

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:
 Flowing Pumping Gas Lift Other *(Explain)* _____

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> <input type="checkbox"/> Other <i>(Specify)</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	HEIMERMAN FARMS 3104 25-1H
Doc ID	1102473

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	4538 - 4902	159852 gals fluid, 92739# proppant	
6	4990 - 5350	137844 gals fluid, 78888# proppant	
6	5443 - 5807	162330 gals fluid, 68634# proppant	
6	5900 - 6259	141372 gals fluid, 65783# proppant	
6	6348 - 6712	141918 gals fluid, 54729# proppant	
6	6800 - 7164	161742 gals fluid, 68672# proppant	
6	7252 - 7616	177156 gals fluid, 50112# proppant	
6	7705 - 7978	142380 gals fluid, 79577# proppant	
6	8157 - 8521	136458 gals fluid, 73843# proppant	
6	8609 - 8973	201642 gals fluid, 71089# proppant	

Form	ACO1 - Well Completion
Operator	Shell Gulf of Mexico Inc.
Well Name	HEIMERMAN FARMS 3104 25-1H
Doc ID	1102473

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	26	18	47.76	60	1/2 Portland Cmt	36	15% Fly Ash
Surface	12.25	9.625	36	385	Class C	250	See attached
Intermediate	8.75	7	23	4405	Class C	990	See attached
Liner	6.125	4.5	11.6	9047	Class H	415	See attached

SHELL GULF OF MEXICO, INC. (34574)

Heimerman 3104-25

<p>PETE MARTIN DRILLING (34645) (SET THE CONDUCTOR)</p>	<p>1-H Conductor</p>	<p>1-H Mouse Hole</p>
<p>Call in DATE OF SPUD</p>		
<p>spud in date</p>	<p>7/4/2012</p>	<p>7/6/2012</p>
<p>T.D date</p>	<p>7/4/2012</p>	<p>7/6/2012</p>
<p>Size Hole Drilled</p>	<p>26"</p>	<p>20"</p>
<p>Size Casing Set (in O.D)</p>	<p>18"</p>	<p>14"</p>
<p>conductor wall thickness</p>	<p>250</p>	<p>188</p>
<p>Weight Lbs./Ft.</p>	<p>47.76</p>	<p>27.76</p>
<p>Setting Depth</p>	<p>60'</p>	<p>77'</p>
<p>Type of Cement</p>	<p>TYPE 1/2 PORTLAND CEMENT</p>	
<p>Cubic yards of cement</p>	<p>6cy</p>	<p>5 CY</p>
<p>2500 PSI Grout Mix</p>	<p>yes</p>	<p>yes</p>
<p>Type and Percent of Additives</p>	<p>15% fly ash</p>	<p>15% fly ash</p>
<p>Comments</p>	<p>0-15' sand 15-22' Clay 22'-32' Water 32'-76' Blue Shale</p>	<p>0-15' sand 15'-22' clay 22'- 32' water 32'-77 red & blue shale</p>

CEMENT JOB REPORT



CUSTOMER SHELL WESTERN E & P INC	DATE 05-SEP-12	F.R. # 1001933065	SERV. SUPV. JONATHAN M SCHULZ III
LEASE & WELL NAME HEIMERMAN FARMS 3104 #25-1H - API 1519122651	LOCATION 25-31S-4W		COUNTY-PARISH-BLOCK Sumner Kansas
DISTRICT McAlester	DRILLING CONTRACTOR RIG #		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, Ph	Shoe provided by Weatherford						

PHYSICAL SLURRY PROPERTIES								
MATERIALS FURNISHED BY BJ	LAB REPORT NO.	SACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT	WATER GPS	PUMP TIME HR:MIN	Bbl SLURRY	Bbl MIX WATER
fresh water			8.34				20	
Class C + 2% CaCl2 + .25pps Celloflake +.01% Stati		250	14.8	1.35	6.34	02:45	61	38.30
Water			8.34				26	
Available Mix Water <u>500</u> Bbl.		Available Displ. Fluid <u>450</u> Bbl.		TOTAL			<u>107</u>	<u>38.30</u>

HOLE			TBG-CSG-D.P.							COLLAR DEPTHS		
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE
12.25		395	8.921	9.625	36	CSG	385	385	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.		
17.	18	84		64	64					9.625	8RD	WATER BASED MU	8.4		

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 Tank
26.6	BBLS	Water	8.34	115					3056	1000	Rig Tank

EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING: Arrive oin location 630, Waiting to spud, spud well, POOH, Rig Up Cas ng Crew, 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 2025 PSI
06:30						CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input type="checkbox"/>
22:40	2025				WATER	Arrive on location
22:42	143		4		WATER	test pumps & lines
22:46	149		4	20	WATER	open well/start water spacer
23:04	121		3	58	CMT	end water ahead/start slurry @ 14.8ppg
23:06	100		3	61	CMT	bbls pumped when cement to surface
23:08	88		3		WATER	end slurry/shutdown
23:17	1000		3	26	WATER	drop weatherford TRP/start displacement
23:27	0			-25		bump plug/shutdown/ monitor 10 minutes
						check float/ holding/ bbls return
						28bbls cement return to surface
						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	1000	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	28	107	0	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

FIELD RECEIPT NO. 1001933065



CUSTOMER		SHELL WESTERN E & P INC		CREDIT APPROVAL NO.	PURCHASE ORDER NO.	CUSTOMER NUMBER	INVOICE NUMBER
MAIL INVOICE TO		STREET OR BOX NUMBER		CITY		STATE	ZIP CODE
DATE WORK COMPLETED		MO.	DAY	YEAR	BHI REPRESENTATIVE	WELL API NO:	WELL TYPE:
DISTRICT		09	05	2012	JONATHAN M SCHULZ III	15191226560000	New Well
WELL NAME AND NUMBER		HEIMERMAN FARMS 3104 #25-1H		TD WELL DEPTH(ft)	385	WELL CLASS:	Oil
WELL LOCATION:		LEGAL DESCRIPTION		COUNTY/PARISH	STATE	GAS USED ON JOB:	No Gas
PRODUCT CODE		DESCRIPTION		Sumner	Kansas	JOB TYPE CODE:	Surface
100020	Class C Cement	sacks	250	27.900	6,975.00	%	NET AMOUNT
100112	Calcium Chloride	lbs	471	1.220	574.62		2,929.50
100295	Cello Flake	lbs	63	4.850	305.55		241.34
488019	FP-6L	gals	2	99.250	198.50		128.33
499632	Granulated Sugar	lbs	500	3.490	1,745.00		83.37
499680	Static Free	lbs	3	38.700	116.10		732.90
A152N		Personnel Per Diem Chrg - Cement Svc		SUB-TOTAL FOR Product Material			48.76
J396		Remote Location Crew Expense/Man		SUB-TOTAL FOR Service Charges			4,164.20
M100		Bulk Materials Blending Charge					161.50
		SUB-TOTAL FOR Service Charges					1,200.00
							483.39
							1,844.89
ARRIVE LOCATION:	MO.	DAY	YEAR	TIME	SERVICE ORDER: I AUTHORIZE WORK TO BEGIN PER SERVICE INSTRUCTIONS IN ACCORDANCE WITH THE TERMS AND CONDITIONS PRINTED ON THE LAST PAGE OF THIS FORM AND REPRESENT THAT I HAVE AUTHORITY TO ACCEPT AND SIGN THIS ORDER.		
CUSTOMER REP.	09	05	2012	06:00	CUSTOMER AUTHORIZED AGENT		
SEE LAST PAGE FOR GENERAL TERMS AND CONDITIONS		Clayton Carmack		X			
				BHI APPROVED			

FIELD RECEIPT NO. 1001933065



CUSTOMER		SHELL WESTERN E & P INC		CREDIT APPROVAL NO.	PURCHASE ORDER NO.		CUSTOMER NUMBER	INVOICE NUMBER	
MAIL INVOICE TO		STREET OR BOX NUMBER		CITY		STATE	ZIP CODE		
DATE WORK COMPLETED		MO.	DAY	YEAR	BHI REPRESENTATIVE	WELL API NO.	WELL TYPE :		
DISTRICT		09	05	2012	JONATHAN M SCHULZ III	15191226560000	New Well		
WELL NAME AND NUMBER		HEIMERMAN FARMS 3104 #25-1H		TD WELL DEPTH(ft)	385	WELL CLASS :	Oil		
WELL LOCATION :		LEGAL DESCRIPTION		COUNTY/PARISH	STATE	JOB TYPE CODE :	GAS USED ON JOB :		
PRODUCT CODE		DESCRIPTION		Sumner	Kansas	Surface	No Gas		
F063A		Cement Pumping, 0 - 1000 ft		UNIT OF MEASURE	QUANTITY	LIST PRICE UNIT	GROSS AMOUNT	% DISC.	NET AMOUNT
F090		Fuel per pump charge - cement		4hrs	1	2,650.000	2,650.00		1,113.00
J050		Fas-Lok Cement Head		pump/hr	4	61.000	244.00		244.00
J097		Line Restraint System - Cementing		job	1	635.000	635.00		266.70
J225		Data Acquisition, Cement, Standard		job	1	750.000	750.00		750.00
J390		Mileage, Heavy Vehicle		job	1	1,635.000	1,635.00		666.70
J391		Mileage, Auto, Pick-Up or Treating Van		miles	400	9.100	3,640.00		1,528.80
J553		Circulating Equipment		miles	800	5.150	4,120.00		1,730.40
K001		Environmental Management-Cust Req Mils		job	1	1,830.000	1,830.00		768.60
K289		Misc Cement Pumping, Non-Pump Time		ea	1	2,000.000	2,000.00		2,000.00
SUB-TOTAL FOR Equipment				hrs	14	477.000	6,678.00		2,804.76
J401		Bulk Delivery, Dry Products		ton-mi	2454	3.030	7,435.62		3,122.96
J402		Bulk Delivery, Standby Charge		hrs	14	174.000	2,436.00		1,023.12
SUB-TOTAL FOR Freight/Delivery Charges							9,871.62		4,146.08
ARRIVE LOCATION :		MO.	DAY	YEAR	TIME	SERVICE ORDER: I AUTHORIZE WORK TO BEGIN PER SERVICE INSTRUCTIONS IN ACCORDANCE WITH THE TERMS AND CONDITIONS PRINTED ON THE LAST PAGE OF THIS FORM AND REPRESENT THAT I HAVE AUTHORITY TO ACCEPT AND SIGN THIS ORDER.			
CUSTOMER REP.		09	05	2012	06:00	SERVICE RECEIPT: I CERTIFY THAT THE MATERIALS AND SERVICES LISTED WERE RECEIVED AND ALL SERVICES PERFORMED IN A WORKMANLIKE MANNER.			
SEE LAST PAGE FOR GENERAL TERMS AND CONDITIONS		Clayton Carmack				CUSTOMER AUTHORIZED AGENT		X	
						CUSTOMER AUTHORIZED AGENT		X	
						BHI APPROVED		X	

FIELD RECEIPT NO. 10019333065

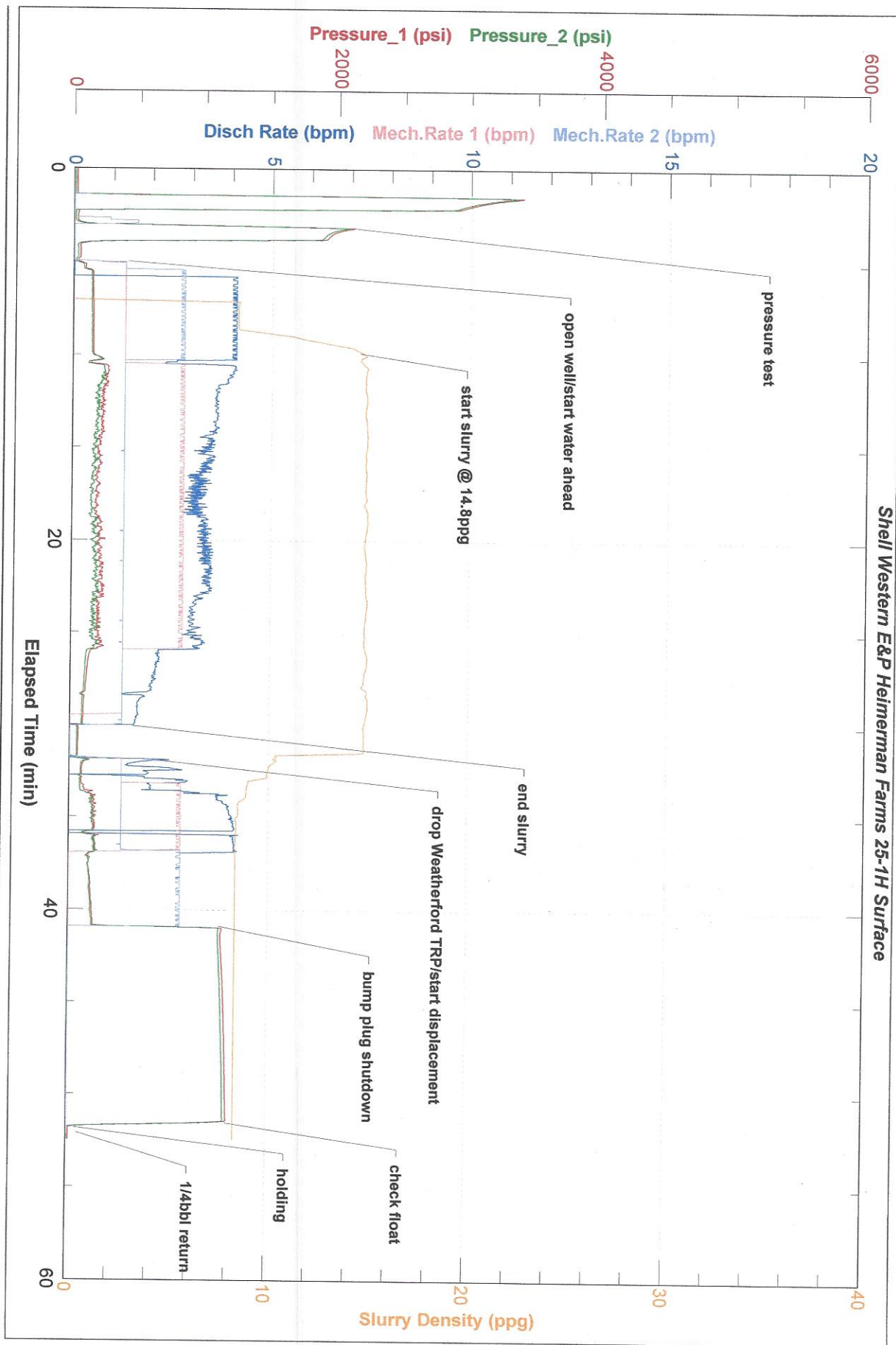


CUSTOMER		SHELL WESTERN E & P INC		CREDIT APPROVAL NO.		PURCHASE ORDER NO.		CUSTOMER NUMBER		INVOICE NUMBER	
MAIL INVOICE TO		STREET OR BOX NUMBER PO BOX 301440		CITY Houston		STATE Texas		ZIP CODE 77230			
DATE WORK COMPLETED	MO. 09	DAY 05	YEAR 2012	BHI REPRESENTATIVE JONATHAN M SCHULZ III	WELL API NO: 15191226560000	WELL TYPE: New Well	WELL CLASS: Oil	GAS USED ON JOB: No Gas			
DISTRICT BJS, McAlester		WELL NAME AND NUMBER HEIMERMAN FARMS 3104 #25-1H		TD WELL DEPTH (ft) 385		JOB DEPTH (ft) 385		JOB TYPE CODE: Surface			
WELL LOCATION:		LEGAL DESCRIPTION 25-31S-4W		COUNTY/PARISH Summer		STATE Kansas					
PRODUCT CODE	DESCRIPTION			UNIT OF MEASURE	QUANTITY	LIST PRICE UNIT	GROSS AMOUNT	% DISC.	NET AMOUNT		
	FIELD ESTIMATE						46,480.81		22,048.13		
ARRIVE LOCATION:		MO. 09	DAY 05	YEAR 2012	TIME 06:00	SERVICE ORDER: I AUTHORIZE WORK TO BEGIN PER SERVICE INSTRUCTIONS IN ACCORDANCE WITH THE TERMS AND CONDITIONS PRINTED ON THE LAST PAGE OF THIS FORM AND REPRESENT THAT I HAVE AUTHORITY TO ACCEPT AND SIGN THIS ORDER.					
CUSTOMER REP. Clayton Carmack		SEE LAST PAGE FOR GENERAL TERMS AND CONDITIONS		CUSTOMER AUTHORIZED AGENT		X		X		BHI APPROVED	



BJ Services JobMaster Program Version 3.50
Job Number: 1001933065
Customer: Shell Western E&P
Well Name: Heimerman Farms 25-1H

Shell Western E&P Heimerman Farms 25-1H Surface



CEMENT JOB REPORT



CUSTOMER SHELL WESTERN E & P. INC	DATE 18-SEP-12	F.R. # 1001935508	SERV. SUPV. Justin D Stamper
LEASE & WELL NAME HEIMERMANN FARMS 3104 #25-1H - API 1519122651	LOCATION 25-31S-4W		COUNTY-PARISH-BLOCK Sumner Kansas
DISTRICT McAlester	DRILLING CONTRACTOR RIG #		TYPE OF JOB Intermediate

SIZE & TYPE OF PLUGS	LIST-CSG-HARDWARE	MECHANICAL BARRIERS	MD	TVD	HANGER TYPES	MD	TVD
Cement Plug, Rubber, Top 7 in (FBC)	Shoe 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
SEAL BOND			8.45				40	
15:85:8(POZ,C,GEL)+10%SALT+ 5%SMS+4PPS KOL		990	12.4	2.45	13.52	06:07	296	218.37
50:50:2(POZ,C,GEL)+4#KOLSL+.15%SMS+.3%FL52		80	14.2	1.32	5.66	04:45	19	10.89
WATER			8.34				172	
Available Mix Water 1000 Bbl.		Available Displ. Fluid 1000 Bbl.		TOTAL			527	229.26

HOLE			TBG-CSG-D.P.						COLLAR DEPTHS			
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE
8.75		4415	6.366	7	23	CSG	4410	4033	L-80	4410	4371	

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		382	382			4600	4600	7	8RD	WATER BASED MU	9.5

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
172	BBLs	WATER	8.34	1400					5072	3000	RIG

EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING: ARRIVE ON LOCATION, WAIT ON CASING,

PRESSURE/RATE DETAIL						EXPLANATION	
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW	CO. REP.
	PIPE	ANNULUS				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
15:00							
05:30							
06:45	4200				WATER		
08:02	200		4	296	SLURRY	<input checked="" type="checkbox"/>	<input type="checkbox"/>
						ARRIVE ON LOCAITON	
						SAFETY MEETING	
						TEST LINES, START LEAD SLURRY	
						FINISH LEAD SLURRY, RECIVED CMT BACK TO SURFACE WENT TO TAIL, START TAIL SLURRY	
08:13	200		2	19	LEAD	FINISH LEAD, SHUT DOWN, DROP PLUG, AND DISPLACE	
08:57	1050		4	162	WATER	SLOW TO BUMP PLUG	
08:59	1100		2	10	WATER	BUMP PLUG PRESSURE TO 1700 PSI	
09:03						BLEED OFF RECEIVED 1 BBL. BACK TO TRUCK	
						FLOATS HOLDING	
						THANK YOU FOR USING BHI	
						JUSTIN STAMPER 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:
Y	N 1700	Y	N 230	487	0	Y	N

CEMENT JOB REPORT



CUSTOMER SHELL WESTERN E & P INC	DATE 24-SEP-12	F.R. # 1001935934	SERV. SUPV. JONATHAN M SCHULZ III
LEASE & WELL NAME HEIMERMAN FARMS 3104 #25-1H - API 1519122656	LOCATION 25-31S-4W		COUNTY-PARISH-BLOCK Sumner 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 Baker Oil Tools						

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
Sealbond			8.45				40
H50:50) + 3% NaCl+ .6% SMS+ .5% FL-52A		415	14.3	1.24	5.54		94 55.93
Displacement			8.34				124.25
circulate out well			8.34				109
Available Mix Water <u>500</u> Bbl.		Available Displ. Fluid <u>400</u> Bbl.		TOTAL			367.25 55.93

HOLE			TBG-CSG-D.P.							COLLAR DEPTHS		
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE
6.125		9053	4	4.5	11.6	LNR	9047	4033	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.
6.4	7	23	CSG	4405	4405						2	1502	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	
124.3	BBLS	Displacement	8.34	1400						5000	
		circulate out well	8.34								

EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING: Arrive on location @ 2200, Running Casing, Running Drill pipe

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 6940 PSI	
						CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input type="checkbox"/>	
22:00						arrive on location	
08:00				40	SPACER	rig pumps seal bond spacer	
08:25	6940				WATER	test pumps & lines	
08:33	934			3	SLURRY	open well/ start slurry @ 14.3ppg	
08:52	204		4	94	SLURRY	end slurry shutdown	
08:55					WATER	wash pumps & lines	
09:00	138		3		WATER	Drop TRP start displacement	
09:07	259		5	35	WATER	slow rate to bump first plug	
09:09	235		3	45	WATER	bump first plug/ increase rate	
09:23	1318		6	115	WATER	slow rate to bump plug	
09:29	4514		3	124.25	WATER	bump plug/ monitor for 10 minutes	
09:43	0			-2.5		check float/ holding/ bbls return	
10:07	4565				WATER	test annulus/ monitor for 10 minutes	
10:20	0				WATER	holding/ bleed off pressure	
10:34	157		3		WATER	begin circulating out well	
11:04	529			109	WATER	end circulation/ rig down	
						Approximately 5 bbls of cement to surface	
						Thanks for using BHI Pressure Pumping	

CEMENT JOB REPORT



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 6940 PSI	
						CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input type="checkbox"/>	
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	4500	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	5	367.25	0	Y <input checked="" type="checkbox"/> N	

Shell Exploration & Production Co. Inc.

Sumner Co. KS (NAD 27)

Sec 25-T31S-R4W

Heimerman Farms 3104 #25-1H / Job #9777742 / Nabors 102

Wellbore #1

Survey: MWD Surveys

Sperry Drilling Services Combo Report

24 September, 2012

Well Coordinates: 237,212.36 N, 2,232,538.99 E (37° 18' 55.45" N, 097° 42' 01.48" W)

Ground Level: 1,310.00 ft

Local Coordinate Origin:

Centered on Well Heimerman Farms 3104 #25-1H / Job #9777742 / Nabors 102

Viewing Datum:

WELL @ 1341.70ft (Original Well Elev)

TVDs to System:

N

North Reference:

True

Unit System:

API US Survey Feet

Version: 2003.21 Build: 43

HALLIBURTON

Survey Report for Heimerman Farms 3104 #25-1H / Job #9777742 / Nabors 102 - MWD Surveys

Measured Depth (ft)	Inclination (°)	Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
					Northing (ft)	Easting (ft)	Northing (ft)	Easting (ft)			
0.00	0.00	0.00	-1,341.70	0.00	0.00 N	0.00 E	237,212.36	2,232,538.99	0.00	0.00	
178.00	1.10	151.80	-1,163.71	177.99	1.51 S	0.81 E	237,210.86	2,232,539.81	0.62	1.52	First Sperry MWD Survey
332.00	0.85	167.02	-1,009.73	331.97	3.92 S	1.76 E	237,208.45	2,232,540.79	0.23	3.95	
506.00	4.60	222.12	-835.95	505.75	10.36 S	2.63 W	237,201.98	2,232,536.45	2.40	10.31	
597.00	5.63	224.80	-745.31	596.39	16.23 S	8.22 W	237,196.06	2,232,530.91	1.16	16.10	
688.00	6.12	214.17	-654.79	686.91	23.41 S	14.09 W	237,188.83	2,232,525.10	1.31	23.18	
778.00	4.85	191.10	-565.19	776.51	31.12 S	17.52 W	237,181.09	2,232,521.74	2.80	30.83	
877.00	3.77	154.14	-466.45	875.25	38.15 S	16.91 W	237,174.06	2,232,522.41	2.95	37.88	
968.00	3.43	143.12	-375.63	966.07	43.02 S	13.97 W	237,169.22	2,232,525.39	0.85	42.79	
1,062.00	3.50	150.31	-281.80	1,059.90	47.77 S	10.86 W	237,164.50	2,232,528.54	0.47	47.58	
1,156.00	1.12	168.66	-187.88	1,153.82	51.16 S	9.26 W	237,161.12	2,232,530.17	2.62	51.00	
1,251.00	0.18	155.10	-92.89	1,248.81	52.20 S	9.01 W	237,160.08	2,232,530.43	1.00	52.05	
1,345.00	0.53	180.38	1.11	1,342.81	52.77 S	8.95 W	237,159.51	2,232,530.49	0.40	52.62	
1,439.00	0.44	185.37	95.10	1,436.80	53.57 S	8.99 W	237,158.72	2,232,530.46	0.11	53.42	
1,628.00	0.43	124.87	284.10	1,625.80	54.70 S	8.47 W	237,157.59	2,232,530.99	0.23	54.55	
1,817.00	0.29	108.86	473.10	1,814.80	55.26 S	7.44 W	237,157.04	2,232,532.02	0.09	55.13	
2,006.00	0.89	78.51	662.09	2,003.79	55.12 S	5.55 W	237,157.20	2,232,533.91	0.35	55.02	
2,195.00	0.66	59.48	851.07	2,192.77	54.27 S	3.17 W	237,158.06	2,232,536.28	0.18	54.21	
2,384.00	0.62	48.02	1,040.06	2,381.76	53.04 S	1.47 W	237,159.31	2,232,537.97	0.07	53.01	
2,573.00	0.64	97.23	1,229.05	2,570.75	52.48 S	0.33 E	237,159.88	2,232,539.77	0.28	52.48	
2,761.00	0.52	92.58	1,417.04	2,758.74	52.66 S	2.23 E	237,159.73	2,232,541.67	0.07	52.68	
2,950.00	0.14	315.94	1,606.03	2,947.73	52.53 S	2.92 E	237,159.86	2,232,542.36	0.33	52.57	
3,139.00	0.26	337.51	1,795.03	3,136.73	51.97 S	2.60 E	237,160.42	2,232,542.03	0.07	52.00	
3,328.00	0.43	234.37	1,984.03	3,325.73	51.98 S	1.86 E	237,160.40	2,232,541.29	0.29	52.01	
3,422.00	0.13	293.30	2,078.03	3,419.73	52.15 S	1.47 E	237,160.23	2,232,540.91	0.40	52.16	
3,454.00	0.90	180.64	2,110.03	3,451.73	52.38 S	1.44 E	237,159.99	2,232,540.88	2.99	52.40	
3,485.00	4.10	175.74	2,141.00	3,482.70	53.73 S	1.52 E	237,158.64	2,232,540.97	10.34	53.75	
3,517.00	7.77	177.35	2,172.82	3,514.52	57.03 S	1.70 E	237,155.34	2,232,541.18	11.48	57.05	
3,548.00	11.34	179.28	2,203.38	3,545.08	62.18 S	1.84 E	237,150.20	2,232,541.36	11.56	62.20	
3,580.00	15.27	179.61	2,234.52	3,576.22	69.54 S	1.91 E	237,142.84	2,232,541.49	12.28	69.56	
3,611.00	18.88	180.81	2,264.15	3,605.85	78.64 S	1.86 E	237,133.74	2,232,541.53	11.70	78.66	
3,643.00	22.29	180.22	2,294.10	3,635.80	89.89 S	1.77 E	237,122.49	2,232,541.53	10.68	89.91	
3,674.00	25.11	180.56	2,322.48	3,664.18	102.35 S	1.68 E	237,110.03	2,232,541.55	9.11	102.36	
3,705.00	27.50	179.92	2,350.27	3,691.97	116.08 S	1.62 E	237,096.29	2,232,541.61	7.76	116.10	
3,737.00	30.00	179.82	2,378.32	3,720.02	131.47 S	1.66 E	237,080.90	2,232,541.78	7.81	131.48	
3,769.00	33.29	178.15	2,405.56	3,747.26	148.26 S	1.97 E	237,064.13	2,232,542.23	10.64	148.27	
3,800.00	37.11	177.78	2,430.89	3,772.59	166.11 S	2.61 E	237,046.28	2,232,543.02	12.34	166.13	
3,832.00	40.21	178.09	2,455.87	3,797.57	186.09 S	3.32 E	237,026.31	2,232,543.91	9.71	186.12	
3,863.00	42.53	178.07	2,479.14	3,820.84	206.56 S	4.01 E	237,005.84	2,232,544.77	7.48	206.60	

Survey Report for Heimerman Farms 3104 #25-1H / Job #9777742 / Nabors 102 - MWD Surveys

Measured Depth (ft)	Inclination (°)	Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
					Northing (ft)	Easting (ft)	Northing (ft)	Easting (ft)			
3,895.00	43.86	179.10	2,502.46	3,844.16	228.46 S	4.55 E	236,983.95	2,232,545.50	4.70	228.50	
3,926.00	46.24	179.83	2,524.36	3,866.06	250.39 S	4.75 E	236,962.02	2,232,545.89	7.86	250.44	
3,958.00	48.35	180.50	2,546.07	3,887.77	273.91 S	4.68 E	236,938.50	2,232,546.02	6.77	273.95	
3,989.00	50.26	180.90	2,566.28	3,907.98	297.41 S	4.39 E	236,915.00	2,232,545.93	6.24	297.44	
4,020.00	52.42	181.74	2,585.64	3,927.34	321.61 S	3.83 E	236,890.80	2,232,545.58	7.28	321.63	
4,052.00	55.69	181.27	2,604.43	3,946.13	347.50 S	3.15 E	236,864.90	2,232,545.12	10.29	347.51	
4,083.00	59.59	180.80	2,621.01	3,962.71	373.68 S	2.68 E	236,838.72	2,232,544.88	12.65	373.67	
4,115.00	61.83	179.80	2,636.67	3,978.37	401.58 S	2.54 E	236,810.81	2,232,544.97	7.51	401.57	
4,146.00	64.24	179.13	2,650.73	3,992.43	429.21 S	2.80 E	236,783.19	2,232,545.47	8.01	429.20	
4,178.00	66.96	179.26	2,663.94	4,005.64	458.35 S	3.21 E	236,754.06	2,232,546.13	8.51	458.34	
4,209.00	69.32	178.18	2,675.49	4,017.19	487.11 S	3.85 E	236,725.30	2,232,547.02	8.27	487.11	
4,241.00	72.78	178.44	2,685.88	4,027.58	517.36 S	4.75 E	236,695.06	2,232,548.17	10.84	517.37	
4,272.00	75.94	178.08	2,694.23	4,035.93	547.19 S	5.65 E	236,665.24	2,232,549.34	10.25	547.21	
4,304.00	79.31	177.82	2,701.09	4,042.79	578.42 S	6.77 E	236,634.02	2,232,550.72	10.56	578.46	
4,355.00	85.54	178.25	2,707.81	4,049.51	628.92 S	8.50 E	236,583.53	2,232,552.89	12.24	628.98	
4,457.00	89.51	178.78	2,712.21	4,053.91	730.77 S	11.14 E	236,481.71	2,232,556.40	3.93	730.86	
4,489.00	89.63	178.87	2,712.45	4,054.15	762.77 S	11.80 E	236,449.73	2,232,557.33	0.47	762.86	
4,583.00	89.97	178.41	2,712.78	4,054.48	856.74 S	14.03 E	236,355.78	2,232,560.37	0.61	856.85	
4,677.00	89.42	178.48	2,713.28	4,054.98	950.70 S	16.58 E	236,261.84	2,232,563.72	0.59	950.84	
4,772.00	89.57	178.82	2,714.12	4,055.82	1,045.67 S	18.82 E	236,166.89	2,232,566.77	0.39	1,045.84	
4,866.00	89.97	178.35	2,714.50	4,056.20	1,139.64 S	21.14 E	236,072.94	2,232,569.90	0.66	1,139.83	
4,961.00	89.54	178.64	2,714.90	4,056.60	1,234.61 S	23.63 E	235,978.00	2,232,573.21	0.55	1,234.83	
5,055.00	89.94	178.83	2,715.33	4,057.03	1,328.58 S	25.71 E	235,884.05	2,232,576.09	0.47	1,328.82	
5,149.00	89.94	179.06	2,715.43	4,057.13	1,422.57 S	27.44 E	235,790.08	2,232,578.63	0.24	1,422.82	
5,244.00	88.43	177.69	2,716.78	4,058.48	1,517.51 S	30.13 E	235,695.16	2,232,582.14	2.15	1,517.80	
5,338.00	89.20	180.04	2,718.72	4,060.42	1,611.47 S	31.99 E	235,601.23	2,232,584.80	2.63	1,611.77	
5,433.00	91.33	180.99	2,718.28	4,059.98	1,706.46 S	31.14 E	235,506.24	2,232,584.76	2.45	1,706.74	
5,527.00	89.23	180.94	2,717.82	4,059.52	1,800.44 S	29.56 E	235,412.25	2,232,583.99	2.23	1,800.68	
5,621.00	88.64	180.16	2,719.57	4,061.27	1,894.42 S	28.66 E	235,318.26	2,232,583.89	1.04	1,894.63	
5,712.00	88.77	179.87	2,721.63	4,063.33	1,985.39 S	28.63 E	235,227.29	2,232,584.65	0.35	1,985.60	
5,803.00	90.37	181.03	2,722.31	4,064.01	2,076.38 S	27.92 E	235,136.30	2,232,584.71	2.17	2,076.56	
5,893.00	88.95	180.78	2,722.84	4,064.54	2,166.37 S	26.50 E	235,046.30	2,232,584.06	1.60	2,166.51	
5,985.00	90.46	182.15	2,723.32	4,065.02	2,258.33 S	24.14 E	234,954.32	2,232,582.50	2.22	2,258.43	
6,076.00	89.10	182.95	2,723.67	4,065.37	2,349.24 S	20.10 E	234,863.39	2,232,579.23	1.73	2,349.26	
6,167.00	87.81	183.05	2,726.12	4,067.82	2,440.08 S	15.33 E	234,772.51	2,232,575.25	1.42	2,440.01	
6,258.00	86.91	183.15	2,730.31	4,072.01	2,530.85 S	10.42 E	234,681.70	2,232,571.11	1.00	2,530.69	
6,348.00	86.60	180.96	2,735.41	4,077.11	2,620.64 S	7.20 E	234,591.88	2,232,568.66	2.45	2,620.42	
6,439.00	87.75	179.80	2,739.89	4,081.59	2,711.52 S	6.59 E	234,501.00	2,232,568.84	1.79	2,711.28	
6,530.00	87.57	179.18	2,743.61	4,085.31	2,802.44 S	7.40 E	234,410.09	2,232,570.43	0.71	2,802.20	

Survey Report for Heimerman Farms 3104 #25-1H / Job #9777742 / Nabors 102 - MWD Surveys

Measured Depth (ft)	Inclination (°)	Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
					Northing (ft)	Easting (ft)	Northing (ft)	Easting (ft)			
6,624.00	88.46	178.40	2,746.86	4,088.56	2,896.36 S	9.39 E	234,316.19	2,232,573.22	1.26	2,896.14	
6,719.00	89.72	177.70	2,748.37	4,090.07	2,991.30 S	12.62 E	234,221.29	2,232,577.26	1.52	2,991.11	
6,813.00	89.41	178.50	2,749.09	4,090.79	3,085.24 S	15.74 E	234,127.37	2,232,581.18	0.91	3,085.09	
6,908.00	89.54	178.85	2,749.96	4,091.66	3,180.21 S	17.93 E	234,032.43	2,232,584.20	0.39	3,180.09	
7,002.00	90.28	177.95	2,750.10	4,091.80	3,274.17 S	20.56 E	233,938.49	2,232,587.63	1.24	3,274.08	
7,096.00	90.28	179.27	2,749.65	4,091.35	3,368.14 S	22.84 E	233,844.55	2,232,590.71	1.40	3,368.07	
7,191.00	90.92	180.14	2,748.65	4,090.35	3,463.13 S	23.33 E	233,749.56	2,232,592.02	1.14	3,463.06	
7,285.00	90.56	179.20	2,747.44	4,089.14	3,557.12 S	23.87 E	233,655.58	2,232,593.36	1.07	3,557.05	
7,380.00	89.14	178.76	2,747.69	4,089.39	3,652.10 S	25.56 E	233,560.62	2,232,595.87	1.56	3,652.04	
7,474.00	87.74	179.85	2,750.24	4,091.94	3,746.06 S	26.70 E	233,466.68	2,232,597.81	1.89	3,746.00	
7,569.00	89.69	180.64	2,752.37	4,094.07	3,841.03 S	26.29 E	233,371.71	2,232,598.22	2.21	3,840.96	
7,663.00	87.90	179.33	2,754.35	4,096.05	3,935.00 S	26.32 E	233,277.74	2,232,599.05	2.36	3,934.92	
7,758.00	89.45	176.52	2,756.55	4,098.25	4,029.90 S	29.76 E	233,182.87	2,232,603.30	3.38	4,029.86	
7,852.00	91.32	175.37	2,755.92	4,097.62	4,123.66 S	36.40 E	233,089.17	2,232,610.76	2.34	4,123.71	
7,947.00	90.00	176.20	2,754.82	4,096.52	4,218.39 S	43.38 E	232,994.50	2,232,618.55	1.64	4,218.55	
8,041.00	90.22	177.12	2,754.64	4,096.34	4,312.23 S	48.86 E	232,900.71	2,232,624.83	1.01	4,312.46	
8,135.00	90.25	177.19	2,754.26	4,095.96	4,406.12 S	53.53 E	232,806.87	2,232,630.30	0.08	4,406.41	
8,230.00	90.06	177.54	2,754.00	4,095.70	4,501.01 S	57.89 E	232,712.02	2,232,635.48	0.42	4,501.36	
8,324.00	89.29	176.24	2,754.53	4,096.23	4,594.87 S	62.99 E	232,618.21	2,232,641.39	1.61	4,595.29	
8,419.00	90.09	177.27	2,755.05	4,096.75	4,689.72 S	68.37 E	232,523.41	2,232,647.58	1.37	4,690.21	
8,513.00	90.00	176.73	2,754.97	4,096.67	4,783.59 S	73.29 E	232,429.59	2,232,653.30	0.58	4,784.15	
8,608.00	90.15	178.97	2,754.85	4,096.55	4,878.51 S	76.85 E	232,334.69	2,232,657.68	2.36	4,879.12	
8,702.00	90.40	179.49	2,754.40	4,096.10	4,972.50 S	78.12 E	232,240.72	2,232,659.75	0.61	4,973.12	
8,797.00	90.52	180.71	2,753.63	4,095.33	5,067.50 S	77.95 E	232,145.73	2,232,660.40	1.29	5,068.10	
8,891.00	90.49	180.22	2,752.81	4,094.51	5,161.49 S	77.19 E	232,051.73	2,232,660.44	0.52	5,162.07	
8,993.00	90.46	180.65	2,751.96	4,093.66	5,263.49 S	76.41 E	231,949.73	2,232,660.54	0.42	5,264.03	Final Sperry MWD Survey
9,047.00	90.46	180.65	2,751.53	4,093.23	5,317.48 S	75.80 E	231,895.74	2,232,660.39	0.00	5,318.01	Projection to TD

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
178.00	177.99	-1.51	0.81	First Sperry MWD Survey
8,993.00	4,093.66	-5,263.49	76.41	Final Sperry MWD Survey
9,047.00	4,093.23	-5,317.48	75.80	Projection to TD

Survey Report for Heimerman Farms 3104 #25-1H / Job #9777742 / Nabors 102 - MWD Surveys

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (ft)	Origin +E/-W (ft)	Start TVD (ft)
User	No Target (Freehand)	179.08	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
178.00	9,047.00	MWD Surveys	MWD+SC

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (°)	+N/-S (°)	+E/-W (°)	Northing (°)	Easting (°)	Latitude	Longitude
- hit/miss target									
- Shape									

Directional Difficulty Index

Average Dogleg over Survey:	1.92 °/100ft	Maximum Dogleg over Survey:	12.65 °/100ft at 4,083.00 ft
Net Tortousity applicable to Plans:	0.78 °/100ft	Directional Difficulty Index:	6.311

Audit Info

North Reference Sheet for Sec 25-T31S-R4W - Heimerman Farms 3104 #25-1H / Job #9777742 / Nabors 102 - Wellbore #1

All data is in Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.

Vertical Depths are relative to WELL @ 1341.70ft (Original Well Elev). Northing and Easting are relative to Heimerman Farms 3104 #25-1H / Job #9777742 / Nabors 102

Coordinate System is US State Plane 1927 (Exact solution), Kansas South 1502 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866

Projection method is Lambert Conformal Conic (2 parallel)

Central Meridian is 98° 30' 0.000 W°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:37° 16' 0.000 N°

False Easting: 2,000,000.00ft, False Northing: 0.00ft, Scale Reduction: 0.99999078

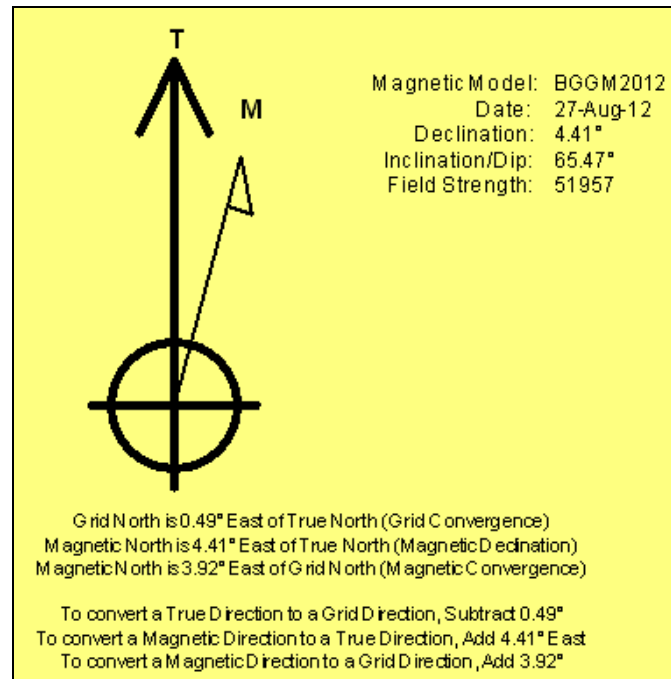
Grid Coordinates of Well: 237,212.36 ft N, 2,232,538.99 ft E

Geographical Coordinates of Well: 37° 18' 55.45" N, 097° 42' 01.48" W

Grid Convergence at Surface is: 0.49°

Based upon Minimum Curvature type calculations, at a Measured Depth of 9,047.00ft the Bottom Hole Displacement is 5,318.02ft in the Direction of 179.18° (True).

Magnetic Convergence at surface is: -3.92° (27 August 2012, , BGGM2012)



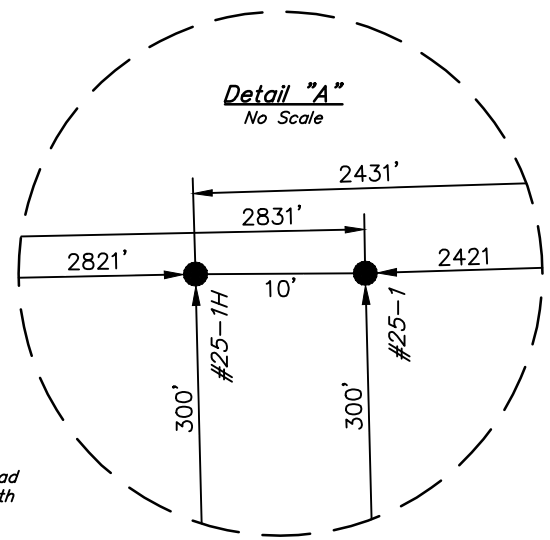
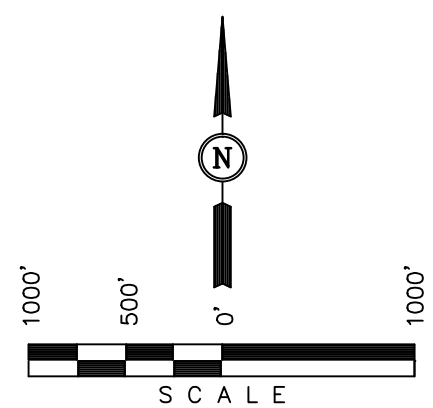
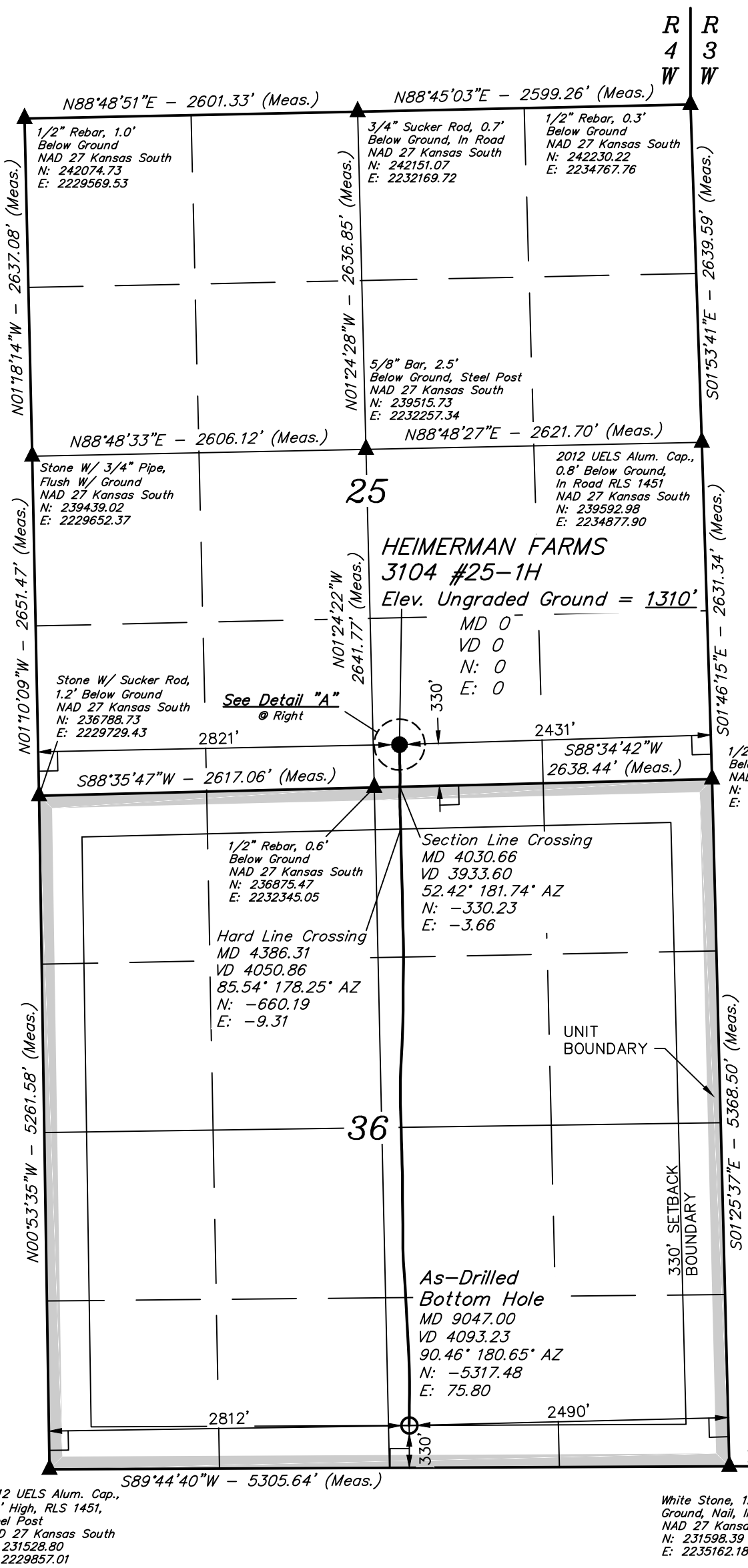
Well location, HEIMERMAN FARMS 3104 #25-1H, located as shown in the SW 1/4 SE 1/4 of Section 25, T31S, R4W, 6th P.M., Sumner County, Kansas.

BASIS OF ELEVATION

BLACK ELEVATION LOCATED AT THE NORTHEAST CORNER OF SECTION 25, T31S, R4W, 6th P.M. TAKEN FROM THE MILAN, QUADRANGLE, KANSAS, SUMNER COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 1333 FEET.

BASIS OF BEARINGS

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



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

NOTE:
AS-DRILLED WELL BORE PATH AND INFORMATION PROVIDED BY SGOMI.

NAD 83 (#25-1H AS-DRILLED BOTTOM HOLE) LATITUDE = 37°18'02.95" (37.300819) LONGITUDE = 97°42'01.72" (97.700478)	NAD 83 (#25-1H SURFACE LOCATION) LATITUDE = 37°18'55.52" (37.315422) LONGITUDE = 97°42'02.66" (97.700739)
NAD 27 (#25-1H AS-DRILLED BOTTOM HOLE) LATITUDE = 37°18'02.88" (37.300800) LONGITUDE = 97°42'00.53" (97.700147)	NAD 27 (#25-1H SURFACE LOCATION) LATITUDE = 37°18'55.45" (37.315403) LONGITUDE = 97°42'01.48" (97.700411)
STATE PLANE NAD 27 (KANSAS SOUTH) N: 231895.84 E: 2232660.86	STATE PLANE NAD 27 (KANSAS SOUTH) N: 237212.36 E: 2232538.99

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		
SCALE 1" = 1000'	DATE SURVEYED: 09-24-12	DATE DRAWN: 11-13-12
PARTY L.S. J.P. C.A.G.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE SGOMI	

Summary of Changes

Lease Name and Number: HEIMERMAN FARMS 3104 25-1H

API/Permit #: 15-191-22656-01-00

Doc ID: 1102473

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Amount of Surface Pipe Set and Cemented at	0	385
Approved By	Deanna Garrison	NAOMI JAMES
Approved Date	08/21/2012	11/27/2012
CasingAdd_Type_PctPDF_1	15% Fly Ash	Attached
CasingNumbSacksUsedPDF_1	36	Attached
CasingPurposeOfStringPDF_1	CONDUCTOR	Attached
CasingSettingDepthPDF_1	60	Attached
CasingSizeCasingSetPDF_1	18	Attached
CasingSizeHoleDrilledPDF_1	26	Attached
CasingTypeOfCementPDF_1	1/2 Portland Cmt	Attached

Summary of changes for correction 1 continued

Field Name	Previous Value	New Value
CasingWeightPDF_1	47.76	Attached
Completion Or Recompletion Date	07/04/2012	11/03/2012
Date Reached TD	07/04/2012	09/22/2012
Electric Log Run?	No	Yes
Electric Log Submitted Electronically?		Yes
Elogs_PDF		Triple Combo
Field Name		Wildcat
Formation Top Source - Log	No	Yes
Kelly Bushing Elevation	1337	1342
Liner Run?		Yes
Method Of Completion - Perf	No	Yes
Perf_Depth_1		Attached
Perf_Material_1		Attached

Summary of changes for correction 1 continued

Field Name	Previous Value	New Value
Perf_Record_1		Attached
Perf_Shots_1		Attached
Plug Back Total Depth		9002
Producing Formation	CONDUCTOR ONLY	Mississippi
Production Interval #1		4538 - 8973
Purchaser's Name	CONDUCTOR ONLY	
Save Link	../../kcc/detail/operatorE ditDetail.cfm?docID=10 90525	../../kcc/detail/operatorE ditDetail.cfm?docID=11 02473
TopsDepth1		3405
TopsDepth2		3576
TopsDepth3		3703
TopsDepth4		3802
TopsDepth5		3845
TopsDepth6		4031

Summary of changes for correction 1 continued

Field Name	Previous Value	New Value
TopsName1	CONDUCTOR ONLY	Iola
TopsName2		Hushpuckney
TopsName3		Marmaton
TopsName4		Pawnee
TopsName5		Cherokee
TopsName6		Mississippi
Total Depth	60	9047
Tubing Packer At		4570
Tubing Record - Set At		4583
Tubing Size		2.825

Summary of Attachments

Lease Name and Number: HEIMERMAN FARMS 3104 25-1H

API: 15-191-22656-01-00

Doc ID: 1102473

Correction Number: 1

Attachment Name

HEIMERMAN FARMS 3104 #25-1H conductor record

Heimerman Farms 3104 25 1H surface cement rpt

Heimerman Farms 3104 25 1H intermediate cement rpt

HEIMERMAN FARMS 3104 #25-1H Liner cement

Heimerman Farms 3104 25-1H Directional survey

HEIMERMAN 3104 #25-1H AS DRILLED LEGAL PLAT



CONFIDENTIAL

WELL COMPLETION FORM

Form Must Be Typed
Form must be Signed
All blanks must be Filled

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: _____