

TOWN OF CASTLE ROCK CONSTRUCTION CONTRACT (EPC OS Well Facility Drilling, Constructing and Testing)

THIS CONSTRUCTION CONTRACT ("Contract") is made between the **TOWN OF CASTLE ROCK**, a Colorado municipal corporation ("Town"), 100 N. Wilcox Street, Castle Rock, Colorado 80104 and **HYDRO RESOURCES – ROCKY MOUNTAIN, INC.**, a Delaware corporation, 13027 County Road 18, Unit A, For Lupton, Colorado 80621 ("Contractor").

In consideration of these mutual covenants and conditions, the Town and Contractor agree as follows:

SCOPE OF WORK The Contractor shall execute the entire Work described in the Contract.

CONTRACT The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, written or oral representations and agreements. The Contract incorporates the following Contract Documents. In resolving inconsistencies among two or more of the Contract Documents, precedence will be given in the same order as enumerated.

LIST OF CONTRACT DOCUMENTS

The Contract Documents, except for Modifications issued after execution of this Contract, are:

- 1. Change Orders
- 2. Notice to Proceed
- 3. Construction Contract
- 4. General Conditions
- 5. Where applicable, Davis-Bacon Act Wage Determinations
- 6. The following Addenda, if any: N/A
- 7. Special Conditions of the Contract: N/A
- 8. The following Specifications:
 - Bid Documents
 - Well Specifications
- 9. The following Drawings/Reports:
 - Location Map
- 10. Notice of Award;
- 11. Invitation to Bid;
- 12. Information and Instructions to Bidders;
- 13. Notice of Substantial Completion;
- 14. Notice of Construction Completion;
- 15. Proposal Forms, including Bid Schedules;
- 16. Performance, and Labor and Material Payment Bonds;



- 17. Performance Guarantee; and
- 18. Insurance Certificates.

CONTRACT PRICE. The Town shall pay the Contractor for performing the Work and the completion of the Project according to the Contract, subject to Change Orders as approved in writing by the Town, under the guidelines in the General Conditions. The Town will pay **\$4,483,540.00** ("Contract Price"), to the Contractor, subject to full and satisfactory performance of the terms and conditions of the Contract. The Contract Price is provisional based on the quantities contained in the Bid attached as *Exhibit 1*. The final Contract Price shall be adjusted to reflect actual quantities incorporated into the Work at the specified unit prices. The Town has appropriated money equal or in excess of the Contract Price for this work.

COMPLETION OF WORK. The Contractor must begin work covered by the Contract within 30 calendar days from the date of the Notice to Proceed, and must complete work within 365 calendar days from and including the date of Notice to Proceed, according to the General Conditions.

LIQUIDATED DAMAGES. If the Contractor fails to complete the Work by the date set for completion in the Contract, or if the completion date is extended by a Change Order, by the date set in the Change Order, the Town may permit the Contractor to proceed, and in such case, may deduct the sum of \$500.00 for each day that the Work shall remain uncompleted from monies due or that may become due the Contractor. This sum is not a penalty but is a reasonable estimate of liquidated damages.

The parties agree that, under all of the circumstances, the daily basis and the amount set for liquidated damages is a reasonable and equitable estimate of all the Town's actual damages for delay. The Town expends additional personnel effort in administering the Contract or portions of the Work that are not completed on time, and has the cost of field and office engineering, inspecting, and interest on financing and such efforts and the costs thereof are impossible to accurately compute. In addition, some, if not all, citizens of Castle Rock incur personal inconvenience and lose confidence in their government as a result of public projects or parts of them not being completed on time, and the impact and damages, certainly serious in monetary as well as other terms are impossible to measure.

SERVICE OF NOTICES. Notices to the Town are given if sent by registered or certified mail, postage prepaid, to the following address:

TOWN OF CASTLE ROCK Town Attorney 100 N. Wilcox Street Castle Rock, CO 80104

With a copy to: <u>Legal@crgov.com</u>

INSURANCE PROVISIONS. The Contractor must not begin any work until the Contractor obtains, at the Contractor's own expense, all required insurance as specified in the General



Conditions. Such insurance must have the approval of the Town of Castle Rock as to limits, form and amount. *Certificate of Insurance ("COI") must be submitted along with the executed contract as* **Exhibit 2**.

RESPONSIBILITY FOR DAMAGE CLAIMS. The Contractor shall indemnify, save harmless, and defend the Town, its officers and employees, from and in all suits, actions or claims of any character brought because of: any injuries or damage received or sustained by any person, persons or property because of operations for the Town under the Contract; including but not limited to claims or amounts recovered from any infringements of patent, trademark, or copyright; or pollution or environmental liability. The Town may retain so much of the money due the Contractor under the Contract, as the Town considers necessary for such purpose. If no money is due, the Contractor's Surety may be held until such suits, actions, claims for injuries or damages have been settled. Money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that the Contractor and the Town are adequately protected by public liability and property damage insurance.

The Contractor also agrees to pay the Town all expenses, including attorney's fees, incurred to enforce this Responsibility for Damage Claim clause.

Nothing in the **INSURANCE PROVISIONS of the General Conditions** shall limit the Contractor's responsibility for payment of claims, liabilities, damages, fines, penalties, and costs resulting from its performance or nonperformance under the Contract.

STATUS OF CONTRACTOR. Contractor has completed the Affidavit of Independent Contractor Status, attached as *Exhibit 3*, and submitted same at the time of execution of this Agreement. The Contractor is performing all work under the Contract as an independent Contractor and not as an agent or employee of the Town. No employee or official of the Town will supervise the Contractor. The Contractor will not supervise any employee or official of the Town. The Contractor shall not represent that it is an employee or agent of the Town in any capacity. The Contractor and its employees are not entitled to Town Workers' Compensation benefits and are solely responsible for federal and state income tax on money earned. This is not an exclusive contract.

THIRD PARTY BENEFICIARIES. None of the terms or conditions in the Contract shall give or allow any claim, benefit, or right of action by any third person not a party to the Contract. Any person, except the Town or the Contractor, receiving services or benefits under the Contract is an incidental beneficiary only.

INTEGRATION. This contract integrates the entire understanding of the parties with respect to the matters set forth. No representations, agreements, covenants, warranties, or certifications, express or implied, shall exist as between the parties, except as specifically set forth in this Contract.

DEFINITIONS. The Definitions in the General Conditions apply to the entire Contract unless modified within a Contract Document.



Executed this _____ day of _____, 20__.

ATTEST:

Lisa Anderson, Town Clerk

APPROVED AS TO FORM:

TOWN OF CASTLE ROCK

Jason Gray, Mayor

APPROVED AS TO CONTENT:

Michael J. Hyman, Town Attorney

Mark Marlowe, Director Castle Rock Water

CONTRACTOR:

HYDRO RESOURCES – ROCKY MOUNTAIN, INC.

By: _____

Title:



EXHIBIT 1

CONTRACTOR'S BID

Contractor shall conduct construction, including drilling, completion, and testing for Wells CR-234, CR-235, and CR-236 located in the East Plum Creek Open Space North of the Plum Creek Water Purification Facility, as follows:

I. Key Equipment to be supplied to the Project

HR intends to mobilize the following equipment to the Castle Rock site:



- The primary drilling rig will be a Challenger 320 drilling rig or equivalent. The Challenger 320 rig has a 72' mast rated at 150,000 lbs. with an 18" Howard Turner rotary table.
- The rig will be equipped with 2000 ft of appropriatesized drill pipe, a Sullair 900 CFM compressor and a Sullair 375 CFM compressor. HR has assumed a support truck for pipe and miscellaneous parts to complete the work.
- The drilling package includes a three-man drilling crew working 24 hours per day.
- · HR will provide a pump rig for test pumping activities.
- HR has included pad, road and site development necessary at all drilling sites.

The equipment listed above will be dedicated to this project on a full-time basis and all the equipment is up to date with annual inspections and certifications.

II. Technical Approach

HR is providing the following summary of our technical approach regarding expected geology and drilling plan.

Well Drilling & Pump Installation

- HR will submit the TESC plan for all three wells, at one location.
- HR will establish an access road and drilling pad to accommodate the three well sites. HR will work within the boundary conditions established by Castle Rock. Costs for the access have been included in the mobilization cost for the Arapahoe Well.
- The Challenger 320 rig will be mobilized to the site and set up over the first well site (Well 234 Arapahoe).

Well 234 (Arapahoe) - Drilling

- A 30" conductor casing will be installed to approximately 40'.
- The rig will drill a 20" hole from the surface to 1810'.
- Perform geophysical log to determine screen interval.
- Install .035 slot screen and 12" casing to the surface. The casing will be a combination of stainless steel and carbon steel.
- Install filter pack (SiLi beads) with a 10' 8/12 silica sand. Pressure grout casing with neat cement and bentonite
 grout in the annular seal to surface.
- Development of well to include circulation, airlift, and jetting.
- Perform cement bond and casing caliper logs.
- Install temporary test pump, perform development pumping, step testing, and 72-hour continuous pump test. Remove test pump equipment and perform final disinfection.
- Perform video survey of the well.
- Move to Well 235 Site.



Well 235 (Denver) - Drilling

- A 30" conductor casing will be installed to approximately 40'.
- The rig will drill a 20" hole from the surface to 1,316'.
- Perform geophysical log to determine screen interval.
- Install .035 slot screen and 12" casing to the surface. The casing will be stainless steel to the surface.
- Install filter pack (SiLi beads) with a 10' 8/12 silica sand. Pressure grout casing with neat cement and bentonite
 grout in the annular seal to surface.
- Development of well to include circulation, airlift, and jetting.
- Perform cement bond and casing caliper logs.
- Install temporary test pump, perform development pumping, step testing, and 72-hour continuous pump test. Remove test pump equipment and perform final disinfection.
- Perform video survey of the well.
- Move to Well 236 Site.

Well 236 (Dawson) - Drilling

- · A 24" conductor casing will be installed to approximately 40'.
- The rig will drill a 17.5" hole from the surface to 510'.
- Perform geophysical log to determine screen interval.
- Install .035 slot screen and 10" casing to the surface. The casing will be stainless steel to the surface.
- Install filter pack (SiLi beads) with a 10' 8/12 silica sand. Pressure grout casing with neat cement and bentonite
 grout in the annular seal to surface.
- Development of well to include circulation, airlift, and jetting.
- Install temporary test pump, perform development pumping, step testing, and 72-hour continuous pump test. Remove test pump equipment and perform final disinfection.
- Perform video survey of the well.
- Clean up and demobilize from site.

III. Unit Cost Breakdown

HR has attached Bid Schedules for Well 234, 235, 236 for your review.

Clarifications:

- HR will not provide soundwalls for the site.
- HR has included all fuel costs.
- · HR has included removal and disposal of drilling mud and drill cuttings for all sites.
- The Drilling Derived Waste assumed to be non-hazardous waste and has been assumed to be hauled from each site and disposed of.
- · HR has included an allowance for water hauling. The engineer/city will provide a source of water.
- The bid is a complete package and cannot be modified without prior written authorization from HR. Also, this is an estimate and the final invoice will reflect actual quantities utilized in the field which are properly documented multiplied by the unit rates quoted.
- A mutually agreeable written contract will be negotiated prior to mobilization.
- · HR has assumed working 24 hours a day



		D SCHED OS Dawso			
TEM	DESCRIPTION		QUANITITY	UNIT PRICE	EXTENSIO
1	Wellhead Completion	L.S.	1	\$ 3,500.00	\$ 3,500.00
2	Mobilization and Cleanup	L.S.	1	\$ 97,000.00	\$ 97,000.00
3	Drill and Install 24-inch Diameter Conductor			· _ ·	
	Casing at Surface	L.F.	40	\$ 550.00	\$22,000.00
4	Drill 17.5 Inch Diameter Borehole	L.F.	470	\$ 245.00	\$ 115,150.0
5	Casing				
	a. 10-inch Diameter Carbon Steel	L.F.	140	\$ 140.00	\$ 19,600.00
	b. 10-inch Diameter Stainless Steel	L.F.	80	\$ 425.00	\$ 34,000.00
6	10-inch Stainles Steel Wire Wrapped Well				
	Screen	L.F.	280	\$ 300.00	\$ 84,000.00
7	Gravel Pack			·	
	a. 8-12 Silica Sand	L.F.	13	\$ 170.00	\$ 2,210.00
	b. 4508R Glass Beads (10-8)	M.T.	23	\$ 3,500.00	\$ 80,500.00
8	Grout Seal	L.F.	180	\$ 110.00	\$ 19,800.00
9	Well Development				
	a. Swab	HR.	18	\$ 700.00	\$ 12,600.00
	b. Jetting	HR.	18	\$ 1,600.00	\$ 28,800.00
	c. Airlift	HR.	36	\$ 900.00	\$ 32,400.00
10	Geophysical Logging			-	· _ ·
	a. resistivity, single point resistance, natural				
	gamma, and caliper, at a minimum	L.S.	1	\$ <u>15,500.00</u>	\$ 15,500.00
11	Well Pumping Test Tests Supply & Install				
	Equipment	L.S.	1	\$ 22,000.00	\$ 22,000.00
	a. 8 – hour Step Test	L.S.	1	\$ 3,200.00	\$ 3,200.00
	b. 72- hour Pumping test	L.S.	1	\$ 28,800.00	\$ 28,800.00
12 13	Disinfection	L.S.	1	\$ 2,900.00	\$ 2,900.00
	Video Survey - 360 view recording capable.	L.S.	1	\$ 1,300.00	\$ 1,300.00
14	Video Survey – Additional Pass	L.S.	1	\$ 1,300.00	\$ 1,300.00
15	Provide Submersible Pump & Equip for		_	Ŧ <u></u>	+ 1,000.00
	testing purposes	L.S.	1	s N.A.	S N.A.
16	Provide Nominal 2.5, 3, or 4.5 inch Pump		-	*	·
	Column Drop Pipe for testing purposes	L.S.	1	\$ N.A.	S N.A.
	DRILLING TOTAL (IN WORDS)				al - \$626,560.00
	Six Hundred Twenty-Six Thousand Five Hundr	ed Sixty 8	0/100 Dollars		,,



	EPO	OS Denve	er Well		
TEM	DESCRIPTION	UNIT	QUANITITY	UNIT PRICE	EXTENSION
1	Wellhead Completion	L.S.	1	\$ 4,000.00	\$ 4,000.00
2	Mobilization and Cleanup	L.S.	1	\$ 97,000.00	\$ 97,000.00
3	Drill and install 30-inch Diameter			· _ ·	
	Conductor Casing at Surface	L.F.	40	\$ 700.00	\$ 28,000.00
4	Drilling 20.0-inch Diameter	L.F.	1276	\$ 265.00	\$ 338,140.00
5	Casing				
	a. 12-inch Diameter Carbon Steel	L.F.	660	\$ 155.00	\$ 102,300.00
	b. 12-inch Diameter Stainless Steel	L.F.	230	\$ 445.00	\$ 102,350.00
5	12-inch Stainles Steel Wire Wrapped Well				
	Screen	L.F.	420	\$ 455.00	\$ 191,100.00
6	Gravel Pack				
	a. 8-12 Silica Sand	L.F.	25	\$ 220.00	\$ 5,500.00
	b. 4508R Glass Beads (10-8)	M.T.	30	\$ 4,500.00	\$ 135,000.00
7	Grout Seal - Haliburton method including				
	72 hour cure time	L.F.	850	\$ 105.00	\$ 89,250.00
8	Well Development				
	a. Swab	HR.	40	\$ 700.00	\$ 28,000.00
	b. Jetting	HR.	40	\$ 1,600.00	\$ 64,000.00
	c. Airlift	HR.	36	\$ 1,100.00	\$ 39,600.00
9	Geophysical Logging				
	a. resistivity, single point resistance, natural				
	gamma, and caliper, at a minimum	L.S.	1	\$ 16,900.00	\$ 16,900.00
	b.Cement Bond Log and Casing Caliper log				
	after well completion.	L.S.	1	\$ 29,900.00	\$ 29,900.00
10	Well Pumping Test Tests Supply & Install				
	Equipment	L.S.	1	\$ 26,000.00	\$ 26,000.00
	a. 8 – hour Step Test	L.S.	1	\$ 3,400.00	\$ 3,400.00
	b. 72- hour Pumping test	L.S.	1	\$ 30,600.00	\$ 30,600.00
11	Disinfection	L.S.	1	\$ 4,200.00	\$ 4,200.00
12					
	Video Survey - 360 view recording capable.	L.S.	1	\$ 1,800.00	\$ 1,800.00
13	Video Survey – Additional Pass	L.S.	1	\$ 1,800.00	\$ 1,800.00
14	Provide Submersible Pump & Equip for				
	testing purposes	L.S.	1	\$ N.A.	\$ N.A.
15	Provide Nominal 4.5 inch Pump Column				
	Drop Pipe for testing purposes	L.S.	1	\$ N.A.	\$ <u>N.</u> A.
	DRILLING TOTAL (IN WORDS)			Total - \$1,33	8,840.00
	One Million Three Hundred Thirty-Eight Tho	usand Eigl	ht Hundred Forty	& 0/100 Dollars	

BID SCHEDULE B



		DS Arapah			
ITEM	DESCRIPTION	UNIT	QUANITITY	UNIT PRICE	EXTENSION
1	Wellhead Completion	L.S.	1	s 4,000.00	\$ 4,000.00
2	Mobilization and Cleanup	L.S.	1	\$ 425,000.00	\$ 425,000.00
3	Drill and install 30-inch Diameter	2.0.	1	9 425,000.00	9 425,000.00
5	Conductor Casing at Surface		80	\$ 700.00	\$ 56,000.00
4	Drilling 20.0-inch Diameter	L.F.	1730	\$ 265.00	\$ 458,450.00
5	Casing				
	a. 12-inch Diameter Carbon Steel	L.F.	1093	\$ 155.00	\$ 169,415.00
	b. 12-inch Diameter Stainless Steel	L.F.	330	\$ 445.00	\$ 146,850.00
6	12-inch Stainles Steel Wire Wrapped Well				
	Screen	L.F.	380	\$ 455.00	\$ 172,900.00
7	Gravel Pack				
	a. 8-12 Silica Sand	L.F.	10	\$ 220.00	\$ 2,200.00
	b. 4508R Glass Beads (10-8)	M.T.	26	\$ 4,500.00	\$ 117,000.00
8	Grout Seal - Haliburton method including			1	
	72 hour cure time	L.F.	1415	\$ 105.00	\$ 148,575.00
9	Well Development				
	a. Swab	HR.	24	\$ 700.00	\$ 16,800.00
	b. Jetting	HR.	24	\$ 1,600.00	\$ 38,400.00
	c. Airlift	HR.	36	\$ 1,100.00	\$ 39,600.00
10	Geophysical Logging				
	a. resistivity, single point resistance, natural				
	gamma, and caliper, at a minimum	L.S.	1	\$ 17,700.00	\$ 17,700.00
	b.Cement Bond Log and Casing Caliper log				
	after well completion.	L.S.	1	\$ 30,700.00	\$ 30,700.00
	after weil completion.	L.3.	1	3 30,700.00	3 30,700.00
11	Well Pumping Test Tests Supply & Install				
	Equipment	L.S.	1	\$ 30,000.00	\$ 30,000.00
	a. 8 – hour Step Test	L.S.	1	\$ 3,600.00	\$ 3,600.00
	b. 72- hour Pumping test	L.S.	1	\$ 32,400.00	\$ 32,400.00
12	Disinfection	L.S.	1	\$ 4,200.00	\$ 4,200.00
13					-
	Video Survey - 360 view recording capable.	L.S.	1	\$ 2,000.00	\$ 2,000.00
14	Video Survey – Additional Pass	L.S.	1	\$ 2,000.00	\$ 2,000.00
15	Provide Submersible Pump & Equip for				
	testing purposes	L.S.	1	\$ N.A.	\$ N.A.
16	Provide Nominal 4.5 inch Pump Column				
	Drop Pipe for testing purposes	L.S.	1	\$ N.A.	\$ N.A.
				Total - \$1	,917,790.00

BID SCHEDULE C

DRILLING TOTAL (IN WORDS)

One Million Nine Hundred Seventeen Thousand Seven Hundred Ninety & 0/100 Dollars



MANDATORY ALTERNATE ITEMS (Must be bid)								
DESCRIPTION	UNIT	QUANITITY	UNIT PRICE	EXTENSION				
TESC Implementation	L.S.	1	\$	\$				
Additional Drilling Footage for 20.0 inch			\$11,000.00	\$11,000.00				
Borehole	L.F.	50	\$ <u>265.00</u>	\$ 13,250.00				
Drilling Mud/Fluids Removal	L.S.	3	\$_37,500.00	\$ 112,500.00				
Drilling Cuttings Removal	L.S.	3	\$ 14,600.00	\$ 43,800.00				
Drilling Hourly Rate (Lost Circulation)	HR	1	\$ 850.00	\$ <mark>850.00</mark>				
Drilling Hourly Rate (Slow Penetration Rate)	HR	1	\$ 850.00	\$ 850.00				
Swab Chemical Set Time (24 hrs)	L.S.	3	\$_6,000.00	\$_18,000.00				
Road Maintenance (Track pad, road sweeping, mud removal)	L.S.	1	\$ 9,800.00	\$ 9,800.00				
Additional 12-inch Diameter Stainless Steel								
Blank Casing	L.F.	20	\$445.00	\$ 8,900.00				
One hour coordination meetings	HR	8	\$ 100.00	\$ <u>800.00</u>				
Water Supply provide backflow meter								
-								
Water Supply provide backflow meter Allowance (Reimbursed based on actual cost; provide copy of invoice)	Allowance	1	\$ <u>5,000</u>	\$5,000				
Arapahoe Well Extended Conductor Casing	Alternative							
Drilling 26-inch Diameter	L.F.	400	\$ 636.00	\$ 254,400.00				
Casing (24-inch)	L.F.	400	\$ 303.00 Total -	\$ 121,200.00 \$600,350.00				

BID SCHEDULE A,B, &C (Dawson, Denver, Arapahoe) MANDATORY ALTERNATE ITEMS (Must be bid)

MANDATORY ALTERNATE ITEMS TOTAL (IN WORDS)

Six Hundred Thousand Three Hundred Fifty & 0 /100 Dollars





Report No. MC190832-002 Cementing Lab Report Chemplex Solvay Group

BASIC

7/25/2019	County	Douglas	BHST (F)	95
Wesley Cook	Rig	n/g	BHCT (F)	85
Mark Jacquez	Job	Casing	T. gradient (F/100ft)	1.25
Basic Energy Services	Casing size (in)	n/g	BHP (psi)	1000
Hydro Resources	MD (ft)	1200	Mud weight (ppg)	12
Castle Rock Water Well	TVD (ft)	1200	Blend type	Pilot Test
MC190832	Testing T. (F)	85		
	N 7			
	Wesley Cook Mark Jacquez Basic Energy Services Hydro Resources Castle Rock Water Well	Wesley Cook Rig Mark Jacquez Job Basic Energy Services Casing size (in) Hydro Resources MD (ft) Castle Rock Water Well TVD (ft) MC190832 Testing T. (F)	Wesley Cook Rig n/g Mark Jacquez Job Casing Basic Energy Services Casing size (in) n/g Hydro Resources MD (ft) 1200 Castle Rock Water Well TVD (ft) 1200	Wesley Cook Rig n/g BHCT (F) Mark Jacquez Job Casing T. gradient (F/100ft) Basic Energy Services Casing size (in) n/g BHP (psi) Hydro Resources MD (ft) 1200 Mud weight (ppg) Castle Rock Water Well TVD (ft) 1200 Blend type MC190832 Testing T. (F) 85 1200

Slurry Properties						
	Slurry density (ppg)	Blend yield (ft3/sk)	Porosity (%)	SVF (%)		
	15.6	1.20	58.84	41.16		

Slurry Composition							
Component	Concentration	Unit	Lot #				
Class G	100	%BWOB	B18356				
Calcium Chloride	2	%BWOB	A18169				

Ba	se Fluid
Component	Blend ratio (gal/sk)
Fresh water	5.277

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	Comments
	UCA was tested at 95F @ 800 psi.

Rheology						
Temperature (F)	80	85				
Pressure (psi)	0	0				
Conditioning time (min)	0	20				
RPM	Average	Average				
300	70	68				
200	64.5	62				
100	56.5	54				
60	52.5	49.5				
30	47.5	44				
6	30.5	25.5				
3	21.5	16				
10 sec gel (lbf/100ft2)						
10 min gel (lbf/100ft2)						
1 min stirring (lbf/100ft2)						
Rheology Model	Bingham plastic	Bingham plastic				
PV (cP)	40.6	43.5				
YP (lbf/100ft2)	35.5	31.1				
n						
K (lbf-s^n/100ft2)						

	Compressive Strength								
	Initial Final								
Temperature (F)		80				95			
Pressure (psi)	800				800				
Ramp time (hr:mm)	04:00								
Time (hr:mm)	03:02	03:02 06:44 12:00			24:00	48:0	0	72:00	
Comp. strength (psi)	50	1	500	1011	1789	261	5	2895	
Crush type	Puck								
Time (hr:mm)	12:00	12:00 24:00				00		72:00	
Avg strength (psi)									

Thickening Time								
	l li	nitial	Final					
Temperature (F)		80	85					
Pressure (psi)	1	1000	1000					
Ramp time (hr:mm)	00:13							
Consistency (Bc)	17		70					
Time (hr:mm)	00:00		02:15					
	Batch mixing							
Mixing time (hr:mm)								
Temperature (F)								

85	Free	Fluid
1000	Conditioning temperature (F)	85
20	Conditioning time (min)	20
Yes	Static 2 hr temperature (F)	80
397.16	Inclination (deg)	90
· · ·	Initial volume (ml)	250
	Free fluid (ml)	1
	% Free fluid	0.4
	Settling (Y/N)	No

huid	loss	

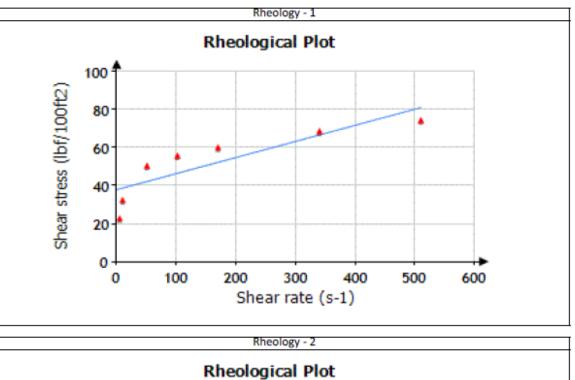
Fluid Loss						
Temperature (F)	85					
Pressure (psi)	1000					
Conditioning (min)	20					
Blow out	Yes					
Calculated loss (ml/30min)	897.16					

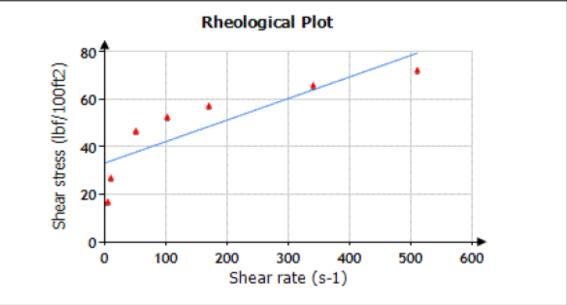




Report No. MC190832-002 Cementing Lab Report Chemplex Solvay Group





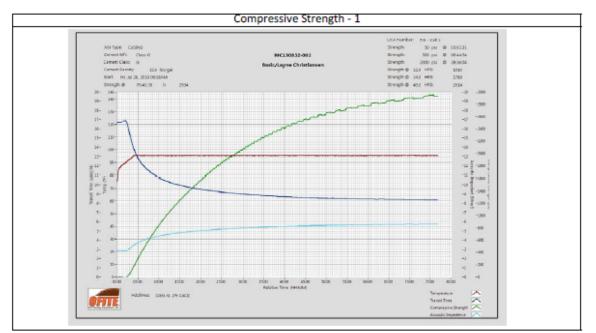


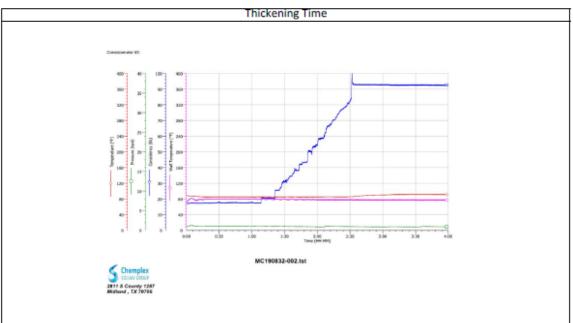




Report No. MC190832-002 Cementing Lab Report Chemplex Solvay Group











Report No. MC200205-001 Cementing Lab Report Chemplex Solvay Group

BASIC

Report date	3/10/2020	County	Weld	BHST (F)	95
Requestor	Wesley Cook	Rig	n/g	BHCT (F)	85
Analyst	Cameron Parker	Job	Primary	T. gradient (F/100ft)	1.25
Client	Basic Energy Services	Casing size (in)	n/g	BHP (psi)	1000
Operator	Various	MD (ft)	1200	Mud weight (ppg)	12
Well	Various	TVD (ft)	1200	Blend type	Pilot
Project No	MC200205	Testing T. (F)	85		

Slurry Properties								
	Slurry density (ppg)	Blend yield (ft3/sk)	Porosity (%)	SVF (%)				
	13.5	1.60	66.8	33.2				

Slurry Composition									
Component	Concentration	Unit	Lot #						
GCC Class G	65	%BVOB	B20018						
Boral Type C	35	%BVOB	B18357						
Bentonite Gel	6	%BWOB	B19198						
Calcium Chloride	3	%BWOB	2060319						

Base Fluid Blend ratio (gal/sk) 7.996 Component Fresh water

Rheology							
Temperature (F)	81						
Pressure (psi)	0						
Conditioning time (min)	0						
RPM	Average	Average					
300	41						
200	38						
100	34						
60	31.5						
30	28.5						
6	20.5						
3	13.5						
10 sec gel (lbf/100ft2)							
10 min gel (lbf/100ft2)							
1 min stirring (lbf/100ft2)							
Rheology Model	Bingham plastic						
PV (cP)	22.2						
YP (lbf/100ft2)	22.2						
n							
K (lbf-s^n/100ft2)							

Thickening Time							
	h	nitial	Final				
Temperature (F)		80	85				
Pressure (psi)	1	000	1000				
Ramp time (hr:mm)		00	13				
Consistency (Bc)	7		70				
Time (hr:mm)	00:00		04:50				
	Bat	ch mixing					
Mixing time (hr:mm)							
Temperature (F)							

Compressive Strengt	h
Initial	

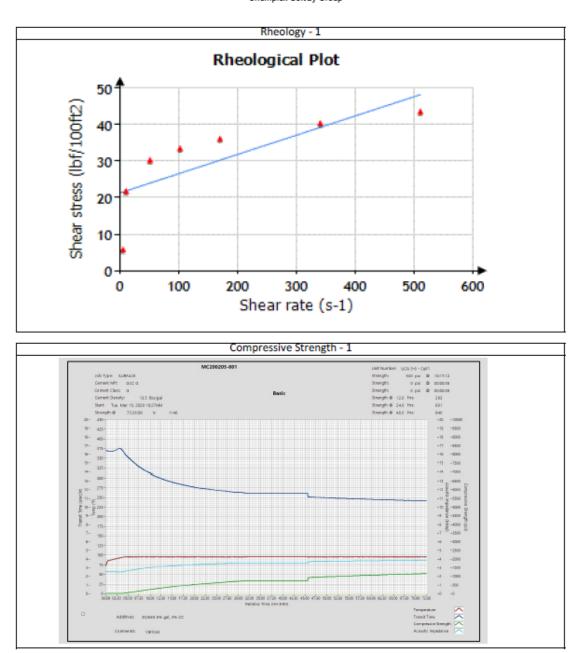
Compressive Surengui									
		Init	tial		Final				
Temperature (F)		8	0		95				
Pressure (psi)		30	00		3000				
Ramp time (hr:mm)			04	4:00					
Time (hr:mm)	05:11	19:	:17	12:00	24:00	48:00		72:00	
Comp. strength (psi)	50	- 50	00	293	601	940	0 1151		
Crush type	Puck								
Time (hr:mm)	12:00		24:00		48:00		72:00		
Avg strength (psi)									





Report No. MC200205-001 Cementing Lab Report Chemplex Solvay Group









Report No. MC200205-001 Cementing Lab Report Chemplex Solvay Group



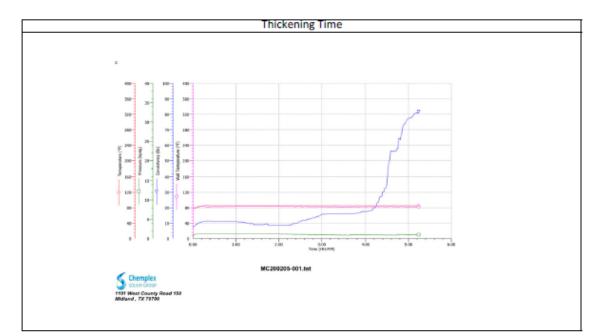




EXHIBIT 2

CONTRACTOR'S CERTIFICATE OF INSURANCE

A	CORD [®] CI	ER	TIF	ICATE OF LIA	BILI	TY INSU	JRANC	E		(MM/DD/YYYY) 29/2022
E	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.									
	IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).									
	DDUCER	o une	cen	uncate noider in neu or si		CT Korey Sch				
	arsh & McLennan Agency LLC				PHONE (A/C, N			FAX (A/C, No):		
	00 City West Blvd. Suite 2400				E-MAIL	o. Extl: / 13-/ ou iss: Korey.Sci		(A/C, No):		
H	ouston TX 77042				ADDRE			RDING COVERAGE		NAIC #
					IN SUIDS	RA Continen				20443
	URED			HYDRORESOU		ERB: Valley Fo				20508
	ydro Resources Rocky Mountain, Inc							nce Company		20494
	ne Sugar Creek Center Blvd., Suite 4 Joar Land TX 77478	HUU						Company of Florida		11156
	•				INSURE	ERE: Navigato	rs Specialty	Insurance Company		36056
					INSUR	ERF:				
CO	OVERAGES CER	TIFIC	CATE	E NUMBER: 1198992040				REVISION NUMBER:		
	THIS IS TO CERTIFY THAT THE POLICIES									
	NDICATED. NOTWITHSTANDING ANY RE CERTIFICATE MAY BE ISSUED OR MAY 1									
6	EXCLUSIONS AND CONDITIONS OF SUCH	POLI	CIES.			REDUCED BY I	PAID CLAIMS.			
INSI LTF	TYPE OF INSURANCE		SUBR WVD	POLICY NUMBER		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMI	18	
^	X COMMERCIAL GENERAL LIABILITY	Y	Y	7033778264		6/1/2022	6/1/2023	EACH OCCURRENCE DAMAGE TO RENTED	\$2,000	,000,
	CLAIMS-MADE X OCCUR							PREMISES (Ea occurrence)	\$ 100,0	00
	X Limited Poll Lia							MED EXP (Any one person)	\$ 10,00	
	X Contractual Liab							PERSONAL & ADV INJURY	\$ 2,000,000	
	GEN'L AGGREGATE LIMIT APPLIES PER:							GENERAL AGGREGATE	\$ 4,000,000	
	POLICY X PRO- JECT LOC							PRODUCTS - COMP/OP AGG	\$ 4,000,000 \$ 1M / \$2M	
в	OTHER: AUTOMOBILE LIABILITY	Y	Y	7033778278		6/1/2022	6/1/2023	Poll Per Occ/ Agg COMBINED SINGLE LIMIT	\$ 2,000	
1	X ANY AUTO		· ·	1033110210		0/1/2022	0/1/2023	(Ea accident) BODILY INJURY (Per person)	\$ 2,000	,000
	OWNED SCHEDULED							BODILY INJURY (Per accident)	5	
	AUTOS ONLY AUTOS X HIRED X NON-OWNED X HIRES ONLY X NON-OWNED							PROPERTY DAMAGE	5	
	X AUTOS ONLY AUTOS ONLY X MCS-90 X Pol Liab							(Per accident) Broadened for Auto	s Inclu	bed
D	UMBRELLA LIAB X OCCUR	Y	Y	CXP00608000		6/1/2022	6/1/2023	EACH OCCURRENCE	\$ 5,000	000
E	X EXCESS LIAB CLAIMS-MADE			H022EXCZ08DK9IC		6/1/2022	6/1/2023	AGGREGATE	\$ 5,000	
	DED RETENTION \$	1						2ND Layer Excess Liab	\$ 5,000	,000
c	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			7033778281 7033778295	6/1/2022	6/1/2023	X PER OTH- STATUTE ER			
ľ	ANYPROPRIETOR/PARTNER/EXECUTIVE	RIETOR/PARTNER/EXECUTIVE			6/1/2022	6/1/2023	E.L. EACH ACCIDENT	\$1,000	,000	
	(Mandatory In NH)							E.L. DISEASE - EA EMPLOYEE	\$ 1,000	,000
	If yes, describe under DESCRIPTION OF OPERATIONS below							E.L. DISEASE - POLICY LIMIT	\$1,000	
^	Equipment Owned/CAT Rented/Leased Equip Installation Floater		Ŷ	7033860821		6/1/2022	6/1/2023	Maximum/ CAT Limit Per Item/ Per Occ Jobsite / Cat Limit		60,404 K/ \$1M ,000
Co	SCRIPTION OF OPERATIONS / LOCATIONS / VEHICL mmercial Inland Marine policy #7033860 own above	LES (# 1821 i	includ	0 101, Additional Remarks Schedu des Leased/ Rented Equipr	ie, may b ment wi	e attached if more ith a Per Item	space is requir Limit of \$500	ᢦd)),000/PerOccurrence Lin	nit of \$1	,000,000 as
ins Ur co wt	The General Liability, Automobile Liability and Umbrella/ Excess Liability policies include a Blanket Additional Insured endorsement that provides additional insured status only where such status is required by a written and executed contract. The General Liability, Automobile Liability, Workers' Compensation and Umbrella Liability policies include a Blanket Waiver of Subrogation endorsement that provides this status only where such status is required by a written contract and executed contract. The General Liability and Automobile Liability policies include "Primary and Non-contributory" wording for Additional Insureds where there is a written and executed contract that requires such status. See Attached									
CE	RTIFICATE HOLDER				CAN	CELLATION				
	Hydro Resources Rocky M				SHO	ULD ANY OF 1	DATE TH	ESCRIBED POLICIES BE C EREOF, NOTICE WILL CY PROVISIONS.		
	One Sugar Creek Center B Sugar Land TX 77478	orvd :	Suite	: 400	AUTHORIZED REPRESENTATIVE Brett Herrington					

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EXHIBIT 3

TOWN OF CASTLE ROCK AFFIDAVIT OF INDEPENDENT CONTRACTOR STATUS

I, ______, an authorized representative of **HYDRO RESOURCES – ROCKY MOUNTAIN, INC.**, holding legal authority to sign this Affidavit declare under oath that I am 18 years or older and have the capacity to sign this Affidavit.

In accordance with Section 8-70-115, C.R.S., I certify the following:

- With respect to the Agreement, I represent and warrant that it is my express intention to be employed as an independent contractor of the Town of Castle Rock (the "Town") for purposes of performing the work or services which are the subject of the Agreement. I understand and confirm that the Town reasonably relied on this intention in entering into the Agreement.
- The Town does not require I work exclusively for the Town, except that I may choose to work exclusively for the Town for a finite period of time specified in the document.
- The Town does not establish a quality standard for the work or services performed pursuant to the Agreement, except that the Town may provide plans and specifications regarding the work but cannot oversee the actual work or provide instruction as to how the work is performed.
- The Town does not pay a salary or hourly rate but rather a fixed or contract rate, as noted in the terms and conditions of the Agreement, and any Exhibits made part of the Agreement.
- The Town cannot terminate the work or services performed during the contract period unless otherwise agreed to in the terms and conditions of the Agreement.
- I am not provided with anything, if at all, more than minimal training from the Town.
- The Town does not provide me with tools or benefits for the performance of the work or services which are the subject of the Agreement, except materials and equipment may be supplied.
- The Town does not dictate the time of performance, except that a completion schedule and a range of mutually agreeable work hours may be established in the Agreement.



- The Town does not pay me personally but rather makes checks payable to the trade or business name of the entirety for which I am employed and who is a party to the Agreement; and the Town does not combine their business operations in any way with the entity's business, but instead maintains such operations as separate and distinct.
- I understand that if a professional license to practice a particular occupation under the laws of the State of Colorado requires the exercise of a supervisory function with regard to the work of services performed under this Agreement, such supervisory role shall not affect the independent contractor relationship with the Town.
- I UNDERSTAND THAT I AM NOT ENTITLED TO UNEMPLOYMENT INSURANCE BENEFITS UNLESS UNEMPLOYMENT COMPENSATION COVERAGE IS PROVIDED BY ME OR THE ENTITY FOR WHICH I AM EMPLOYED.
- I UNDERSTAND THAT I AM OBLIGATED TO PAY FEDERAL AND STATE INCOME TAX ON MONEYS PAID PURSUANT TO THE AGREEMENT.

CONTRACTOR/CONSULTANT/VENDOR

HYDRO RESOURCES – ROCKY MOUNTAIN, INC.

The foregoing instrument as acknowledged before me this _____ day of ______, 20____ by ______ as ______ of the above mentioned Contractor/Consultant/Vendor.

Witness my official hand and seal.

My commission expires:

Notary Public