

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	Darrah Oil Company, LLC
Well Name	JOHN VACEK 7
Doc ID	1482058

Tops

Name	Top	Datum
Heebner	2812	-1040
Toronto	2834	-1062
Douglas	2842	-1070
Brown Lime	2916	-1144
Lansing	2933	-1161
Stark	3142	-1370
Hushpuckney	3173	-1401
BKC	3213	-1441
Simpson	3250	-1478
Simpson sand	3262	-1490
Arbuckle	3277	-1505

COPELAND

Acid & Cement

BURRTON, KS ♦ GREAT BEND, KS
 (620) 463-5161 (620) 793-3366
 FAX (620) 463-2104 FAX (620) 793-3536

POST OFFICE BOX 438
 HAYSVILLE, KS 67060
 (316) 524-1225
 (316) 524-1027 FAX

Invoice

JUN 24 2019

INVOICE NUMBER:
 C46962-IN

BILL TO:
 DARRAH OIL COMPANY LLC
 PO BOX 2786
 WICHITA, KS 67202-2786

U54202

LEASE: JOHN VACEK #7 NEW WELL

PAID	
CK. NO.	DATE
11672	9-12-19

DATE	ORDER	SALESMAN	ORDER DATE	PURCHASE ORDER	SPECIAL INSTRUCTIONS	
06/21/2019	46962		06/14/2019	JOHN VACEK #7 NEW WELL	NET 30	
QUANTITY	U/M	ITEM NO./DESCRIPTION		D/C	PRICE	EXTENSION
		NEW WELL				
25.00	MI	MILEAGE CEMENT PUMP TRUCK		20.00	4.00	80.00
1.00	EA	PUMP CHARGE-SURFACE PIPE		20.00	1,100.00	880.00
200.00	SK	60/40 POZ MIX 2% GEL		20.00	11.25	1,800.00
11.00	SK	CALCIUM CHLORIDE		20.00	40.00	352.00
211.00	EA	BULK CHARGE		20.00	1.25	211.00
232.10	MI	BULK TRUCK - TON MILES		20.00	1.10	204.25
REMIT TO: P.O. BOX 438 HAYSVILLE, KS 67060		COP FUEL SURCHARGE IS NOT TAXABLE AND IS ADDED TO MILEAGE, PUMP AND OR DELIVERY CHARGES ONLY.		Net Invoice: 3,527.25 ELSCO Sales Tax: 161.40 Invoice Total: 3,688.65		
RECEIVED BY _____		NET 30 DAYS				

82300 / 800

There will be a charge of 1.5% "per month" (18% annual rate) on all accounts over 30 days pas

Copeland Acid & Cement is a subsidiary of Gressel Oil Field Service

Gressel Oil Field Service reserves a security interest in the goods sold until the same are paid for in full and reserve all the rights of a secured party under the Uniform Commercial Code.



NEW WELL

FIELD ORDER N° C 46962

BOX 438 • HAYSVILLE, KANSAS 67060
316-524-1225

DATE 6-14 20 19

IS AUTHORIZED BY: John Jay Parrish Jr.
(NAME OF CUSTOMER)

Address _____ City _____ State _____

To Treat Well As Follows: Lease John Vacek Well No. H7 Customer Order No. _____

Sec. Twp. Range _____ County Ellsworth State Ks

CONDITIONS: As a part of the consideration hereof it is agreed that Copeland Acid Service is to service or treat at owners risk, the hereinbefore mentioned well and is not to be held liable for any damage that may accrue in connection with said service or treatment. Copeland Acid Service has made no representation, expressed or implied, and no representations have been relied on, as to what may be the results or effect of the servicing or treating said well. The consideration of said service or treatment is payable. There will be no discount allowed subsequent to such date. 6% interest will be charged after 60 days. Total charges are subject to correction by our invoicing department in accordance with latest published price schedules.

The undersigned represents himself to be duly authorized to sign this order for well owner or operator.

THIS ORDER MUST BE SIGNED BEFORE WORK IS COMMENCED _____ By _____
Well Owner or Operator Agent

CODE	QUANTITY	DESCRIPTION	UNIT COST	AMOUNT
2	25	Mileage Pump Truck	4 ⁰⁰	100 ⁰⁰
2		Pump Charge - Surface Pipe		1100 ⁰⁰
2	200	Sacks 60/40 2% Gel	11 ²⁵	2250 ⁰⁰
2	11	Calcium Chloride	40 ⁰⁰	440 ⁰⁰
2	211	Bulk Charge	1 ²⁵	263 ⁷⁵
2		Bulk Truck Miles $9.284 \times 25 \text{ miles} = 232.107 \text{ m}$	1 ⁰⁰	255 ³¹
		Process License Fee on _____ Gallons		
		TOTAL BILLING	20%	4409 ⁰⁶

I certify that the above material has been accepted and used; that the above service was performed in a good and workmanlike manner under the direction, supervision and control of the owner, operator or his agent, whose signature appears below.

Copeland Representative Greg Curtis
Station GB

Will Parrish
Well Owner, Operator or Agent
-881.81
3527.25

Remarks _____

NET 30 DAYS

COPELAND

POST OFFICE BOX 438
 HAYSVILLE, KS 67060
 (316) 524-1225
 (316) 524-1027 FAX

Invoice

Acid & Cement

BURRTON, KS ♦ GREAT BEND, KS
 (620) 463-5161 (620) 793-3366
 FAX (620) 463-2104 FAX (620) 793-3536

PAID	
CK. NO.	DATE
11672	9-12-19

INVOICE NUMBER:
 C46922-IN

BILL TO:
 DARRAH OIL COMPANY LLC
 PO BOX 2786
 WICHITA, KS 67202-2786

JUN 26 2019

LEASE: **JOHN VACEK #7 NEW PUMP**

*2200/800
 Cement US4210*

DATE	ORDER	SALESMAN	ORDER DATE	PURCHASE ORDER	SPECIAL INSTRUCTIONS	
06/25/2019	46922		06/18/2019	JOHN VACEK #7 NEW PUMP	NET 30	
QUANTITY	U/M	ITEM NO./DESCRIPTION		D/C	PRICE	EXTENSION
		NEW PUMP				
25.00	MI	MILEAGE CEMENT PUMP TRUCK		20.00	4.00	80.00
25.00	MI	MILEAGE PICKUP		20.00	2.00	40.00
1.00	EA	PUMP CHARGE-LONG STRING		20.00	1,600.00	1,280.00
130.00	SK	60/40 POZ MIX 2% GEL		20.00	11.25	1,170.00
600.00	LB	FINE SALT		20.00	0.25	120.00
500.00	LB	GILSONITE		20.00	0.75	300.00
100.00	LB	FRICTION REDUCER C-37		20.00	4.00	320.00
100.00	LB	C-41P		20.00	3.75	300.00
1.00	LB	5 1/2" FLOAT SHOE W/ AUTO-REFILL		20.00	355.00	284.00
1.00	DIA	LATCH DOWN PLUG & BAFFLE		20.00	155.00	124.00
1.00	EACH	TURBO-CENTRALIZER		20.00	85.00	68.00
600.00	GAL	MUD FLUSH		20.00	0.75	360.00
156.00	EA	BULK CHARGE		20.00	1.25	156.00
REMIT TO: P.O. BOX 438 HAYSVILLE, KS 67060		COP		Net Invoice:		4,742.14
		FUEL SURCHARGE IS NOT TAXABLE AND IS ADDED TO MILEAGE, PUMP AND OR DELIVERY CHARGES ONLY.		ELSCO Sales Tax:		180.15
RECEIVED BY		NET 30 DAYS		Invoice Total:		<u><u>4,922.29</u></u>

There will be a charge of 1.5% "per month" (18% annual rate) on all accounts over 30 days pas

Copeland Acid & Cement is a subsidiary of Gressel Oil Field Service

Gressel Oil Field Service reserves a security interest in the goods sold until the same are paid for in full and reserve all the rights of a secured party under the Uniform Commercial Code.

COPELAND

Acid & Cement

BURRTON, KS (620) 463-5161
 GREAT BEND, KS (620) 793-3366
 FAX (620) 463-2104 FAX (620) 793-3536

POST OFFICE BOX 438
 HAYSVILLE, KS 67060
 (316) 524-1225
 (316) 524-1027 FAX

Invoice

INVOICE NUMBER:
C46922-IN

BILL TO:
DARRAH OIL COMPANY LLC
PO BOX 2786
WICHITA, KS 67202-2786

LEASE: JOHN VACEK #7 NEW PUMP

DATE	ORDER	SALESMAN	ORDER DATE	PURCHASE ORDER	SPECIAL INSTRUCTIONS	
06/25/2019	46922		06/18/2019	JOHN VACEK #7 NEW PUMP	NET 30	
QUANTITY	U/M	ITEM NO./DESCRIPTION		D/C	PRICE	EXTENSION
159.25	MI	BULK TRUCK - TON MILES		20.00	1.10	140.14
REMIT TO:		COP		Net Invoice:		4,742.14
P.O. BOX 438 HAYSVILLE, KS 67060		FUEL SURCHARGE IS NOT TAXABLE AND IS ADDED TO MILEAGE, PUMP AND OR DELIVERY CHARGES ONLY.		ELSCO Sales Tax:		180.15
RECEIVED BY _____		NET 30 DAYS		Invoice Total:		4,922.29

There will be a charge of 1.5% "per month" (18% annual rate) on all accounts over 30 days pas

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NEW WELL

FIELD ORDER N^o C 46922

BOX 438 • HAYSVILLE, KANSAS 67060
316-524-1225

DATE 6-18 2019

IS AUTHORIZED BY: Acree Oil (NAME OF CUSTOMER)

Address _____ City _____ State _____

To Treat Well As Follows: Lease John Uacet Well No. 7 Customer Order No. _____

Sec. Twp. Range _____ County Ellsworth State ks

CONDITIONS: As a part of the consideration hereof it is agreed that Copeland Acid Service is to service or treat at owners risk, the hereinbefore mentioned well and is not to be held liable for any damage that may accrue in connection with said service or treatment. Copeland Acid Service has made no representation, expressed or implied, and no representations have been relied on, as to what may be the results or effect of the servicing or treating said well. The consideration of said service or treatment is payable. There will be no discount allowed subsequent to such date. 6% interest will be charged after 60 days. Total charges are subject to correction by our invoicing department in accordance with latest published price schedules.

The undersigned represents himself to be duly authorized to sign this order for well owner or operator.

THIS ORDER MUST BE SIGNED BEFORE WORK IS COMMENCED _____ By _____
Well Owner or Operator Agent

CODE	QUANTITY	DESCRIPTION	UNIT COST	AMOUNT
2	25	milesa pump truck	4. ⁰⁰	100.00
2	25	milesa pickup	2. ⁰⁰	50.00
2	1	Pump Charge - Loss Strips		1,600.00
2	130	60/40 pap. 2% gel	11. ⁰⁰	1,462.50
2	600 #	Salt	.25	150.00
2	500 #	Gilsonite	.75	375.00
2	100 #	C-37	4. ⁰⁰	400.00
2	100 #	C-41p	3. ⁷⁵	375.00
2	1	5 1/2" Floet shoe w/ auto-kill		355.00
2	1	latch down plus 2 barrels		155.00
2	1	Turbo-Centrifuge		85.00
2	600	Mud Flush	.75	450.00
2	156	Bulk Charge	1. ²⁵	195.00
2		Bulk Truck Miles 6.37T x 25m = 159.25 Tm x 1. ¹⁰	1. ¹⁰	175.18
		Process License Fee on _____ Gallons	202	5,927.65
TOTAL BILLING				-1185.54

I certify that the above material has been accepted and used; that the above service was performed in a good and workmanlike manner under the direction, supervision and control of the owner, operator or his agent, whose signature appears below.

Copeland Representative Nathan W.

Station G.B

Bo
Well Owner, Operator or Agent

Remarks _____

NET 30 DAYS

\$ 4742.14

TREATMENT REPORT

Acid Stage No. _____

Date 6/18/2019 District GB F.O. No. C46922
 Company Darrah Oil
 Well Name & No. John Vacek #7
 Location _____ Field _____
 County Ellsworth State KS
 Casing: Size 5.5" Type & Wt. _____ Set at _____ ft.
 Formation: _____ Perf. _____ to _____
 Formation: _____ Perf. _____ to _____
 Formation: _____ Perf. _____ to _____
 Liner: Size _____ Type & Wt. _____ Top at _____ ft. Bottom at _____ ft.
 Cemented: Yes No Perforated from _____ ft. to _____ ft.
 Tubing: Size & Wt. _____ Swung at _____ ft.
 Perforated from _____ ft. to _____ ft.
 Open Hole Size _____ T.D. _____ ft. P.B. to _____ ft.

Type Treatment: _____ Amt. _____ Type Fluid _____ Sand Size _____ Pounds of Sand _____
 Bkdown _____ Bbl./Gal. _____
 _____ Bbl./Gal. _____
 _____ Bbl./Gal. _____
 _____ Bbl./Gal. _____
 Flush _____ Bbl./Gal. _____
 Treated from _____ ft. to _____ ft. No. ft. 0
 from _____ ft. to _____ ft. No. ft. 0
 from _____ ft. to _____ ft. No. ft. 0
 Actual Volume of Oil / Water to Load Hole: _____ Bbl./Gal.
 Pump Trucks. No. Used: Std. 365 Sp. _____ Twin _____
 Auxiliary Equipment _____ 327
 Personnel Nathan-Greg-Clerance
 Auxiliary Tools _____
 Plugging or Sealing Materials: Type _____ Gals. _____ lb.

Company Representative _____ Bo _____ Treater Nathan W.

TIME	PRESSURES		Total Fluid Pumped	REMARKS
	Tubing	Casing		
4:15		5.5"		On Location. Rig laying down collars.
				TD-3280'
				5.5"-3278' Centralizer on joint #3
7:30				Run in hole with 5.5" casing. Tag bottom and pick up 2'
9:30				Break circulation with mud pump. Circulate for 30 minutes.
10:00				Pump 600gal of Mud Flush. Plug Rat hole with 30sks.
				Mix 100sks 60/40poz 2%gel 10% Salt .75% C-37 .75% C-41p 5#/sk Gilsonite at 15#/gal.
				Wash out pump and lines.
11:00				Displace with 79.5bbls at 6.25bpm-600# Plug landed at 1000# Pressure up to 1400# Held.
				Thank You!
				Nathan W.

Conservation Division
266 N. Main St., Ste. 220
Wichita, KS 67202-1513



Phone: 316-337-6200
Fax: 346-337-6211
<http://kcc.ks.gov/>

Dwight D. Keen, Chair
Shari Feist Albrecht, Commissioner
Susan K. Duffy, Commissioner

Laura Kelly, Governor

November 14, 2019

mike atterbury
Darrah Oil Company, LLC
125 N MARKET SUITE 1425
WICHITA, KS 67202-1720

Re: ACO-1
API 15-053-21369-00-00
JOHN VACEK 7
SE/4 Sec.32-15S-10W
Ellsworth County, Kansas

Dear mike atterbury:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

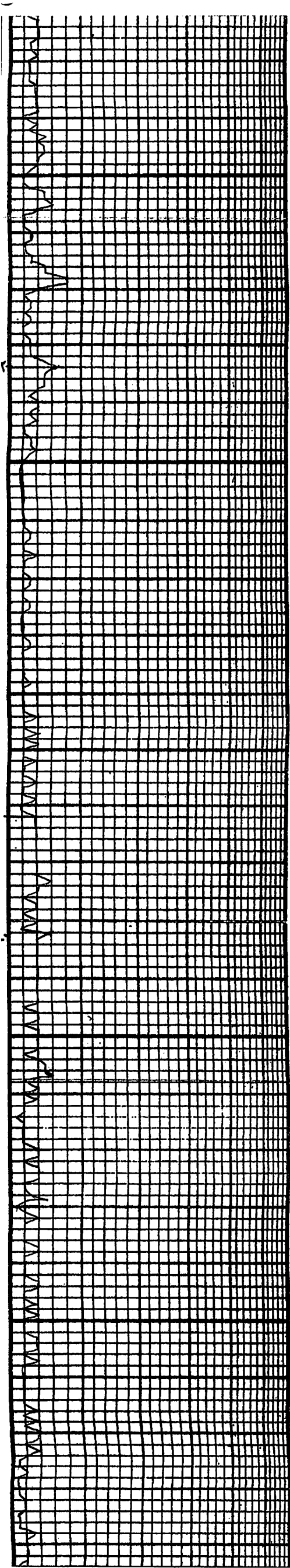
The above referenced well was spudded on 06/14/2019 and the ACO-1 was received on November 14, 2019 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department



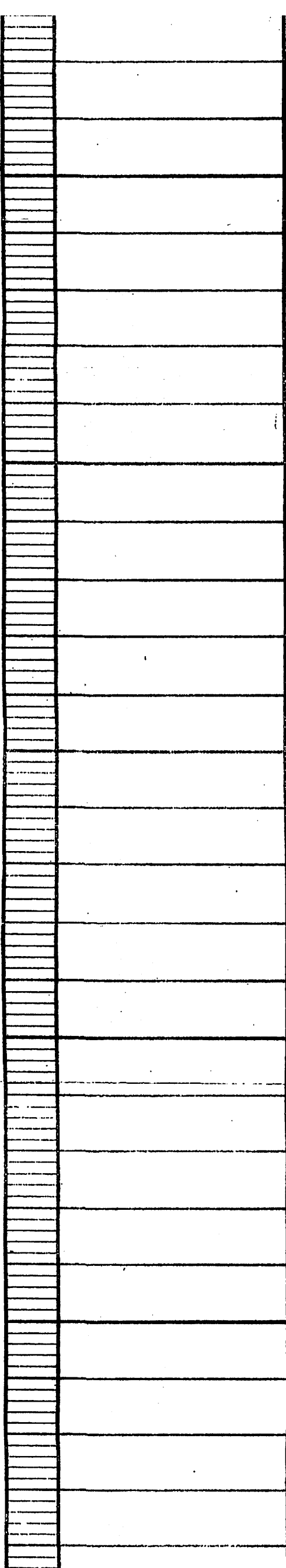
2800'

50

2900'

50

3000'

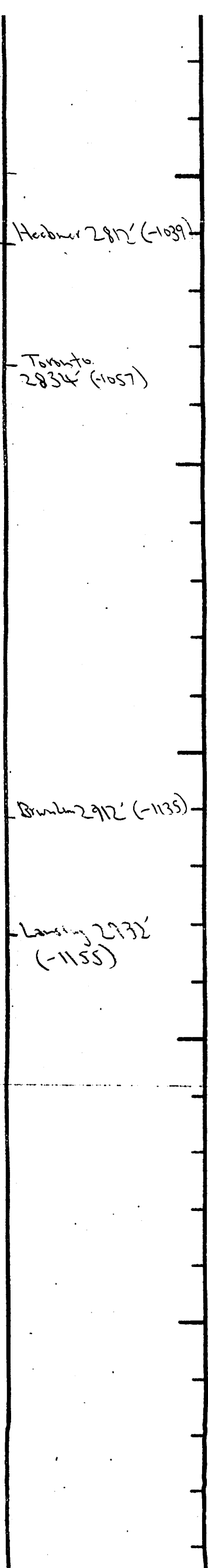


Headwater 2812' (-1039)

Tomato
2834' (-1057)

Branley 2912' (-1135)

Lansing 2932'
(-1155)



50

3100'

50

3200'

50 CFS

Sup 3267

CFS

CFS

Lms, grey to light grey, some tan, vfn xth, med res, med up-no vis & a few pcs of bluish, some calc vnglar w/fr

Lms, grey to cyan, vfn xth, med res, but no vis & a few partly calcic w pr-fr vnglar & S.S.

Lms, lt grey-tan, vfn-fn xth, med res, vfn-wic r xth, med res, vpr-no vis &

Lms, lt grey to off-white vfn xth, med res, but vpr-no vis &

Lms, lt grey, tan, some off-white micro-vfn xth, med res, vpr-no vis &

Lms, cyan, lt grey, some tan, micro-vfn xth, med res, but no vis & a few pr con calcic vnglar, but vpr-no vis &

Lms, cyan, tan grey, micro-vfn xth, med-hrd res, vpr-no vis & This blk. fine chert. Some blk caps chert

Lms, cyan, tan, lt grey, micro-vfn xth, med-hrd res, pr-no vis &

Lms, cyan, lt grey, micro-vfn xth, med res, some off-white & blk chert, vpr-no vis &

Lms, cyan, tan grey, micro-vfn xth, med some hrd res, all pr-no vis &. Small amount blk carb egg imp shale

Lms, lt grey to grey some cyan, micro-vfn xth, med res, vpr-no vis &. Much blk carb shale.

Lms, grey, vfn xth, med-hrd res, some chert to silty, all pr-no vis & Some blk carb shale as above

Lms, tan, lt grey, cyan, micro-vfn xth, med-hrd res, vpr-no vis &. Sp. pritic lms, some calcic lms in lms shale

Lms, tan to lt grey, vfn xth, med-hrd res, vpr-no vis &. Lms in grey shale a couple prs of grey chert

Shaly lms to lms shale, grey, med res, much tan lms as above. Some lt grey green silty shale. Also some dk grey-bk sst shale

Shale, grey, blk, med son earthy, some bluish, some lt grey, green & silty.

Lms, cyan, some lt grey, vfn xth, pr-no vis & med res. Some lt pritic bluish calcic lms as above.

Lms, grey, shaly, some tan, vfn xth, med res, all calcic in silty to med grey shale. Most lt grey, silty shale, some vpr-no vis &

Mostly lms, lt grey, fine. Some lt grey to lt green shale. Also some SS, lt green to lt grey vfn-fn xth, med-hrd res pr-no vis &, with small, med-shale. A couple of blk chert

some outer lms grey to off-white fine & med vpr-no vis & S.S.

Some dark grey & blk shale

some prs, cherty, more cherty prs than above.

3 prs grey, shaly calcic, pr-no vis & S.S.

BLK 3223' (-1446)

3250' CFS 15 min. Shaly calcic lms, cyan, grey, shaly lms, no vis &. Much pritic. 87 @ 2000' level as above.

3250' CFS 30 min. Calcic lms, cyan, grey, shaly, med res, all calcic in silty to med grey shale. Most lt grey, silty shale, some vpr-no vis &. Some lt grey, vfn xth, med res, vpr-no vis &, but part of the calcic lms. Also some cyan, grey, shaly, med res, all calcic in silty to med grey shale.