



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1097239  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

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
-----------------------------------	-----------------	---

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: \_\_\_\_\_



1097239

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
--	---

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> _____ <input type="checkbox"/> Commingled <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Garlow 1-16H
Doc ID	1097239

All Electric Logs Run

Boresight
R1D1 Nuclear Final
mudlog
R1D1 Borehole final
R1D1 Resistivity final

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Garlow 1-16H
Doc ID	1097239

#### Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	8543-8870	4287 bbls of water, 36 bbls acid, 75M lbs sand, 4323 TLTR	
5	8136-8464	5299 bbls of water, 36 bbls acid, 75M lbs sand, 10797 TLTR	
5	7730-8044	4280 bbls of water, 36 bbls acid, 75M lbs sand, 8775 TLTR	
5	7324-7657	4296 bbls of water, 36 bbls acid, 74M lbs sand, 17534 TLTR	
5	6917-7244	4240 bbls of water, 36 bbls acid, 75M lbs sand, 21875 TLTR	
5	6511-6844	5784 bbls of water, 36 bbls acid, 75M lbs sand, 27754 TLTR	
5	6138-6431	4246 bbls of water, 36 bbls acid, 75M lbs sand, 32096 TLTR	
5	5698-5997	4320 bbls of water, 36 bbls acid, 75M lbs sand, 36500 TLTR	
5	5320-5619	5865 bbls of water, 36 bbls acid, 75M lbs sand, 42433 TLTR	
5	4885-5212	4300 bbls of water, 36 bbls acid, 75M lbs sand, 46784 TLTR	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Garlow 1-16H
Doc ID	1097239

### Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Conductor	30	20	75	90	Edge Services Grade A Cement	9	none
Surface	12.25	9.63	36	612	Halliburton Extendacem and Swiftcem Systems	390	3% Calcium Chloride, .25 lbm Poly-E-Flake
Intermediate	8.75	7	26	4848	Halliburton Econocem and Halcem Systems	310	.4% Halad(R)-9, 2 lbm Kol-Seal, 2% Bentonite
Production	6.12	4.5	11.6	500	50/50 Poz Standard	500	2% Bentonite, .4% Halad(R)-9, 10lbm Kol-Seal, .2% CFR-3, .25 lbm Poly-E-Flake

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

December 27, 2012

Tiffany Golay  
SandRidge Exploration and Production LLC  
123 ROBERT S. KERR AVE  
OKLAHOMA CITY, OK 73102-6406

Re: ACO1  
API 15-077-21880-01-00  
Garlow 1-16H  
NW/4 Sec.16-34S-06W  
Harper 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,  
Tiffany Golay

Directional Survey Calculations	Measured Depth (ft)	Sub-Sea Incl. (deg)	Vertical Azim. (ft)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vert Section (ft)	DLS deg/100' (deg)	FNL	FSL	FWL	FEL
SHL	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	165	5096	2340	2948
BHL	8987	89.45	174.48	4612.78	-4755.17	-37.05	4755.08	0.00	4920	341	2258	3039
Miss Entry	4738	61.35	188.41	4541.95	-521.95	-102.48	523.69	10.28	685	4576	2232	3057
Top Perf	4885	76.30	182.53	4592.71	-658.69	-115.96	660.65	8.54	822	4439	2218	3072
Bottom Perf	8870	89.12	174.97	4611.40	-4638.68	-47.92	4638.80	0.64	4803	458	2248	3048

Survey Points	NW Corner XY Coord	X	Y	Surface XY	X	Y	m					
							North Line slope	East Line slope	South Line slope	West Line slope		
		2150617	156268				0.0166446					
	SW Corner XY Coord	2150667	151006		2152958	156142	-0.0112231					
	NE Corner XY Coord	2155904	156356				0.01756042					
	SE Corner XY Coord	2155983	151099				-0.0095021					

Measured Depth (ft)	Sub-Sea Incl. (deg)	Vertical Azim. (ft)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vert Section (ft)	DLS deg/100' (deg)	FNL	FSL	FWL	FEL	
0	0.0	0	0	0	0	0	0	165	5096	2340	2948	
631	1.53	212.22	630.93	-6.96	-4.38	7.03	0.25	172	5089	2335	2953	
723	0.54	144.84	722.91	-8.35	-4.79	8.44	1.54	173	5088	2335	2953	
815	0.19	91.33	814.91	-8.71	-4.39	8.79	0.49	174	5087	2335	2953	
907	0.19	313.66	906.91	-8.61	-4.35	8.68	0.39	174	5087	2335	2953	
999	0.36	195.95	998.91	-8.78	-4.54	8.86	0.52	174	5087	2335	2953	
1091	0.30	167.06	1090.91	-9.29	-4.56	9.37	0.19	174	5087	2335	2953	
1183	0.43	103.76	1182.91	-9.61	-4.17	9.68	0.43	175	5086	2336	2953	
1275	0.39	25.29	1274.91	-9.41	-3.70	9.47	0.56	174	5086	2336	2952	
1367	0.16	186.82	1366.90	-9.25	-3.58	9.32	0.59	174	5087	2336	2952	
1459	0.50	44.51	1458.90	-9.09	-3.32	9.15	0.69	174	5087	2336	2952	
1549	0.10	268.12	1548.90	-8.82	-3.12	8.87	0.64	174	5087	2337	2952	
1640	0.37	222.18	1639.90	-9.04	-3.40	9.10	0.34	174	5087	2336	2952	
1732	0.18	212.43	1731.90	-9.38	-3.67	9.44	0.21	174	5086	2336	2952	
1826	0.68	313.83	1825.90	-9.12	-4.16	9.19	0.78	174	5087	2336	2953	
1921	0.46	226.22	1920.90	-8.99	-4.84	9.08	0.85	174	5087	2335	2953	
2016	0.50	336.73	2015.89	-8.87	-5.28	8.97	0.83	174	5087	2334	2954	
2111	0.21	177.02	2110.89	-8.67	-5.43	8.76	0.74	174	5087	2334	2954	
2206	0.35	171.23	2205.89	-9.13	-5.38	9.22	0.15	174	5087	2334	2954	
2301	0.39	48.43	2300.89	-9.20	-5.09	9.29	0.68	174	5087	2335	2954	
2397	0.13	21.41	2396.89	-8.88	-4.81	8.97	0.29	174	5087	2335	2953	
2492	0.18	171.89	2491.89	-8.93	-4.75	9.01	0.32	174	5087	2335	2953	
2587	0.52	185.95	2586.89	-9.51	-4.77	9.59	0.37	174	5086	2335	2953	
2681	0.31	96.72	2680.89	-9.96	-4.56	10.04	0.64	175	5086	2335	2953	
2776	0.18	100.63	2775.88	-10.02	-4.16	10.09	0.14	175	5086	2336	2953	
2871	0.53	109.74	2870.88	-10.19	-3.60	10.26	0.37	175	5086	2336	2952	
2966	0.37	25.68	2965.88	-10.07	-3.06	10.12	0.65	175	5086	2337	2952	
3061	0.10	344.83	3060.88	-9.71	-2.94	9.76	0.32	175	5086	2337	2951	
3156	0.09	141.21	3155.88	-9.69	-2.92	9.74	0.20	175	5086	2337	2951	
3251	0.03	250.10	3250.88	-9.75	-2.90	9.80	0.11	175	5086	2337	2951	
3345	0.34	144.88	3344.88	-9.99	-2.76	10.04	0.37	175	5086	2337	2951	
3440	0.44	206.59	3439.88	-10.55	-2.76	10.59	0.43	175	5085	2337	2951	
3535	1.86	169.56	3534.86	-12.39	-2.64	12.43	1.61	177	5083	2337	2951	
3630	0.68	142.75	3629.83	-14.35	-2.02	14.39	1.36	179	5081	2338	2951	
3693	1.03	170.16	3692.83	-15.21	-1.70	15.24	0.84	180	5081	2338	2950	
3724	2.26	189.98	3723.81	-16.09	-1.76	16.12	4.31	181	5080	2338	2950	
3756	3.89	202.86	3755.77	-17.71	-2.29	17.75	5.50	183	5078	2337	2951	
3788	5.37	209.73	3787.66	-20.01	-3.45	20.07	4.93	185	5076	2336	2952	
3819	6.20	215.92	3818.50	-22.62	-5.15	22.71	3.35	188	5073	2334	2954	
3851	7.47	217.78	3850.27	-25.67	-7.44	25.80	4.03	191	5070	2332	2956	
3883	9.62	214.01	3881.92	-29.53	-10.21	29.71	6.94	194	5066	2329	2959	
3914	12.65	203.17	3912.33	-34.80	-13.00	35.02	11.84	200	5061	2326	2962	
3946	15.80	198.60	3943.35	-42.15	-15.77	42.42	10.44	207	5054	2324	2965	
3978	17.14	202.03	3974.04	-50.65	-18.93	50.98	5.17	215	5045	2320	2968	
4009	20.25	202.00	4003.40	-59.86	-22.65	60.26	10.03	224	5036	2317	2972	
4041	22.34	198.96	4033.21	-70.75	-26.70	71.21	7.38	235	5025	2312	2976	
4073	23.33	195.05	4062.71	-82.62	-30.32	83.15	5.66	247	5014	2309	2980	
4105	24.80	189.80	4091.93	-95.36	-33.11	95.93	8.11	260	5001	2306	2983	
4136	27.64	186.91	4119.73	-108.90	-35.08	109.51	10.04	273	4987	2304	2985	
4168	29.51	184.94	4147.84	-124.13	-36.65	124.76	6.54	288	4972	2302	2986	
4200	31.66	184.83	4175.38	-140.35	-38.04	141.00	6.72	305	4956	2300	2988	
4231	33.34	185.90	4201.53	-156.93	-39.60	157.61	5.73	321	4940	2299	2990	
4263	33.47	189.10	4228.24	-174.39	-41.90	175.11	5.52	339	4922	2296	2992	
4295	36.21	191.21	4254.51	-192.38	-45.13	193.15	9.35	357	4904	2293	2996	
4326	39.80	191.90	4278.93	-211.08	-48.96	211.92	11.66	375	4886	2289	3000	
4358	43.70	191.54	4302.80	-231.94	-53.29	232.85	12.21	396	4865	2284	3004	
4390	46.41	190.79	4325.40	-254.16	-57.67	255.14	8.63	418	4843	2280	3009	
Top of Tangent @ 4420'	4422	48.65	189.90	4347.01	-277.38	-61.90	278.43	7.29	441	4819	2275	3013
4485	49.21	189.58	4388.40	-324.19	-69.94	325.38	0.97	488	4773	2267	3022	
4549	49.49	189.84	4430.09	-372.05	-78.13	373.38	0.54	536	4725	2258	3031	
Btm of Tangent @ 4610'	4580	50.39	190.01	4450.04	-395.42	-82.22	396.82	2.93	559	4702	2254	3035
4612	50.39	189.86	4470.44	-419.70	-86.47	421.18	0.36	583	4678	2249	3040	
4643	52.20	189.32	4489.83	-443.56	-90.50	445.10	5.99	607	4654	2245	3044	
4675	55.21	188.93	4508.77	-469.02	-94.59	470.63	9.46	632	4628	2241	3048	
4706	58.06	188.31	4525.81	-494.61	-98.47	496.29	9.34	658	4603	2237	3052	
4738	61.35	188.41	4541.95	-521.95	-102.48	523.69	10.28	685	4576	2232	3057	
4770	65.56	187.62	4556.25	-550.29	-106.47	552.09	13.34	713	4547	2228	3061	
4801	68.94	186.40	4568.24	-578.66	-109.95	580.52	11.49	742	4519	2224	3065	
4833	72.13	184.86	4578.90	-608.68	-112.91	610.59	10.95	772	4489	2221	3068	



Measured Depth (ft)	Sub-Sea Incl. (deg)	Vertical Azim. (ft)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vert Section (ft)	DLS deg/100' (deg)	FNL	FSL	FWL	FEL	
4864	74.99	183.31	4587.67	-638.33	-115.03	640.28	10.40	801	4459	2219	3071	
4900	77.24	181.98	4596.31	-673.24	-116.64	675.21	7.21	836	4425	2217	3073	
4931	78.51	181.35	4602.82	-703.53	-117.52	705.51	4.55	867	4394	2216	3074	
4963	79.93	182.34	4608.81	-734.95	-118.53	736.94	5.38	898	4363	2214	3075	
4994	81.88	182.92	4613.71	-765.53	-119.93	767.54	6.56	928	4332	2213	3077	
5026	84.62	182.38	4617.47	-797.27	-121.40	799.30	8.72	960	4301	2211	3079	
5058	86.70	182.18	4619.89	-829.15	-122.67	831.20	6.53	992	4269	2209	3080	
5153	88.55	179.55	4623.83	-924.05	-124.10	926.11	3.38	1087	4174	2207	3083	
5248	89.41	179.60	4625.52	-1019.03	-123.40	1021.06	0.91	1182	4079	2207	3083	
5343	91.11	179.97	4625.09	-1114.02	-123.04	1116.04	1.83	1277	3984	2206	3084	
5438	91.66	180.54	4622.79	-1208.99	-123.46	1211.00	0.83	1372	3889	2205	3085	
5533	92.37	179.09	4619.45	-1303.93	-123.16	1305.92	1.70	1467	3794	2204	3086	
5627	89.41	179.28	4617.99	-1397.90	-121.82	1399.85	3.16	1561	3700	2205	3086	
5722	92.13	180.21	4616.71	-1492.88	-121.40	1494.80	3.03	1656	3605	2204	3087	
5817	91.42	179.88	4613.77	-1587.83	-121.47	1589.74	0.82	1751	3510	2203	3088	
5911	89.32	177.92	4613.17	-1681.80	-119.67	1683.67	3.06	1845	3416	2204	3087	
6006	90.09	177.78	4613.65	-1776.73	-116.10	1778.52	0.82	1940	3321	2207	3084	
6101	90.83	177.51	4612.89	-1871.65	-112.20	1873.35	0.83	2035	3226	2210	3082	
6196	89.63	176.92	4612.51	-1966.54	-107.59	1968.14	1.41	2130	3131	2214	3078	
6291	88.55	177.84	4614.02	-2061.42	-103.24	2062.93	1.49	2225	3036	2217	3075	
6386	88.74	178.10	4616.27	-2156.34	-99.88	2157.77	0.34	2320	2941	2219	3072	
6481	86.95	177.63	4619.84	-2251.20	-96.34	2252.56	1.95	2415	2846	2222	3070	
6576	90.95	178.85	4621.58	-2346.12	-93.43	2347.41	4.40	2510	2751	2224	3068	
6671	90.43	179.42	4620.43	-2441.10	-91.99	2442.35	0.81	2605	2656	2225	3068	
6766	91.45	179.35	4618.88	-2536.08	-90.97	2537.30	1.08	2700	2561	2225	3068	
6861	91.97	178.99	4616.04	-2631.03	-89.60	2632.20	0.67	2794	2466	2225	3068	
6956	89.88	179.27	4614.51	-2726.00	-88.16	2727.13	2.22	2889	2371	2226	3067	
7050	89.60	178.49	4614.93	-2819.98	-86.32	2821.07	0.88	2984	2277	2227	3066	
7145	89.75	178.87	4615.47	-2914.95	-84.13	2915.99	0.43	3079	2182	2228	3065	
7241	89.45	178.46	4616.14	-3010.92	-81.89	3011.90	0.53	3175	2086	2229	3064	
7336	90.09	179.76	4616.52	-3105.91	-80.42	3106.85	1.53	3270	1991	2230	3064	
7431	89.85	179.96	4616.57	-3200.91	-80.19	3201.83	0.33	3365	1896	2229	3065	
7526	89.45	180.40	4617.15	-3295.90	-80.48	3296.81	0.63	3460	1801	2228	3066	
7621	90.59	180.19	4617.12	-3390.90	-80.97	3391.80	1.22	3555	1706	2227	3067	
7715	89.04	179.39	4617.42	-3484.90	-80.63	3485.78	1.86	3649	1612	2226	3068	
7810	88.28	179.77	4619.65	-3579.87	-79.93	3580.72	0.89	3744	1517	2226	3069	
7905	90.65	179.43	4620.53	-3674.85	-79.27	3675.68	2.52	3838	1422	2226	3069	
8000	91.39	179.24	4618.84	-3769.83	-78.17	3770.63	0.80	3933	1327	2226	3069	
8095	93.52	179.16	4614.77	-3864.73	-76.84	3865.48	2.24	4028	1232	2226	3069	
8189	92.62	178.59	4609.74	-3958.57	-75.00	3959.28	1.13	4122	1139	2227	3068	
8285	91.11	179.01	4606.61	-4054.50	-72.99	4055.16	1.63	4218	1043	2228	3067	
8379	90.68	178.94	4605.15	-4148.47	-71.31	4149.09	0.46	4312	949	2229	3066	
8474	90.31	178.87	4604.33	-4243.45	-69.49	4244.02	0.40	4407	854	2230	3066	
8569	88.80	178.32	4605.06	-4338.42	-67.16	4338.93	1.69	4502	759	2231	3064	
8664	88.43	176.91	4607.36	-4433.30	-63.21	4433.73	1.53	4597	664	2234	3061	
8759	88.95	175.65	4609.53	-4528.08	-57.05	4528.38	1.43	4692	569	2240	3056	
8854	89.05	175.08	4611.19	-4622.75	-49.37	4622.90	0.61	4787	474	2247	3050	
8944	89.45	174.48	4612.37	-4712.37	-41.19	4712.36	0.80	4877	384	2254	3042	
TD	8987	89.45	174.48	4612.78	-4755.17	-37.05	4755.08	0.00	4920	341	2258	3039





# INVOICE

DATE	INVOICE #
9/24/2012	3446

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

<b>REMIT TO</b>
EDGE SERVICES, INC. BILLING DEPARTMENT PO BOX 14201 OKLAHOMA CITY, OK 73113

COUNTY	STARTING D...	WORK ORDER	RIG NUMBER	LEASE NAME	Terms
HARPER, KS	9/20/2012	2796	UNIT 310	GARLOW 1-16H	Due on rec...
Description					
DRILLED 90' OF 30" CONDUCTOR HOLE DRILLED 6' OF 76" HOLE FURNISHED AND SET 6' X 6' TINHORN CELLAR FURNISHED 90' OF 20" CONDUCTOR PIPE FURNISHED 1 LOAD(S) MUD FURNISHED WELDER AND MATERIALS FURNISHED 9 YARDS OF GRADE A CEMENT FURNISHED GROUT PUMP DRILL MOUSE HOLES FURNISHED 80' OF 14" CONDUCTOR PIPE  TOTAL BID \$ 16,500.00					
				<b>Sales Tax (6.3%)</b>	\$289.81
				<b>TOTAL</b>	\$16,789.81

# HALLIBURTON

# Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 305021		Ship To #: 2953976		Quote #:		Sales Order #: 9846725	
Customer: SANDRIDGE ENERGY INC EBUSINESS				Customer Rep: Webster, John			
Well Name: Garlow			Well #: 1-16H		API/UWI #: 15-077-21880		
Field:		City (SAP): ANTHONY		County/Parish: Harper		State: Kansas	
Legal Description: Section 16 Township 34S Range 6W							
Contractor: Unit Drilling *			Rig/Platform Name/Num: 310				
Job Purpose: Cement Surface Casing							
Well Type: Development Well				Job Type: Cement Surface Casing			
Sales Person: NGUYEN, VINH			Srcv Supervisor: WOODROW, JOHN		MBU ID Emp #: 105848		

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
GARRETT, CHRISTIAN Lee	9	525377	SMITH, THOMAS Miles	12.5	493032	WOODROW, JOHN Phillip	12.5	105848

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
9/27/12	.5	1	9/28/12	9.5	3			

TOTAL Total is the sum of each column separately

### Job

### Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
					27 - Sep - 2012	19:30	CST
Form Type			BHST	On Location	28 - Sep - 2012	00:00	CST
Job depth MD	612. ft		Job Depth TVD	612. ft	Job Started	28 - Sep - 2012	07:11
Water Depth			Wk Ht Above Floor	6. ft	Job Completed	28 - Sep - 2012	08:05
Perforation Depth (MD)	From		To		Departed Loc	28 - Sep - 2012	09:30

### Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
12.25" Open Hole				12.25					450.		
12.25" Open Hole- Lower				12.25				450.	650.		
9.625" Surface Casing	Unknown		9.625	8.921	36.	LTC	J-55		650.		

### Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

### Miscellaneous Materials

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty	

### Fluid Data

#### Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk

#### Stage/Plug #: 1

Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Fresh Water		10.00	bbl	8.33	.0	.0	.0	
2	Halliburton Light Standard	EXTENDACEM (TM) SYSTEM (452981)	190.0	sacks	12.4	2.12	11.68		11.68
	3 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
	0.25 lbm	POLY-E-FLAKE (101216940)							
	11.676 Gal	FRESH WATER							
3	Standard	SWIFTCEM (TM) SYSTEM (452990)	200.0	sacks	15.6	1.2	5.32		5.32
	2 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
	0.125 lbm	POLY-E-FLAKE (101216940)							
	5.319 Gal	FRESH WATER							
4	Displacement		44.00	bbl	8.33	.0	.0	.0	
Calculated Values		Pressures		Volumes					
Displacement	44	Shut In: Instant		Lost Returns	0	Cement Slurry	115	Pad	
Top Of Cement	GL	5 Min		Cement Returns	60	Actual Displacement	44	Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
Rates									
Circulating	5	Mixing	5	Displacement	5	Avg. Job	5		
Cement Left In Pipe	Amount	42 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
<b>The Information Stated Herein Is Correct</b>				Customer Representative Signature					



# HALLIBURTON

# Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 305021	Ship To #: 2953976	Quote #:	Sales Order #: 9860373
Customer: SANDRIDGE ENERGY INC EBUSINESS		Customer Rep: Webster, John	
Well Name: Garlow	Well #: 1-16H	API/UWI #: 15-077-21880	
Field:	City (SAP): ANTHONY	County/Parish: Harper	State: Kansas
Legal Description: Section 16 Township 34S Range 6W			
Contractor: Unit Drilling *		Rig/Platform Name/Num: Unit 310	
Job Purpose: Cement Intermediate Casing			
Well Type: Development Well		Job Type: Cement Intermediate Casing	
Sales Person: NGUYEN, VINH		Srvc Supervisor: WALTON, SCOTTY	MBU ID Emp #: 478229

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
MILLER, ARNOLD Ray	9.5	520488	OSBORN, JAMES David	9.5	518950	VAN DER HORST, DANIEL Scott	9.5	515877
WALTON, SCOTTY Dwayne	9.5	478229						

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
10-2-12	1.5	0	10-3-12	8	2			

TOTAL Total is the sum of each column separately

### Job

### Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
Form Type			BHST	On Location	02 - Oct - 2012	17:00	CST
Job depth MD	5058. ft		Job Depth TVD	Job Started	02 - Oct - 2012	22:30	CST
Water Depth			Wk Ht Above Floor	Job Completed	03 - Oct - 2012	06:00	CST
Perforation Depth (MD)	From		To	Departed Loc	03 - Oct - 2012	07:00	CST
					03 - Oct - 2012	08:00	CST

### Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
8.75" Open Hole				8.75				650.	5058.		
7" Intermediate Casing	Unknown		7.	6.276	26.	LTC	P-110	.	5058.		
9.625" Surface Casing	Unknown		9.625	8.921	36.	LTC	J-55	.	650.		

### Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

### Miscellaneous Materials

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty	

### Fluid Data

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	

# HALLIBURTON

## Cementing Job Summary

1	Rig Supplied Gel Spacer		30.00	bbl	8.33	.0	.0	.0	
2	50/50 Poz - Standard	ECONOCEM (TM) SYSTEM (452992)	120.0	sacks	13.6	1.54	7.36		7.36
	0.4 %	HALAD(R)-9, 50 LB (100001617)							
	2 lbm	KOL-SEAL, BULK (100064233)							
	2 %	BENTONITE, BULK (100003682)							
	7.356 Gal	FRESH WATER							
3	Premium	HALCEM (TM) SYSTEM (452986)	190.0	sacks	15.6	1.19	5.08		5.08
	0.4 %	HALAD(R)-9, 50 LB (100001617)							
	2 lbm	KOL-SEAL, BULK (100064233)							
	5.076 Gal	FRESH WATER							
4	Displacement		190.00	bbl	8.33	.0	.0	.0	
<b>Calculated Values</b>		<b>Pressures</b>			<b>Volumes</b>				
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
<b>Rates</b>									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe	Amount	84 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
<b>The Information Stated Herein Is Correct</b>				Customer Representative Signature					



The Road to Excellence Starts with Safety

Sold To #: 305021	Ship To #: 2953976	Quote #:	Sales Order #: 9883248
Customer: SANDRIDGE ENERGY INC EBUSINESS		Customer Rep: Webster, John	
Well Name: Garlow	Well #: 1-16H	API/UWI #: 15-077-21880	
Field:	City (SAP): ANTHONY	County/Parish: Harper	State: Kansas
Legal Description: Section 16 Township 34S Range 6W			
Contractor: Unit Drilling *		Rig/Platform Name/Num: Unit 310	
Job Purpose: Cement Production Liner			
Well Type: Development Well		Job Type: Cement Production Liner	
Sales Person: NGUYEN, VINH		Srvc Supervisor: VAUGHAN, RYAN	MBU ID Emp #: 453194

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
AIRINGTON, JOSEPH Tyler	7	497322	MCKEEVER, TERRY John	7	514733	SYMES, CLAY Alton	7	518463
VAUGHAN, RYAN Nicholas	7	453194						

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
10/12/13	7	1						
<b>TOTAL</b>			<i>Total is the sum of each column separately</i>					

### Job

### Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
					12 - Oct - 2012	02:00	CST
Form Type			BHST	On Location	12 - Oct - 2012	08:00	CST
Job depth MD	9006. ft		Job Depth TVD	8987. ft	Job Started	12 - Oct - 2012	12:13
Water Depth			Wk Ht Above Floor	5. ft	Job Completed	12 - Oct - 2012	13:23
Perforation Depth (MD)	From		To	Departed Loc	12 - Oct - 2012	15:00	CST

### Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
6.125" Open Hole				6.125				5058.	9006.		
4.5" Production Liner	Unknown		4.5	4.	11.6	LTC	N-80	4641.	9006.		
7" Intermediate Casing	Unknown		7.	6.276	26.	LTC	P-110	.	5058.		
4" Drill Pipe	Unknown		4.	3.34	14.	Unknown		.	4641.		

### Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

### Miscellaneous Materials

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty	

### Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Rig Supplied Gel Spacer		30.00	bbl	8.5	.0	.0	.0	
2	50/50 Poz - Standard	ECONOCEM (TM) SYSTEM (452992)	500.0	sacks	13.6	1.59	6.91		6.91
	0.4 %	HALAD(R)-9, 50 LB (100001617)							
	10 lbm	KOL-SEAL, BULK (100064233)							
	2 %	BENTONITE, BULK (100003682)							
	0.2 %	CFR-3, W/O DEFOAMER, 50 LB SK (100003653)							
	0.25 lbm	POLY-E-FLAKE (101216940)							
	6.912 Gal	FRESH WATER							
3	Displacement		113.00	bbl	8.33	.0	.0	.0	
<b>Calculated Values</b>		<b>Pressures</b>			<b>Volumes</b>				
Displacement	113	Shut In: Instant		Lost Returns	0	Cement Slurry	142	Pad	
Top Of Cement	2855	5 Min		Cement Returns	0	Actual Displacement	113	Treatment	
Frac Gradient		15 Min		Spacers	30	Load and Breakdown		Total Job	
<b>Rates</b>									
Circulating		Mixing	5.5	Displacement	5	Avg. Job			5
Cement Left In Pipe	Amount	84 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
<b>The Information Stated Herein Is Correct</b>				Customer Representative Signature					



Section 17  
34S 6W

Section 16  
34S 6W

GARLOW 1-16H



Miss Entry: 4738'  
-97.976537 37.079379

Top Perf: 4885'  
-97.976588 37.078964

Section 20  
34S 6W

Section 21  
34S 6W

Bottom Perf: 8543'  
-97.976489 37.068897

BHL: 8987'  
-97.976394 37.067753

2159' FWL

674' FSL

BRITT 3406 2-20H

LAKE 3406 2-21H

LAKE 1-21H

MOHR 3406 1-21H

Section 29  
34S 6W

Section 28  
34S 6W

SHRACK 1-28H

SHRACK 3406 2-28H

YOUNG 3406 1-28H



Actual Bottom-Hole Location of Garlow 1-16H  
Harper County, Kansas

T&R: 34S 6W  
Section: 21, 2159' FWL & 674' FSL  
Long/Lat: -97.976394 37.067753

1 in = 678 ft

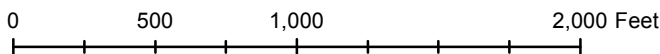


● Actual BH Location

\* SandRidge Wells

▭ Sections

----- Perf



Draftsman:

Aaron Birk

Draft Date: 1/10/2013

Drawing Name/Number:

Addendum\_Garlow\_1-16H .mxd

Coordinate System:

NAD 1927 State Plane  
Kansas South FIPS: 1502