



**Oil & Gas Well Drilling  
Water Wells  
Geo-Loop Installation**

**11 Lewis Drive Paola, KS 66071**

Phone: 913-557-9083  
Fax: 913-557-9084

**WELL LOG**

A & L Energy Operations, LLC  
Alma #2  
API #15-059-26,665  
May 27 - May 28, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>
12	soil & clay	12
10	lime	22
8	shale	30
23	lime	53
25	shale	78
17	lime	95
3	shale	98
4	lime	102
80	shale	182
20	lime	202
28	shale	230
5	lime	235
31	shale	266
9	lime	275
2	shale	277
2	lime	279
17	shale	296
25	lime	321
5	shale	326 oil show
25	lime	351
4	shale	355
11	lime	366 base of the Kansas City
149	shale	515
6	lime	521
42	shale	563
1	coal	564
9	shale	573
7	lime	580
11	shale	591
4	lime	595
5	shale	600
8	lime	608
7	shale	615
2	lime	617
5	shale	622
5	lime	627 good bleeding
7	shale	634
4.5	broken oil sand	638.5 brown & green 50% bleeding

Alma #2

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3.5	oil sand	642 brown 90% bleeding
4	broken sand	646 brown & green 50% bleeding
4.5	broken sand	650.5 brown & green 80% shale, thin bleeding seams
37.5	shale	688
11	broken sand	699 brown & grey, no bleeding
15	shale	714 TD

Drilled a 9 7/8" hole to 22.6'

Drilled a 5 5/8" hole to 714'

Set 22.6' of 7" surface casing cemented with 5 sacks of cement.

Set 704' of 2 7/8" 8 round upset 3 centralizers, 1 float shoe, 1 clamp.

Core Times	
<u>Minutes</u>	<u>Seconds</u>
636	36
637	39
638	42
639	24
640	26
641	26
642	30
643	26
644	27
645	31
646	32
647	32
648	41
649	38
650	38
651	40
652	39
653	35
654	2
655	38
656	30
657	33



**CONSOLIDATED**  
Oil Well Services, LLC

268532

TICKET NUMBER 47207

LOCATION Alma, KS

FOREMAN Cassey Kennedy

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
5/28/14	3898	Alma # 2	SE 20	16	21	FR
CUSTOMER A + L Energy			TRUCK #			
MAILING ADDRESS 575 Madison Ave			729	Driver	Truck #	Driver
CITY New York			646	Gar Moo	✓	Safety Testing
STATE NY			548	Mat Coc	✓	
ZIP CODE 10022			370	Jas Ric	✓	

JOB TYPE log string HOLE SIZE 5 7/8" HOLE DEPTH 714' CASING SIZE & WEIGHT 2 7/8" EUE  
 CASING DEPTH 704' DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT \_\_\_\_\_ SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
 DISPLACEMENT 4.08 bbls DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE 5 bpm

REMARKS: held safety meeting, established circulation, mixed & pumped 200# Premium Gel followed by 10 bbls fresh water, mixed & pumped 100 sks 5% Pozmix cement w/ 2% gel per sk, cement to surface, flushed pump clean, pumped 2 1/2" rubber plug to casing TD w/ 4.08 bbls fresh water, pressured to 800 PSI, released pressure, shut in casing.

*[Handwritten signature]*

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE		1085.00
5406	15 mi	MILEAGE		63.00
5482	704'	casing footage		
5407	minimum	tax mileage		368.00
5502c	2 hrs	80 Vac		200.00
1124	100 sks	5% Pozmix cement	1150.00	
118B	368 #	Premium Gel	80.96	
		materials	1230.96	
		- 30%	369.29	
		subtotal		861.67
4402	1	2 1/2" rubber plug		29.50
			3072.89	
		7.65%	SALES TAX	68.18
			ESTIMATED TOTAL	2675.35

Flavin 3797

AUTHORIZATION \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.