

CHANGE ORDER NO. 3Date 5/24/2018Project Founders Aprapahoe Well CR-227

Project Number _____

P.O. Number 1600Bid Number RFP 2017-008Contractor Hydro - Resources Rocky Mountian, Inc.

The following changes are made to the Contract:

Attach support documentation to this Change Order. If paying on multiple accounts and/or project numbers, attach a memo detailing each number and related dollar amount.

Is this Change Order strictly a quantity adjustment? YES NO

The Original Contract Price was.....	1,490,365.00	\$
Net Change by Previous Change Orders	-43,822.00	\$
Contract Price Before this Change Order	1,446,543.00	\$
CURRENT Change Order AMOUNT (note + or -)	417,413.33	\$
THE NEW CONTRACT PRICE WILL BE.....	1,863,956.33	\$

Original contract time: 110 daysNet time change by previous Change Order(s): 0 daysNet adjustment due to this Change Order: 90 daysCurrent contract time including this Change Order: 200 daysDATE FOR SUBSTANTIAL COMPLETION WILL BE: August 3, 2018

The contractor hereby certifies that all work specified in this Change Order shall be performed according to the original contract requirements except as modified by Change Order(s).

TOWN DIVISION APPROVAL

By: _____

Title: _____

Date: _____

TOWN DIVISION APPROVAL

By: _____

Title: _____

Date: _____

TOWN DIVISION APPROVAL

By: _____

Title: _____

Date: _____

CONTRACTOR

By: M.H.A.Its: Regional ManagerDate: 5-24-18

Originals: Contractor, Purchasing and Contract File

Jasen Decker

From: Jasen Decker
Sent: Thursday, May 24, 2018 4:04 PM
To: 'Heather Justus'
Cc: John Taylor; Dave Colvin
Subject: 227 See if this works!

Loss Circ #1

5-4-2018 2:00 pm-Midnight 10 hrs
5-5-2018 Midnight-midnight 24 hrs
5-6-2018 Midnight-8:30am start drilling 8.5 hrs
42.5 hrs @ \$650/hr = \$27,625

Loss Circ #2

5-19-2018 3:00 am-midnight 21 hrs @ \$650
5-20-2018 midnight-noon 12 hrs @ \$650
5-20-2018 noon to midnight 12hrs @ \$550
5-21-2018 midnight-9:00pm pm 21 hrs @ \$550
5-21-2018 9:00 pm to midnight 3 hrs @ \$388
5-22-2018 midnight- 3:00 am 3 hrs @ \$388
5-22-2018 3:00am – 9:00am 6 hrs NO CHARGE
5-22-18 9:00am – 12:00 pm directed to install 20" 3hrs @\$338.00/hr
33 hrs @ \$650/hr = \$21,450
33 hrs @ \$550/hr = \$18,150
9 hrs @ \$338.00 = \$3,492
Sub total \$43,092

Total Loss circulation \$70,219.00

Jasen Decker
Corporate Estimator/Project Manager



13027 CR 18, Unit C
Fort Lupton, CO 80621
Office 303-857-7586
Cell 720-383-2708
Fax 303-857-3826

This email message and any attachments are for the sole use of the intended recipient(s). Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply email and destroy all copies of the original message and any attachments.



Hydro

resources - Rocky Mountain, Inc.

To: Town of Castle Rock

May 23rd, 2018

Re – 20" casing change order CR227 -Terms and conditions

Heather

Please find attached change order request for the reaming of the current borehole to 23", installation of 20" x 0.375" wall casing, cementing, and bottom hole size adjustments. Hydro Resources understands this is the direction the Town would like to proceed, and will attempt to complete this plan to the best of our abilities. We cannot guarantee the successful installation of the 20" casing in a 23" hole, as discussed in our conference call.

As was also discussed in our conference call, this is the lowest cost option, but also carries the highest risk. All pricing is at the contract allowable percentage mark up. The following are assumptions and conditions of this change order.

Assumptions:

Hydro Resources will perform the listed tasks at the prices attached. If, during the normal operations of these tasks, Hydro Resources encounters difficulty in the borehole reaming, installation of the 20" casing, cement grouting, or incurs directed standby, etc. Hydro will go on to a \$550 per hour rig rate. Some difficulties that may be encountered are:

- Having to pull the 20" casing out if it will not go into the borehole
- Re-entering well to ream if the above condition exists
- Re-running of the 20" casing
- Additional cementing measures (top job) if problems occur due to small annular space
- Conditioning the borehole due to instability of formation

Pricing for the cement grouting includes the installation of up to 895 sacks of cement. Additional cement grout material required will be chargeable at Hydro's cost plus 15% per contract.

Stand by rate for drilling operation by the direction of Consultant or client will be charged at \$550.00 per hour.

M. John Taylor
Regional Manager

Hydro Resources – Rocky Mountain, Inc.



Company: Castle Rock
Contact: Heather Justice
Address:
City, State:
Phone:
Fax:
Email:

Hydro Resources
13027 County Road 18
Fort Lupton, CO 80621

Date: 5/22/2018

Project: CR 227

Location:

Estimated By: JC

Item #	Description	Unit Sell	Qty	Total Sell
1	Bottom Ream Borehole labor	\$35.32	710	\$25,077.20
2	Bottom Ream Borehole materials and fuel	\$25.78	710	\$18,303.80
3	Install 20" casing labor	\$3.15	750	\$2,362.50
4	Install 20" casing Fuel and materials	\$84.59	750	\$63,442.50
5	Cement Casing Labor	\$9.08	750	\$6,810.00
6	Cement Casing fuel and materials	\$44.53	750	\$33,397.50
7	Bond	\$8,705.88	1	\$8,705.88
8	Soundwall Rent Subcontractor	\$7,000.00	1	\$7,000.00
9	Stand by for Cement Labor and fuel	\$172.06	24	\$4,129.44
10	Mud material	\$5,882.35	1	\$5,882.35
11	Disposal subcontractor	\$13,205.07	1	\$13,205.07
12	Bit material	\$10,000.00	1	\$10,000.00
	Overhead - equipment lease, repair, upkeep,			
13	office staff, benefits	\$95,032.50	1	\$95,032.50
14	Stand by for materials crewed	\$8,125.00	3	\$24,375.00
15	19" bits 3 for bottom hole	\$9,823.53	3	\$29,470.59
16		\$0.00	0	\$0.00
17		\$0.00	0	\$0.00
18		\$0.00	0	\$0.00
19	C/O for 20" casing Installation	\$0.00	0	\$0.00
20		\$0.00	0	\$0.00
21		\$0.00	0	\$0.00
22		\$0.00	0	\$0.00
23		\$0.00	0	\$0.00
24		\$0.00	0	\$0.00
25		\$0.00	0	\$0.00
26		\$0.00	0	\$0.00
27		\$0.00	0	\$0.00
28		\$0.00	0	\$0.00
29		\$0.00	0	\$0.00
30		\$0.00	0	\$0.00
31		\$0.00	0	\$0.00
32		\$0.00	0	\$0.00
33		\$0.00	0	\$0.00
34		\$0.00	0	\$0.00
35		\$0.00	0	\$0.00
36		\$0.00	0	\$0.00
37		\$0.00	0	\$0.00

Please Note the Following:

- 1) Subject to attached terms and conditions
- 2) Actual cost based upon actual quantities consumed
- 3) Storage, transport and disposal of drill cuttings by others
- 4) Client to provide on-site water source for drilling operations
- 5) All development and testing fluids will be disposed of onsite

- 6) Utility clearance by others
- 7) Quote valid for 30 days
- 8) Manpower and equipment available
- 9) Client to provide site access and restoration

\$347,194.33 TOTAL

PRODUCTION WELL DRILLING FORM

CLICK TO GO TO BID ITEM LIST

Castle Rock 227 20" to 750'

BID ITEM	DESCRIPTION	TOTAL COST	UNITS	UNIT COST	MARGIN	UNIT SELL	TOTAL SELL
	MOBILIZATION/DEMOLITION	TOTAL COST	1	UNIT COST	MARGIN	UNIT SELL	TOTAL SELL
Bottom Ream Borehole labor	RIG UP PRODUCTION RIG (2 CREWS)	\$201.70	1	\$201.70	20.0%	\$252.13	\$252.13
Bottom Ream Borehole materials and fuel	RIG FUEL USED DURING RIGGING UP	\$146.25	1	\$146.25	15.0%	\$172.06	\$172.06
Bottom Ream Borehole labor	MOB TRUCKING	\$22.41	1	\$22.41	20.0%	\$28.01	\$28.01
Bottom Ream Borehole materials and fuel	MOB TRUCKING FUEL	\$97.50	1	\$97.50	15.0%	\$114.71	\$114.71
Bottom Ream Borehole labor	DEMOS PRODUCTION RIG (2 CREWS)	\$224.11	1	\$224.11	20.0%	\$280.14	\$280.14
Bottom Ream Borehole materials and fuel	DEMOS TRUCKING FUEL	\$243.75	1	\$243.75	15.0%	\$286.76	\$286.76
Bottom Ream Borehole labor	TRAVEL COST FROM SITE TO HOTEL (LABOR AND FUEL) X 2	\$824.03	1	\$824.03	20.0%	\$1,030.03	\$1,030.03
Bottom Ream Borehole labor	PER DIEM COST DRILLING	\$6,391.27	1	\$6,391.27	20.0%	\$7,989.08	\$7,989.08
MOBILIZATION/DEMOLITION	SECURITY FENCE	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
Bottom Ream Borehole materials and fuel	PORT-A-POTTY	\$125.00	1	\$125.00	10.0%	\$138.89	\$138.89
Soundwell Rent Subcontractor	SOUND WALL RENTAL	\$6,300.00	1	\$6,300.00	10.0%	\$7,000.00	\$7,000.00
MOBILIZATION/DEMOLITION	LABORATORY TESTING FEES	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
MOBILIZATION/DEMOLITION	SITE TRAILER FEES (IF REQUIRED)	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
MOBILIZATION/DEMOLITION	SITE PHONE FEES (IF REQUIRED)	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
Bottom Ream Borehole labor	PROJECT SUPERVISOR DRILLING (12HR SHIFT)	\$1,989.51	1	\$1,989.51	20.0%	\$2,486.89	\$2,486.89
Bottom Ream Borehole materials and fuel	RIG CONSUMABLES COST	\$2,900.66	1	\$2,900.66	15.0%	\$3,412.54	\$3,412.54
Bond	BOND COST @ \$21.25/\$1000 OF CONTRACT	\$7,400.00	1	\$7,400.00	15.0%	\$8,705.88	\$8,705.88
MOBILIZATION/DEMOLITION	DRILLING WATER 5 (ASSUME PIT VOL = 4X TIMES BOREHOLE VOL)	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
MOBILIZATION/DEMOLITION	SITE CLEAN-UP PRODUCTION RIG (2 CREWS)	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
Bottom Ream Borehole labor	MOB/DEMOS WELDERS TO SITE FOR PRODUCTION CASING & SCREEN	\$515.46	1	\$515.46	20.0%	\$644.33	\$644.33
Overhead Equipment less repair charges other than hourly	Overhead	\$76,026.00	1	\$76,026.00	20.0%	\$95,032.50	\$95,032.50
Stand by for materials ordered	stand by water watch 3 days @ \$6500	\$19,500.00	1	\$19,500.00	20.0%	\$24,375.00	\$24,375.00
MOBILIZATION/DEMOLITION	X	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
18" bits 3 for bottom hole	bits 19 x 3	\$25,050.00	1	\$25,050.00	15.0%	\$29,470.59	\$29,470.59
MOBILIZATION/DEMOLITION	X	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
MOBILIZATION/DEMOLITION	X	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
MOBILIZATION/DEMOLITION	X	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
MOBILIZATION/DEMOLITION	X	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
MOBILIZATION/DEMOLITION	X	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
MOBILIZATION/DEMOLITION	X	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
	TOTALS	\$147,957.65	1	\$147,957.65	18.4%	\$181,419.55	\$181,419.55

PILOT BOREHOLE		TOTAL COST	1	UNIT COST	MARGIN	UNIT SELL	TOTAL SELL
PILOT BOREHOLE	RIG LABOR TO DRILL, WATER WATCH, & TRIP PIPE TO REPLACE BITS	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
PILOT BOREHOLE	FUEL TO DRILL, WATER WATCH 5GPH, & TRIP PIPE TO REPLACE BITS	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
PILOT BOREHOLE	DRILLING FLUIDS SUBCONTRACTOR	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
PILOT BOREHOLE	DRILLING FLUIDS	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
PILOT BOREHOLE	PILOT BIT	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
PILOT BOREHOLE	TAX ON MATERIALS	\$0.00	1	\$0.00	0.0%	\$0.00	\$0.00
Cement Casing Labor	DESIGN TIME RIG LABOR	\$2,420.43	1	\$2,420.43	20.0%	\$3,025.54	\$3,025.54
Stand by for Cement Labor and fuel	DESIGN TIME FUEL	\$3,510.00	1	\$3,510.00	15.0%	\$4,129.41	\$4,129.41
TOTALS		\$5,930.43	1	\$5,930.43	1750.0%	\$7,154.95	\$7,154.95
GEOPHYSICAL LOGGING		TOTAL COST	1	UNIT COST	MARGIN	UNIT SELL	TOTAL SELL
Bottom Ream Borehole labor	RIG LABOR TO LOG	\$403.41	1	\$403.41	20.0%	\$504.26	\$504.26
Bottom Ream Borehole materials and fuel	RIG FUEL DURING GEOPHYSICAL LOG	\$585.00	1	\$585.00	15.0%	\$688.24	\$688.24
Install 20" casing Fuel and materials	SUBCONTRACTOR GEOPHYSICAL LOG COSTS	\$3,500.00	1	\$3,500.00	10.0%	\$3,888.89	\$3,888.89
TOTALS		\$4,488.41	1	\$4,488.41	11.7%	\$5,081.38	\$5,081.38

	BOTTOM REAM BOREHOLE	TOTAL COST	710	UNIT COST	MARGIN	UNIT SELL	TOTAL SELL
Bottom Ream Borehole labor	RIG LABOR TO DRILL, WATER WATCH, & TRIP PIPE TO REPLACE BITS	\$7,878.50	710	\$11.09	20.0%	\$13.87	\$9,845.62
Bottom Ream Borehole materials and fuel	FUEL TO DRILL, WATER WATCH SGPH, & TRIP PIPE TO REPLACE BITS	\$11,422.13	710	\$16.09	15.0%	\$18.93	\$13,437.79
Mud material	DRILLING FLUIDS SUBCONTRACTOR	\$5,000.00	710	\$7.04	15.0%	\$8.29	\$5,882.35
Bottom Ream Borehole materials and fuel	DRILLING FLUIDS	\$47.50	710	\$0.07	15.0%	\$0.08	\$55.88
Bit material	REAMING BIT	\$8,500.00	710	\$11.97	15.0%	\$14.08	\$10,000.00
BOTTOM REAM BOREHOLE	TAX ON MATERIALS	\$0.00	710	\$0.00	0.0%	\$0.00	\$0.00
TOTALS		\$32,848.12	710	\$46.26	16.3%	\$53.24	\$39,221.65

	BOTTOM CASING INSTALLATION	TOTAL COST	750	UNIT COST	MARGIN	UNIT SELL	TOTAL SELL
Install 28" casing labor	RIG LABOR TO INSTALL	\$1,890.96	750	\$2.52	20.0%	\$3.15	\$2,363.71
Install 20" casing Fuel and materials	RIG FUEL TO INSTALL BOTTOM CASING	\$2,742.19	750	\$3.68	15.0%	\$4.30	\$3,226.10
Bottom Ream Borehole labor	WELDER TIME	\$1,610.82	750	\$2.15	20.0%	\$2.68	\$2,013.53
Bottom Ream Borehole labor	TRUCKING DELIVERY (800' PER TRUCK)	\$0.00	750	\$0.00	20.0%	\$0.00	\$0.00
BOTTOM CASING INSTALLATION	TRUCKING FUEL	\$0.00	750	\$0.00	15.0%	\$0.00	\$0.00
Install 20" casing Fuel and materials	CASING MATERIAL	\$47,880.00	750	\$63.84	15.0%	\$75.11	\$56,329.41
BOTTOM CASING INSTALLATION	CENTRALIZERS (1 SET EVERY 40')	\$0.00	750	\$0.00	15.0%	\$0.00	\$0.00
BOTTOM CASING INSTALLATION	TAX ON MATERIALS	\$0.00	750	\$0.00	0.0%	\$0.00	\$0.00
TOTALS		\$54,123.97	750	\$72.17	15.3%	\$85.24	\$63,622.75

	TOP SEAL	TOTAL COST	750	UNIT COST	MARGIN	UNIT SELL	TOTAL SELL
Cement Casing fuel and materials	SEAL MATERIAL	\$24,000.00	750	\$32.00	15.0%	\$37.65	\$28,235.29
TOP SEAL	TAX ON MATERIAL	\$0.00	750	\$0.00	0.0%	\$0.00	\$0.00
TOP SEAL	PUMPER COST	\$0.00	750	\$0.00	0.0%	\$0.00	\$0.00
Cement Casing Labor	RIG LABOR	\$3,025.54	750	\$4.03	20.0%	\$5.04	\$3,781.93
Cement Casing fuel and materials	RIG FUEL FOR TOP SEAL CONSTRUCTION	\$4,387.50	750	\$5.85	15.0%	\$6.88	\$5,161.76
	TOTALS	\$31,413.04	750	\$41.88	15.5%	\$49.57	\$37,178.99

Disposal subcontractor
Disposal subcontractor

DISPOSAL	TOTAL COST	1	UNIT COST	MARGIN	UNIT SELL	TOTAL SELL
CUTTINGS DISPOSAL	\$4,358.33	1	\$4,358.33	10.0%	\$4,840.36	\$4,840.36
HAUL AWAY HEAVY FLUIDS	\$7,528.23	1	\$7,528.23	10.0%	\$8,364.71	\$8,364.71
TOTALS	\$11,884.56	1	\$11,884.56	10.0%	\$13,205.07	\$13,205.07
TOTALS	\$288,644.19			16.9%		\$347,184.33