION: **KS03R0271**
SAMPLE DATE: **12/30/2013**
SAMPLE OF: **GAS**

LINE PRESSURE: **56.08 PSI**
LINE TEMPERATURE: **39.61 F**
CYLINDER NUMBER: **4916**
EFFECTIVE DATE: **12/1/2013**
SAMPLED BY: **NOT/REC**
ANALYZED BY: **BRENNAN**
ANALYZED DATE: **1/6/2014**
SAMPLE TYPE: **SPOT**

For: SANDRIDGE ENERGY, INC.
Attn: JULIE COSTELLO
123 ROBERT S. KERR AVENUE
OKLAHOMA CITY, OK 73102-6406

Physical Properties per GPA 2145-09 — Calculations per GPA 2172-09

Note: Zero = Less than detection limit

	MOL%	GPM @ 14.696
HYDROGEN	0.344	0.031
HELIUM	1.407	0.142
HYDROGEN SULFIDE	0.030	0.004
NITROGEN	39.446	4.324
CARBON DIOXIDE	32.576	5.539
METHANE	23.615	3.989
ETHANE	1.934	0.515
PROPANE	0.316	0.087
ISOBUTANE	0.062	0.020
N-BUTANE	0.104	0.033
ISOPENTANE	0.032	0.012
N-PENTANE	0.028	0.010
HEXANES PLUS	0.106	0.047
	100.000	14.753

BTU	Vol. Ideal Gas Fuel	Vol. Real Gas Fuel
BTU @ 14.65 PSIA (DRY)	294.5	295.1
BTU @ 14.65 PSIA (SAT.)	289.3	290.0
Specific Gravity	1.0431	1.0447
Compressibility (Z)	0.9980	

PREVIOUS BTU 12/30/2013	Vol. Ideal Gas Fuel	Vol. Real Gas Fuel
BTU @ 14.65 PSIA (DRY)	295.0	295.6
BTU @ 14.65 PSIA (SAT.)	289.9	290.5

Gasoline Content (Gallons Per Thousand - GPM)

Ethane & Heavier	0.724
Propane & Heavier	0.209
Butane & Heavier	0.122
Pentane & Heavier	0.069
Total 26 psi Reid V.P. Gasoline GPM	0.110

Secondary BTU Psia Base	Vol. IDEAL Gas Fuel	Vol. Real Gas Fuel
BTU @ 14.73 PSIA (DRY)	296.1	296.7
BTU @ 14.73 PSIA (SAT.)	290.9	291.6

Compressibility (Z) at 14.73 = 0.9980

Remarks: Field H2S ppm = 300 RUSH SAMPLE
Remarks: 47-36-17 HEXANES SPLIT AS PER K. HARPER 05/02/11