

PHASE II SITE INVESTIGATION OF

> CABOT SAWMILL **153 SAWMILL ROAD** CABOT, VT

ATC PROJECT NO. 280EM00128

JUNE 1, 2018

Prepared by: Johanna Palmer Prepared for: Two Rivers-Ottauquechee Regional Commission

ATC Group Services LLC Peter Gregory, AICP 1 Elm St., Suite 3 Executive Director Waterbury, VT 05676 TRORC Phone: (802) 241-4131 128 King Farm Road Fax: (802) 244-6894 Woodstock, VT 05091 SIGNATURE OF REPORT AUTHORS

This report has been prepared by the employees of ATC Group Services, LLC whose signatures appear below. Requests for information on the contents of this report should be directed to these individuals.

I certify under penalty of perjury that I am an environmental professional and that all content contained within this deliverable is to the best of my knowledge true and correct.

Prepared by:

Janjur Class

Hayes, C.P.G, P.G. Project Manager Branch Manager **EXECUTIVE SUMMARY** 

Johanna Palmer Joseph J.

On behalf of Mr. Peter Gregory of Two Rivers – Ottauquechee Regional Commission (TRORC), ATC Group Services, LLC (ATC) presents this Phase II Site Investigation (SI) report to document a subsurface investigation at the Cabot Sawmill property located at 153 Sawmill Road in Cabot, Vermont. TRORC is planning on completing demolition of the dilapidated former sawmill and restoring the property as a recreational area. ATC prepared a separate report documenting the testing of building materials, which was submitted under separate cover to TRORC.

A Phase I Environmental Site Assessment (ESA) was completed in December 2017 by ATC. The Phase I ESA concluded that several Recognized Environmental Conditions (RECs), Business Environmental Risks (BERs) and de minimis conditions existed at the site and would require further investigation. The RECs included possible volatile organic compound (VOC), semi-volatile organic compound (SVOC), metals and polychlorinated biphenyls (PCB) contamination from a 1925 fire, and the former long-term site use as a woolen mill, sawmill, grain mill, tannery, and blacksmith that may have released the above contaminants during operations. Mr. Michael Storace of TRORC requested a Phase II SI in an email dated January 25, 2018, to address the RECs, BERs and de minimis conditions and to determine the possible on-site presence of soil and groundwater contaminants from on-site sources. To address the RECs, ATC proposed the installation of hand borings, soil borings and groundwater monitoring wells in a work plan dated February 16, 2018. The work plan was approved by Mr. Gregory on behalf of TRORC, in an email dated February 21, 2018.

The ATC SI concludes the following based on the Phase II SI results:

- No VOC, PP13 metals or PCBs were detected above laboratory method detection limits in the groundwater samples collected from the groundwater monitoring wells ATC-2, ATC-3 and ATC-4;
- No PCBs were detected above laboratory method detection limits in the soil samples collected from SS-9, SS-10, SS-11 or SS-12. No additional locations were sampled for PCBs;
- No Vermont Soil Screening Levels (SLs) or EPA Regional Screening Levels (RSLs) for VOCs and PP13 metals were exceed in the soil samples collected from the SS-1 to SS-12 locations;
  - The Vermont DECs Rural Background Soil Concentration (BSC) for lead was exceeded (PP13 metals) in the soil samples collected from SS-2, SS-6, SS-11 and the duplicate sample;
- The EPA residential RSLs for several SVOCs were exceeded in the soil samples collected from SS-1, SS-4, SS-5, SS-10 and SS-11;
  - The EPA industrial RSL for benzaldehyde was exceeded in the soil sample collected from SS-2;
- Benzo(a)pyrene exceeded the residential SL in the SS-5, SS-10 and SS-11 locations, therefore, the TEQ formula was applied to select PAHs in accordance with EPA protocols;
- After applying the TEQ formula to the above three locations, it was determined that they were above the rural PAH BSC TEQ (which is the site setting); and,
- Groundwater flows to the south-southeast towards the Winooski River with depth-to-water (DTW) ranging from four to 5.70 feet below ground surface (fbgs).

Based on these conclusions and the planned reuse of the property as a public recreational area, ATC recommends the following:

- 1. Submit this report to the VT DEC for review and comment, as EPA RSLs, VT SLs and BSCs were exceeded in soil samples collected from the property.
- 2. Perform an Additional Site Investigation in accordance with the Irule because of the exceedances of residential SVOC RSLs in numerous locations, the exceedance of an industrial RSL in SS-2, the exceedance of the rural PAH BSC in three locations, and the exceedance of the rural BSC for lead.
- 3. Monitoring wells should be properly decommissioned in accordance with VT Water Supply Rule.
- 4. Upon completing the Additional Site Investigation, a Corrective Action Plan (CAP) will be required in accordance with the Irule to address the soil contaminants. At this time it appears as though this site should be exempt from conducting an Evaluation of Corrective Action Alternatives (ECCA) because

exemption criteria per Irule have been met, unless Additional Site Investigation findings determine otherwise.

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# **1.0 INTRODUCTION**

ATC Group Services, LLC (ATC), on behalf of Mr. Peter Gregory of Two Rivers - Ottauquechee Regional

Commission (TRORC), completed a Phase II Site Investigation (SI) at the Cabot Sawmill property located at 153 Sawmill Road in Cabot, VT (**Figure 1**). The Phase II SI was recommended in a December 2017 Phase I Environmental Site Investigation (ESA). The SI consisted of the installation of soil borings and groundwater monitoring wells, and the sampling and analyses of soil and groundwater. The work was completed in accordance with ATC's work plan dated February 16, 2018, which was approved by TRORC in an email dated February 21, 2018, and also with the Vermont Investigation and Remediation of Contaminated Properties Rule (Irule, July 2017).

# **1.1 SITE INFORMATION**

Property Owner	Owner Mailing Address	Owner Email	Owner Phone #
Ed Larson, Headwater Lumber Company	Unknown	Unknown	(802) 224-9177

The subject property is located at 153 Sawmill Road in Cabot, Vermont, (**Figure 1**) with site access from the roadway. The sites latitude and longitude location is 44° 23' 27" N, 72° 19' 52" W. The property generally slopes from northwest to southeast toward the Winooski River, the dominant area feature, and the roadway. The property currently houses a dilapidated former sawmill building running north to south on the eastern side of the property. There is also a Cabot Wastewater treatment pump station on the southern center portion of the property. The property also contains a dam that was formerly a part of the mills operations. It is ATC's understanding that the dam is to be removed as part of the site renovations. The ground surface of the parcel is grass with some dirt parking associated with the pump station. The property's previous usage was as a woolen mill, grain mill, sawmill, tannery, and blacksmith, with the most recent use as a sawmill until 2001 when the building collapsed. The Site is located within a residential and light commercial area of Cabot, Vermont. Residences are located to the west of the property, with Sawmill Road bounding the property to the south. The Winooski River flows north to south through the center of the property. No high-risk property uses were identified on the adjoining properties during the May 2017 Phase I ESA.

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# 2.0 SITE HISTORY & CONCEPTUAL SITE MODEL

The Phase I ESA was completed for the subject property by ATC in December 2017, and concluded that several Recognized Environmental Conditions (RECs), Business Environmental Risks (BERs), and de minimis conditions existed. The RECs included: the historical use of the property as a woolen mill, grain mill, blacksmith shop, tannery, and sawmill for over 200 years on the west side of the river, with some mill or storage operations on the east side of the river; a historical fire that destroyed the buildings and introduced semi-volatile organic compounds (SVOCs), metals and possibly polychlorinated biphenols (PCBs) to the soil and groundwater; and, the site contained a pulley system historically, that likely used

hydraulic fluid and lubricants that could potentially have been PCB containing. ATC also observed several unidentified substance containers. The BERs and de minimis conditions included: the Cabot Wastewater Treatment Facility is located east of the subject property which hosts the Cabot Recycling Center, which is listed as a RCRA-Conditionally Exempt Small Quantities Generator (CESQG) and is listed on the federal generator list; Derek's Country Store is located approximately 500 feet north of the subject property and is listed on the Vermont Department of Environmental Conservation (VT DEC) Hazardous Sites database; and, ATC observed several discarded motor parts that contained small quantities of oil.

The property was first developed in the late 1700's as a woolen mill with some references to tanning operations. The dam and sawmill were constructed in 1825 and the mill burned down in 1925. The mill was rebuilt and used as a saw- and grain mill and then a sawmill again. The sawmill building was rendered unusable due to blasting associated with the installation of the sewer lines to nearby buildings by the Town of Cabot. The building has been vacant and unused since its closure in 2001.

The possible contaminants associated with a fire and the use of fuels, lubricants and oils during woolen, grain and sawmill operation include poly-aromatic hydrocarbons (PAHs) associated with the heavy oils and burnt wood, volatile organic compounds (VOCs) associated with fuels and lubricants, metals associated with cooling oils lead paint and cuttings, and PCBs associated with historic hydraulic and electrical equipment. A lead and asbestos inspection and sampling was completed by ATC on February 28, 2018, and a copy of the report was presented to TRORC on March 23, 2018.

This Phase II SI was completed to address the RECs outlined in the Phase I ESA completed in December 2017 by ATC.

The dominant bedrock geology in the immediate vicinity is listed on the online ANR Natural Resources Map as schist consisting of light- to medium-gray, fine-grained micaceous quartzite to dark-gray muscovite quartz-biotite carbonaceous phyllite or schist in beds 10 to 25 cm thick, and dark-gray micaceous phyllite or schist containing beds of micaceous quartzite, locally thickly bedded. The primary surficial geology is listed on the online ANR Natural Resources Map as alluvium, postglacial fluvial deposits of clay, silt, sand or gravel. Groundwater flow direction appears to be toward the south-southeast, toward the adjacent Winooski River, which is the dominant area and site feature.

Nearby sensitive receptors include residential properties to the west and north and the Winooski River to the immediate east of the subject property. The primary exposure pathway is likely from dermal contact or ingestion. All of the residences in the area utilize private supply wells for drinking water and the Town of Cabot Wastewater Treatment Plant for sewer. At this time with available data, no mobilized contaminants have been identified and the threat to the nearby sensitive receptors is unknown.

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### 2.1 WORK PLAN DEVIATIONS & DATA GAPS

Some work plan deviations were experienced during completion of the SI. The anticipated depth of the four soil boring/monitoring wells was 15 feet below ground surface (fbgs); however, due to repeated refusal, only three of the wells were installed and the depths ranged from 7 to 10 fbgs.

The work plan deviations are not to be considered data gaps as the refusal was likely due to shallow

bedrock or boulders, and the available soil and groundwater sampling results are considered to be representative of current site conditions.

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# **3.0 INVESTIGATIVE PROCEDURES AND RESULTS**

In March 2018, ATC completed a Phase II SI in accordance with the TRORC approved work plan. The following sections outline investigative procedures and results.

# **3.1 UTILITY LOCATION**

On March 2, 2018, ATC marked the boring locations and the drilling perimeter and then contacted Digsafe to mark underground utilities. ATC checked the Digsafe markings prior to drilling commencement to ensure that the drilling program could proceed as planned. No marked utilities were found to be in the vicinity of the planned soil borings. ATC met with a representative from the Cabot Wastewater Treatment Facility to identify the location of the sewer force main on February 28, 2018, prior to drilling.

### 3.2 SOIL BORINGS & MONITORING WELL INSTALLATION

On February 28, 2018, ATC completed the installation of 12 hand borings as SS-1 to SS-12 (**Figure 2**). The borings were completed with a hand auger to one fbgs and soil samples were collected from the recovered soils. The hand auger was decontaminated between locations and one equipment blank was collected to ensure QA/QC compliance. SS-1 to SS-4 were completed from north to south on the eastern side of the Winooski River in the vicinity of historic building foundations, and SS-5 to SS-12 were completed on the western side of the river, in the vicinity of the current buildings. SS-5 was completed at the northern end of the property to determine if any possible influence was present from the off-site Derek's Country Store site. SS-6 was installed just north of the dilapidated sawmill, SS-7 was installed northwest of the wastewater pump station at the southern edge of the property, SS-8 was installed south of the building but just north of Sawmill Road, SS-9, SS-10 and SS-11 were installed to the west of the building and SS 12 was installed just south of the building. Soils on the eastern side of the river were generally moist dark fine to coarse sand with some rounded gravel and silt. Soil samples were collected from the well-mixed recovered soils and placed into the appropriate sample containers.

On February 28, 2018, ATC provided oversight during the direct-push GeoProbe® installation of four soil borings, with three borings completed as monitoring wells ATC-2, ATC-3 and ATC-4 (**Figure 2**). The ATC-1 boring location hit shallow refusal and no soil boring was able to be completed. ATC-2 was installed west of the north end of the building, ATC-3 was installed near the south end of the building and ATC-4 was installed south of the building near the southern and likely down-gradient property line. No soil samples were collected from the monitoring well soil borings below the SS boring depth of one fbgs. The drill auger was decontaminated between boring locations. The soil boring program was performed by Cascade Drilling of Montpelier, Vermont utilizing a GeoProbe® vibratory drill. All borings were

pre-cleared to 5 fbgs utilizing a hand auger to ensure no unmarked utilities were present. Refer to **Appendix A** for boring logs.

During hand auger and GeoProbe® soil boring installation, ATC field-screened soils for visual and olfactory evidence of contamination and a photo-ionization detector (PID) was utilized to measure total organic vapors (TOVs). PID readings in the shallow hand borings generally ranged between 0.0 and 1.2 parts-per-million volume (ppmv); however, PID readings in soil boring SS-9 had readings up to 21.3 ppmv, which is above the VT DEC Action Level of 10 and 20 ppmv for fuel oil and gasoline contaminated soils, respectively. VOC soil sampling results did not indicate the presence of contaminants above applicable standards at the SS-9 location.

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Monitoring wells ATC-2, ATC-3 and ATC-4 were installed to 10, 7 and 8.5 fbgs, respectively, and completed with five feet of screen with riser to completion at ground surface. After the completion of the wells, each one was purged to ensure representative groundwater was present in the well for the planned sampling. During purging it was determined that all of the wells have a low recharge rate.

The monitoring wells consisting of 1.5-inch polyvinyl chloride (PVC) well materials were installed in each boring with 0.010-inch factory slotted screen sections. The screen section was surrounded by a sandpack and two feet of hydrated granular bentonite seal was placed atop the sandpack, followed by native material. The wells were completed flush to grade with protective roadboxes, developed until clear, and surveyed relative to an existing site benchmark by Lakeside Environmental Group of Burlington, Vermont. Refer to **Appendix A** for well construction details. Photographs of well/soil boring installation and locations were taken during completion of the work and are provided along with field notes in **Appendix B**.

Well/SB I.D.	Latitude	Longitude
ATC-2	44.3908625	-72.331182
ATC-3	44.3907081	-72.3311514
ATC-4 / SS-8	44.3905763	-72.3310289
SS-1	44.3910348	-72.3307185
SS-2	44.3909476	-72.3306949
SS-3	44.3908182	-72.3306335
SS-4	44.3906256	-72.3305603
SS-5	44.3911106	-72.3312392
SS-6	44.3909664	-72.3311813
SS-7	44.390576	-72.3312378
SS-9	44.3908652	-72.3311855
SS-10	44.3907904	-72.3311976
SS-11	44.3907051	-72.3311254

The latitude and longitude of the soil borings and monitoring wells (MWs) are provided below.

SS-12	44.390568	-72.3309298	

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### 3.3 SOIL SAMPLING & ANALYSIS

On February 28, 2018, ATC completed soil sampling of twelve shallow hand borings (ground surface to one fbgs), SS-1 to SS-12, located on the east and west side of the Winooski River, which bisects the property. Composite soil samples were collected from the shallow soil boring soils, after they were thoroughly mixed, and placed into the appropriate containers. The samples were packed on ice and transported under chain-of-custody protocols to SGS Accutest laboratory of Dayton, New Jersey for laboratory analysis. The soil samples were analyzed for the possible presence of SVOCs, VOCs, PP13 metals and PCBs by EPA Methods 8270, 8260, 6010C and 8082, respectively. The SS-1 to SS-4 soil samples were analyzed for SVOCs and PP13 metals, the SS-5 to SS-8 samples were analyzed for SVOCs, VOCs, PP13 metals and PCBs.

The soil analytical laboratory reports are included in **Appendix C**. Refer to **Tables 1, 2, 3** and **4** for a summary of soil analytical results, which were compared to Vermont Soil Screening Levels (VT SLs) for residential settings, background soil concentrations (BSC) for rural soils, and US EPA Regional Screening Levels (RSLs) for residential and industrial soils.

No VT SLs or EPA RSLs for VOCs were exceeded in the soil samples collected from the SS-5 to SS-12 soil borings, which were the only borings sampled for VOCs (**Table 1**).

No VT SLs, BSCs or EPA RSLs for PP13 metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium and zinc) were exceeded in the SS-1 to SS-12 soil samples, with the exception of lead, which was detected above the rural BSC of 41 mg/Kg in the SS-2, SS 6 and SS-11 soil samples (**Table 2**). The VT DEC does not regulate lead BSC exceedances if they are below the EPA RSLs. These lead detections are well below the EPA RSLs.

The SVOCs, benzaldehyde, benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene and indeno(1,23,-cd)pyrene, generally members of the polynuclear aromatic hydrocarbon (PAH) subset, were detected above their corresponding residential EPA RSLs, with benzaldehyde exceeding the industrial RSL, in some combination in the SS-1, SS-2, SS-4, SS-5, SS-10 and SS-11 hand borings (**Table 3**). Additionally, benzo(a)pyrene exceeds the residential SL in the SS-5, SS-10 and SS-11 locations, therefore the Toxic Equivalency Quotient (TEQ) formula was applied to select PAHs in accordance with state protocol. The IRule states that "The VT DEC Background Soil Concentration values are to be used when the background value for benzo(a)pyrene (TEQ) or arsenic is greater than the VSL". The IRule also states that "for industrial soil scenarios, the industrial EPA RSL must be used". Currently the site is considered to be industrial based on previous site use; however, as the property could be developed into a public park, the residential EPA RSLs and VT DEC SLs should be used for PAH and TEQ comparisons. Several

TEQ formula results exceeded the rural BSC of 0.026 mg/Kg. The PAH TEQ calculations are included as **Table 4**. No other RSL, SLs or BSCs exceedances were noted in the SS-3, SS-6, SS-7, SS-8 and SS-12 soil boring samples. A contaminant distribution map has been included as **Figure 3**.

A summary of results is included below:

• Lead was detected above the rural BSC at 71, 45.2 and 58.3 μg/Kg in the SS-2, SS-6 and SS 11 soil samples;

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- Benzaldehyde was detected above the residential EPA RSL, but below the industrial RSL, at 424 and 402  $\mu$ g/Kg in the SS-1 and SS-3 soil samples. The industrial RSL for benzaldehyde was exceeded in the SS-2 soil sample at 838  $\mu$ g/Kg;
- Benzo(a)anthracene was detected above the residential EPA RSL, but below the industrial RSL, at 921 and 401 µg/Kg in the SS-10 and SS-11 soil samples;
- Benzo(a)pyrene was detected above residential SL, but below the industrial SL, at 119, 932 and 391 µg/Kg in the SS-5, SS-10 and SS-11 soil samples, respectively. Based on the residential SL exceedance and in accordance with the IRule, the TEQ formula was applied and all of the three locations exceeded the rural BSC;
- Benzo(b)fluoranthene was detected above residential SL, but below the industrial SL, at 1,280 and 532 μg/Kg in the SS-10 and SS-11 soil samples, respectively;
- Dibenzo(a,h)anthracene was detected above residential SL, but below the industrial SL, at 17.5, 179 and 532 μg/Kg in the SS-5, SS-10 and SS-11 soil samples, respectively;
- Indeno(1,2,3-cd)pyrene was detected above residential SL, but below the industrial SL, at 642 and 260 μg/Kg in the SS-10 and SS-11 soil samples, respectively; and,
- No PCBs were detected above laboratory method detection limits in the SS-9, SS-10, SS-11 and SS-12. The VOCs acetone, toluene and total xylenes were detected but none were close to exceeding applicable RSLs or SLs.

### **3.4 GROUNDWATER MONITORING & ANALYSIS**

On March 13, 2018, the three monitoring wells, ATC-2, ATC-3 and ATC-4, were gauged for water depth to evaluate groundwater elevations and flow characteristics. Depth to water ranged from four feet below top of casing (ft BTOC) in ATC-3 to 5.70 ft BTOC in ATC-2. Groundwater elevations for the monitoring wells were calculated by subtracting the depth to water from surveyed top of casing (TOC) elevations. This data is tabulated in **Table 5**. A groundwater contour map was generated utilizing groundwater elevation data and is presented in **Figure 4**. The figure illustrates that shallow horizontal groundwater flow is to the south-southeast.

Following the collection of the depth to water, the wells were purged utilizing low-flow sampling techniques. Three groundwater samples were collected, stored on ice, and transported to SGS Accutest in accordance with appropriate chain-of-custody protocols. The samples were analyzed for VOCs, PP13 metals and PCBs by US EPA Method 8260, 6010 and 8082, respectively. The groundwater analytical report is provided in **Appendix C**. A duplicate sample was collected from ATC-4 in accordance with QA/QC requirements. Results were compared to Vermont Groundwater Enforcement Standards (VGES). Purge water was discharged to ground surface.

A summary of results are included below:

• No VOCs, PP13 metals or PCBs were detected above laboratory method detection limits in the three groundwater samples.

These results indicate that the groundwater has not been impacted by VOCs, PP13 metals or PCBs. Refer Project No. 280EM00128 June 1, 2018 Cabot Sawmill – Phase II SI Page 8 of 9

to **Figure 3** for an illustration of groundwater elevation contours for the site. As no contaminants were detected above laboratory method detection limits, no tabulated data was necessary.

# 3.5 STANDARD OPERATING PROCEDURES (SOPs)

ATC SOPs for each stage of the SSI are presented below. All SOPs can be presented upon request.

Monitoring Well Installation -

SOP 1. Drilling Equipment Standards SOP 2. Monitoring Well Construction Procedures SOP 3. Well Development Procedures

Monitoring Well Sampling -

SOP 4. General Sampling Procedures for Aqueous & Solid Matrices SOP 8.1 Groundwater Sampling Collection Procedures Using Bailers or Pumps SOP 9. Water Level Measurement Procedure SOP 10. Decontamination Procedure SOP 11. Sample Custody Procedure

Subsurface Soil Sampling -

SOP 5. Subsurface Soil Sample Collection Procedure

Field notes for the drilling and sample collection are included in Appendix B.

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# 4.0 CONCLUSIONS & RECOMMENDATIONS

On behalf of Mr. Peter Gregory of the TRORC, ATC Group Services, LLC (ATC) presents this Phase II S) report to document subsurface investigations at the former sawmill property located at 153 Sawmill Road in Cabot, VT. In accordance with the approved work plan, ATC oversaw the installation of soil borings and groundwater monitoring wells, and the sampling/analyses of soil and groundwater.

ATC concludes that no VOCs, PP13 metals or PCBs were detected above laboratory method detection limits in the groundwater samples collected from ATC-2, ATC-3 and ATC-4.

ATC concludes that no PCBs were detected above laboratory method detection limits in the soil samples collected from the SS-9, SS-10, SS-11, SS-12 hand borings, which were the only borings sampled for PCBs.

VOCs were detected above laboratory method detection limits, but below applicable EPA RSLs and VT SLs, in the soil samples collected from SS-5, SS-6, SS-7, SS-9, SS-10, SS-11 and SS-12, which were the only borings sampled for VOCs. SS-8 had no VOCs detected above laboratory method detection limits. PP13 metals were detected above laboratory method detection limits, but below the EPA RSLs, VT SLs and BSCs in soil samples collected from SS-1 to SS-12, except for lead, which was detected above the rural BSC in the SS-2, SS-6 and SS-11 hand borings.

ATC concludes that the SVOCs benzaldehyde, benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene and indeno(1,23,-cd)pyrene), were detected above residential, but below industrial EPA RSLs, in some combination in the SS-1, SS-4, SS-5, SS-10 and SS-11 soil borings. Benzo(a)pyrene was detected above the residential VT SL in the SS-5, SS-10 and SS-11 soil boring samples. Benzaldehyde was detected above the industrial EPA RSL in SS-2. No SVOC EPA RSLs or VT SLs were exceeded in the SS-3, SS-6, SS-7, SS-8 or SS-12 soil borings.

As benzo(a)pyrene exceeded the residential SL of 76 ug/Kg, in the SS-5, SS-10 and SS-11 soil sample locations, the TEQ formula was applied to select PAH compounds, in accordance with EPA protocols. For non-detect locations, half of the MDL was used to calculate the TEQ. All three sample locations' TEQ calculation numbers exceeded the rural BSC of 0.026 mg/Kg.

Based on these conclusions, ATC recommends the following:

- 1. Submit this report to the VT DEC for review and comment, as EPA RSLs, VT SLs and BSCs were exceeded in soil samples collected from the property.
- 2. Perform an Additional Site Investigation in accordance with the Irule because of the exceedances of residential SVOC RSLs in numerous locations, the exceedance of an industrial RSL in SS-2, the exceedance of the rural PAH BSC in three locations, and the exceedance of the rural BSC for lead.
- 3. Monitoring wells should be properly decommissioned in accordance with VT Water Supply Rule.
- 4. Upon completing the Additional Site Investigation, a Corrective Action Plan (CAP) will be required in accordance with the Irule to address the soil contaminants. At this time it appears as though this site should be exempt from conducting an Evaluation of Corrective Action Alternatives (ECCA) because exemption criteria per Irule have been met, unless Additional Site Investigation findings determine otherwise.



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FIGURES

Cabot Sawmill WWW.atcgroupservices.com 153 Sawmill Road Cabot, VT 05647 Figure 1: SITE VICINITY MAP



Base Map: U.S. Geological Survey; Quadrangle Location: Cabot, VT

Lat/Lon: 44 23' 27" NORTH, 72 19' 52" WEST - UTM Coordinates: 18 712566.9 EAST / 4918744.3 NORTH Generated By: Kevin Collins











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# TABLE 5Groundwater Elevation Calculations

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## Cabot Sawmill Cabot, Vermont

Well I.D.	Top of Casing Elevation	Depth to Water	Water Table Elevation
ATC-2	101.94	5.70	96.24
ATC-3	99.46	4.00	95.46
ATC-4	98.12	4.02	94.10

#### Monitoring Date: March 13, 2018

All values reported in feet relative to arbitrary site datum of 100.00 feet.

## ATC 280EM00128 APPENDIX A

### BORING LOGS & MONITORING WELL CONSTRUCTION DETAILS

## 1 ELM STREET BORING / WELL IDENTIFICATION: ATC-2

Cabot Sawmill

05676	i02) 41-4131 302) 44-6894 -	FAX	1

				Job
10'	BORING DEF	PTH:	10'	AT
DURING DRILLING):	5'			DR
1.5"	Depth:	10-4	4'	
0.010" Slott	ed			SA
1.5"	Depth:	4-0	)	Ref
PVC				EL

153 Sawmill Road, Cabot, VT

WATERBURY, VERMONT

 $W_{ELL} D_{EPTH}$ : <u>JP</u>  $D_{EPTH TO} W_{ATER}$  (Cascade Screen Diameter:

## $S_{CREEN} T_{YPE}/S_{IZE}$ : **DP – 5' runs** $R_{ISER} D_{IAMETER}$ : **Ground** RISER TYPE/SIZE:

REMARKS: Hand cle	eared to 5' with 5"	diameter hand aug	er		
	BLOW	RECOVERY (FT)	DESCRIPTION AND	PID	WELL PROFILE
DEPTH (IN FEET)	COUNTS PER 6 "	SAMPLE	NOTES	(PPM)	LEGEND

 $0 \, {}^{\rm Concrete} \, 1 \, {}_{\rm Native \, Material}$ 

	Brown to dark brown, moist to wet, fine to coarse SAND,	
	some Silt, trace Gravel, soft	0.0
		0.0
0-5.0' 1.5' recovered		0.0
	Brown saturated fine to medium SAND and fine	0.0
	dense.	0.0
		0.0
		0.0
5-10' 5.0' recovered		0.0

2

3 Bentonite 4

5 Filter Sand

6 <sub>Riser</sub> 7

9

10

8 Screen



**20** End of Sampling = 10 feet

Well set @ 10 feet

PROPORTIONS USED BLOW COUNT (COHESIVE SOILS) BLOW COUNT (GRANULAR SOILS) Notes: AND 33-50% <2 VERY SOFT 0-4 VERY LOOSE SOME 20-33% 2-4 SOFT 4-10 LOOSE PID used: IonScience – PhoCheck Tiger #3 LITTLE 10-20% 4-8 MEDIUM STIFF 10-30 MEDIUM DENSE TRACE 0-10% 8-15 STIFF 30-50 DENSE Depth to water was \_\_\_\_\_\_ feet after four hours. 15-30 VERY STIFF >50 VERY DENSE >30 HARD

### 1 ELM STREET BORING / WELL IDENTIFICATION: ATC-3

**Cabot Sawmill** 

05676	102) 41-4131 302) 44-6894 -	FAX	1

				Joe
7'	BORING DEF	PTH:	7'	AT
DURING DRILLING):	6'			Di
1.5"	Depth:	7-2,	)	
0.010" Slott	ed			SA
1.5"	Depth:	2-0,	)	REI
PVC				E

153 Sawmill Road, Cabot, VT

#### WATERBURY, VERMONT

WELL DEPTH: <u>JP</u> DEPTH TO WATER (Cascade SCREEN DIAMETER:

S<sub>CREEN</sub> T<sub>YPE</sub>/S<sub>IZE</sub>: **DP – 5' runs** R<sub>ISER</sub> D<sub>IAMETER</sub>: **Ground** R<sub>ISER</sub> T<sub>YPE</sub>/S<sub>IZE</sub>:

REMARKS: Hand	cleared to 5' with 5"	diameter hand aug	er, four attempts, hi	it shallow refusal	
	BLOW	RECOVERY (FT)	DESCRIPTION AND	PID	WELL PROFILE
DEPTH (IN FEET)	) COUNTS PER 6 "	SAMPLE	NOTES	(PPM)	LEGEND

## 0 Concrete 1 Native Material

	Moist, brown medium dense, fine to medium SAND with	0.0
	trace Cobble	0.0
0-5' 2.5' recovered		0.0

	Coarse, brown to dark brown, moist to wet,	0.0
5-7' 2.0' recovered	Silt.	0.0

3 Bentonite 4

5 Filter Sand

6 <sub>Riser</sub> 7

8 <sup>Screen</sup> 9 <sub>Water level</sub> 

End of Sampling = 7 feet

Well set @ 7 feet

PROPORTIONS USED BLOW COUNT (COHESIVE SOILS) BLOW COUNT (GRANULAR SOILS) Notes: AND 33-50% <2 VERY SOFT 0-4 VERY LOOSE SOME 20-33% 2-4 SOFT 4-10 LOOSE PID used: lonScience – PhoCheck Tiger #3 LITTLE 10-20% 4-8 MEDIUM STIFF 10-30 MEDIUM DENSE TRACE 0-10% 8-15 STIFF 30-50 DENSE Depth to water was \_\_\_\_\_\_ feet after four hours. 15-30 VERY STIFF >50 VERY DENSE >30 HARD

### 1 ELM STREET BORING / WELL IDENTIFICATION: ATC-4

#### **Cabot Sawmill**

05676	102) 41-4131 302) 44-6894 -	FAX	

				JOE
8.5'	BORING DEF	PTH:	8.5'	AT
DURING DRILLING):	4.5'	4.5'		D
1.5"	Depth:	8.5-	3.5	
0.010" Slott	ed	-		SA
1.5"	Depth:	3.5-	0'	REA
PVC				E

\_\_\_\_\_153 Sawmill Road, Cabot, VT

WATERBURY, VERMONT

WELL DEPTH: <u>JP</u> DEPTH TO WATER (Cascade SCREEN DIAMETER:

 $S_{CREEN} T_{YPE}/S_{IZE}$ : <u>**DP** - 5'</u><u>**runs**</u>  $R_{ISER} D_{IAMETER}$ : <u>**Ground**</u> RISER TYPE/SIZE:

REMARKS: Hand clea	ared to 5' with 5" of	liameter hand auge	er		
	BLOW	RECOVERY (FT)	DESCRIPTION AND	PID	WELL PROFILE
DEPTH (IN FEET)	COUNTS PER 6 "	SAMPLE	NOTES	(PPM)	LEGEND

## 0 Concrete 1 Native Material

	Brown, wet, loose, coarse to fine SAND, evidence of fill,	
	small fine gravel.	0.0
3-5.0' 1.5' recovered		0.0
	Brown, wet, coarse to fine SAND and moist, stiff,	0.0
	dark grey SILT and line Sand	0.0
		0.0
5-8.5' 3.0' recovered		0.0

2

3 Bentonite 4

	5 Filter Sand
6 <sub>Riser</sub> 7	
	8 Screen
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20 End of Sampling = 8.5 feet

Well set @ 8.5 feet

PROPORTIONS USED BLOW COUNT (COHESIVE SOILS) BLOW COUNT (GRANULAR SOILS) Notes: AND 33-50% <2 VERY SOFT 0-4 VERY LOOSE SOME 20-33% 2-4 SOFT 4-10 LOOSE PID used: IonScience – PhoCheck Tiger#3 LITTLE 10-20% 4-8 MEDIUM STIFF 10-30 MEDIUM DENSE TRACE 0-10% 8-15 STIFF 30-50 DENSE Depth to water was \_\_\_\_\_\_ feet after four hours. 15-30 VERY STIFF >50 VERY DENSE >30 HARD

## **APPENDIX B** PHOTOGRAPHS & FIELD NOTES

		PHUIUUKAPI	15 & FIELD NUTES
PHOTOGRAPH	IC LOG ATC Group Services, LLC.		
		1 Elm St., S Waterbury, Vermont 0	uite 3 05676
Client Name: TRORC	Site Location: Cabot Sawmill 153 Sawmill Road Cabot, Vermont		<b>ATC Project #:</b> 280EM00128

btion: water ring well (and soil SS-9 1), near the n end of the
dilapidated building.

Photograph #2		
Description: Groundwater monitoring well ATC-3 and nearby soil sample SS-11, near the southern end of the dilapidated building.		

**PHOTOGRAPHIC LOG** ATC Group Services, LLC.

1 Elm St., Suite 3 Waterbury, Vermont 05676

Client Name:
TRORC

Photograph #3	
Photograph #3 Description: Groundwater monitoring well ATC-4 (and soil sample SS-8 location) near the southern property line, near Sawmill Road.	



### **APPENDIX C**

## SOIL & GROUNDWATER LABORATORY ANALYTICAL REPORTS

05/31/18

		Dayton, NJ
	The results set forth herein	280EM00128
		SGS Job Number: JC61667
	are provided by SGS North	
		Sampling Date: 02/28/18
	America Inc. Technical	
	Report for	Report to:
		ATC Group Services LLC.
		1 Elm Street Suite 3
		Waterbury, VT 05676
	ATC Group	Johanna.Palmer@AICAssociates.com
	Services LLC.	ATTN: Johanna Palmer
		e-Hardcopy 2.0 Automated Report
Sawmill Road, Cabot, VT		
Sawiiiii Koau, Cabot, VI		



224

Nancy Cole

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Kristin Degraw 732-329-0200

Laboratory Director

Total number of pages in report:
This report shall not be reproduced, except in its entirety, without the written approval of SGS. Test results relate only to samples analyzed.

SGS North America Inc. • 2235 Route 130 • Dayton, NJ 08810 • tel: 732-329-0200 • fax: 732-329-3499

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Please share your ideas about how we can serve you better at: EHS.US.CustomerCare@sgs.com

1 01 224 3081

May 31, 2018

Mr. Johanna Palmer ATC Group Services LLA. 1 Elm Street Suite 3 Waterbury, VT 05676

Re: SGS North America - Dayton, NJ Jobs # JC61667 - Reissues

Dear Mr. Palmer,

The final reports for SGS jobs number JC61667 has been edited to reflect corrections to the final results. These edits have been incorporated into the revised report which is attached.

Specifically, additional compounds (Naphthalene, 1,2,4-TMB, and 1,3,5-TMB) have been retrieved and reported for samples JC61667-5 thru -14 per your request on 5/30/2018. The attached revised report incorporates these revisions.

Please contact me if I can be of further assistance in this matter.

Sincerely,

**Report Department** 

SGS North America Inc.

SGS North America Inc. Mid-Atlantic 2235 US Highway 130 Dayton, NJ 08810, USA t +1 (0)732 329 0200

Member of the SGS Group (SGS SA)

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SGS North America Inc.

# **Sample Summary**

ATC Group Services LLC. Job No: JC61667 Cabot Sawmill, Sawmill Road, Cabot, VT Project No: 280EM00128

Sample Collected Matrix Client Number Date Time By Received Code Type Sample ID

JC61667-1 02/28/18 15:45 JP 03/02/18 SO Soil SS-1

JC61667-2 02/28/18 15:25 JP 03/02/18 SO Soil SS-2

JC61667-3 02/28/18 15:10 JP 03/02/18 SO Soil SS-3

JC61667-4 02/28/18 14:50 JP 03/02/18 SO Soil SS-4

JC61667-5 02/28/18 14:30 JP 03/02/18 SO Soil SS-5

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JC61667-6 02/28/18 14:15 JP 03/02/18 SO Soil SS-6

JC61667-6R 02/28/18 14:15 JP 03/02/18 SO Soil SS-6

JC61667-7 02/28/18 12:30 JP 03/02/18 SO Soil SS-7

JC61667-7R 02/28/18 12:30 JP 03/02/18 SO Soil SS-7

JC61667-8 02/28/18 11:40 JP 03/02/18 SO Soil SS-8

JC61667-8R 02/28/18 11:40 JP 03/02/18 SO Soil SS-8

JC61667-9 02/28/18 13:40 JP 03/02/18 SO Soil SS-9

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SGS North America Inc.

# **Sample Summary**

(continued) ATC Group Services LLC. Job No: JC61667 Cabot Sawmill, Sawmill Road, Cabot, VT Project No: 280EM00128

# Sample Collected Matrix Client Number Date Time By Received Code Type Sample ID

JC61667-9R 02/28/18 13:40 JP 03/02/18 SO Soil SS-9

JC61667-10 02/28/18 13:20 JP 03/02/18 SO Soil SS-10 JC61667-10R 02/28/18 13:20 JP 03/02/18 SO Soil SS-10

JC61667-11 02/28/18 13:05 JP 03/02/18 SO Soil SS-11 JC61667-11R 02/28/18 13:05 JP 03/02/18 SO Soil SS-11

JC61667-12 02/28/18 12:05 JP 03/02/18 SO Soil SS-12 JC61667-12R 02/28/18 12:05 JP 03/02/18 SO Soil SS-12

JC61667-13 02/28/18 13:00 JP 03/02/18 SO Soil DUP

JC61667-13R 02/28/18 13:00 JP 03/02/18 SO Soil DUP JC61667-14 02/28/18 16:00 JP 03/02/18 AQ Equipment Blank EB

JC61667-14R 02/28/18 16:00 JP 03/02/18 AQ Equipment Blank EB

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

# CASE NARRATIVE / CONFORMANCE SUMMARY

**Job No** JC61667

**Client:** ATC Group Services LLC.

Site: Cabot Sawmill, Sawmill Road, Cabot, VT

On 03/02/2018, 14 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.7 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC61667 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

#### MS Volatiles By Method SW846 8260C

#### Matrix: AQ Batch ID: V3B6389

All samples were analyzed within the recommended method holding time.

Sample(s) JC61586-5MS, JC61586-5MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

#### Matrix: AQ Batch ID: V4D3715

All samples were analyzed within the recommended method holding time.

Sample(s) JC61586-9MS, JC61586-9MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike / Matrix Spike Duplicate Recovery(s) for Trichloroethene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

#### Matrix: SO Batch ID: V3C6477

All samples were analyzed within the recommended method holding time.

Sample(s) JC61496-5MS, JC61496-1DUP were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

RPD(s) for Duplicate for cis-1,2-Dichloroethene, Methyl Acetate, Tetrachloroethene are outside control limits for sample JC61496-1DUP. RPD acceptable due to low DUP and sample concentrations.

#### Matrix: SO Batch ID: V3C6478

All samples were analyzed within the recommended method holding time.

Sample(s) JC61667-10RDUP, JC61667-9MS, JC61667-9RMS, JC61667-10DUP were used as the QC samples indicated. All method

blanks for this batch meet method specific criteria.

RPD(s) for Duplicate for Acetone are outside control limits for sample JC61667-10DUP. High RPD due to possible sample nonhomogeneity.

Thursday, May 31, 2018 Page 1 of 3

# MS Semi-volatiles By Method SW846 8270D

# Matrix: AQ Batch ID: OP10429

All samples were extracted within the recommended method holding time.

Sample(s) JC61659-1MS, JC61659-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

JC61667-14 for Benzaldehyde: Associated CCV outside of control limits low.

#### Matrix: SO Batch ID: OP10412

All samples were extracted within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

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JC61667

Sample(s) JC61667-1MS, JC61667-1MSD were used as the QC samples indicated. RPD(s) for MSD for 3,3'-Dichlorobenzidine are outside control limits for sample OP10412-MSD. Outside of in house control limits. JC61667-1 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-2 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-9 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-9 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-3 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-12 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-12 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-10 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-10 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-10 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-11 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-10 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-11 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-13 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-14 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-4 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-5 for Benzaldehyde: Associated CCV outside of control limits low. JC61667-5 for Benzaldehyde: Associated CCV outside of control limits low.

#### GC/LC Semi-volatiles By Method SW846 8082A Matrix: AQ Batch ID: OP10482

All samples were extracted within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

OP10482-BSD for Aroclor 1260: Reported from the 2nd signal. The %D of the CCV on the 1st signal exceeds the method criteria of 20%, so it being used for confirmation only.

#### Matrix: SO Batch ID: OP10413

All samples were extracted within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) JC61657-1MS, JC61657-1MSD, OP10413-MSMSD were used as the QC samples indicated. JC61667-10

for Decachlorobiphenyl: Outside control limits due to matrix interference.

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# Metals Analysis By Method SW846 6010C

#### Matrix: AQ Batch ID: MP6018

All samples were digested within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) JC61628-1QMS, JC61628-1QMSD, JC61628-1QSDL were used as the QC samples for metals.

RPD(s) for Serial Dilution for Arsenic, Cadmium, Chromium, Copper, Silver are outside control limits for sample MP6018- SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP6018-SD1 for Zinc: Serial dilution indicates possible matrix interference.

#### Matrix: SO Batch ID: MP6039

All samples were digested within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) JC61588-1MS, JC61588-1MSD, JC61588-1SDL were used as the QC samples for metals.

RPD(s) for Serial Dilution for Cadmium, Chromium, Nickel are outside control limits for sample MP6039-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

#### Metals Analysis By Method SW846 7470A

#### Matrix: AQ Batch ID: MP6040

All samples were digested within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) JC61561-1MSD, JC61561-1MS were used as the QC samples for metals.

Matrix Spike Recovery(s) for Mercury are outside control limits. Spike recovery indicates possible matrix interference.

Matrix Spike Duplicate Recovery(s) for Mercury are outside control limits. Spike recovery indicates possible matrix interference.

#### Metals Analysis By Method SW846 7471B

Matrix: SO Batch ID: MP6052

All samples were digested within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) JC61667-1MS, JC61667-1MSD were used as the QC samples for metals.

## General Chemistry By Method SM2540 G-97

Matrix: SO Batch ID: GN77007

The data for SM2540 G-97 meets quality control requirements.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

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Summary of Hits Page 1 of 7 Job Number: JC61667 Account: ATC Group Services LLC. Project: Cabot Sawmill, Sawmill Road, Cabot, VT Collected: 02/28/18

### Lab Sample ID Client Sample ID Result/ Analyte Qual RL MDL Units Method JC61667-1 SS-1

Benzaldehyde <sup>a</sup> 424 220 11 ug/kg SW846 8270D Fluoranthene 24.8 J 44 19 ug/kg SW846 8270D Pyrene 25.1 J 44 14 ug/kg SW846 8270D Arsenic 7.3 2.8 mg/kg SW846 6010C Beryllium 0.76 0.28 mg/kg SW846 6010C Chromium 41.3 1.4 mg/kg SW846 6010C Copper 24.6 3.5 mg/kg SW846 6010C Lead 26.5 2.8 mg/kg SW846 6010C Mercury 0.049 0.034 mg/kg SW846 7471B Nickel 51.0 5.6 mg/kg SW846 6010C Zinc 76.5 7.0 mg/kg SW846 6010C

# JC61667-2 SS-2

Benzo(a)pyrene 21.1 J 47 21 ug/kg SW846 8270D Benzo(b)fluoranthene 38.0 J 47 21 ug/kg SW846 8270D Benzo(g,h,i)perylene 24.8 J 47 23 ug/kg SW846 8270D Benzaldehyde <sup>a</sup> 838 230 12 ug/kg SW846 8270D Chrysene 22.9 J 47 15 ug/kg SW846 8270D Fluoranthene 25.1 J 47 21 ug/kg SW846 8270D Indeno(1,2,3-cd)pyrene 26.1 J 47 22 ug/kg SW846 8270D Pyrene 28.4 J 47 15 ug/kg SW846 6010C Beryllium 0.53 0.29 mg/kg SW846 6010C Chromium 31.7 1.4 mg/kg SW846 6010C Copper 24.9 3.6 mg/kg SW846 6010C Lead 71.0 2.9 mg/kg SW846 6010C Mercury 0.21 0.034 mg/kg SW846 7471B Nickel 30.6 5.8 mg/kg SW846 6010C Zinc 78.8 7.2 mg/kg SW846 6010C

#### JC61667-3 SS-3

Benzaldehyde <sup>a</sup> 30.2 J 240 12 ug/kg SW846 8270D Arsenic 3.9 2.8 mg/kg SW846 6010C Beryllium 0.54 0.28 mg/kg SW846 6010C Chromium 30.4 1.4 mg/kg SW846 6010C Copper 14.9 3.5 mg/kg SW846 6010C Lead 25.1 2.8 mg/kg SW846 6010C Mercury 0.036 0.036 mg/kg SW846 7471B Nickel 36.7 5.5 mg/kg SW846 6010C Zinc 41.1 6.9 mg/kg SW846 6010C

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Summary of Hits Page 2 of 7 Job Number: JC61667 Account: ATC Group Services LLC. Project: Cabot Sawmill, Sawmill Road, Cabot, VT Collected: 02/28/18

# Lab Sample ID Client Sample ID Result/ Analyte Qual RL MDL Units Method JC61667-4 SS-4

Benzaldehyde <sup>a</sup> 402 280 14 ug/kg SW846 8270D Fluoranthene 32.1 J 56 25 ug/kg SW846 8270D Pyrene 27.5 J 56 18 ug/kg SW846 8270D Arsenic 7.9 3.3 mg/kg SW846 6010C Beryllium 0.52 0.33 mg/kg SW846 6010C Chromium 29.5 1.7 mg/kg SW846 6010C Copper 16.2 4.2 mg/kg SW846 6010C Lead 25.5 3.3 mg/kg SW846 6010C Mercury 0.036 0.033 mg/kg SW846 7471B Nickel 32.5 6.7 mg/kg SW846 6010C Zinc 67.4 8.3 mg/kg SW846 6010C

### JC61667-5 SS-5

Acetone 10.2 7.2 4.6 ug/kg SW846 8260C Acenaphthylene 25.6 J 39 20 ug/kg SW846 8270D Benzo(a)anthracene 105 39 11 ug/kg SW846 8270D Benzo(a)pyrene 119 39 18 ug/kg SW846 8270D Benzo(b)fluoranthene 135 39 17 ug/kg SW846 8270D Benzo(g,h,i)perylene 70.5 39 19 ug/kg SW846 8270D Benzo(k)fluoranthene 53.6 39 18 ug/kg SW846 8270D Benzaldehyde <sup>a</sup> 15.5 J 190 9.7 ug/kg SW846 8270D Chrysene 126 39 12 ug/kg SW846 8270D Dibenzo(a,h)anthracene 17.5 J 39 17 ug/kg SW846 8270D Fluoranthene 174 39 17 ug/kg SW846 8270D Indeno(1,2,3-cd)pyrene 68.5 39 18 ug/kg SW846 8270D Arsenic 4.4 2.4 mg/kg SW846 6010C Beryllium 0.41 0.24 mg/kg SW846 6010C Chromium 29.2 1.2 mg/kg SW846 6010C Copper 19.2 3.0 mg/kg SW846 6010C Lead 28.1 2.4 mg/kg SW846 6010C Mercury 0.068 0.040 mg/kg SW846 7471B Nickel 30.7 4.9 mg/kg SW846 6010C Zinc 50.7 6.1 mg/kg SW846 6010C

#### JC61667-5R SS-5

No hits reported in this sample.

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Summary of Hits Page 3 of 7 Job Number: JC61667 Account: ATC Group Services LLC. Project: Cabot Sawmill, Sawmill Road, Cabot, VT Collected: 02/28/18

Lab Sample ID Client Sample ID Result/ Analyte Qual RL MDL Units Method JC61667-6 SS-6 Benzo(a)pyrene 37.4 J 48 22 ug/kg SW846 8270D Benzo(b)fluoranthene 42.5 J 48 21 ug/kg SW846 8270D Benzaldehyde <sup>a</sup> 34.3 J 240 12 ug/kg SW846 8270D Chrysene 46.7 J 48 15 ug/kg SW846 8270D Fluoranthene 59.7 48 21 ug/kg SW846 8270D Indeno(1,2,3-cd)pyrene 23.8 J 48 22 ug/kg SW846 8270D Phenanthrene 64.1 48 16 ug/kg SW846 8270D Pyrene 76.7 48 15 ug/kg SW846 8270D Arsenic 4.3 2.9 mg/kg SW846 6010C Beryllium 0.63 0.29 mg/kg SW846 6010C Chromium 33.3 1.5 mg/kg SW846 6010C Copper 21.5 3.7 mg/kg SW846 6010C Lead 45.2 2.9 mg/kg SW846 6010C Mercury 0.070 0.034 mg/kg SW846 7471B Nickel 34.4 5.9 mg/kg SW846 6010C Zinc 161 7.3 mg/kg SW846 6010C

## JC61667-6R SS-6

No hits reported in this sample.

## JC61667-7 SS-7

Acetone 43.2 11 6.8 ug/kg SW846 8260C Benzo(a)anthracene 16.2 J 37 10 ug/kg SW846 8270D Benzo(b)fluoranthene 17.8 J 37 16 ug/kg SW846 8270D Chrysene 16.7 J 37 12 ug/kg SW846 8270D Fluoranthene 23.6 J 37 17 ug/kg SW846 8270D Phenanthrene 15.8 J 37 12 ug/kg SW846 8270D Pyrene 29.9 J 37 12 ug/kg SW846 8270D Arsenic 4.0 2.3 mg/kg SW846 6010C Beryllium 0.33 0.23 mg/kg SW846 6010C Chromium 18.8 1.1 mg/kg SW846 6010C Copper 10.2 2.9 mg/kg SW846 6010C Lead 15.2 2.3 mg/kg SW846 6010C Nickel 20.0 4.6 mg/kg SW846 6010C Zinc 42.0 5.7 mg/kg SW846 6010C

# JC61667-7R SS-7

No hits reported in this sample.

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# Summary of Hits Page 4 of 7 Job Number: JC61667 Account: ATC Group Services LLC. Project: Cabot Sawmill, Sawmill Road, Cabot, VT Collected: 02/28/18

Lab Sample ID Client Sample ID Result/ Analyte Qual RL MDL Units Method

#### JC61667-8 SS-8

Benzaldehyde <sup>a</sup> 86.1 J 220 11 ug/kg SW846 8270D Arsenic 8.9 2.7 mg/kg SW846 6010C Beryllium 0.32 0.27 mg/kg SW846 6010C Chromium 19.8 1.3 mg/kg SW846 6010C Copper 14.2 3.3 mg/kg SW846 6010C Lead 19.5 2.7 mg/kg SW846 6010C Nickel 30.4 5.4 mg/kg SW846 6010C Zinc 56.0 6.7 mg/kg SW846 6010C

#### JC61667-8R SS-8

No hits reported in this sample.

# JC61667-9 SS-9

Acetone 105 15 9.3 ug/kg SW846 8260C Methyl Acetate 100 7.3 3.7 ug/kg SW846 8260C Toluene 4.4 1.5 0.80 ug/kg SW846 8260C m,p-Xylene 1.4 J 1.5 0.80 ug/kg SW846 8260C o-Xylene 0.55 J 1.5 0.37 ug/kg SW846 8260C Xylene (total) 2.0 1.5 0.37 ug/kg SW846 8260C Benzo(a)anthracene 62.7 52 15 ug/kg SW846 8270D Benzo(a)pyrene 64.8 52 23 ug/kg SW846 8270D Benzo(b)fluoranthene 99.0 52 23 ug/kg SW846 8270D Benzo(g,h,i)perylene 51.2 J 52 26 ug/kg SW846 8270D Benzo(k)fluoranthene 38.4 J 52 24 ug/kg SW846 8270D Benzaldehyde <sup>a</sup> 49.8 J 260 13 ug/kg SW846 8270D Chrysene 76.0 52 16 ug/kg SW846 8270D Fluoranthene 152 52 23 ug/kg SW846 8270D Indeno(1,2,3-cd)pyrene 50.3 J 52 24 ug/kg SW846 8270D Phenanthrene 79.9 52 17 ug/kg SW846 8270D Pyrene 132 52 16 ug/kg SW846 8270D Arsenic 4.1 3.4 mg/kg SW846 6010C Beryllium 0.51 0.34 mg/kg SW846 6010C Chromium 49.5 1.7 mg/kg SW846 6010C Copper 28.7 4.3 mg/kg SW846 6010C Lead 36.3 3.4 mg/kg SW846 6010C Mercury 0.052 0.034 mg/kg SW846 7471B Nickel 46.0 6.8 mg/kg SW846 6010C Zinc 71.5 8.5 mg/kg SW846 6010C

Summary of Hits Page 5 of 7 Job Number: JC61667 Account: ATC Group Services LLC. Project: Cabot Sawmill, Sawmill Road, Cabot, VT Collected: 02/28/18

## Lab Sample ID Client Sample ID Result/ Analyte Qual RL MDL Units Method JC61667-9R SS-9

No hits reported in this sample.

### JC61667-10 SS-10

Acetone 24.0 12 7.7 ug/kg SW846 8260C Acenaphthene 27.5 J 37 13 ug/kg SW846 8270D Acenaphthylene 171 37 19 ug/kg SW846 8270D Anthracene 196 37 23 ug/kg SW846 8270D Benzo(a)anthracene 921 37 10 ug/kg SW846 8270D Benzo(a)pyrene 932 37 17 ug/kg SW846 8270D Benzo(b)fluoranthene 1280 37 16 ug/kg SW846 8270D Benzo(g,h,i)perylene 605 37 18 ug/kg SW846 8270D Benzo(k)fluoranthene 554 37 17 ug/kg SW846 8270D Benzo(g,h,i)perylene 605 37 18 ug/kg SW846 8270D Carbazole 83.8 74 5.3 ug/kg SW846 8270D Chrysene 1100 37 12 ug/kg SW846 8270D Dibenzo(a,h)anthracene 179 37 16 ug/kg SW846 8270D Dibenzofuran 33.6 J 74 15 ug/kg SW846 8270D Fluoranthene 1810 37 16 ug/kg SW846 8270D Fluorene 105 37 17 ug/kg SW846 8270D Indeno(1,2,3-cd)pyrene 642 37 17 ug/kg SW846 8270D Phenanthrene 1060 37 12 ug/kg SW846 8270D Pyrene 1650 37 12 ug/kg SW846 8270D Arsenic 4.9 2.3 mg/kg SW846 6010C Beryllium 0.34 0.23 mg/kg SW846 6010C Chromium 23.5 1.1 mg/kg SW846 6010C Copper 14.8 2.9 mg/kg SW846 6010C Lead 36.1 2.3 mg/kg SW846 6010C Nickel 29.3 4.6 mg/kg SW846 6010C Zinc 59.2 5.7 mg/kg SW846 6010C

#### JC61667-10R SS-10

No hits reported in this sample.

### JC61667-11 SS-11

Acetone 42.9 7.9 5.1 ug/kg SW846 8260C Anthracene 96.4 40 25 ug/kg SW846 8270D Benzo(a)anthracene 401 40 11 ug/kg SW846 8270D Benzo(a)pyrene 391 40 18 ug/kg SW846 8270D Benzo(b)fluoranthene 532 40 18 ug/kg SW846 8270D Benzo(g,h,i)perylene 250 40 20 ug/kg SW846 8270D 8270D

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# Summary of Hits Page 6 of 7 Job Number: JC61667

Account: ATC Group Services LLC. Project: Cabot Sawmill, Sawmill Road, Cabot, VT Collected: 02/28/18

# Lab Sample ID Client Sample ID Result/ Analyte Qual RL MDL Units Method

Benzo(k)fluoranthene 205 40 19 ug/kg SW846 8270D Carbazole 19.8 J 81 5.8 ug/kg SW846 8270D Chrysene 453 40 13 ug/kg SW846 8270D Dibenzo(a,h)anthracene 77.1 40 18 ug/kg SW846 8270D Fluoranthene 708 40 18 ug/kg SW846 8270D Fluorene 29.6 J 40 19 ug/kg SW846 8270D Indeno(1,2,3-cd)pyrene 260 40 19 ug/kg SW846 8270D Phenanthrene 327 40 14 ug/kg SW846 8270D Pyrene 699 40 13 ug/kg SW846 8270D Arsenic 4.4 2.5 mg/kg SW846 6010C Beryllium 0.31 0.25 mg/kg SW846 6010C Chromium 21.3 1.2 mg/kg SW846 6010C Copper 29.5 3.1 mg/kg SW846 6010C Lead 58.3 2.5 mg/kg SW846 6010C Mercury 0.041 0.040 mg/kg SW846 7471B Nickel 30.1 5.0 mg/kg SW846

6010C Zinc 105 6.2 mg/kg SW846 6010C

# JC61667-11R SS-11

No hits reported in this sample.

# JC61667-12 SS-12

Acetone 24.9 12 7.4 ug/kg SW846 8260C m,p-Xylene 1.0 J 1.2 0.63 ug/kg SW846 8260C o-Xylene 0.45 J 1.2 0.29 ug/kg SW846 8260C Xylene (total) 1.5 1.2 0.29 ug/kg SW846 8260C Butyl benzyl phthalate 21.8 J 78 9.5 ug/kg SW846 8270D Arsenic 9.1 2.4 mg/kg SW846 6010C Beryllium 0.64 0.24 mg/kg SW846 6010C Chromium 43.0 1.2 mg/kg SW846 6010C Copper 21.1 3.0 mg/kg SW846 6010C Lead 18.7 2.4 mg/kg SW846 6010C Nickel 50.4 4.9 mg/kg SW846 6010C Zinc 54.3 6.1 mg/kg SW846 6010C

# JC61667-12R SS-12

No hits reported in this sample.

# JC61667-13 DUP

Acetone 8.5 8.5 5.5 ug/kg SW846 8260C Acenaphthylene 99.3 41 21 ug/kg SW846 8270D

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Summary of Hits Page 7 of 7 Job Number: JC61667 Account: ATC Group Services LLC. Project: Cabot Sawmill, Sawmill Road, Cabot, VT Collected: 02/28/18

# Lab Sample ID Client Sample ID Result/ Analyte Qual RL MDL Units Method

Anthracene 98.6 41 25 ug/kg SW846 8270D Benzo(a)anthracene 407 41 12 ug/kg SW846 8270D Benzo(a)pyrene 406 41 19 ug/kg SW846 8270D Benzo(b)fluoranthene 524 41 18 ug/kg SW846 8270D Benzo(g,h,i)perylene 261 41 20 ug/kg SW846 8270D Benzo(k)fluoranthene 224 41 19 ug/kg SW846 8270D Carbazole 20.6 J 82 5.9 ug/kg SW846 8270D Chrysene 476 41 13 ug/kg SW846 8270D Dibenzo(a,h)anthracene 69.7 41 18 ug/kg SW846 8270D Fluoranthene 734 41 18 ug/kg SW846 8270D Fluorene 32.0 J 41 19 ug/kg SW846 8270D Indeno(1,2,3-cd)pyrene 267 41 19 ug/kg SW846 8270D Phenanthrene 394 41 14 ug/kg SW846 8270D Pyrene 731 41 13 ug/kg SW846 8270D Arsenic 5.0 2.6 mg/kg SW846 6010C Chromium 37.3 1.3 mg/kg SW846 6010C Copper 22.9 3.2 mg/kg SW846 6010C Lead 58.0 2.6 mg/kg SW846 6010C Nickel 36.0 5.1 mg/kg SW846 6010C Zinc 114 6.4 mg/kg SW846 6010C

# JC61667-13R DUP

No hits reported in this sample.

# JC61667-14 EB

Acetone 8.0 J 10 5.0 ug/l SW846 8260C Chloroform 1.3 1.0 0.29 ug/l SW846 8260C Toluene 0.59 J 1.0 0.25 ug/l SW846 8260C

# JC61667-14R EB

No hits reported in this sample.

(a) Associated CCV outside of control limits low.

SGS North America Inc.

Dayton, NJ

Section 4

Sample Results

Report of Analysis

SGS North America Inc.

# Report of Analysis Page 1 of 3

Client Sample ID: SS-1

Lab Sample ID: JC61667-1 Date Sampled: 02/28/18

Matrix: SO - Soil Date Received: 03/02/18 Method: SW846 8270D SW846 3546 Percent Solids: 71.9

Project: Cabot Sawmill, Sawmill Road, Cabot, VT

File ID DF Analyzed By Prep Date Prep Batch Analytical Batch Run #1 M144404.D 1 03/04/18 13:50 KLS 03/03/18 05:35 OP10412 EM6129 Run #2

**Initial Weight Final Volume** Run #1 31.9 g 1.0 ml

ABN TCL List (SOM0 2.0)

Run #2

## CAS No. Compound Result RL MDL Units Q

95-57-8 2-Chlorophenol ND 87 22 ug/kg 59-50-7 4-Chloro-3-methyl phenol ND 220 27 ug/kg

120-83-2 2,4-Dichlorophenol ND 220 37 ug/kg 105-67-9 2,4-Dimethylphenol ND 220 78 ug/kg 51-28-5 2,4-Dinitrophenol ND 220 160 ug/kg 534-52-1 4,6-Dinitro-o-cresol ND 220 47 ug/kg 95-48-7 2-Methylphenol ND 87 28 ug/kg 3&4-Methylphenol ND 87 36 ug/kg 88-75-5 2-Nitrophenol ND 220 29 ug/kg 100-02-7 4-Nitrophenol ND 440 120 ug/kg 87-86-5 Pentachlorophenol ND 170 41 ug/kg 108-95-2 Phenol ND 87 23 ug/kg 58-90-2 2,3,4,6-Tetrachlorophenol ND 220 29 ug/kg 95-95-4 2,4,5-Trichlorophenol ND 220 33 ug/kg 88-06-2 2,4,6-Trichlorophenol ND 220 26 ug/kg 83-32-9 Acenaphthene ND 44 15 ug/kg 208-96-8 Acenaphthylene ND 44 22 ug/kg 98-86-2 Acetophenone ND 220 9.4 ug/kg 120-12-7 Anthracene ND 44 27 ug/kg 1912-24-9 Atrazine ND 87 19 ug/kg 56-55-3 Benzo(a)anthracene ND 44 12 ug/kg 50-32-8 Benzo(a)pyrene ND 44 20 ug/kg 205-99-2 Benzo(b)fluoranthene ND 44 19 ug/kg 191-24-2 Benzo(g,h,i)perylene ND 44 22 ug/kg 207-08-9 Benzo(k)fluoranthene ND 44 20 ug/kg 101-55-3 4-Bromophenyl phenyl ether ND 87 17 ug/kg 85-68-7 Butyl benzyl phthalate ND 87 11 ug/kg 92-52-4 1,1'-Biphenyl ND 87 6.0 ug/kg 100-52-7 Benzaldehyde <sup>a</sup> 424 220 11 ug/kg 91-58-7 2-Chloronaphthalene ND 87 10 ug/kg 106-47-8 4-Chloroaniline ND 220 16 ug/kg 86-74-8 Carbazole ND 87 6.3 ug/kg

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value RL = Reporting Limit B = Indicates analyte found in associated method blank E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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SGS North America Inc.

# Report of Analysis Page 2 of 3

Client Sample ID: SS-1

Lab Sample ID: JC61667-1 Date Sampled: 02/28/18

#### Matrix: SO - Soil Date Received: 03/02/18 Method: SW846 8270D SW846 3546 Percent Solids: 71.9

Project: Cabot Sawmill, Sawmill Road, Cabot, VT

#### ABN TCL List (SOM0 2.0)

#### CAS No. Compound Result RL MDL Units Q

105-60-2 Caprolactam ND 87 17 ug/kg 218-01-9 Chrysene ND 44 14 ug/kg 111-91-1 bis(2-Chloroethoxy)methane ND 87 9.3 ug/kg 111-44-4 bis(2-Chloroethyl)ether ND 87 19 ug/kg 108-60-1 2,2'-Oxybis(1-chloropropane) ND 87 16 ug/kg 7005-72-3 4-Chlorophenyl phenyl ether ND 87 14 ug/kg 121-14-2 2,4-Dinitrotoluene ND 44 14 ug/kg 606-20-2 2,6-Dinitrotoluene ND 44 22 ug/kg 91-94-1 3,3'-Dichlorobenzidine ND 87 36 ug/kg 123-91-1 1,4-Dioxane ND 44 29 ug/kg 53-70-3 Dibenzo(a,h)anthracene ND 44 19 ug/kg 132-64-9 Dibenzofuran ND 87 18 ug/kg 84-74-2 Di-n-butyl phthalate ND 87 7.1 ug/kg 117-84-0 Di-n-octyl phthalate ND 87 11 ug/kg 84-66-2 Diethyl phthalate ND 87 9.3 ug/kg 131-11-3 Dimethyl phthalate ND 87 7.8 ug/kg

117-81-7 bis(2-Ethylhexyl)phthalate ND 87 10 ug/kg 206-44-0 Fluoranthene 24.8 44 19 ug/kg J 86-73-7 Fluorene ND 44 20 ug/kg 118-74-1 Hexachlorobenzene ND 87 11 ug/kg 87-68-3 Hexachlorobutadiene ND 44 18 ug/kg 77-47-4 Hexachlorocyclopentadiene ND 440 17 ug/kg 67-72-1 Hexachloroethane ND 220 22 ug/kg 193-39-5 Indeno(1,2,3-cd)pyrene ND 44 20 ug/kg 78-59-1 Isophorone ND 87 9.3 ug/kg 91-57-6 2-Methylnaphthalene ND 44 9.9 ug/kg 88-74-4 2-Nitroaniline ND 220 10 ug/kg 99-09-2 3-Nitroaniline ND 220 11 ug/kg 100-01-6 4-Nitroaniline ND 220 11 ug/kg 91-20-3 Naphthalene ND 44 12 ug/kg 98-95-3 Nitrobenzene ND 87 17 ug/kg 621-64-7 N-Nitroso-di-n-propylamine ND 87 13 ug/kg 86-30-6 N-Nitrosodiphenylamine ND 220 16 ug/kg 85-01-8 Phenanthrene ND 44 15 ug/kg 129-00-0 Pyrene 25.1 44 14 ug/kg J 95-94-3 1,2,4,5-Tetrachlorobenzene ND 220 11 ug/kg

### CAS No. Surrogate Recoveries Run# 1 Run# 2 Limits

367-12-4 2-Fluorophenol 64% 23-115%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value RL = Reporting Limit B = Indicates analyte found in associated method blank E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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SGS North America Inc.

# Report of Analysis Page 3 of 3

Client Sample ID: SS-1

Lab Sample ID: JC61667-1 Date Sampled: 02/28/18

Matrix: SO - Soil Date Received: 03/02/18 Method: SW846 8270D SW846 3546 Percent Solids: 71.9

Project: Cabot Sawmill, Sawmill Road, Cabot, VT

ABN TCL List (SOM0 2.0)

CAS No. Surrogate Recoveries Run# 1 Run# 2 Limits

4165-62-2 Phenol-d5 63% 27-114% 118-79-6 2,4,6-Tribromophenol 78% 19-152% 4165-60-0 Nitrobenzene-d5 71% 26-134% 321-60-8 2-Fluorobiphenyl 75% 39-124% 1718-51-0 Terphenyl-d14 78% 36-134%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value RL = Reporting Limit B = Indicates analyte found in associated method blank E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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SGS North America Inc.

# Report of Analysis Page 1 of 1

Client Sample ID: SS-1

Lab Sample ID: JC61667-1 Date Sampled: 02/28/18

Matrix: SO - Soil Date Received: 03/02/18 Percent Solids: 71.9

Project: Cabot Sawmill, Sawmill Road, Cabot, VT

**Metals Analysis** 

# Analyte Result RL Units DF Prep Analyzed By Method Prep Method

Antimony <2.8 2.8 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Arsenic 7.3 2.8 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Beryllium 0.76 0.28 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Cadmium <0.70 0.70 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Chromium 41.3 1.4 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Lead 26.5 2.8 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Mercury 0.049 0.034 mg/kg 1 03/06/18 03/06/18 JPM SW846 7471B  $^{1}$  SW846 7471B  $^{4}$  Nickel 51.0 5.6 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Selenium <2.8 2.8 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Silver <0.70 0.70 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Selenium <2.8 2.8 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Silver <0.70 0.70 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Selenium <2.8 2.8 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Silver <0.70 0.70 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Selenium <2.8 2.8 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Chromium <2.8 2.8 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Selenium <2.8 2.8 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Chromium <2.8 2.8 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Chromium <2.8 2.8 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Chromium <2.8 2.8 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C  $^{2}$  SW846 3050B  $^{3}$  Thallium <1.4 1.4 mg/kg 1 03/05/18

03/07/18 RP SW846 6010C<sup>2</sup> SW846 3050B<sup>3</sup> Zinc 76.5 7.0 mg/kg 1 03/05/18 03/07/18 RP SW846 6010C<sup>2</sup> SW846 3050B<sup>3</sup>

(1) Instrument QC Batch: MA43942
(2) Instrument QC Batch: MA43949
(3) Prep QC Batch: MP6039
(4) Prep QC Batch: MP6052

RL = Reporting Limit

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# Report of Analysis Page 1 of 3

**Client Sample ID:** SS-2

Lab Sample ID: JC61667-2 Date Sampled: 02/28/18

Matrix: SO - Soil Date Received: 03/02/18 Method: SW846 8270D SW846 3546 Percent Solids: 67.3

Project: Cabot Sawmill, Sawmill Road, Cabot, VT

File ID DF Analyzed By Prep Date Prep Batch Analytical Batch Run #1 M144405.D 1 03/04/18 14:20 KLS 03/03/18 05:35 OP10412 EM6129 Run #2

**Initial Weight Final Volume** Run #1 31.8 g 1.0 ml Run #2

ABN TCL List (SOM0 2.0)

# CAS No. Compound Result RL MDL Units Q

95-57-8 2-Chlorophenol ND 93 23 ug/kg 59-50-7 4-Chloro-3-methyl phenol ND 230 29 ug/kg 120-83-2 2,4-Dichlorophenol ND 230 40 ug/kg 105-67-9 2,4-Dimethylphenol ND 230 83 ug/kg 51-28-5 2,4-Dinitrophenol ND 230 180 ug/kg 534-52-1 4,6-Dinitro-o-cresol ND 230 50 ug/kg 95-48-7 2-Methylphenol ND 93 30 ug/kg 3&4-Methylphenol ND 93 38 ug/kg 88-75-5 2-Nitrophenol ND 230 31 ug/kg 100-02-7 4-Nitrophenol ND 470 120 ug/kg 87-86-5 Pentachlorophenol ND 190 44 ug/kg

108-95-2 Phenol ND 93 24 ug/kg 58-90-2 2,3,4,6-Tetrachlorophenol ND 230 31 ug/kg 95-95-4 2,4,5-Trichlorophenol ND 230 35 ug/kg 88-06-2 2,4,6-Trichlorophenol ND 230 28 ug/kg 83-32-9 Acenaphthene ND 47 16 ug/kg 208-96-8 Acenaphthylene ND 47 24 ug/kg 98-86-2 Acetophenone ND 230 10 ug/kg 120-12-7 Anthracene ND 47 29 ug/kg 1912-24-9 Atrazine ND 93 20 ug/kg 56-55-3 Benzo(a)anthracene ND 47 13 ug/kg 50-32-8 Benzo(a)pyrene 21.1 47 21 ug/kg J 205-99-2 Benzo(b)fluoranthene 38.0 47 21 ug/kg J 191-24-2 Benzo(g,h,i)perylene 24.8 47 23 ug/kg J 207-08-9 Benzo(k)fluoranthene ND 47 22 ug/kg 101-55-3 4-Bromophenyl phenyl ether ND 93 18 ug/kg 85-68-7 Butyl benzyl phthalate ND 93 11 ug/kg 92-52-4 1,1'-Biphenyl ND 93 6.4 ug/kg 100-52-7 Benzaldehyde <sup>a</sup> 838 230 12 ug/kg 91-58-7 2-Chloronaphthalene ND 93 11 ug/kg 106-47-8 4-Chloroaniline ND 230 17 ug/kg 86-74-8 Carbazole ND 93 6.8 ug/kg

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value RL = Reporting Limit B = Indicates analyte found in associated method blank E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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SGS North America Inc.

# Report of Analysis Page 2 of 3

#### **Client Sample ID: SS-2**

Lab Sample ID: JC61667-2 Date Sampled: 02/28/18

Matrix: SO - Soil Date Received: 03/02/18 Method: SW846 8270D SW846 3546 Percent Solids: 67.3

Project: Cabot Sawmill, Sawmill Road, Cabot, VT

### ABN TCL List (SOM0 2.0)

#### CAS No. Compound Result RL MDL Units Q

105-60-2 Caprolactam ND 93 18 ug/kg 218-01-9 Chrysene 22.9 47 15 ug/kg J 111-91-1 bis(2-Chloroethoxy)methane ND 93 10 ug/kg 111-44-4 bis(2-Chloroethyl)ether ND 93 20 ug/kg 108-60-1 2,2'-Oxybis(1-chloropropane) ND 93 17 ug/kg 7005-72-3 4-Chlorophenyl phenyl ether ND 93 15 ug/kg 121-14-2 2,4-Dinitrotoluene ND 47 14 ug/kg 606-20-2 2,6-Dinitrotoluene ND 47 23 ug/kg 91-94-1 3,3'-Dichlorobenzidine ND 93 39 ug/kg 123-91-1 1,4-Dioxane ND 47 31 ug/kg 53-70-3 Dibenzo(a,h)anthracene ND 47 21 ug/kg 132-64-9 Dibenzofuran ND 93 19 ug/kg 84-74-2 Di-n-butyl phthalate ND 93 7.6 ug/kg 117-84-0 Di-n-octyl phthalate ND 93 12 ug/kg 84-66-2 Diethyl phthalate ND 93 10 ug/kg 131-11-3 Dimethyl phthalate ND 93 8.3 ug/kg 117-81-7 bis(2-Ethylhexyl)phthalate ND 93 11 ug/kg 206-44-0 Fluoranthene 25.1 47 21 ug/kg J 86-73-7 Fluorene ND 47 21 ug/kg 118-74-1 Hexachlorobenzene ND 93 12 ug/kg 87-68-3 Hexachlorobutadiene ND 47 19 ug/kg 77-47-4 Hexachlorocyclopentadiene ND 470 19 ug/kg 67-72-1 Hexachloroethane ND 230 23 ug/kg 193-39-5 Indeno(1,2,3-cd)pyrene 26.1 47 22 ug/kg J 78-59-1 Isophorone ND 93 10 ug/kg

91-57-6 2-Methylnaphthalene ND 47 11 ug/kg 88-74-4 2-Nitroaniline ND 230 11 ug/kg 99-09-2 3-Nitroaniline ND 230 12 ug/kg 100-01-6 4-Nitroaniline ND 230 12 ug/kg 91-20-3 Naphthalene ND 47 13 ug/kg 98-95-3 Nitrobenzene ND 93 18 ug/kg 621-64-7 N-Nitroso-di-n-propylamine ND 93 14 ug/kg 86-30-6 N-Nitroso-di-n-propylamine ND 93 14 ug/kg 85-01-8 Phenanthrene ND 47 16 ug/kg 129-00-0 Pyrene 28.4 47 15 ug/kg J 95-94-3 1,2,4,5-Tetrachlorobenzene ND 230 12 ug/kg

### CAS No. Surrogate Recoveries Run# 1 Run# 2 Limits

367-12-4 2-Fluorophenol 62% 23-115%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value RL = Reporting Limit B = Indicates analyte found in associated method blank E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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SGS North America Inc.

# Report of Analysis Page 3 of 3

**Client Sample ID:** SS-2

Lab Sample ID: JC61667-2 Date Sampled: 02/28/18

Matrix: SO - Soil Date Received: 03/02/18 Method: SW846 8270D SW846 3546 Percent Solids: 67.3

Project: Cabot Sawmill, Sawmill Road, Cabot, VT

ABN TCL List (SOM0 2.0)

#### CAS No. Surrogate Recoveries Run# 1 Run# 2 Limits

4165-62-2 Phenol-d5 60% 27-114% 118-79-6 2,4,6-Tribromophenol 69% 19-152% 4165-60-0 Nitrobenzene-d5 69% 26-134% 321-60-8 2-Fluorobiphenyl 67% 39-124% 1718-51-0 Terphenyl-d14 71% 36-134%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value RL = Reporting Limit B = Indicates analyte found in associated method blank E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

