

Confidentiality Requested:

 Yes NoKANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISIONForm ACO-1
January 2018Form must be Typed
Form must be Signed
All blanks must be FilledWELL 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 Date Reached TD Completion Date or
Recompletion Date 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: _____ (e.g. xx.xxxxx), Long: _____ (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 DistributionALT 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 (Attach Additional Sheets)	<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			
Geologist Report / Mud Logs	<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: <input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> 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: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> 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 (If vented, Submit ACO-18.)		METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled (Submit ACO-5) <input type="checkbox"/> Commingled (Submit ACO-4)			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 (Amount and Kind of Material Used)	
TUBING RECORD: Size: Set At: Packer At:						

Form	ACO1 - Well Completion						
Operator	Natural Gas Pipeline Company of America LLC						
Well Name	AMA 434 1						
Doc ID	1748054						

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	14	10.750	9.1	20	Bentonite	15	N/A

N

KM LINE #4

KM LINE #3

KM LINE #2

DEEP GROUNDBED 2
GPS COORDINATES
N 39.944372
W -97.167194

DEEP GROUNDBED 1
GPS COORDINATES
N 39.944394
W -97.167208

DEEP GROUNDBED 4
GPS COORDINATES
N 39.944406
W -97.167050

DEEP GROUNDBED 3
GPS COORDINATES
N 39.944489
W -97.167008

19'

24'

19'

13'

A.B

DEEP GROUNDBED INSTALLATION
(4) 10"X250
13 OF 2660 CAST IRON ANODES
WITH #6 HMWPE ANODE LEADS
5,000# LORESCO SC-3 COKE BREEZE
1,950# DENTONITE HOLE PLUG
20' OF 10" SDR-21 PVC CASING WITH CAP

DEEP GROUNDBED LEGEND				CATHODIC PROTECTION LAYOUT			
No.	Description	Drawn By:	Chkd By:	Drawn By:	Chkd By:	Project No.	Sheet No.
1	DEEP GROUNDBED	— (+) —	POSITIVE CABLE	J. GREENFIELD		Date: 6/2023	Revision: 0
2	ANODE BOX	— (-) —	NEGATIVE CABLE				
3	NEG. CONNECTION	— () —	Pipeline Assets				
4	RECIFIER	▲					

CITATION

DRILLING & BORING

DEEP GROUNDBED DRILL LOG & RECTIFIER FORM

CLIENT INFORMATION

Client	Kinder Morgan			Job Number	2023-0211		
Facility	AMA 434N DW4			Customer Contact	Kevin Brown		
City	Morrowville	County	Washington	State	Ks	Phone No.	+1 (308) 325-3563

DEEP GROUNDBED & DRILLING LOG INFORMATION

New Installation Existing Rectifier

Hole Dia.	10"	Total Depth	250'	Casing Feet	20'	Dia.	10"	Type	SDR21 PVC	Groundbed GPS
No. Anodes	13	Size & Type	2660 cast iron	Anode Lead	300'	Size	#6	Type	HWMPE	N 39.944406
Lbs. Coke	5000	Coke Type	SC3	Top of Coke Column	108'			Vent	140'	W -97.16785
Lbs. Plug	2500	Plug Type	Bentonite	Top of Plug	3'			Logging Volts	12.8	

Depth Ft.	DRILLER'S LOG	Anode NO.	Electric Log				Depth Ft.	DRILLER'S LOG	Anode NO.	Electric Log			
			Volts	Amps Before	Amps After	Remarks				Volts	Amps Before	Amps After	Remarks
0							205		5				7.2
5							210	Sandy Clay					1.1
10	Casing						215		4				7.0
15							220	Sandy Clay					1.2
20	Casing						225		3				6.1
25							230	Sandy Clay					1.3
30	Sand stone		.4				235		2				2.9
35							240	Sandy Clay					1.2
40	Sand stone		.8				245		1				3.0
45							250	Sandy Clay					1.0
50	Sandy clay		.3				255						
55							260						
60	Sandy clay		.4				265						
65							270						
70	Sandy clay		.6				275						
75							280						
80	Sandy clay		.8				285						
85							290						
90	Sandy Clay		.4				295						
95							300						
100	Sandy clay		.8				305						
105							310						
110	Sandy Clay		.5				315						
115							320						
120	Red clay		1.2				325						
125		13		8.3			330						
130	Red clay		1.7				335						
135		12		8.3			340						
140	Red clay		1.6				345						
145		11		7.6			350						
150	Red clay		1.4				355						
155		10		8.2			360						
160	Red clay		1.2				365						
165		9		8.7			370						
170	Red clay		1.2				375						
175		8		8.7			380						
180	Red clay		1.5				385						
185		7		6.8			390						
190	Sandy clay		1.5				395						
195		6		7.1			400						
200	Sandy Clay		.9							Total			

ANODE JUNCTION BOX INFORMATION

ANODE JUNCTION BOX												COMMENTS
Cir.	Amp	Cir.	Amp	Cir.	Amp	Cir.	Amp	Cir.	Amp	Cir.	Amp	
1	6			11		16		21		26		
2	7			12		17		22		27		
3	8			13		18		23		28		
4	9			14		19		24		29		
5	10			15		20		25		30		
Shunt	Mv		Amp						TOTAL			

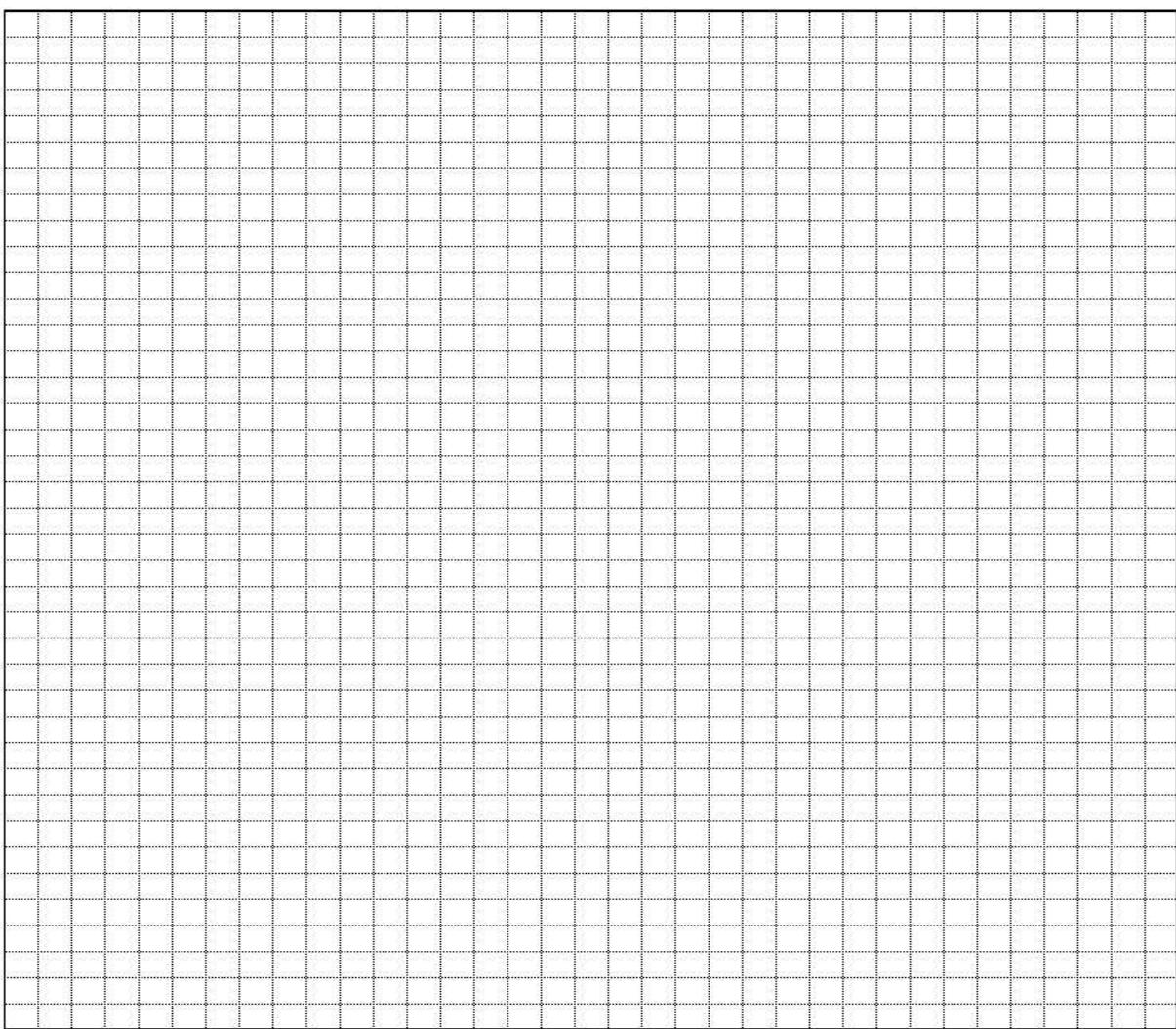
RECTIFIER INFORMATION					
Manufacturer			Rectifier ID Number		
Model No.	DC Volts		AC Volts		Max Coarse
Serial No.	DC Amps		AC Amps		Max Fine
GPS Coordinates	Latitude	N	Longitude	W	
RMU Type			Serial Number		

ENERGIZED INFORMATION No A/C Power #12 Lead Installed with Negative

Coarse Tap Setting	of	AC Volts	DC Volts	DC Amps	
Fine Tap Setting	of	AC Amps	DC mV	Structure PS	
Calculated Ground Bed Resistance	Calculated Rectifier Efficiency				

ASBUILT DRAWING

 DEEP BED  NEGATIVE JUNCTION BOX  POSITIVE JUNCTION BOX  ANODE JUNCTION BOX  RECTIFIER  WELL HEAD  POWER POLE  COUPON TEST STATION  AC POWER POLE  BLOCK VALVE  REFERENCE CELL  MAG ANODE  VERTICAL CAST-IRON ANODE  HORIZONTAL CAST-IRON ANODE



Remarks:

Technician/Foreman

Date
