CORRECTION #1

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1234551

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 # 33596
Name: Unit Petroleum Company
Address 1: 7130 S LEWIS AVE
Address 2: STE 1000
City: TULSA State: OK Zip: 74136 + 5492
Contact Person: Kelly Ryan, Production Manager
Phone: (918) 477-4422
CONTRACTOR: License # 33596
Name: Unit Petroleum Company
Wellsite Geologist: Rob Wilson
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 #:

12/30/2013 Spud Date or Recompletion Date
01/21/2014 Date Reached TD
02/27/2014 Completion Date or Recompletion Date

API No. 15 - 15-185-23833-01-00
Spot Description:
NE - NW - NE - NE Sec. 13 Twp. 25 S. R. 11 ☐ East ☑ West
125 Feet from ☑ North / ☐ South Line of Section
900 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☑ NE ☐ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Stafford
Lease Name: Loudenback Well #: 13 #1H
Field Name:
Producing Formation: Mississippian
Elevation: Ground: 1772 Kelly Bushing: 1786
Total Vertical Depth: 3950 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 216 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: 80000 ppm Fluid volume: 4169 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:
Operator Name: Underground Cavern Stabilization Company
Lease Name: 0 License #: 0
Quarter NE Sec. 14 Twp. 24 S. R. 6 ☐ East ☑ West
County: Reno Permit #: 0

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: 04/08/2014
☑ **Confidential Release Date:** 04/07/2016
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 12/09/2014

CORRECTION #1
Page Two

[redacted] 1234551

Operator Name: Unit Petroleum Company Lease Name: Loudenback Well #: 13 #1H

Sec. 13 Twp. 25 S. R. 11 ☐ East ☑ West County: Stafford

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 ☐ Yes ☑ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Attached

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Heebner	3282	1790
Kansas City	3469	
Pleasanton Shale	3808	
Mississippi	3889	

CASING RECORD ☑ New ☐ 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
Attached	Attached	Attached	Attached	Attached	Attached	Attached	Attached

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	-			
	-			

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 *(Amount and Kind of Material Used)*	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:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)* _____

PRODUCTION INTERVAL:
_____
_____

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Unit Petroleum Company
Well Name	Loudenback 13 #1H
Doc ID	1234551

All Electric Logs Run

Array Compensated True Resistivity
Micro Log
Spectral Density Dual Spaced Neutron
Horizontal Log
Mud Log
Spectral Density Dual Spaced Neutron Gamma Ray Memory
Array Induction Gamma Ray Memory

Form	ACO1 - Well Completion
Operator	Unit Petroleum Company
Well Name	Loudenback 13 #1H
Doc ID	1234551

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	28	16	65	216	Common	275	
Intermediate	12.25	9.625	36	1495	A	605	2% CC + 1/4# celloflake
Intermediate	8.75	7	26	4206	A	160	2% CC + 1/4# celloflake
Liner	6.125	4.50	11.6	8536	Prem H	550	2% CC + 1/4# celloflake

Summary of Changes

Lease Name and Number: Loudenback 13 #1H

API/Permit #: 15-185-23833-01-00

Doc ID: 1234551

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Approved Date	04/14/2014	12/09/2014
Save Link	../../kcc/detail/operatorEditDetail.cfm?docID=1196682	../../kcc/detail/operatorEditDetail.cfm?docID=1234551
Well Type	GAS	OIL

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1196682

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

CONFIDENTIAL

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33596
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Address 2: STE 1000
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Phone: (918) 477-4422
CONTRACTOR: License # 33596
Name: Unit Petroleum Company
Wellsite Geologist: Rob Wilson
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 #:

12/30/2013	01/21/2014	02/27/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-185-23833-01-00
Spot Description:
NE - NW - NE - NE Sec. 13 Twp. 25 S. R. 11 ☐ East ☑ West
125 Feet from ☑ North / ☐ South Line of Section
900 Feet from ☑ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☑ NE ☐ NW ☐ SE ☐ SW

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

Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84

County: Stafford
Lease Name: Loudenback Well #: 13 #1H
Field Name:
Producing Formation: Mississippian
Elevation: Ground: 1772 Kelly Bushing: 1786
Total Vertical Depth: 3950 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 216 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: 80000 ppm Fluid volume: 4169 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: Underground Cavern Stabilization Company
Lease Name: 0 License #: 0
Quarter NE Sec. 14 Twp. 24 S. R. 6 ☐ East ☑ West
County: Reno Permit #: 0

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: 04/08/2014
☐ **Confidential Release Date:**
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 04/14/2014

Operator Name: Unit Petroleum Company Lease Name: Loudenback Well #: 13 #1H

Sec. 13 Twp. 25 S. R. 11 ☐ East ☑ West County: Stafford

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 *(Attach Additional Sheets)*	☐ Yes	☑ No
Samples Sent to Geological Survey	☑ Yes	☐ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☑ Yes	☐ No
Geologist Report / Mud Logs	☐ Yes	☐ No

List All E. Logs Run:
Attached

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Heebner	3282	1790
Kansas City	3469	
Pleasanton Shale	3808	
Mississippi	3889	

CASING RECORD ☑ New ☐ 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
Attached	Attached	Attached	Attached	Attached	Attached	Attached	Attached

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose: ☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
	-			
	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☑ Yes ☐ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☑ Yes ☐ No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/ Injection:	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:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	Top / Bottom

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*

TUBING RECORD: Size: Set At: Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Unit Petroleum Company
Well Name	Loudenback 13 #1H
Doc ID	1196682

All Electric Logs Run

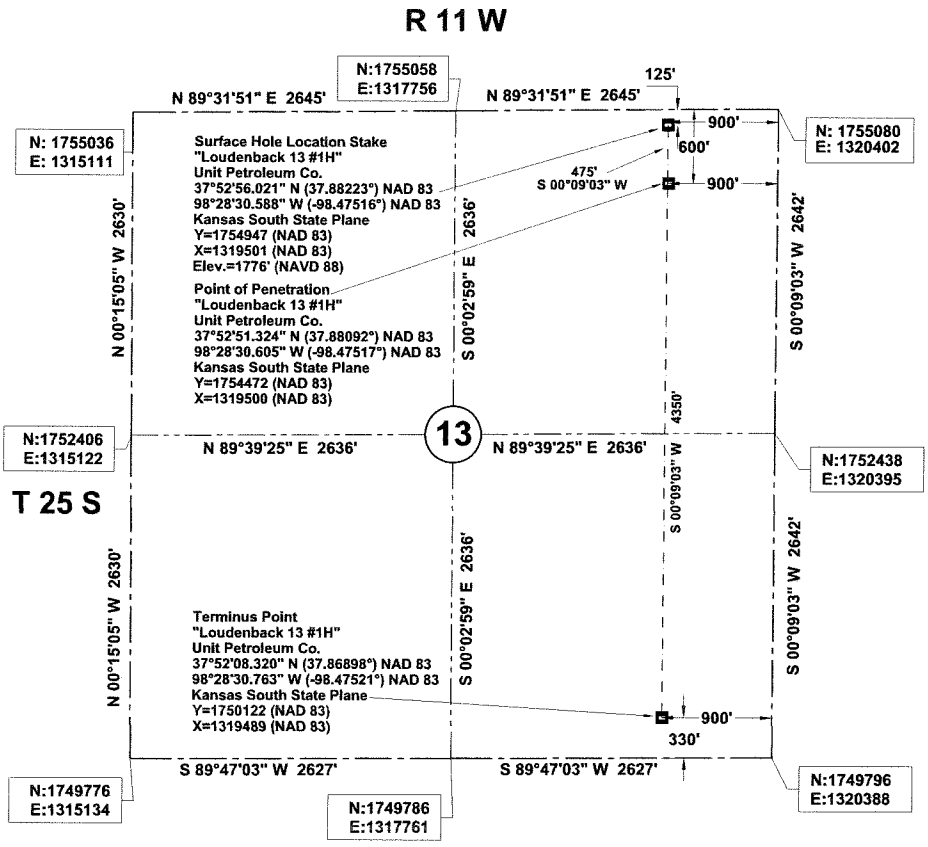
Array Compensated True Resistivity
Micro Log
Spectral Density Dual Spaced Neutron
Horizontal Log
Mud Log
Spectral Density Dual Spaced Neutron Gamma Ray Memory
Array Induction Gamma Ray Memory

Form	ACO1 - Well Completion
Operator	Unit Petroleum Company
Well Name	Loudenback 13 #1H
Doc ID	1196682

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	28	16	65	216	Common	275	
Intermediate	12.25	9.625	36	1495	A	605	2% CC + 1/4# celloflake
Intermediate	8.75	7	26	4206	A	160	2% CC + 1/4# celloflake
Liner	6.125	4.50	11.6	8536	Prem H	550	2% CC + 1/4# celloflake

Section 13, T 25 S, R 11 W., Stafford County, Kansas.



48 HOURS BEFORE YOU DIG...
CALL KANSAS ONE-CALL
1-800-344-7233

KANSAS ONE-CALL SYSTEM

Buried utilities are not necessarily shown. It is the contractor's responsibility to locate and preserve all utility services.

Contractor is responsible for contacting all utility companies prior to construction.

We do hereby certify that this survey was done in accordance to records, maps and other information as provided to us by the client herein named and that great care was taken in the actual staking of this well and the determination of any obstacles thereupon. However, the accuracy of this survey is not guaranteed and if there appears to be any discrepancy, please notify us immediately.

Description: Surface Hole Location Stake "Loudenback 13 #1H" situated 125 feet from the north section line and 900 feet from the east section line of Section 13, T 25 S,R 11 W., Stafford County, Kansas.

Description: Point of Penetration "Loudenback 13 #1H" situated 600 feet from the north section line and 900 feet from the east section line of Section 13, T 25 S, R 11 W., Stafford County, Kansas.

Description: Terminus Point "Loudenback 13 #1H" situated 330 feet from the south section line and 900 feet from the east section line of Section 13, T 25 S, R 11 W., Stafford County, Kansas.

Datum: NAD 83
Units: US Survey Feet
North: Grid
Coordinates: State Plane
Zone: 1502
State: Kansas
Region: South

LEGEND

SECTION LINE

1/4 SECTION LINE

Survey is valid only if print has original seal and signature of surveyor present

JIVIDENS LAND SURVEY CO., INC.
1210 19TH STREET / P.O. BOX 943
WOODWARD, OKLAHOMA 73802
Phone 580-256-7174 - Fax 580-256-3424
roger@jividenslandsurvey.com mike@jividenslandsurvey.com

Survey For:
Unit Petroleum Co.
P.O. Box 2726
Woodward, Oklahoma 73802
Attn: Jason Rummery

JOB	DATE OF PLAT	SCALE	SHEET
262-13	05-29-2013	1"=1200'	1 OF 5

DRAWN BY	
C.A.N.	OKLA. CA #2064, EXP. 06/30/2013 KANSAS CA #143, EXP. 12/31/2014

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer: Unit Petroleum Co	Lease No.	Date: 1-19-14	
Lease: Loosenback	Well #: 13-1H	Service Receipt: 4909	
Casing: 4 1/2	Depth: 8536	County: Stafford	State: KS
Job Type: 2 1/2 Liner	Formation	Legal Description: 13-25S-11W	

Pipe Data		Perforating Data		Cement Data
Casing size: 4 1/2	Tubing Size	Shots/Ft		Lead
Depth: 8536	Depth	From	To	
Volume: 93.6 bbls	Volume	From	To	
Max Press: 3000	Max Press	From	To	Tail in: 550 sk Class A 1.24 Ft3-sk 5.436 gal-sk 15.6 #
Well Connection: 1502	Annulus Vol.	From	To	
Plug Depth: 8535	Packer Depth	From	To	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log
600					Arrive On Location
600					Safety Meeting - Rig Up
700					Circulate W/ Rig
755					Hook Up To BES
800	3500				Pressure Test
815	1400		5	6	Pump Water Spacer
820	1300		12	6	Pump Mud Flush
825	1200		5	6	Pump Water Spacer
830	1000		121	6	Pump Cmt @ 15.6#
905					Wash Up - Drop Plug
910	600		83	6	Displace
925	1000		10	2	Slow Down
930	1800		.1	.1	Land Plug - Float Held
1000	1200		130	4.0	Reverse Out
1145					Job Complete
					Thanks For Using Basic Energy Services

Service Units	78938	70897-19570					
Driver Names	Izzy	Sam					

Larry
Customer Representative

Jerry Bott
Station Manager

Izzy Chavez
Cementer

BASIC energy services, L.P.

TREATMENT REPORT

Customer UNIT Petro	Lease No.			Date 01-09-14	
Lease Loudon Lack	Well # 13 14				
Field Order # 9776	Station Pratt	Casing 7"	Depth 4206'	County STAFFORD	State KS
Type Job CNW 7" INTERMEDIATE	Formation			Legal Description 13-25-11	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size 7	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
Depth 4206	Depth	From	To	Pre Pad	Max		5 Min.
Volume 161	Volume	From	To	Pad	Min		10 Min.
Max Press 1500	Max Press	From	To	Frac	Avg		15 Min.
Well Connection P.C	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth 4206	Packer Depth	From	To	Flush	Gas Volume		Total Load

Customer Representative	Station Manager DAVE Scott	Treater Robert Miller

Service Units	37900	33208	20920	20959	19918						
Driver Names	Sullivan	GRAVES		Phyle							

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
1:10					on loc Safety meeting
					RIH 7" csg 4206'
1:35					casing on Bottom
					Rig Hook up circ. psi wait on water
3:30			12	3.5	5# mud flush
			5		5# SPACER
				4.5	mix cmt 160 sk AA-2 @ 15.0ppg 4.40 water 1.43 gal/sk Yd.
			40		cmt mixed shut down
					Release Plug
				6	St Disp
	100		110		Lift psi
				3.5	Slow Rate
4:30	1300		161		Plug down
					Job Complete
					Thank you

10244 NE Hiway 61 • P.O. Box 8613 • Pratt, KS 67124-8613 • (620) 672-1201 • Fax (620) 672-5383

Taylor Printing, Inc. 620-672-3656

BASIC energy services, L.P.

TREATMENT REPORT

Customer: UNIT - Pet	Lease No.			Date: 01-05-14	
Lease: LOUDENBACK	Well #: 13-1H				
Field Order #: 9696	Station: Pratt KS	Casing: D.P	Depth	County: ~~Kiowa~~ STAFFORD	State: KS
Type Job: CNW WHIPSTOCK Plug		Formation		Legal Description: 13-25-11	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
Depth	Depth	From	To	Pre Pad	Max		5 Min.
Volume	Volume	From	To	Pad	Min		10 Min.
Max Press	Max Press	From	To	Frac	Avg		15 Min.
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth	Packer Depth	From	To	Flush	Gas Volume		Total Load

Customer Representative	Station Manager	Treater
	DAVE Scott	Robert L.

Service Units	27900	33708	20972	19959	19960						
Driver Names	Sullivan	Simdo		HAMBY	McSPADDEN						

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
10:30					on loc Safety meeting
					Set WHIPSTOCK Plug @ 3760'
11:30			5	3.5	1st SPACER
				4.5	mix cmt 300 sk Common @ 16.0 ppg
					yield 1.12 4.72 gal/sk
			60		cmt mixed
	300			3.5	St mud Disp
			33		Plug down & Disp
12:10					Shut down
					JOB Complete
					Thank you

Taylor Printing, Inc. 620-672-3656

BASIC energy services, L.P.

TREATMENT REPORT

Customer: Unit Petroleum Co.	Lease No.			Date: 1-1-14	
Lease: Longback	Well #: 13 # 1H				
Field Order #: 9627	Station: Plat	Casing: 9 5/8	Depth: 1495	County: Stafford	State: KS
Type Job: CNW SP	Formation			Legal Description: 13-25S-11W	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size: 9 5/8	Tubing Size	Shots/Ft		Acid: CMT 325	A-con 150 cc 1/4 CK	RATE	PRESS ISIP
Depth: 1495	Depth	From	To	Pre Pad: 280	Max: Common 290 cc		5 Min. 1/4 CK
Volume: 115.5	Volume	From	To	Pad	Min		10 Min.
Max Press: 2000	Max Press	From	To	Frac	Avg		15 Min.
Well Connection: PC	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth: 1495	Packer Depth	From	To	Flush	Gas Volume		Total Load

Customer Representative: Brent Keyes	Station Manager: Kevin Gurdley	Treater: Mike Mattai	

Service Units	37586		27463		19826	73768		19831	11862		
Driver Names	Mattai		Kuemin		Anthony			eggling			

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
8:00 AM					On Location / Safety Meeting
8:00					running 9 5/8 csng
8:05					csng on Bottom.
9:00					Rig Safety Meeting
9:10	2,000				Pressure Test to 2000, held
9:14	200		3	4	Pump 3 BBL H2O
9:17	200		143	4	mix 325 sks A-con
9:48	150		70	4	mix 280 sks common
10:05	—		—	—	Release Plug
10:10	200			5	Start Displacement
10:40	800		115		Plug down, released to hold
					115 BBLS CMT to Pit
					JOB COMPLETE
					Thank You
					Mike Mattai

Taylor Printing, Inc. 620-672-3656

BASIC energy services, L.P.

TREATMENT REPORT

Customer UNIT Petroleum Co	Lease No.		Date 12-30-13
Lease LONGHORN BACK	Well # 13#1H		
Field Order # 9626	Station PRATT	Casing 13 3/8 Depth 216	County STAFFORD State KS
Type Job CNW COMPLETION	Formation		Legal Description 13-25S-11W

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size 13 3/8	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
Depth 210	Depth	From	To	Pre Pad	Max		5 Min.
Volume 32.97	Volume	From	To	Pad	Min		10 Min.
Max Press 300	Max Press	From	To	Frac	Avg		15 Min.
Well Connection SWV	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth 190	Packer Depth	From	To	Flush 28	Gas Volume		Total Load

Customer Representative Brent Keyes | Station Manager Kevin Gurley | Treater Mike Mattai

Service Units	37586		27463		19826	73768					
Driver Names	Mattai		Kyamin		Pierson						

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
5:00 PM					ON LOCATION / SAFETY MEETING
5:00					RUNNING CSNG
6:10					CSNG ON BOTTOM
6:15					HOOK UP TO CSNG / BREAK CIRC W/ RIG
7:05					RIG SAFETY MEETING
7:15	150		3	4	PUMP 3 BBL H2O
7:16	150		59	3	MIX 275 SKS COMMON CMT
7:40	150		—	4	START DISPLACEMENT
7:50	200		28		PLUG DOWN / SHUT IN WELL
					CEMENT AROUND AT 23 BBLS
					CMT TO SURFACE JOB COMPLETE
					THANK YOU!
					MIKE MATTAI

10244 NE Hiway 61 • P.O. Box 8613 • Pratt, KS 67124-8613 • (620) 672-1201 • Fax (620) 672-5383

Taylor Printing, Inc. 620-672-3656

Mid-Continent Conductor, LLC
P.O. Box 1570, Woodward, OK 73802
Ph. 580-254-5400 Fax 580-254-3242

CEMENTING REPORT

Operator: Unit Corporation
Well Name: Loudenbach 13-1H
Legal Description: Reno Cnty, KS

Cement Casing Data	
Cementing Date	12/26/13
Size of Drill Bit (Inches)	28
Size of Casing (Inches O.D.)	20
Setting Depth of Casing (ft.) from ground level	40
Type of Cement	Common Cement
Sacks of Cement Used	40
Was cement circulated?	Yes
Job witnessed by: Jamie Lane	

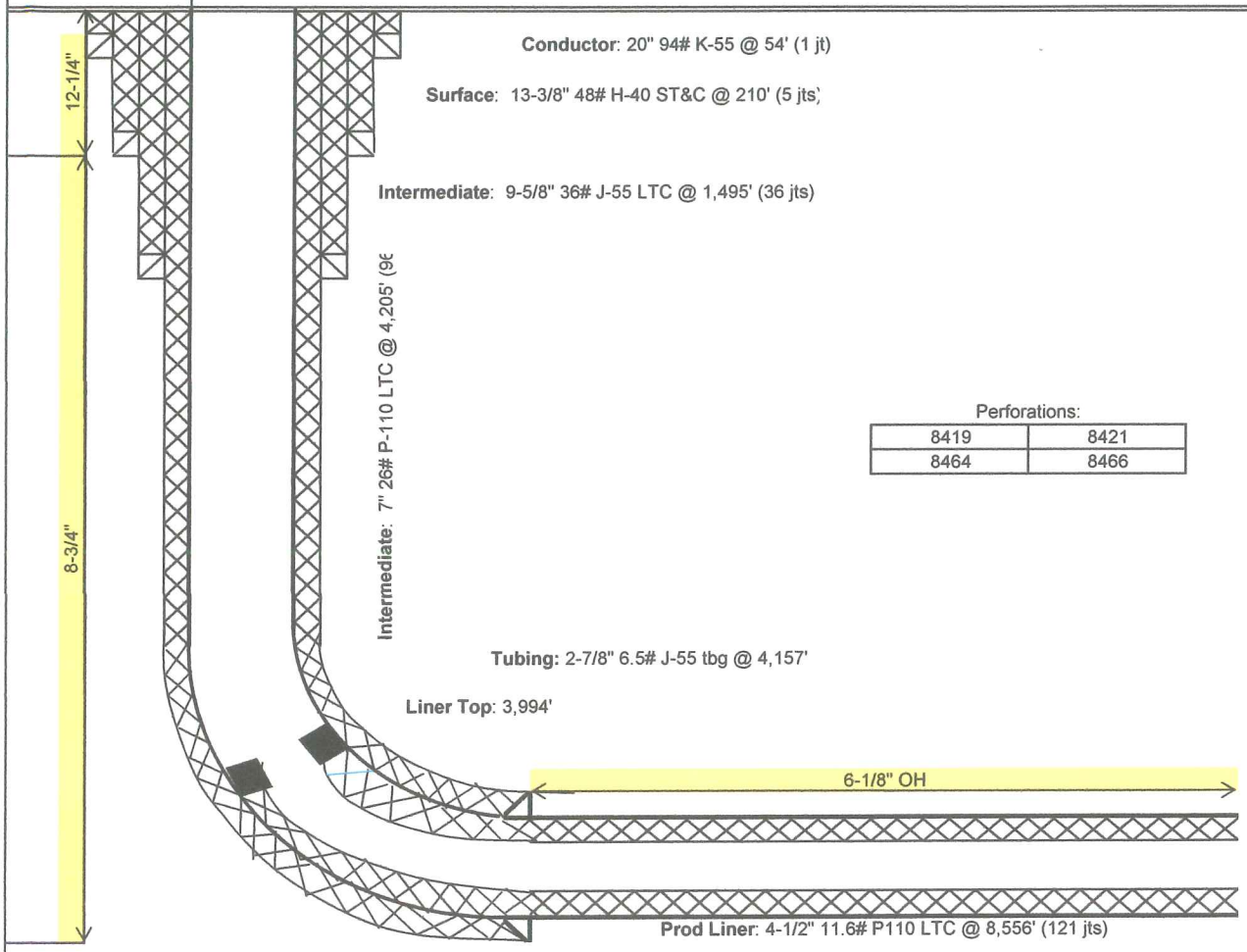
Jeff M. Owen
Mid-Continent Conductor, LLC

Date of Last Revision:
31-Mar-14

Unit Petroleum Company

Well:	**Loudenback 13 #1H**	**API No.:**	1518523833
Location:	13-25S-11W	**Rig:**	Unit Drilling #331
County, State:	Stafford County, Kansas	**Engineer:**	Brent Keys (918) 477-4510
Surface Location:	125' FNL & 900' FEL	**Geology:**	Rob Wilson (928) 477-5728

OH Size



Perforations:

8419	8421
8464	8466

Unit Petroleum

Stafford County, Kansas [NAD 83]
Section 13 T25S-R11W
Loudenback 13 #1H

Sidetrack

Design: Sidetrack

Standard Survey Report

20 January, 2014

INWELL INC.

Unit Petroleum Company

Unit Petroleum
Project: Stafford County, Kansas [NAD 83]
Site: Section 13 T25S-R11W
Well: Loudenback 13 #1H
Wellbore: Sidetrack
Design: Sidetrack Design #2
Lat: 37° 52' 56.018 N
Long: 98° 28' 30.592 W
Pad GL: 1776.00
KB: 14' KB @ 1790.00usft (UDI 331)

INWELL INC.

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
3299.27	0.22	13.62	3299.00	-14.37	-7.64	0.00	0.00	14.39
3859.45	56.00	180.14	3774.49	-266.04	-7.98	10.04	166.56	266.05
4009.45	56.00	180.14	3858.37	-390.39	-8.29	0.00	0.00	390.41
4290.56	89.73	180.14	3940.00	-655.16	-8.93	12.00	0.00	655.18
4338.80	89.13	178.82	3940.48	-703.39	-8.50	3.01	-114.45	703.41
4635.50	89.13	178.82	3944.98	-1000.00	-2.39	0.00	0.00	1000.00
4685.08	89.73	180.18	3945.48	-1049.57	-1.95	3.00	66.20	1049.57
5635.52	89.73	180.18	3949.95	-2000.00	-4.94	0.00	0.00	2000.00
5637.11	89.71	180.14	3949.96	-2001.59	-4.94	2.81	-116.57	2001.59
6635.54	89.71	180.14	3955.02	-3000.00	-7.38	0.00	0.00	3000.01
6639.87	89.84	180.14	3955.03	-3004.33	-7.39	3.00	0.00	3004.34
8460.86	89.84	180.14	3960.12	-4825.31	-11.84	0.00	0.00	4825.32

WELL DETAILS: Loudenback 13 #1H

+N/-S	+E/-W	Northing	Ground Level: Easting	1776.00 Latitude	Longitude	Slot
0.00	0.00	1754947.00	1319501.00	37° 52' 56.018 N	98° 28' 30.592 W	

PROJECT DETAILS: Stafford County, Kansas [NAD 83]

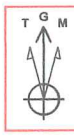
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Kansas Southern Zone

System Datum: Mean Sea Level

WELLBORE TARGET DETAILS (LAT/LONG)

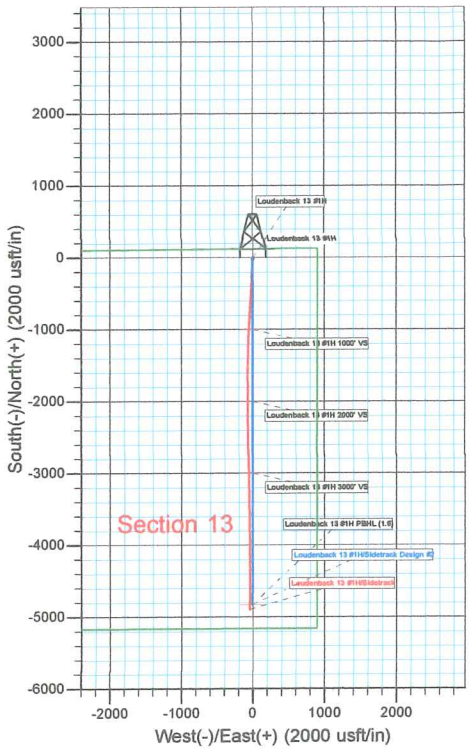
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Loudenback 13 #1H 1000' VS	3944.98	-1000.00	-2.39	37° 52' 46.132 N	98° 28' 30.625 W	Point
Loudenback 13 #1H 2000' VS	3949.95	-2000.00	-4.94	37° 52' 36.247 N	98° 28' 30.660 W	Point
Loudenback 13 #1H 3000' VS	3955.02	-3000.00	-7.38	37° 52' 26.361 N	98° 28' 30.694 W	Point
Loudenback 13 #1H PBHL (1.6)	3960.12	-4825.31	-11.84	37° 52' 8.316 N	98° 28' 30.756 W	Point

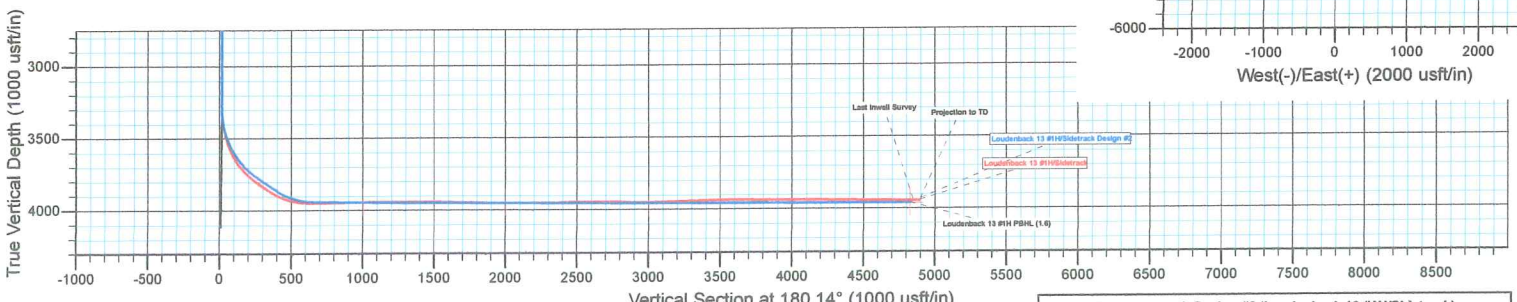
NOTE: All Lease lines and Hard lines are estimates only and are subject to the customers' approval.



Azimuths to Grid North
True North: -0.01°
Magnetic North: 4.67°

Magnetic Field
Strength: 52079.7snT
Dip Angle: 65.78°
Date: 12/23/2013
Model: IGRF2010





Plan: Sidetrack Design #2 (Loudenback 13 #1H/Sidetrack)

Created By: Derek Stephens Date: 8:52, January 20 2014

Company:	Unit Petroleum	**Local Co-ordinate Reference:**	Well Loudenback 13 #1H
Project:	Stafford County, Kansas [NAD 83]	**TVD Reference:**	14' KB @ 1790.00usft (UDI 331)
Site:	Section 13 T25S-R11W	**MD Reference:**	14' KB @ 1790.00usft (UDI 331)
Well:	Loudenback 13 #1H	**North Reference:**	Grid
Wellbore:	Sidetrack	**Survey Calculation Method:**	Minimum Curvature
Design:	Sidetrack	**Database:**	EDM 5000.1 Single User Db

Project Stafford County, Kansas [NAD 83]

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Kansas Southern Zone		Using geodetic scale factor

Site Section 13 T25S-R11W

Site Position:		**Northing:**	1,754,947.00 usft	**Latitude:**	37° 52' 56.018 N
From:	Map	**Easting:**	1,319,501.00 usft	**Longitude:**	98° 28' 30.592 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.02 °

Well Loudenback 13 #1H

Well Position	**+N/-S**	0.00 usft	**Northing:**	1,754,947.00 usft	**Latitude:**	37° 52' 56.018 N
	+E/-W	0.00 usft	**Easting:**	1,319,501.00 usft	**Longitude:**	98° 28' 30.592 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	1,776.00 usft

Wellbore Sidetrack

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/23/2013	4.68	65.78	52,080

Design Sidetrack

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	3,082.49

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.00

Survey Program **Date** 1/20/2014

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
71.61	3,082.49	Gyro (Pilot Hole)	CB-GYRO-MS	Camera based gyro multishot
3,176.58	8,556.00	MWD (Sidetrack)	MWD	MWD - Standard

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71.61	0.52	232.91	71.61	-0.20	-0.26	-0.20	0.73	0.73	0.00
165.70	0.56	210.76	165.69	-0.85	-0.83	-0.85	0.22	0.04	-23.54
259.79	0.53	198.59	259.78	-1.66	-1.21	-1.66	0.13	-0.03	-12.93
353.88	0.75	116.13	353.87	-2.34	-0.79	-2.34	0.91	0.23	-87.64
447.97	0.50	202.51	447.95	-2.99	-0.40	-2.99	0.93	-0.27	91.81
542.06	0.57	213.01	542.04	-3.76	-0.81	-3.76	0.13	0.07	11.16
636.15	1.19	173.62	636.12	-5.13	-0.96	-5.13	0.88	0.66	-41.86
730.24	1.20	193.86	730.19	-7.05	-1.08	-7.05	0.45	0.01	21.51
824.33	1.21	150.19	824.26	-8.87	-0.83	-8.87	0.95	0.01	-46.41

Company:	Unit Petroleum	**Local Co-ordinate Reference:**	Well Loudenback 13 #1H
Project:	Stafford County, Kansas [NAD 83]	**TVD Reference:**	14' KB @ 1790.00usft (UDI 331)
Site:	Section 13 T25S-R11W	**MD Reference:**	14' KB @ 1790.00usft (UDI 331)
Well:	Loudenback 13 #1H	**North Reference:**	Grid
Wellbore:	Sidetrack	**Survey Calculation Method:**	Minimum Curvature
Design:	Sidetrack	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
918.42	1.25	174.12	918.33	-10.75	-0.23	-10.75	0.54	0.04	25.43
1,012.51	1.07	196.46	1,012.40	-12.62	-0.37	-12.62	0.51	-0.19	23.74
1,106.60	0.91	170.90	1,106.48	-14.20	-0.50	-14.20	0.49	-0.17	-27.17
1,200.69	0.82	139.65	1,200.55	-15.45	0.05	-15.45	0.50	-0.10	-33.21
1,294.78	0.96	133.62	1,294.63	-16.51	1.06	-16.51	0.18	0.15	-6.41
1,388.87	0.90	160.75	1,388.71	-17.75	1.87	-17.75	0.47	-0.06	28.83
1,482.96	1.00	183.34	1,482.79	-19.26	2.07	-19.26	0.41	0.11	24.01
1,577.05	0.73	213.11	1,576.87	-20.59	1.69	-20.59	0.55	-0.29	31.64
1,671.14	0.52	251.21	1,670.95	-21.23	0.96	-21.23	0.48	-0.22	40.49
1,765.23	0.47	265.78	1,765.04	-21.39	0.17	-21.39	0.14	-0.05	15.49
1,859.32	0.57	282.32	1,859.13	-21.32	-0.67	-21.32	0.19	0.11	17.58
1,953.41	0.74	295.49	1,953.21	-20.96	-1.68	-20.96	0.24	0.18	14.00
2,047.50	0.64	302.79	2,047.29	-20.41	-2.67	-20.41	0.14	-0.11	7.76
2,141.59	0.86	316.47	2,141.38	-19.62	-3.59	-19.62	0.30	0.23	14.54
2,235.68	0.84	325.24	2,235.45	-18.54	-4.47	-18.54	0.14	-0.02	9.32
2,329.77	0.87	336.36	2,329.53	-17.32	-5.15	-17.32	0.18	0.03	11.82
2,423.86	0.74	290.40	2,423.62	-16.45	-6.01	-16.45	0.68	-0.14	-48.85
2,517.95	0.60	289.10	2,517.70	-16.08	-7.04	-16.08	0.15	-0.15	-1.38
2,612.04	0.57	251.59	2,611.78	-16.06	-7.95	-16.06	0.40	-0.03	-39.87
2,706.13	0.33	206.29	2,705.87	-16.46	-8.52	-16.46	0.44	-0.26	-48.15
2,800.22	0.23	90.41	2,799.96	-16.70	-8.45	-16.70	0.51	-0.11	-123.16
2,894.31	0.20	19.85	2,894.05	-16.55	-8.20	-16.55	0.27	-0.03	-74.99
2,988.40	0.24	10.81	2,988.14	-16.20	-8.11	-16.20	0.06	0.04	-9.61
3,082.49	0.41	16.02	3,082.23	-15.68	-7.98	-15.68	0.18	0.18	5.54
3,176.58	0.47	13.81	3,176.32	-14.98	-7.80	-14.98	0.07	0.06	-2.35
3,270.67	0.18	14.21	3,270.40	-14.46	-7.67	-14.46	0.31	-0.31	0.43
3,284.00	0.30	212.80	3,283.73	-14.47	-7.68	-14.47	3.56	0.90	-1,210.88
3,316.00	1.80	183.50	3,315.73	-15.05	-7.76	-15.05	4.83	4.69	-91.56
3,347.00	4.10	179.80	3,346.69	-16.64	-7.78	-16.64	7.44	7.42	-11.94
3,379.00	6.70	182.60	3,378.54	-19.65	-7.86	-19.65	8.16	8.13	8.75
3,411.00	9.00	186.70	3,410.24	-24.00	-8.24	-24.00	7.39	7.19	12.81
3,443.00	11.30	185.70	3,441.74	-29.61	-8.85	-29.61	7.21	7.19	-3.13
3,474.00	13.50	183.70	3,472.01	-36.24	-9.38	-36.24	7.23	7.10	-6.45
3,505.00	16.00	181.90	3,501.99	-44.12	-9.76	-44.12	8.20	8.06	-5.81
3,537.00	18.90	180.70	3,532.51	-53.72	-9.97	-53.72	9.13	9.06	-3.75
3,568.00	21.90	180.90	3,561.56	-64.52	-10.12	-64.52	9.68	9.68	0.65
3,600.00	24.90	181.50	3,590.93	-77.22	-10.39	-77.22	9.40	9.38	1.88
3,632.00	28.00	182.40	3,619.58	-91.47	-10.88	-91.47	9.77	9.69	2.81
3,663.00	31.40	182.60	3,646.50	-106.81	-11.55	-106.81	10.97	10.97	0.65
3,695.00	35.00	182.30	3,673.27	-124.31	-12.30	-124.31	11.26	11.25	-0.94
3,727.00	38.50	182.20	3,698.91	-143.44	-13.05	-143.44	10.94	10.94	-0.31
3,757.00	42.10	182.40	3,721.78	-162.82	-13.83	-162.82	12.01	12.00	0.67
3,787.00	45.20	183.40	3,743.49	-183.50	-14.88	-183.50	10.59	10.33	3.33

Company:	Unit Petroleum	**Local Co-ordinate Reference:**	Well Loudenback 13 #1H
Project:	Stafford County, Kansas [NAD 83]	**TVD Reference:**	14' KB @ 1790.00usft (UDI 331)
Site:	Section 13 T25S-R11W	**MD Reference:**	14' KB @ 1790.00usft (UDI 331)
Well:	Loudenback 13 #1H	**North Reference:**	Grid
Wellbore:	Sidetrack	**Survey Calculation Method:**	Minimum Curvature
Design:	Sidetrack	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,820.00	49.00	183.60	3,765.95	-207.63	-16.36	-207.63	11.52	11.52	0.61
3,852.00	53.00	182.90	3,786.08	-232.45	-17.76	-232.45	12.61	12.50	-2.19
3,884.00	55.30	182.10	3,804.82	-258.36	-18.89	-258.36	7.47	7.19	-2.50
3,915.00	55.50	182.10	3,822.43	-283.86	-19.83	-283.86	0.65	0.65	0.00
3,947.00	55.80	182.60	3,840.48	-310.26	-20.91	-310.26	1.59	0.94	1.56
3,979.00	56.20	182.70	3,858.38	-336.76	-22.14	-336.76	1.28	1.25	0.31
4,010.00	58.40	182.50	3,875.12	-362.82	-23.32	-362.82	7.12	7.10	-0.65
4,042.00	61.80	182.60	3,891.07	-390.53	-24.55	-390.53	10.63	10.63	0.31
4,073.00	65.60	182.70	3,904.80	-418.28	-25.84	-418.28	12.26	12.26	0.32
4,105.00	69.60	182.60	3,917.00	-447.83	-27.21	-447.83	12.50	12.50	-0.31
4,137.00	73.50	182.60	3,927.12	-478.15	-28.58	-478.15	12.19	12.19	0.00
4,158.00	76.30	182.50	3,932.59	-498.40	-29.48	-498.40	13.34	13.33	-0.48
4,256.00	86.40	183.10	3,947.31	-595.05	-34.22	-595.05	10.32	10.31	0.61
4,286.00	89.50	184.00	3,948.38	-624.96	-36.07	-624.96	10.76	10.33	3.00
4,317.00	90.00	184.20	3,948.52	-655.88	-38.29	-655.88	1.74	1.61	0.65
4,379.00	90.60	184.60	3,948.20	-717.70	-43.05	-717.70	1.16	0.97	0.65
4,441.00	91.30	184.10	3,947.17	-779.51	-47.75	-779.51	1.39	1.13	-0.81
4,502.00	91.70	183.50	3,945.57	-840.36	-51.79	-840.36	1.18	0.66	-0.98
4,564.00	90.30	183.20	3,944.49	-902.24	-55.41	-902.24	2.31	-2.26	-0.48
4,626.00	90.70	182.90	3,943.95	-964.15	-58.71	-964.15	0.81	0.65	-0.48
4,659.02	91.30	182.79	3,943.37	-997.13	-60.35	-997.13	1.83	1.80	-0.33
Loudenback 13 #1H 1000' VS									
4,687.00	91.80	182.70	3,942.62	-1,025.06	-61.69	-1,025.06	1.83	1.80	-0.33
4,748.00	89.20	182.30	3,942.08	-1,086.00	-64.35	-1,086.00	4.31	-4.26	-0.66
4,810.00	89.40	182.20	3,942.84	-1,147.94	-66.78	-1,147.94	0.36	0.32	-0.16
4,871.00	90.00	181.70	3,943.16	-1,208.91	-68.86	-1,208.91	1.28	0.98	-0.82
4,933.00	90.30	181.10	3,943.00	-1,270.89	-70.37	-1,270.89	1.08	0.48	-0.97
4,995.00	91.30	180.90	3,942.13	-1,332.87	-71.46	-1,332.87	1.64	1.61	-0.32
5,056.00	89.80	181.10	3,941.55	-1,393.86	-72.52	-1,393.86	2.48	-2.46	0.33
5,119.00	89.30	181.50	3,942.04	-1,456.84	-73.95	-1,456.84	1.02	-0.79	0.63
5,180.00	89.70	181.30	3,942.57	-1,517.82	-75.44	-1,517.82	0.73	0.66	-0.33
5,242.00	88.60	181.10	3,943.49	-1,579.80	-76.74	-1,579.80	1.80	-1.77	-0.32
5,305.00	89.30	180.90	3,944.65	-1,642.78	-77.84	-1,642.78	1.16	1.11	-0.32
5,367.00	88.80	180.70	3,945.68	-1,704.76	-78.70	-1,704.76	0.87	-0.81	-0.32
5,429.00	89.50	180.00	3,946.60	-1,766.75	-79.08	-1,766.75	1.60	1.13	-1.13
5,491.00	88.30	179.60	3,947.79	-1,828.74	-78.87	-1,828.74	2.04	-1.94	-0.65
5,552.00	88.50	179.50	3,949.49	-1,889.71	-78.39	-1,889.71	0.37	0.33	-0.16
5,614.00	89.50	179.30	3,950.57	-1,951.70	-77.74	-1,951.70	1.64	1.61	-0.32
5,663.06	90.38	179.46	3,950.62	-2,000.75	-77.21	-2,000.75	1.83	1.80	0.33
Loudenback 13 #1H 2000' VS									
5,675.00	90.60	179.50	3,950.52	-2,012.70	-77.10	-2,012.70	1.83	1.80	0.33
5,737.00	89.70	179.80	3,950.36	-2,074.69	-76.72	-2,074.69	1.53	-1.45	0.48
5,798.00	90.00	179.60	3,950.52	-2,135.69	-76.40	-2,135.69	0.59	0.49	-0.33
5,860.00	90.30	179.40	3,950.35	-2,197.69	-75.86	-2,197.69	0.58	0.48	-0.32

Company:	Unit Petroleum	**Local Co-ordinate Reference:**	Well Loudenback 13 #1H
Project:	Stafford County, Kansas [NAD 83]	**TVD Reference:**	14' KB @ 1790.00usft (UDI 331)
Site:	Section 13 T25S-R11W	**MD Reference:**	14' KB @ 1790.00usft (UDI 331)
Well:	Loudenback 13 #1H	**North Reference:**	Grid
Wellbore:	Sidetrack	**Survey Calculation Method:**	Minimum Curvature
Design:	Sidetrack	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,922.00	90.30	179.20	3,950.03	-2,259.69	-75.10	-2,259.69	0.32	0.00	-0.32
5,983.00	90.50	179.20	3,949.60	-2,320.68	-74.25	-2,320.68	0.33	0.33	0.00
6,045.00	90.90	179.00	3,948.85	-2,382.67	-73.28	-2,382.67	0.72	0.65	-0.32
6,106.00	90.90	179.20	3,947.89	-2,443.65	-72.32	-2,443.65	0.33	0.00	0.33
6,168.00	91.60	179.20	3,946.54	-2,505.63	-71.45	-2,505.63	1.13	1.13	0.00
6,229.00	90.50	179.10	3,945.42	-2,566.61	-70.55	-2,566.61	1.81	-1.80	-0.16
6,291.00	90.60	179.10	3,944.82	-2,628.60	-69.58	-2,628.60	0.16	0.16	0.00
6,353.00	88.60	178.70	3,945.26	-2,690.58	-68.38	-2,690.58	3.29	-3.23	-0.65
6,414.00	89.10	178.60	3,946.48	-2,751.55	-66.95	-2,751.55	0.84	0.82	-0.16
6,476.00	89.20	179.00	3,947.40	-2,813.53	-65.65	-2,813.53	0.66	0.16	0.65
6,537.00	88.80	179.00	3,948.46	-2,874.52	-64.59	-2,874.52	0.66	-0.66	0.00
6,599.00	89.10	179.20	3,949.60	-2,936.50	-63.61	-2,936.50	0.58	0.48	0.32
6,660.00	90.80	179.60	3,949.65	-2,997.49	-62.97	-2,997.49	2.86	2.79	0.66
6,663.09	90.82	179.57	3,949.61	-3,000.58	-62.95	-3,000.58	1.26	0.81	-0.97
Loudenback 13 #1H 3000' VS									
6,722.00	91.30	179.00	3,948.52	-3,059.48	-62.22	-3,059.48	1.26	0.81	-0.97
6,784.00	91.80	179.00	3,946.84	-3,121.44	-61.13	-3,121.44	0.81	0.81	0.00
6,845.00	92.40	178.90	3,944.60	-3,182.39	-60.02	-3,182.39	1.00	0.98	-0.16
6,907.00	91.40	178.60	3,942.55	-3,244.34	-58.67	-3,244.34	1.68	-1.61	-0.48
6,968.00	91.70	178.60	3,940.90	-3,305.30	-57.18	-3,305.30	0.49	0.49	0.00
7,030.00	91.10	179.10	3,939.38	-3,367.27	-55.93	-3,367.27	1.26	-0.97	0.81
7,092.00	92.00	179.00	3,937.71	-3,429.24	-54.90	-3,429.24	1.46	1.45	-0.16
7,153.00	91.30	178.80	3,935.95	-3,490.20	-53.73	-3,490.20	1.19	-1.15	-0.33
7,215.00	90.50	179.60	3,934.98	-3,552.19	-52.87	-3,552.19	1.82	-1.29	1.29
7,276.00	90.60	179.40	3,934.39	-3,613.18	-52.34	-3,613.18	0.37	0.16	-0.33
7,338.00	89.40	179.80	3,934.39	-3,675.18	-51.90	-3,675.18	2.04	-1.94	0.65
7,400.00	89.50	179.70	3,934.99	-3,737.18	-51.63	-3,737.18	0.23	0.16	-0.16
7,462.00	90.20	179.50	3,935.15	-3,799.17	-51.20	-3,799.17	1.17	1.13	-0.32
7,523.00	90.40	179.90	3,934.83	-3,860.17	-50.88	-3,860.17	0.73	0.33	0.66
7,584.00	89.10	179.90	3,935.10	-3,921.17	-50.77	-3,921.17	2.13	-2.13	0.00
7,646.00	90.50	179.60	3,935.31	-3,983.17	-50.50	-3,983.17	2.31	2.26	-0.48
7,708.00	89.50	179.30	3,935.31	-4,045.16	-49.91	-4,045.16	1.68	-1.61	-0.48
7,769.00	90.00	179.70	3,935.58	-4,106.16	-49.38	-4,106.16	1.05	0.82	0.66
7,831.00	88.80	179.50	3,936.23	-4,168.15	-48.94	-4,168.15	1.96	-1.94	-0.32
7,893.00	89.30	179.40	3,937.26	-4,230.14	-48.35	-4,230.14	0.82	0.81	-0.16
7,955.00	90.20	179.00	3,937.53	-4,292.14	-47.48	-4,292.14	1.59	1.45	-0.65
8,016.00	88.60	179.20	3,938.16	-4,353.12	-46.52	-4,353.12	2.64	-2.62	0.33
8,078.00	89.10	179.50	3,939.41	-4,415.11	-45.82	-4,415.11	0.94	0.81	0.48
8,140.00	89.70	179.60	3,940.06	-4,477.10	-45.33	-4,477.10	0.98	0.97	0.16
8,201.00	90.30	179.30	3,940.06	-4,538.10	-44.75	-4,538.10	1.10	0.98	-0.49
8,263.00	88.40	180.50	3,940.76	-4,600.09	-44.64	-4,600.09	3.62	-3.06	1.94
8,325.00	89.20	180.10	3,942.06	-4,662.07	-44.96	-4,662.07	1.44	1.29	-0.65
8,386.00	89.60	180.70	3,942.70	-4,723.07	-45.39	-4,723.07	1.18	0.66	0.98

Company:	Unit Petroleum	**Local Co-ordinate Reference:**	Well Loudenback 13 #1H
Project:	Stafford County, Kansas [NAD 83]	**TVD Reference:**	14' KB @ 1790.00usft (UDI 331)
Site:	Section 13 T25S-R11W	**MD Reference:**	14' KB @ 1790.00usft (UDI 331)
Well:	Loudenback 13 #1H	**North Reference:**	Grid
Wellbore:	Sidetrack	**Survey Calculation Method:**	Minimum Curvature
Design:	Sidetrack	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,448.00	89.80	180.80	3,943.02	-4,785.06	-46.20	-4,785.06	0.36	0.32	0.16
8,487.76	90.06	180.80	3,943.07	-4,824.82	-46.76	-4,824.82	0.65	0.65	0.00
Loudenback 13 #1H PBHL (1.6)									
8,510.00	90.20	180.80	3,943.02	-4,847.06	-47.07	-4,847.06	0.65	0.65	0.00
Last Inwell Survey									
8,556.00	90.20	180.80	3,942.86	-4,893.05	-47.71	-4,893.05	0.00	0.00	0.00
Projection to TD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,510.00	3,943.02	-4,847.06	-47.07	Last Inwell Survey
8,556.00	3,942.86	-4,893.05	-47.71	Projection to TD

Checked By: _____ Approved By: _____ Date: _____