





Form	ACO1 - Well Completion
Operator	Natural Gas Pipeline Company of America LLC
Well Name	AMA 427 1
Doc ID	1708034

#### 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

# CITATION

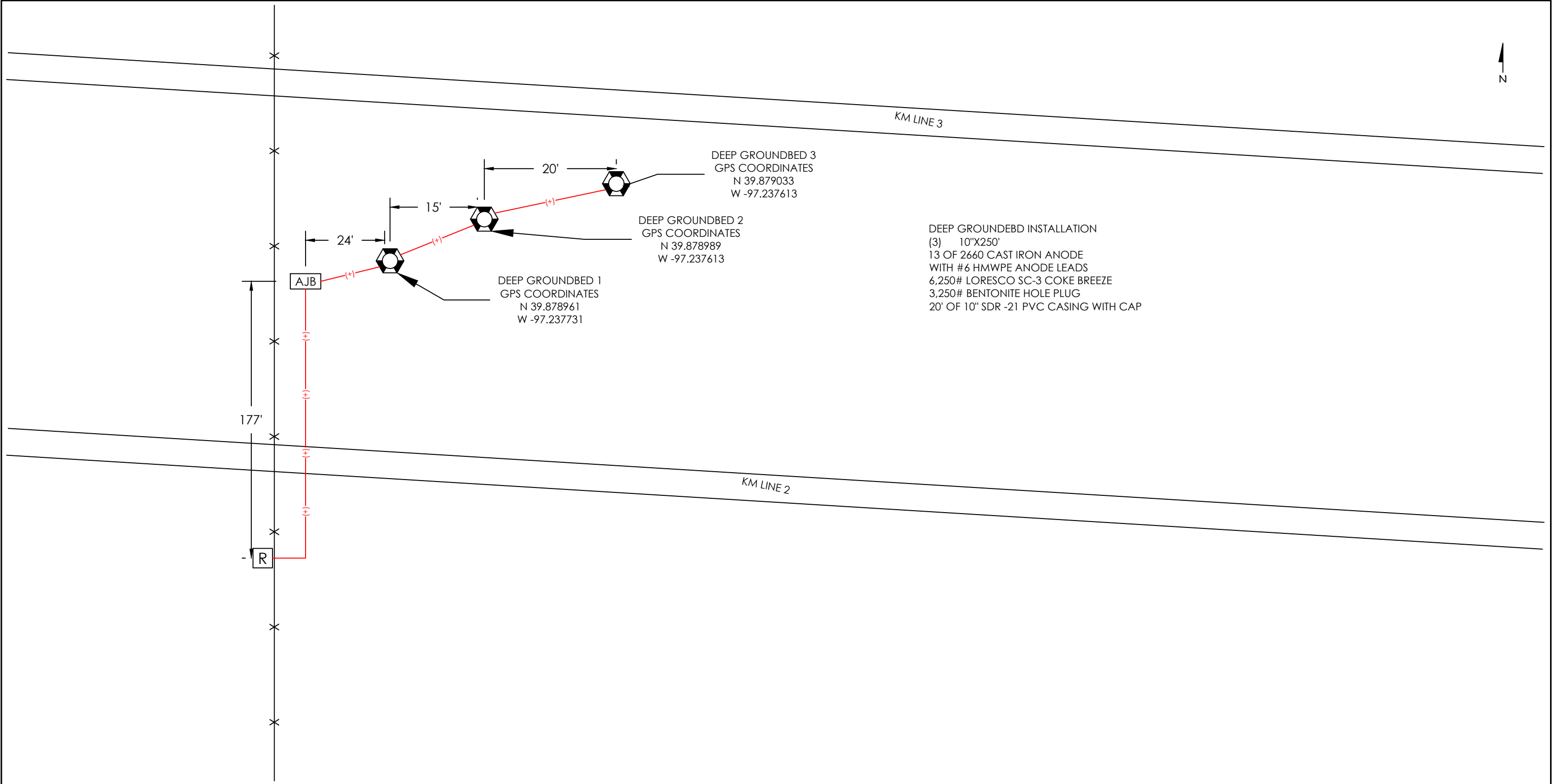
## DEEP GROUND BED DRILL LOG & RECTIFIER FORM

### DRILLING & BORING

CLIENT INFORMATION											
Client	Kinder Morgan					Job Number	2022-0379				
Facility	AMA 427 DW-1					Customer Contact	Kevin Brown				
City	Morrowville	County	Washington	State	Ks	Phone No.	308-325-3563				
DEEP GROUND BED & DRILLING LOG INFORMATION											
						<input type="checkbox"/> New Installation	<input checked="" type="checkbox"/> Existing Rectifier				
Hole Dia.	10"	Total Depth	250'	Casing Feet	20'	Dia.	10"	Type	SDR-21 PVC	Groundbed GPS	
No. Anodes	13	Size & Type	2660 cast Iron	Anode Lead	300'	Size	#6	Type	HWMPE	N	39.878961
Lbs. Coke	6250	Coke Type	SC3	Top of Coke Column	76'	Vent	180'	W	-97.237731		
Lbs. Plug	2300	Plug Type	bentonite	Top of Plug	3'	Logging Volts			13.2		

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			11.8	
5							210	Tan Clay				1.6	
10	Casing						215		4			10.8	
15							220	Sandy Clay				1.4	
20	Casing						225		3			8.3	
25							230	Sandy Clay				1.4	
30	Tan Clay			1.5			235		2			7.3	
35							240	Sandy Clay				1.3	
40	Tan Clay			1.7			245		1			3.5	
45							250	Sandy Clay				1.4	
50	Tan Clay			1.6			255						
55							260						
60	Tan Clay			1.4			265						
65							270						
70	Tan Clay			1.6			275						
75							280						
80	Sand stone			.8			285						
85							290						
90	Sand stone			.6			295						
95							300						
100	Tan Clay			1.1			305						
105							310						
110	Tan Clay			1.3			315						
115							320						
120	Tan Clay			1.4			325						
125		13			8.0		330						
130	Tan Clay			1.3			335						
135		12			8.3		340						
140	Tan Clay			1.0			345						
145		11			9.1		350						
150	Tan Clay			1.3			355						
155		10			10.1		360						
160	Tan clay			1.3			365						
165		9			12.5		370						
170	Tan Clay			1.5			375						
175		8			12.9		380						
180	Tan Clay			1.6			385						
185		7			12.9		390						
190	Tan Clay			1.5			395						
195		6			11.5		400						
200	Tan Clay			1.6				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				



REVISIONS					
No.	Description	Drawn By:	Date	Chk'd By:	Date

DEEP GROUND BED LEGEND			
	DEEP GROUND BED		POSITIVE CABLE
	ANODE JBOX		NEGATIVE CABLE
	NEG. CONNECTION		PIPELINE ASSETS
	RECTIFIER		

Drawn by:	Date:
CHALL	2/16/2023
Checked by:	Date:
AAS	2/21/2023



MERIDIAN

PIPELINE SERVICES

CORROSION • INTEGRITY • CONSTRUCTION

CATHODIC PROTECTION LAYOUT AMA 427 DEEP GROUND BED INSTALLATION			KS
MORROWVILLE	Project No:	2022-0379	Revision: 0