



We answer to you.

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December 29, 2016

Mr. Patrick D. Maher  
Venture Resources, Inc.  
P.O. Box 1974, 2208 County Road 281  
Idaho Springs, Colorado 80452

RE: Hukill Gulch Millsite, Permit #M-2009-076  
Groundwater Monitoring Plan  
December 2016 Groundwater Monitoring Report

Dear Mr. Maher,

RETTEW Associates, Inc. is pleased to provide Venture Resources, Inc. with this Groundwater Sampling Report documenting groundwater monitoring activities conducted at the Hukill Gulch Mill Site located near Idaho Springs, Colorado (Site).

**Groundwater Monitoring Summary**

RETTEW conducted groundwater monitoring of the upgradient and downgradient monitoring wells on December 29, 2016. Both monitoring wells were dry, therefore, no samples were collected. The groundwater monitoring field forms are provided as **Attachment 1**.

**Tailings Pond Observation**

The water level in the tailings pond appears to be unchanged compared to the November sampling event. Snow has drifted against the retaining wall and the water is frozen.

We trust this letter report provides Venture Resources, Inc. with the information required. Please feel free to contact Dustin Krajewski by telephone at (303) 800-4901 or by email at dkrajewski@rettew.com if you have questions or comments regarding this cost estimate. We truly appreciate the opportunity to support Venture Resources, Inc. with this project.

Sincerely,

Devin Black  
Geoscientist

Dustin E. Krajewski, PE  
Group Manager/Senior Engineer

Enclosures: Attachment 1 – Field Sampling Forms

**ATTACHMENT 1  
FIELD SAMPLING FORMS**



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### GROUNDWATER SAMPLING FORM

*Downgradient*

Well Type:  Monitor     Extraction     Other \_\_\_\_\_

Well No.: \_\_\_\_\_  
Dup: \_\_\_\_\_  
MS/MSD: \_\_\_\_\_

Job Name: Hukill Gulch Millsite #M-2009-076 Well Material:  PVC     St. Steel     Other HDPE  
Job Number: 107732000 Phase \_\_\_\_\_ Date: 12/29/16 Time: 1245

Recorded By: \_\_\_\_\_ (Signature)  
Sampled By: DJB (Sampling Team Members)

#### PURGE VOLUME

Casing Diameter (D in inches): 2"  
Total Depth of Casing (TD in feet BTOC): 27.8"  
Water Level Depth (WL in feet BTOC): dry  
Number of Well Volumes to be Purged: \_\_\_\_\_  
Screened/Open Interval in Feet (BTOC) from \_\_\_\_\_ to \_\_\_\_\_  
5.75 to ground surface

#### PURGE METHOD

Bailer - Type: \_\_\_\_\_  
 Submersible     Peristaltic     Bladder; Pump No.: \_\_\_\_\_  
Other - Type: \_\_\_\_\_

#### PUMP INTAKE SETTING

Near Bottom     Near Top     Middle of water column     Other:  
Depth in feet (BTOC) \_\_\_\_\_

#### PURGE VOLUME CALCULATIONS

( \_\_\_\_\_ - \_\_\_\_\_ ) X \_\_\_\_\_<sup>2</sup> X \_\_\_\_\_ X 0.0408 = \_\_\_\_\_ Gallons  
TD (feet)    WL (feet)    D (inches)    No. Volumes    Calculated Purge Volume

#### FIELD PARAMETER MEASUREMENT

Time	Minutes Elapsed	Rate (mL/min)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	Temp. (°C)	ORP (mV)	Depth to Water (ft t.o.c.)	Comments
	0										
	3										
	6										
	9										
	12										
	15										
	18										
	21										
	24										
	27										
	30										

*DRY*

Note: GT = Greater Than.    LT = Less Than.  
      NM = Not Measured.    NC = Not Collected.

**OBSERVATIONS DURING WELL PURGING:** Well Condition: good    Color: \_\_\_\_\_  
Turbidity (Qualitative): \_\_\_\_\_    Odor: \_\_\_\_\_    Other: \_\_\_\_\_  
Purge Water Disposal:  San. Sewer     Storm Sewer     Bucket: Type \_\_\_\_\_ Size \_\_\_\_\_ Other: \_\_\_\_\_

#### SAMPLE COLLECTION RECORD

Analysis	
Notes:	<i>DRY</i>



We answer to you.

### GROUNDWATER SAMPLING FORM

*Upgradient*

Well Type:  Monitor     Extraction     Other \_\_\_\_\_

Well No.: \_\_\_\_\_  
Dup: \_\_\_\_\_  
MS/MSD: \_\_\_\_\_

Job Name: Hukill Gulch Millsite #M-2009-076 Well Material:  PVC     St. Steel     Other HDPE  
Job Number: 107732000 Phase \_\_\_\_\_ Date: 12/29/16 Time: 1310

Recorded By: \_\_\_\_\_ (Signature)  
Sampled By: DB (Sampling Team Members)

#### PURGE VOLUME

Casing Diameter (D in inches): 2"  
Total Depth of Casing (TD in feet BTOC): 25.3'  
Water Level Depth (WL in feet BTOC): Dry  
Number of Well Volumes to be Purged: \_\_\_\_\_  
Screened/Open Interval in Feet (BTOC) from \_\_\_\_\_ to \_\_\_\_\_  
6.6' to 9'

#### PURGE METHOD

Bailer - Type: \_\_\_\_\_  
 Submersible     Peristaltic     Bladder; Pump No.: \_\_\_\_\_  
Other - Type: \_\_\_\_\_

#### PUMP INTAKE SETTING

Near Bottom     Near Top     Middle of water column     Other:  
Depth in feet (BTOC) \_\_\_\_\_

#### PURGE VOLUME CALCULATIONS

( \_\_\_\_\_ - \_\_\_\_\_ ) X \_\_\_\_\_<sup>2</sup> X \_\_\_\_\_ X 0.0408 = \_\_\_\_\_ Gallons  
TD (feet)    WL (feet)    D (inches)    No. Volumes    Calculated Purge Volume

#### FIELD PARAMETER MEASUREMENT

Time	Minutes Elapsed	Rate (mL/min)	Gallons Purged	pH	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	Temp. (°C)	ORP (mV)	Depth to Water (ft t.o.c.)	Comments
	0										
	3										
	6										
	9										
	12										
	15										
	18										
	21										
	24										
	27										
	30										

Note: GT = Greater Than.    LT = Less Than.  
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**OBSERVATIONS DURING WELL PURGING:** Well Condition: good    Color: \_\_\_\_\_  
Turbidity (Qualitative): \_\_\_\_\_    Odor: \_\_\_\_\_    Other: \_\_\_\_\_  
Purge Water Disposal:  San. Sewer     Storm Sewer     Bucket: Type \_\_\_\_\_ Size \_\_\_\_\_ Other: \_\_\_\_\_

#### SAMPLE COLLECTION RECORD

Analysis	
Notes:	
<u>DRY - no moisture on probe</u>	



