Change Order No. <u>7 (Seven)</u>

Date of Issuance: May 26, 2020			Effective Date:	May 26	, 2020				
Project: Gillette Madison Pipeline Project –	Owner: C	ity of Gillette		Project No	.: 07EN58 – Cont. #2A				
Production Wells				MMI Proie	ct No.: 4776.002				
Contractor: Layne Christensen, Inc.	•			Date of Co					
The Contract Documents are modi	fied as follows ur	oon execution of this	Change Order						
	cct: Gillette Madison Pipeline Project — Owner: City of Gillette								
	e Madison Pipeline Project — Owner: City of Gillette Project No: 07ENSB — Cont. #2A MMI Project No: 07ENSB — Cont. #2A MMI Project No: 4776.002 Date of Contract: November 13, 2015 ct Documents are modified as follows upon execution of this Change Order: cmpleted quantities are being reconciled to clarify remaining work and budget. (List documents supporting change): Change Order Summary, Contractor's E-Mail CHANGE IN CONTRACT PRICE: CHANGE IN CONTRACT TIMES: Ce prior to this Change Order: Contract Times prior to this Change Order: Substantial completion (days or date): 840 Days 15,152,724.06 Ready for final payment (days or date): 900 Days Pecease] of this Change Order: Substantial completion (days or date): 0 Days 633,385.81 Ready for final payment (days or date): 840 Days Ready for final payment (days or date): 0 Days Contract Times with all approved Change Order: Substantial completion (days or date): 840 Days Ready for final payment (days or date): 900 Days 15,786,109.87 Ready for final payment (days or date): 840 Days Ready for final payment (days or date): 900 Days NDED: ACCEPTED: ACCEPTED: By: By: By:								
Attachments: (List documents supporting		rder Summary, Contracto	r's						
CHANCE IN CONTRACT	DDICE.	CH	NICE IN CONT	DACT TIM	AEC.				
CHANGE IN CONTRACT	PRICE:	CHA	ANGE IN CONTI	KACI IIIV	163:				
Contract Price prior to this Change O	rder:	Contract Times pri	or to this Change	e Order:					
		Substantial completion (days or date): 840 Days							
\$15,152,724.06		Ready for final p	900 Days						
[Increase] [Decrease] of this Change	Order:		-		0.5				
000.005.04			•						
\$ 633,385.81		Ready for final p	payment (days or	date):	0 Days				
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Contract Frice incorporating this Cha	nge Order.			_					
\$ 15.786.109.87					-				
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RECOMMENDED:	ACCEPTED:		ACCEPTE	:D:					
Ву:	•								
Engineer (Authorized Signature)	Owner (Aut	thorized Signature)	tractor (Authorized Signature)						
Date: May 26, 2020	Date:		Date:						
A 11 5 11 A 27			5 .						
Approved by Funding Agency (if applicable):			Date:						



WYOMING WATER DEVELOPMENT OFFICE

6920 Yellowtail Road Cheyenne, WY 82002

Phone: (307) 777-7626 wwdc.state.wy.us

Mark Gordon Governor Commissioners

Gerald E. Geis Clinton W. Glick Kellen K. Lancaster Sheridan Little Mike Purcell Larry Suchor Rodney Wagner Bill Yankee

July 14, 2020

City of Gillette Utility Department Attention: Mr. Levi Jensen P.O. Box 3003 Gillette, WY 82717

Dear Mr. Jensen:

This letter provides Wyoming Water Development Office concurrence to Change Order No. 7 to Layne's contract on the Gillette Madison Pipeline - Project 2a. Change Order No. 7 addresses adjusts the costs for project overruns and underruns to date on the project. Change Order No. 7 increases Layne's contract price by \$633,385.81 (from \$15,152,724.06 to \$15,786,109.87), Please provide WWDO with a copy of the executed change order.

Please contact me if you have any questions.

you & Clerkin

Regards,

Bryan Clerkin

WWDO Deputy Director of Construction

Enclosure:

Draft Change Order No. 7

cc:

Project Files

Change Order 7 Summary

This Change Order amends the pay app to better clarify remaining work items and budget. A new Contractor's Application for Payment is attached that removes all work items that are complete. Column (H) represents the reconciliation of values not expended within the contract. Column (I) represents the remaining bid items needed to complete the job. Several items were increased as they had overran the original bid amount but will be needed. Column (J) represents the value of work remaining to be complete.

City of Gillette GMPP-Madison Production Wells Change Order Seven (7) - Reconciliation of Completed Quantities

May 2020

Project Number: 07EN58 - Contract #2A

MMI Project No.: 4776.001

Bid Item No.	Description	Unit	Bid Qnty		Unit Price	Installed Quantity	Quantity Variance	Amount Variance To Date		Quantity Remaining	Amount Remainin	
(A)	(B)	(C)	(D)		(E)	(F)	(G) = (F)-(D)	(H) = (G) x (E)	(1)	(J) = (I) x (E)
020.01	Mobilization	LS	1	\$	700,000.00	1	0	\$	-	-	\$	-
020.02	Contract Bonds	LS	1	\$	85,000.00	0.86	-0.14	\$	(11,611.00)		\$	-
500.11	Construction Stormwater Management	LS	1	\$	60,000.00	0.91	-0.09	\$	(5,400.00)	0.09	\$	5,400.
210.13	Construct Drill Pads	EACH	3	\$	251,000.00	3	0	\$	(0, 100.00)	-	\$	0, 100.
	Rig Up On-Site	LS		_	-	4		_	05 000 00		\$	
680.101			3	\$	35,000.00		1	\$	35,000.00	-	_	-
680.102	Provide Bunkhouse Style Skidhouse for Engineer Field Office	MONTH	14	\$	1,000.00	17.75	3.75	\$	3,750.00	-	\$	-
680.103	Provide Four 400-bbl Frac Tanks for Drilling Fluid and Water Reserve Provide and Operate Temporary Drilling Water Line and Pump from	MONTH	14	\$	4,400.00	20.25	6.25	\$	27,500.00	-	\$	-
680.104	City Reservoir to well sites	LS	1	\$	275,000.00	0.75	-0.25	\$	(68,750.00)	0.25	\$	68,750
				-					, ,	0.25		
680.105	Drill 44-inch Borehole for Surface Conduit Provide and Install 36-inch, 0.375-inch wall, Steel Surface Conduit in	FEET	330	\$	200.00	224	-106	\$	(21,200.00)	-	\$	
2000 400	44-inch borehole, as specified	FEET	360	s	000.00	219	-141		(00,000,00)		s	
2680.106	Provide and Install Fabricated Casing Round Centralizers on 36-inch	FEET	360	Þ	200.00	219	-141	\$	(28,200.00)	-	3	
680.107	casing in 44-inch borehole	EACH	48	\$	35.00	33	-15	\$	(525.00)		\$	
.000.107	Support Surface Conduit Cementing Operations Cementing and	LACIT	40	φ	33.00	33	-13	φ	(323.00)		Ÿ	
680.108	Waiting on Cement	HOUR	24	\$	950.00	14	-10	\$	(9,500.00)	_	\$	
	Service Company Services to Cement 36-inch Surface Conduit, as	110011		Ť	000.00			_	(0,000.00)		Ť	
680.109	specified	SACK	1035	\$	45.00	1369	334	\$	15,030.00	_	\$	
	Drill 22-inch Diameter Borehole, including pilot hole and reaming			Ť				_	,		Ť	
680.110	passes	FEET	6870	\$	275.00	6978	108	\$	29,700.00	-	\$	
	Haul Makeup Water for Drilling Fluid from COG Madison Pumping											
680.111	Station when supply line is frozen	BBL	10800	\$	5.00	33650	22850	\$	114,250.00	-	\$	
	Pump Off and Store degraded drilling fluid in on-site frac tanks and											
680.112	haul to licensed disposal site	BBL	12000	\$	32.00	12000	0	\$	-	-	\$	
	Provide Geophysical Logging of 22-inch Hole, as specified, including											
680.113	caliper log	LS	3	\$	18,000.00	3	0	\$	-	-	\$	
	Provide and Install 16-inch, 0.375-inch wall, 62.64 lb/ft production											
680.114	casing, as specified	FEET	6990	\$	105.00	6881	-109	\$	(11,445.00)	-	\$	
	Provide and Install 16-inch, 0.500-inch wall, 82.85 lb/ft production						_	_				
680.115	casing, as specified	FEET	240	\$	110.00	240	0	\$	-	-	\$	
2000 440	Provide and Install Centralizers on 16-inch casing in 22-inch borehole	FAOU	700		05.00	200	504		(47.040.00)		_	
2680.116		EACH	732	\$	35.00	228	-504	\$	(17,640.00)	-	\$	
680.117	Provide and Install 16-inch Float Collar Provide, Fabricate and Install 16-inch diameter, 0.500-inch wall.	LS	3	\$	8,000.00	1	-2	\$	(16,000.00)	-	\$	
2680.118	82.85 lb/ft Guide Casing	FEET	60	s	110.00	60	0	\$			\$	
2000.110	Support Production Casing Cementing Operations including tripping	FEET	60	à	110.00	60	U	Þ	-	-	à	
2680.119	tubing and Waiting on Cement	HOUR	156	s	950.00	760	604	\$	573,800.00	_	\$	
2000.113	Sevice Company Services to Cement 16-inch Steel Casing, as	HOOK	100	Ψ	330.00	700	004	Ψ	373,000.00		ų.	
2680.120	specified. Bid Quantity includes 10% overrun	SACK	7350	s	45.00	8292	942	\$	42,390.00	_	\$	
680.121	Provide Cement Bond Log for 16-inch casing	LS	3	\$	9,100.00	4	1	\$	9,100.00	-	\$	
.000.121	Provide and Operate 8,400-CFM, 1,350-psi Air Package for Drilling	LO		Ψ	3,100.00	7		Ψ	3,100.00		ų.	
	and Development, as specified, including manifolds and high-											
2680.122	pressure pipe	WEEKS	12	s	4,000.00	6	-6	s	(24,000.00)	_	s	
	Provide 10-inch Steel Discharge pipe, butt-welded, including elbows			Ť	1,000100			-	(= 1,000100)		Ť	
680.123	and fabrication to well and cyclone	FEET	400	\$	125.00	400	0	\$	-	-	\$	
680.124	Install and Remove 10-inch Steel Discharge Pipe	LS	3	\$	14,000.00	4	1	\$	14,000.00	-	s	
	Provide and Install 10-inch Flanged API 600, WCB gate valves with			Ť	,		-	_	,		Ť	
680.125	matching flanges for steel discharge pipe	LS	3	\$	3,750.00	4	1	\$	3,750.00	-	\$	
	Provide and Install 16-inch Steel Vent pipe to exhaust air from top of								·			
680.126	cyclone, including all fabrication and bracing	LS	1	\$	4,000.00	1	0	\$	-	-	\$	
	Provide and Install Rotating Well Head (Rotating Control Head) for											
680.127	16-inch casing	LS	1	\$	45,000.00	1	0	\$	-	-	\$	
	Drill 14-3/4 inch Diameter Borehole with Air Rotary Methods, as								-			
680.128	specified	FEET	1200	\$	225.00	845	-355	\$	(79,875.00)	-	\$	
680.129	Provide Geophysical Logging of 14-3/4 inch Open Hole, as specified	LS	3	\$	18,000.00	3	0	\$	-	-	\$	
	Provide, install and Remove Test Pump Equipment, Appurtenances										_	
	and Instrumentation for Intermediate Pumping Test, including pre-	1	1	L							1_	
2680.130	test pumping	LS	3	\$	150,000.00	3	0	\$	-	-	\$	
	Provide, Install and Remove Generator for Intermediate Pumping	l .	1	١.			1	١.			Ι.	
680.131	Tests	TEST	3	\$	30,000.00	3	0	\$	-	-	\$	

	Provide six data loggers with pressure transducers and cables, and								-		1	
2680.132	barometric logger as specified	MONTH	3	\$	10,000.00	2	-1	\$	(10,000.00)	2	\$	20,000.00
2680.133	Provide Networking Hub for operating and downloading data loggers	MONTH	3	\$	4,000.00	0.50	-2.50	\$	(10,000.00)	2	\$	8,000.00
	Operate Generator and Test Pumping Equipment for Intermediate Pumping Tests, as specified, including standby for recovery after											
2680.134	pumping	HOUR	108	\$	1,250.00	86	-22	\$	(27,500.00)	-	\$	-
	Provide Downhole Video Log of Well including casing and open hole								(0.000.00)			
2680.135 2680.136	to total depth Provide Packer for 16-inch casing for Acid Fracturing, as specified	LS LS	3 1	\$	8,000.00 110,000.00	2	-1 0	\$	(8,000.00)	3	\$	24,000.00
2680.137	Install and Remove Packer for Acid Fracturing, as specified	HOUR	72	\$	500.00	73.75	1.75	\$	875.00	36	\$	18,000.00
	Provide Two 400-bbl Frac Tanks for Acid Frac job, (total of six frac											
2680.138	tanks on site)	MONTH	6	\$	2,000.00	1.50	-4.50	\$	(9,000.00)	1	\$	2,000.00
2680.139 2680.140	Support Acid Frac Treatment of Well as needed, including standby Provide Acid Fracture Treatment of Well, as specified	HOUR LS	24 3	\$	500.00 400,000.00	12.25	-11.75 -1	\$	(5,875.00)	6 1	\$	3,000.00
2000.140	Provide, Install and Remove Pump for pumping post-frac fluid from	LO	3	φ	400,000.00		-1	φ	(400,000.00)	'	Ψ	400,000.00
2680.141	well into frac tanks	HOUR	60	\$	600.00	36	-24	\$	(14,400.00)	24	\$	14,400.00
2680.142	Pump 2,400 barrels (100,800 gallons) of fluid from well into fractanks	HOUR	36	\$	600.00	24	-12	\$	(7,200.00)	12	\$	7,200.00
2000.142	Haul 2,400 barrels fluid from well site frac tanks to licensed disposal	HOOK	30	ų.	000.00	2-7	-12	Ψ	(1,200.00)	12	Ť	7,200.00
2680.143	site	BBL	7200	\$	10.00	3990	-3210	\$	(32,100.00)	4800	\$	48,000.00
2680.144	Provide and Install Diverter for Airlift Pumping to direct airlift discharge into 10-inch steel dump line	LS	3	\$	4,500.00	2	-1	\$	(4,500.00)	1	\$	4,500.00
2000.111	Trip In and Out Tubing and Develop Well by Airlift Pumping from total			Ť	1,000.00	-		Ť	(1,000.00)		Ť	1,000.00
2680.145	depth to top of open hole	HOUR	72	\$	600.00	231.50	160	\$	95,700.00	-	\$	-
2680.146	ProvideTest Pump Equipment, Appurtenances and Instrumentation for Final Pumping Test	LS	3	\$	150,000.00	0	-3	\$	(450,000.00)	3	\$	450,000.00
2000.110	Install and Remove Test Pump Equipment, Appurtenances and			Ť	100,000.00	-		Ť	(100,000.00)		1	100,000.00
2680.147	Instrumentation for Final Pumping Test, including pre-test pumping	HOUR	96	\$	650.00	0	-96	\$	(62,400.00)	96	\$	62,400.00
2680.148	Provide, Install and Remove Generator for Final Pumping Tests Operate Generator and Test Pumping Equipment for Final Pumping	TEST	3	\$	38,000.00	0	0	\$	-	-	\$	-
2680.149	Tests, as specified, including standby for recovery after pumping	HOUR	400	\$	1,250.00	0	-400	\$	(500,000.00)	400	\$	500,000.00
2680.150	Disinfect Well, as specified	LS	3	\$	7,500.00	0	-3	\$	(22,500.00)	3	\$	22,500.00
2680.151	Pump Private Reservoirs	LS	1	\$	6,000.00	0.60	-0.40	\$	(2,400.00)	-	\$	-
2680.152	Provide Downhole Video Log of Well including casing and open hole to total depth (Pre-Frac)	LS	3	s	8,000.00	0	-3	\$	(24,000.00)	_	\$	_
2000.102	Provide Gyroscopic Drift and Deviation Survey from Surface to Total	LO	,	φ	0,000.00	U	-5	φ	(27,000.00)	-	P	-
2680.153	Depth of Casings	LS	3	\$	10,000.00	3	0	\$	-	-	\$	-
2680.154	Provide and Install Mild Steel Plate Well Cap with access plug, as specified	LS	3	s	1,250.00	0	-3	s	(3,750.00)	3	\$	3,750.00
2680.155	Rig Down, Move to Next Site	LS	3	\$	58,000.00	4	1	\$	58,000.00	-	\$	-
	Demobilize from Section 36, Restore Site and Dispose of Drill										1.	
2680.156	Cuttings, as specified	LS	1	\$	165,000.00	0	-1	\$	(165,000.00)	1	\$	165,000.00
Additive Alterna 2680.157	Loss of Circulation in Non-Madison Aquifer Strata, rig time	HOUR	36	\$	750.00	1388.50	1,352.50	\$	1,014,375.00		\$	_
2680.158	Lost Circulation Materials	COST	3	\$	15,000.00	27.21	24.21	\$	363,093.45		\$	
2680.159	Loss of Circulation in Madison strata, rig time	HOUR	36	\$	750.00	24	-12	\$	(9,000.00)	-	\$	-
2680.160	Ream to 32-inch Borehole, including multiple passes	FEET	4710	\$	150.00	3161	-1549	\$	(232,350.00)	-	\$	-
2680.161	Haul Makeup Water for Drilling Fluid from COG Madison Pumping Station when supply line is frozen	BBL	5400	\$	5.00	43900	38500	\$	192,500.00		\$	
2000.101	Pump Off and Store degraded drilling fluid in on-site frac tanks and	DDL	3400	٩	3.00	43300	30300	φ	192,300.00		φ	
2680.162	haul to licensed disposal site	BBL	9000	\$	32.00	15858	6858	\$	219,456.00	-	\$	-
2680.163	Provide Caliper Log of 32-inch Borehole Provide and Install 24-inch, 0.375-inch wall, 94.62 lb/ft Surface	LS	3	\$	4,500.00	2	-1	\$	(4,500.00)	-	\$	-
2680.164	Casing in 32-inch borehole	FEET	4500	\$	130.00	3275	-1225	\$	(159,250.00)		\$	-
	Provide and Install Centralizers on 24-inch casing in 32-inch											
2680.165	borehole Drovide and Install 24 inch Coment Register	EACH	462	\$	30.00	92	-370	\$	(11,100.00)	-	\$	-
2680.166	Provide and Install 24-inch Cement Baskets Provide Wireline Services to Perforate 24-inch Casing for Cementing	EACH	3	\$	7,500.00	0	-3	\$	(22,500.00)	-	\$	
2680.167	Window above Cement Baskets	LS	3	\$	25,000.00	0	-3	\$	(75,000.00)	-	\$	-
200 100	Provide, Install and Remove Bradenhead seal for top of 24-inch casing	LS	3	s	6 000 00	2	-1	\$	(6,000,00)		s	
2680.168	Support Surface Casing Cementing Operations including Tripping	LO	3	à	6,000.00	2	-1	à	(6,000.00)	-	1	
2680.169	Tubing and Waiting on Cement	HOUR	156	\$	950.00	54.50	-101.50	\$	(96,425.00)	-	\$	-
2680.170	Service Company Services to Cement 24-inch Surface Casing, as specified	SACK	9000	s	45.00	6950	-2050	\$	(92,250.00)		\$	
2680.171	Provide Cement Bond Log for 24-inch casing	LS	3	\$	9.000.00	0	-3	\$	(27,000.00)		\$	
2680.172	Provide Stiff Foam Tank, Mixer and Injection Pump, as specified.	LS	1	\$	25,000.00	0	-1	\$	(25,000.00)	-	\$	-
	Provide and Mix Materials for Stiff Foam Slurry, as specified,											
2680.173	including fuel for high-pressure injection pump. Provide and Install Defoaming system based on water spray with	BBL	27111	\$	1.00	0	-27111	\$	(27,111.00)	-	\$	-
2680.174	defoaming agent.	BBL	1898	\$	4.00	0	-1898	\$	(7,592.00)		\$	
	Drill 22-inch Diameter Borehole with Air, including pilot hole and											
2680.175 2680.176	reaming passes	FEET	830 9	\$	250.00 5,000.00	0	-830 -9	\$	(207,500.00)	-	\$	
	Provide and Install 16-inch Cement Baskets	FACH		و	5,000.00	J	-3	φ	(=0,000.00)	-	۳	-
2000.170	Provide and Install 16-inch Cement Baskets Provide, Install and Remove 16-inch Bradenhead seal for top of 16-	EACH	9								\$	-
2680.177	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing	EACH	3	\$	8,500.00	1	-2	\$	(17,000.00)	-		
2680.177 2680.178	Provide, Install and Remove 16-inch Bradenhead seal for top of 16- inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation	EACH SACK	3 4050	\$	20.00	0	-4050	\$	(81,000.00)	-	\$	-
2680.177	Provide, Install and Remove 16-inch Bradenhead seal for top of 16- inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole	EACH	3	_				_		-		-
2680.177 2680.178	Provide, Install and Remove 16-inch Bradenhead seal for top of 16- inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, including caliper log	EACH SACK	3 4050	\$	20.00	0	-4050	\$	(81,000.00)	-	\$	
2680.177 2680.178 2680.179 2680.180	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Dill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, including caliper log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in	EACH SACK FEET LS	3 4050 1800 3	\$ \$	20.00 175.00 18,000.00	0 555 0	-4050 -1245 -3	\$ \$	(81,000.00) (217,875.00) (54,000.00)	-	\$	-
2680.177 2680.178 2680.179	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, including caliper log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in 14-3/4 inch borehole	EACH SACK FEET	3 4050 1800	\$	20.00 175.00	0 555	-4050 -1245	\$	(81,000.00) (217,875.00)	-	\$	-
2680.177 2680.178 2680.179 2680.180	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Dill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, including caliper log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in	EACH SACK FEET LS	3 4050 1800 3	\$ \$	20.00 175.00 18,000.00	0 555 0	-4050 -1245 -3	\$ \$	(81,000.00) (217,875.00) (54,000.00)	-	\$	- - - -
2680.177 2680.178 2680.179 2680.180 2680.181	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, including calliper log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft casing in	EACH SACK FEET LS	3 4050 1800 3 1620	\$ \$ \$	20.00 175.00 18,000.00 75.00	0 555 0	-4050 -1245 -3 -1620	\$ \$ \$	(81,000.00) (217,875.00) (54,000.00) (121,500.00)	- - - -	\$ \$	- - - - -
2680.177 2680.178 2680.179 2680.180 2680.181 2680.182 2680.183	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, including caliper log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft duide	EACH SACK FEET LS FEET FEET LS	3 4050 1800 3 1620 240 3	\$ \$ \$ \$	20.00 175.00 18,000.00 75.00 95.00 8,000.00	0 555 0 0 0	-4050 -1245 -3 -1620 -240 -3	\$ \$ \$ \$	(81,000.00) (217,875.00) (54,000.00) (121,500.00) (22,800.00) (24,000.00)	-	\$ \$ \$ \$ \$	
2680.177 2680.178 2680.179 2680.180 2680.181 2680.182	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, including calliper log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft casing in	EACH SACK FEET LS FEET FEET	3 4050 1800 3 1620 240	\$ \$ \$ \$	20.00 175.00 18,000.00 75.00	0 555 0 0	-4050 -1245 -3 -1620 -240	\$ \$ \$ \$	(81,000.00) (217,875.00) (54,000.00) (121,500.00) (22,800.00)	-	\$ \$ \$	
2680.177 2680.178 2680.179 2680.180 2680.181 2680.182 2680.183	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, including caliper log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch Collar Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft Guide Casing Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft Guide Casing Provide and Install 10-3/4 inch 70-500-inch wall, 54.79 lb/ft Guide Casing	EACH SACK FEET LS FEET FEET LS	3 4050 1800 3 1620 240 3	\$ \$ \$ \$	20.00 175.00 18,000.00 75.00 95.00 8,000.00	0 555 0 0 0	-4050 -1245 -3 -1620 -240 -3	\$ \$ \$ \$	(81,000.00) (217,875.00) (54,000.00) (121,500.00) (22,800.00) (24,000.00)	-	\$ \$ \$ \$ \$	- - -
2680.177 2680.178 2680.179 2680.180 2680.181 2680.182 2680.183 2680.184 2680.185	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, including calliper log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch Float Collar Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft Guide Casing Provide and Install 10-3/4 inch 10-3/4 inch Casing in 14-3/4 inch borehole Provide and Install Centralizers on 10-3/4 inch Casing in 14-3/4 inch borehole	EACH SACK FEET LS FEET LS FEET LS FEET LS	3 4050 1800 3 1620 240 3 60	\$ \$ \$ \$ \$ \$	20.00 175.00 18,000.00 75.00 95.00 8,000.00 95.00 30.00	0 555 0 0 0 0 0	-4050 -1245 -3 -1620 -240 -3 -60	\$ \$ \$ \$ \$	(81,000.00) (217,875.00) (54,000.00) (121,500.00) (22,800.00) (24,000.00) (5,700.00)	-	\$ \$ \$ \$ \$ \$	- - -
2680.177 2680.178 2680.179 2680.180 2680.181 2680.182 2680.183 2680.184 2680.185	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, including caliper log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch Collar Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft Guide Casing Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft Guide Casing Provide and Install 10-3/4 inch 70-500-inch wall, 54.79 lb/ft Guide Casing	EACH SACK FEET LS FEET LS FEET LS FEET	3 4050 1800 3 1620 240 3 60	\$ \$ \$ \$ \$	20.00 175.00 18,000.00 75.00 95.00 8,000.00	0 555 0 0 0 0	-4050 -1245 -3 -1620 -240 -3 -60	\$ \$ \$ \$ \$	(81,000.00) (217,875.00) (54,000.00) (121,500.00) (22,800.00) (24,000.00) (5,700.00)	-	\$ \$ \$ \$ \$	- - -
2680.177 2680.178 2680.179 2680.180 2680.181 2680.182 2680.183 2680.184 2680.185 2680.186	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, Including caliper log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft Guide Casing Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft Guide Casing Provide and Install 10-3/4 inch Liter Logging in 14-3/4 inch borehole Provide and Install Centralizers on 10-3/4 inch Casing in 14-3/4 inch borehole Support Intermediate Casing Cementing Operations including Tripping Tubing and Waiting on Cement	EACH SACK FEET LS FEET LS FEET LS FEET LS	3 4050 1800 3 1620 240 3 60	\$ \$ \$ \$ \$ \$	20.00 175.00 18,000.00 75.00 95.00 8,000.00 95.00 30.00	0 555 0 0 0 0 0	-4050 -1245 -3 -1620 -240 -3 -60	\$ \$ \$ \$ \$	(81,000.00) (217,875.00) (54,000.00) (121,500.00) (22,800.00) (24,000.00) (5,700.00)	-	\$ \$ \$ \$ \$ \$	- - -
2680.177 2680.178 2680.179 2680.180 2680.181 2680.182 2680.183 2680.184 2680.185 2680.185	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, Including caliper log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch Float Collar Provide and Install 10-3/4 inch Float Collar Provide and Install 10-3/4 inch Diameter Starten in 14-3/4 inch borehole Provide and Install 10-3/4 inch Float Collar Provide and Install 10-3/4 inch Diameter Starten in 14-3/4 inch borehole Provide and Install Centralizers on 10-3/4 inch Casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch LHT turnoff shoe at top of Intermediate casing Support Intermediate Casing Cementing Operations including Tripping Tubing and Waiting on Cement Service Company Services to Cement 10-3/4 inch Steel Casing, as	EACH SACK FEET LS FEET LS FEET LS FEET LS FEET EACH LS HOUR	3 4050 1800 3 1620 240 3 60 198 3	\$ \$ \$ \$ \$ \$ \$	20.00 175.00 18,000.00 75.00 95.00 8,000.00 95.00 30.00 3,500.00	0 555 0 0 0 0 0	-4050 -1245 -3 -1620 -240 -3 -60 -198 -3 -156	\$ \$ \$ \$ \$ \$ \$	(81,000.00) (217,875.00) (54,000.00) (121,500.00) (22,800.00) (24,000.00) (5,700.00) (5,940.00) (10,500.00) (148,200.00)	-	\$ \$ \$ \$ \$ \$ \$ \$	
2680.177 2680.178 2680.179 2680.180 2680.180 2680.181 2680.182 2680.183 2680.184 2680.185 2680.186 2680.186	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, Including caliper log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft Guide Casing Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft Guide Casing Provide and Install 10-3/4 inch Liter Logging in 14-3/4 inch borehole Provide and Install Centralizers on 10-3/4 inch Casing in 14-3/4 inch borehole Support Intermediate Casing Cementing Operations including Tripping Tubing and Waiting on Cement	EACH SACK FEET LS FEET LS FEET LS FEET LS FEET LS	3 4050 1800 3 1620 240 3 60 198 3 156	\$ \$ \$ \$ \$ \$	20.00 175.00 18,000.00 75.00 95.00 8,000.00 95.00 3,500.00 950.00	0 555 0 0 0 0 0 0	-4050 -1245 -3 -1620 -240 -3 -60 -198 -3 -156	\$ \$ \$ \$ \$ \$	(81,000.00) (217,875.00) (54,000.00) (121,500.00) (22,800.00) (24,000.00) (5,700.00) (5,940.00) (10,500.00) (148,200.00) (39,000.00)	-	\$ \$ \$ \$ \$ \$	
2680.177 2680.178 2680.179 2680.180 2680.181 2680.182 2680.183 2680.184 2680.185 2680.186 2680.187 2680.188	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, Including caliper log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft daide Casing Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft Guide Casing Provide and Install 10-3/4 inch Float Collar Provide and Install 10-3/4 inch Diameter in 14-3/4 inch borehole Provide and Install Centralizers on 10-3/4 inch Casing in 14-3/4 inch borehole Support Intermediate Casing Cementing Operations including Tiripping Tubing and Walting on Cement Service Company Services to Cement 10-3/4 inch Steel Casing, as specified Provide ecement bond log for 10-3/4 inch Casing	EACH SACK FEET LS FEET LS FEET LS FEET LS FEET EACH LS HOUR SACK LS	3 4050 1800 3 1620 240 3 60 198 3	\$ \$ \$ \$ \$ \$ \$ \$	20.00 175.00 18,000.00 75.00 95.00 8,000.00 95.00 3,500.00 950.00 40.00 9,100.00	0 555 0 0 0 0 0 0 0	-4050 -1245 -3 -1620 -240 -3 -60 -198 -3 -156	\$ \$ \$ \$ \$ \$ \$	(81,000.00) (217,875.00) (54,000.00) (121,500.00) (22,800.00) (24,000.00) (5,700.00) (10,500.00) (148,200.00) (27,300.00) (27,300.00)	-	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
2680.177 2680.178 2680.179 2680.180 2680.180 2680.181 2680.182 2680.183 2680.185 2680.186 2680.186	Provide, Install and Remove 16-inch Bradenhead seal for top of 16-inch casing Provide and Install 17- to 18-lb/gal Cement below Lost Circulation Drill 14-3/4 inch Diameter Borehole Provide Geophysical Logging of 14-3/4 inch Hole, as specified, including calipler log Provide and Install 10-3/4 inch, 0.375-inch wall, 40.52 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft casing in 14-3/4 inch borehole Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft Guide Casing Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft Guide Casing Provide and Install 10-3/4 inch, 0.500-inch wall, 54.79 lb/ft Guide Casing Support Intermediate Casing Cementing Operations including Tripping Tubing and Walting on Cement Service Company Services to Cement 10-3/4 inch Steel Casing, as specified Provide cement bond log for 10-3/4 inch Casing	EACH SACK FEET LS FEET LS FEET LS FEET LS FEET HOUR SACK	3 4050 1800 3 1620 240 3 60 198 3 156	\$ \$ \$ \$ \$ \$ \$ \$	20.00 175.00 18,000.00 75.00 95.00 8,000.00 95.00 3,500.00 950.00	0 555 0 0 0 0 0 0	-4050 -1245 -3 -1620 -240 -3 -60 -198 -3 -156	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	(81,000.00) (217,875.00) (54,000.00) (121,500.00) (22,800.00) (24,000.00) (5,700.00) (5,940.00) (10,500.00) (148,200.00) (39,000.00)	-	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	

HANGE ORD	ERS										-	
0.0.1	M-14 Pond Pumping	LS	1	\$	7,245.00	1	0	\$	-	-	\$	-
C.O. 3	M-14 Tooling and Work	LS	1	\$	14,216.19	1	0	\$	-	-	\$	-
C.O. 4	TV Survey van mob/demob	EA	1	\$	1,000.00	1	0	\$	-	-	\$	-
	Video Survey	EA	3	\$	7,000.00	3	0	\$	-		\$	-
	Mobilization/demobilization	EA	1	\$	83,985.00	1	0	\$	-	-	\$	-
	M13 wire brush operations	EA	1	\$	38,500.00	1	0	\$	_	_	\$	
	M14 wire brush operations	EA	1	\$	32,125.00	1	0	\$	_	_	\$	
	M15 wire brush operations	EA	1	\$	32,125.00	1	0	\$	-		\$	
	M13 chlorination	EA	1	\$	38,125.00	1	0	\$	-	_	\$	_
	M14 chlorination	EA	1	\$	38,125.00	1	0	\$	-	_	\$	_
	M15 chlorination	EA	1	S	38,125.00	1	0	\$	-		\$	-
	TV Survey van mob/demob	EA	1	\$	1,000.00	1	0	\$			\$	
	Video Survey	EA	3	\$	7,000.00	3	0	\$	-		\$	
	M13 packer installation	EA		\$		1	0	\$			\$	
			1	-	32,125.00			-	-	-	_	-
	M13 logging	EA	1	\$	15,250.00	1	0	\$		-	\$	
	M14 logging	EA	1	\$	7,625.00	1	0	\$	-		\$	-
	M15 logging	EA	1	\$	7,625.00	1	0	\$		•	\$	-
	Frac tanks	MO	2	\$	2,000.00	2	0	\$	-	-	\$	-
	Wire brush materials	EA	1	\$	500.00	0	-1	\$	(500.00)	-	\$	-
	Chlorine	EA	1	\$	1,600.00	0	-1	\$	(1,600.00)	-	\$	-
	Decon pad materials	EA	1	\$	1,000.00	0	-1	\$	(1,000.00)	-	\$	-
	Steam cleaner	EA	1	\$	1,000.00	1.52	0.52	\$	523.17	-	\$	-
	Generator	EA	1	\$	3,300.00	0.78	-0.22	\$	(713.50)	-	\$	-
	Forklift	EA	1	\$	4,000.00	1.91	0.91	\$	3,635.85	-	\$	-
	Water haul/disposal	EA	1	\$	26,000.00	0.28	-0.72	\$	(18,603.16)	-	\$	-
	Packer rental	EA	1	\$	55,000.00	0.76	-0.24	\$	(13,447.00)	-	\$	-
	Logging	EA	3	\$	40,000.00	1.80	-1.20	\$	(47,925.00)	-	\$	-
	Logging consultation	HR	0	\$	375.00	0	0	\$	-	-	\$	-
C.O. 5	SWPP	LS	1	\$	7,455.00	2	1	\$	7,455.00	1	\$	7,455.00
C.O.6	New Discharge Permit	LS	1	\$	13,356.00	0	-1	\$	(13,356.00)	1	\$	13,356.00
	Connect Discharge Line from Well to Existing Pipeline	EA	3	\$	21,666.75	0	-3	\$	(65,000.25)	3	\$	65,000.25
	Provide 10" Pump Column	LF	2000	\$	44.10	0	-2,000	\$	(88,200.00)	2,000	\$	88,200.00
	10" Pump Column Tools	UNITS	50000	\$	1.00	0	-50,000	\$	(50,000.00)	50,000	\$	50,000.00
	Provide Baker Hughes WN-1600 Test Pump	LS	1	\$	321,438.08	0	-1	\$	(321,438.08)	1	\$	321,438.08
	Move/Reinstall Pump Equipment	EA	2	\$	15,750.00	0	-2	\$	(31,500.00)	2	\$	31,500.00
	Disinfection of Transmission Line Following Testing	EA	1	\$	76,018.79	0	-1	\$	(76,018.79)	1	\$	76,018.79
	Provide Final Pump Equipment Less Rental	EA	1	\$	83,985.00	0	-1	\$	(83,985.00)	1	\$	83,985.00
	Mobilization for Acid Frac	EA	1	\$	83,985.00	0	-1	\$	(83,985.00)	1	\$	83,985.00
	Provide/Install/Remove Temp. Elec. Service	EA	3	s	23,415.00	0	-3	\$	(70,245.00)	3	\$	70,245.00
	02680.146 (DEDUCT) ProvideTest Pump Equipment, Appurtenances										Ť	
	and Instrumentation for Final Pumping Test	LS	3	\$	(40,000.00)	0	-3	\$	120,000.00	3	\$	(120,000.00
	02684.149 (DEDUCT) Operate Generator and Test Pumping											
	Equipment for Final Pumping Tests, as specified, including standby			١.				١.			1.	
	for recovery after pumping	HOUR	400	\$	(600.00)	0	-400	\$	240,000.00	400	\$	(240,000.00
	Contract Adjustment	EA	1	\$	62,916.75	0	-1	\$	(62,916.75)	1	\$	62,916.7
	TOTAL CHANGE ORDERS							\$	(658,819.51)		\$	594,099.8
	TOTAL ORIGINAL CONTRACT + CHANGE ORDERS				-			\$	(1,787,614.06)		\$	2,420,

All blank rows in Column (I) have been completed to date. The Contract shall be amended by the difference of work needed to be completed Column (J) and work complete Column (G). A final reconciliation shall be done at the completion of the job for any quantities that vary from these specified.

\$2,420,999.87 - \$1,787,614.06 = \$633,385.81

Total Contract Increase: \$ 633,385.81

No Contract Time is adjusted by this Change Order.