# Environment, Inc.

LARRY E. O'BRIAN FOUNDER

STEVAN L. O'BRIAN PRESIDENT 7985 VANCE DRIVE, SUITE 205A ARVADA, COLORADO 80003 303-423-7297 FAX 303-423-7599

July 15, 2019

Mr. Jared Ebert Division of Reclamation, Mining & Safety 1313 Sherman St., Suite 215 Denver, CO 80203

Dear Mr. Ebert;

RE: Albert Frei and Sons, Inc. - AFS-Bennett Pit M-2001-038 - Adequacy Response 02 & 03

On behalf of my client Albert Frei and Sons, Inc, I am responding to your second adequacy review letter dated June 20, 2019 and the question ask in the Geotechnical Review of July 1, 2019. I have included the new review points that need to be addressed in the order presented so the clarification questions and answers will be in this document for easy reference.

#### Rule 6.4.5, Exhibit F – Reclamation Plan

7. b. **DRMS Response:** Please clarify your statement that the mine is not operated as an inert fill facility? The Division assumes you mean the primary purpose of the operation is not to be an inert fill facility, and that this will be secondary to the mining operation.

You are correct. The intent is to only accept inert material at the mine until all mining and stockpiled materials are removed. At that time the mine will be closed to accepting lnert Materials, and reclamation will be completed using the material on site at that time.

#### Rule 6.4.8, Exhibit H – Wildlife Information

16. b. **DRMS Response:** The Division received a comment letter from Colorado Parks and Wildlife (CPW) on April 16, 2019. Their comment letter indicates a prairie dog colony was discovered within the project area with the potential for presence of burrowing owls. CPW stated that if any earthmoving will begin between March 15th and October 31st, a burrowing owl survey should be performed. As these raptors are classified as a State Threatened species, please commit to conducting a burrowing owls survey if earthwork will occur between the dates noted by CPW and commit to retaining copies of the results of these surveys. If burrowing owls are found please indicate what protective actions will be taken.

After reading the CPW letter more throughly, Ms. Crystal Chick says " If prairie dog colonies are present,...". There are no prairie dog colonies on the permit area since none were noted in the ERO wildlife analysis nor have I personally observed any in the numerous visits I have made to the



JUL 15 2019

DIVISION OF RECLAMATION MINING AND SAFETY

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mine. In the future if any are observed Albert Frei and Sons, Inc. will follow Mrs. Chick's recommendations.

## Rule 6.4.12, Exhibit L – Reclamation Costs

17. b. **DRMS Response:** Will AFS retain enough native material either in a bank or stockpiled state to grade the mined slopes to the proposed 3H:1V ratio? Or, will AFS rely on the importation of fill to provide for the volume of material needed to backfill the mine slopes? If so, please include an estimate of the volume of material the Division would have to import at the point of worst case disturbance to backfill and grade the proposed 3300 foot highwall. Also please include a cost the Division would incur from purchasing this material.

Yes, AFS has enough native material and there are adequate quantities of overburden, clay lenses and unusable sand (dirt) generated as mining progresses to complete the sloping of the 3300 feet. Importing of materials will not be needed nor will it need to be purchased.

## Rule 6.4.19, Exhibit S – Permanent Man-made Structures

18. a ii. **DRMS Response:** The structure agreement for David A and Joyce E Lincoln did not include their three-strand barbed wire fence. Please submit a revised and properly executed structure agreement for this structure or provide an appropriate engineering evaluation demonstrating the mining operation will not affect this structure.

Attached is a copy of the new Structure agreement from Mr. & Mrs. Lincoln that includes their fences. Mr. Frei has delivered a second copy of the agreement to the Copeland Trust for their reconsideration. If we receive a signed agreement it will be provided for the file.

The Division is currently reviewing the engineering evaluation submitted for the structures owned by The Robert and Alethea Copeland Revocable Living Trust. Any adequacy issues identified will be forwarded to you as soon as possible.

See responses below to Mr. Hays review on the engineering evaluation for the Copeland structures.

### Additional Adequacy Review Issues

 A detailed inert fill plan was submitted and approved with TR01. However, it is unclear how the applicant insures the off-site material backfilled into the pits is clean and inert as defined by Rule 1.1(20). Please explain how the applicant will monitor, document and verify the material brought to the site meets the definition of inert material as defined by Rule 1.1(20). Please include the following: In the approved TR01, the original operator had personal contact with the parties delivering the loads and received assurances it met the definition of inert materials. There are no records for the material delivered under the Lincoln ownership. Since Albert Frei and Sons, Inc. took the mine over they use the same method used at their permitted Certificate of Designation sites in western Adams County. Attached is an Addendum to the Inert Fill Plan discussing the items you suggest below. It contains a description of the process used to determine any load of inert material delivered to the mine meets the definition in Rule 1.1(20) and address points a., b. and c. below.

a. A monitoring plan describing how each load of inert material will be inspected to verify it is inert.

b. A load log/tracking plan that documents:

- I. the type and amount of material backfilled into the pit
- ii. the source of this material
- iii. date, time and location of backfilling activity

The date and time will be collected. It will be placed somewhere along the west mine boundary.

- iv. Signed certification statement that the material is clean and inert as defined by Rule 1.1(20)
- c. Record keeping plan
  - I. The applicant will need to document they have inspected every load brought to the site and commit to retaining the load logs discussed above.
  - ii. Please commit to submitting these records for the Division's review with the annual report.

AFS will commit to providing electronic copies of the inert fill load tickets to the Division of Mining, Reclamation and Safety at annual report plan.

2. The adequacy response letter alludes that on occasion, fill material brought to the mine is found not to meet the definition of inert material and that AFS isolates this material and if the entity that brought the material returns to the facility they are required to remove it (AFS adequacy response letter June 17, 2019, page 12). Please explain what happens to this material in the event the entity does not return to the facility, how has/does AFS dispose of this material?

The policy is, that IF improper material is delivered as Inert and when dumped, it is found that it does not meet that definition it is immediately loaded back into the vehicle that delivered it for proper disposal. The delivering party has signed an affidavit that it is Inert Material, where it came from, how much was delivered and accepts responsibility for taking it back if it does not meet inspection. To date we have never had a problem with it being removed. If on the other hand we find it buried in the load when it is moved and the offending party does not return, our policy is to the hire a truck to haul the material to a landfill for proper disposal and the company that delivered the material is banned from ever dumping at the mine in the future. Only a limited number of clientele are allowed to deliver inert materials so we have control of who and what gets dumped.

3. The applicant is now proposing a 60 acre affected land limit in lieu of conducting a phased mining plan approach or for bonding for the maximum area to be mined at the site. Please explain how AFS will monitor their total affected land acreage? AFS will need to submit and receive approval of the proposed technical revision to increase the bond coverage area and submit any necessary bond increase prior to affecting land in excess of 60 acres.

AFS plans to have the permit area flown once every 2 years until mining is complete to keep up with the progression of mining. This photo will be used to update the map filed with the annual report. A GPS unit will be used to measure the disturbed areas in the mine. This gives us accurate information needed to answer the annual report questions. If we need to disturbed more then 60 acres a Technical Revision will be filed prior to reaching that point to determine if the bond is adequate for the proposed increase.

4. Page 7 of your adequacy response letter and revised page 15 of Exhibit G discusses a water monitoring plan to be implemented to collect baseline water level and quality data should AFS desire to excavate into the groundwater table in the future with the possibility of lining portions of the pit excavation. AFS will need to submit and receive approval of an amendment application, not a Technical Revision to revise the reclamation plan for a portion of the site to be reclaimed as a lined water reservoir. Regarding the baseline water monitoring plan, AFS will need to submit well completion records for each of the monitoring wells. For baseline water quality sampling, DRMS typically requires five quarters of water quality data prior to disturbance below the groundwater table. The applicant is encouraged to work with the Division in advance to establish which water quality parameters should be collected.

Albert Frei and Sons, Inc. understands they will need an Amendment prior to lining a portion of the mine or mine into the groundwater table. Frei will collect 5 quarterly water quality samples prior to disturbing below the water table. At this time AFS plans to sample groundwater in one of the down gradient groundwater monitoring wells and analyze it for VOC using EPA Method 8260 and 8-RARA Metals using EPA Method 6020 and 7471. Analysis requested will be using laboratory standard turn around times. A copy of the analysis will be supplied to the Division when it is recieved. Copies of the competition records are attached for the 4 wells installed along the south end of the mine.

## Geotechnical review responses (Peter Hays)

1. On Page 4 of the Mining Plan revised on June 14, 2019, the Application states, "Along the affected lands/permit line the mining setback will be 25 feet. The exception to this is along the

south permit line. In this area due to structures adjacent to the permit. In this area a working face setback of 70 feet stacked from Permit line. North of this line the working face will be worked approximately ½:1 but when mining reached this setback line mining will done on the final 3:1 grade."

Please explain how the Applicant intends to mine from the 70 feet offset to the final 25 feet offset at the final 3H:1V slope when the toe of the permanent slope will have already been excavated.

This was my mistake, instead of "mining" I should have used "graded". AFS intends to place overburden, reject rock and inert materials along the base of the face in this area and then cut/ fill the 70 foot wide area to create the final slope over the fill. Any excess material would then be processed. If no fill material is available, the cut/fill method will provide enough material to create the 3:1 slope. My calculations show that without fill, the 70 foot setback with a 55 foot height, the upper portion of the cut will contain approximately 36.3 yds per linear foot and the bottom will require approximately 33.75 yards per linear foot of fill.

Based on Section B - 3H to 1V Reclaimed Slope for Fence cross-section provided in the geotechnical analysis the Division recommends the Applicant begin mining along the south boundary at a 3H:1V slope at the toe of permanent slope - 202 feet from the fence/property line.

While this is a practical way to do the slopes it is to our advantage to mine vertical and backfill the slopes. The amount of reject material and overburden on the site allow us to place that unusable material in the slope areas. By placing it along the mines perimeter that needs sloping, AFS can maximize the amount of material being removed from the mine. If, the fill is not available then, AFS may implement the plan to mine the final slope at a rate of 3h:1v.

2. On Page 1 of the geotechnical stability exhibit, the Applicant states the friction angle for alluvial sands is 42° based on previous studies. The Division typically uses a friction angle of 37° for generalized material properties for alluvial sand. Please provide the Division with the previous studies or site specific material property tests to justify the use of a 42° friction angle in the geotechnical analysis.

The previous studies are from past experience and from a number that Allan Sorenson suggested in the past. This 42° friction angles lies midway along the angles show on the supplied table that is an excerpt from Rock Slopes: Design, Excavation and Stabilization, Publication No. FHA-TS-89-045, for Dense sand. There is no scientific reason for the number I chose. The 37° is acceptable to AFS and I will begin to use that angle in the future if no site specific information is available.

3. On Page 1 of the geotechnical stability exhibit, the Applicant states as mining approaches the perimeter of the mine a 25 foot mining setback will be staked from the permit line to establish

the mining limit. An additional safety setback line of 25 feet will be staked from the mining setback line to establish the limit that mining with vertical face will stop. Please explain how the Applicant intends to mine the area between the 25 feet setback from the permit line and 25 feet safety setback.

This extra 25 foot setback would not be mined. It is there to leave enough room for shaping the top of the final slope and so there is room to spread the soil stored along the setback down the slope. In effect the material from the upper parts would be pushed down the slope to supplement the fill to create the final grades.

4. One Pages 2 and 3 of the geotechnical stability exhibit, the Applicant states the second cross section was a calculation to confirm that the 3:1 slope would be in the guidelines and the safety factor was calculated to be FS =  $Tan42^{\circ}/Tan17.1^{\circ} = 3.93$ . The factor of safety listed on Sheet 2 of 2 of the exhibit is 2.93 for the same slope. Please review the safety factor value within both exhibits and explain the discrepancy.

Review of the calculation on Page 2 for  $FS = Tan42^{\circ}/Tan17.1^{\circ} = 3.93$  is incorrect it should be  $FS = Tan42^{\circ}/Tan17.1^{\circ} = 2.93$ . This matches Section B on sheet 2 of 2 and was a typo on my part.

Revised Exhibits and other items attached

- Copy of the competition report for 4 monitoring wells
- Addendum to Inert Fill Plan
- · Lincoln updated structure agreement
- Proof of Placement of responses to adequacy Reviews 02 and 03 with Adams County Clerk's office

If you have more questions or need more information please call me at (303) 423-7297.

Sincerely,

Stevan L. O'Brian Environment, Inc.

cc Albert Frei and Sons, Inc. Jared Ebert - via e-mail Adams County Clerk file

	v v		TION AND Y	IELD ESTIMA	TE REPORT		For (	Office Use Only	
Form No.	State of Colorado, Office of the State Engineer								
GWS-31	1313 Sherman St., Room 821, Denver, CO 80203 303.866.3581								
02/2017	www.water.state.co.us_and_dwrpermitsonline@state.co.us								
1. Well Permit	it Number: 59468-MH Receipt Number:								
2. Owner's We	Vell Designation: MW-1								
3. Well Owner	r Name: Albert Fi	rei & Sons							
4. Well Locati	on Street Address	:							
	S Well Location (re	· / <b>–</b>			-				
	Location: <u>SE</u> 1/	′4, <u>SE</u> 1/4,	Sec., <u>2</u>	Twp. <u>3</u>	N or S	• , Range <u>63</u>	E or	W 💽, <u>6</u> P.M.	
County: <u>/</u> Subdivision:	Adams				Lot	Block	Filin	g (Unit)	
	face Elevation: 53							5 (onic)	
	Aquifer Name : <u>4</u>			-	<u>55</u> fe	-	Completed:	55 feet	
	otification: Was No								
10. Aquifer Ty		One Confining L				ining Layers)			
(Check on		(Not overlain by	• •		(Overlain by T			lluvial/colluvial)	
11. Geologic		(	.)pe)		12. Hole Dia		From		
Depth	Туре	Grain Size	Color	Water Loc.		8"	0		
0-6	Overburden	clay-gravel	brown						
6-48	Sand & Gravel	clay-gravel	brown						
48-55	Clay/Sandstone	Clay-sand	grey/brown		13. Plain Ca	sing			
			<u> </u>		OD (in)	Kind Wal	l Size (in)	From (ft) To (ft)	
					2 3/8	PVC	0.308	0 40	
						d Casing Scree			
					OD (in)		l Size (in)	From (ft) To (ft)	
					2 3/8	PVC	0.308	40 55	
						<u> </u>			
					14. Filter Pa			r Placement:	
					Material	Sand	Туре		
					Size	10/20	Danath		
					Interval	<u>38-55</u>	Depth		
					16. Grouting	-	Demeiter	Interval Mathead	
Bomarket					Material	Amount	Density	Interval Method	
Remarks: Ber	ntonite seal from	28-38', back	filled mater	ial 5-28',					
Cor	ncrete 0-5', and	completed wi	th stick-up	casing.					
17. Disinfection: Type NA Amt. Used NA									
17. Disinfection: Type NA       Amt. Used NA         18. Well Yield Estimate Data:       Check box if Test Data is submitted on Form Number GWS-39, Well Yield Test Report								Well Yield Test Report	
	Estimate Method:	NA							
Static Leve				Estimated Y	'ield (gpm) NA	 \			
	e measured:		Estimate Length (hrs) <u>NA</u>						
		6/5/2019		Estimate Le	ingen (in 5)				
	water encountered		e contents the	reof and they	are true to my l	nowledge This da	cument is sign	ed (or name entered if	
filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402 2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online									
the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.									
Company Name	ompany Name: En			ail: Phone v			rea code: License Number:		
	2						-1468	55975	
Mailing Address: 600 S. Airport Road A-205, Longmont, CO 80503									
Sign (or enter name if filing online) Print Name and Title								Date:	
	Elizabeth	Elizabeth Morley Beckman, PE							
E. Muy Mm								06/21/2019	

	l v					For (	Office Use Only		
Form No.	WELL CONSTRUCTION AND YIELD ESTIMATE REPORT     For Onice use Only       State of Colorado, Office of the State Engineer     For Onice use Only								
GWS-31	1313 Sherman St., Room 821, Denver, CO 80203 303.866.3581								
02/2017	www.water.state.co.us_and_dwrpermitsonline@state.co.us								
1. Well Permit	it Number: 59468-MH Receipt Number:								
	Well Designation: MW-2								
	Name: Albert Fi					1			
4. Well Locati	on Street Address	•				1			
5. As Built GP	S Well Location (re	equired): 🔲 Zo	one 12 🔳 Zor	ne 13 Eastin	g: 551726.9 Northing: 440	7228.7			
					N or S •, Range <u>63</u>		W 💽, <u>6</u> P.M.		
County: _4				- ·					
					, Lot, Block	, Filin	g (Unit)		
				-	04/2019 Drilling Method				
	Aquifer Name : <u>/</u>					Completed:			
					? 💽 Yes 🔲 No, 🛛 Date Noti				
10. Aquifer Ty		One Confining	•		1 3,7,	Laramie-F			
(Check on		(Not overlain b	y Type III)	L Type II			lluvial/colluvial)		
11. Geologic				I	12. Hole Diameter (in.)	From	• • • • •		
Depth	Туре	Grain Size	Color	Water Loc.	8"	0	20		
0-7	Overburden	clay-gravel	Brown						
7-16	Sand & Gravel	sand-gravel	brown	x					
16-20	Clay/sandstone	clay-sand	brown/grey		13. Plain Casing		T. (64)		
						ll Size (in)	From (ft) To (ft)		
					2 3/8 PVC	0.308	0 10		
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					OD (in) Kind Wa	ll Size (in)	From (ft) To (ft)		
					2 3/8 PVC	0.308	10 20		
					14. Filter Pack:		r Placement:		
					Material Sand	Туре			
					Size 10/20				
					Interval <u>5-20'</u>	Depth			
					16. Grouting Record				
					Material Amount	Density	Interval Method		
Remarks: Ber	ntonite seal 2-5',	concrete 0-2	'. complete	d with					
stic	kup casing		, complete	u mu					
	in producing								
17. Disinfecti	on: Type NA				Amt. Used NA				
18. Well Yield	Estimate Data:		Check bo	ox if Test Dat	ta is submitted on Form Numl	per GWS-39, V	Well Yield Test Report		
Well Yield	Estimate Method:	NA							
Static Leve	el: <u>11.35'</u>			Estimated Y	'ield (gpm) <u>NA</u>				
Date/Time	measured:	6/5/2019		Estimate Le	ngth (hrs) <u>NA</u>				
Remarks:									
	the statements made	herein and know t	he contents the	reof. and they	are true to my knowledge. This d	ocument is sign	ed (or name entered if		
					n Rules, 2 CCR 402 2. The filing of				
statements is a v	iolation of section 37	91 108(1)(e), C.R.	S., and is punish	nable by fines u	up to \$1,000 and/or revocation of	the contracting	license. If filing online		
the State Enginee	er considers the entry	of the licensed co	ntractor's name	e to be complia	nce with Rule 17.4.				
Company Name				ail: Phone w/a					
				orley.beckman@deereault.com (303)			55975		
Mailing Address: 600 S. Airport Road A-205, Longmont, CO 80503 Sign (or enter name if filing online) Print Name and Title Date:									
Sign (or enter	5 (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						Date:		
	E. May Mm				kman, PE		06/21/2019		
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GWS-31 W2/2017       1313 Sherman St., Room 821, Denver, CO 80203 303. 866. 381         20/2017       www.water.state.co.us         1: Well Derritt Number: SJ468.Mit       Receipt Number:         2. Owner's Well Designs for: MW-3	Form No.	WELE CONSTRUCTION AND THEED ESTIMATE REPORT								
02.207       www.water.state.co.us and dwyrermitsonline@state.co.us         1. Weil Permit Number: 50463-MH       Receipt Number:         2. Owner's Weil Designation: AW-3	GWS-31									
1. Well Permit Number: \$3468.4H       Receipt Number:         2. Owners' Well Designation: NW-3         3. Well Overs Well Designation: NW-3         3. Well Overs Well Location: Street Address:         5. As Buil Corp Well Location: required):       Zone 12       Zone 13       Easting: 551599.0       Northing: 4406941         6. Legal Well Location: S5										
2. Owner's Well Designation: MV-3         3. Well Owner Name: Albert Frei & Sons         4. Well Location Street Address:         5. As Built GPS Well Location (required): Zone 12 Zone 13 Easting: 55199.0 Northing: 4406/941         6. Legal Well Location: SE       1/4, Sec. Z Twp.2 Nor S Range 6.3 E or W 6.6 P.M.         County: Adams       Subdivision: Total Depth: 59       Feet Depth Completed: 59 (net.         7. Ground Surface Elevation: 5320       Feet Date Completed: 90(0/2019)       Drilling Method; HSA         8. Completed Aquifer Name : Alluvial Total Depth: 59       Feet Depth Completed: 59 (net.         9. Advance Notification: Wash toto versian by Type III)       Type I (Notifia by Type III)       Type III (Not overlain by Type III)         10. Aquifer Type:       Grain Size Color       Water Loc.       8       0       170 (ft)       To (ft)         9. 7       Overburden       clay-gravet       brown / grey       13. Plain Casing       00 (in)       Kind       Wall Size (in)       From (ft) To (ft)         2.3/8       PVC       0.308       44       59       9	02/2017	www.water.state.co.us and dwrpermitsonline@state.co.us								
3. Well Owner Name: Albert Frei f: 5ons Well Location Street Addres: 5. As Built GPS Well Location (required): □ Zone 12 □ Zone 13 Easting: 551599.0 Northing: 4406941 6. Legal Well Location: 5⊆ 17.4, 5⊆ 17.	1. Well Permit	it Number: 59468-MH Receipt Number:								
4. Well Location Street Address: 5. As Built Got Well Location (required): [2one 12 = Zone 13 Easting: 551599.0 Northing: 440641 6. Legal Well Location: SE	2. Owner's We	Vell Designation: MW-3								
4. Well Location Street Address: 5. As Built Got Well Location (required): [2one 12 = Zone 13 Easting: 551599.0 Northing: 440641 6. Legal Well Location: SE	3. Well Owner	r Name: Albert Fi	rei & Sons							
6. Legal Well Location: SE_114, SE_14, SE_, 2_Twp.3_NorS_Range_63       E or W • 6       P.M.         County: Adams	4. Well Locati	on Street Address	•							
6. Legal Well Location: SE_114, SE_14, SE_, 2_Twp.3_NorS_Range_63       E or W • 6       P.M.         County: Adams	5. As Built GP	S Well Location (re	equired): 🗖 Za	one 12 🗖 Zor	ne 13 Eastin	g: 551599.0 Nort	hing: 4406	941		
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StuddWishin:			., <u>.</u>			,			, <u></u>	
S. Completed Aquifer Name : Alluvial       Total Depth: 59       feet       Depth Completed: 59       feet         9. Advance Notification: Was Notification Required Prior to Construction?       Type:       Open: Completed: 59       feet         10. Aquifer Type:       Type II (Not corfain by Type III)       Type II (Autivalic Confining Layer)       Type III (Autivalic Colluvial)         11. Geologic Log:       11. Geologic Log:       12. Hole Diameter (in.)       From (t)       To (t)         7-57       Sand & Gravel       Clay-gravel       brown       x       3"         7-57       Sand & Gravel       Clay-gravel       brown grey       13. Plain Casing       0       59         7-57       Clay/sandstone       clay-gravel       brown grey       13. Plain Casing       0       44         0       0       (in)       Kind       Wall Size (in)       From (ft)       To (ft)         0       0       (in)       Kind       Wall Size (in)       From (ft)       To (ft)         0       0       (in)       Kind       Wall Size (in)       From (ft)       To (ft)         0       0       (in)       Kind       Wall Size (in)       From (ft)       To (ft)         0       (in)       Kind       Wall Size (in) <td>Subdivision:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>g (Unit)</td>	Subdivision:								g (Unit)	
9. Advance Notification Required Prior to Construction? □ Yes  No. Date Notification Given: <u>05/23/2019</u> 10. Aquiffer Type: □ Type I (Not cortain by Type III) (Check one) □ Type II (Not overlain by Type III) 11. Geologic Log: 12. Hole Diameter (in.) Perform (ft) To (ft) 0 59 0.7 Overburden clay-gravel brown 7.73 Sand & Gravet clay-gravel brown 57.59 Clay/sandstone clay-gravel brown x 57.59 Clay/sandstone clay-gravel brown yrep 13. Plain Casing OD (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 0 444 0 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 0 444 0 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 0 444 0 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 44 0 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 44 0 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 44 0 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 44 0 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 44 0 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 44 0 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 44 0 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 44 0 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 44 0 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 44 0 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 45 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 59 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 59 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 59 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 59 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 59 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 59 0 (in) Kind Wall Size (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 (in) From (ft) To (ft) 2 3/8 PVC 0.308 4 (in)	7. Ground Sur	face Elevation: 53	<u>20                                    </u>	et Date Com	pleted: <u>06/</u>	04/2019 Drillin	-			
10. Aquifer Type:       Type I (One Confining Layer)       Type II (Not overlain by Type III)         11. Geologic Log:       Type       Grain Size       Color       Water Loc.       Prom (ft)       Top (ft)         0.757       Sand & Gravet       Clay-gravel       brown       x       0       59         7.57       Sand & Gravet       Clay-gravel       brown/grey       13. Plain Casing       00 (in)       Kind       Wall Size (in)       From (ft)       To (ft)         0       0       00 (in)       Kind       Wall Size (in)       From (ft)       To (ft)         10       0       00 (in)       Kind       Wall Size (in)       From (ft)       To (ft)         11       1	8. Completed	Aquifer Name : /	Alluvial	Т	otal Depth:	59 feet	Depth	Completed:	<u>59</u> feet	
Check one       Type II (Not overlain by Type III)       Type II (Overlain by Type III)       Type III (alluvial/colluvial)         11. Geologic Log:	9. Advance No	otification: Was No	otification Requ	ired Prior to	Construction	? 💽 Yes 🔲 No,	Date Notif	ication Give	n: <u>05/23/2019</u>	
11. Geologic Log:       12. Hole Diameter (in.)       From (ft)       To (ft)         0-7       Overburden       Clay-gravel       brown       x         7-57       Sand & Gravel       clay-gravel       brown       x         57-59       Clay/sandstone       clay-gravel       brown/grey       13. Plain Casing         00       01(n)       Kind       Wall Size (in)       From (ft)       To (ft)         23/8       PVC       0.308       0       444         11.       Image: Screen Slot Size (in):       0.02       0.02         00       (in)       Kind       Wall Size (in)       From (ft)       To (ft)         11.       Image: Screen Slot Size (in):       0.02       0.02       0.01(in)       Kind       Wall Size (in)       From (ft)       To (ft)         12.       Image: Screen Slot Size (in):       0.02       0.02       0.01(in)       Kind       Wall Size (in):       0.02         13.       Perforated Casing Screen Slot Size (in):       0.02       0.02       0.01(in)       Kind       Vall Size (in):       0.02         14.       Filter Pack:       Size       10/20       1.14       Filter Pack:       Type       1.14       1.14       1.14       1.	10. Aquifer Ty	ype: 🔲 Type I (	One Confining	Layer)	Type I (	Multiple Confining L	ayers)	Laramie-F	ox Hills	
11. Geologic Log:       12. Hole Diameter (in.)       From (ft)       To (ft)         0-7       Overburden       Clay-gravel       brown       x         7-57       Sand & Gravel       clay-gravel       brown       x         57-59       Clay/sandstone       clay-gravel       brown/grey       13. Plain Casing         00       01(n)       Kind       Wall Size (in)       From (ft)       To (ft)         23/8       PVC       0.308       0       444         11.       Image: Screen Slot Size (in):       0.02       0.02         00       (in)       Kind       Wall Size (in)       From (ft)       To (ft)         11.       Image: Screen Slot Size (in):       0.02       0.02       0.01(in)       Kind       Wall Size (in)       From (ft)       To (ft)         12.       Image: Screen Slot Size (in):       0.02       0.02       0.01(in)       Kind       Wall Size (in):       0.02         13.       Perforated Casing Screen Slot Size (in):       0.02       0.02       0.01(in)       Kind       Vall Size (in):       0.02         14.       Filter Pack:       Size       10/20       1.14       Filter Pack:       Type       1.14       1.14       1.14       1.	(Check on	e) 🔲 Type II	(Not overlain b	y Type III)	Type II	(Overlain by Type II	I) [	Type III (a	lluvial/colluvial)	
Depth       Type       Grain Size       Color       Water Loc.       8'       0       59         0-7       Overburden       clay-gravel       brown       x			<b>`</b>				-			
0-7       Overburden       clay-gravel       brown       x         7-57       Sand & Gravel       clay-gravel       brown/grey       13. Plain Casing         57-59       Clay/sandstone       clay-gravel       brown/grey       13. Plain Casing         00       (in)       Kind       Wall Size (in)       From (ft)       To (ft)         23/8       PVC       0.308       0       44         0       0       (in)       Kind       Wall Size (in)       From (ft)       To (ft)         1       0       0       (in)       Kind       Wall Size (in)       From (ft)       To (ft)         23/8       PVC       0.308       6       44       59         0       0       (in)       Kind       Wall Size (in)       From (ft)       To (ft)         23/8       PVC       0.308       44       59         0       0       (in)       Kind       Wall Size (in)       From (ft)       To (ft)         12.3/8       PVC       0.308       44       59         0       14. Fitter Pack:       Type       Type       Type         13.1       Pain Extrait       Sand       Size       10/20       Distect	-		Grain Size	Color	Water Loc.		<b>、</b> ,		., .,	
7-57       Sand & Gravel       clay-gravel       brown/grey       13. Plain Casing	-									
57:59       Clay/sandstone       clay-sand       brown/grey       13. Plain Casing         00 (in)       Kind       Wall Size (in)       From (ft)       To (ft)         23/8       PVC       0.308       0       44         1       1       1       1       1       1       1       1         1					×					
OD (in)       Kind       Wall Size (in)       From (ft)       To (ft)         OD (in)       Kind       Wall Size (in)       From (ft)       To (ft)         OD (in)       Kind       Wall Size (in)       From (ft)       To (ft)         OD (in)       Kind       Wall Size (in)       O.02					~	13 Plain Casing				
2 378       PVC       0.308       0       44         2 378       PVC       0.308       44       59         2 378       PVC       0.308       0       44         2 378       PVC       0.308       0       44         2 378       PVC       0.308	57-57	clay/salldstolle	ctay-sand	biowin/grcy		-	nd Wal	l Size (in)	From (ft) To (ft)	
Image: Streem of the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Yell Construction Rules, 2 CCK 402 Z. The filing of a document that contains false statements in 391 NBC (I), C. R.S., and they are true to my knowledge. This document is signed (or name entered if filing online) Print Name and Title								. ,		
OD (in)       Kind       Wall Size (in)       From (ft)       To (ft)         Image: State of the state of the state metric is a volation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online       OD (in)       Kind       Wall Size (in)       From (ft)       To (ft)         Image: State of the state metric is a volation is a volation is a volation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online       Image: State of the state is state of the state of the state of the state filing online)       Print Name and Title       Phone w/area code:       License Number:         State Considers       Email:       Consider state of the state metric is a volation is a volation is a volation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online       Image: State of the state of t						2 370 14		0.500	0 11	
OD (in)       Kind       Wall Size (in)       From (ft)       To (ft)         Image: State of the state of the state metric is a volation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online       OD (in)       Kind       Wall Size (in)       From (ft)       To (ft)         Image: State of the state metric is a volation is a volation is a volation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online       Image: State of the state is state of the state of the state of the state filing online)       Print Name and Title       Phone w/area code:       License Number:         State Considers       Email:       Consider state of the state metric is a volation is a volation is a volation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online       Image: State of the state of t										
OD (in)       Kind       Wall Size (in)       From (ft)       To (ft)         Image: State of the state of the state metric is a volation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online       OD (in)       Kind       Wall Size (in)       From (ft)       To (ft)         Image: State of the state metric is a volation is a volation is a volation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online       Image: State of the state is state of the state of the state of the state filing online)       Print Name and Title       Phone w/area code:       License Number:         State Considers       Email:       Consider state of the state metric is a volation is a volation is a volation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online       Image: State of the state of t										
OD (in)       Kind       Wall Size (in)       From (ft)       To (ft)         Image: State of the state of the state metric is a volation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online       OD (in)       Kind       Wall Size (in)       From (ft)       To (ft)         Image: State of the state metric is a volation is a volation is a volation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online       Image: State of the state is state of the state of the state of the state filing online)       Print Name and Title       Phone w/area code:       License Number:         State Considers       Email:       Consider state of the state metric is a volation is a volation is a volation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online       Image: State of the state of t										
Image: State Level: 22.06       Check box if Test Data is submitted on Form Number GWS-39, Well Yield Test Report Well Yield Estimate Data:         Image: State Level: 22.06       Check box if Test Data is submitted on Form Number GWS-39, Well Yield Test Report Well Yield Estimate Data:         Image: State Level: 22.06       Estimate Length (hrs) NA         Date/Time measured:       6/5/2019         Image: State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.         Company Name:       Email: mortely.beckman@deereault.com         Phone w/area code:       License Number:         Gaing on enter name if filing online)       Print Name and Title							-			
Image: State of the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402 2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.         Company Name:       Ermail:       Print Name and Title       Print Name and Title         Derey Rame       Derey State       License Number:       State:         Sign (or enter name if filing online)       Print Name and Title       Date:								. ,		
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Image: State of the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online)       Material State CRB (ST)       State CRB (ST)         10       10       10       10/20										
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Image: State of the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online)       Material State CRB (ST)       State CRB (ST)         10       10       10       10/20										
Image: Size interval inter						14. Filter Pack:		15. Packe	r Placement:	
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Image: Second second sector of the second sector of the second second sector of the sector						Interval 23	-59	Depth		
Remarks:       Bentonite seal 13-23', backfill 5-13', concrete 0-5', completed with stick-up casing       Material Amount Density Interval Method         17. Disinfection:       Type NA       Amt. Used NA         18. Well Yield Estimate Data:       Check box if Test Data is submitted on Form Number GWS-39, Well Yield Test Report Well Yield Estimate Method:       NA         Static Level:       22.06       Estimated Yield (gpm) NA       Estimate Length (hrs) NA         Date/Time measured:       6/5/2019       Estimate Length (hrs) NA       Estimate Length (hrs) NA         19. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402 2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.         Company Name:       Email: morley.beckman@deereault.com       Phone w/area code: (303) 651-1468       License Number: 55975         Mailing Address: 600 S. Airport Road A-205, Longmont, CO 80503       Sign (or enter name if filing online)       Print Name and Title       Date:						16. Grouting Reco	ord	·		
Remarks:       Bentonite seal 13-23', backfill 5-13', concrete 0-5', completed with stick-up casing         17. Disinfection:       Type NA         18. Well Yield Estimate Data:       Check box if Test Data is submitted on Form Number GWS-39, Well Yield Test Report Well Yield Estimate Method:         NA       Static Level:       22.06         Date/Time measured:       6/5/2019         Estimate Vield (gpm)       NA         Remarks:       Estimate Length (hrs)         19. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402 2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.         Company Name:       Email: morley.beckman@deereault.com       Phone w/area code: (303) 651-1468       License Number: 55975         Deere & Ault Consultants, Inc.       Email: morley.beckman@deereault.com       Phone w/area code: (303) 651-1468       S5975         Mailing Address: 600 S. Airport Road A-205, Longmont, CO 80503       Sign (or enter name if filing online)       Print Name and Title       Date:						-		Density	Interval Method	
completed with stick-up casing	Remarks: D	I		101		1		,		
17. Disinfection: Type NA       Amt. Used NA         18. Well Yield Estimate Data:       Check box if Test Data is submitted on Form Number GWS-39, Well Yield Test Report Well Yield Estimate Method:         NA       Static Level: 22.06       Estimated Yield (gpm) NA         Date/Time measured:       6/5/2019       Estimate Length (hrs) NA         Remarks:       19. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402 2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.         Company Name:       Email: morley.beckman@deereault.com       Phone w/area code: (303) 651-1468       License Number: 55975         Deere & Ault Consultants, Inc.       Print Name and Title       Date:	Ber	itonite seal 13-2	3', Dacktill 5-	13 <sup>°</sup> , concret	te 0-5 <sup>°</sup> ,					
18. Well Yield Estimate Data:       Check box if Test Data is submitted on Form Number GWS-39, Well Yield Test Report Well Yield Estimate Method:         Na       Static Level: 22.06       Estimated Yield (gpm)       NA         Date/Time measured:       6/5/2019       Estimate Length (hrs)       NA         Remarks:       19. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402 2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.       Phone w/area code: (303) 651-1468       License Number: 59975         Deere & Ault Consultants, Inc.       Email: morley.beckman@deereault.com       Phone w/area code: (303) 651-1468       License Number: 59975         Mailing Address: 600 S. Airport Road A-205, Longmont, CO 80503       Sign (or enter name if filing online)       Print Name and Title       Date:	com	npleted with stic	k-up casing							
18. Well Yield Estimate Data:       Check box if Test Data is submitted on Form Number GWS-39, Well Yield Test Report Well Yield Estimate Method:         Na       Static Level: 22.06       Estimated Yield (gpm)       NA         Date/Time measured:       6/5/2019       Estimate Length (hrs)       NA         Remarks:       19. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402 2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.       Phone w/area code: (303) 651-1468       License Number: 59975         Deere & Ault Consultants, Inc.       Email: morley.beckman@deereault.com       Phone w/area code: (303) 651-1468       License Number: 59975         Mailing Address: 600 S. Airport Road A-205, Longmont, CO 80503       Sign (or enter name if filing online)       Print Name and Title       Date:	17 Disinfecti	ion: Type NA				Amt Used NA				
Well Yield Estimate Method: NA         Static Level: 22.06       Estimated Yield (gpm) NA         Date/Time measured: 6/5/2019       Estimate Length (hrs) NA         Remarks:       Estimate Length (hrs) NA         19. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402 2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.         Company Name:       Email: morley.beckman@deereault.com       Phone w/area code: (303) 651-1468       License Number: 5975         Deere & Ault Consultants, Inc.       Email: morley.beckman@deereault.com       Phone w/area code: (303) 651-1468       License Number: 5975         Mailing Address: 600 S. Airport Road A-205, Longmont, CO 80503       Frint Name and Title       Date:					ox if Tost Dot		orm Numb	or CWS 20 1	Noll Viold Tost Poport	
Static Level:       22.06       Estimated Yield (gpm)       NA         Date/Time measured:       6/5/2019       Estimate Length (hrs)       NA         Remarks:       Estimate Length (hrs)       NA         19. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402 2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.         Company Name:       Email:       Phone w/area code:       License Number:         Deere & Ault Consultants, Inc.       Email:       Phone w/area code:       License Number:         Mailing Address: 600 S. Airport Road A-205, Longmont, CO 80503       Sign (or enter name if filing online)       Print Name and Title       Date:			NA		DX II TESL Dat	a is submitted of t		el 0003-39, 1	well field fest kepolt	
Date/Time measured:       6/5/2019       Estimate Length (hrs)       NA         Remarks:         19. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402 2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.         Company Name:       Email:       Phone w/area code:       License Number:         Deere & Ault Consultants, Inc.       Email:       Phone w/area code:       License Number:         Mailing Address: 600 S. Airport Road A-205, Longmont, CO 80503       Sign (or enter name if filing online)       Print Name and Title       Date:										
Remarks:         19. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402 2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.         Company Name:       Email:       Phone w/area code:       License Number:         Deere & Ault Consultants, Inc.       Email:       morley.beckman@deereault.com       55975         Mailing Address: 600 S. Airport Road A-205, Longmont, CO 80503       Sign (or enter name if filing online)       Print Name and Title       Date:	Static Leve	el: <u>22.06</u>								
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Company Name:       Email:       Phone w/area code:       License Number:         Deere & Ault Consultants, Inc.       morley.beckman@deereault.com       (303) 651-1468       55975         Mailing Address: 600 S. Airport Road A-205, Longmont, CO 80503       Frint Name and Title       Date:							ocation of t	he contracting	license. If filing online	
Deere & Ault Consultants, Inc.morley.beckman@deereault.com(303) 651-146855975Mailing Address: 600 S. Airport Road A-205, Longmont, CO 80503Sign (or enter name if filing online)Print Name and TitleDate:	the State Enginee	er considers the entry	of the licensed co	ntractor's name	e to be complia	nce with Rule 17.4.				
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Mailing Address: 600 S. Airport Road A-205, Longmont, CO 80503         Sign (or enter name if filing online)         Print Name and Title         Date:										
Sign (or enter name if filing online)Print Name and TitleDate:										
									Date:	
Z. Muy man 06/21/2019			•			man PF				
	E. Muy mm								06/21/2019	

Form No. GWS-31 02/2017	WELL CONSTRUCTION AND YIELD ESTIMATE REPORT State of Colorado, Office of the State Engineer 1313 Sherman St., Room 821, Denver, CO 80203 303.866.3581 www.water.state.co.us_and_dwrpermitsonline@state.co.us					For (	Office Use Only	
1 Wall Darmit								
	it Number: 59468-MH Receipt Number:							
	ell Designation: MW-4 r Name: Albert Frei & Sons							
						_		
	on Street Address							
5. As Built GPS	5 Well Location (re	equired):	one 12 💽 Zor	ne 13 Easting	g: 551582.3 Northing: 440	07057.7		
		′4, <u>SE</u> 1/4,	Sec., <u>2</u>	_ Twp. <u>3</u>	N or S •, Range 63	E or	W 💽, <u>6</u> P.M.	
County: <u>A</u> Subdivision:	Adams				, Lot, Block	, Filin	g (Unit)	
7. Ground Sur	face Elevation: 53	20 fee	t Date Com	pleted: <u>06</u> /	05/2019 Drilling Metho	d: HSA		
8. Completed	Aquifer Name : <u>/</u>	Alluvial	т	otal Depth:	64 feet Dept	h Completed:	64 feet	
					? 💽 Yes 🔲 No, 🛛 Date Not	ification Give	n: <u>05/23/2019</u>	
10. Aquifer Ty (Check on		One Confining   (Not overlain b	• •		Multiple Confining Layers) (Overlain by Type III)	_	ox Hills Iluvial/colluvial)	
11. Geologic	Log:				12. Hole Diameter (in.)	From	(ft) To (ft)	
Depth	Туре	Grain Size	Color	Water Loc.	8"	0	64	
0-5	Overburden	clay-gravel	brown					
5-62	Sand & Gravel	clay-gravel	brown	х				
62-64	Sandstone	sand	brown/grey		13. Plain Casing			
					OD (in) Kind W	all Size (in)	From (ft) To (ft)	
					2 3/8 PVC	0.308	0 49	
					Perforated Casing Scre	en Slot Size (i	n): 0.02	
						all Size (in)	From (ft) To (ft)	
					2 3/8 PVC	0.308	49 64	
					14. Filter Pack:	15. Packe	er Placement:	
					Material Sand/backfill	Туре		
					Size 10/20			
					Interval 25-64	Depth		
					16. Grouting Record			
					Material Amount	Density	Interval Method	
Remarks:	L		451			<b>,</b>		
Ben	ntonite seal 15-2	5, Dackilli 5-	15, concret	le 0-5				
corr	npleted with stic	k up casing						
17. Disinfection: Type NA Amt. Used NA								
	Estimate Data:		Check bo	ox if Test Dat	ta is submitted on Form Num	ber GWS-39.	Well Yield Test Report	
	Estimate Method:	NA				·····,		
Static Leve				Estimated Y	'ield (gpm) NA			
	measured:	6/5/2019		Estimate Length (hrs) NA				
				LStimate Le	ligui (ilis) <u></u>			
Remarks:	iha atata	handa				da auno + + - +	ad (an age	
					are true to my knowledge. This $2 CCP 402.2$ The filing $d$			
filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402 2. The filing of a document that contains false statements is a violation of section 37 91 108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online								
	er considers the entry							
Company Name: Email:					Phone w/area	code:	License Number:	
	,			man@deerea		(303) 651-1468 55975		
	s: 600 S. Airport Ro						Data	
Sign (or enter i			Print Name and Title			Date:		
E. May Mm				Elizabeth Morley Beckman, PE			06/21/2019	

### Addendum to Inert Fill Plan as approved on 10/9/2015

#### **Inspection and Control Policy**

This policy is intended to assure that all Inert Material delivered to the mine for use in reclamation meets the definition of acceptable material under Division of Mining, Reclamation and Safety Rule 1.1(20). The control begins as the material enters the permit area. Albert Frei and Sons, Inc. employees at the mine have been trained to recognize inert material and unacceptable inert materials as defined in the rule and are instructed to not allow it to be dumped if there is any questionable material in the load.

#### **Monitoring Plan**

As material is delivered to the mine the truck must stop as the scale house for inspection and screening. Employees check the load to see that it meets the permit guidelines. After the inspection a load delivery ticket is filled in and signed by the driver, and allowed to be placed in a designated area as long as it meets the acceptance criteria. After the truck is unloaded, and the equipment operator finds any unacceptable materials, they will segregate it to be returned, loaded back on to the customers truck for disposal at site permitted for the materials. The complete inspection of the load is done prior to the load being combined with other inert fill on site. Notes are made on the ticket of the offending customer if trash or unacceptable materials are in the load so it can be discussed with them and appropriate actions can be taken. This way we have control over anyone who abuses our trust since they will not be allowed to use the facility in the future unless the problem is corrected.

#### **Unacceptable Materials**

- Organic materials like wood, branches, leaves, grass clippings, compost
- Malodorous materials apparently impacted by sewage, gasoline, or diesel
- Mixtures of pipe (metal or clay) fragments or transite piping
- Significant staining, iron stains, oily stains
- Debris of metal flashing, fencing or other non-earthen materials
- Garbage or trash
- Mixtures of potash, fly ash, bottom ash or non-earth powders

#### **Acceptable Materials**

Inert earthen solids composed of any of the following and as defined in the Division of Mining, Reclamation and Safety Rule 1.1(20) policy:

- Earth, dirt or soil
- Rock, gravel or brick
- Hardened asphalt or asphalt fragments
- Road base material
- Utility trench materials
- Concrete and concrete fragments (unstained)
- Concrete masonry units (construction block or decorative block) and fragments
- Daylighting muds (uncontaminated water and earthen materials)
- Directional utility boring muds (uncontaminated water and earthen materials)

### Load log/tracking plan documentation

A load ticket for the delivered inert material contains information on

- 1. The Date and time the load was delivered.
- 2. The type and amount of material delivered to be backfilled into the pit.
- 3. The source of this material and address of origin
- 4. Each ticket has this statement "I certify that my load DOES NOT contain hazardous materials, garbage, wood, organic material or other unacceptable materials".
- 5. Signature line that certifies the material is clean and inert.

#### **Record keeping plan**

On a daily basis the load tickets will be transfer from the mine office to the company headquarters where they will be retained in the company records in electronic form and submitted to the Division of Mining, Reclamation and Safety (State) with annual reports. Load tickets will be kept at the corporate office in Henderson Colorado for inspection upon request.

#### PERMITTEE/STRUCTURE OWNER AGREEMENT

State of Colorado, Mined Land Reclamation (MLR) law requires the permit applicant (operator/permittee) to agree to reimburse the owner of any permanent man-made structure(s) within 200 feet of the AFS-Bennett Pit (M-2001-038) permitted mining area, for damage done to the structure(s) as a result of the permitted operation.

Albert Frei and Sons, Inc. believes David A and Joyce E Lincoln own the following structure(s), located within 200 feet of the permitted mining area: Barn#, Out building# and fences

Albert Frei and Sons, Inc., agrees to reimburse you for any damage done to the listed structures as a result of the mining operation. Your acknowledging signature and a notary seal in the spaces provided below shall satisfy the MLR law requirement. Albert Frei and Sons, Inc. certifies this agreement as follows:

CERTIFICATION: The applicant Albert Frei and Sons, Inc. represented by Albert Frei, Jr., as the President, does hereby certify that David A and Joyce E Lincoln shall be compensated for any damage from the proposed mining operation to the above listed structure(s) located within 200 feet of the permitted mining area described in the MLR Permit for the AFS - Bennett Pit.

#### NOTARY FOR PERMIT APPLICANT

ACKNOWLEDGED BY: Permit Applicant <u>: Albert Frei and Sons, Inc. P.O. Box 700, Henderson, CO 80640</u> Representative: <u>Albert Frei, Jr. phone 303-289-1837</u>
Signature: Date: 6/26/19
STATE OF Colorado )
COUNTY OF Adams )
The foregoing was acknowledged before me this $26$ day of $500$ , $2814$ , by Albert Frei, Jr. as the President of Albert Frei and Sons, Inc.
Notary Public: Machine My Commission Expires: 02-15-2020
NOTARY FOR STRUCTURE OWNER(s)
ACKNOWLEDGED BY: Structure Owner(s): David A and Joyce # Lincoln Contact name (print):
Signature: Sill Date: 6(2C/19
Contact name (print): DAUD LINCO/N
Signature: Joyce E. Lincoln Date: 6-26-19
STATE OF ( ) ( C ( C ( C ) )
COUNTY OF <u>A dam 5</u> ) ss MARIA ELENA DAVILA State of colorado Notary public State of colorado Notary iD 20124004916 MY COMMISSION EXPIRES FEBRUARY 15, 2020 8 MY COMMISSION EXPIRES FEBRUARY 15,
The foregoing was acknowledged before me this day of, MY COMMISSION EXPIRES FEBRUARY 15, 2020
·································
Notary Public: My Commission Expires: 02-15-2020

## Environment, Inc.

LARRY E. O'BRIAN FOUNDER

STEVAN L. O'BRIAN PRESIDENT

July 15, 2019



7985 VANCE DRIVE, SUITE 205A ARVADA, COLORADO 80003 303-423-7297 FAX 303-423-7599

Adams County Clerk and Recorder 450 S. 4th Ave. Brighton, Colorado 80601

Re: Adequacy response 02 & 03 packet Albert Frei and Sons, Inc. - Bennett Pit

Dear Sir/Madam:

We are delivering to you here with a copy of the adequacy responses 02 & 03 for the AFS-Bennett Pit M-2001-038 that is operated by Albert Frei and Sons, Inc. It should be placed with the application packet delivered to you on February 12, 2019

This copy of the adequacy packet is delivered to you pursuant to 34-32.5-112(9)(a), Colorado Revised Statutes 1995, as amended, which states in part:

.... the applicant shall place a copy of such application for public inspection at the office of the Board and Office of the County Clerk and Recorder of the county in which the affected land is located.

This packet must be kept with the original book for public review until the permit has been approved by the Division. We will contact you once it is and make arrangements to pickup this copy.

Please acknowledge receipt of the copy of the permit application by signing in the appropriate space provided below and returning one copy of this letter to the person delivering the book. This will be submitted to the Division of Reclamation, Mining & Safety to prove the application book was delivered to your office.

Yours truly, ENVIRONMENT, INC.

Stevan L. O'Brian

enclosure

RECEIVED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 2019 one copy of an MLRB adequacy responses for above mine.

Adams County Clerk and Recorder

Ву \_\_\_\_\_