

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

Confidentiality Requested:

 Yes No

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 DistributionALT I II III Approved by: _____ Date: _____

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	SandRidge Exploration and Production LLC
Well Name	Robert 1-13H
Doc ID	1089081

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	10978-80;10843-45; 10708-10; 10573-75; 10438-40	5068 bbls Slickwtr, 36 bbls 15% NeFe HCL, 122 BBLS GELLED ACID, 102m # 40/70 SD	
6	10303-05; 10168-70; 10033-35; 9898-9900; 9763-65	5163 bbls Slickwtr, 73 bbls 15% NeFe HCL, 120 bbls gelled acid, 102 M # 40/70 sd	
6	9628-30; 9493-95; 9358-60; 9223-25; 9088-90	4967 bbls Slickwtr, 38 bbls 15% NeFe HCL, 128 bbls gelled acid, 98M # 40/70 sd	
6	8953-55; 8818-20; 8683-85; 8548-50; 8413-15	4937 bbls Slickwtr, 37 bbls 15% NeFe HCL, 124 bbls gelled acid, 100M # 40/70 sd	
6	8278-80; 8143-45; 8008-10; 7873-75; 7738-40	4938 bbls Slickwtr, 36 bbls 15% NeFe HCL, 128 bbls gelled acid, 102M # 40/70 sd	
6	7603-05; 7468-70; 7333-35; 7198-7200; 7063-65	4902 bbls Slickwtr,, 37 bbls 15% NeFe HCL, 126 bbls gelled acid, 101M # 40/70 sd	
6	6928-30; 6793-95; 6658-60;6523-25; 6388-90	4805 bbls Slickwtr, 36 bbls 15% NeFe HCL, 119 bbls gelled acid, 101M # 40/70 sd	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Robert 1-13H
Doc ID	1089081

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	6253-55; 6118-20; 5983-85; 58448-50; 5713-15	4829 bbls Slickwtr, 36 bbls 15% NeFe HCl, 120 bbls gelled acid, 105M # 40/70 sd	
6	5578-80; 5443-45; 5308-10; 5173-75; 5038-40	4864 bbls Slickwtr, 36 bbls 15% NeFe HCl, 146 bbls gelled acid, 95M # 40/70 sd	

Summary of Changes

Lease Name and Number: Robert 1-13H

API/Permit #: 15-007-23756-01-00

Doc ID: 1089081

Correction Number: 1

Approved By: Deanna Garrison

Field Name	Previous Value	New Value
Approved By	NAOMI JAMES	Deanna Garrison
Approved Date	01/26/2012	08/08/2012
Save Link	../../kcc/detail/operatorEditDetail.cfm?docID=1064640	../../kcc/detail/operatorEditDetail.cfm?docID=1089081
Well Type	OIL	GAS



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
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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

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: _____



1064640

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

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

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> 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
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

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
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Robert 1-13H
Doc ID	1064640

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	10978-80;10843-45; 10708-10; 10573-75; 10438-40	5068 bbls Slickwtr, 36 bbls 15% NeFe HCL, 122 BBLS GELLED ACID, 102m # 40/70 SD	
6	10303-05; 10168-70; 10033-35; 9898-9900; 9763-65	5163 bbls Slickwtr, 73 bbls 15% NeFe HCL, 120 bbls gelled acid, 102 M # 40/70 sd	
6	9628-30; 9493-95; 9358-60; 9223-25; 9088-90	4967 bbls Slickwtr, 38 bbls 15% NeFe HCL, 128 bbls gelled acid, 98M # 40/70 sd	
6	8953-55; 8818-20; 8683-85; 8548-50; 8413-15	4937 bbls Slickwtr, 37 bbls 15% NeFe HCL, 124 bbls gelled acid, 100M # 40/70 sd	
6	8278-80; 8143-45; 8008-10; 7873-75; 7738-40	4938 bbls Slickwtr, 36 bbls 15% NeFe HCL, 128 bbls gelled acid, 102M # 40/70 sd	
6	7603-05; 7468-70; 7333-35; 7198-7200; 7063-65	4902 bbls Slickwtr,, 37 bbls 15% NeFe HCL, 126 bbls gelled acid, 101M # 40/70 sd	
6	6928-30; 6793-95; 6658-60;6523-25; 6388-90	4805 bbls Slickwtr, 36 bbls 15% NeFe HCL, 119 bbls gelled acid, 101M # 40/70 sd	

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
Ward Loyd, Commissioner
Thomas E. Wright, Commissioner

Sam Brownback, Governor

December 20, 2011

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

Re: ACO1
API 15-007-23756-01-00
Robert 1-13H
SE/4 Sec.13-35S-11W
Barber 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,
Karen Sharp

	Measured Depth (ft)	Sub-Sea Incl. (ft)	Vertical Azim. (ft)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vertical Section (ft)	Sec FNL
	SHL	0	0	0	0	0	0	0
BHL	11084	88.10	357.60	4865.82	6575.62	17.08	6575.63	-4039.62
Miss Entry	5028	60.54	0.59	4822.91	537.60	-7.29	537.57	1998.40
Top Perf	5038	61.61	0.43	4827.68	546.39	-7.22	546.35	1989.61
Bottom Perf	10980	87.98	357.78	4862.28	6471.76	21.28	6471.79	-3935.76

	Measured Depth (ft)	Sub-Sea Incl. (ft)	Vertical Azim. (ft)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vertical Section (ft)	Sec FNL
		0	0	0	0	0	0	0
	990	0.10	188.60	990.00	-0.85	-0.13	-0.85	2536.85
	1243	0.10	130.40	1243.00	-1.22	0.01	-1.22	2537.22
	1720	0.10	63.90	1720.00	-1.30	0.70	-1.30	2537.30
	2196	0.60	168.10	2195.99	-3.56	1.58	-3.55	2539.56
	2672	0.60	122.90	2671.97	-7.35	4.19	-7.33	2543.35
	3149	0.50	174.90	3148.95	-10.78	6.47	-10.75	2546.78
	3530	0.50	153.10	3529.93	-13.92	7.37	-13.89	2549.92
	3625	0.30	34.20	3624.93	-14.08	7.70	-14.05	2550.08
	3721	0.40	26.70	3720.93	-13.58	7.99	-13.54	2549.58
	3815	0.80	20.80	3814.92	-12.67	8.37	-12.63	2548.67
	3911	0.50	353.30	3910.92	-11.63	8.56	-11.59	2547.63
	3974	1.80	333.70	3973.90	-10.47	8.09	-10.43	2546.47
	4006	3.90	332.20	4005.86	-9.05	7.36	-9.02	2545.05
	4038	6.10	335.50	4037.74	-6.54	6.15	-6.51	2542.54
	4069	8.20	338.40	4068.50	-2.99	4.65	-2.97	2538.99
	4101	10.60	342.80	4100.07	1.95	2.94	1.96	2534.05
	4132	13.50	346.00	4130.38	8.18	1.22	8.19	2527.82
	4164	15.70	348.30	4161.34	16.05	-0.56	16.04	2519.95
	4196	16.80	348.70	4192.07	24.82	-2.35	24.81	2511.18
	4228	17.80	349.30	4222.62	34.16	-4.16	34.14	2501.84
	4260	19.20	352.80	4252.96	44.19	-5.73	44.16	2491.81
	4291	20.60	355.60	4282.11	54.69	-6.78	54.65	2481.31
	4323	23.10	358.30	4311.81	66.58	-7.40	66.54	2469.42
	4355	25.70	1.30	4340.95	79.79	-7.43	79.75	2456.21
	4387	27.70	4.60	4369.54	94.14	-6.68	94.11	2441.86
	4418	30.00	5.30	4396.69	109.04	-5.38	109.02	2426.96
	4450	32.40	4.60	4424.06	125.56	-3.96	125.54	2410.44
	4481	34.50	4.00	4449.93	142.60	-2.68	142.58	2393.40
	4513	35.40	2.50	4476.15	160.90	-1.64	160.89	2375.10
	4545	36.80	2.10	4502.01	179.73	-0.89	179.73	2356.27
	4577	38.90	1.20	4527.28	199.36	-0.32	199.36	2336.64
	4608	40.90	359.80	4551.06	219.24	-0.16	219.24	2316.76
	4640	42.70	358.80	4574.91	240.57	-0.42	240.56	2295.43
	4672	44.10	358.60	4598.16	262.55	-0.92	262.54	2273.45
	4704	46.60	358.40	4620.65	285.30	-1.52	285.29	2250.70
	4735	49.30	358.30	4641.41	308.31	-2.18	308.30	2227.69
	4767	49.80	358.10	4662.17	332.65	-2.94	332.63	2203.35
	4799	49.40	357.80	4682.91	357.00	-3.82	356.98	2179.00
	4831	49.30	357.50	4703.76	381.26	-4.81	381.24	2154.74
	4862	49.70	357.60	4723.89	404.81	-5.82	404.78	2131.19
	4894	49.80	357.90	4744.57	429.22	-6.78	429.18	2106.78

4926	50.50	358.80	4765.07	453.77	-7.48	453.74	2082.23
4958	53.20	359.80	4784.84	478.93	-7.79	478.89	2057.07
4989	56.50	0.70	4802.68	504.28	-7.67	504.24	2031.72
5021	59.80	0.70	4819.57	531.45	-7.34	531.41	2004.55
5053	63.20	0.20	4834.83	559.57	-7.12	559.53	1976.43
5085	67.00	359.90	4848.30	588.59	-7.10	588.55	1947.41
5117	70.60	359.60	4859.87	618.42	-7.23	618.38	1917.58
5148	72.20	0.00	4869.76	647.80	-7.33	647.76	1888.20
5180	74.30	360.00	4878.98	678.44	-7.33	678.40	1857.56
5212	75.40	0.60	4887.35	709.33	-7.17	709.29	1826.67
5244	78.50	360.00	4894.57	740.50	-7.01	740.46	1795.50
5275	82.10	359.30	4899.79	771.05	-7.19	771.01	1764.95
5307	84.40	359.90	4903.55	802.82	-7.42	802.78	1733.18
5339	86.20	0.20	4906.18	834.71	-7.39	834.67	1701.29
5352	87.30	359.60	4906.91	847.69	-7.41	847.65	1688.31
5436	89.90	1.30	4908.97	931.65	-6.75	931.61	1604.35
5468	90.60	0.90	4908.83	963.65	-6.14	963.61	1572.35
5500	91.10	1.30	4908.35	995.64	-5.52	995.60	1540.36
5532	91.50	1.50	4907.62	1027.62	-4.74	1027.59	1508.38
5564	92.00	2.20	4906.65	1059.59	-3.71	1059.56	1476.41
5596	92.30	1.50	4905.45	1091.55	-2.68	1091.53	1444.45
5627	91.10	1.50	4904.53	1122.52	-1.86	1122.50	1413.48
5659	91.20	2.10	4903.89	1154.50	-0.86	1154.49	1381.50
5691	91.50	1.10	4903.13	1186.48	0.03	1186.47	1349.52
5723	91.60	1.00	4902.27	1218.46	0.62	1218.45	1317.54
5755	91.20	0.60	4901.48	1250.45	1.07	1250.44	1285.55
5787	91.10	0.40	4900.84	1282.44	1.35	1282.43	1253.56
5819	91.10	1.00	4900.23	1314.43	1.74	1314.43	1221.57
5851	90.90	0.90	4899.67	1346.42	2.27	1346.42	1189.58
5883	91.10	2.10	4899.11	1378.41	3.10	1378.41	1157.59
5915	91.10	1.90	4898.50	1410.38	4.22	1410.39	1125.62
5947	91.50	2.10	4897.77	1442.35	5.34	1442.36	1093.65
5979	91.50	2.20	4896.93	1474.32	6.54	1474.34	1061.68
6011	90.70	2.20	4896.32	1506.29	7.77	1506.31	1029.71
6043	90.40	1.00	4896.01	1538.28	8.66	1538.30	997.72
6075	90.00	0.70	4895.90	1570.27	9.13	1570.30	965.73
6107	90.00	2.10	4895.90	1602.26	9.92	1602.29	933.74
6139	90.60	2.70	4895.73	1634.23	11.26	1634.27	901.77
6170	89.50	1.70	4895.70	1665.21	12.45	1665.25	870.79
6203	88.80	1.70	4896.19	1698.19	13.42	1698.24	837.81
6235	89.10	1.80	4896.78	1730.17	14.40	1730.22	805.83
6266	89.10	359.70	4897.27	1761.16	14.81	1761.21	774.84
6298	89.60	358.70	4897.63	1793.16	14.36	1793.20	742.84
6330	89.90	359.10	4897.77	1825.15	13.75	1825.19	710.85
6362	89.90	356.90	4897.83	1857.13	12.63	1857.17	678.87
6394	90.50	356.50	4897.71	1889.08	10.79	1889.11	646.92
6426	91.10	356.80	4897.27	1921.02	8.92	1921.04	614.98
6458	91.30	356.50	4896.60	1952.96	7.05	1952.97	583.04
6490	92.00	357.40	4895.68	1984.90	5.35	1984.90	551.10
6522	91.50	357.90	4894.70	2016.86	4.04	2016.85	519.14
6554	90.70	358.00	4894.08	2048.83	2.89	2048.82	487.17
6586	90.90	358.20	4893.64	2080.81	1.83	2080.79	455.19
6618	90.90	359.60	4893.13	2112.80	1.22	2112.78	423.20
6650	90.40	0.90	4892.77	2144.79	1.36	2144.78	391.21
6681	90.30	1.60	4892.58	2175.79	2.03	2175.77	360.21

6713	90.60	1.30	4892.33	2207.77	2.84	2207.76	328.23
6745	90.90	0.40	4891.91	2239.77	3.32	2239.76	296.23
6777	90.70	1.40	4891.47	2271.76	3.82	2271.75	264.24
6809	90.00	2.20	4891.27	2303.74	4.82	2303.74	232.26
6841	89.80	1.90	4891.33	2335.72	5.97	2335.73	200.28
6873	90.00	1.50	4891.38	2367.71	6.92	2367.72	168.29
6905	90.50	0.70	4891.24	2399.70	7.53	2399.71	136.30
6937	90.80	0.60	4890.88	2431.70	7.89	2431.71	104.30
6969	91.10	2.40	4890.35	2463.68	8.73	2463.70	72.32
7001	92.10	3.10	4889.45	2495.63	10.27	2495.65	40.37
7033	91.40	3.60	4888.48	2527.56	12.14	2527.59	8.44
7065	90.30	3.80	4888.00	2559.49	14.20	2559.53	-23.49
7097	89.20	3.20	4888.14	2591.43	16.15	2591.48	-55.43
7128	88.50	3.10	4888.76	2622.38	17.86	2622.43	-86.38
7160	86.90	1.70	4890.05	2654.32	19.20	2654.38	-118.32
7192	84.80	359.80	4892.36	2686.23	19.61	2686.29	-150.23
7224	84.40	359.50	4895.38	2718.09	19.42	2718.15	-182.09
7256	85.40	358.40	4898.22	2749.96	18.84	2750.01	-213.96
7288	87.20	358.10	4900.29	2781.87	17.86	2781.93	-245.87
7320	87.90	358.20	4901.65	2813.83	16.83	2813.87	-277.83
7352	89.20	358.60	4902.46	2845.80	15.94	2845.85	-309.80
7384	90.20	358.10	4902.63	2877.79	15.01	2877.83	-341.79
7416	90.50	358.80	4902.44	2909.78	14.15	2909.81	-373.78
7448	91.20	358.20	4901.96	2941.76	13.31	2941.79	-405.76
7480	91.00	357.90	4901.35	2973.74	12.22	2973.76	-437.74
7512	90.90	358.90	4900.82	3005.72	11.33	3005.74	-469.72
7544	91.80	359.20	4900.06	3037.71	10.80	3037.72	-501.71
7575	92.60	359.20	4898.87	3068.68	10.37	3068.70	-532.68
7607	92.80	358.60	4897.36	3100.64	9.75	3100.65	-564.64
7639	92.70	359.80	4895.83	3132.60	9.31	3132.61	-596.60
7671	92.90	359.60	4894.27	3164.56	9.14	3164.57	-628.56
7703	92.20	359.30	4892.84	3196.53	8.83	3196.53	-660.53
7735	90.90	0.00	4891.98	3228.51	8.64	3228.52	-692.51
7767	90.60	0.90	4891.56	3260.51	8.89	3260.52	-724.51
7799	89.10	1.00	4891.64	3292.50	9.42	3292.51	-756.50
7831	89.70	0.80	4891.98	3324.50	9.92	3324.51	-788.50
7863	91.10	0.10	4891.75	3356.49	10.17	3356.51	-820.49
7894	92.00	0.90	4890.92	3387.48	10.44	3387.49	-851.48
7926	92.40	0.80	4889.69	3419.45	10.92	3419.47	-883.45
7958	91.60	1.70	4888.57	3451.43	11.61	3451.44	-915.43
7990	91.40	1.50	4887.73	3483.40	12.51	3483.42	-947.40
8022	91.40	2.00	4886.95	3515.38	13.49	3515.40	-979.38
8054	91.60	1.70	4886.11	3547.35	14.52	3547.38	-1011.35
8086	91.90	2.60	4885.14	3579.31	15.72	3579.35	-1043.31
8118	91.50	1.70	4884.19	3611.28	16.92	3611.32	-1075.28
8150	89.80	2.10	4883.82	3643.26	17.98	3643.30	-1107.26
8182	90.90	2.20	4883.63	3675.23	19.18	3675.28	-1139.23
8214	90.70	2.70	4883.18	3707.20	20.55	3707.25	-1171.20
8246	90.70	1.60	4882.79	3739.17	21.75	3739.23	-1203.17
8278	90.20	0.60	4882.54	3771.17	22.36	3771.23	-1235.17
8309	90.10	0.10	4882.46	3802.17	22.55	3802.23	-1266.17
8341	91.40	1.30	4882.04	3834.16	22.94	3834.22	-1298.16
8373	92.40	0.80	4880.98	3866.14	23.53	3866.20	-1330.14
8405	92.70	1.10	4879.55	3898.10	24.06	3898.17	-1362.10
8437	92.90	0.90	4877.99	3930.06	24.62	3930.13	-1394.06

8469	91.60	0.10	4876.73	3962.03	24.89	3962.10	-1426.03
8501	90.70	0.70	4876.09	3994.02	25.12	3994.09	-1458.02
8533	90.00	0.10	4875.90	4026.02	25.34	4026.09	-1490.02
8565	89.80	0.30	4875.95	4058.02	25.45	4058.09	-1522.02
8597	89.00	0.30	4876.29	4090.02	25.62	4090.09	-1554.02
8629	89.50	359.70	4876.71	4122.01	25.62	4122.09	-1586.01
8661	89.40	359.20	4877.01	4154.01	25.31	4154.08	-1618.01
8693	89.10	359.90	4877.43	4186.01	25.06	4186.08	-1650.01
8725	90.40	359.00	4877.57	4218.00	24.75	4218.07	-1682.00
8739	90.60	359.90	4877.45	4232.00	24.62	4232.07	-1696.00
8771	90.70	359.80	4877.09	4264.00	24.54	4264.07	-1728.00
8803	90.50	359.90	4876.75	4296.00	24.45	4296.07	-1760.00
8835	90.50	359.60	4876.47	4328.00	24.31	4328.06	-1792.00
8867	91.00	359.80	4876.05	4359.99	24.15	4360.06	-1823.99
8899	90.80	359.60	4875.55	4391.99	23.98	4392.05	-1855.99
8931	90.40	359.30	4875.22	4423.99	23.67	4424.05	-1887.99
8963	90.30	359.00	4875.02	4455.98	23.20	4456.04	-1919.98
8995	90.10	358.60	4874.91	4487.98	22.53	4488.03	-1951.98
9027	90.00	358.70	4874.88	4519.97	21.77	4520.02	-1983.97
9059	90.30	359.10	4874.80	4551.96	21.16	4552.01	-2015.96
9091	90.30	358.60	4874.63	4583.95	20.52	4584.00	-2047.95
9123	90.30	358.30	4874.46	4615.94	19.65	4615.98	-2079.94
9155	90.70	358.10	4874.18	4647.92	18.65	4647.96	-2111.92
9186	90.90	357.90	4873.75	4678.90	17.56	4678.93	-2142.90
9218	91.20	358.30	4873.16	4710.88	16.50	4710.91	-2174.88
9250	91.10	358.20	4872.52	4742.86	15.53	4742.88	-2206.86
9282	90.90	358.50	4871.96	4774.84	14.60	4774.86	-2238.84
9314	90.60	358.40	4871.54	4806.82	13.74	4806.84	-2270.82
9346	89.50	358.90	4871.52	4838.82	12.98	4838.82	-2302.82
9378	89.70	359.40	4871.74	4870.81	12.51	4870.82	-2334.81
9410	89.50	359.80	4871.96	4902.81	12.29	4902.81	-2366.81
9442	89.10	359.90	4872.35	4934.81	12.20	4934.81	-2398.81
9474	89.20	1.40	4872.83	4966.80	12.57	4966.81	-2430.80
9506	89.70	2.10	4873.14	4998.78	13.54	4998.79	-2462.78
9538	89.80	1.80	4873.28	5030.76	14.63	5030.78	-2494.76
9569	89.80	1.50	4873.38	5061.75	15.52	5061.77	-2525.75
9601	89.30	1.40	4873.63	5093.74	16.33	5093.76	-2557.74
9633	88.60	1.90	4874.22	5125.72	17.26	5125.75	-2589.72
9665	89.20	2.10	4874.84	5157.70	18.37	5157.73	-2621.70
9697	88.90	2.20	4875.37	5189.67	19.57	5189.70	-2653.67
9729	89.20	2.70	4875.90	5221.64	20.94	5221.68	-2685.64
9761	90.40	2.60	4876.01	5253.60	22.42	5253.65	-2717.60
9793	92.70	3.20	4875.14	5285.55	24.04	5285.60	-2749.55
9825	93.40	2.70	4873.44	5317.46	25.68	5317.52	-2781.46
9857	93.5	3	4872	5349	27.32627032	5349.426	-2813.36
9889	92.3	3	4870	5381	29.05451414	5381.345	-2845.27
9921	91.9	2	4869	5413	30.47722684	5413.297	-2877.21
9953	91.7	2	4868	5445	31.73292354	5445.262	-2909.17
9985	91.8	2	4867	5477	32.93286811	5477.23	-2941.14
10017	91.8	1	4866	5509	33.82591558	5509.205	-2973.11
10049	91.7	1	4865	5541	34.35621532	5541.188	-3005.09
10080	90.2	360	4864	5572	34.51846728	5572.182	-3036.08
10112	89.6	360	4864	5604	34.37884396	5604.181	-3068.08
10144	89.9	359	4864	5636	34.07167372	5636.177	-3100.08
10177	90.1	359	4864	5669	33.72610502	5669.173	-3133.08

10208	89.7	359	4864	5700	33.26623155	5700.167	-3164.08
10240	89.6	359	4865	5732	32.6240058	5732.157	-3196.07
10272	89.7	359	4865	5764	32.03762013	5764.148	-3228.06
10304	89.9	359	4865	5796	31.59083387	5796.142	-3260.06
10336	89.6	359	4865	5828	31.08820738	5828.135	-3292.05
10368	89.5	359	4865	5860	30.61351048	5860.128	-3324.05
10400	90.9	360	4865	5892	30.30634561	5892.124	-3356.05
10432	91.0	360	4865	5924	30.13881655	5924.118	-3388.04
10464	91.0	0	4864	5956	30.11089554	5956.113	-3420.04
10496	90.7	360	4864	5988	29.999203	5988.108	-3452.03
10528	90.2	360	4863	6020	29.77581027	6020.105	-3484.03
10560	90.1	359	4863	6052	29.46863829	6052.102	-3516.03
10592	91.5	359	4863	6084	29.0777421	6084.093	-3548.02
10624	91.8	360	4862	6116	28.79860121	6116.077	-3580.01
10656	91.8	360	4861	6148	28.60322203	6148.059	-3611.99
10688	91.9	360	4860	6180	28.37993818	6180.041	-3643.98
10720	91.6	359	4859	6212	27.98916533	6212.021	-3675.96
10752	90.9	359	4858	6244	27.40290707	6244.005	-3707.94
10783	90.3	359	4858	6275	26.78077452	6274.994	-3738.94
10815	90.1	359	4858	6307	26.19438177	6306.985	-3770.93
10847	89.8	359	4858	6339	25.71967034	6338.979	-3802.93
10879	88.6	359	4858	6371	25.13336269	6370.967	-3834.92
10911	87.0	357	4860	6403	24.0455433	6402.918	-3866.87
10943	87.9	358	4861	6435	22.73478936	6434.852	-3898.82
11037	88.1	358	4864	6529	19.0466059	6528.705	-3992.69
11084	88.1	358	4866	6576	17.07953224	6575.628	-4039.62

.13 Sec 12

FSL	FNL	FSL	FWL	FEL
200.00	-8056.00	-2736.00	4702.00	660.00
6775.62	1480.38	3839.62	4719.08	642.92
737.60	7518.40	-2198.40	4694.71	667.29
746.39	7509.61	-2189.61	4694.78	667.22
6671.76	1584.24	3735.76	4723.28	638.72

TD Extrap:
Miss Entry Extrap:

.13 Sec 12

FSL	FNL	FSL	FWL	FEL
200.00	8056.00	-2736.00	4702.00	660.00
199.15	8056.85	-2736.85	4701.87	660.13
198.78	8057.22	-2737.22	4702.01	659.99
198.70	8057.30	-2737.30	4702.70	659.30
196.44	8059.56	-2739.56	4703.58	658.42
192.65	8063.35	-2743.35	4706.19	655.81
189.22	8066.78	-2746.78	4708.47	653.53
186.08	8069.92	-2749.92	4709.37	652.63
185.92	8070.08	-2750.08	4709.70	652.30
186.42	8069.58	-2749.58	4709.99	652.01
187.33	8068.67	-2748.67	4710.37	651.63
188.37	8067.63	-2747.63	4710.56	651.44
189.53	8066.47	-2746.47	4710.09	651.91
190.95	8065.05	-2745.05	4709.36	652.64
193.46	8062.54	-2742.54	4708.15	653.85
197.01	8058.99	-2738.99	4706.65	655.35
201.95	8054.05	-2734.05	4704.94	657.06
208.18	8047.82	-2727.82	4703.22	658.78
216.05	8039.95	-2719.95	4701.44	660.56
224.82	8031.18	-2711.18	4699.65	662.35
234.16	8021.84	-2701.84	4697.84	664.16
244.19	8011.81	-2691.81	4696.27	665.73
254.69	8001.31	-2681.31	4695.22	666.78
266.58	7989.42	-2669.42	4694.60	667.40
279.79	7976.21	-2656.21	4694.57	667.43
294.14	7961.86	-2641.86	4695.32	666.68
309.04	7946.96	-2626.96	4696.62	665.38
325.56	7930.44	-2610.44	4698.04	663.96
342.60	7913.40	-2593.40	4699.32	662.68
360.90	7895.10	-2575.10	4700.36	661.64
379.73	7876.27	-2556.27	4701.11	660.89
399.36	7856.64	-2536.64	4701.68	660.32
419.24	7836.76	-2516.76	4701.84	660.16
440.57	7815.43	-2495.43	4701.58	660.42
462.55	7793.45	-2473.45	4701.08	660.92
485.30	7770.70	-2450.70	4700.48	661.52
508.31	7747.69	-2427.69	4699.82	662.18
532.65	7723.35	-2403.35	4699.06	662.94
557.00	7699.00	-2379.00	4698.18	663.82
581.26	7674.74	-2354.74	4697.19	664.81
604.81	7651.19	-2331.19	4696.18	665.82
629.22	7626.78	-2306.78	4695.22	666.78

E)

Measured Depth (ft)	Sub-Sea Incl. (ft)	Vertical Azim. (ft)
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Top	5021	59.80	0.70
Bottom	5053	63.20	0.20
Extrapolation	5038	61.61	0.43

653.77	7602.23	-2282.23	4694.52	667.48
678.93	7577.07	-2257.07	4694.21	667.79
704.28	7551.72	-2231.72	4694.33	667.67
731.45	7524.55	-2204.55	4694.66	667.34
759.57	7496.43	-2176.43	4694.88	667.12
788.59	7467.41	-2147.41	4694.90	667.10
818.42	7437.58	-2117.58	4694.77	667.23
847.80	7408.20	-2088.20	4694.67	667.33
878.44	7377.56	-2057.56	4694.67	667.33
909.33	7346.67	-2026.67	4694.83	667.17
940.50	7315.50	-1995.50	4694.99	667.01
971.05	7284.95	-1964.95	4694.81	667.19
1002.82	7253.18	-1933.18	4694.58	667.42
1034.71	7221.29	-1901.29	4694.61	667.39
1047.69	7208.31	-1888.31	4694.59	667.41
1131.65	7124.35	-1804.35	4695.25	666.75
1163.65	7092.35	-1772.35	4695.86	666.14
1195.64	7060.36	-1740.36	4696.48	665.52
1227.62	7028.38	-1708.38	4697.26	664.74
1259.59	6996.41	-1676.41	4698.29	663.71
1291.55	6964.45	-1644.45	4699.32	662.68
1322.52	6933.48	-1613.48	4700.14	661.86
1354.50	6901.50	-1581.50	4701.14	660.86
1386.48	6869.52	-1549.52	4702.03	659.97
1418.46	6837.54	-1517.54	4702.62	659.38
1450.45	6805.55	-1485.55	4703.07	658.93
1482.44	6773.56	-1453.56	4703.35	658.65
1514.43	6741.57	-1421.57	4703.74	658.26
1546.42	6709.58	-1389.58	4704.27	657.73
1578.41	6677.59	-1357.59	4705.10	656.90
1610.38	6645.62	-1325.62	4706.22	655.78
1642.35	6613.65	-1293.65	4707.34	654.66
1674.32	6581.68	-1261.68	4708.54	653.46
1706.29	6549.71	-1229.71	4709.77	652.23
1738.28	6517.72	-1197.72	4710.66	651.34
1770.27	6485.73	-1165.73	4711.13	650.87
1802.26	6453.74	-1133.74	4711.92	650.08
1834.23	6421.77	-1101.77	4713.26	648.74
1865.21	6390.79	-1070.79	4714.45	647.55
1898.19	6357.81	-1037.81	4715.42	646.58
1930.17	6325.83	-1005.83	4716.40	645.60
1961.16	6294.84	-974.84	4716.81	645.19
1993.16	6262.84	-942.84	4716.36	645.64
2025.15	6230.85	-910.85	4715.75	646.25
2057.13	6198.87	-878.87	4714.63	647.37
2089.08	6166.92	-846.92	4712.79	649.21
2121.02	6134.98	-814.98	4710.92	651.08
2152.96	6103.04	-783.04	4709.05	652.95
2184.90	6071.10	-751.10	4707.35	654.65
2216.86	6039.14	-719.14	4706.04	655.96
2248.83	6007.17	-687.17	4704.89	657.11
2280.81	5975.19	-655.19	4703.83	658.17
2312.80	5943.20	-623.20	4703.22	658.78
2344.79	5911.21	-591.21	4703.36	658.64
2375.79	5880.21	-560.21	4704.03	657.97

2407.77	5848.23	-528.23	4704.84	657.16
2439.77	5816.23	-496.23	4705.32	656.68
2471.76	5784.24	-464.24	4705.82	656.18
2503.74	5752.26	-432.26	4706.82	655.18
2535.72	5720.28	-400.28	4707.97	654.03
2567.71	5688.29	-368.29	4708.92	653.08
2599.70	5656.30	-336.30	4709.53	652.47
2631.70	5624.30	-304.30	4709.89	652.11
2663.68	5592.32	-272.32	4710.73	651.27
2695.63	5560.37	-240.37	4712.27	649.73
2727.56	5528.44	-208.44	4714.14	647.86
2759.49	5496.51	-176.51	4716.20	645.80
2791.43	5464.57	-144.57	4718.15	643.85
2822.38	5433.62	-113.62	4719.86	642.14
2854.32	5401.68	-81.68	4721.20	640.80
2886.23	5369.77	-49.77	4721.61	640.39
2918.09	5337.91	-17.91	4721.42	640.58
2949.96	5306.04	13.96	4720.84	641.16
2981.87	5274.13	45.87	4719.86	642.14
3013.83	5242.17	77.83	4718.83	643.17
3045.80	5210.20	109.80	4717.94	644.06
3077.79	5178.21	141.79	4717.01	644.99
3109.78	5146.22	173.78	4716.15	645.85
3141.76	5114.24	205.76	4715.31	646.69
3173.74	5082.26	237.74	4714.22	647.78
3205.72	5050.28	269.72	4713.33	648.67
3237.71	5018.29	301.71	4712.80	649.20
3268.68	4987.32	332.68	4712.37	649.63
3300.64	4955.36	364.64	4711.75	650.25
3332.60	4923.40	396.60	4711.31	650.69
3364.56	4891.44	428.56	4711.14	650.86
3396.53	4859.47	460.53	4710.83	651.17
3428.51	4827.49	492.51	4710.64	651.36
3460.51	4795.49	524.51	4710.89	651.11
3492.50	4763.50	556.50	4711.42	650.58
3524.50	4731.50	588.50	4711.92	650.08
3556.49	4699.51	620.49	4712.17	649.83
3587.48	4668.52	651.48	4712.44	649.56
3619.45	4636.55	683.45	4712.92	649.08
3651.43	4604.57	715.43	4713.61	648.39
3683.40	4572.60	747.40	4714.51	647.49
3715.38	4540.62	779.38	4715.49	646.51
3747.35	4508.65	811.35	4716.52	645.48
3779.31	4476.69	843.31	4717.72	644.28
3811.28	4444.72	875.28	4718.92	643.08
3843.26	4412.74	907.26	4719.98	642.02
3875.23	4380.77	939.23	4721.18	640.82
3907.20	4348.80	971.20	4722.55	639.45
3939.17	4316.83	1003.17	4723.75	638.25
3971.17	4284.83	1035.17	4724.36	637.64
4002.17	4253.83	1066.17	4724.55	637.45
4034.16	4221.84	1098.16	4724.94	637.06
4066.14	4189.86	1130.14	4725.53	636.47
4098.10	4157.90	1162.10	4726.06	635.94
4130.06	4125.94	1194.06	4726.62	635.38

4162.03	4093.97	1226.03	4726.89	635.11
4194.02	4061.98	1258.02	4727.12	634.88
4226.02	4029.98	1290.02	4727.34	634.66
4258.02	3997.98	1322.02	4727.45	634.55
4290.02	3965.98	1354.02	4727.62	634.38
4322.01	3933.99	1386.01	4727.62	634.38
4354.01	3901.99	1418.01	4727.31	634.69
4386.01	3869.99	1450.01	4727.06	634.94
4418.00	3838.00	1482.00	4726.75	635.25
4432.00	3824.00	1496.00	4726.62	635.38
4464.00	3792.00	1528.00	4726.54	635.46
4496.00	3760.00	1560.00	4726.45	635.55
4528.00	3728.00	1592.00	4726.31	635.69
4559.99	3696.01	1623.99	4726.15	635.85
4591.99	3664.01	1655.99	4725.98	636.02
4623.99	3632.01	1687.99	4725.67	636.33
4655.98	3600.02	1719.98	4725.20	636.80
4687.98	3568.02	1751.98	4724.53	637.47
4719.97	3536.03	1783.97	4723.77	638.23
4751.96	3504.04	1815.96	4723.16	638.84
4783.95	3472.05	1847.95	4722.52	639.48
4815.94	3440.06	1879.94	4721.65	640.35
4847.92	3408.08	1911.92	4720.65	641.35
4878.90	3377.10	1942.90	4719.56	642.44
4910.88	3345.12	1974.88	4718.50	643.50
4942.86	3313.14	2006.86	4717.53	644.47
4974.84	3281.16	2038.84	4716.60	645.40
5006.82	3249.18	2070.82	4715.74	646.26
5038.82	3217.18	2102.82	4714.98	647.02
5070.81	3185.19	2134.81	4714.51	647.49
5102.81	3153.19	2166.81	4714.29	647.71
5134.81	3121.19	2198.81	4714.20	647.80
5166.80	3089.20	2230.80	4714.57	647.43
5198.78	3057.22	2262.78	4715.54	646.46
5230.76	3025.24	2294.76	4716.63	645.37
5261.75	2994.25	2325.75	4717.52	644.48
5293.74	2962.26	2357.74	4718.33	643.67
5325.72	2930.28	2389.72	4719.26	642.74
5357.70	2898.30	2421.70	4720.37	641.63
5389.67	2866.33	2453.67	4721.57	640.43
5421.64	2834.36	2485.64	4722.94	639.06
5453.60	2802.40	2517.60	4724.42	637.58
5485.55	2770.45	2549.55	4726.04	635.96
5517.46	2738.54	2581.46	4727.68	634.32
5549.36	2706.64	2613.36	4729.33	632.67
5581.27	2674.73	2645.27	4731.05	630.95
5613.21	2642.79	2677.21	4732.48	629.52
5645.17	2610.83	2709.17	4733.73	628.27
5677.14	2578.86	2741.14	4734.93	627.07
5709.11	2546.89	2773.11	4735.83	626.17
5741.09	2514.91	2805.09	4736.36	625.64
5772.08	2483.92	2836.08	4736.52	625.48
5804.08	2451.92	2868.08	4736.38	625.62
5836.08	2419.92	2900.08	4736.07	625.93
5869.08	2386.92	2933.08	4735.73	626.27

5900.08	2355.92	2964.08	4735.27	626.73
5932.07	2323.93	2996.07	4734.62	627.38
5964.06	2291.94	3028.06	4734.04	627.96
5996.06	2259.94	3060.06	4733.59	628.41
6028.05	2227.95	3092.05	4733.09	628.91
6060.05	2195.95	3124.05	4732.61	629.39
6092.05	2163.95	3156.05	4732.31	629.69
6124.04	2131.96	3188.04	4732.14	629.86
6156.04	2099.96	3220.04	4732.11	629.89
6188.03	2067.97	3252.03	4732.00	630.00
6220.03	2035.97	3284.03	4731.78	630.22
6252.03	2003.97	3316.03	4731.47	630.53
6284.02	1971.98	3348.02	4731.08	630.92
6316.01	1939.99	3380.01	4730.80	631.20
6347.99	1908.01	3411.99	4730.60	631.40
6379.98	1876.02	3443.98	4730.38	631.62
6411.96	1844.04	3475.96	4729.99	632.01
6443.94	1812.06	3507.94	4729.40	632.60
6474.94	1781.06	3538.94	4728.78	633.22
6506.93	1749.07	3570.93	4728.19	633.81
6538.93	1717.07	3602.93	4727.72	634.28
6570.92	1685.08	3634.92	4727.13	634.87
6602.87	1653.13	3666.87	4726.05	635.95
6634.82	1621.18	3698.82	4724.73	637.27
6728.69	1527.31	3792.69	4721.05	640.95
6775.62	1480.38	3839.62	4719.08	642.92

$$(((D217-D216)/(\$B\$217-\$B\$216))*45)+D217$$

$$((\$B\$60-\$B\$11)/((\$B\$60-\$B\$59)/(C60-C59)))-C60)*-1$$

Interpolator									
True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vertical Section (ft)	FNL	FSL	FNL	FSL	FWL	FEL
4819.57	531.45	-7.34	531.41	2004.55	731.45	7524.55	-2204.55	4694.66	667.34
4834.83	559.57	-7.12	559.53	1976.43	759.57	7496.43	-2176.43	4694.88	667.12
4827.68	546.39	-7.22	546.35	1989.61	746.39	7509.61	-2189.61	4694.78	667.22



Current

Spud: 9/5/2011

Field: Waldron West

County: Barber

State: Kansas

Well Location: Robert 1-13H

KB: SEC 13, TWP 35N, RGE 11W

GL: 1325' 1303'

Wellbore Schematic

1500-723-75601

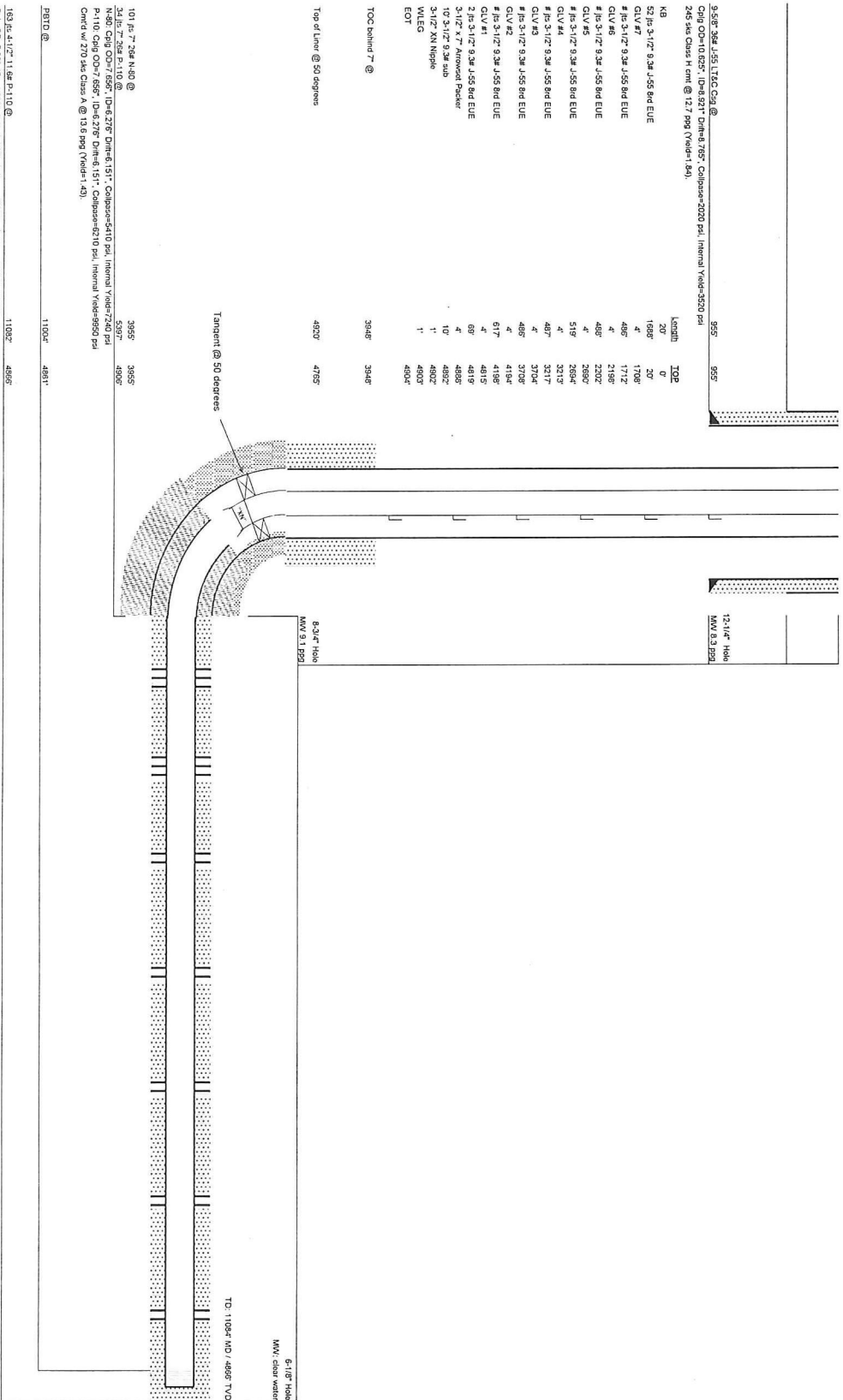
API No.

Original Completion (10-13-2011)

Current

Proposed

Well Bore Data MD TVD



JOB SUMMARY			PROJECT NUMBER SOK0814	TICKET DATE 09/13/11
COUNTY Barber	State Kansas	COMPANY Sandridge Exp and Prod	CUSTOMER REP Felix Ortiz	
LEASE NAME Robert	Well No. 1-13H	JOB TYPE Intermediate	EMPLOYEE NAME Larry Kirchner Jr.	

EMP NAME					
Larry Kirchner Jr.					
Emmit Brock					
David Thomas					
Jason Thomas					

Form. Name _____ Type: _____
 Packer Type _____ Set At **0**
 Bottom Hole Temp. **0** Pressure _____
 Retainer Depth _____ Total Depth **5399**

	Called Out	On Location	Job Started	Job Completed
Date	9/12/2011	9/12/2011	9/13/2011	9/13/2011
Time	5:00PM	11:00PM	1:27AM	3:00AM

Tools and Accessories		
Type and Size	Qty	Make
Auto Fill Tube	0	IR
Insert Float Val	0	IR
Centralizers	0	IR
Top Plug	1	IR
HEAD	1	IR
Limit clamp	0	IR
Weld-A	0	IR
Texas Pattern Guide Shoe	0	IR
Cement Basket	0	IR

Well Data						
	New/Used	Weight	Size	Grade	From	To
Casing	New	26.0	7		Surface	5,400
Liner						
Liner						
Tubing						
Drill Pipe						
Open Hole			8 3/4		Surface	5,399
Perforations						Shots/Ft.
Perforations						
Perforations						

Materials		
Mud Type _____	Density _____	Lb/Gal _____
Disp. Fluid _____	Density _____	Lb/Gal _____
Spacer type _____	BBL. _____	
Spacer type _____	BBL. _____	
Acid Type _____	Gal. _____	% _____
Acid Type _____	Gal. _____	% _____
Surfactant _____	Gal. _____	In _____
NE Agent _____	Gal. _____	In _____
Fluid Loss _____	Gal/Lb _____	In _____
Gelling Agent _____	Gal/Lb _____	In _____
Fric. Red. _____	Gal/Lb _____	In _____
MISC. _____	Gal/Lb _____	In _____
Perfpac Balls _____	Qty. _____	
Other _____		
Other _____		
Other _____		
Other _____		
Other _____		

Hours On Location		Operating Hours		Description of Job
Date	Hours	Date	Hours	
9/12	1.0	9/13	2.0	Intermediate
9/13	3.0			
Total	4.0	Total	2.0	

Pressures	
MAX 5,000	AVG. 300
Average Rates in BPM	
Cement Left in Pipe	
Feet 82	Reason Shoe Track

Cement Data				W/Rq.	Yield	Lbs/Gal
Stage	Sacks	Cement	Additives	6.77	1.44	13.60
1	270	50/50 POZ PREMIUM	4% Gel - 0.6% C-12 - 0.1% C-37 - 0.5% C-41P - 1 lb/sk Phenoseal	0	0.00	0.00
2	0	0		0	0.00	0.00
3	0	0				

Summary			
Preflush _____	Type: _____	Preflush: BBI	30.00
_____	MAXIMUM _____	Load & Bkdn: Gal - BBI	_____
_____	Lost Returns-N _____	Excess /Return BBI	_____
_____	Actual TOC _____	Calc. TOC: _____	3,725'
Average _____	Frac. Gradient _____	Treatment: Gal - BBI	69.0
ISIP _____ 5 Min. _____	10 Min. _____	Cement Slurry: BBI	302.00
_____	15 Min. _____	Total Volume BBI	_____

CUSTOMER REPRESENTATIVE Felix Ortiz SIGNATURE

JOB SUMMARY			PROJECT NUMBER SOK0795	TICKET DATE 09/05/11
COUNTY Barber	State Kansas	COMPANY Landridge Exp and Productio	CUSTOMER REP Felix Ortiz	
LEASE NAME Robert	Well No. 1-13H	JOB TYPE Surface	EMPLOYEE NAME Louis Arney	

EMP NAME Louis Arney	ROBERT STONEKOCKER				
Billy Taff					
Mark Boethin					
Flo Helkena					

Form. Name _____ Type: _____
 Packer Type _____ Set At **0**
 Bottom Hole Temp. **80** Pressure _____
 Retainer Depth _____ Total Depth **950'**

Date	Called Out 9/5/2011	On Location 9/5/2011	Job Started 9/5/2011	Job Completed 9/5/2011
Time	5:30	7:20	10:40	1:30

Type and Size	Qty	Make
Auto Fill Tube	0	Weatherford
Insert Float Val	0	
Centralizers	0	
Top Plug	0	
HEAD	0	
Limit clamp	0	
Weld-A	0	
Texas Pattern Guide Shoe	0	
Cement Basket	0	

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing		36#	9 5/8"		Surface	950'	1,500
Liner							
Liner							
Tubing			0				
Drill Pipe							
Open Hole			12 1/4"		Surface	950'	Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials			
Mud Type	WBM	Density	9 Lb/Gal
Disp. Fluid	Fresh Water	Density	8.33 Lb/Gal
Spacer type	Fresh Water	BBL.	10 8.33
Spacer type	BBL.		
Acid Type		Gal.	%
Acid Type		Gal.	%
Surfactant		Gal.	In
NE Agent		Gal.	In
Fluid Loss		Gal/Lb	In
Gelling Agent		Gal/Lb	In
Fric. Red.		Gal/Lb	In
MISC.		Gal/Lb	In

Hours On Location		Operating Hours		Description of Job
Date	Hours	Date	Hours	
9/5	6.0	9/5	1.5	Surface
Total	6.0	Total	1.5	

Perpac Balls _____ Qty. _____
 Other _____
 Other _____
 Other _____
 Other _____

Pressures			
MAX	1,500 PSI	AVG.	250
Average Rates in BPM			
MAX	6 BMP	AVG	3
Cement Left in Pipe			
Feet	45	Reason	SHOE JOINT

Cement Data						
Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	245	Otex Lite Standard	6% Gel - 2% Calcium Chloride - 1/4lb/sk Cello-Flake - .5% C-41P	10.88	1.84	12.70
2	180	Standard	2% Calcium Chloride - 1/4lb/sk Cello-Flake - .5% C-41P	5.20	1.18	15.60
3	100	Standard	2% Calcium Chloride on side if necessary	5.20	1.18	15.60

Summary					
Preflush	_____ Type: _____	H2O	Preflush:	BBI	10.00 Type: WATER
Breakdown	_____ MAXIMUM	1,500 PSI	Load & Bkdn:	Gal - BBI	N/A Pad:Bbl -Gal N/A
	_____ Lost Returns-N	NO/FULL	Excess /Return	BBI	Calc. Disp Bbl 70
	_____ Actual TOC	SURFACE	Calc. TOC:		Actual Disp. 0.00
Average	_____ Bump Plug PSI:		Final Circ.	PSI:	Disp:Bbl _____
ISIP	5 Min. _____	15 Min _____	Cement Slurrv:	BBI	118.1
			Total Volume	BBI	128.12

CUSTOMER REPRESENTATIVE *Felix Ortiz* SIGNATURE

SandRidge Energy
Robert 1-13H
Barber, Co. Kansas 13 35S 11W

25-Aug-11

Job Data

JOB TYPE	Liner
DRILL PIPE	3 1/2 IF 13.30 lb/ft
CASING SIZE	4 1/2 11.6 N-80
HOLE SIZE	6 1/8
DEPTH	11,086'
TOC	4,500'
EXCESS	40%
FILL REQUIRED	TOL @5,000 ft. TOC @ 4,500 ft.
BHST	150 deg. F Est.
FLUID REQUIREMENTS	
PRE-FLUSH	10 bbl H2O 10 bbl Caustic 10 bbl H2O
LEAD CEMENT SLURRY	600 sacks of 50/50 Poz Premium 4% gel 0.4% C-12 (Fluid Loss), 0.1% C-37 (Dispersent), 1 lb/sk Pheno Seal
ADDITIVES	
WEIGHT	13.6 ppg
YIELD	1.44 cuft/sk
WATER	6.65 gal/sk
TAIL CEMENT SLURRY	
WEIGHT	
YIELD	
WATER	



Current

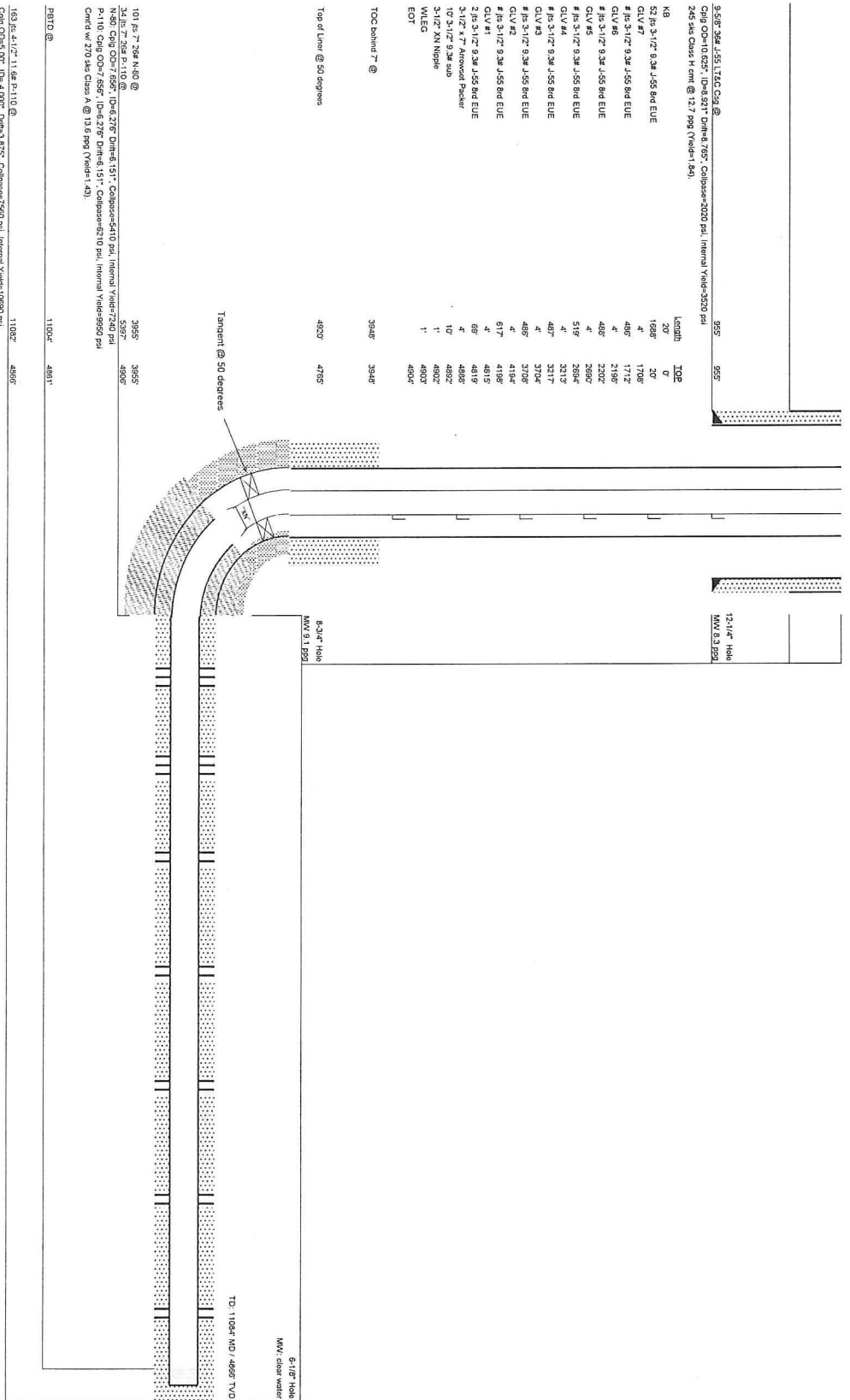
Spud: 9/5/2011

Field: Waldron West
 County: Barber
 State: Kansas
 Well: Robert 1-13H
 Location: SEC 13, TWP 35N, RGE 11W
 KB: 1325'
 GL: 1303'

Wellbore Schematic
 1500-723-75601
 API No.

Original Completion (10-13-2011) X
 Current
 Proposed

Well Bore Data MD TVD



Length	TOP
20'	0'
1688'	20'
4'	1708'
466'	1712'
4'	2186'
466'	2202'
4'	2686'
519'	2694'
487'	3213'
4'	3217'
487'	3276'
4'	4184'
617'	4186'
4'	4815'
69'	4819'
4'	4885'
10'	4892'
1'	4902'
1'	4903'
	4904'

3.56\"/>

Logo

Back to Well Completion

Robert 1-13H (1064640)

Actions

View PDF
Delete
Edit
Certify & Submit
Request Confidentiality

Attachments

Two Year Confidentiality OPERATOR	View PDF Delete
DirSurvey OPERATOR	View PDF Delete
WB Schematic OPERATOR	View PDF Delete
Cmt Data OPERATOR	View PDF Delete
LinerCmtInfo OPERATOR	View PDF Delete

Add Attachment

Remarks

Remarks to KCC

Add Remark

Remarks

Karen Sharp 12/21/011 02:01 pm	Gas Lift Valves @ 4819.4'; 4198.67'; 3708.16'; 3217.36'; 2693.8'; 2202.79'; 1711.8'
Karen Sharp 10/05/011 12:44 pm	Production liner set @ 11082'
Karen Sharp 10/05/011 10:50 am	TMD is 11,084; TVD is 4865'. Vertical Section @ 6575'.

Section 1 SCHROCK I-1H
35S 11W*

Section 6
35S 10W

1480' FNL

643' FEL

BHL: 4866'
-98.459418, 37.017016

Bottom Perf: 4862'
-98.459371, 37.016711

Section 11
35S 11W

Section 12
35S 11W

Section 7
35S 10W

Section 14
35S 11W

Section 13
35S 11W

Section 18
35S 10W

Top Perf: 4828'
-98.459451, 37.000404

ROBERT 1-13H



Section 15
29N 12W

Section 14
29N 12W

Section 13
29N 12W



Actual Bottom-Hole Location of Robert 1-13H
Barber County, Kansas

T&R: 35S 11W

Section: 12 & 13, 1480' FNL & 643' FEL

Long: -98.459418, Lat: 37.017016

1 in = 990 ft

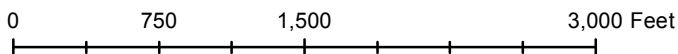


● Actual BH Location

* SandRidge Wells

----- Perf

▭ Sections



Draftsman:

Matt White

Draft Date: 1/26/2012

Drawing Name/Number:

Addendum_Robert_1-13H.mxd

Coordinate System:

NAD 1927 State Plane
Kansas South FIPS: 1502

Section 1 SCHROCK I-1H
35S 11W*

Section 6
35S 10W

1480' FNL

643' FEL

BHL: 11084'
-98.459418, 37.017016

Bottom Perf: 10980'
-98.459371, 37.016711

Section 11
35S 11W

Section 12
35S 11W

Section 7
35S 10W

Section 14
35S 11W

Section 13
35S 11W

Section 18
35S 10W

Top Perf: 5038'
-98.459451, 37.000404

ROBERT 1-13H



Section 15
29N 12W

Section 14
29N 12W

Section 13
29N 12W



Actual Bottom-Hole Location of Robert 1-13H
Barber County, Kansas
T&R: 35S 11W
Section: 12 & 13, 1480' FNL & 643' FEL
Long: -98.459418, Lat: 37.017016
1 in = 990 ft



Draftsman:

Matt White

Draft Date: 1/26/2012

Drawing Name/Number:

Addendum_Robert_1-13H.mxd

Coordinate System:

NAD 1927 State Plane
Kansas South FIPS: 1502

● Actual BH Location

* SandRidge Wells

----- Perf

□ Sections

