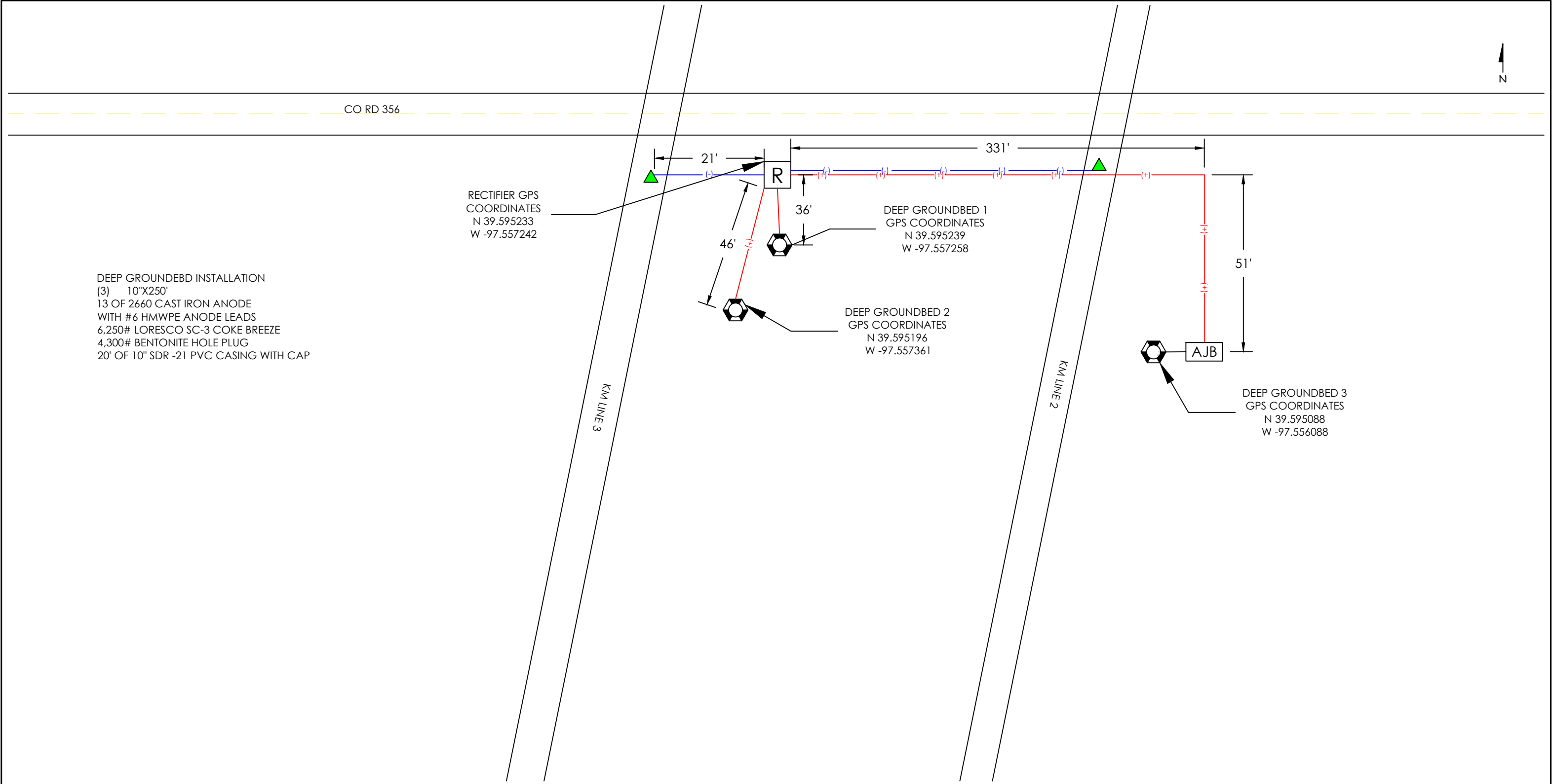


Form	ACO1 - Well Completion
Operator	Natural Gas Pipeline Company of America LLC
Well Name	AMA 389 2
Doc ID	1707261

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



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

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

Drawn by:	Date:
CHALL	2/14/2023
Checked by:	Date:
AAS	2/16/2023



MERIDIAN
PIPELINE SERVICES
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CATHODIC PROTECTION LAYOUT AMA 389 DEEP GROUNDBED INSTALLATION			KS
CONCORDIA	Project No:	2022-0479	Revision: 0

CITATION

DEEP GROUND BED DRILL LOG & RECTIFIER FORM

DRILLING & BORING

CLIENT INFORMATION												
Client	Kinder Morgan						Job Number	2022-0479				
Facility	AMA 389 DW 2						Customer Contact	Kevin Brown				
City	Concordia	County	Cloud	State	KS		Phone No.	308-325-3563				
DEEP GROUND BED & DRILLING LOG INFORMATION												
<input checked="" type="checkbox"/> New Installation <input 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	39.595196	
Lbs. Coke	6250	Coke Type	SC3	Top of Coke Column	61'			Vent	180'	W	-97.557361	
Lbs. Plug	3250	Plug Type	Bentonite	Top of Plug	3'			Logging Volts	13.4			

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			12.1	
5							210	Rock			2.2		
10	Casing						215		4			9.9	
15							220	Grey clay			1.6		
20	Casing						225		3			9.3	
25							230	Grey clay			3.4		
30	Pea gravel			1.0			235		2			8.2	
35							240	Grey clay			3.1		
40	Pea gravel			1.3			245		1			4.9	
45							250	Grey clay			3.3		
50	Pea Gravel			1.4			255						
55							260						
60	Pea Gravel			1.5			265						
65							270						
70	Pea Gravel			1.8			275						
75							280						
80	Pea gravel			2.5			285						
85							290						
90	Sand stone			2.7			295						
95							300						
100	Sand Stone			3.0			305						
105							310						
110	Sand stone			2.9			315						
115							320						
120	Sand stone			2.8			325						
125		13			10.4		330						
130	Sand stone			3.5			335						
135		12			11.2		340						
140	Grey clay			3.7			345						
145		11			12.1		350						
150	Grey clay			3.6			355						
155		10			10.9		360						
160	Grey clay			3.7			365						
165		9			12.6		370						
170	Grey clay			3.6			375						
175		8			14.8		380						
180	Grey clay			3.7			385						
185		7			15.0		390						
190	Grey clay			3.7			395						
195		6			13.9		400						
200	Grey clay			3.3				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				