



Confidentiality Requested:

Yes No

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

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: _____



1141196

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, 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 / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Shell Gulf of Mexico Inc.
Well Name	Reffner 2308 4-2HS
Doc ID	1141196

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	24	18	45	60	Portland Neat	30	
Surface	12.25	9.625	36	342	Class C	270	See attached
Intermediate	8.75	7	26	4082	Class C	350	See attached
Liner	6.125	4.5	11.6	8064	Class H	340	See attached

SHELL GULF OF MEXICO, INC. (34574)

REFNER 2308-4

PETE MARTIN DRILLING (34645)
(SET THE CONDUCTOR)

2-HS CONDUCTOR

2-HS MOUSE HOLE

Call in DATE OF SPUD

2/13/2013

spud in date

2/13/2013

2/17/2013

T.D date

2/14/2013

2/18/2013

Size Hole Drilled

24"

24"

Size Casing Set (in O.D)

18"

14"

Conductor wall thickness

.236

.219

Weight Lbs./Ft.

45lbs

32.26lbs

Setting Depth

60'

76'

Type of Cement

Portland Neat

Portland Neat

Cubic yards of cement

5cy

6cy

2500 PSI Grout Mix

Type and Percent of Additives

0%

0%

Comments

0-42ft clay, 42-58ft sand, 58-60
 clay, water @ 21ft

0-6ft, gravel 6-42ft clay, 42-76ft
 Sand, water@ 21ft

CEMENT JOB REPORT



CUSTOMER SHELL WESTERN E & P INC	DATE 09-MAR-13	F.R. # 1001971024	SERV. SUPV. Jonathan M Schulz
LEASE & WELL NAME REFNER 2308 #4-2HS - API 15155216310000	LOCATION 4-23S-8W		COUNTY-PARISH-BLOCK Reno Kansas
DISTRICT McAlester	DRILLING CONTRACTOR RIG # Patterson 264		TYPE OF JOB Surface

SIZE & TYPE OF PLUGS	LIST-CSG-HARDWARE	MECHANICAL BARRIERS	MD	TVD	HANGER TYPES	MD	TVD
9-5/8" Top Cem Plug, Nitrile cvr, Phe	Provided by Customer						

MATERIALS FURNISHED BY BJ	LAB REPORT NO.	PHYSICAL SLURRY PROPERTIES						
		SACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT	WATER GPS	PUMP TIME HR:MIN	Bbl SLURRY	Bbl MIX WATER
water			8.34				22	
C+ 2% CaCl +.25pps Celloflake		270	14.8	1.35	6.34	02:45	64	40.18
Water			8.34				23	
Available Mix Water <u>400</u> Bbl.		Available Displ. Fluid <u>340</u> Bbl.		TOTAL			<u>109</u>	<u>40.18</u>

HOLE			TBG-CSG-D.P.							COLLAR DEPTHS		
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE
12.25		347	8.921	9.625	36	CSG	342	342	J-55			

LAST CASING				PKR-CMT RET-BR PL-LINER				PERF. DEPTH		TOP CONN		WELL FLUID		
ID	OD	WGT	TYPE	MD	TVD	BRAND & TYPE		DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT.
18.	18	47.4		60	60						9.625	8RD	WATER BASED MU	8.5

DISPL. VOLUME		DISPL. FLUID		CAL. PSI	CAL. MAX PSI	OP. MAX	MAX TBG PSI		MAX CSG PSI		MIX WATER
VOLUME	UOM	TYPE	WGT.	BUMP PLUG	TO REV.	SQ. PSI	RATED	Operator	RATED	Operator	rig tank
23	BBLS	Water	8.34	130					2800	1500	rig tank

EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING: Arrive on location 0700, Drilling, Short Trip, TOOH, Run Casing

PRESSURE/RATE DETAIL						EXPLANATION					
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/>					
	PIPE	ANNULUS				TEST LINES 3800 PSI					
						CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input type="checkbox"/>					
07:00						Arrive on location					
16:33	3800				WATER	test pumps & lines					
16:35	138		4		WATER	open well/start water spacer ahead					
16:39	134		5	22	WATER	end water spacer ahead/ start slurry @ 14.8ppg					
16:53	130		4	64	SLURRY	end slurry/shutdown					
16:57	130		4		WATER	drop TRP/start displacement					
17:01	84		4	18	WATER	bbls pumped when cement to surface					
17:03	500		3	23	WATER	bump pplug/shutdown					
17:05	300				WATER	attempt to rebump plug					
17:08	0			.125	WATER	check floats/ holding/bbls back					

BUMPED PLUG	PSI TO BUMP PLUG	TEST FLOAT EQUIP.	BBL.CMT RETURNS/ REVERSED	TOTAL BBL. PUMPED	PSI LEFT ON CSG	SPOT TOP OUT CEMENT	SERVICE SUPERVISOR SIGNATURE:
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	300	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	5	109	0	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

CEMENT JOB REPORT



CUSTOMER SHELL WESTERN E & P INC	DATE 10-APR-13	F.R. # 1001978095	SERV. SUPV. James Kirkpatrick
LEASE & WELL NAME REFFNER 2308 #4-2HS - API 15155216310000	LOCATION 4-23S-8W		COUNTY-PARISH-BLOCK Reno Kansas
DISTRICT McAlester	DRILLING CONTRACTOR RIG # Patterson 264		TYPE OF JOB Intermediate

SIZE & TYPE OF PLUGS	LIST-CSG-HARDWARE	MECHANICAL BARRIERS	MD	TVD	HANGER TYPES	MD	TVD
	No Shoe, Cust Sup						

MATERIALS FURNISHED BY BJ	LAB REPORT NO.	PHYSICAL SLURRY PROPERTIES						
		SACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT	WATER GPS	PUMP TIME HR:MIN	Bbl SLURRY	Bbl MIX WATER
SEALBOND, RIG TO PUMP			8.45				40	
15:85c,+0.01%staticfree,10%salt+0.25ppscelloflake,	125103016	200	12.4	2.45	13.52	04:07	87	64.18
50:50c,+0.01%staticfree,+5%salt,+0.25celloflake,+4p	125103018	150	14.2	1.32	5.65	04:12	35	20.03
WATER			8.34				154	
Available Mix Water <u>150</u> Bbl.		Available Displ. Fluid <u>300</u> Bbl.		TOTAL			<u>316</u>	<u>84.21</u>

HOLE			TBG-CSG-D.P.						COLLAR DEPTHS			
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE
8.75		4098	6.276	7	26	CSG	4082	4082	L-80	4082	4032	

LAST CASING				PKR-CMT RET-BR PL-LINER				PERF. DEPTH		TOP CONN		WELL FLUID	
ID	OD	WGT	TYPE	MD	TVD	BRAND & TYPE	DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT.
8.9	9.625	36		350	350			4600	4600	7	8RD	WATER BASED MU	9.4

DISPL. VOLUME		DISPL. FLUID		CAL. PSI	CAL. MAX PSI	OP. MAX	MAX TBG PSI		MAX CSG PSI		MIX WATER
VOLUME	UOM	TYPE	WGT.	BUMP PLUG	TO REV.	SQ. PSI	RATED	Operator	RATED	Operator	RIG
154	BBLS	WATER	8.34	900					7968	1600	RIG

EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING: NO PROBLEMS

PRESSURE/RATE DETAIL						EXPLANATION					
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/>					
	PIPE	ANNULUS				TEST LINES 2500 PSI					
						CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input type="checkbox"/>					
12:00	2700				H2O	TEST, START LEAD CEMENT @ 12.4#					
12:25	200		5	87	LEAD CMT	PUMP LEAD CEMENT, START TAIL CEMENT @ 14.2#					
12:35	250		5	35	TAIL CMT	PUMP TAIL CEMENT, DROP PLUG, START DISPLACEMENT					
12:55	450		5	60	H2O DISP	PUMP 60 BBL DISP, CAUGHT UP WITH CEMENT, CONTINUE DISPLACEMENT					
13:15	950		5	154	H2O DISP	PUMP CALCULATED DISPLACEMENT, BUMP PLUG @ 950 PSI, PRESSURED UP TO @ 1600 PSI, HOLD 10 MINUTES					
13:25	1600					HOLD @ 550 PSI OVER BUMP PRESSURE FOR 10 MINUTES, BLEED OFF TO CHECK FLOAT, FLOAT HOLDING					
						LEAD CEMENT : 15/85 CLASS C + 0.01% STATIC FREE + 10% SALT + 0.25 PPS CELLOFLAKE + 4 PPS KOLSEAL + 0.6% SMS + 8% GEL					
						TAIL CEMENT : 50/50 CLASS C + 0.01% STATIC FREE + 5% SALT + 0.25 PPS CELLOFLAKE + 4 PPS KOLSEAL + 0.3% FL-52 + 0.15% SMS + 2% GEL					
						THANK YOU FOR USING BAKER HUGHES, JIM AND CREW					

BUMPED PLUG	PSI TO BUMP PLUG	TEST FLOAT EQUIP.	BBL.CMT RETURNS/ REVERSED	TOTAL BBL. PUMPED	PSI LEFT ON CSG	SPOT TOP OUT CEMENT	SERVICE SUPERVISOR SIGNATURE:
<input checked="" type="checkbox"/> Y	N 950	<input checked="" type="checkbox"/> Y	N 0	316	0	Y <input type="checkbox"/> N	

CEMENT JOB REPORT



CUSTOMER SHELL WESTERN E & P INC	DATE 16-APR-13	F.R. # 1001980661	SERV. SUPV. Jonathan M Schulz
LEASE & WELL NAME REFFNER 2308 #4-2HS - API 15155216310000	LOCATION 4-23S-8W		COUNTY-PARISH-BLOCK Reno Kansas
DISTRICT McAlester	DRILLING CONTRACTOR RIG #		TYPE OF JOB Liner

SIZE & TYPE OF PLUGS	LIST-CSG-HARDWARE	MECHANICAL BARRIERS	MD	TVD	HANGER TYPES	MD	TVD
	Provided by Customer						

MATERIALS FURNISHED BY BJ	LAB REPORT NO.	PHYSICAL SLURRY PROPERTIES						
		SACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT	WATER GPS	PUMP TIME HR:MIN	Bbl SLURRY	Bbl MIX WATER
SealBond Spacer			8.45				40	
H50:50+3%Salt+.5% FL-62+.6%SMS+ .5%FL-52		340	14.3	1.24	5.54	05:30	75.31	44.81
Displacement			8.34				95.5	
Available Mix Water <u>400</u> Bbl.		Available Displ. Fluid <u>310</u> Bbl.		TOTAL			210.81	44.81

HOLE			TBG-CSG-D.P.							COLLAR DEPTHS		
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE
6.125		8071	4	4.5	11.6	LNR	8064	3699	P-110			

LAST CASING						PKR-CMT RET-BR PL-LINER			PERF. DEPTH		TOP CONN		WELL FLUID	
ID	OD	WGT	TYPE	MD	TVD	BRAND & TYPE	DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT.	
6.3	7	26	CSG	4082	4082					2	1502			

DISPL. VOLUME		DISPL. FLUID		CAL. PSI	CAL. MAX PSI	OP. MAX	MAX TBG PSI		MAX CSG PSI		MIX WATER
VOLUME	UOM	TYPE	WGT.	BUMP PLUG	TO REV.	SQ. PSI	RATED	Operator	RATED	Operator	Rig Tank
95.5	BBLS	Displacement	8.34	850					8550	5000	Rig Tank

EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING: Arrive on location 0400

PRESSURE/RATE DETAIL						EXPLANATION					
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/>					
	PIPE	ANNULUS				TEST LINES 6105 PSI					
						CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input type="checkbox"/>					
04:00						Arrive on location					
08:00				40	SPACER	rig pumps seal bond spacer					
08:14	6300				WATER	test pumps & lines					
08:22	130		5		SLURRY	open well start slurry 14.3ppg					
08:36	1098		4	76	SLURRY	end slurry/ shutdown					
09:39					WATER	wash pumps & Lines					
08:47	379		5		WATER	drop TRP/start displacement					
08:53	1200		3	27	WATER	bbls pumped when shear first plug					
09:09	760		3	88	WATER	slow rate to bump					
09:13	1518		3	95.5	WATER	bump plug shutdown/ conduct casing test					
09:23	0			-.75		end test/ check floats/ holding bbls back					
10:20	4500					conduct backside test					
10:37	4391					end backside test					
						Calculated top of cement 3875'					
						Thanks for using BHI Pressure Pumping					
						Jonathan Schulz & Crew					

BUMPED PLUG	PSI TO BUMP PLUG	TEST FLOAT EQUIP.	BBL.CMT RETURNS/ REVERSED	TOTAL BBL. PUMPED	PSI LEFT ON CSG	SPOT TOP OUT CEMENT	SERVICE SUPERVISOR SIGNATURE:
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1550	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	0	211.5	0	Y <input checked="" type="checkbox"/> N	



Shell

Reno County, Kansas (NAD27)

Reffner 2308

4-2HS

Wellbore #1

Survey: MS MWD

Standard Survey Report

15 April, 2013



Company:	Shell	Local Co-ordinate Reference:	Well 4-2HS
Project:	Reno County, Kansas (NAD27)	TVD Reference:	WELL @ 1681.90usft (Patterson 264)
Site:	Reffner 2308	MD Reference:	WELL @ 1681.90usft (Patterson 264)
Well:	4-2HS	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Survey	Database:	Well Planning Conroe

Project	Reno County, Kansas (NAD27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Kansas South 1502		

Well	4-2HS				
Well Position	+N/-S	0.00 usft	Northing:	516,682.68 usft	Latitude: 38° 5' 7.1299 N
	+E/-W	0.00 usft	Easting:	2,083,651.86 usft	Longitude: 98° 12' 33.694 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level: 1,659.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	WMM_2010	03/10/13	4.62	66.01	52,296

Design	Survey				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	174.10	

Survey Program	Date	04/15/13			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
146.00	8,071.00	MS MWD (Wellbore #1)	MWD	MWD - Standard	

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
146.00	0.60	48.20	146.00	0.51	0.57	-0.45	0.41	0.41	0.00
236.00	1.60	59.10	235.98	1.47	2.00	-1.26	1.13	1.11	12.11
297.00	2.30	70.90	296.94	2.31	3.89	-1.90	1.32	1.15	19.34
419.00	2.60	74.10	418.83	3.87	8.86	-2.93	0.27	0.25	2.62
511.00	3.80	98.80	510.69	3.97	13.88	-2.52	1.96	1.30	26.85
603.00	4.20	100.90	602.47	2.87	20.20	-0.78	0.46	0.43	2.28
696.00	2.80	66.10	695.30	3.14	25.62	-0.49	2.67	-1.51	-37.42
788.00	1.60	351.30	787.25	5.32	27.48	-2.47	3.08	-1.30	-81.30
880.00	0.30	225.50	879.24	6.43	27.12	-3.60	1.95	-1.41	-136.74
970.00	1.70	285.20	969.22	6.61	25.66	-3.94	1.74	1.56	66.33
1,064.00	1.90	230.70	1,063.18	5.99	23.11	-3.58	1.76	0.21	-57.98
1,155.00	2.20	227.00	1,154.12	3.84	20.67	-1.70	0.36	0.33	-4.07
1,245.00	1.00	209.20	1,244.09	1.98	19.02	-0.01	1.43	-1.33	-19.78
1,335.00	1.00	191.20	1,334.07	0.52	18.48	1.38	0.35	0.00	-20.00



Company:	Shell	Local Co-ordinate Reference:	Well 4-2HS
Project:	Reno County, Kansas (NAD27)	TVD Reference:	WELL @ 1681.90usft (Patterson 264)
Site:	Reffner 2308	MD Reference:	WELL @ 1681.90usft (Patterson 264)
Well:	4-2HS	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Survey	Database:	Well Planning Conroe

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)
1,426.00	0.80	185.10	1,425.06	-0.89	18.27	2.76	0.24	-0.22	-6.70
1,518.00	0.90	182.80	1,517.05	-2.25	18.18	4.11	0.11	0.11	-2.50
1,610.00	1.20	191.90	1,609.04	-3.92	17.95	5.74	0.37	0.33	9.89
1,702.00	0.70	188.80	1,701.02	-5.41	17.66	7.20	0.55	-0.54	-3.37
1,793.00	1.20	176.60	1,792.01	-6.91	17.63	8.69	0.59	0.55	-13.41
1,883.00	1.20	188.30	1,881.99	-8.79	17.55	10.54	0.27	0.00	13.00
1,976.00	1.30	178.80	1,974.97	-10.81	17.43	12.54	0.25	0.11	-10.22
2,070.00	1.50	182.70	2,068.94	-13.10	17.40	14.82	0.24	0.21	4.15
2,164.00	0.40	180.70	2,162.93	-14.66	17.34	16.36	1.17	-1.17	-2.13
2,257.00	0.30	175.40	2,255.93	-15.22	17.35	16.93	0.11	-0.11	-5.70
2,351.00	0.30	184.10	2,349.92	-15.72	17.35	17.42	0.05	0.00	9.26
2,445.00	0.30	189.10	2,443.92	-16.20	17.30	17.90	0.03	0.00	5.32
2,538.00	0.30	205.90	2,536.92	-16.66	17.15	18.34	0.09	0.00	18.06
2,632.00	0.30	180.70	2,630.92	-17.13	17.04	18.79	0.14	0.00	-26.81
2,726.00	0.30	152.70	2,724.92	-17.60	17.15	19.27	0.15	0.00	-29.79
2,820.00	0.70	2.00	2,818.92	-17.24	17.29	18.93	1.03	0.43	-160.32
2,913.00	1.00	22.00	2,911.91	-15.92	17.61	17.65	0.45	0.32	21.51
3,007.00	1.00	10.00	3,005.89	-14.35	18.06	16.13	0.22	0.00	-12.77
3,101.00	0.70	34.00	3,099.88	-13.07	18.52	14.90	0.49	-0.32	25.53
3,133.00	1.10	116.20	3,131.88	-13.04	18.91	14.92	3.82	1.25	256.88
3,164.00	2.90	142.20	3,162.86	-13.79	19.66	15.74	6.36	5.81	83.87
3,195.00	5.20	133.30	3,193.78	-15.38	21.16	17.47	7.67	7.42	-28.71
3,227.00	7.80	165.80	3,225.58	-18.48	22.75	20.72	13.77	8.13	101.56
3,258.00	10.50	169.90	3,256.19	-23.30	23.76	25.62	8.95	8.71	13.23
3,288.00	13.60	168.80	3,285.52	-29.45	24.92	31.86	10.36	10.33	-3.67
3,319.00	17.30	167.20	3,315.40	-37.52	26.65	40.06	12.01	11.94	-5.16
3,351.00	21.10	169.40	3,345.61	-47.83	28.77	50.53	12.09	11.88	6.88
3,382.00	24.00	171.20	3,374.24	-59.55	30.76	62.39	9.62	9.35	5.81
3,413.00	28.00	173.50	3,402.10	-73.01	32.55	75.97	13.30	12.90	7.42
3,444.00	31.80	174.80	3,428.96	-88.38	34.11	91.42	12.43	12.26	4.19
3,475.00	35.60	174.70	3,454.75	-105.51	35.69	108.62	12.26	12.26	-0.32
3,507.00	39.80	174.50	3,480.06	-124.98	37.53	128.18	13.13	13.13	-0.63
3,538.00	43.80	173.60	3,503.17	-145.53	39.68	148.84	13.05	12.90	-2.90
3,569.00	46.90	173.90	3,524.95	-167.45	42.08	170.89	10.02	10.00	0.97
3,600.00	48.90	174.50	3,545.74	-190.33	44.40	193.89	6.61	6.45	1.94
3,632.00	51.30	175.70	3,566.26	-214.79	46.49	218.43	8.03	7.50	3.75
3,663.00	53.90	177.00	3,585.09	-239.36	48.05	243.04	9.02	8.39	4.19
3,694.00	57.70	178.10	3,602.51	-264.98	49.14	268.62	12.60	12.26	3.55
3,725.00	62.00	177.40	3,618.08	-291.75	50.20	295.37	14.01	13.87	-2.26
3,757.00	63.30	177.60	3,632.78	-320.15	51.44	323.74	4.10	4.06	0.63
3,788.00	65.80	177.60	3,646.10	-348.11	52.61	351.68	8.06	8.06	0.00
3,819.00	68.40	177.10	3,658.16	-376.64	53.93	380.19	8.52	8.39	-1.61
3,850.00	72.10	175.70	3,668.63	-405.75	55.77	409.33	12.67	11.94	-4.52
3,883.00	76.00	174.80	3,677.70	-437.37	58.40	441.05	12.11	11.82	-2.73



Company:	Shell	Local Co-ordinate Reference:	Well 4-2HS
Project:	Reno County, Kansas (NAD27)	TVD Reference:	WELL @ 1681.90usft (Patterson 264)
Site:	Reffner 2308	MD Reference:	WELL @ 1681.90usft (Patterson 264)
Well:	4-2HS	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Survey	Database:	Well Planning Conroe

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)	
3,913.00	79.70	174.20	3,684.01	-466.55	61.21	470.37	12.49	12.33	-2.00	
3,944.00	82.80	172.70	3,688.73	-496.99	64.71	501.01	11.08	10.00	-4.84	
3,975.00	85.50	170.90	3,691.89	-527.51	69.10	531.82	10.45	8.71	-5.81	
4,006.00	87.50	171.00	3,693.78	-558.06	73.97	562.71	6.46	6.45	0.32	
4,037.00	90.20	171.40	3,694.40	-588.69	78.71	593.66	8.80	8.71	1.29	
4,172.00	91.40	170.40	3,692.52	-721.97	100.06	728.43	1.16	0.89	-0.74	
4,266.00	89.80	170.70	3,691.53	-814.69	115.49	822.24	1.73	-1.70	0.32	
4,359.00	89.90	171.50	3,691.78	-906.57	129.88	915.12	0.87	0.11	0.86	
4,453.00	90.00	172.50	3,691.86	-999.65	142.96	1,009.05	1.07	0.11	1.06	
4,546.00	89.80	173.30	3,692.02	-1,091.94	154.46	1,102.03	0.89	-0.22	0.86	
4,640.00	89.40	174.70	3,692.68	-1,185.42	164.28	1,196.02	1.55	-0.43	1.49	
4,734.00	89.70	173.90	3,693.42	-1,278.95	173.62	1,290.02	0.91	0.32	-0.85	
4,824.00	90.20	175.00	3,693.50	-1,368.52	182.32	1,380.02	1.34	0.56	1.22	
4,915.00	91.20	174.40	3,692.38	-1,459.13	190.73	1,471.00	1.28	1.10	-0.66	
5,007.00	89.80	174.70	3,691.58	-1,550.71	199.47	1,562.99	1.56	-1.52	0.33	
5,099.00	89.60	175.20	3,692.06	-1,642.35	207.56	1,654.98	0.59	-0.22	0.54	
5,191.00	90.20	175.50	3,692.22	-1,734.04	215.02	1,746.96	0.73	0.65	0.33	
5,284.00	90.40	176.10	3,691.74	-1,826.79	221.83	1,839.92	0.68	0.22	0.65	
5,376.00	90.60	175.50	3,690.93	-1,918.54	228.57	1,931.87	0.69	0.22	-0.65	
5,468.00	88.90	175.30	3,691.33	-2,010.24	235.95	2,023.85	1.86	-1.85	-0.22	
5,560.00	88.70	175.20	3,693.26	-2,101.90	243.56	2,115.81	0.24	-0.22	-0.11	
5,651.00	89.50	174.80	3,694.69	-2,192.55	251.50	2,206.78	0.98	0.88	-0.44	
5,742.00	89.60	174.60	3,695.41	-2,283.15	259.90	2,297.78	0.25	0.11	-0.22	
5,833.00	89.60	174.10	3,696.04	-2,373.71	268.86	2,388.77	0.55	0.00	-0.55	
5,923.00	90.50	173.90	3,695.96	-2,463.22	278.27	2,478.77	1.02	1.00	-0.22	
6,013.00	90.30	174.40	3,695.33	-2,552.74	287.44	2,568.77	0.60	-0.22	0.56	
6,104.00	91.40	174.00	3,693.98	-2,643.27	296.63	2,659.76	1.29	1.21	-0.44	
6,196.00	89.50	175.00	3,693.26	-2,734.83	305.45	2,751.75	2.33	-2.07	1.09	
6,288.00	89.80	174.90	3,693.82	-2,826.48	313.55	2,843.73	0.34	0.33	-0.11	
6,380.00	90.10	174.70	3,693.90	-2,918.10	321.89	2,935.73	0.39	0.33	-0.22	
6,471.00	91.10	174.90	3,692.95	-3,008.72	330.13	3,026.71	1.12	1.10	0.22	
6,561.00	89.60	174.40	3,692.40	-3,098.32	338.53	3,116.71	1.76	-1.67	-0.56	
6,654.00	89.30	173.10	3,693.29	-3,190.76	348.65	3,209.70	1.43	-0.32	-1.40	
6,747.00	89.30	172.80	3,694.43	-3,283.05	360.06	3,302.67	0.32	0.00	-0.32	
6,841.00	90.80	172.90	3,694.35	-3,376.32	371.76	3,396.65	1.60	1.60	0.11	
6,935.00	92.30	173.30	3,691.81	-3,469.60	383.05	3,490.59	1.65	1.60	0.43	
7,029.00	92.80	173.10	3,687.62	-3,562.85	394.17	3,584.49	0.57	0.53	-0.21	
7,122.00	92.80	172.40	3,683.08	-3,654.99	405.89	3,677.35	0.75	0.00	-0.75	
7,216.00	92.90	173.00	3,678.41	-3,748.11	417.82	3,771.21	0.65	0.11	0.64	
7,310.00	91.20	173.20	3,675.04	-3,841.37	429.11	3,865.13	1.82	-1.81	0.21	
7,404.00	90.50	174.50	3,673.65	-3,934.82	439.18	3,959.12	1.57	-0.74	1.38	
7,497.00	88.40	174.60	3,674.54	-4,027.39	448.01	4,052.10	2.26	-2.26	0.11	
7,591.00	85.00	174.90	3,679.95	-4,120.82	456.59	4,145.93	3.63	-3.62	0.32	



Company:	Shell	Local Co-ordinate Reference:	Well 4-2HS
Project:	Reno County, Kansas (NAD27)	TVD Reference:	WELL @ 1681.90usft (Patterson 264)
Site:	Reffner 2308	MD Reference:	WELL @ 1681.90usft (Patterson 264)
Well:	4-2HS	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Survey	Database:	Well Planning Conroe

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)	
7,685.00	85.80	175.00	3,687.49	-4,214.15	464.84	4,239.61	0.86	0.85	0.11	
7,778.00	86.60	173.90	3,693.65	-4,306.51	473.82	4,332.41	1.46	0.86	-1.18	
7,872.00	88.40	174.20	3,697.75	-4,399.91	483.55	4,426.31	1.94	1.91	0.32	
7,966.00	89.80	174.80	3,699.23	-4,493.47	492.56	4,520.30	1.62	1.49	0.64	
8,010.00	90.50	174.50	3,699.12	-4,537.27	496.66	4,564.29	1.73	1.59	-0.68	
8,071.00	90.50	174.50	3,698.58	-4,597.99	502.51	4,625.29	0.00	0.00	0.00	
Projection to TD-8071.00' MD										

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
8,071.00	3,698.58	-4,597.99	502.51	Projection to TD-8071.00' MD	

T23S, R8W, 6th P.M.

SGOMI

Well location, REFFNER 2308 #4-2HS, located as shown in Lot 3 of Section 4, T23S, R8W, 6th P.M., Reno County, Kansas.

BASIS OF ELEVATION

SPOT ELEVATION LOCATED AT THE SW CORNER OF SECTION 18, T23S, R8W, 6th P.M. TAKEN FROM THE ALDEN SE, QUADRANGLE, KANSAS, RENO COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY, SAID ELEVATION IS MARKED AS BEING 1688 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

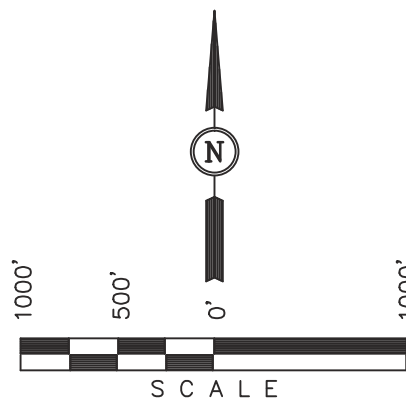
1/2" Rebar
0.5' Below Ground,
In Road
NAD 27 Kansas South
N: 522216.78
E: 2081869.88

Large Spike
0.3' Below Ground
NAD 27 Kansas South
N: 522283.84
E: 2084519.92

5/8" Rebar
0.3' Below Ground,
In Road
NAD 27 Kansas South
N: 522333.50
E: 2087162.09

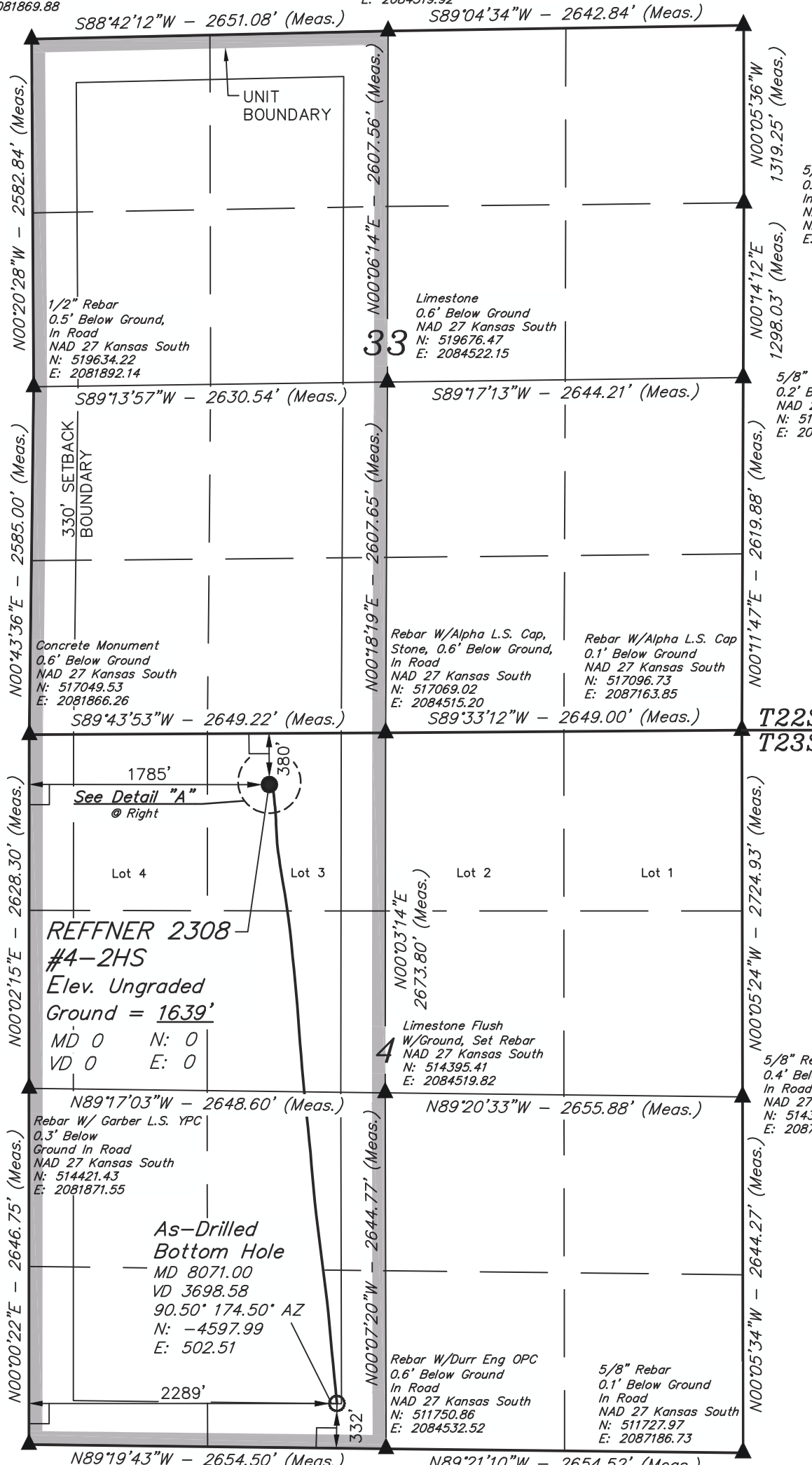
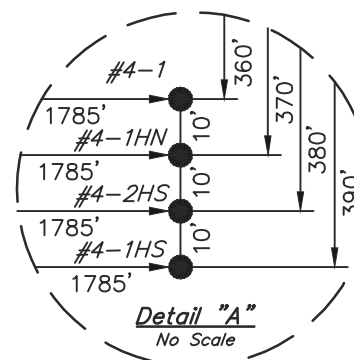
5/8" Rebar
0.5' Below Ground,
In Road
NAD 27 Kansas South
N: 521014.35
E: 2087167.76

5/8" Rebar
0.2' Below Ground
NAD 27 Kansas South
N: 519716.42
E: 2087165.85



LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.



1/2" Rebar, Concrete
Marker 0.3' Below
Ground In Road
NAD 27 Kansas South
N: 511774.88
E: 2081878.33

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JUSTIN S. ...
REGISTERED LAND SURVEYOR
REGISTRATION NO. 1451
STATE OF KANSAS

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

NAD 83 (#4-2HS AS DRILLED BOTTOM HOLE) LATITUDE = 38°04'21.72" (38.072700) LONGITUDE = 98°12'28.66" (98.207961)	NAD 83 (#4-2HS SURFACE LOCATION) LATITUDE = 38°05'07.17" (38.085325) LONGITUDE = 98°12'34.92" (98.209700)	SCALE 1" = 1000'	DATE SURVEYED: 11-28-12	DATE DRAWN: 04-25-13
NAD 27 (#4-2HS AS DRILLED BOTTOM HOLE) LATITUDE = 38°04'21.67" (38.072686) LONGITUDE = 98°12'27.44" (98.207622)	NAD 27 (#4-2HS SURFACE LOCATION) LATITUDE = 38°05'07.13" (38.085314) LONGITUDE = 98°12'33.69" (98.209358)	PARTY C.B. D.W. S.F.	REFERENCES G.L.O. PLAT	
STATE PLANE NAD 27 N: 512086.38 E: 2084166.59	STATE PLANE NAD 27 (KANSAS SOUTH) N: 516682.68 E: 2083651.86	WEATHER COOL	FILE SGOMI	

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

June 03, 2013

Damonica Pierson
Shell Gulf of Mexico Inc.
150 N DAIRY-ASHFORD (77079)
PO BOX 576 (77001-0576)
HOUSTON, TX 77001-0576

Re: ACO1
API 15-155-21631-01-00
Reffner 2308 4-2HS
NW/4 Sec.04-23S-08W
Reno County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Damonica Pierson

Summary of Changes

Lease Name and Number: Reffner 2308 4-2HS

API/Permit #: 15-155-21631-01-00

Doc ID: 1141196

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Amount of Surface Pipe Set and Cemented at	0	342
Approved Date	03/15/2013	06/10/2013
CasingAdd_Type_PctPDF_1		Attached
CasingNumbSacksUsedPDF_1	30	Attached
CasingPurposeOfStringPDF_1	Conductor	Attached
CasingSettingDepthPDF_1	60	Attached
CasingSizeCasingSetPDF_1	18	Attached
CasingSizeHoleDrilledPDF_1	24	Attached
CasingTypeOfCementPDF_1	Portland Neat	Attached
CasingWeightPDF_1	45	Attached

Summary of changes for correction 1 continued

Field Name	Previous Value	New Value
Completion Or Recompletion Date	02/14/2013	05/12/2013
Date Reached TD	02/14/2013	04/14/2013
Electric Log Run?	No	Yes
Electric Log Submitted Electronically?		Yes
Elogs_PDF		Triple Combo
Fluid Mngmt - Range	4	6
Fluid Mngmt - Section	6	4
Formation Top Source - Log	No	Yes
Kelly Bushing Elevation	0	1682
Liner Run?	No	Yes
Producing Formation	CONDUCTOR ONLY	Mississippi
Purchaser's Name	CONDUCTOR ONLY	
Save Link	../kcc/detail/operatorEditDetail.cfm?docID=1124657	../kcc/detail/operatorEditDetail.cfm?docID=1141196

Summary of changes for correction 1 continued

Field Name	Previous Value	New Value
Spud Or Recompletion Date	02/13/2013	03/09/2013
TopsDepth1		3444
TopsDepth2		3482
TopsDepth3		3562
TopsDepth4		3613
TopsDepth5		3652
TopsName1	CONDUCTOR ONLY	Marmaton A
TopsName2		Hushpuckney
TopsName3		Marmaton B
TopsName4		Cherokee
TopsName5		Mississippi
Total Depth	60	8071

Summary of Attachments

Lease Name and Number: Reffner 2308 4-2HS

API: 15-155-21631-01-00

Doc ID: 1141196

Correction Number: 1

Attachment Name

Reffner 2308 4-2HS Conductor record

Reffner 2308 4-2HS Surface Cement report

Reffner 2308 4-2HS Inter Cement report

Reffner 2308 4-2HS Liner Cement report

Reffner 2308\4-2HS\Shell Reffner 2308 4-2HS - Directional Survey

REFFNER 2308 #4-2HS - AS-DRILLED PLAT

Two Year Confidentiality



CONFIDENTIAL

WELL COMPLETION FORM

WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

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

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____