



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1196769
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
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1196769

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 305669	Ship To #: 3208925	Quote #:	Sales Order #: 900952576
Customer: STRAT LAND EXPL CO		Customer Rep: Noruiel, Donnie	
Well Name: Bell Family	Well #: 1H-2	API/UWI #: 15-025-21566	
Field:	City (SAP): ASHLAND	County/Parish: Clark	State: Kansas
Legal Description: Section 2 Township 34S Range 22W			
Lat: N 37.118 deg. OR N 37 deg. 7 min. 6.532 secs.		Long: W 99.677 deg. OR W -100 deg. 19 min. 24.33 secs.	
Contractor: Stratland		Rig/Platform Name/Num: H-40	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: HAYNES, RANDY		Srvc Supervisor: OSBORN, JAMES	MBU ID Emp #: 518950

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
APPLEBEE, SCOTT Joy	13	521237	journagan, michael	13	524224	OSBORN, JAMES David	13	518950
simpson, curtis	13	557731	torres, clemente	13	344233			

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
12/7/13	7	0	12/8/13	6	2			
TOTAL			Total is the sum of each column separately					

Job

Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Job depth MD	Water Depth	Perforation Depth (MD)	From	To	Date	Time	Time Zone
	8810. ft		11378. ft	890. ft					07 - Dec - 2013	12:30	CST
									07 - Dec - 2013	17:00	CST
									08 - Dec - 2013	02:41	CST
									08 - Dec - 2013	04:35	CST
									08 - Dec - 2013	06:00	CST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbf/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
12-1/4" Surface Open Hole				12.25					900.		
9-5/8" Surface Casing	Unknown	750	9.625	8.921	36.	8 RD (ST&C)	J-55		900.		

Sales/Rental/3rd Party (HES)


Description	Qty	Qty uom	Depth	Supplier
SHOE,GID,9-5/8 8RD	1	EA		
CLR,FLT,TROPHY SEAL, 9-5/8 8RD	1	EA		
CENTRALIZER-9-5/8"-CSG-12 1/4"-HINGED	10	EA		
COLLAR-STOP-9 5/8"-FRICTION-HINGED	1	EA		
PLUG,CMTG,TOP,9 5/8,HWE,8.16 MIN/9.06 MA	1	EA		
SUGAR, GRANULATED, IMPERIAL	50	LB		
BASKET - CEMENT - 9-5/8 CSG X 12-1/4	1	EA		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug	9.625	1	hes
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	9.625	1	hes
Stage Tool										Centralizers			

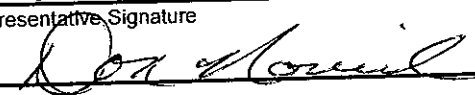
HALLIBURTON

Cementing Job Summary

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 ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	
1	Water Spacer				10.00	bbl	8.33	.0	.0	.0		
2	MC II Std - lead	MIDCON-2 CEMENT STANDARD - SBM (15078)			225.0	sacks	11.4	2.93	18.05		18.05	
	2 %	CALCIUM CHLORIDE, PELLETT, 50 LB (101509387)										
	18.05 Gal	FRESH WATER										
	0.125 lbm	POLY-E-FLAKE (101216940)										
3	MC II Std, - Tail	MIDCON-2 CEMENT STANDARD - SBM (15078)			105.0	sacks	12.8	2.01	11.18		11.18	
	2 %	CALCIUM CHLORIDE, PELLETT, 50 LB (101509387)										
	11.178 Gal	FRESH WATER										
	0.125 lbm	POLY-E-FLAKE (101216940)										
4	Water Base Mud				66.00	bbl	9.	.0	.0	.0		
5	200SKS W/CC ON THE SIDE	CMT - STANDARD CEMENT (100003684)			100.0	sacks	15.6	1.2	5.26		5.26	
	94 lbm	CMT - STANDARD - CLASS A REG OR TYPE I, BULK (100003684)										
	2 %	CALCIUM CHLORIDE, PELLETT, 50 LB (101509387)										
	5.258 Gal	FRESH WATER										
Calculated Values			Pressures			Volumes						
Displacement	65	Shut In: Instant		Lost Returns	0	Cement Slurry	154	Pad				
Top Of Cement	surface	5 Min		Cement Returns	0	Actual Displacement	65	Treatment				
Frac Gradient		15 Min		Spacers	10	Load and Breakdown		Total Job				
Rates												
Circulating		Mixing		Displacement			Avg. Job					
Cement Left In Pipe	Amount	40 ft	Reason	Shoe Joint								
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID					
The Information Stated Herein Is Correct				Customer Representative Signature								
												

The Road to Excellence Starts with Safety

Sold To #: 305669		Ship To #: 3208925		Quote #:		Sales Order #: 901017262							
Customer: STRAT LAND EXPL CO - EBUS				Customer Rep: Hall, Rick									
Well Name: Bell Family			Well #: 1H-2		API/UWI #: 15-025-21566								
Field:		City (SAP): ASHLAND		County/Parish: Clark		State: Kansas							
Legal Description: Section 2 Township 34S Range 22W													
Lat: N 37.118 deg. OR N 37 deg. 7 min. 6.532 secs.				Long: W 99.677 deg. OR W -100 deg. 19 min. 24.33 secs.									
Contractor: H-40 Drilling			Rig/Platform Name/Num: h-40										
Job Purpose: Cement Production Liner													
Well Type: Development Well				Job Type: Cement Production Liner									
Sales Person: HAYNES, RANDY			Srcv Supervisor: AGUILERA, FABIAN		MBU ID Emp #: 442123								
Job Personnel													
HES Emp Name		Exp Hrs	Emp #	HES Emp Name		Exp Hrs	Emp #	HES Emp Name		Exp Hrs	Emp #		
AGUILERA, FABIAN J		13	442123	MONTOYA-MOLINAS, ARTHUR J		13	483764	PARRANTO, JEFFREY Mikle		13	543005		
SIMPSON, CURTIS Eugene		13	557731	TORRES, CLEMENTE		13	344233						
Equipment													
HES Unit #	Distance-1 way	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					
1/3/2014	6	0	1/4/2014	7	2								
TOTAL			Total is the sum of each column separately										
Job						Job Times							
Formation Name						Date	Time	Time Zone					
Formation Depth (MD) Top	8810. ft		Bottom	11378. ft		Called Out	03 - Jan - 2014	15:00	CST				
Form Type	BHST		180 degF		On Location	03 - Jan - 2014	19:00	CST					
Job depth MD	9848.1 ft		Job Depth TVD	9900. ft		Job Started	04 - Jan - 2014	02:29	CST				
Water Depth	Wk Ht Above Floor		5. ft		Job Completed	04 - Jan - 2014	04:39	CST					
Perforation Depth (MD) From			To			Departed Loc	04 - Jan - 2014	07:00	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		
6-1/8" Production Open Hole				6.125				5862.	10128.				
4-1/2" Production Liner	Unknown		4.5	4.	11.6	8 RD (LT&C)	N-80	4900.	10128.				
7" Intermediate Casing	Unknown		7.	6.366	23.	Unknown	HCP110		5862.				
4" Drill Pipe	Unknown		4.	3.34	14.	XT-39			4900.				
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 ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	
1	TUNED SPACER III	TUNED SPACER III - SBM (483826)	30.00	bbl	10.	.0	.0	.0		
38.32 gal/bbl		FRESH WATER								
59.8 lbm/bbl		BAROID 41 - 100 LB BAG (478096)								
2	Primary Cement	POZ PREMIUM 50/50 - SBM (12302)	400.0	sacks	13.8	1.46	6.93		6.93	
0.6 %		HALAD(R)-344, 50 LB (100003670)								
0.5 %		D-AIR 5000, 50 LB SACK (102068797)								
0.25 %		CFR-3, W/O DEFOAMER, 50 LB SK (100003653)								
0.05 %		HR-800, 50 LB SACK (101619742)								
6.925 Gal		FRESH WATER								
3	Water Spacer With CLA-WEB		112.00	bbl	8.33	.0	.0	.0		
0.5 gal/Mgal		CLA-WEB, 5 GALLON PAIL (102096063)								
Calculated Values			Pressures			Volumes				
Displacement	112 BBL	Shut In: Instant		Lost Returns	NO	Cement Slurry	104 BBL	Pad		
Top Of Cement	6015 FT.	5 Min		Cement Returns	NO	Actual Displacement	109 BBL	Treatment		
Frac Gradient		15 Min		Spacers	30 BBL	Load and Breakdown		Total Job		
Rates										
Circulating	5	Mixing	5	Displacement	5	Avg. Job	5			
Cement Left In Pipe	Amount	90 ft	Reason	Shoe Joint						
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID			
The Information Stated Herein Is Correct				Customer Representative Signature						
										

Job Number: 341213HMP90175	State/Country: KANSAS/USA
Company: STRAT LAND EXPLORATION	Declination: 5.431
Lease/Well: BELL FAMILY 1H-2	Grid: .72
Location: ASHLAND KS	File name: D:\WINSERVE\90175.SVY
Rig Name: H40 RIG 3	Date/Time: 01-Jan-14 / 16:50
RKB: 13	Curve Name: BELL FAMILY 1-2H WORK
G.L. or M.S.L.: GL	

Scientific Drilling

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 175.19
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

<i>Measured Depth FT</i>	<i>Incl Angle Deg</i>	<i>Drift Direction Deg</i>	<i>True Vertical Depth</i>	<i>Vertical Section FT</i>	<i>N-S FT</i>	<i>E-W FT</i>	<i>CLOSURE Distance FT</i>	<i>Direction Deg</i>	<i>Dogleg Severity Deg/100</i>	<i>BUILD RATE Deg/100</i>
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
78.18	.34	177.44	78.18	.23	-.23	.01	.23	177.44	.43	.43
168.88	.56	167.85	168.88	.94	-.93	.12	.94	172.94	.26	.24
259.58	.52	136.60	259.57	1.70	-1.67	.49	1.74	163.56	.32	-.04
350.28	.41	151.95	350.27	2.32	-2.25	.93	2.44	157.62	.18	-.12
440.98	.09	61.20	440.97	2.59	-2.50	1.14	2.75	155.48	.46	-.35
531.68	.52	14.14	531.67	2.17	-2.07	1.31	2.45	147.77	.51	.47
622.38	.43	5.38	622.36	1.45	-1.33	1.44	1.96	132.82	.13	-.10
717.48	.57	283.11	717.46	.95	-.87	1.01	1.33	130.72	.70	.15
812.58	.67	260.28	812.56	.85	-.86	.00	.86	179.89	.28	.11
907.68	1.02	256.31	907.65	1.03	-1.15	-1.37	1.79	229.95	.37	.37
1002.78	.82	252.55	1002.73	1.31	-1.55	-2.84	3.24	241.30	.22	-.21
1097.88	.83	261.05	1097.82	1.51	-1.87	-4.17	4.57	245.89	.13	.01
1192.98	1.02	257.74	1192.91	1.67	-2.15	-5.68	6.07	249.23	.21	.20
1288.08	.93	232.84	1288.00	2.19	-2.80	-7.12	7.65	248.54	.45	-.09
1383.18	.73	265.82	1383.09	2.60	-3.31	-8.34	8.97	248.35	.53	-.21
1478.28	.67	277.33	1478.18	2.47	-3.28	-9.49	10.05	250.93	.16	-.06
1573.38	.53	287.57	1573.28	2.19	-3.08	-10.47	10.91	253.61	.18	-.15
1668.48	.50	297.83	1668.37	1.80	-2.75	-11.25	11.58	256.25	.10	-.03
1763.58	.59	302.13	1763.47	1.28	-2.30	-12.03	12.25	259.19	.10	.09
1858.68	.39	288.45	1858.56	.86	-1.94	-12.76	12.90	261.37	.24	-.21
1953.78	.44	278.64	1953.66	.65	-1.78	-13.42	13.54	262.45	.09	.05
2048.88	.29	281.63	2048.76	.49	-1.67	-14.02	14.12	263.19	.16	-.16
2143.98	.27	338.93	2143.86	.21	-1.42	-14.34	14.41	264.35	.28	-.02
2239.08	.15	23.32	2238.96	-.11	-1.09	-14.37	14.41	265.65	.20	-.13
2334.18	.13	236.15	2334.06	-.17	-1.04	-14.41	14.45	265.87	.28	-.02
2429.28	.21	.73	2429.16	-.29	-.93	-14.50	14.52	266.35	.32	.08
2524.38	.23	20.47	2524.26	-.64	-.57	-14.43	14.44	267.73	.08	.02
2619.48	.33	13.52	2619.36	-1.07	-.13	-14.30	14.30	269.49	.11	.11
2714.58	.21	331.34	2714.46	-1.49	.29	-14.31	14.32	271.17	.24	-.13

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	C L O S U R E		Dogleg Severity Deg/100	BUILD RATE Deg/100
							Distance FT	Direction Deg		
2809.68	.26	7.41	2809.55	-1.86	.66	-14.37	14.39	272.63	.16	.05
2904.78	.01	93.28	2904.65	-2.07	.87	-14.33	14.36	273.48	.27	-.26
2999.88	.22	332.92	2999.75	-2.24	1.03	-14.41	14.45	274.11	.24	.22
3094.98	.22	269.02	3094.85	-2.42	1.19	-14.68	14.72	274.65	.24	.00
3190.08	.31	208.46	3189.95	-2.22	.96	-14.98	15.01	273.68	.29	.09
3285.18	.21	270.45	3285.05	-2.02	.74	-15.28	15.30	272.77	.30	-.11
3380.28	.12	298.34	3380.15	-2.09	.79	-15.54	15.56	272.90	.12	-.09
3475.38	.12	302.35	3475.25	-2.20	.89	-15.71	15.74	273.24	.01	.00
3570.48	.27	309.95	3570.35	-2.42	1.09	-15.97	16.00	273.89	.16	.16
3665.58	.06	318.18	3665.45	-2.62	1.27	-16.17	16.22	274.48	.22	-.22
3760.68	.16	328.69	3760.55	-2.78	1.42	-16.27	16.34	274.98	.11	.11
3855.78	.26	279.63	3855.65	-2.95	1.57	-16.56	16.63	275.41	.21	.11
3950.88	.24	220.43	3950.75	-2.86	1.45	-16.90	16.96	274.91	.26	-.02
4141.08	.11	334.48	4140.95	-2.75	1.31	-17.23	17.28	274.36	.16	-.07
4236.18	.39	232.99	4236.05	-2.67	1.20	-17.53	17.57	273.92	.45	.29
4331.28	.43	267.69	4331.15	-2.51	.99	-18.15	18.17	273.13	.26	.04
4426.38	.46	261.29	4426.24	-2.50	.92	-18.88	18.90	272.79	.06	.03
4521.48	.31	295.97	4521.34	-2.61	.97	-19.49	19.51	272.86	.28	-.16
4616.58	.36	298.09	4616.44	-2.90	1.23	-19.98	20.02	273.52	.05	.05
END OF GYRO SURVEYS										
4711.68	.24	319.30	4711.54	-3.22	1.52	-20.38	20.43	274.26	.17	-.13
START MWD SURVEYS										
4740.00	.18	305.61	4739.86	-3.30	1.59	-20.45	20.51	274.45	.27	-.21
4772.00	.35	252.00	4771.86	-3.31	1.59	-20.59	20.65	274.41	.88	.53
4804.00	2.46	193.20	4803.85	-2.63	.89	-20.84	20.86	272.45	7.18	6.59
4836.00	6.16	183.53	4835.75	-.28	-1.49	-21.10	21.15	265.95	11.74	11.56
4867.00	10.02	174.04	4866.44	4.06	-5.84	-20.92	21.72	254.41	13.13	12.45
4899.00	14.07	168.24	4897.73	10.71	-12.42	-19.84	23.40	237.96	13.19	12.66
4930.00	18.82	168.50	4927.45	19.42	-21.01	-18.07	27.71	220.70	15.32	15.32
4962.00	21.54	173.42	4957.49	30.42	-31.91	-16.37	35.86	207.16	10.01	8.50
4994.00	23.74	175.27	4987.02	42.74	-44.16	-15.17	46.70	198.95	7.23	6.87
5026.00	26.56	179.22	5015.98	56.32	-57.74	-14.54	59.54	194.13	10.25	8.81
5058.00	29.11	181.16	5044.28	71.20	-72.68	-14.60	74.13	191.36	8.46	7.97
5090.00	32.27	180.98	5071.79	87.44	-89.01	-14.90	90.25	189.50	9.88	9.88
5121.00	35.26	180.06	5097.56	104.60	-106.23	-15.05	107.29	188.06	9.78	9.65
5153.00	36.57	179.36	5123.48	123.31	-125.00	-14.96	125.89	186.82	4.29	4.09
5185.00	37.57	180.10	5149.01	142.54	-144.29	-14.87	145.06	185.88	3.42	3.13
5216.00	39.66	179.58	5173.23	161.82	-163.64	-14.81	164.31	185.17	6.82	6.74
5248.00	42.38	178.70	5197.37	182.77	-184.63	-14.49	185.20	184.49	8.69	8.50
5280.00	43.38	178.61	5220.82	204.50	-206.40	-13.98	206.88	183.87	3.13	3.13
5312.00	45.81	175.97	5243.61	226.95	-228.84	-12.91	229.20	183.23	9.55	7.59
5343.00	49.50	173.79	5264.49	249.86	-251.65	-10.85	251.89	182.47	12.99	11.90
5375.00	51.27	173.42	5284.89	274.50	-276.15	-8.10	276.27	181.68	5.60	5.53
5407.00	51.70	173.07	5304.82	299.52	-301.01	-5.16	301.06	180.98	1.59	1.34
5437.00	51.97	173.33	5323.36	323.09	-324.43	-2.36	324.44	180.42	1.13	.90
5469.00	54.52	173.60	5342.50	348.72	-349.90	.55	349.90	179.91	8.00	7.97
5501.00	57.68	174.30	5360.35	375.27	-376.31	3.35	376.33	179.49	10.04	9.87
5533.00	60.15	174.65	5376.87	402.67	-403.59	5.99	403.63	179.15	7.78	7.72
5565.00	61.38	175.44	5392.50	430.59	-431.41	8.40	431.49	178.89	4.41	3.84

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	C L O S U R E		Dogleg Severity Deg/100	BUILD RATE Deg/100
							Distance FT	Direction Deg		
5596.00	64.58	174.74	5406.58	458.20	-458.92	10.76	459.04	178.66	10.52	10.32
5628.00	69.56	173.51	5419.04	487.66	-488.22	13.78	488.42	178.38	15.96	15.56
5660.00	73.16	173.07	5429.27	517.96	-518.33	17.33	518.62	178.09	11.33	11.25
5692.00	74.13	173.42	5438.28	548.65	-548.82	20.94	549.22	177.82	3.21	3.03
5724.00	76.15	172.98	5446.49	579.56	-579.53	24.60	580.06	177.57	6.45	6.31
5756.00	80.28	173.51	5453.02	610.86	-610.64	28.28	611.29	177.35	13.01	12.91
5788.00	82.22	174.65	5457.89	642.48	-642.09	31.54	642.87	177.19	7.01	6.06
5820.00	83.62	174.83	5461.83	674.23	-673.71	34.46	674.59	177.07	4.41	4.38
5852.00	85.91	174.92	5464.75	706.09	-705.45	37.30	706.44	176.97	7.16	7.16
5884.00	87.05	174.21	5466.72	738.03	-737.25	40.33	738.35	176.87	4.19	3.56
5902.00	86.40	174.51	5467.75	756.00	-755.13	42.09	756.30	176.81	3.98	-3.61
AZ NO GOOD STILL IN CASING										
5907.00	86.26	174.51	5468.07	760.99	-760.10	42.57	761.29	176.79	2.80	-2.80
AZ NO GOOD STILL IN CASING										
5938.00	86.53	174.51	5470.02	791.93	-790.89	45.53	792.20	176.71	.87	.87
5969.00	87.05	174.74	5471.75	822.88	-821.71	48.43	823.13	176.63	1.83	1.68
6000.00	88.46	174.57	5472.97	853.85	-852.55	51.32	854.09	176.56	4.58	4.55
6030.00	89.78	174.57	5473.43	883.84	-882.41	54.15	884.07	176.49	4.40	4.40
6092.00	89.43	174.30	5473.85	945.84	-944.12	60.17	946.03	176.35	.71	-.56
6154.00	90.22	173.69	5474.04	1007.82	-1005.78	66.65	1007.98	176.21	1.61	1.27
6215.00	88.90	172.98	5474.51	1068.79	-1066.36	73.73	1068.91	176.04	2.46	-2.16
6278.00	88.20	172.93	5476.11	1131.72	-1128.86	81.46	1131.80	175.87	1.11	-1.11
6341.00	86.79	172.72	5478.86	1194.60	-1191.31	89.32	1194.65	175.71	2.26	-2.24
6373.00	87.49	172.81	5480.46	1226.53	-1223.01	93.34	1226.57	175.64	2.21	2.19
6404.00	88.20	173.33	5481.62	1257.49	-1253.77	97.08	1257.52	175.57	2.84	2.29
6436.00	89.16	174.13	5482.36	1289.47	-1285.57	100.57	1289.49	175.53	3.90	3.00
6467.00	89.96	175.00	5482.60	1320.47	-1316.42	103.51	1320.49	175.50	3.81	2.58
6499.00	90.84	175.62	5482.37	1352.47	-1348.32	106.13	1352.49	175.50	3.36	2.75
6530.00	91.36	175.88	5481.78	1383.46	-1379.22	108.42	1383.48	175.51	1.88	1.68
6562.00	91.80	176.15	5480.90	1415.44	-1411.14	110.65	1415.47	175.52	1.61	1.37
6593.00	91.54	175.62	5479.99	1446.43	-1442.04	112.87	1446.45	175.52	1.90	-.84
6656.00	89.87	174.57	5479.22	1509.42	-1504.80	118.26	1509.44	175.51	3.13	-2.65
6719.00	88.99	172.98	5479.84	1572.39	-1567.43	125.09	1572.41	175.44	2.88	-1.40
6782.00	88.20	173.25	5481.39	1635.33	-1629.95	132.64	1635.34	175.35	1.33	-1.25
6845.00	87.49	173.77	5483.76	1698.26	-1692.50	139.75	1698.26	175.28	1.40	-1.13
6908.00	88.37	174.83	5486.03	1761.21	-1755.15	146.00	1761.21	175.24	2.19	1.40
6971.00	89.08	173.33	5487.44	1824.18	-1817.80	152.50	1824.18	175.20	2.63	1.13
7003.00	88.90	172.90	5488.00	1856.16	-1849.56	156.34	1856.16	175.17	1.46	-.56
7034.00	88.90	172.98	5488.59	1887.13	-1880.32	160.15	1887.13	175.13	.26	.00
7066.00	88.72	173.69	5489.26	1919.10	-1912.10	163.86	1919.10	175.10	2.29	-.56
7097.00	88.55	174.65	5490.00	1950.09	-1942.93	167.01	1950.09	175.09	3.14	-.55
7160.00	88.55	174.92	5491.59	2013.07	-2005.65	172.73	2013.07	175.08	.43	.00
7192.00	89.52	175.09	5492.13	2045.06	-2037.52	175.52	2045.07	175.08	3.08	3.03
7223.00	90.04	176.06	5492.25	2076.06	-2068.43	177.91	2076.06	175.08	3.55	1.68
7255.00	88.46	177.11	5492.67	2108.05	-2100.37	179.81	2108.05	175.11	5.93	-4.94
7286.00	88.81	176.41	5493.41	2139.03	-2131.31	181.57	2139.03	175.13	2.52	1.13
7349.00	89.87	176.41	5494.13	2202.01	-2194.18	185.51	2202.01	175.17	1.68	1.68
7381.00	90.22	175.97	5494.11	2234.00	-2226.11	187.64	2234.00	175.18	1.76	1.09
7412.00	90.92	175.80	5493.80	2265.00	-2257.03	189.86	2265.00	175.19	2.32	2.26

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	C L O S U R E		Dogleg Severity Deg/100	BUILD RATE Deg/100
							Distance FT	Direction Deg		
7444.00	90.04	175.71	5493.53	2296.99	-2288.94	192.23	2296.99	175.20	2.76	-2.75
7475.00	90.04	175.53	5493.51	2327.99	-2319.85	194.60	2327.99	175.21	.58	.00
7507.00	91.01	175.88	5493.22	2359.99	-2351.75	196.99	2359.99	175.21	3.22	3.03
7538.00	90.30	175.80	5492.86	2390.99	-2382.67	199.24	2390.99	175.22	2.30	-2.29
7570.00	89.52	175.71	5492.91	2422.98	-2414.58	201.61	2422.98	175.23	2.45	-2.44
7601.00	89.87	176.06	5493.08	2453.98	-2445.50	203.84	2453.98	175.24	1.60	1.13
7633.00	88.55	175.09	5493.52	2485.98	-2477.40	206.30	2485.98	175.24	5.12	-4.13
7664.00	89.08	175.09	5494.16	2516.97	-2508.28	208.96	2516.97	175.24	1.71	1.71
7695.00	89.78	175.88	5494.47	2547.97	-2539.18	211.40	2547.97	175.24	3.40	2.26
7727.00	89.60	177.73	5494.64	2579.95	-2571.13	213.18	2579.95	175.26	5.81	-.56
7759.00	90.04	178.34	5494.74	2611.91	-2603.11	214.28	2611.92	175.29	2.35	1.38
7790.00	90.84	178.61	5494.50	2642.86	-2634.10	215.10	2642.87	175.33	2.72	2.58
7821.00	90.66	178.70	5494.10	2673.80	-2665.09	215.83	2673.81	175.37	.65	-.58
7853.00	90.40	178.08	5493.80	2705.75	-2697.08	216.73	2705.77	175.41	2.10	-.81
7885.00	90.40	177.20	5493.58	2737.72	-2729.05	218.05	2737.74	175.43	2.75	.00
7916.00	90.66	177.55	5493.29	2768.70	-2760.01	219.47	2768.73	175.45	1.41	.84
7948.00	90.22	177.11	5493.05	2800.67	-2791.98	220.96	2800.71	175.48	1.94	-1.37
7979.00	90.22	175.97	5492.93	2831.66	-2822.92	222.83	2831.70	175.49	3.68	.00
8011.00	90.31	175.97	5492.78	2863.66	-2854.84	225.08	2863.70	175.49	.28	.28
8042.00	89.52	174.92	5492.82	2894.66	-2885.74	227.54	2894.70	175.49	4.24	-2.55
8074.00	89.78	174.83	5493.02	2926.66	-2917.61	230.40	2926.70	175.48	.86	.81
8105.00	88.90	174.83	5493.38	2957.65	-2948.49	233.19	2957.69	175.48	2.84	-2.84
8137.00	89.43	175.18	5493.84	2989.65	-2980.36	235.98	2989.69	175.47	1.98	1.66
8168.00	89.78	176.24	5494.06	3020.65	-3011.27	238.30	3020.69	175.48	3.60	1.13
8200.00	90.31	177.38	5494.03	3052.64	-3043.22	240.08	3052.68	175.49	3.93	1.66
8231.00	90.57	177.88	5493.79	3083.61	-3074.19	241.36	3083.65	175.51	1.82	.84
8263.00	90.92	178.08	5493.38	3115.57	-3106.17	242.49	3115.62	175.54	1.26	1.09
8294.00	90.92	177.03	5492.88	3146.53	-3137.14	243.81	3146.60	175.56	3.39	.00
8326.00	91.10	176.15	5492.32	3178.52	-3169.08	245.71	3178.59	175.57	2.81	.56
8357.00	90.84	175.36	5491.79	3209.51	-3199.99	248.01	3209.58	175.57	2.68	-.84
8389.00	89.43	174.48	5491.72	3241.51	-3231.86	250.84	3241.58	175.56	5.19	-4.41
8420.00	89.60	173.25	5491.98	3272.50	-3262.68	254.15	3272.56	175.55	4.01	.55
8452.00	90.48	174.57	5491.96	3304.49	-3294.50	257.55	3304.55	175.53	4.96	2.75
8483.00	91.01	175.00	5491.55	3335.49	-3325.37	260.36	3335.55	175.52	2.20	1.71
8515.00	90.48	174.92	5491.14	3367.49	-3357.24	263.17	3367.54	175.52	1.68	-1.66
8547.00	89.69	175.44	5491.09	3399.49	-3389.13	265.86	3399.54	175.51	2.96	-2.47
8578.00	88.90	174.74	5491.47	3430.48	-3420.01	268.52	3430.54	175.51	3.40	-2.55
8610.00	89.08	175.36	5492.03	3462.48	-3451.89	271.28	3462.53	175.51	2.02	.56
8641.00	89.43	174.30	5492.44	3493.47	-3482.76	274.07	3493.53	175.50	3.60	1.13
8673.00	89.69	174.30	5492.68	3525.47	-3514.60	277.25	3525.52	175.49	.81	.81
8704.00	89.45	174.57	5492.92	3556.47	-3545.45	280.25	3556.51	175.48	1.17	-.77
8735.00	89.96	174.65	5493.08	3587.46	-3576.31	283.17	3587.51	175.47	1.67	1.65
8767.00	89.96	174.13	5493.10	3619.46	-3608.16	286.29	3619.50	175.46	1.62	.00
8798.00	90.31	174.56	5493.03	3650.46	-3639.01	289.35	3650.50	175.45	1.79	1.13
8830.00	90.31	174.21	5492.85	3682.45	-3670.86	292.48	3682.49	175.44	1.09	.00
8862.00	90.48	174.92	5492.63	3714.45	-3702.71	295.51	3714.48	175.44	2.28	.53
8893.00	90.31	174.48	5492.42	3745.45	-3733.58	298.37	3745.48	175.43	1.52	-.55
8925.00	90.13	175.27	5492.29	3777.45	-3765.45	301.23	3777.48	175.43	2.53	-.56
8956.00	90.31	175.44	5492.18	3808.45	-3796.35	303.74	3808.48	175.43	.80	.58
8988.00	90.84	176.59	5491.85	3840.44	-3828.27	305.97	3840.47	175.43	3.96	1.66

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	C L O S U R E		Dogleg Severity Deg/100	BUILD RATE Deg/100
							Distance FT	Direction Deg		
9019.00	89.16	175.88	5491.85	3871.43	-3859.20	308.00	3871.47	175.44	5.88	-5.42
9082.00	89.60	175.62	5492.54	3934.43	-3922.02	312.67	3934.47	175.44	.81	.70
9114.00	88.72	175.71	5493.01	3966.42	-3953.93	315.09	3966.46	175.44	2.76	-2.75
9145.00	88.81	175.62	5493.67	3997.41	-3984.83	317.43	3997.45	175.45	.41	.29
9177.00	88.11	175.36	5494.53	4029.40	-4016.72	319.95	4029.44	175.45	2.33	-2.19
9208.00	87.93	175.18	5495.60	4060.38	-4047.60	322.50	4060.42	175.44	.82	-.58
9240.00	87.76	175.27	5496.81	4092.36	-4079.46	325.16	4092.40	175.44	.60	-.53
9271.00	87.67	175.44	5498.04	4123.34	-4110.34	327.67	4123.38	175.44	.62	-.29
9303.00	88.55	175.53	5499.10	4155.32	-4142.22	330.19	4155.36	175.44	2.76	2.75
9334.00	89.52	175.71	5499.62	4186.31	-4173.12	332.56	4186.35	175.44	3.18	3.13
9366.00	89.60	175.71	5499.87	4218.31	-4205.03	334.95	4218.35	175.45	.25	.25
9397.00	89.34	175.97	5500.15	4249.31	-4235.95	337.20	4249.35	175.45	1.19	-.84
9429.00	89.25	175.88	5500.55	4281.30	-4267.87	339.47	4281.35	175.45	.40	-.28
9492.00	89.52	175.18	5501.22	4344.30	-4330.67	344.38	4344.34	175.45	1.19	.43
9555.00	89.43	174.57	5501.80	4407.29	-4393.42	350.01	4407.34	175.45	.98	-.14
9618.00	89.16	174.65	5502.58	4470.28	-4456.13	355.93	4470.32	175.43	.45	-.43
9681.00	88.64	174.65	5503.79	4533.27	-4518.85	361.80	4533.31	175.42	.83	-.83
9712.00	88.64	174.13	5504.52	4564.26	-4549.69	364.83	4564.29	175.42	1.68	.00
9775.00	89.34	174.57	5505.63	4627.24	-4612.37	371.03	4627.27	175.40	1.31	1.11
9837.00	90.31	175.18	5505.82	4689.24	-4674.12	376.57	4689.27	175.39	1.85	1.56
PTB@EOW										
9900.00	90.26	175.18	5505.51	4752.24	-4736.90	381.86	4752.27	175.39	.08	-.08

SURF 200 fnl 2450 fel

PENE 1001 fnl 2403 fel

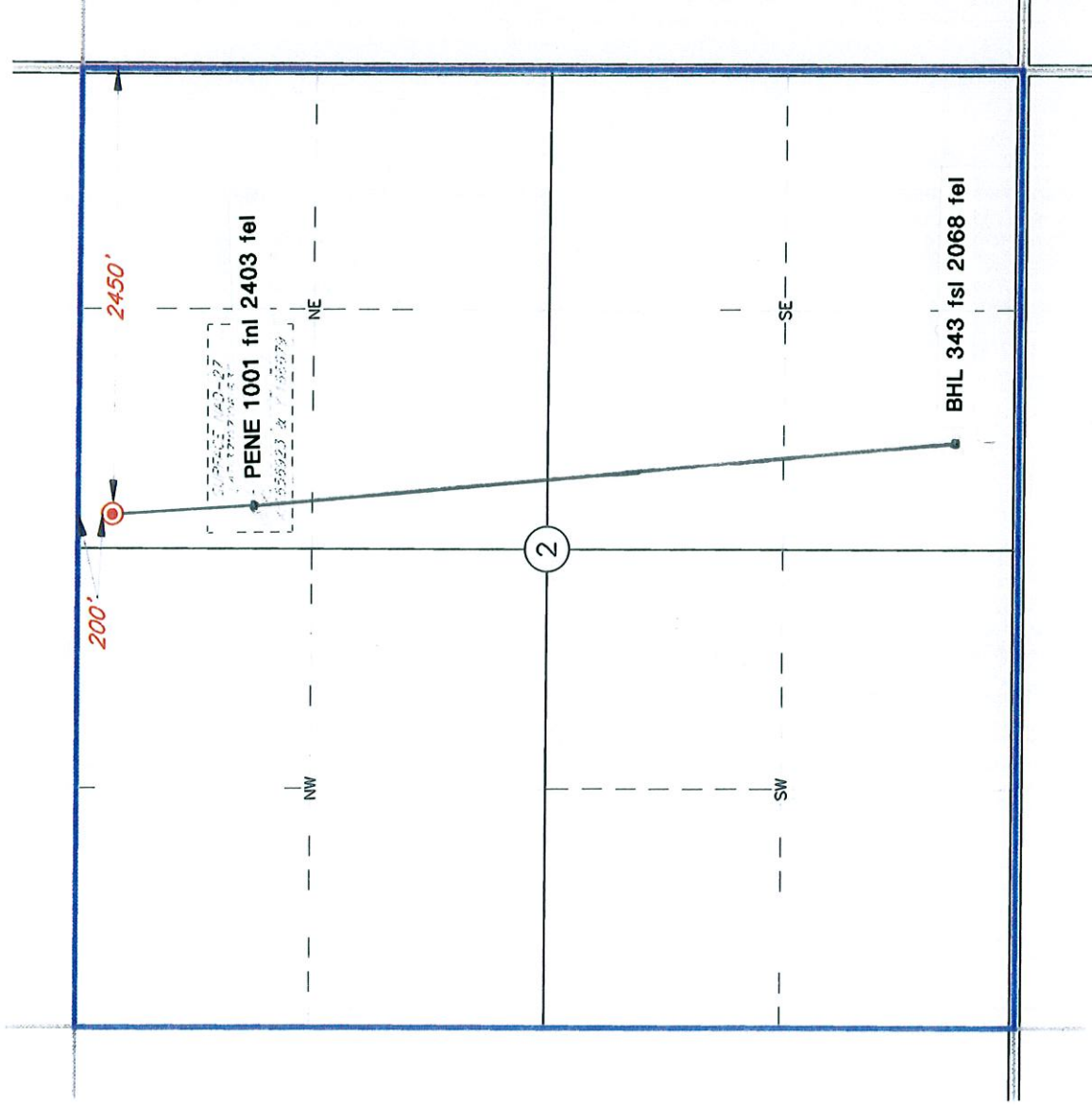
BHL 343 fsl 2068 fel

BELL FAMILY #1H-2
 SECTION 2
 T-34-S, R-22-W
 CLARK COUNTY, KANSAS
LOCATION PLAT

Kansas Certificate of Authorization No. 15-09



SCALE: 1" = 1000'
 0' 500' 1000'



Footages: 200' FNL & 2450' FEL Elevation: 1857'GR.

Topography & Vegetation: PASTURE

Reference or Alternate Stakes Set: NONE SET

Best Accessibility to Location: FROM COUNTY ROAD EAST

Distance & Direction: ±7 MILES SOUTHEAST OF ASHLAND, KANSAS

- LEGEND**
- = PREVIOUSLY PLATTED WELL
 - = EXISTING WELL
 - ⊙ = PROPOSED WELL
 - ⊙ = PENETRATION POINT
 - ⊙ = TERMINUS POINT
 - ⊙ = BOTTOM HOLE LOC.
 - ⊙ = SECTION CORNER

ORIGINAL DOCUMENT SIZE 14" x 8.5"

STRAT LAND EXPLORATION COMPANY	REVISION:	
	KY	8-29-13
JUG	10-28-13	
JUG	11-7-13	
DATE: AUGUST 6, 2013		
FILE: LO_BELL_FAMILY_1H_2		
DRAWN BY: J. GONZALES		

CERTIFICATE

I, V. Lynn Bezner, a Registered Land Surveyor and an authorized agent of Topographic Land Surveyors, do hereby certify that the above described well location was surveyed and staked on the ground as shown.

V. Lynn Bezner
 V. Lynn Bezner, R.P.S. No. 1059



NOTE:
 REFERENCE TO DISTANCES ARE UTM-27
 GRID'S SOUTH ZONE AND WERE
 DETERMINED BY GPS BEZNER-1101

This plat does not represent a true boundary. The platologist and his or her firm from time of occupation, which may not be actual Property Lines.



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