



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: \_\_\_\_\_



1106916

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Shell Gulf of Mexico Inc.
Well Name	Schubach 3510 16-1H
Doc ID	1106916

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	6004 - 6354	145614 gals fluids, 67694# prop	
6	6439 - 6789	130914 gals fluids, 44597# prop	
6	6874 - 7224	129318 gals fluids, 41977# prop	
6	7309 - 7659	111216 gals fluids, 42423# prop	
6	7744 - 8094	124194 gals fluids, 42353# prop	
6	8179 - 8537	125958 gals fluids, 41628# prop	
6	8610 - 8968	128352 gals fluids, 41085# prop	
6	9052 - 9400	129738 gals fluids, 39354# prop	
6	9484 - 9834	134736 gals fluids, 40249# prop	

Form	ACO1 - Well Completion
Operator	Shell Gulf of Mexico Inc.
Well Name	Schupbach 3510 16-1H
Doc ID	1106916

#### 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	30	15% Fly Ash
Surface	12.25	9.625	36	530	Class C	305	See attached
Intermediate	8.75	7	23	5181	Class C	215	See attached
Liner	6.125	4.5	11.6	9912	Class H	345	See attached

SHELL GULF OF MEXICO, INC. (34574)

Schupbach 3510 16

**PETE MARTIN DRILLING (34645)**  
**(SET THE CONDUCTOR)**

1-H Conductor

1-H Mouse Hole

Call in DATE OF SPUD

spud in date

10/12/2012

10/13/2012

T.D date

10/12/2012

10/14/2012

Size Hole Drilled

26"

20"

Size Casing Set (in O.D )

18"

14"

conductor wall thickness

250

188

Weight Lbs./Ft.

47.76

27.76

Setting Depth

60'

76'

Type of Cement

type1/2 portland cement

Type 1/2 portland cement

Cubic yards of cement

5cy

6cy

2500 PSI Grout Mix

yes

yes

Type and Percent of Additives

15% fly ash

15% fly ash

Comments

0-14' Red Dirt, 14-60' Clay,  
Water 34'0-14' Red Dirt, 14-76' Clay,  
Water 34'

# CEMENT JOB REPORT



CUSTOMER SHELL WESTERN E & P INC	DATE 20-OCT-12	F.R. # 1001942478	SERV. SUPV. JONATHAN M SCHULZ III
LEASE & WELL NAME SCHUPBACH 3510 #16-1H - API 15007239270000	LOCATION 16-35S-10W		COUNTY-PARISH-BLOCK Barber Kansas
DISTRICT McAlester	DRILLING CONTRACTOR RIG # Nabors 180		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% CaCl2 + .25ppsCelloflake		305	14.8	1.35	6.34	02:45	79	49.60
Water			8.34				37	
Available Mix Water <u>500</u> Bbl.		Available Displ. Fluid <u>400</u> Bbl.		TOTAL			<u>138</u>	<u>49.60</u>

HOLE			TBG-CSG-D.P.							COLLAR DEPTHS		
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE
12.25		530	8.921	9.625	36	CSG	499	499	K-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.
											9.625	8RD	WATER BASED MU	8.6

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	
37	BBLS	Water	8.34	250					2800	1200	frac tank

**EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING:** Arrive on location @ 1800, Drilling, TOOH, Running 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 3089 PSI			
						CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input type="checkbox"/>			
18:00						Arrive on location			
07:14	3089				WATER	test pumps & lines			
07:17	228		3		WATER	open well/start water spacer			
07:22	411		5	22	WATER	end water spacer/start slurry @ 14.8ppg			
07:31	234		3	20	SLURRY	shutdown/dry product deliver problems			
07:36	196		3		SLURRY	resume slurry			
07:45	412		3	79	SLURRY	end slurry/shutdown			
07:49	46		3		WATER	drop TRP/start displacement			
07:57	69		3	13	WATER	bbls pumped when cemnt back to surface			
08:06	1034		2.5	37	WATER	bump plug to psi/ hold for casing test			
08:18	0			-.25		check float/ holding/bbls back			
						25bbls of cement back to surface			
						Thanks for using Baker Hughes 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	1030	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	25	148	0	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

# CEMENT JOB REPORT



CUSTOMER SHELL WESTERN E & P INC	DATE 04-NOV-12	F.R. # 1001944745	SERV. SUPV. Justin D Stamper
LEASE & WELL NAME SCHUPBACH 3510 #16-1H - API 15007239270000	LOCATION 16-35S-10W		COUNTY-PARISH-BLOCK Barber Kansas
DISTRICT McAlester	DRILLING CONTRACTOR RIG # Nabors 180		TYPE OF JOB Intermediate

SIZE & TYPE OF PLUGS	LIST-CSG-HARDWARE	MECHANICAL BARRIERS	MD	TVD	HANGER TYPES	MD	TVD
7" Top Cem Plug, Nitrile cvr, Phen	Shoe PROVIDED BY CUSTOME						

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 KOLS		130	12.4	2.45	13.51		56.65	41.76
50:50:2(POZ,C,GEL)+4#KOLSL+.15%SMS+.3%FL52		85	14.2	1.32	5.66		20	11.46
WATER			8.34				202	
Available Mix Water <u>500</u> Bbl.		Available Displ. Fluid <u>500</u> Bbl.		TOTAL			318.65	53.23

HOLE			TBG-CSG-D.P.						COLLAR DEPTHS			
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE
8.75		5202	6.366	7	23	CSG	5181	4831	N-80	5181	5132	

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		500	500			4600	4600	7	8RD	WATER BASED MU	9.2

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	FRAC TANK
202	BBLS	WATER	8.34	900					5072	3000	FRAC TANK

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 <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/>	
	PIPE	ANNULUS				TEST LINES 4200 PSI	
						CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input type="checkbox"/>	
01:50						ARRIVE ON LOCATION	
10:00						SAFETY MEETING	
10:05	400		5	40	SEAL BON	RIG TO PUMP SEAL BOND	
10:34	4300				WATER	TEST LINES, START LEAD SLURRY	
10:51	690		4	56	LEAD	FINISH LEAD, START TAIL	
10:58	370		3	20	TAIL	FINISH TAIL, SHUT DOWN, DROP PLUG AND DISPLACE	
11:37	1000		4	182	WATER	SLOW TO BUMP PLUG	
11:43	1000		3	10	WATER	BUMP PLUG AND PRESSURE UP TO 2000 PSI	
12:03	0		0			BLEED OFF RECIVIED 1 BBLS 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 <input type="checkbox"/> N <input checked="" type="checkbox"/>		Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		318	0	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	

# CEMENT JOB REPORT



CUSTOMER SHELL WESTERN E & P INC	DATE 11-NOV-12	F.R. # 1001946788	SERV. SUPV. Jonathan M Schulz
LEASE & WELL NAME SCHUPBACH 3510 #16-1H - API 15007239270000	LOCATION 16-35S-10W		COUNTY-PARISH-BLOCK Barber Kansas
DISTRICT McAlester	DRILLING CONTRACTOR RIG # Nabors 180		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%FI-62+ .6%SMS+ .15%R-3+ .5%FL		345	14.3	1.24	5.54	04:45	80	47.60
Displacement			8.34				122.5	
reverse out			8.34				170	

Available Mix Water <u>600</u> Bbl.	Available Displ. Fluid <u>500</u> Bbl.	<b>TOTAL</b>	412.5	47.60
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HOLE			TBG-CSG-D.P.						COLLAR DEPTHS			
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE
6.125		9956	4	4.5	11.6	CSG	9912	4739	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	5181	5181						2	1502	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	
122.5	BBLS	Displacement	8.34	600					8552	5000	
		reverse out	8.34								

**EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING:**

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 6400 PSI	
						CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input type="checkbox"/>	
12:00				40		Rig pumps Sealbond Spacer	
12:29	6400				WATER	test pumps & lines	
12:37	118		6		SLURRY	open well/start slurry @ 14.3ppg	
12:52	329		3	80	SLURRY	end slurry/shutdown	
12:55					WATER	wash pumps & lines	
13:00	323		5		WATER	drop plug/start displacement	
13:04	773		5	28	WATER	caught cement	
13:09	1359		3	42.5	WATER	bbsl pumed when latch plug	
13:26	1626		3	122.5	WATER	bump plug/ end displacement	
13:30	0			-.75		check float/holding/ .75bbls back	
13:35	3858				WATER	presure casing to set packer	
14:05	4532					test backside hold for 10 minutes	
14:16	4490					end test/ bleec off oressure	
14:37	197		5		WATER	start reverse circulate	
15:00	1349		5	170	WATER	end reverse out	
						no cement return to surface	
						calculated top of cement 5909'	



# 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            6400 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	1600	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	0	412.5	0	Y <input checked="" type="checkbox"/> N	

# Shell Exploration & Production Co. Inc.

Barber Co. KS (NAD-27)

Sec 16 T35S R10W

Schupbach Ranch 3510 16-1H

API# 15-007-23927/ Job# 9507255/ Nabors 180

Wellbore #1

Plan: Plan #1 101612 RevA0

## Sperry Drilling Services Combo Report

18 October, 2012

Surface UWI : API# 15-007-23927/ Job# 9507255/ Nabors 180

Well Coordinates: 121,102.84 N, 2,026,199.53 E (36° 59' 57.19" N, 098° 24' 37.06" W)

Ground Level: 1,330.00 ft

Local Coordinate Origin:

Viewing Datum:

TVDs to System:

North Reference:

Unit System:

Centered on Well Schupbach Ranch 3510 16-1H

WELL @ 1353.00ft (Original Well Elev+23'KB)

N

Grid

API-US-new

Version: 2003.21 Build: 46

**HALLIBURTON**

## Plan Report for Schupbach Ranch 3510 16-1H - Plan #1 101612 RevA0

Measured Depth (ft)	Inclination (°)	Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates (ft)		Map Coordinates (ft)		Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
					Northing	Easting	Northing	Easting			
0.00	0.00	0.00	-1,353.00	0.00	0.00 N	0.00 E	121,102.84	2,026,199.53	0.00	0.00	
100.00	0.00	0.00	-1,253.00	100.00	0.00 N	0.00 E	121,102.84	2,026,199.53	0.00	0.00	
200.00	0.00	0.00	-1,153.00	200.00	0.00 N	0.00 E	121,102.84	2,026,199.53	0.00	0.00	Start Build 2.50
300.00	2.50	2.16	-1,053.03	299.97	2.18 N	0.08 E	121,105.02	2,026,199.61	2.50	2.18	
400.00	5.00	2.16	-953.25	399.75	8.71 N	0.33 E	121,111.55	2,026,199.86	2.50	8.72	
440.00	6.00	2.16	-913.44	439.56	12.55 N	0.47 E	121,115.39	2,026,200.00	2.50	12.55	Start 300.00 hold at 440.00 MD
500.00	6.00	2.16	-853.77	499.23	18.81 N	0.71 E	121,121.65	2,026,200.24	0.00	18.82	
600.00	6.00	2.16	-754.31	598.69	29.26 N	1.10 E	121,132.10	2,026,200.63	0.00	29.27	
700.00	6.00	2.16	-654.86	698.14	39.70 N	1.50 E	121,142.54	2,026,201.03	0.00	39.72	
740.00	6.00	2.16	-615.08	737.92	43.88 N	1.66 E	121,146.72	2,026,201.19	0.00	43.91	Start Drop -2.50
800.00	4.50	2.16	-555.34	797.66	49.37 N	1.86 E	121,152.21	2,026,201.39	2.50	49.39	
900.00	2.00	2.16	-455.50	897.50	55.03 N	2.08 E	121,157.87	2,026,201.61	2.50	55.06	
980.00	0.00	0.00	-375.52	977.48	56.43 N	2.13 E	121,159.27	2,026,201.66	2.50	56.46	Start 3280.52 hold at 980.00 MD
1,000.00	0.00	0.00	-355.52	997.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
1,100.00	0.00	0.00	-255.52	1,097.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
1,105.52	0.00	0.00	-250.00	1,103.00	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	Hutchinson Salt Top
1,200.00	0.00	0.00	-155.52	1,197.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
1,300.00	0.00	0.00	-55.52	1,297.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
1,400.00	0.00	0.00	44.48	1,397.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
1,486.52	0.00	0.00	131.00	1,484.00	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	Hutchinson Salt Base
1,500.00	0.00	0.00	144.48	1,497.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
1,600.00	0.00	0.00	244.48	1,597.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
1,700.00	0.00	0.00	344.48	1,697.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
1,800.00	0.00	0.00	444.48	1,797.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
1,900.00	0.00	0.00	544.48	1,897.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
2,000.00	0.00	0.00	644.48	1,997.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
2,100.00	0.00	0.00	744.48	2,097.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
2,200.00	0.00	0.00	844.48	2,197.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
2,300.00	0.00	0.00	944.48	2,297.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
2,400.00	0.00	0.00	1,044.48	2,397.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
2,500.00	0.00	0.00	1,144.48	2,497.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
2,564.52	0.00	0.00	1,209.00	2,562.00	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	Onaga Shale
2,600.00	0.00	0.00	1,244.48	2,597.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
2,700.00	0.00	0.00	1,344.48	2,697.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
2,800.00	0.00	0.00	1,444.48	2,797.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
2,900.00	0.00	0.00	1,544.48	2,897.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
3,000.00	0.00	0.00	1,644.48	2,997.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
3,100.00	0.00	0.00	1,744.48	3,097.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
3,200.00	0.00	0.00	1,844.48	3,197.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	

**Plan Report for Schupbach Ranch 3510 16-1H - Plan #1 101612 RevA0**

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)			
3,300.00	0.00	0.00	1,944.48	3,297.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
3,391.52	0.00	0.00	2,036.00	3,389.00	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	Techumseh Shale
3,400.00	0.00	0.00	2,044.48	3,397.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
3,481.52	0.00	0.00	2,126.00	3,479.00	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	Lecompton Limestone
3,500.00	0.00	0.00	2,144.48	3,497.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
3,600.00	0.00	0.00	2,244.48	3,597.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
3,666.52	0.00	0.00	2,311.00	3,664.00	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	Oread Limestone
3,700.00	0.00	0.00	2,344.48	3,697.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
3,718.52	0.00	0.00	2,363.00	3,716.00	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	Toronto Limestone
3,800.00	0.00	0.00	2,444.48	3,797.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
3,900.00	0.00	0.00	2,544.48	3,897.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
4,000.00	0.00	0.00	2,644.48	3,997.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
4,040.52	0.00	0.00	2,685.00	4,038.00	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	Stalnaker Top
4,100.00	0.00	0.00	2,744.48	4,097.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
4,115.52	0.00	0.00	2,760.00	4,113.00	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	Stalnaker Base
4,200.00	0.00	0.00	2,844.48	4,197.48	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	
4,260.52	0.00	0.00	2,905.00	4,258.00	56.43 N	2.13 E	121,159.27	2,026,201.66	0.00	56.46	Start Build 10.00
4,300.00	3.95	3.29	2,944.45	4,297.45	57.79 N	2.21 E	121,160.63	2,026,201.74	10.00	57.82	
4,304.56	4.40	3.29	2,949.00	4,302.00	58.12 N	2.23 E	121,160.96	2,026,201.76	10.00	58.15	Iola Limestone
4,400.00	13.95	3.29	3,043.11	4,396.11	73.29 N	3.10 E	121,176.13	2,026,202.63	10.00	73.35	
4,486.32	22.58	3.29	3,125.00	4,478.00	100.28 N	4.65 E	121,203.12	2,026,204.18	10.00	100.38	Hushpuckney Shale
4,500.00	23.95	3.29	3,137.57	4,490.57	105.67 N	4.96 E	121,208.51	2,026,204.49	10.00	105.78	
4,569.24	30.87	3.29	3,199.00	4,552.00	137.47 N	6.79 E	121,240.31	2,026,206.32	10.00	137.64	Marmaton Group
4,600.00	33.95	3.29	3,224.96	4,577.96	153.93 N	7.74 E	121,256.77	2,026,207.27	10.00	154.12	
4,688.12	42.76	3.29	3,294.00	4,647.00	208.47 N	10.87 E	121,311.31	2,026,210.40	10.00	208.75	Pawnee Limestone
4,700.00	43.95	3.29	3,302.64	4,655.64	216.61 N	11.34 E	121,319.45	2,026,210.87	10.00	216.90	
4,751.41	49.09	3.29	3,338.00	4,691.00	253.84 N	13.48 E	121,356.68	2,026,213.01	10.00	254.19	Cherokee
4,800.00	53.95	3.29	3,368.23	4,721.23	291.80 N	15.67 E	121,394.64	2,026,215.20	10.00	292.22	
4,900.00	63.95	3.29	3,419.74	4,772.74	377.22 N	20.58 E	121,480.06	2,026,220.11	10.00	377.78	
4,974.42	71.39	3.29	3,448.00	4,801.00	445.90 N	24.53 E	121,548.74	2,026,224.06	10.00	446.57	MS Limestone
5,000.00	73.95	3.29	3,455.62	4,808.62	470.27 N	25.94 E	121,573.11	2,026,225.47	10.00	470.99	
5,100.00	83.95	3.29	3,474.77	4,827.77	568.13 N	31.57 E	121,670.97	2,026,231.10	10.00	569.01	
5,160.52	90.00	3.29	3,477.96	4,830.96	628.44 N	35.03 E	121,731.28	2,026,234.56	10.00	629.42	Start 4735.90 hold at 5160.52 MD
5,200.00	90.00	3.29	3,477.96	4,830.96	667.85 N	37.30 E	121,770.69	2,026,236.83	0.00	668.89	
5,300.00	90.00	3.29	3,477.96	4,830.96	767.69 N	43.05 E	121,870.53	2,026,242.58	0.00	768.89	
5,400.00	90.00	3.29	3,477.96	4,830.96	867.52 N	48.79 E	121,970.36	2,026,248.32	0.00	868.89	
5,500.00	90.00	3.29	3,477.96	4,830.96	967.36 N	54.53 E	122,070.20	2,026,254.06	0.00	968.89	
5,600.00	90.00	3.29	3,477.96	4,830.96	1,067.19 N	60.28 E	122,170.03	2,026,259.81	0.00	1,068.89	
5,700.00	90.00	3.29	3,477.96	4,830.96	1,167.03 N	66.02 E	122,269.87	2,026,265.55	0.00	1,168.89	

**Plan Report for Schupbach Ranch 3510 16-1H - Plan #1 101612 RevA0**

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)			
5,800.00	90.00	3.29	3,477.96	4,830.96	1,266.86 N	71.76 E	122,369.70	2,026,271.29	0.00	1,268.89	
5,900.00	90.00	3.29	3,477.96	4,830.96	1,366.70 N	77.51 E	122,469.54	2,026,277.04	0.00	1,368.89	
6,000.00	90.00	3.29	3,477.96	4,830.96	1,466.53 N	83.25 E	122,569.37	2,026,282.78	0.00	1,468.89	
6,100.00	90.00	3.29	3,477.96	4,830.96	1,566.37 N	88.99 E	122,669.21	2,026,288.52	0.00	1,568.89	
6,200.00	90.00	3.29	3,477.96	4,830.96	1,666.20 N	94.74 E	122,769.04	2,026,294.26	0.00	1,668.89	
6,300.00	90.00	3.29	3,477.96	4,830.96	1,766.04 N	100.48 E	122,868.88	2,026,300.01	0.00	1,768.89	
6,400.00	90.00	3.29	3,477.96	4,830.96	1,865.87 N	106.22 E	122,968.71	2,026,305.75	0.00	1,868.89	
6,500.00	90.00	3.29	3,477.96	4,830.96	1,965.71 N	111.96 E	123,068.54	2,026,311.49	0.00	1,968.89	
6,600.00	90.00	3.29	3,477.96	4,830.96	2,065.54 N	117.71 E	123,168.38	2,026,317.24	0.00	2,068.89	
6,700.00	90.00	3.29	3,477.96	4,830.96	2,165.38 N	123.45 E	123,268.21	2,026,322.98	0.00	2,168.89	
6,800.00	90.00	3.29	3,477.96	4,830.96	2,265.21 N	129.19 E	123,368.05	2,026,328.72	0.00	2,268.89	
6,900.00	90.00	3.29	3,477.96	4,830.96	2,365.05 N	134.94 E	123,467.88	2,026,334.47	0.00	2,368.89	
7,000.00	90.00	3.29	3,477.96	4,830.96	2,464.88 N	140.68 E	123,567.72	2,026,340.21	0.00	2,468.89	
7,100.00	90.00	3.29	3,477.96	4,830.96	2,564.72 N	146.42 E	123,667.55	2,026,345.95	0.00	2,568.89	
7,200.00	90.00	3.29	3,477.96	4,830.96	2,664.55 N	152.17 E	123,767.39	2,026,351.70	0.00	2,668.89	
7,300.00	90.00	3.29	3,477.96	4,830.96	2,764.39 N	157.91 E	123,867.22	2,026,357.44	0.00	2,768.89	
7,400.00	90.00	3.29	3,477.96	4,830.96	2,864.22 N	163.65 E	123,967.06	2,026,363.18	0.00	2,868.89	
7,500.00	90.00	3.29	3,477.96	4,830.96	2,964.06 N	169.40 E	124,066.89	2,026,368.93	0.00	2,968.89	
7,600.00	90.00	3.29	3,477.96	4,830.96	3,063.89 N	175.14 E	124,166.73	2,026,374.67	0.00	3,068.89	
7,700.00	90.00	3.29	3,477.96	4,830.96	3,163.73 N	180.88 E	124,266.56	2,026,380.41	0.00	3,168.89	
7,800.00	90.00	3.29	3,477.96	4,830.96	3,263.56 N	186.63 E	124,366.40	2,026,386.16	0.00	3,268.89	
7,900.00	90.00	3.29	3,477.96	4,830.96	3,363.40 N	192.37 E	124,466.23	2,026,391.90	0.00	3,368.89	
8,000.00	90.00	3.29	3,477.96	4,830.96	3,463.23 N	198.11 E	124,566.07	2,026,397.64	0.00	3,468.89	
8,100.00	90.00	3.29	3,477.96	4,830.96	3,563.07 N	203.86 E	124,665.90	2,026,403.39	0.00	3,568.89	
8,200.00	90.00	3.29	3,477.96	4,830.96	3,662.90 N	209.60 E	124,765.74	2,026,409.13	0.00	3,668.89	
8,300.00	90.00	3.29	3,477.96	4,830.96	3,762.74 N	215.34 E	124,865.57	2,026,414.87	0.00	3,768.89	
8,400.00	90.00	3.29	3,477.96	4,830.96	3,862.57 N	221.09 E	124,965.40	2,026,420.62	0.00	3,868.89	
8,500.00	90.00	3.29	3,477.96	4,830.96	3,962.41 N	226.83 E	125,065.24	2,026,426.36	0.00	3,968.89	
8,600.00	90.00	3.29	3,477.96	4,830.96	4,062.24 N	232.57 E	125,165.07	2,026,432.10	0.00	4,068.89	
8,700.00	90.00	3.29	3,477.96	4,830.96	4,162.08 N	238.32 E	125,264.91	2,026,437.85	0.00	4,168.89	
8,800.00	90.00	3.29	3,477.96	4,830.96	4,261.91 N	244.06 E	125,364.74	2,026,443.59	0.00	4,268.89	
8,900.00	90.00	3.29	3,477.96	4,830.96	4,361.75 N	249.80 E	125,464.58	2,026,449.33	0.00	4,368.89	
9,000.00	90.00	3.29	3,477.96	4,830.96	4,461.58 N	255.55 E	125,564.41	2,026,455.08	0.00	4,468.89	
9,100.00	90.00	3.29	3,477.96	4,830.96	4,561.42 N	261.29 E	125,664.25	2,026,460.82	0.00	4,568.89	
9,200.00	90.00	3.29	3,477.96	4,830.96	4,661.25 N	267.03 E	125,764.08	2,026,466.56	0.00	4,668.89	
9,300.00	90.00	3.29	3,477.96	4,830.96	4,761.09 N	272.78 E	125,863.92	2,026,472.31	0.00	4,768.89	
9,400.00	90.00	3.29	3,477.96	4,830.96	4,860.92 N	278.52 E	125,963.75	2,026,478.05	0.00	4,868.89	
9,500.00	90.00	3.29	3,477.96	4,830.96	4,960.76 N	284.26 E	126,063.59	2,026,483.79	0.00	4,968.89	
9,600.00	90.00	3.29	3,477.96	4,830.96	5,060.59 N	290.01 E	126,163.42	2,026,489.54	0.00	5,068.89	

**Plan Report for Schupbach Ranch 3510 16-1H - Plan #1 101612 RevA0**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates Northing (ft)	Local Coordinates Easting (ft)	Map Coordinates Northing (ft)	Map Coordinates Easting (ft)	Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
9,700.00	90.00	3.29	3,477.96	4,830.96	5,160.43 N	295.75 E	126,263.26	2,026,495.28	0.00	5,168.89	
9,800.00	90.00	3.29	3,477.96	4,830.96	5,260.26 N	301.49 E	126,363.09	2,026,501.02	0.00	5,268.89	
9,896.42	90.00	3.29	3,477.96	4,830.96	5,356.52 N	307.03 E	126,459.35	2,026,506.56	0.00	5,365.31	TD at 9896.42

**Plan Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
200.00	200.00	0.00	0.00	Start Build 2.50
440.00	439.56	12.55	0.47	Start 300.00 hold at 440.00 MD
740.00	737.92	43.88	1.66	Start Drop -2.50
980.00	977.48	56.43	2.13	Start 3280.52 hold at 980.00 MD
4,260.52	4,258.00	56.43	2.13	Start Build 10.00
5,160.52	4,830.96	628.44	35.03	Start 4735.90 hold at 5160.52 MD
9,896.42	4,830.96	5,356.52	307.03	TD at 9896.42

**Vertical Section Information**

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (ft)	Origin +E/-W (ft)	Start TVD (ft)
TD	No Target (Freehand)	3.28	Slot	0.00	0.00	0.00

**Survey tool program**

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	9,896.42	Plan #1 101612 RevA0	MWD+SC

**Plan Report for Schupbach Ranch 3510 16-1H - Plan #1 101612 RevA0****Formation Details**

Measured Depth (ft)	Vertical Depth (ft)	TVDSS (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,105.52	1,103.00	-250.00	Hutchinson Salt Top		0.00	
1,486.52	1,484.00	131.00	Hutchinson Salt Base		0.00	
2,564.52	2,562.00	1,209.00	Onaga Shale		0.00	
3,391.52	3,389.00	2,036.00	Techumseh Shale		0.00	
3,481.52	3,479.00	2,126.00	Lecompton Limestone		0.00	
3,666.52	3,664.00	2,311.00	Oread Limestone		0.00	
3,718.52	3,716.00	2,363.00	Toronto Limestone		0.00	
4,040.52	4,038.00	2,685.00	Stalnaker Top		0.00	
4,115.52	4,113.00	2,760.00	Stalnaker Base		0.00	
4,304.56	4,302.00	2,949.00	Iola Limestone		0.00	
4,486.32	4,478.00	3,125.00	Hushpuckney Shale		0.00	
4,569.24	4,552.00	3,199.00	Marmaton Group		0.00	
4,688.12	4,647.00	3,294.00	Pawnee Limestone		0.00	
4,751.41	4,691.00	3,338.00	Cherokee		0.00	
4,974.42	4,801.00	3,448.00	MS Limestone		0.00	

**Design Targets**

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Schupbach Ranch 351 - hit/miss target - Shape	0.00	0.00	4,831.00	5,356.52	307.03	126,459.35	2,026,506.56	37° 0' 50.151 N	98° 24' 33.211 W
- plan misses target center by 0.04ft at 9896.42ft MD (4830.96 TVD, 5356.52 N, 307.03 E)									
- Point									

**Directional Difficulty Index**

Average Dogleg over Survey:	1.03 °/100ft	Maximum Dogleg over Survey:	10.00 °/100ft at 5,160.52 ft
Net Tortousity applicable to Plans:	1.03 °/100ft	Directional Difficulty Index:	6.201

**Audit Info**

**North Reference Sheet for Sec 16 T35S R10W - Schupbach Ranch 3510 16-1H - Wellbore #1**

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

Vertical Depths are relative to WELL @ 1353.00ft (Original Well Elev+23'KB). Northing and Easting are relative to Schupbach Ranch 3510 16-1H

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: 1.00006332

Grid Coordinates of Well: 121,102.84 ft N, 2,026,199.53 ft E

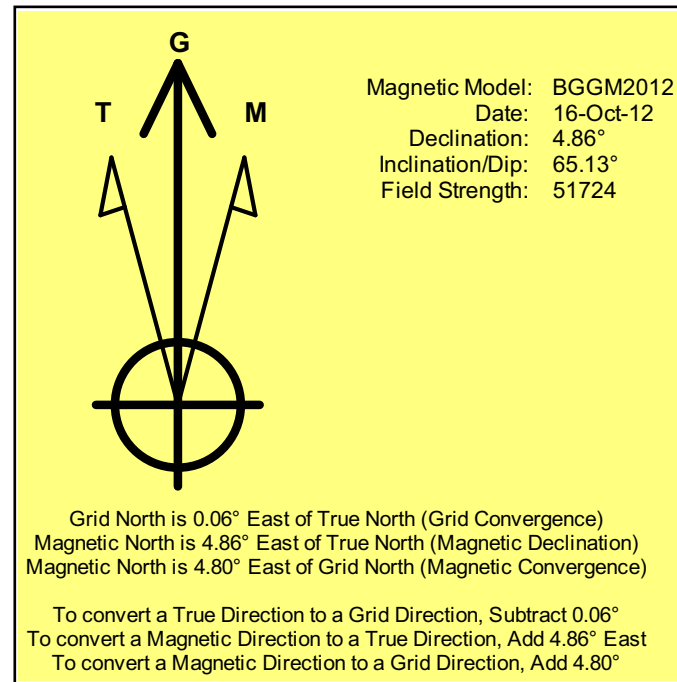
Geographical Coordinates of Well: 36° 59' 57.19" N, 098° 24' 37.06" W

Grid Convergence at Surface is: 0.06°

Based upon Minimum Curvature type calculations, at a Measured Depth of 9,896.42ft

the Bottom Hole Displacement is 5,365.31ft in the Direction of 3.28° (Grid).

Magnetic Convergence at surface is: -4.80° (16 October 2012, , BGGM2012)





T35S, R10W, 6th P.M.

SGOMI

Well location, SCHUPBACH 3510 #16-1H, located as shown in Lot 1 of Section 16, T35S, R10W, 6th P.M., Barber County, Kansas.

BASIS OF ELEVATION

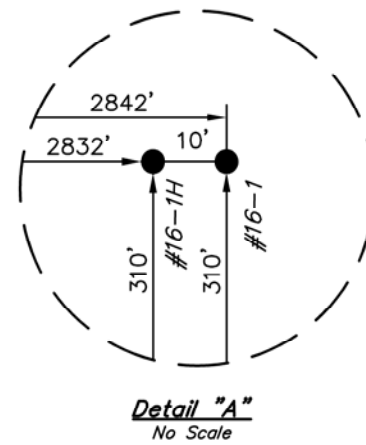
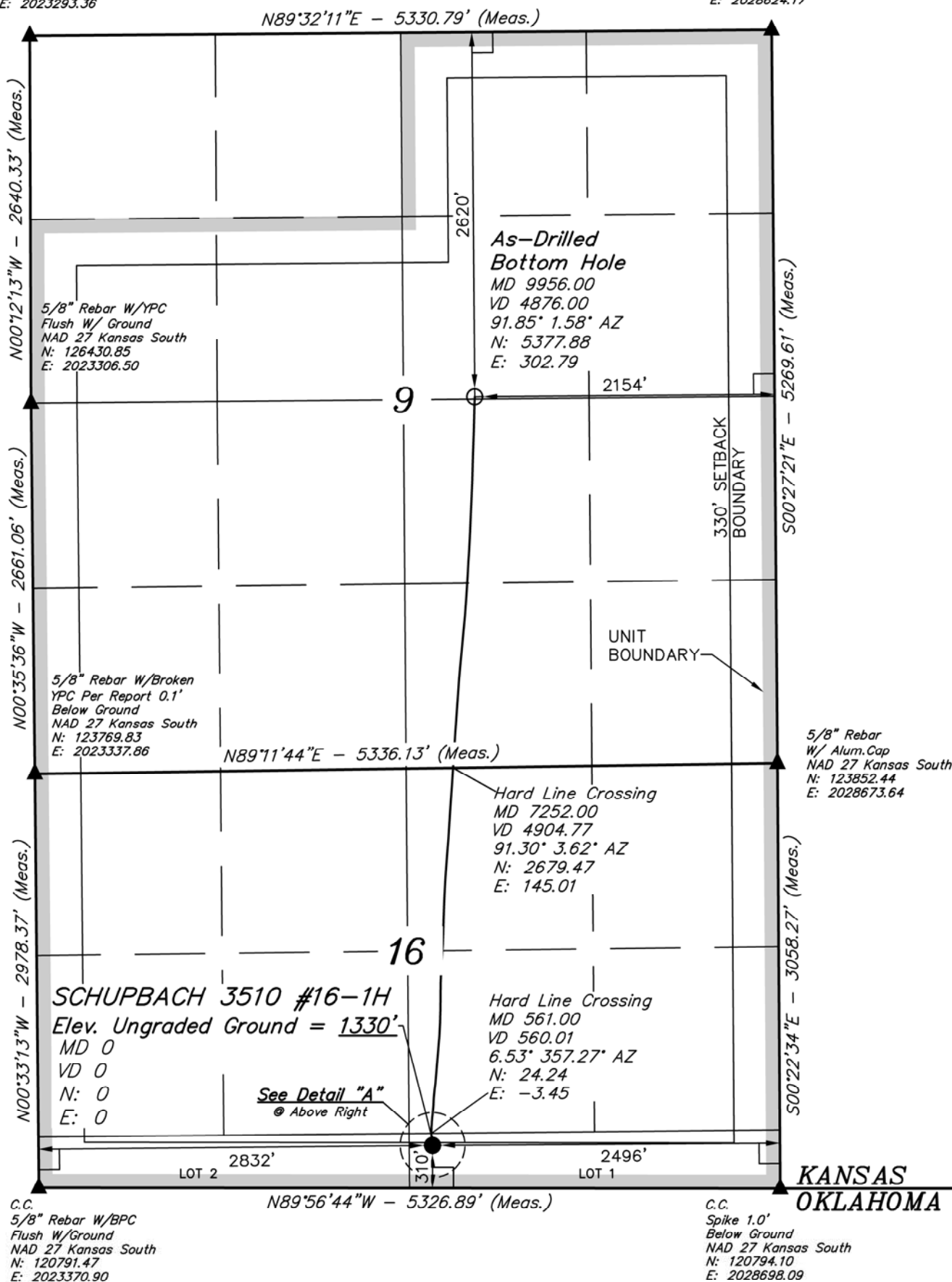
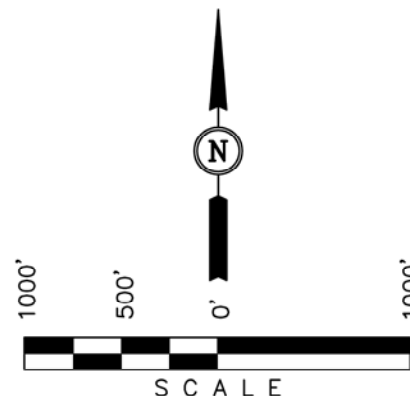
SPOT ELEVATION LOCATED AT THE SOUTHWEST CORNER OF SECTION 12, T35S, R10W, 6th P.M. TAKEN FROM THE CORWIN, QUADRANGLE, KANSAS, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 1274 FEET.

BASIS OF BEARINGS

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

1/2" Pipe, 0.4' Below Ground in Asphalt  
NAD 27 Kansas South  
N: 129071.28  
E: 2023293.36

Spike 0.1' Below Ground  
NAD 27 Kansas South  
N: 129122.10  
E: 2028624.17



KANSAS  
OKLAHOMA

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.

REGISTERED LAND SURVEYOR  
REGISTRATION NO. 1455  
STATE OF KANSAS  
LAND SURVEYOR 15-13

LEGEND:

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

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

<b>NAD 83 (#16-1H AS-DRILLED BOTTOM HOLE)</b> LATITUDE = 37°00'50.47" (37.014019) LONGITUDE = 98°24'34.62" (98.409617)	<b>NAD 83 (#16-1H SURFACE LOCATION)</b> LATITUDE = 36°59'57.29" (36.999247) LONGITUDE = 98°24'38.32" (98.410644)	SCALE 1" = 1000'	DATE SURVEYED: 02-18-12	DATE DRAWN: 01-15-13
<b>NAD 27 (#16-1H AS-DRILLED BOTTOM HOLE)</b> LATITUDE = 37°00'50.37" (37.013992) LONGITUDE = 98°24'33.36" (98.409267)	<b>NAD 27 (#16-1H SURFACE LOCATION)</b> LATITUDE = 36°59'57.19" (36.999219) LONGITUDE = 98°24'37.06" (98.410294)	PARTY J.P. B.L. J.J.	REFERENCES G.L.O. PLAT	
<b>STATE PLANE NAD 27 (KANSAS SOUTH)</b> N: 126481.45 E: 2026494.65	<b>STATE PLANE NAD 27 (KANSAS SOUTH)</b> N: 121102.84 E: 2026199.53	WEATHER HOT	FILE SGOMI	

## Summary of Changes

Lease Name and Number: Schupbach 3510 16-1H

API/Permit #: 15-007-23927-01-00

Doc ID: 1106916

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Amount of Surface Pipe Set and Cemented at	0	530
Approved Date	12/04/2012	01/17/2013
CasingAdd_Type_PctPDF_1	15% Fly Ash	Attached
CasingNumbSacksUsedPDF_1	30	Attached
CasingPurposeOfStringPDF_1	Conductor	Attached
CasingSettingDepthPDF_1	60	Attached
CasingSizeCasingSetPDF_1	18	Attached
CasingSizeHoleDrilledPDF_1	26	Attached
CasingTypeOfCementPDF_1	1/2 Portland Cmt	Attached
CasingWeightPDF_1	47.76	Attached

Summary of changes for correction 1 continued

Field Name	Previous Value	New Value
Completion Or Recompletion Date	10/12/2012	12/31/2012
Date Reached TD	10/12/2012	11/09/2012
Electric Log Run?	No	Yes
Electric Log Submitted Electronically?		Yes
Elogs_PDF		Triple Combo
Formation Top Source - Log	No	Yes
Liner Run?		Yes
Method Of Completion - Perf	No	Yes
Perf_Depth_1		Attached
Perf_Material_1		Attached
Perf_Record_1		Attached
Perf_Shots_1		Attached
Producing Formation	CONDUCTOR ONLY	Mississippi

Summary of changes for correction 1 continued

Field Name	Previous Value	New Value
Production Interval #1		6004 - 9834
Purchaser's Name	CONDUTOR ONLY	
Save Link	../../../../kcc/detail/operatorEditDetail.cfm?docID=1103540	../../../../kcc/detail/operatorEditDetail.cfm?docID=1106916
Spud Or Recompletion Date	10/12/2012	10/19/2012
TopsDepth1		4282
TopsDepth2		4478
TopsDepth3		4495
TopsDepth4		4620
TopsDepth5		4810
TopsDepth6		5075
TopsName1	CONDUCTOR ONLY	Iola
TopsName2		Swope
TopsName3		Hushpuckney

Summary of changes for correction 1 continued

Field Name	Previous Value	New Value
TopsName4		Marmaton
TopsName5		Cherokee
TopsName6		Mississippi
Total Depth	9999	9956
Tubing Packer At		N/A
Tubing Record - Set At		4139
Tubing Size		6.5

## Summary of Attachments

Lease Name and Number: Schupbach 3510 16-1H

API: 15-007-23927-01-00

Doc ID: 1106916

Correction Number: 1

Attachment Name

Schupbach 3510 16-1H Conductor record

Schupbach 3510 16-1H Surface Cmt

Schupbach 3510 16-1H Intermediate Cmt

Schupbach 3510 16-1H Liner Cmt

Schupbach 3510 16-1H Survey

SCHUPBACH 3510 #16-1H\_AS-DRILLED LEGAL



**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: \_\_\_\_\_