

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas DH EOR

OG GSW

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 EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Recompletion Date _____ Date Reached TD _____ Completion Date or Recompletion Date _____

API No.: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT 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 Geologist Report / Mud Logs <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				

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: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
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>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Cross Bar Energy, LLC
Well Name	BURKETT E 53
Doc ID	1476516

All Electric Logs Run

Micro
Sonic
Compensated Density Neutron PE
Dual Induction
Sonic Cement Bond

Am

Elite Cementing & Acidizing of KS, LLC
 PO Box 92
 Eureka, KS 67045



Date	Invoice #
9/17/2019	4726

Bill To	
Cross Bar Energy, LLC 1700 N. Waterfront Pkwy Bldg. 300, Suite A Wichtia, KS 67206-6614	Lease <u>BURKE</u>
	Well # _____
	Desc. <u>ES3, 2 stage with Float Equip</u>
Customer ID#	Acct # <u>9308</u>

Job Date	9/16/2019
Lease Information	
Burkett E #53	
County	Greenwood
Foreman	DG

Item	Description	Qty	Rate	Amount
C102	Cement Pump-Longstring-Stage 1	1	1,100.00	1,100.00
C107	Pump Truck Mileage (one way)	15	4.20	63.00
C102	Cement Pump-Longstring-Stage 2	1	785.00	785.00
C201	Thick Set Cement	140	20.50	2,870.00T
C207	KolSeal	700	0.47	329.00T
C208	Pheno Seal	280	1.30	364.00T
C203	Pozmix Cement 60/40	250	13.40	3,350.00T
C206	Gel Bentonite	1,290	0.21	270.90T
C208	Pheno Seal	500	1.30	650.00T
C205	Calcium Chloride	430	0.63	270.90T
C108A	Ton Mileage (min. charge)	2	365.00	730.00
C113	80 Bbl Vac Truck	2	90.00	180.00
C224	City Water	3,300	0.01	33.00T
C776	5 1/2" DV Tool with Plugs	1	3,490.00	3,490.00T
C604	5 1/2" Cement Basket	2	236.00	472.00T
C504	5 1/2" Centralizer	8	50.00	400.00T
C661	5 1/2" AFU Float Shoe	1	309.00	309.00T
D101	Discount on Services		-142.90	-142.90
D102	Discount on Materials		-640.44	-640.44T

We appreciate your business!

Phone #	Fax #	E-mail
620-583-5561	620-583-5524	rene@elitecementing.com

Send payment to:
 Elite Cementing & Acidizing of KS, LLC
 PO Box 92
 Eureka, KS 67045

Subtotal	\$14,883.46
Sales Tax (8.0%)	\$973.47
Total	\$15,856.93
Payments/Credits	\$0.00
Balance Due	\$15,856.93

810 E 7TH
 PO Box 92
 EUREKA, KS 67045
 (620) 583-5561



Cement or Acid Field Report
 Ticket No. **4726**
 Foreman David Gardner
 Camp Eureka

API # 15-073-24245

Date	Cust. ID #	Lease & Well Number	Section	Township	Range	County	State
9-16-19	1038	Burkett E # 53	23	23 S.	10 E.	Greenwood	KS
Customer	Mailing Address		City	State	Zip Code	Safety Meeting	Unit #
Crossbar Energy	1700 N. Waterfront Pkwy		Wichita	KS	67206	DG JH JV JM ZA	105 113 115 145
							Driver
							Jason Jash Steve Zevi

Job Type Longstring Hole Depth 2419' G.L. Slurry Vol. 46 Bbl Stage #1 Tubing _____
 Casing Depth 2391' G.L. Hole Size 7 7/8" Slurry Wt. 12.8" - 13.7" Drill Pipe _____
 Casing Size & Wt. 5 1/2" 15.50" Cement Left in Casing 0' Water Gal/SK _____ Other _____
 Displacement 59 Bbl Stage #1 Displacement PSI 800 Stage #1 Bump Plug to _____ BPM _____
35 Bbl Stage #2 Displacement PSI 600 Stage #2

Remarks: Safety Meeting. 5 1/2" 15.50" Casing Set @ 2391' G.L. D.V. Tool set @ 1427.28' Below G.L.
Stage #1: Rig up to 5 1/2" casing. Break circulation w/ 15 Bbl fresh water. Mixed 140 sks Thick Set Cement w/ 5" Kalseal/sk, + 2" Phenoseal/sk @ 13.7 gal, yield 1.85 = 46 Bbl Slurry. Wash out pump + lines. Shut down. Release Latch Down Flex Plug. Displace plug to seat w/ 59 Bbl fresh water. Final pumping pressure of 800 PSI. Bump plug to 1200 PSI. Release pressure. Float held. Drop Trip Bomb, wait 5 mins. Open D.V. Tool @ 800 PSI. Circulate excess cement off top of D.V. Tool w/ mud pump. = 10 Bbl to pit. Circulate 1.5 HRS. Stage #2: Break circulation w/ 10 Bbl fresh water. Mixed 250 sks 60/40 Pozmix Cement w/ 6% Gel, 2" Phenoseal/sk, + 2% Caclz @ 12.8 gal, yield 1.68 = 75 Bbl Slurry. Wash out pump + lines. Shut down. Release Closing Plug. Displace plug to seat w/ 35 Bbl fresh water. Final pumping pressure of 600 PSI. D.V. Tool closed @ 1000 PSI. Bump plug to 1500 PSI. Release pressure. No Back Flow. Tool closed. 18 Bbl cement slurry to pit. Job Complete. Rig Down.
Centralizers on #1, 3, 4, 5, 6, 8, 10, 22 Baskets on #6 + 22 D.V. Tool on Top of #23.

Code	Qty or Units	Description of Product or Services	Unit Price	Total
C102	1	Pump Charge Stage #1	1100.00	1100.00
C107	15	Mileage	4.20	63.00
C102	1	Pump Charge Stage #2	785.00	785.00
C201	140 sks	Thick Set Cement	20.50	2870.00
C207	700#	Kalseal @ 5"/sk	.47	329.00
C208	280#	Phenoseal @ 2"/sk	1.30	364.00
C203	250 sks	60/40 Pozmix Cement	13.40	3350.00
C206	1290#	Gel @ 6%	.21	270.90
C208	500#	Phenoseal @ 2"/sk	1.30	650.00
C205	430#	Caclz @ 2%	.63	270.90
C108A	18.45 Tons	Ton Mileage - Bulk Trucks x 2	m/c x 2	730.00
C113	2 HRS	80 Bbl Vac Truck	90.00 /HR	180.00
C224	3300 gals.	City Water	10.00 / 1000	33.00
C776	1	5 1/2" D.V. Tool (stage collar) w/ Plugs	3490.00	3490.00
C604	2	5 1/2" Cement Baskets	236.00	472.00
C504	8	5 1/2" x 7 7/8" Centralizers	50.00	400.00
C661	1	5 1/2" AFU Float Shoe w/ Latch Down	309.00	309.00
			Sub Total	15,666.80
			Less 5%	834.57
			Sales Tax	1,024.70
			8.0 %	

Thank You

Authorization Witnessed By Stuart Woodie Title Cross Bar Co. Rep. Total **15,856.93**

I agree to the payment terms and conditions of services provided on the back of this job ticket. Any amendments to payment terms must be in writing on the front of this job ticket or in the Customer's records at ELITE's office.

Elite Cementing & Acidizing of KS, LLC
 PO Box 92
 Eureka, KS 67045



Date	Invoice #
9/12/2019	4744

Bill To	Lease <u>BURKE</u>
Cross Bar Energy, LLC 1700 N. Waterfront Pkwy Bldg. 300, Suite A Wichtia, KS 67206-6614	Well # _____
	Desc. <u>ES3, Cement Surface</u>
	<u>CS9</u>
	Acct # <u>9208</u>
Customer ID#	1038

Job Date	9/11/2019
Lease Information	
Burkett E #53	
County	Greenwood
Foreman	SM

Item	Description	Qty	Rate	Amount
C101	Cement Pump-Surface	1	890.00	890.00
C107	Pump Truck Mileage (one way)	15	4.20	63.00
C200	Class A Cement-94# sack	120	15.75	1,890.00T
C205	Calcium Chloride	335	0.63	211.05T
C206	Gel Bentonite	225	0.21	47.25T
C108A	Ton Mileage (min. charge)	1	365.00	365.00
D101	Discount on Services		-65.90	-65.90
D102	Discount on Materials		-107.42	-107.42T

Terms	Net 15
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We appreciate your business!

Phone #	Fax #	E-mail
620-583-5561	620-583-5524	rene@elitecementing.com

Send payment to:
 Elite Cementing & Acidizing of KS, LLC
 PO Box 92
 Eureka, KS 67045

Subtotal	\$3,292.98
Sales Tax (8.0%)	\$163.27
Total	\$3,456.25
Payments/Credits	\$0.00
Balance Due	\$3,456.25

Geological Wellsite Report

By David Griffin, PG
GGR Inc.
Sept. 19, 2019

Well Info: Burkett E-53
S2 NW SW SW/4
732' fsl, 330' fwl
Section 23-T23S-R10E
Greenwood County, KS
API No. 15-073-24245-00-00

Datum: GL Elev 1399', Svy
RTD: 2419'
5.5" Long String Set

Operator: Cross Bar Energy, LLC
1700 N. Waterfront Pkwy
Bldg 300, Suite A
Wichita, Kansas, 67206
Contact: Andrew Breusing

Contractor: Three Rivers Exploration

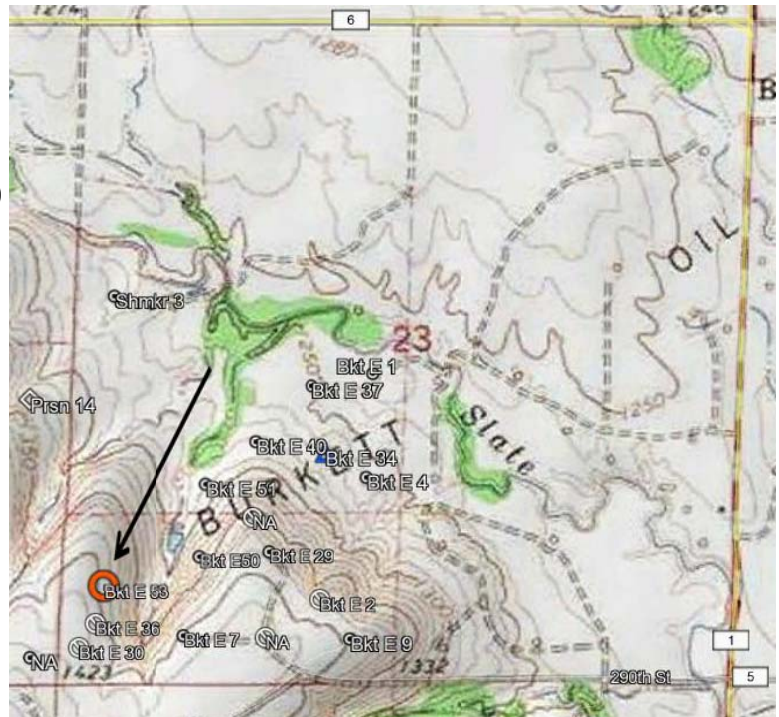
Objective: Bartlesville SS

Drilling Notes:

Sept. 10, 2019, Spud Well
Sept. 10, 2019, Set 200' 8 $\frac{5}{8}$ "
Sept. 11, 2019, Drill Under Surface, 7 $\frac{7}{8}$ " PDC Bit
Sept. 14, 2019, 8 PM, at 2096', Begin Button Bit Trip
Sept. 15, 2019, Drill from 2096' to 2364', Button Bit
Sept. 16, 2019, Drill from 2364' to TD at 2419',
Open Hole Logged by Eli Wireline, Set 5.5" Pipe

Geological Supervision:

David Griffin, RG, GGR Inc. provided wellsite supervision from Sept. 14 thru Sept 16, 2019. Drilling was witnessed from 1900' to TD'. Gas detection was performed from 1900' to TD. Samples were collected and microscopically examined from 1900' to TD. Annular velocity of 115 to 120 ft/min was measured and used for lagging samples.



Geological Datums:

Cross Bar Energy, LLC Burkett E-53 S2 NW SW SW/4 Sec. 23-T23S-R10E					Structural Comparison Wells						
					Cross Bar Energy, LLC Burkett E-51 SE SE NW SW Sec. 23-23S-R10E			Cross Bar Energy, LLC Burkett E-50 SE NE SW SW Sec. 23-23S-R10E			
		Sample Tops GL Elev. 1399'		OH Log Tops GL Elev. 1399'		S C T O R M C P	OH Log Tops GL Elev. 1291'		S C T O R M C P	OH Log Tops GL Elev. 1346'	
Zones of Interest		Depth	Subsea	Depth	Subsea		Depth	Subsea		Depth	Subsea
Douglas SS Porosity		na		1180	+220	+8	1063	+228	+5	1121	+225
Base SS		na		1283	+116	+6	1169	+122	+9	1221	+125
Lansing Group		na		1298	+101	+4	1186	+105	+3	1242	+104
Kansas City Group		na		1570	-171	+4	1458	-167	+12	1505	-159
Base KC		na		1737	-338	-1	1630	-339	+1	1683	-337
Marmaton Group		1855	-456	1854	-455	+0	1746	-455	+6	1795	-449
Cherokee Group		2010	-611	2009	-610	-7	1908	-617	+6	1950	-604
Ardmore LS		2096	-697	2095	-696	-3	1990	-699	+8	2034	-688
Cattleman SS		2111	-712	2110	-711	-3	2005	-714	+5	2052	-706
Base SS		2122	-723	2122	-723	+2	2012	-721	+13	2056	-710
Bartlesville Zone Marker		2197	-798	2196	-797	-9	2097	-806	+7	2136	-790
Bartlesville SS		2244	-845	2243	-844	-7	2142	-851	+20	2170	-824
Bartlesville SS, Main Pay		2253	-854	2252	-853	-15	2159	-868	+19	2180	-834
Base SS		2279	-880	2279	-880	-13	2184	-893	+15	2211	-865
Pn Basal Cgl, (Erosional Miss.)		2372	-973	2372	-973		na			na	
Mississippian (Carbonate)		2389	-990	2386	-987		na			na	
Total Depth		2419	-1020	2418	-1019		2320	-1029		2190	-844

Bartlesville SS Pay Zone Description

2250'-2256', (2260' Sample), **Top of Pay Sand, Fair Potential, 20% SS**, light gray with scattered light brown, very fine grained sub-angular quartz, fair porosity (Φ), fair odor, fair residual oil stain, trace show of free oil (SFO) rinses from cuttings with water, 20% bright fluorescence (BF), strong gas kick of 1302 units; 50% SS, light gray, poor Φ , silty, no show; 30% Siltstone, very light gray and Shale, minor.

2256'-2260', (2265' Sample), **Good Pay Potential, 50% SS**, same as above, good odor, fair residual oil stain, slight SFO rinses from cuttings, good live oil breakout when crushed, 50% BF; falling gas readings; 50% Siltstone, very light gray and Shale, minor.

2260'-2264', (2270' Sample), **Very Good Pay Potential, 70% SS**, light grayish-brown, very fine to fine grained quartz, fair to good Φ , good odor, good oil stain, slight SFO rinses from samples, stained cuttings have good live oil breakout when crushed, gassy with strong gas kick reaching 1410 units, acid treatment breaks oil out of cuttings, moderately calcareous; 70% BF; SS, 10%, very light gray, very fine and silty, tite, no show; 20% Siltstone and shale, very light gray to gray.

2264'-2270', (2275' Sample), **Very Good Pay Potential, 80% SS**, light grayish brown, very fine to fine grained sub-angular quartz, fair to good Φ , very good odor, very good oil stain, fair SFO rinses from cuttings and when cuttings are crushed, gassy with strong gas kick reaching 1553 units, 80% BF; 20% Tite SS, Siltstone and Shale.

2270'-2275', (2280' Sample), **Very Good Pay Potential, 90% SS**, light grayish brown, very fine to fine with minor medium grained sub-angular quartz, fair to good Φ , good odor, very good oil stain, good SFO rinses from cuttings, gassy with strong gas kick of 2,000 units reaching instrument maximum, 90% BF; 10% Tite SS, Siltstone and Shale.

2275'-2281', (2285' Sample), **Good Pay Potential, 70% SS**, light grayish brown, very fine to fine grained sub-angular quartz, fair to good Φ , good odor, good oil stain, fair SFO, 70% BF; SS, 30%, very light gray, vf and silty, tite, no show; 30% Tite SS, Siltstone and Shale.

Other Oil Shows

Cattleman SS

2111'-2114', (2120' Sample), **No Pay Potential, 50% SS**, very light gray, very fine grained sub-angular quartz, poor to fair Φ , no odor, no show, no Flor.; 50% Shale, vari-col grays.

2114'-2118', (2125' Sample), **Marginal Pay Potential, 20% SS**, off white with scattered brown oil stain, very fine to medium grained sub-angular quartz, fair Φ , partly recrystallized quartz, good odor, good show of oil droplets, slight SFO rinses from cuttings, gas kick of 200 units; 60%, SS, very light gray, very fine to fine grained, silty, tite, no show; 20% Siltstone and Shale, very light gray to gray.

2118'-2124', (2130' Sample), **Marginal Pay Potential, 15% SS**, same as above, fair Φ , fair to good odor, good show of brown oil droplets, very slight SFO rinses from cuttings, good gas kick of 530 units; 50%, SS, very light gray, very fine to fine grained, silty, tite, no show; 35% Siltstone and Shale, very light gray to gray.

Summary:

The Cattleman SS had fair to good shows of live brown oil droplets in two porosity streaks from 2111' to 2124', however, it lacks obvious pay zone quality.

The top of the Bartlesville SS was encountered at 2244', a fair oil stain was present from 2244' to 2253', however, it lacked free oil. The porous main pay zone was encountered from 2253' to 2279', with fair to very good oil stain and trace to good shows of light gravity free brown oil. Very strong sustained gas readings reaching 2,000 units were observed. The BV SS is 13' higher in structure than Burkett E-51 and 19' lower than Burkett E-50. The characteristic of the BV pay sand is somewhat similar to that in Burkett E-51.

Saltwater percentages of the Bartlesville main pay sand were evaluated using open hole log data using a spreadsheet format, (modified from Pfeiffer, KGS). Pay zone cutoffs of 12% porosity, 60% SW and an R_w of 0.06 were selected in the calculations, (actual cutoffs may be slightly different). Pay zone was flagged from 2253' to 2278.5' with SW ranging from 38% to 60%. Volumetric analysis indicates that approximately 86,579 stock tank barrels of oil are in place based on 7.5 acre spacing. The spreadsheet is attached for reference.

Recommendations:

Based on the favorable oil and gas shows and SW calculation in the Bartlesville SS, the operator set and cemented 5.5" production casing. It is recommended that perforations be placed in the main pay sand from 2253' to 2277' (GL) and treated similarly as in the successful offsetting producers. The cased hole log should be correlated to the open hole for final selection of perforations.

Respectfully Submitted,



David Griffin, PG
GGR (Griffin Geological Resources), Inc.
Lawrence, Kansas

Attachments: Sample Log, SW and STOOIP Spreadsheet

Cross Bar Energy, LLC
Burkett E-53, S2 NW SW SW/4, Sec 23-T23S-R10E
%SW and STOOIP Estimations, BV SS
By David Griffin, PG

Model = Archie

PARAMETERS	ZN	DEPTH	THK	RT	PHI	RWA	RO	MA	SW	BVW	VSH	PAY	BOI	
X		1	2250	0.5	6.11	15.9%	0.22	1.64	2.52	51.7%	0.082	0.789	0	1.05
Y		2	2250.5	0.5	6.11	15.4%	0.21	1.74	2.47	53.3%	0.082	0.823	0	1.05
A	1	3	2251	0.5	6.2	14.9%	0.20	1.85	2.43	54.6%	0.081	0.860	0	1.05
M	1.8	4	2251.5	0.5	6.39	14.5%	0.20	1.93	2.42	55.0%	0.080	0.862	0	1.05
N		5	2252	0.5	6.65	14.3%	0.20	2.00	2.42	54.9%	0.078	0.798	0	1.05
RW	0.06	6	2252.5	0.5	6.88	14.0%	0.20	2.07	2.41	54.8%	0.077	0.706	0.03	1.05
CTHK	30.5	7	2253	0.5	7.04	13.8%	0.20	2.13	2.40	55.0%	0.076	0.644	0.03	1.05
AVPHI	0.14	8	2253.5	0.5	7.16	13.6%	0.20	2.18	2.40	55.2%	0.075	0.594	0.03	1.05
FTOIL	1.56	9	2254	0.5	7.26	13.6%	0.20	2.17	2.41	54.7%	0.074	0.532	0.03	1.05
PAYFEET	21.5	10	2254.5	0.5	7.37	14.1%	0.22	2.05	2.45	52.7%	0.074	0.503	0.03	1.05
Oil In Place	86,579	11	2255	0.5	7.48	14.8%	0.24	1.88	2.52	50.1%	0.074	0.515	0.04	1.05
Barrels (Apx)		12	2255.5	0.5	7.54	15.1%	0.25	1.81	2.55	49.0%	0.074	0.530	0.04	1.05
7.5 Acre Spacing		13	2256	0.5	7.49	14.5%	0.23	1.94	2.50	50.8%	0.074	0.560	0.04	1.05
P		14	2256.5	0.5	7.4	13.4%	0.20	2.22	2.40	54.8%	0.074	0.624	0.03	1.05
Q		15	2257	0.5	7.34	12.6%	0.18	2.51	2.32	58.5%	0.073	0.712	0.03	1.05
R		16	2257.5	0.5	7.27	12.5%	0.17	2.53	2.31	59.0%	0.074	0.806	0	1.05
DMIN		17	2258	0.5	7.24	13.4%	0.19	2.25	2.38	55.7%	0.074	0.883	0	1.05
DMAX		18	2258.5	0.5	7.23	14.5%	0.22	1.93	2.49	51.7%	0.075	0.919	0	1.05
KB		19	2259	0.5	7.24	15.4%	0.25	1.74	2.56	49.0%	0.076	0.880	0	1.05
TD		20	2259.5	0.5	7.25	15.5%	0.25	1.71	2.58	48.6%	0.076	0.768	0.04	1.05
BHT		21	2260	0.5	7.26	15.0%	0.24	1.83	2.53	50.2%	0.075	0.685	0.04	1.05
ST		22	2260.5	0.5	7.21	14.1%	0.21	2.04	2.44	53.2%	0.075	0.692	0.03	1.05
RMF		23	2261	0.5	7.15	13.3%	0.19	2.26	2.37	56.3%	0.075	0.716	0.03	1.05
RMFT		24	2261.5	0.5	7.05	13.0%	0.18	2.35	2.34	57.7%	0.075	0.708	0.03	1.05
		25	2262	0.5	6.94	13.4%	0.19	2.24	2.36	56.8%	0.076	0.699	0.03	1.05
CUT-OFFS		26	2262.5	0.5	6.85	14.0%	0.20	2.07	2.41	55.0%	0.077	0.686	0.03	1.05
PHICUT	0.12	27	2263	0.5	6.8	14.3%	0.21	1.98	2.44	53.9%	0.077	0.675	0.03	1.05
SWCUT	0.6	28	2263.5	0.5	6.77	14.2%	0.20	2.01	2.42	54.4%	0.077	0.693	0.03	1.05
VSHCUT	0.78	29	2264	0.5	6.78	13.9%	0.19	2.10	2.39	55.7%	0.077	0.707	0.03	1.05
BVWCUT	0.2	30	2264.5	0.5	6.8	13.7%	0.19	2.16	2.38	56.4%	0.077	0.684	0.03	1.05
		31	2265	0.5	6.81	13.7%	0.19	2.14	2.38	56.1%	0.077	0.640	0.03	1.05
Colors:	<input checked="" type="checkbox"/> ON	32	2265.5	0.5	6.76	13.9%	0.19	2.09	2.39	55.6%	0.077	0.604	0.03	1.05
		33	2266	0.5	6.73	14.0%	0.20	2.06	2.40	55.3%	0.078	0.606	0.03	1.05
		34	2266.5	0.5	6.75	14.2%	0.20	2.00	2.42	54.5%	0.078	0.642	0.03	1.05
STOOIP=		35	2267	0.5	6.8	14.8%	0.22	1.88	2.47	52.6%	0.078	0.678	0.04	1.05
		36	2267.5	0.5	6.83	15.2%	0.23	1.79	2.51	51.1%	0.078	0.689	0.04	1.05
Stock tank original oil in place		37	2268	0.5	6.88	14.6%	0.22	1.91	2.46	52.8%	0.077	0.691	0.03	1.05
		38	2268.5	0.5	6.9	12.9%	0.17	2.40	2.32	59.0%	0.076	0.711	0.03	1.05
		39	2269	0.5	6.88	10.6%	0.12	3.39	2.12	70.2%	0.075	0.737	0	1.05
		40	2269.5	0.5	6.92	8.8%	0.09	4.74	1.96	82.7%	0.073	0.751	0	1.05
		41	2270	0.5	6.99	8.1%	0.08	5.55	1.89	89.1%	0.072	0.749	0	1.05
		42	2270.5	0.5	7.1	8.4%	0.08	5.19	1.93	85.5%	0.072	0.737	0	1.05
		43	2271	0.5	7.31	9.7%	0.11	4.04	2.05	74.3%	0.072	0.711	0	1.05
		44	2271.5	0.5	7.61	11.5%	0.15	2.95	2.24	62.3%	0.072	0.686	0	1.05
		45	2272	0.5	7.94	13.5%	0.22	2.20	2.44	52.6%	0.071	0.682	0.03	1.05
		46	2272.5	0.5	8.28	15.3%	0.28	1.77	2.62	46.2%	0.071	0.670	0.04	1.05
		47	2273	0.5	8.48	16.0%	0.31	1.62	2.70	43.8%	0.070	0.646	0.04	1.05
		48	2273.5	0.5	8.57	15.8%	0.31	1.66	2.69	44.0%	0.070	0.640	0.04	1.05
		49	2274	0.5	8.72	15.5%	0.30	1.72	2.67	44.4%	0.069	0.620	0.04	1.05
		50	2274.5	0.5	8.8	15.7%	0.31	1.69	2.69	43.8%	0.069	0.606	0.04	1.05
		51	2275	0.5	8.78	16.5%	0.34	1.53	2.77	41.8%	0.069	0.662	0.05	1.05
		52	2275.5	0.5	8.7	17.7%	0.39	1.35	2.88	39.4%	0.070	0.726	0.05	1.05
		53	2276	0.5	8.55	18.5%	0.41	1.25	2.94	38.2%	0.071	0.714	0.06	1.05
		54	2276.5	0.5	8.31	18.4%	0.40	1.26	2.92	38.9%	0.072	0.708	0.06	1.05
		55	2277	0.5	8.13	17.6%	0.36	1.37	2.83	41.0%	0.072	0.752	0.05	1.05
		56	2277.5	0.5	7.97	16.3%	0.30	1.58	2.69	44.4%	0.072	0.738	0.05	1.05
		57	2278	0.5	7.78	14.6%	0.24	1.91	2.53	49.6%	0.072	0.644	0.04	1.05
		58	2278.5	0.5	7.49	12.9%	0.19	2.38	2.36	56.3%	0.073	0.585	0.03	1.05
		59	2279	0.5	7.07	11.4%	0.14	2.97	2.20	64.9%	0.074	0.625	0	1.05
		60	2279.5	0.5	6.53	9.8%	0.10	3.96	2.02	77.9%	0.076	0.713	0	1.05
		61	2280	0.5	6.01	8.3%	0.07	5.26	1.85	93.6%	0.078	0.790	0	1.05

Depth	David Griffin, GGR Inc., Lawrence, KS		Lithology	Shows	Well: Burkett E-53	Pg. 1 of 3
	Penetration Rate (ROP)				Location: S2 NW SW SW/4, 732' fsl, 330' fwl, Sec. 23-T23S-R10E, GW Co.	Datum/Elev. 1399 GL
	Min./Foot	Lagged Total Gas			Units	Sample Descriptions (Lagged)
0	0	1	10	100	1000	
1750						
1760	<p>Operator: Cross Bar Energy, LLC Drig Contr: Three Rivers Exploration API No.: 15-073-24245-00-00</p>					7 7/8" PDC Bit, 6 Blade
1770						
1780						
1790						
1800						
1810						
1820						
1830						
1840						
1850						
1860	L en apah Ls					Marmaton Grp 1855 (-456) using ROP 1854 (+55) OH Log
1870						
1880						
1890						Altamont Ls start 10'smp/ls
1900	<p>Mobile Onsite Set up Gas Detection</p>					
1910	<p>Gas Check OK</p>					
1920	sh & sltst, AN					
1930	coal sh & sltst, Hgy					
1940	<p>ss, vlt gy, vfgn, prp, NS Ls, dk-udgy, fxl, min bk (organics?) sh, bk?</p>					
1950	<p>LS, lt to o-wh, lt gy, vf-fxlh, prp</p>					Pawnee Ls
1960	<p>LS sh, varicol</p>					
1970						
1980	<p>LS sh, bk</p>					
1990	<p>sh, lg-dg, pty slty LS, lt gy, gy, fxl, fosl</p>					
2000	sh, grays					

Depth	David Griffin, GGR Inc., Lawrence, KS		Lithology	Shows	Well: Burkett E-53	Pg. 2 of 3
	Penetration Rate (ROP)				Location: S2 NW SW SW/4, 732' fsl, 330' fwl, Sec. 23-T23S-R10E, GW Co.	Datum/Elev. 1399 GL
	Min./Foot	Lagged Total Gas Units				Sample Descriptions (Lagged)
2000					LS, lt gy to gy, fosl	
7-14-19 2PM					sh, bk	
2010					LS, tn to lt gy	Cherokee
					sh, bk	2010(-611)
2020					SS, vlg, vf-f gm, pr-fr φ, cln, pty lmy, LS, tn, interbed. NS, NO Flr	2009(-610) OH Log Squirrels S 2005-12, 7'
2030					sh, lt gy to gy, silt, mica, carb (smc)	
4PM						
2040					SS, 10% vlg, vf-f gm, pr φ, NS	
2050					sh, gy to vdg	
2060					LS, dk to vdg, sdy	
2070					sh, lg to dg	
6PM					sh, gy to dgy, pty SMC	
2080						
2090					Bevier coal	2096' Bottom Bit 77'
9-5-19 2100					LS	Ardmore LS
2AM					V-shale + blk shale, pty coaly	2096(-617) 2095(-690) OH Log V-shale, 2105
2110					SS, vlg, vf-f gm, pr-fr φ, NS, silt - 5' sample	Cattelman SS, 11'
					SS, φ-wh, bn oil stn, vf-f gm, min med gm pty re-coys qtz, fr φ, sli-fr show oil droplets bkout w/crushed sli calc. gd odor	2111(-712) 2110(-711) OH Log to 2122
2120					silt, vlg	
					sh, vlg, gy	
4AM					sh, bk	
2140					silt, min sh	
2150					sh, lg - dg mostly	
6AM					coal	
2170					silt	
2180					sh, vlg - vdg	
					sh, bk	
8AM					sh, grays	
2190					sh, bk	Bartlesville Zone 'X'
2200					silt, vlg + sh, grays interbed pr φ, NS	2197(-798) 2196(-797) OH Log
10AM					AA	
2220					silt + sh, hard	
Noon						
2230					silt + sh, silty, hard	
2240					SS, 20, vlt gy, silt, bn, vf, pr-fr φ, silty, sli odor, fr recd stn, No c. oil; SS, so, vlg, silt NS, silt, mica, all SS is calc. Moder.	BV SS 2244(-845) 2243(-844) OH Log
9-5-19 2250						

Depth	David Griffin, GGR Inc., Lawrence, KS		Lithology	Shows	Well: Burkett E-53	Pg. 3 of 3
	Penetration Rate (ROP)				Location: S2 NW SW SW/4, 732' fsl, 330' fwl, Sec. 23-T23S-R10E, GW Co.	Datum/Elev.
	Min./Foot	Lagged Total Gas				1399 GL
		Units	Sample Descriptions (Lagged)		Tops/Remarks	
2250 9-15-19 2 PM					2250-56: SS, 20, ltg-bn, vf, fr φ, fr odor Fr F. Oil, calc, acid lift oil, fr red stn sfts; 50, ulg, NS	Begin 5' Smp/ls BVSS Pay 26' 2253 (-854)
2260					2256-60: SS, 50, AA, S/SFO Rns, Gd Odor fr red stn sfts; 30, NS	to 2279
2270					2260-64: SS, 70, ltg-bn, vf, fr φ, fr-gd φ, gd red stn, gd odor, sli SFO Rns, mica, cak, fri, gassy	2252-2279 OH Log
2280 4 PM					2264-70: SS, 80, AA, vgd red stn, Fr SFO Vgd odor, gassy	Rec. PF's 2353 to 2377'
2290					2270-75: SS, 90, ltg-bn, vf-f-med grn, fr-gd φ, Vgd stn, Gd Odor, Gd Sh Free Oil Rns, calc, gassy	
2300 6 PM					2275-81: SS, 70, vf-f, fr-g φ, gd stn Fr SFO, Gd odor	
2310					2281-87: SS, 40, AA, carryover?	
2320 8 PM					2287-91: SS, 20, AA, Carryover?, sh, bk sh, ulg-dg	
2330					sh, vari-col gy's, gen, bk	
2340 10 PM					coal sh, gy to bk	
2350					coal coal sh, ulg-bk	
2360 Midnite					sh, gy, hrd LS, vdg to gy,	
2370 9-16-19					sh coal sh, lg-dg sh, bk sh, bk sh, gy's	Pn Bsl Cgl 2372 (-973) OH Log same
2380 2 AM					NS congl, cht, 25-50%, shrp, ltgy, wh, clngs LS f Dol clasts, ss, silt, shaley, NS No Flr, No odor	Miss LS (TOP) 2389 (-990) 2386 (-987) OH Log
2390 4 AM					NS LS, th w/gy pyr mottlg, f-mxlh, pr ixp, dull minr) flr	
2400 2400					LS, AA, mucs xln, fossil frag, v min bn organics?	
2410 6 AM					LS, th, vf-CS xln, pr φ, fossil occ	TD 2419 (-1020)
2420						
2430					Open Hole Logged 12-4 PM, 9-16-19 Eli Wireline	
2440						
2450						
2460						
2470						
2480						
2490						
2500						