

Confidentiality Requested:

Yes No

### Kansas Corporation Commission Oil & Gas Conservation Division

1219301

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

# WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License #			API No. 15		
Name:			Spot Description:		
Address 1:			Sec	TwpS. R	East West
Address 2:			F6	eet from North /	South Line of Section
City:	State: Z	ip:+	Fe	eet from East /	West Line of Section
Contact Person:			Footages Calculated from I	Nearest Outside Section C	Corner:
Phone: ()			□ NE □ NW	V □SE □SW	
CONTRACTOR: License #			GPS Location: Lat:	, Long: _	
Name:				(e.g. xx.xxxxx)	(e.gxxx.xxxxx)
Wellsite Geologist:			Datum: NAD27	NAD83 WGS84	
Purchaser:			County:		
Designate Type of Completion:			Lease Name:	W	/ell #:
	e-Entry	Workover	Field Name:		
	_		Producing Formation:		
☐ Oil ☐ WSW ☐ D&A	☐ SWD	∐ SIOW □ SIGW	Elevation: Ground:	Kelly Bushing:	:
	GSW	Temp. Abd.	Total Vertical Depth:	Plug Back Total C	Depth:
CM (Coal Bed Methane)	dow	Temp. Abd.	Amount of Surface Pipe Se	et and Cemented at:	Feet
☐ Cathodic ☐ Other (Co	ore, Expl., etc.):		Multiple Stage Cementing	Collar Used? Yes	No
If Workover/Re-entry: Old Well I			If yes, show depth set:		Feet
Operator:			If Alternate II completion, c	cement circulated from:	
Well Name:			feet depth to:	w/	sx cmt.
Original Comp. Date:					
Deepening Re-perf	•	NHR Conv. to SWD	Drilling Fluid Managemer	nt Plan	
☐ Plug Back	Conv. to G		(Data must be collected from the		
Commingled	Pormit #:		Chloride content:	ppm Fluid volume	e: bbls
Dual Completion			Dewatering method used: _		
SWD			Location of fluid disposal if	hauled offsite	
☐ ENHR					
GSW	Permit #:		Operator Name:		
_ <del>_</del>			Lease Name:	License #:_	
Spud Date or Date R	eached TD	Completion Date or	QuarterSec	TwpS. R	East _ West
Recompletion Date		Recompletion Date	County:	Permit #:	

### **AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

**Submitted Electronically** 

KCC Office Use ONLY		
Confidentiality Requested		
Date:		
Confidential Release Date:		
Wireline Log Received		
Geologist Report Received		
UIC Distribution		
ALT I II III Approved by: Date:		



Operator Name:			Lease Name: _			Well #:	
Sec Twp	S. R	East West	County:				
open and closed, flow	ing and shut-in pressu	ormations penetrated. Eures, whether shut-in preith final chart(s). Attach	essure reached stati	c level, hydrosta	atic pressures, bott		
		tain Geophysical Data a r newer AND an image		gs must be ema	ailed to kcc-well-lo	gs@kcc.ks.go	v. Digital electronic log
Drill Stem Tests Taken (Attach Additional S		Yes No			on (Top), Depth an		Sample
Samples Sent to Geol	logical Survey	☐ Yes ☐ No	Nam	е		Тор	Datum
Cores Taken Electric Log Run		Yes No					
List All E. Logs Run:							
		CASING	RECORD Ne	w Used			
		Report all strings set-			ion, etc.		
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
		ADDITIONAL	CEMENTING / SQL	JEEZE RECORD			
Purpose:  Perforate Protect Casing Plug Back TD	Depth Top Bottom	Type of Cement	# Sacks Used		Type and P	ercent Additives	
Plug Off Zone							
Does the volume of the to		n this well? aulic fracturing treatment ex submitted to the chemical (	_	Yes ? Yes Yes	No (If No, ski	p questions 2 ar p question 3) out Page Three	
Shots Per Foot	PERFORATIO	N RECORD - Bridge Plug	s Set/Type		cture, Shot, Cement		
	Specify Fo	ootage of Each Interval Per	forated	(A	mount and Kind of Ma	terial Used)	Depth
TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run:	Yes No		
Date of First, Resumed	Production, SWD or ENH	IR. Producing Meth		Gas Lift (	Other (Explain)		
Estimated Production Per 24 Hours	Oil B	bls. Gas	Mcf Wate	er B	bls. G	as-Oil Ratio	Gravity
DISPOSITIO	ON OF GAS:	Open Hole	METHOD OF COMPLE Perf. Dually (Submit )	Comp. Cor	mmingled	PRODUCTIO	ON INTERVAL:
(If vented, Sub	omit ACO-18.)	Other (Specify)	(Submit )	100-3) (SUB	omit ACO-4)		

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Mabel 3508 2-9H
Doc ID	1219301

# Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
	Frac Point System used- no perforating necessary	750 gals 15% HCL, 2341 bbls fresh slickwater, TLTR: 2341	9334
		750 gals 15% HCL, 2330 bbls fresh slickwater, TLTR: 4671	9150
		750 gals 15% HCL, 2383 bbls fresh slickwater, TLTR: 7054	8922
		750 gals 15% HCL, 2338 bbls fresh slickwater, TLTR: 9392	8693
		750 gals 15% HCL, 2516 bbls fresh slickwater, TLTR: 11908	8464
		750 gals 15% HCL, 2567 bbls fresh slickwater, TLTR: 14475	8281
		750 gals 15% HCL, 2521 bbls fresh slickwater, TLTR: 16996	8097
		750 gals 15% HCL, 2539 bbls fresh slickwater, TLTR: 19535	7913

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Mabel 3508 2-9H
Doc ID	1219301

### Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
		750 gals 15% HCL, 2491 bbls fresh slickwater, TLTR: 22026	7685
		750 gals 15% HCL, 2530 bbls fresh slickwater, TLTR: 24556	7501
		750 gals 15% HCL, 2514 bbls fresh slickwater, TLTR: 27070	7317
		750 gals 15% HCL, 2513 bbls fresh slickwater, TLTR: 29583	7133
		750 gals 15% HCL, 2530 bbls fresh slickwater, TLTR: 32113	6949
		750 gals 15% HCL, 2518 bbls fresh slickwater, TLTR: 34631	6765
		750 gals 15% HCL, 2500 bbls fresh slickwater, TLTR: 37131	6581
		750 gals 15% HCL, 2501 bbls fresh slickwater, TLTR: 39631	6397

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Mabel 3508 2-9H
Doc ID	1219301

## Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
		750 gals 15% HCL, 2508 bbls fresh slickwater, TLTR: 42139	6213
		750 gals 15% HCL, 2465 bbls fresh slickwater, TLTR: 44604	6029
		750 gals 15% HCL, 2599 bbls fresh slickwater, TLTR: 47203	5845
		750 gals 15% HCL, 2623 bbls fresh slickwater, TLTR: 49820	5661
5	5100-5380	750 gals 15% HCL, 4061 bbls fresh slickwater, TLTR: 53887	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Mabel 3508 2-9H
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# Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Conductor	30	20	75	60	Edge Services 10 sack grout	6	none
Surface	12.25	9.63	36	783	Allied Class A: Poz Blend	405	6% Gel, 2%cc, 1/4# Floseal
Intermedia te	8.75	7	26	5553	Allied Class A Common	340	157 FL- 160, 21 SA-51 Suspensi on Agent, 19 CD-31





DATE	INVOICE #
4/30/2014	4740

**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
HARPER, KS	4/28/2014	3596	HWD 14	MABEL 3508 2-9H	Due on rec

### Description

DRILLED 60' OF 30" CONDUCTOR HOLE

DRILLED 6' OF 76" HOLE

FURNISHED AND SET 6' X 6' TINHORN CELLAR

FURNISHED 60' OF 20" CONDUCTOR PIPE

FURNISHED MUD, WATER, AND TRUCKING

FURNISHED WELDER AND MATERIALS

FURNISHED 6 YARDS OF 10 SACK GROUT FOR CONDUCTOR HOLE

FURNISHED GROUT PUMP

TOTAL BID \$12,000.00

Sales Tax (6.65%)

\$82.59

**TOTAL** 

\$12,082.59



PO Box 93999 Southlake, TX 76092

Voice: Fax:

(817) 546-7282 (817) 246-3361

Bill To:

SandRidge Energy Accounts Payable P O Box 1748

Oklahoma City, OK 73102

# INVOICE

Invoice Number: 143610 Invoice Date: Jun 1, 2014

Page:

1

Customer ID	Field Ticket#	Payment	Terms
SandR	62396	Net 30	Days
Job Location	Camp Location	Service Date	Due Date
KS1-01	Medicine Lodge	Jun 1, 2014	7/1/14

Quantity	Item	Description	UnitPrice	Amount
1.00	WELL NAME	Mab el 3508 #2-9 H AFE #DC13715		
150.00	CEMENT MATERIALS	Class A Common	17.90	2,685.00
10.00	CEMENT MATERIALS	Chloride	64.00	640.00
255.00	CEMENT MATERIALS	Light Weight	1 6. 50	4,207.50
102.00	CEMENT MATERIALS	Flo Seal	2.97	302.94
50.00	CEMENT MATERIALS	Sugar	2.00	100.00
448.31	CEMENT SERVICE	Cubic Feet Charge	2.48	1,111.81
768.86	CEMENT SERVICE	Ton Mileage Charge	2.60	1,999.04
1.00	CEMENT SERVICE	Surface	2,058.50	2,058.50
40.00	CEMENT SERVICE	Light Vehicle Mleage	4.40	176.00
40.00	CEMENT SERVICE	Pump TruckMileage	7.70	308.00
1.00	CEMENT SERVICE	Circulating Iron	450.00	450.00
1.00	EQUIPMENT SALES	9-5/8 Rubber Plug	184.86	184.86
1.00	CEMENT SERVICE	Manifold Rental	275.00	275.00
1.00	CEMENT SUPERVISOR	Jason Thimesch		
1.00	OPERATOR ASSISTANT	Carl Rackley		
1.00	OPERATOR ASSISTANT	Kenneth Jack		
1.00	JOB DISCOUNT	Job Discount if paid within terms	4,349.59	-4,349.59

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

CALL VIE DAID ON OR DEFORE Jul 1, 2014

Subtotal	10,149.06
Sales Tax	499.40
Total Invoice Amount	10,648.46
Payment/Credit Applied	
TOTAL	10,648.46



PO Box 93999 Southlake, TX 76092

Voice: (817) 546-7282 Fax: (817) 246-3361

Bill To:

SandRidge Energy Accounts Payable

P O Box 1748

Oklahoma City, OK 73102

# INVOICE

Invoice Number: 143747 Invoice Date: Jun 12, 2014

Page: 1

Customer ID	Field Ticket#	Payment	Terms
SandR	63127	Net 30	Days
Job Location	Camp Location	Service Date	Due Date
KS1-08	Medicine Lodge	Jun 12, 2014	7/12/14

Quantity	ltem	Description	UnitPrice	Amount
1.00	WELL NAME	Mab el 3508 #2-9 H AFE #DC13715		
100.00	CEMENT MATERIALS	Class A Common	17.90	1,790.00
240.00	CEMENT MATERIALS	505/50 Poz Blend	1 4. 40	3,456.00
30.00	CEMENT MATERIALS	Super Flush	58.70	1,761.00
157.00	CEMENT MATERIALS	FL-160	18.90	2,967.30
21.00	CEMENT MATERIALS	SA-51 Suspension Agent	17.55	368.55
19.00	CEMENT MATERIALS	CD-31	10.30	195.70
351.83	CEMENT SERVICE	Cubic Feet Charge	2.48	872.54
603.16	CEMENT SERVICE	Ton Mileage Charge	2.60	1,568.22
1.00	CEMENT SERVICE	Intermediate	3,099.25	3,099.25
40.00	CEMENT SERVICE	Pump TruckMileage	7.70	308.00
1.00	CEMENT SERVICE	Manifold Rental	275.00	275.00
40.00	CEMENT SERVICE	Light Vehicle Mleage	4.40	176.00
1.00	CEMENT SERVICE	Circulating Iron	450.00	450.00
1.00	EQUIPMENT SALES	7 in Top Rubber Plug	99.45	99.45
1.00	EQUIPMENT OPERATOR	Scott Priddy		
1.00	OPERATOR ASSISTANT	Thomas Gibson		
1.00	OPERATOR ASSISTANT	Carl Sparks		
1.00	OPERATOR ASSISTANT	Rob ert Johnson		
1.00	JOB DISCOUNT	Job Discount if paid within terms	5,216.11	-5,216.11

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

\$

Jul 12, 2014

Subtotal	12,170.90
Sales Tax	654.25
Total Invoice Amount	12,825.15
Payment/Credit Applied	
TOTAL	12,825.15

# **5D Survey Report**

# SandRidge Energy

SandRidge Energy - Harper County, KS S NAD 27 US FT Mabel 3508 2-9H Mabel 3508 2-9H Field Name:

Well Name: Site Name:

Survey:

Definitive Survey(Geographic)

20 June 2014



# Mabel 3508 2-9H

Company Name: SandRidge Energy

Map Units : US ft	Vertical Reference Datum (VRD): Mean Sea Level	Projected Coordinate System: NAD27 / Kansas South	Comment :
	Field Name	SandRidge Energy -	Harper County, KS S NAD 27 US FT

	Units: USft	North Reference: Grid	Convergence Angle: 0.19
		Northing: 129587.00 USft	Latitude: 37° 1' 19.77"
Site Name	Position	Easting: 2088839.00 US ft	Longitude : -98° 11' 44.62"
Mahal 2508 7 OF	Site TVD Reference: Ground Level	on Level	
Mabel 5500 2-911	Elevation above Mean Sea Level:1267.00 US ft	<b>Level</b> :1267.00 US ft	
	Comment:		

	Position (Offsets re	Position (Offsets relative to Site Centre)
+N / -S: 0.00 US ft	Northing :129587.00 US ft	Latitude: 37°1'19.77"
+E / -W: 0.00 US ft	Easting: 2088839.00 USft	Longitude: -98°11'44.62"
Slot TVD Reference: Ground Elev	nd Elevation	
Elevation above Mean Sea Level	<b>Level:</b> 1267.00 US ft	
Comment:		
Type: Main well	: IWU	

UWI:	Comment:	Closure Azimuth: 187.816°		+E/-W: 0.00 USft
Type: Main well	Rig Height <i>Drill Floor</i> : 15.00 US ft Relative to Mean Sea Level: 1282.00 US ft	Closure Distance: 5228.76 US ft	Vertical Section (Position of Origin Relative to Site)	+N / -S: 0.00 US ft
	emeN llew		Mabel 3508 2-9H	

**Az**:187.84°

**Target Set** 

Name: Mabel 3508 2-9H T1 Number of Targets: 1

Comment:

Height: 20.00 US ft Longitude: -98°11'53.64" Latitude: 37°0'28.42" Position (Relative to Site centre) Breadth: 20.00 USft Inclination: 0.00° Northing: 124391.00 US ft Easting: 2088124.00US ft Length: 20.00 US ft Azimuth: 0.00° TVD (Drill Floor) : 4827.30 US ft +E / -W : -715.00 US ft +N / -S: -5196,00US ft SS: -3545.30 US ft Dimensions Orientation **TargetName:** Shape: Cuboid PBHL

Company: Comment: Survey Tool: Survey Name :Definitive Survey Date: 29/Apr/2014

Source Survey **Dip:** 65.08° Declination: 4.45° End MD (us ft) Field Strength: 51599.9 nT Start MD (us ft) Date: 29/Apr/2014 Name **Survey Tool Ranges** Magnetic Model Model Name: IGRF

Weatherford MWD Surveys

9873.00

0.00

Well path created using minimum curvature

MWD

-98°11'44.62" .98°11'44.61" -98°11'44.60" -98°11'44.60" -98°11'44.61" -98°11'44.66" -98°11'44.75" -98°11'44.87" -98°11'45.03" -98°11'45.22" -98°11'45.45" .98°11'45.72" .98°11'46.01" 37°1'19.94" 37°1'20.08" 37°1'19.93" 37°1'20.04" 37°1'20.12" 37°1'20.16" 37°1'19.77" 37°1'19.82' 37°1'19.88' 37°1'19.92' 37°1'19.97' 37°1'20.00' 37°1'20.20' Latitude 2088839.00 2088839.61 2088839.89 2088840.54 2088839.31 2088835.26 2088828.37 2088818.49 2088805.62 2088789.93 2088771.01 2088749.69 2088725.70 129602.95 29587.00 129592.46 129598.05 129602.08 129604.32 129606.92 129613.98 129610.35 129617.94 129621.97 129630.22 129625.81 -10.63 -33.38 113.30 -20.51 -67.99 0.31 -49.07 -89.31 0.00 1.54 11.05 15.08 15.95 17.32 19.92 26.98 23.35 30.94 34.97 38.81 0.00 5.46 43.22 2514.95 1341.94 1778.93 1870.91 1962.81 2055.51 2147.92 2240.95 2332.53 2424.52 2606.77 838.98 0.00 Survey Points (Relative to Site centre, TVD relative to Drill Floor ) 357.85 287.97 288.96 287.05 284.74 280.58 280.93 291.81 283.67 19.92 0.00 GA 6.39 11.00 12.76 14.18 0.00 0.00 0.75 0.53 0.56 1.82 3.50 5.59 7.33 9.04 1871.00 2056.00 2336.00 2430.00 MD (US ft) 1342.00 1963.00 2149.00 2243.00 2523.00 2618.00 839.00 1779.00 0.00

Survey Points (Relati	Survey Points (Relative to Site centre, TVD relative to Drill Floor)	VD relative to Drill I							
(NS ft)	(6)	<u>;</u> ©	(US ft)	(US ft)	E.Unser (US ft)	Northing (US ft)	Easting (US ft)	Latitude (°'')	Longitude (° ' '')
2713.00	16.51	281.24	2698.07	48.27	-139.07	129635.27	2088699.93	37°1'20.25"	-98°11'46.33"
2807.00	15.74	281.94	2788.37	53.51	-164.64	129640.51	2088674.36	37°1'20.30"	-98°11'46.64"
2902.00	16.32	287.28	2879.68	60.14	-190.00	129647.14	2088649.00	37°1'20.37"	-98°11'46.96"
2997.00	16.26	288.12	2970.86	68.25	-215.38	129655.25	2088623.62	37°1'20.45"	-98°11'47.27"
3092.00	13.76	286.57	3062.62	75.60	-238.86	129662.60	2088600.14	37°1'20.52"	-98°11'47.56"
3186.00	13.86	286.35	3153.90	81.96	-260.38	129668.96	2088578.62	37°1'20.59"	-98°11'47.82"
3281.00	15.40	285.17	3245.82	88.47	-283.47	129675.47	2088555.53	37°1'20.65"	-98°11'48.11"
3376.00	15.58	282.27	3337.37	94.48	-308.11	129681.48	2088530.89	37°1'20.71"	-98°11'48.41"
3470.00	14.64	284.75	3428.12	100.19	-331.93	129687.19	2088507.07	37°1'20.77"	-98°11'48.70"
3565.00	14.74	284.65	3520.01	106.30	-355.24	129693.30	2088483.76	37°1'20.83"	-98°11'48.99"
3660.00	16.90	286.31	3611.41	113.23	-380.18	129700.23	2088458.82	37°1'20.90"	-98°11'49.30"
3754.00	14.86	284.96	3701.82	120.18	-404.95	129707.18	2088434.05	37°1'20.97"	-98°11'49.60"
3848.00	15.93	285.89	3792.44	126.83	-429.00	129713.83	2088410.00	37°1'21.04"	-98°11'49.90"
3944.00	14.83	281.96	3885.00	132.98	-453.69	129719.98	2088385.31	37°1'21.10"	-98°11'50.20"
4038.00	16.01	278.01	3975.62	137.28	-478.30	129724.28	2088360.70	37°1'21.14"	-98°11'50.51"
4070.00	14.93	277.09	4006.46	138.40	-486.76	129725.40	2088352.24	37°1'21.15"	-98°11'50.61"
4102.00	13.60	271.02	4037.48	138.98	-494.61	129725.98	2088344.39	37°1'21.16"	-98°11'50.71"
4133.00	13.01	258.75	4067.65	138.36	-501.68	129725.36	2088337.32	37°1'21.15"	-98°11'50.80"
4164.00	13.22	249.32	4097.85	136.43	-508.42	129723.43	2088330.58	37°1'21.13"	-98°11'50.88"
4196.00	14.15	241.29	4128.94	133.26	-515.27	129720.26	2088323.73	37°1'21.10"	-98°11'50.96"
4228.00	15.14	235.61	4159.90	129.02	-522.15	129716.02	2088316.85	37°1'21.06"	-98°11'51.05"
4259.00	16.91	229.48	4189.70	123.80	-528.92	129710.80	2088310.08	37°1'21.01"	-98°11'51,13"
4291.00	18.71	222.70	4220.17	117.01	-535,94	129704.01	2088303.06	37°1'20.94"	-98°11'51.22"
4334.00	21.77	216.91	4260.51	105.56	-545.41	129692.56	2088293.59	37°1'20.83"	-98°11'51.34"
4378.00	24.67	213.50	4300.94	91.37	-555.38	129678.37	2088283.62	37°1'20.69"	-98°11'51.46"
4422.00	27.30	209.88	4340.49	74.96	-565.48	129661.96	2088273.52	37°1'20.53"	-98°11'51.59"
4466.00	30.69	210.76	4378.97	56.56	-576.25	129643.56	2088262.75	37°1'20.35"	-98°11'51.72"
4509.00	33.94	208.92	4415.31	36.62	-587.67	129623.62	2088251.33	37°1'20.15"	-98°11'51.86"
4553.00	36.92	206.68	4451.16	14.05	-599.55	129601.05	2088239.45	37°1'19.93"	-98°11'52.01"
4597.00	39.56	205.12	4485.72	-10.45	-611.43	129576.55	2088227.57	37°1'19.69"	-98°11'52.16"
4640.00	42.88	202.40	4518.06	-36.38	-622.82	129550.62	2088216.18	37°1'19.43"	-98°11'52.30"
4684.00	46.16	199,93	4549.43	-65.15	-633.94	129521.85	2088205.06	37°1'19.15"	-98°11'52.43"
4728.00	49.53	197.40	4578.96	-96.05	-644.36	129490.95	2088194.64	37°1'18.84"	-98°11'52.56"
4772.00	52.34	194.24	4606.69	-128.91	-653.65	129458.09	2088185.35	37°1'18.52"	-98°11'52.68"
4815.00	54.21	193.52	4632.40	-162.37	-661.92	129424.63	2088177.08	37°1'18.18"	-98°11'52.78"
4859.00	57.20	192.12	4657.19	-197.81	-669.97	129389.19	2088169.03	37°1'17.83"	-98°11'52.88"
4903.00	61.03	190.98	4679.77	-234.80	-677.53	129352.20	2088161.47	37°1'17.47"	-98°11'52.98"
4946.00	62.99	190.31	4699.95	-272.12	-684.54	129314.88	2088154.46	37°1'17.10"	-98°11'53.07"
4990.00	65.34	189.67	4719.13	-311.12	-691.40	129275.88	2088147.60	37°1'16.72"	-98°11'53.15"
5034.00	68.36	187.87	4736.42	-351.09	-697.56	129235.91	2088141.44	37°1'16.32"	-98°11'53.23"
5078.00	71.73	186.55	4751.44	-392.12	-702.75	129194.88	2088136.25	37°1'15.91"	-98°11'53.30"

Survey Points (Relat	Survey Points (Relative to Site centre, TVD relative to Drill Floor)	VD relative to Drill					日本の日本の世界の世界の世界の世界の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の		
MD (US ft)	Juc (3)	AZ (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Latitude (° ' ")	Longitude (°'')
5121.00	75.15	185.32	4763.69	-433.11	-707.01	129153.89	2088131.99	37°1'15.51"	-98°11'53.35"
5165.00	78.68	183.32	4773.65	-475.83	-710.23	129111.17	2088128.77	37°1'15.09"	-98°11'53.39"
5209.00	82.43	180.96	4780.87	-519.20	-711.84	129067.80	2088127.16	37°1'14.66"	-98°11'53.41"
5296.00	87.97	180.07	4788.15	-605.85	-712.62	128981.15	2088126.38	37°1'13.80"	-98°11'53.43"
5383.00	88.88	179.35	4790.54	-692.82	-712.18	128894.18	2088126.82	37°1'12.94"	-98°11'53.42"
5471.00	89.09	179.65	4792.10	-780.80	-711.41	128806.20	2088127.59	37°1'12.07"	-98°11'53.42"
5515.00	89.65	180.01	4792.58	-824.80	-711.28	128762.20	2088127.72	37°1'11.64"	-98°11'53.42"
5588.00	90.63	179.42	4792.41	-897.80	-710.92	128689.20	2088128.08	37°1'10.92"	-98°11'53.42"
5615.00	90.70	179.54	4792.09	-924.79	-710.67	128662.21	2088128.33	37°1'10.65"	-98°11'53.42"
2659.00	90.28	179.30	4791.72	-968.79	-710.23	128618.21	2088128.77	37°1'10.21"	-98°11'53.41"
5703.00	90.00	178.95	4791.61	-1012.78	-709.56	128574.22	2088129.44	37°1'9.78"	-98°11'53.40"
5746.00	86.92	180.71	4792.76	-1055.76	-709.43	128531.24	2088129.57	37°1'9.35"	-98°11'53,41"
5790.00	86.22	180.68	4795.40	-1099.68	-709.96	128487.32	2088129.04	37°1'8.92"	-98°11'53.41"
5821.00	85.80	180.56	4797.55	-1130.60	-710.30	128456.40	2088128.70	37°1'8.61"	-98°11'53.42"
5852.00	85.45	180.50	4799.92	-1161.51	-710.58	128425.49	2088128.42	37°1'8.31"	-98°11'53.42"
5883.00	86.57	180.36	4802.08	-1192.43	-710.81	128394.57	2088128.19	37°1'8.00"	-98°11'53.43"
5914.00	88.32	180.44	4803.46	-1223.40	-711.03	128363.60	2088127.97	37°1'7.70"	-98°11'53.43"
5946.00	89.02	181.07	4804.20	-1255.39	-711.45	128331.61	2088127.55	37°1'7.38"	-98°11'53.44"
5977.00	89.44	181.76	4804.62	-1286.38	-712.22	128300.62	2088126.78	37°1'7.07"	-98°11'53.45"
6008.00	89.93	182.75	4804.79	-1317.35	-713.44	128269.65	2088125.56	37°1'6.77"	-98°11'53.46"
6039.00	89.93	182.94	4804.82	-1348.31	-714.98	128238.69	2088124.02	37°1'6.46"	-98°11'53.49"
6070.00	90.63	183.31	4804.67	-1379.27	-716.67	128207.73	2088122.33	37°1'6.16"	-98°11'53.51"
6102.00	90.77	183.27	4804.28	-1411.21	-718.50	128175.79	2088120.50	37°1'5.84"	-98°11'53.53"
6133.00	90.49	182.25	4803.94	-1442.17	-719.99	128144.83	2088119.01	37°1'5.53"	-98°11'53.55"
6164.00	89.79	181.27	4803.87	-1473.16	-720.95	128113.84	2088118.05	37°1'5.23"	-98°11'53.56"
6226.00	86.64	178.78	4805.80	-1535.11	-720.97	128051.89	2088118.03	37°1'4.61"	-98°11'53.57"
6288.00	87.06	178.47	4809.20	-1597.00	-719.49	127990.00	2088119.51	37°1'4.00"	-98°11'53.55"
6350.00	87.69	178.54	4812.04	-1658.92	-717.87	127928.08	2088121.13	37°1'3.39"	-98°11'53.53"
6412.00	89.23	179.67	4813.71	-1720.88	-716.91	127866.12	2088122.09	37°1'2,78"	-98°11'53.52"
6475.00	90.14	180.41	4814.06	-1783.88	-716.95	127803.12	2088122.05	37°1'2.15"	-98°11'53.53"
6537.00	90.49	180.61	4813.72	-1845.88	-717.50	127741.12	2088121.50	37°1'1.54"	-98°11'53.54"
6599.00	89.86	179.44	4813.53	-1907.88	-717.53	127679.12	2088121.47	37°1'0.93"	-98°11'53.54"
6661.00	90.70	179.47	4813.22	-1969.87	-716.94	127617.13	2088122.06	37°1'0.32"	-98°11'53.53"
6723.00	91.54	178.95	4812.01	-2031.85	-716.08	127555.15	2088122.92	37°0'59.70"	-98°11'53.53"
6785.00	91.33	177.72	4810.46	-2093.81	-714.28	127493.19	2088124.72	37°0'59.09"	-98°11'53.51"
6847.00	91.68	177.32	4808.83	-2155.73	-711.60	127431.27	2088127.40	37°0'58.48"	-98°11'53.48"
6910.00	91.19	178.18	4807.25	-2218.66	-709.13	127368.34	2088129.87	37°0'57.86"	-98°11'53.45"
6971.00	89.86	177.95	4806.69	-2279.62	-707.07	127307.38	2088131.93	37°0'57.25"	-98°11'53.42"
7033.00	90.14	179.31	4806.69	-2341.60	-705.59	127245.40	2088133.41	37°0'56.64"	-98°11'53.41"
7095.00	88.25	179.38	4807.56	-2403.59	-704.88	127183.41	2088134.12	37°0'56.03"	-98°11'53.40"
7157.00	88.25	179.62	4809.46	-2465.56	-704.34	127121.44	2088134.66	37°0'55.41"	-98°11'53.40"

Survey Points (Relative	ourvey Points (Keidtive to Site Centre, IVD relative to Drill Floor )	relative to Drill Floor							
(US ft)	(6)	( <u>(</u> )	(US ft)	(US ft)	CUS ft)	Northing (US ft)	Easting (US ft)	Latitude (° ' ")	Longitude (°'')
7232.00	91.47	180.95	4809.64	-2540.54	-704.71	127046.46	2088134.29	37°0'54.67"	-98°11'53.41"
7320.00	90.70	180.15	4807.97	-2628.52	-705.56	126958.48	2088133.44	37°0'53.80"	-98°11'53.42"
7407.00	89.09	179.72	4808.13	-2715.52	-705.46	126871.48	2088133.54	37°0'52.94"	-98°11'53.42"
7494.00	88.32	180.40	4810.10	-2802.50	-705.55	126784.50	2088133.45	37°0'52.08"	-98°11'53.43"
7581.00	87.34	180.56	4813.39	-2889.43	-706.28	126697.57	2088132.72	37°0'51.22"	-98°11'53.44"
7669.00	88.18	180.91	4816.83	-2977.35	-707.40	126609.65	2088131.60	37°0'50.35"	-98°11'53.46"
7756.00	89.93	181.85	4818.27	-3064.31	-709.50	126522.69	2088129.50	37°0'49.49"	-98°11'53.49"
7844.00	86.08	181.53	4817.57	-3152.27	-712.09	126434.73	2088126.91	37°0'48.63"	-98°11'53.52"
7931.00	89.37	180.07	4817.30	-3239.26	-713.31	126347.74	2088125.69	37°0'47.77"	-98°11'53.54"
8019.00	90.00	181.51	4817.79	-3327.24	-714.52	126259.76	2088124.48	37°0'46.90"	-98°11'53.56"
8106.00	90.56	181.32	4817.36	-3414.21	-716.67	126172.79	2088122.33	37°0'46.04"	-98°11'53.59"
8193.00	91.05	182.79	4816.14	-3501.15	-719.79	126085.85	2088119.21	37°0'45.18"	-98°11'53.63"
8281.00	90.63	181.18	4814.85	-3589.08	-722.84	125997.92	2088116.16	37°0'44.31"	-98°11'53.67"
8368.00	90.70	181.19	4813.84	-3676.06	-724.64	125910.94	2088114.36	37°0'43.45"	-98°11'53.70"
8456.00	90.56	179.56	4812.87	-3764.05	-725.21	125822.95	2088113.79	37°0'42.58"	-98°11'53.71"
8543.00	88.46	178.01	4813.62	-3851.02	-723.37	125735.98	2088115.63	37°0'41.72"	-98°11'53.69"
8630.00	87.69	176.93	4816.54	-3937.88	-719.53	125649.12	2088119.47	37°0'40.86"	-98°11'53.64"
8718.00	89.51	177.82	4818.69	-4025.76	-715.50	125561.24	2088123.50	37°0'39.99"	-98°11'53.60"
8805.00	89.30	179.59	4819.59	-4112.73	-713.53	125474.27	2088125.47	37°0'39.13"	-98°11'53.58"
8893.00	88.60	179.85	4821.21	-4200.71	-713.11	125386.29	2088125.89	37°0'38.26"	-98°11'53.58"
8980.00	91.05	180.44	4821.47	-4287.70	-713.33	125299.30	2088125.67	37°0'37.40"	-98°11'53.58"
9068.00	91.96	180.49	4819.16	-4375.67	-714.04	125211.33	2088124.96	37°0'36.53"	-98°11'53.59"
9131.00	91.12	180.51	4817.47	-4438.64	-714.59	125148.36	2088124.41	37°0'35.91"	-98°11'53.60"
9194.00	90.84	180.72	4816.39	-4501.63	-715.26	125085.37	2088123.74	37°0'35.28"	-98°11'53.61"
9257.00	90.84	180.63	4815.47	-4564.62	-716.01	125022.38	2088122.99	37°0'34.66"	-98°11'53.63"
9320.00	20.06	180.51	4814.97	-4627.61	-716.63	124959.39	2088122.37	37°0'34.04"	-98°11'53.64"
9384.00	88.53	180.15	4815.75	-4691.61	-717.00	124895.39	2088122.00	37°0'33.41"	-98°11'53.64"
9448.00	87.97	180.15	4817.70	-4755.58	-717.17	124831.42	2088121.83	37°0'32.77"	-98°11'53.65"
9510.00	86.92	179.42	4820.47	-4817.51	-716.94	124769.49	2088122.06	37°0'32.16"	-98°11'53.65"
9574.00	87.06	179.11	4823.83	-4881.42	-716.12	124705.58	2088122.88	37°0'31.53"	-98°11'53.64"
9637.00	88.67	179.26	4826.17	-4944.37	-715.22	124642.63	2088123.78	37°0'30.91"	-98°11'53.63"
9700.00	88.74	179.58	4827.60	-5007.35	-714.58	124579.65	2088124.42	37°0'30.28"	-98°11'53.63"
9763.00	87.83	178.99	4829.48	-5070.31	-713.80	124516.69	2088125.20	37°0'29.66"	-98°11'53.62"
9813.00	87.48	178.48	4831.53	-5120.26	-712.70	124466.74	2088126.30	37°0'29.17"	-98°11'53.61"
9873.00	87.48	178.48	4834.17	-5180.18	-711.11	124406.82	2088127.89	37°0'28.58"	-98°11'53.59"

