

September 27, 2018
Project No. 280EM00250
SMS #2018-4800

Mr. Peter Gregory, AICP
Executive Director
Two Rivers-Ottawaquechee Regional Commission
128 King Farm Road
Woodstock, VT 05091

**Re: Correction to Site Investigation Report & Additional Site Investigation
Cabot Sawmill
Cabot, Vermont**

Dear Mr. Gregory:

ATC Group Services, LLC (ATC) presents this letter to the Two Rivers-Ottawaquechee Regional Commission (TRORC) to detail a correction to ATC's Site Investigation (SI) Report, dated June 1, 2018, for the Cabot Sawmill, located at 153 Sawmill Road, Cabot, VT (the "Site") and present data collected during the subsequent Additional Site Investigation (ASI).

The ATC SI report presented semi-volatile organic compound (SVOC) data in Table 3, which highlighted exceedances of the EPA Regional Screening Levels (RSLs) for Residential and Industrial soils for the compound benzaldehyde. Soil samples SS-1 and SS-4 were presented as Residential RSL exceedances of benzaldehyde, and soil sample SS-2 was presented as an Industrial exceedance. All three of these soil samples were collected on the east side of the Winooski River. Other Residential soil RSL exceedances were reported for benzo(a)anthracene [B(a)A], benzo(a)pyrene [B(a)P], benzo(b)fluoranthene [B(b)F], dibenzo(a,h)anthracene [D(a,h)A], and indeno(1,2,3-cd)pyrene [I(1,2,3)P], in three soil samples on the west side of the river. See **Figure 1** for a general Site Plan. In response to these exceedances, Mr. Matthew Becker of the Sites Management Section (SMS) of the Vermont Department of Environmental Conservation (VT DEC) issued a First Letter and assigned a hazardous waste number, SMS #2018-4800, to the Site. Mr. Becker made the following conclusions:

- Polycyclic aromatic hydrocarbons (PAHs) detected in surface soils (SS-5/SS-10/SS-11) on the **west side** of the Winooski River exceed non-industrial standards; and,
- Benzaldehyde detected in surface soils on the **east side** of the Winooski River exceed the Industrial standard (SS-2) and the non-industrial standard (SS-1/SS-4) and potentially groundwater.

Mr. Becker's First Letter requested the following actions to address these findings:

- With respect to PAHs identified on the **west side** of the Winooski River, no further action is necessary by yourself absent redevelopment of the property as a non-industrial use.
- With respect to Benzaldehyde identified in exceedance of its industrial standard (SS-2) on the **east side** of the Winooski River, conduct a soil and groundwater investigation to determine the nature and extent of impacts to soils and groundwater and an assessment of the threat to human health and the environment based on current property use.

ATC performed an ASI at the Site to address the reported benzaldehyde Industrial soil exceedances on the east side of the river. However, during the compilation of ASI data, ATC discovered a transcription error in the original SI SVOC table – the EPA RSLs for benzaldehyde had not been properly converted from milligrams per kilogram to micrograms per kilogram, resulting in the reported RSLs being three orders of magnitude lower than they should have been. With the correct RSL values, there are in fact *no exceedances* of Residential or Industrial standards for benzaldehyde. Additionally, the May 2016 EPA RSLs were used for comparison; the EPA publishes updated tables every six months, and the November 2017 would have been the most current RSLs available for the soil data collected in February 2018.

Table 1, attached, presents the revised February 2018 soil SVOC data in comparison to the November 2017 EPA RSLs. The only exceedances are of Residential soil RSLs for B(a)P, B(b)F, and D(a,h)A, in soil samples SS-5, SS-10, and SS-11 on the west side of the river. With the correction, there are no Industrial RSL exceedances at the Site, and there are no EPA RSL exceedances on the east side of the Winooski River.

Table 2, attached, presents the benzaldehyde soil data collected during the ASI in August 2018, along with the February 2018 data, compared to the most current EPA RSLs, published in May 2018 (no changes from the November 2017 version). There were no exceedances in any of the ASI soil samples. ATC also collected two surface water samples of the Winooski River for benzaldehyde analysis, which were both reported as non detect for that compound.

In light of the transcription error and subsequent data correction, ATC understands the requirements for the Site to be the following before a Site Management Activity Completed (SMAC) designation can be assigned:

- If there are no plans to redevelop the site, and the property will not be trespassed, then no further environmental testing is required by the VT DEC.
- A notice to land records (NLR) will be required, documenting residual contamination (EPA RSL exceedances for residential soils) on the **west side** of the Site, with a caveat that should the intensity of use change in the future, further action will be required. Also, the monitoring wells will need to be properly decommissioned.

Please contact us at (802) 241-4131 if you have any questions. We apologize for any inconvenience.

Sincerely,
ATC GROUP SERVICES, LLC



Johanna Palmer Joseph J. Hayes, CPG, PG
Geologist Branch Manager

Attachments:

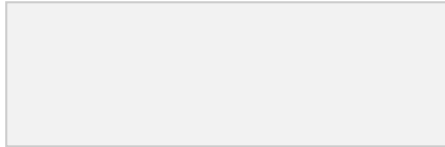
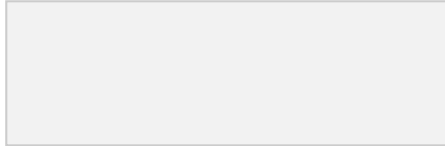
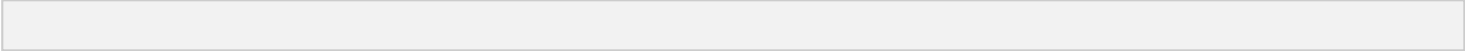
Figure 1: Site Plan

Table 1: Revised SVOC Results – February 2018 (SI)

Table 2: SVOC Results – February & August 2018 (ASI)

cc: Matthew Becker, VT DEC
Kevin Geiger, TRORC

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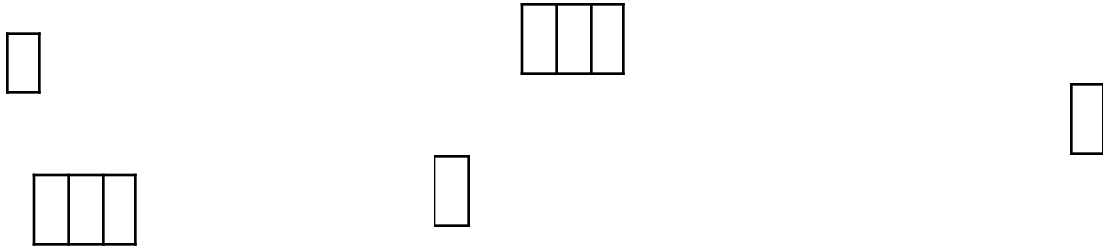


SS-15 SS-16
MW-2
MW-1



SS-13 SS-14





0 200' ASI Soil Sampling Locations ASI Monitoring Wells



TABLE 1 - REVISED from SI (Nov 2017 EPA RSLs)
Soil Quality Results - SVOC/PAHs

Cabot Sawmill
Cabot, Vermont

Analyte:		Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene
VT Soil Screening Levels:	VT BSC	--	--	--	--	26/580 TEQ	--	--	--
	VT SL R	--	--	--	--	76	--	--	--
	VT SL I	--	--	--	--	1,540	--	--	--
EPA Regional Screening Levels:	Residential Soil	3,600,000	--	18,000,000	1,100	110	1,100	--	11,000
	Industrial Soil	45,000,000	--	230,000,000	21,000	2,100	21,000	--	210,000
Sample ID	Depth (ft bgs)								
SS-1	0-1	ND<44	ND<44	ND<44	ND<44	ND<44	ND<44	ND<44	ND<44
SS-2	0-1	ND<47	ND<47	ND<47	ND<47	21.1 J	38.0 J	24.8 J	ND<47
SS-3	0-1	ND<48	ND<48	ND<48	ND<48	ND<48	ND<48	ND<48	ND<48
SS-4	0-1	ND<56	ND<56	ND<56	ND<56	ND<56	ND<56	ND<56	ND<56
SS-5	0-1	ND<39	25.6 J	ND<39	105	119	135	70.5	53.6
SS-6	0-1	ND<48	ND<48	ND<48	35.4 J	37.4 J	42.5 J	ND<48	ND<48
SS-7	0-1	ND<37	ND<37	ND<37	16.2 J	ND<37	17.8 J	ND<37	ND<37
SS-8	0-1	ND<43	ND<43	ND<43	ND<43	ND<43	ND<43	ND<43	ND<43
SS-9	0-1	ND<52	ND<52	ND<52	62.7	64.8	99.0	51.2 J	38.4 J
SS-10	0-1	27.5 J	171	196	921	932	1,280	605	554

SS-11	0-1	ND<40	ND<40	96.4	401	391	532	250	205
SS-12	0-1	ND<39	ND<39	ND<39	ND<39	ND<39	ND<39	ND<39	ND<39
Duplicate (SS-11)	0-1	ND<41	99.3	98.6	407	406	524	261	224
% Difference	--	--	--	2.3	1.5	3.8	1.5	4.3	8.9
Equip. Blank (µg/L)	--	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0

NOTES:

Soil samples collected by ATC on 2/28/2018 and analyzed by SGS Accutest of Dayton, NJ for EPA Method 8270D.

Soil quality results provided in ug/kg = micrograms per kilogram or parts per billion (ppb).

TEQ - Toxic Equivalency Quotient for PAH subset.

ND< value = Not detected at or above stated laboratory reporting limit.

Standards include Soil Screening Values set forth in VT DEC Investigation and Remediation of Contaminated Properties (Irule, July 2017), including:

- VT BSC - Vermont Dept. of Environmental Conservation Background Soil Concentrations (rural/urban);

- VT SL R/I = VT Screening Level, Residential/Industrial;

- Residential and Industrial Soils = most current EPA Regional Screening Levels (RSL) for Residential and Industrial Soils (November 2017).

Bold values indicate detection above laboratory detection limit.

Shaded values exceed color-corresponding standard.

-- = No standard available or not calculable.

J = reported value is above the method detection limit but below laboratory reporting limit, and is therefore an estimated value.

ATC 280EM00128

TABLE 2

Soil Quality Results - SVOC/PAHs

February & August 2018 Sampling

Cabot Sawmill

Cabot, Vermont

		Analyte:	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluorene
VT Soil Screening Level	VT BSC	--	--	--	--	26/580 TEQ	--	--	--	--
	VT SL R	--	--	--	--	76	--	--	--	--

els:	VT SL I		--	--	--	--	1,540	--	--	
EPA Regional Screening Levels:	Residential Soil		3,600,000	--	18,000,000	1,100	110	1,100	--	
	Industrial Soil		45,000,000	--	230,000,000	21,000	2,100	21,000	--	2
Sample ID	Sampling Date	Depth (ft bgs)								
SS-1	2/28/2018	0.0-1.0	ND<44	ND<44	ND<44	ND<44	ND<44	ND<44	ND<44	N
SS-2	2/28/2018	0.0-1.0	ND<47	ND<47	ND<47	ND<47	21.1 J	38.0 J	24.8 J	N
SS-2-D	8/29/2018	3.0-5.5	--	--	--	--	--	--	--	
SS-3	2/28/2018	0.0-1.0	ND<48	ND<48	ND<48	ND<48	ND<48	ND<48	ND<48	N
SS-4	2/28/2018	0.0-1.0	ND<56	ND<56	ND<56	ND<56	ND<56	ND<56	ND<56	N
SS-5	2/28/2018	0.0-1.0	ND<39	25.6 J	ND<39	105	119	135	70.5	
SS-6	2/28/2018	0.0-1.0	ND<48	ND<48	ND<48	35.4 J	37.4 J	42.5 J	ND<48	N
SS-7	2/28/2018	0.0-1.0	ND<37	ND<37	ND<37	16.2 J	ND<37	17.8 J	ND<37	N
SS-8	2/28/2018	0.0-1.0	ND<43	ND<43	ND<43	ND<43	ND<43	ND<43	ND<43	N
SS-9	2/28/2018	0.0-1.0	ND<52	ND<52	ND<52	62.7	64.8	99.0	51.2 J	
SS-10	2/28/2018	0.0-1.0	27.5 J	171	196	921	932	1,280	605	
SS-11	2/28/2018	0.0-1.0	ND<40	ND<40	96.4	401	391	532	250	
SS-12	2/28/2018	0.0-1.0	ND<39	ND<39	ND<39	ND<39	ND<39	ND<39	ND<39	N
SS-13-S	8/29/2018	0.0-2.0	--	--	--	--	--	--	--	
SS-14-S	8/29/2018	0.0-2.0	--	--	--	--	--	--	--	
SS-15-S	8/29/2018	0.0-2.0	--	--	--	--	--	--	--	
SS-16-S	8/29/2018	0.0-2.0	--	--	--	--	--	--	--	
Duplicate (SS-11)	2/28/2018	0.0-1.0	ND<41	99.3	98.6	407	406	524	261	
<i>% Difference</i>	--	--	--	--	2.3	1.5	3.8	1.5	4.3	
Duplicate (SS-14-S)	8/29/2018	0.0-2.0	--	--	--	--	--	--	--	
<i>% Difference</i>	--	--	--	--	--	--	--	--	--	
Equip. Blank (µg/L)	2/28/2018	--	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	N

NOTES:

Soil samples collected by ATC and analyzed by SGS Accutest of Dayton, NJ for EPA Method 8270D.

Soil quality results provided in ug/kg = micrograms per kilogram or parts per billion (ppb).

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- VT SL R/I = VT Screening Level, Residential/Industrial;

- Residential and Industrial Soils = most current EPA Regional Screening Levels (RSL) for Residential and Industrial Soils (May 2018).

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