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**REPORT ON**

**RESULTS OF THE OCTOBER 2004  
GROUNDWATER MONITORING PROGRAM  
WHITE PASS AND YUKON ROUTE  
MAINTENANCE YARD, SKAGWAY, ALASKA**

Submitted to:

White Pass & Yukon Route  
P.O. Box 435  
Skagway, Alaska  
99840

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March 1, 2005

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March 1, 2005

E/05/4647  
96-1412-853B

White Pass & Yukon Route  
P.O. Box 435  
Skagway, Alaska  
99840

Attention: Mr. Gary Danielson

**RE: REPORT ON THE OCTOBER 2004 GROUNDWATER MONITORING PROGRAM, WHITE PASS AND YUKON ROUTE MAINTENANCE YARD, SKAGWAY, ALASKA**

Dear Mr. Danielson:

This letter describes the results of the October 2004 groundwater sampling program completed at the White Pass and Yukon Route Maintenance Yard, henceforth referred to as the “Shops” or the “Site”. The October 2004 groundwater monitoring program was the second monitoring program in 2004, and was conducted in response to a request made by the Alaska Department of Environmental Conservation (ADEC) in their letter, dated February 6, 2004.

**1.0 INTRODUCTION**

Golder Associates Ltd. (Golder) was on-Site at the Shops during the period of October 19 to 23, 2004. Groundwater samples from 24 wells plus three field duplicate samples were obtained during the October 2004 field program, as follows:

- MW-1HC, MW-1AHC, MW-2HC, MW-3HC, MW4-HC;
- MW97-1, MW97-2, MW97-6 Medium, MW97-6 Deep, MW97-7 Shallow, MW97-7 Medium, MW97-7 Deep;



- MW98-1, MW98-2;
- MW00-31, MW00-32, MW00-33, MW00-34; and,
- Air Sparging (AS) wells AS-2, 4, 6, 8, 10 and 12.

The locations of monitoring wells and AS wells are shown on Figure 1. The AS wells are constructed with short screens completed roughly 50 feet below ground surface. The AS wells were intended primarily for groundwater remediation, and not for groundwater monitoring. While the AS wells are slightly deeper than optimal for monitoring of the chlorinated solvent plume, sampling of these wells in 2004 was conducted to provide additional information along the south property boundary.

Groundwater from four of the on-Site wells was not included in the monitoring program for the following reasons:

- MW97-4 and MW97-5 have been abandoned;
- MW00-35 was dry, and,
- MW97-3 has historically contained separate-phase product above the water table.

Groundwater samples collected from the monitoring wells were analyzed for gasoline range organics (GRO), diesel range organics (DRO), residual range organics (RRO) and volatile organic compounds (VOCs) by North Creek Analytical Laboratory (NCA) of Portland, Oregon. Three field duplicate samples of groundwater were collected and analyzed for quality control purposes.

## **2.0 METHODOLOGY**

During the October 2004 monitoring program groundwater samples were collected using standard Golder procedures, which have been employed for the duration of the monitoring effort at the Site and are generally consistent with ADEC guidance. At most wells, the depth to groundwater was initially measured, using a water level meter, in order to calculate the volume of water in the well. In the case of the AS wells, it was not possible to use a water level meter since a piping system is still in place in these wells. As such, the volume of water in the AS wells was estimated based on the groundwater level in adjacent wells and on installation records.

A peristaltic pump was used to remove water from each well, with 1/4 in. diameter high density polyethylene (HDPE) tubing lowered to the approximate midpoint of each well screen. Approximately three well volumes were removed with the pump set at a moderate flow rate of less than 0.5 Liters per minute (Lpm). Physical parameters consisting of pH, temperature and conductivity were monitored in real time as water was pumped through a flow-through cell. Once three well volumes were removed, or the parameters had stabilized (i.e., changes in pH, temperature and conductivity measurements between three successive readings were less than ten percent), samples were collected in pre-cleaned containers supplied by North Creek Analytical Laboratory (NCA) of Portland, Oregon. The collected samples were stored in coolers with ice and shipped to NCA under standard Golder chain-of-custody (COC) procedures.

### **3.0 RESULTS**

#### **3.1 Groundwater Elevations**

Groundwater elevations measured during the October 2004 monitoring program are shown in Table 1 and on Figure 2. The elevations shown on Figure 2 are of the shallow well installations only. Based on the elevations, the groundwater flow direction during the October 2004 monitoring program was to the south, parallel to the Skagway River. The horizontal hydraulic gradient in the shallow aquifer is estimated to have been approximately 0.008 ft./ft. during the October 2004 monitoring event. Assuming an effective porosity of 0.3, and a hydraulic conductivity of  $6.6 \times 10^{-2}$  ft./s (determined using the Hazen method as discussed in our previous report dated October 30, 2003 entitled, "*Cleanup Corrective Action, White Pass and Yukon Route Maintenance Yard, Skagway Alaska*") the average linear groundwater velocity is estimated to have been approximately 150 ft./day. Vertical hydraulic gradients, as measured at three monitoring well pairs during the October 2004 monitoring event, ranged between approximately 0.01 and 0.1 ft./ft. downward.

Groundwater elevations were measured over a three day period, during which some variation in the elevation of the water table is expected. The elevation of the water table during the October 2004 monitoring was low in comparison to past monitoring events.

#### **3.2 Product in MW97-3**

On October 21, 2004 a disposable bailer was used to determine if product was present in MW97-3. The bailer was lowered to the water table, without allowing it to become fully submerged, in order to collect a sample at the top of the water table that included separate-phase product. The bailer was brought to the surface and through visual inspection the product was estimated to be roughly 0.2 inches thick. The product was dark brown in color and had odor resembling diesel fuel.

### 3.3 Groundwater

The results of the October 2004 groundwater testing at the Shops are shown in Table 2, alongside historical data in order to assess the change in concentrations over time. Figures showing the concentrations of TCE and DRO in groundwater in samples collected during the October 2004 monitoring program are presented in Figures 3 and 4, respectively. Figures showing the historical changes of TCE and DRO concentrations in downgradient wells with time are shown in Figures 5 and 6.

Groundwater samples collected during the monitoring program from down-gradient, off-site wells MW-1HC (deep well installation), MW-1AHC (shallow well installation), and MW-4HC were below the Alaska Department of Environmental Conservation (ADEC) groundwater standards for the parameters analyzed. Detectable concentrations of cis-1, 2-Dichloroethene (DCE) and TCE were present in wells MW-1HC and MW-1AHC. TCE was also detected in well MW-4HC. The maximum TCE concentration in the off-site wells was 0.00348 mg/L (3.48 µg/L) measured in the sample collected from MW-1HC (deep well).

Groundwater samples collected from on-Site monitoring wells MW-2HC, MW97-2, MW97-6M, MW98-1 and MW00-34 exceeded the ADEC standard for TCE of 0.005 mg/L (5 µg/L). The highest concentration of TCE was measured in the sample collected from MW98-1 with a concentration of 0.029 mg/L (29.0 µg/L). Groundwater samples collected from the other on-Site wells had concentrations below the ADEC standards for the parameters analyzed.

During the October 2004 field program, groundwater samples were also collected from six of the twelve AS wells (AS-2, 4, 6, 8, 10 and 12) in order to assess the potential for off-site migration of the TCE plume. As noted above, the AS wells were designed for the remediation of groundwater with well screens that are slightly deeper than optimal for plume monitoring. Of the groundwater samples collected from the AS wells, three of the six samples were above the ADEC groundwater standard for TCE. Of the AS wells, the highest TCE concentration was detected in the groundwater sample collected from AS-2, which had a TCE concentration of 0.00948 mg/L (9.48 µg/L), which was 1.9 times the ADEC standard for TCE. The groundwater sample collected from AS-4 had a TCE concentration of 0.00525 mg/L (5.25 µg/L), which was 1.05 times the ADEC standard, and the groundwater sample collected from AS-6 had a TCE concentration of 0.00600 mg/L (6.00 µg/L), which was 1.2 times the ADEC standard. Groundwater samples collected from the six AS wells had concentrations below the ADEC standards for the other parameters analyzed.

### **3.4 Quality Assurance/Quality Control**

As part of the October 2004 monitoring program duplicate groundwater samples were collected from wells MW97-2, MW97-6M and MW98-1 for quality assurance and quality control (QA/QC). The results of the duplicate sample analysis are shown in Table 3 along with the calculated relative percent differences (RPD). As shown the calculated RPD values were well below the acceptable limit for groundwater of 20 percent.

### **4.0 STATISTICAL TREND ANALYSIS**

The groundwater chemistry provides a means to assess water quality trends for the same point in an aquifer through time. However, the chemistry results are subject to variability because of factors other than real changes occurring in the contaminant plume. Such factors may include, for example, subtle changes in sample acquisition techniques or laboratory protocols, variation caused by seasonal or other cycles, and correlated data which can occur when successive data are collected over a relatively short period of time. The consequent variability must be addressed and/or accounted for in order to establish significant or real trends in aquifer conditions.

Statistical analysis was performed on the collective chemistry data set of TCE concentrations in groundwater between January 1999 and October 2004. This data set represents the groundwater chemistry data collected by Golder since the remedial excavation was conducted at the Site during the Fall of 1998. The Mann-Kendall non-parametric test for trend is considered to test the null hypothesis of no trend, versus the alternative hypothesis of a significant trend. For this assessment, the ten percent significance level was selected to infer a significant trend or, in other words, there should be less than a ten percent chance that the statistical inference of trend is incorrect. This test uses the relative magnitudes of the data (i.e. increase or decrease in concentration), as opposed to using actual concentrations. For results reported as being below the laboratory detection limits, half of the detection limit was used for the test. For samples where a field duplicate was collected, the average of the two values was used. Statistical analysis was not conducted for wells where the TCE concentration in groundwater is typically below laboratory detection limits.

The results of the statistical Mann-Kendall test for trend are presented in Table 4 and on Figure 3. Locations where the probability ( $p$ ) was less than or equal to ten percent were indicated to define either a significant upward or downward trend. As shown, four locations (MW-1AHC, MW97-1, MW-3HC and MW00-33) were determined to have a downward trend of TCE concentrations in groundwater; one location (MW98-1) was determined to have an increasing trend of TCE concentrations in groundwater, and nine locations were determined to have no significant trends of TCE concentrations in groundwater.

## 5.0 DISCUSSION AND RECOMMENDATIONS

The October 2004 monitoring indicated that the TCE groundwater concentrations in off-site wells were below the ADEC standard, as they had been during previous monitoring in 2004. The results of the statistical Mann-Kendall test for trend indicated that concentrations of TCE in off-site wells are either decreasing (i.e. MW-1HC) or remaining fairly constant over time (i.e. MW-1AHC and MW-4HC) since the remedial excavation was conducted in Fall 1998. On-Site, results of the Mann-Kendall test for trend indicated overall that concentrations of TCE were either decreasing (MW-97-1, MW-3HC and MW00-33) or showed no significant changes over time since the remedial excavation was conducted in Fall 1998. One exception to this was at MW98-1 where statistical analysis indicated that the concentration of TCE in groundwater has increased over time since Fall 1998. Further investigation (i.e. test-pitting) of this area is scheduled in 2005 in order to determine if soil in this area is impacted.

The historical concentrations of DRO in groundwater for five wells (MW-1HC, MW-1AHC, MW-2HC, MW97-1 and MW97-6) are shown in Figure 6. As shown in Figure 6, the DRO concentrations in groundwater at the off-site well MW-1AHC were relatively low in 2000, increased in 2001, and then have decreased since that time. The concentrations of DRO in groundwater at MW-1AHC were below the laboratory detection limit on both monitoring events in 2004.

During both monitoring events in 2004, only a thin product layer (0.2 inches) was measured in monitoring well MW97-3. Based on the relatively small thickness and viscous nature of the product, it is not considered practical to recover product from this well. As discussed in our previous monitoring report, dated September 16, 2004, entitled "*Current Status of the Cleanup Corrective Action, White Pass and Yukon Route Maintenance Yard, Skagway Alaska*", TCE was not detected during the chemical analysis of the product and therefore the product in MW97-3 is unlikely to represent a significant source for the TCE-impacted groundwater plume. The monitoring of the thickness of product in MW97-3 will be continued in 2005.

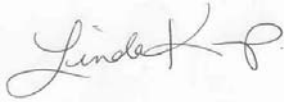
The AS wells, located near the south property boundary, provided useful information on the chlorinated solvent plume delineation. Of the samples collected from the AS wells, the highest TCE concentration in groundwater was measured in the sparge well located at the western end of the line of AS wells (AS-2). The two other sparge wells for which the concentration of TCE in groundwater slightly exceeded the ADEC standard were also located on the west end of the line of sparge wells. In these AS wells, the concentration of cis-1,2-dichloroethene in groundwater was also elevated, suggesting that biotransformation and natural attenuation of the TCE plume is occurring.

Although re-instatement of the Soil Vapor Extraction (SVE) and AS system had been planned for Summer 2004, based on the current groundwater chemistry data, it is not clear whether re-instatement of the SVE/AS system is required at this time to meet remedial objectives.

We trust that this report provides you the information you require at this time. Should you have any further questions or concerns, please do not hesitate to call the undersigned (direct line 604-296-4233).

Yours very truly,

**GOLDER ASSOCIATES LTD.**



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**Water Level Elevations, October 2004  
Maintenance Yard Shops, Skagway, AK  
White Pass & Yukon Route**

Monitoring Well Location	TOC Elevation (ft) <sup>(2)</sup>	Depth to Water (ft) <sup>(3)</sup>	Water Table Elevation (ft)
MW-1A <sup>HC</sup>	69.17	7.82	61.35
MW-1 <sup>HC</sup>	68.93	14.12	54.81
MW-2 <sup>HC</sup>	76.94	11.14	65.80
MW-3 <sup>HC</sup>	75.14	6.59	68.55
MW-4 <sup>HC</sup>	-	7.73	-
MW97-1	74.72	10.65	64.07
MW97-2	77.02	10.07	66.95
MW97-6M	76.80	11.42	65.38
MW97-6D	76.82	13.22	63.60
MW97-7S	74.24	10.04	64.20
MW97-7M	73.65	9.71	63.94
MW97-7D	73.61	9.94	63.67
MW98-1	76.64	9.88	66.76
MW98-2	87.22	12.80	74.42
MW00-31	88.46	16.24	72.22
MW00-32	83.98	12.75	71.23
MW00-33	83.36	12.76	70.60

**Notes:**

1. 0.2 inch layer of product was detected at MW97-3
2. TOC = Top of Well Casing
3. Depth to Water Measured from TOC
4. Water level measurements recorded during October 2004 groundwater sampling program

**TABLE 2**  
**Results of Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location SCN Date QA/QC	STANDARD <sup>1</sup>	MW-1AHC	MW-1AHC	MW-1AHC	MW-1AHC	MW-1AHC	MW-1A HC	MW-1A HC	MW-1A HC	MW-1AHC	MW-1AHC	MW-1AHC	MW-1AHC	MW-1AHC	MW-1HC	MW-1HC	MW-1HC	MW-1HC	MW-1HC	MW-1 HC	MW-1 HC
		0840-01 23-Aug-97 FDA	A9800524-14 29-Jul-98	A9900238-3 10-Jun-99	A9900715-1 24-Sep-99	A9900854-3 2-Nov-99	P005200-02 6-May-00	P0K0452-02 14-Nov-00	0862-01 28-Jun-01	0886-12 12-Oct-01	0903-01 19-Sep-02	8220-03 15-Sep-03	9029-04 29-May-04	041021-04 21-Oct-04	0840-03 23-Aug-97	A9800524-15 29-Jul-98	A9900238-2 10-Jun-99 FDA	A9900715-2 24-Sep-99 FDA	A9900854-2 2-Nov-99	P005200-01 6-May-00	P005488-01 20-May-00 FDA
<b>BTEX</b>																					
Benzene	0.005	-	0.046	0.005	ND (0.001)	ND (0.001)	-	ND (0.0005)	0.000531	ND (0.0003)	0.000618	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	-	-
Ethylbenzene	0.7	-	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	-	-
Toluene	1.0	-	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	-	-
Xylene (total m.p.o)	10.0	-	0.001	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	-	-
<b>Petroleum Hydrocarbons</b>																					
Diesel Range Organics (DRO)	1.5	-	0.84	0.63	ND (0.1)	0.22	ND (0.250)	0.999	0.817	0.510	0.321	0.28	ND (0.320)	ND (0.435)	-	ND (0.1)	0.15	ND (0.1)	0.11	-	ND (0.250)
Gasoline Range Organics (GRO)	1.3*	-	0.187	ND (0.050)	ND (0.05)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	-	ND (0.05)	ND (0.050)	ND (0.05)	ND (0.05)	ND (0.08)	-
Residual Range Organics (RRO)	1.1	-	-	ND (1)	ND (1.0)	ND (1.0)	ND (0.500)	-	-	-	-	-	ND (0.400)	ND (0.522)	-	-	ND (1)	ND (1.0)	ND (1.0)	-	ND (0.500)
<b>Volatile Organic Compounds (VOCs)</b>																					
Benzene	0.005	0.0343	0.041	0.0043	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	-
1,1-Dichloroethane	3.65	0.0015	0.0021	0.0013	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	0.0005	ND (0.0005)	ND (0.0005)	ND (0.001)	-
1,1-Dichloroethene	0.007	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	-
cis-1,2-Dichloroethene	0.07	0.0067	0.011	0.0091	0.0016	0.0014	0.00313	0.0047	0.00791	0.00505	0.0086	0.00872	0.00317	0.00403	ND (0.0005)	ND (0.0005)	0.0034	0.0012	0.0008	0.00179	-
Ethylbenzene	0.7	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	-
Methylene Chloride	0.005	ND (0.0005)	ND (0.005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0005)	ND (0.005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	-
Naphthalene	0.7	ND (0.0005)	0.006	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.001)	ND (0.002)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.0005)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.001)	-
Styrene	0.1	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	-
Tetrachloroethene (PCE)	0.005	0.0045	ND (0.0005)	ND (0.0005)	0.0013	0.0016	0.00191	ND (0.001)	ND (0.001)	ND (0.00027)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	0.0006	0.0014	0.0011	0.0009	0.00116	-
Toluene	1.0	ND (0.0005)	0.0005	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	-
1,1,1-Trichloroethane (TCA)	0.2	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	-
Trichloroethene (TCE)	0.005	0.0038	0.0014	0.0039	0.0032	0.0034	0.00543	0.00199	0.00293	0.00245	0.00222	0.00219	0.00202	0.00209	ND (0.0005)	0.0008	0.0054	0.0029	0.0022	0.00471	-
Vinyl Chloride	0.002	0.0007	0.0015	0.001	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	-
Total Xylene [Calc.]	10.0	ND (0.0005)	ND (0.0005)	[ND (0.001)]	0.001	[ND (0.001)]	[ND (0.003)]	ND (0.003)	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.0005)	ND (0.0005)	[ND (0.001)]	ND (0.0005)	[ND (0.001)]	[ND (0.003)]	-

**Notes:**  
 All concentrations are in milligrams per litre (mg/L).  
 ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.  
 \*Standard based on estimated solubility.  
 1. Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.  
 2. Data reported from Analytical Laboratory & Consultants, Oregon Lab Reports #81714 through 81720 and 81126 through 81133 (Aug. 1997); Analytica Alaska Inc. Order A7-09-046 and Analytical Environmental Laboratory Order 97-09-069 (Sept. 1997); Columbia Analytical Services Inc., Anchorage, AK Service Request Orders A9800683 (Sept. 1998), A9800524 (July 1998), A9900271 and A9900238 (June 1999), A9900715 (Sept. 1999), and A9900854 (Nov. 1999); and North Creek Analytical, Portland, OR Files P005200 and P005488 (May 2000), P0K0452 (Nov. 2000), P1J0346 and P1J0528 (Oct. 2001), P2I0604 (Sept. 2002), P3I0738 (Sept. 2003), P4F0112, P4F0225, and P4F0455 (June 2004), P4J1121, P4J1122, and P4J1123 (Oct. 2004).

**TABLE 2**  
**Results of Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location	SCN Date QA/QC	STANDARD <sup>1</sup>	MW-1 HC	MW1 HC	MW-1 HC	MW-1HC	MW-1HC	MW-1HC	MW-1HC	MW-1HC	MW-2HC	MW-2HC	MW-2HC	MW-2HC	MW-2HC	MW-2HC	MW-2HC	MW-2HC	MW-2HC	MW-2HC	MW-2HC	
			P0K0452-01 14-Nov-00	0862-02 28-Jun-01 FDA	0862-03 28-Jun-01 FD	0886-11 12-Oct-01	0903-02 19-Sep-02	8220-02 15-Sep-03	9029-03 28-May-04	041021-03 21-Oct-04	0839-02 6-Aug-97	A9800524-4 30-Jul-98	A9900271-10 15-Jun-99	A9900854-13 2-Nov-99	P005200-03 8-May-00	P0K0452-03 14-Nov-00	0862-05 28-Jun-01	0886-01 11-Oct-01	0903-12 20-Sep-02	8220-10 16-Sep-03	9029-09 1-Jun-04	041022-04 22-Oct-04
<b>BTEX</b>																						
Benzene		0.005	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0003)	0.000729	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Ethylbenzene		0.7	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Toluene		1.0	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Xylene (total m,p,o)		10.0	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	-
<b>Petroleum Hydrocarbons</b>																						
Diesel Range Organics (DRO)		1.5	0.321	ND (0.250)	ND (0.250)	ND (0.250)	ND (0.250)	ND (0.250)	ND (0.320)	ND (0.417)	-	3.2	2.34	11.8	2.46	1.27	0.832	0.836	0.299	0.684	ND (0.320)	ND (0.435)
Gasoline Range Organics (GRO)		1.3*	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	-	0.056	ND (0.050)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)
Residual Range Organics (RRO)		1.1	-	-	-	-	-	-	ND (0.400)	ND (0.500)	-	-	ND (1)	1.8	ND (0.500)	-	-	-	-	-	ND (0.400)	ND (0.522)
<b>Volatile Organic Compounds (VOCs)</b>																						
Benzene		0.005	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.0007	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethane		3.65	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.0234	0.016	0.0018	0.0007	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethene		0.007	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	0.0016	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
cis-1,2-Dichloroethene		0.07	0.00273	0.00387	0.00374	0.0036	0.00432	0.00324	0.00121	0.00163	0.0271	0.038	0.027	0.0068	0.0283	0.0247	0.0375	0.0379	0.0349	0.0278	0.00751	0.0135
Ethylbenzene		0.7	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Methylene Chloride		0.005	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0005)	ND (0.005)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Naphthalene		0.7	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.0005)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.001)	ND (0.002)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Styrene		0.1	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Tetrachloroethene (PCE)		0.005	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00027)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.0318	0.0068	0.0027	0.0016	0.00201	0.00113	ND (0.001)	ND (0.00027)	ND (0.001)	ND (0.001)	0.00126	ND (0.001)
Toluene		1.0	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1,1-Trichloroethane (TCA)		0.2	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.0672	0.021	0.0011	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Trichloroethene (TCE)		0.005	0.00331	0.00505	0.00498	0.0056	0.00566	0.00725	0.00256	0.00348	0.0585	0.027	0.023	0.0016	0.0244	0.00947	0.013	0.0117	0.0164	0.0159	0.00817	0.0133
Vinyl Chloride		0.002	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Total Xylene [Calc.]		10.0	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.001)	ND (0.003)	ND (0.0005)	ND (0.0005)	[ND (0.001)]	[ND (0.001)]	[ND (0.003)]	ND (0.003)	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.001)	ND (0.003)

**Notes:**  
 All concentrations are in milligrams per litre (mg/L).  
 ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.  
 \*Standard based on estimated solubility.  
 1. Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.  
 2. Data reported from Analytical Laboratory & Consultants, Oregon Lab Reports #81714 through 81720 and 81126 through 81133 (Aug. 1997); Analytica Alaska Inc. Order A7-09-046 and Analytical Environmental Laboratory Order 97-09-069 (Sept. 1997); Columbia Analytical Services Inc., Anchorage, AK Service Request Orders A9800683 (Sept. 1998), A9800524 (July 1998), A9900271 and A9900238 (June 1999), A9900715 (Sept. 1999), and A9900854 (Nov. 1999); and North Creek Analytical, Portland, OR Files P005200 and P005488 (May 2000), P0K0452 (Nov. 2000), P1J0346 and P1J0528 (Oct. 2001), P2I0604 (Sept. 2002), P3I0738 (Sept. 2003), P4F0112, P4F0225, and P4F0455 (June 2004), P4J1121, P4J1122, and P4J1123 (Oct. 2004).

**TABLE 2**  
**Results of Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location	SCN Date QA/QC	MW-3HC								MW-4HC										
		0839-01 6-Aug-97	A9800524-13 30-Jul-98	A9900238-6 10-Jun-99	A9900854-6 2-Nov-99	P005200-04 8-May-00	P0K0452-04 14-Nov-00	9030-03 2-Jun-04	041020-05 20-Oct-04	0839-04 6-Aug-97	A9800524-16 29-Jul-98	A9900238-1 10-Jun-99	A9900854-1 2-Nov-99	P005200-05 6-May-00	0862-11 29-Jun-01	0885-01 5-Oct-01	0903-03 19-Sep-02	8220-01 15-Sep-03	9029-01 28-May-04	041021-01 21-Oct-04
<b>STANDARD<sup>1</sup></b>																				
<b>BTEX</b>																				
Benzene	0.005	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Ethylbenzene	0.7	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Toluene	1.0	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Xylene (total m.p.o)	10.0	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.001)	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	-
<b>Petroleum Hydrocarbons</b>																				
Diesel Range Organics (DRO)	1.5	-	0.37	ND (0.1)	ND (0.1)	ND (0.250)	ND (0.250)	ND (0.320)	ND (0.417)	-	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.250)	ND (0.250)	ND (0.125)	ND (0.250)	ND (0.250)	ND (0.320)	ND (0.435)
Gasoline Range Organics (GRO)	1.3*	-	0.087	ND (0.050)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	-	ND (0.05)	ND (0.050)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)
Residual Range Organics (RRO)	1.1	-	-	ND (1)	ND (1.0)	ND (0.500)	-	ND (0.400)	ND (0.500)	-	-	ND (1)	ND (1.0)	ND (0.500)	-	-	-	-	ND (0.400)	ND (0.522)
<b>Volatile Organic Compounds (VOCs)</b>																				
Benzene	0.005	ND (0.0005)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	0.0008	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethane	3.65	ND(0.0005)	0.002	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.0006	0.0006	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethene	0.007	ND (0.0005)	0.013	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
cis-1,2-Dichloroethene	0.07	0.0020	0.006	0.0088	0.0067	0.00668	0.00351	0.0011	ND (0.001)	0.0011	0.0010	ND (0.0005)	0.0006	0.00112	0.00228	0.00152	0.00118	0.00168	ND (0.001)	ND (0.001)
Ethylbenzene	0.7	ND (0.0005)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Methylene Chloride	0.005	ND (0.0005)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0005)	ND (0.005)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Naphthalene	0.7	ND(0.0005)	ND (0.004)	ND (0.002)	ND (0.002)	ND (0.001)	ND (0.002)	ND (0.002)	ND (0.002)	ND(0.0005)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.001)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Styrene	0.1	ND (0.0005)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Tetrachloroethene (PCE)	0.005	0.0460	0.12	0.014	0.015	0.00938	0.0134	0.00318	0.00294	0.0011	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.00027)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Toluene	1.0	ND (0.0005)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1,1-Trichloroethane (TCA)	0.2	ND(0.0005)	0.11	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.0005	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Trichloroethene (TCE)	0.005	0.0124	0.044	0.03	0.015	0.0183	0.0073	0.00179	ND (0.001)	0.0124	0.0037	ND (0.0005)	0.0014	0.00235	0.00424	0.00228	0.00227	0.00338	0.00211	0.00167
Vinyl Chloride	0.002	ND(0.0005)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND(0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Total Xylene [Calc.]	10.0	ND (0.0005)	ND (0.001)	[ND (0.001)]	[ND (0.001)]	[ND (0.003)]	ND (0.003)	ND (0.001)	ND (0.003)	ND (0.0005)	ND (0.0005)	[ND (0.001)]	[ND (0.001)]	[ND (0.003)]	[ND (0.003)]	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.001)	ND (0.003)

**Notes:**  
 All concentrations are in milligrams per litre (mg/L).  
 ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.  
 \*Standard based on estimated solubility.  
 1. Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.  
 2. Data reported from Analytical Laboratory & Consultants, Oregon Lab Reports #81714 through 81720 and 81126 through 81133 (Aug. 1997); Analytica Alaska Inc. Order A7-09-046 and Analytical Environmental Laboratory Order 97-09-069 (Sept. 1997); Columbia Analytical Services Inc., Anchorage, AK Service Request Orders A9800683 (Sept. 1998), A9800524 (July 1998), A9900271 and A9900238 (June 1999), A9900715 (Sept. 1999), and A9900854 (Nov. 1999); and North Creek Analytical, Portland, OR Files P005200 and P005488 (May 2000), P0K0452 (Nov. 2000), P1J0346 and P1J0528 (Oct. 2001), P2I0604 (Sept. 2002), P3I0738 (Sept. 2003), P4F0112, P4F0225, and P4F0455 (June 2004), P4J1121, P4J1122, and P4J1123 (Oct. 2004).

**TABLE 2**  
**Results of Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location	SCN	Date	QA/QC	MW-5HC	MW97-1	MW97-1	MW97-1	MW97-1	MW97-1	MW97-1	MW97-1	MW97-1	MW97-1	MW97-1	MW97-1	MW97-1	MW97-1	MW97-1	MW97-1
				0839-03 6-Aug-97	A709046-01 6-Sep-97	A9800524-7 30-Jul-98	A9900271-7 15-Jun-99	A9900854-10 2-Nov-99	P005200-06 8-May-00	POK0452-05 14-Nov-00	0862-04 28-Jun-01	0886-09 11-Oct-01	0886-10 11-Oct-01	0905-02 20-Sep-02	0903-03 20-Sep-02	8221-05 16-Sep-03	8221-06 16-Sep-03	9030-06 3-Jun-04	9030-07 3-Jun-04
<b>BTEX</b>																			
Benzene	0.005	-	-	-	0.13	0.045	ND (0.001)	-	0.0148	0.00465	0.00568	0.00468	0.00156	0.00153	0.00239	0.00252	0.00261	0.0026	-
Ethylbenzene	0.7	-	-	0.27	0.2	ND (0.001)	-	0.0108	0.0476	0.0603	0.0568	0.0295	0.0274	0.0193	0.0201	0.0117	0.0125	-	-
Toluene	1.0	-	-	0.12	0.046	ND (0.001)	-	0.0981	0.0037	0.00584	0.00479	0.000828	0.000718	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-
Xylene (total m,p,o)	10.0	-	-	0.750	0.58	ND (0.001)	-	0.141	0.0257	0.0514	0.0384	0.00277	0.00234	0.00163	0.00193	ND (0.001)	ND (0.001)	-	-
<b>Petroleum Hydrocarbons</b>																			
Diesel Range Organics (DRO)	1.5	-	-	8.4	1.3	5.04	7.1	4.1	2.82	2.92	2.37	2.64	1.71	1.67	1.07	1.22	2.98	2.96	1.48
Gasoline Range Organics (GRO)	1.3*	-	-	3.4	1.8	1.45	0.664	1.36	0.464	1.47	1.19	0.322	0.295	0.315	0.34	ND (0.08)	ND (0.08)	0.0858	-
Residual Range Organics (RRO)	1.1	-	-	-	-	ND (1)	1.0	ND (0.500)	-	-	-	-	-	-	-	-	3.57	ND (0.400)	ND (0.522)
<b>Volatile Organic Compounds (VOCs)</b>																			
Benzene	0.005	ND (0.0005)	0.430	0.17	0.044	0.032	0.0118	0.0113	0.00406	0.00294	0.00294	0.00104	0.00106	ND (0.001)	ND (0.001)	0.00208	0.00212	0.00115	-
1,1-Dichloroethane	3.65	ND (0.0005)	ND (0.05)	0.0082	ND (0.005)	0.0015	ND (0.001)	ND (0.005)	ND (0.001)	ND (0.000214)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethene	0.007	ND (0.0005)	ND (0.05)	ND (0.0025)	ND (0.005)	ND (0.0005)	ND (0.001)	ND (0.005)	ND (0.001)	ND (0.000151)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
cis-1,2-Dichloroethene	0.07	ND (0.0005)	ND (0.03)	0.0056	0.016	0.0043	0.00803	ND (0.005)	0.00762	0.00517	0.00528	0.00652	0.00651	0.00593	0.00703	0.00394	0.00425	0.00559	-
Ethylbenzene	0.7	ND (0.0005)	0.450	0.280	0.26	0.11	0.134	0.103	0.0544	0.0619	0.0604	0.0283	0.0288	0.0194	0.0188	0.0108	0.0111	0.00584	-
Methylene Chloride	0.005	ND (0.0005)	0.022	ND (0.005)	ND (0.01)	ND (0.001)	ND (0.005)	ND (0.025)	ND (0.005)	ND (0.002)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Naphthalene	0.7	ND (0.0005)	0.051	0.030	0.038	0.022	0.0321	0.0221	0.00603	0.0108	0.00963	0.00449	0.00463	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Styrene	0.1	ND (0.0005)	ND (0.03)	ND (0.0025)	0.0051	ND (0.0005)	ND (0.001)	ND (0.005)	ND (0.001)	ND (0.000154)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Tetrachloroethene (PCE)	0.005	ND (0.0005)	ND (0.03)	ND (0.0025)	ND (0.005)	0.0008	ND (0.001)	ND (0.005)	ND (0.001)	ND (0.00027)	ND (0.00027)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Toluene	1.0	ND (0.0005)	0.640	0.13	0.051	0.023	0.00697	0.00945	0.00329	0.00333	0.00313	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1,1-Trichloroethane (TCA)	0.2	ND (0.0005)	ND (0.05)	ND (0.0025)	ND (0.005)	ND (0.0005)	ND (0.001)	ND (0.005)	ND (0.001)	ND (0.0001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Trichloroethene (TCE)	0.005	ND (0.0005)	ND (0.03)	ND (0.0025)	ND (0.005)	0.0019	0.00341	ND (0.005)	0.00458	0.00163	0.00174	0.00211	0.00203	0.0012	0.00123	0.00193	0.00187	0.00125	-
Vinyl Chloride	0.002	ND (0.0005)	ND (0.02)	0.0037	0.015	0.0018	0.00924	ND (0.005)	0.00411	0.00226	0.00225	0.00426	0.00423	0.0043	0.00451	0.00143	0.00138	0.00149	-
Total Xylene [Calc.]	10.0	ND (0.0005)	[1.6]	0.770	[0.83]	[0.214]	[0.1948]	0.138	0.02686	0.046	0.0381	ND (0.003)	0.00136	0.00458	0.0045	0.00154	ND (0.001)	ND (0.003)	-

**Notes:**

All concentrations are in milligrams per litre (mg/L).  
 ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.

\*Standard based on estimated solubility.

- Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.
- Data reported from Analytical Laboratory & Consultants, Oregon Lab Reports #81714 through 81720 and 81126 through 81133 (Aug. 1997); Analytica Alaska Inc. Order A7-09-046 and Analytical Environmental Laboratory Order 97-09-069 (Sept. 1997); Columbia Analytical Services Inc., Anchorage, AK Service Request Orders A9800683 (Sept. 1998), A9800524 (July 1998), A9900271 and A9900238 (June 1999), A9900715 (Sept. 1999), and A9900854 (Nov. 1999); and North Creek Analytical, Portland, OR Files P005200 and P005488 (May 2000), POK0452 (Nov. 2000), P1J0346 and P1J0528 (Oct. 2001), P2I0604 (Sept. 2002), P3I0738 (Sept. 2003), P4F0112, P4F0225, and P4F0455 (June 2004), P4J1121, P4J1122, and P4J1123 (Oct. 2004).

**TABLE 2**  
**Results of Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location	SCN	Date	QA/QC	STANDARD <sup>1</sup>	MW97-2	MW97-2	MW97-2	MW97-2	MW97-2	MW97-2	MW97-2	MW97-2	MW97-2	MW97-2	MW97-2	MW97-2	MW97-2	MW97-2	MW97-3	MW97-4	MW97-4		
					A709046-02	A9800524-11	A9900271-9	A9900854-17	P005200-07	P005488-03	P0K0452-06	0862-07	0885-08	0903-09	8220-09	9030-04	041022-05	041022-06	A709046-03	A709046-04	A9800524-9		
					6-Sep-97	30-Jul-98	15-Jun-99	2-Nov-99	5-May-00	20-May-00	14-Nov-00	29-Jun-01	8-Oct-01	19-Sep-02	16-Sep-03	2-Jun-04	22-Oct-04	22-Oct-04	6-Sep-97	6-Sep-97	30-Jul-98		
						FDA		FD	FDA							FDA	FD						
<b>BTEX</b>																							
Benzene				<b>0.005</b>	-	ND (0.001)	ND (0.001)	ND (0.001)	-	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	-	-	ND (0.001)		
Ethylbenzene				<b>0.7</b>	-	ND (0.001)	ND (0.001)	ND (0.001)	-	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	-	-	ND (0.001)		
Toluene				<b>1.0</b>	-	ND (0.001)	ND (0.001)	ND (0.001)	-	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	-	-	ND (0.001)		
Xylene (total m,p,o)				<b>10.0</b>	-	ND (0.001)	ND (0.001)	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	-	-	-	-	ND (0.001)		
<b>Petroleum Hydrocarbons</b>																							
Diesel Range Organics (DRO)				<b>1.5</b>	<b>6.8</b>	0.91	<b>1.87</b>	<b>6.74</b>	-	<b>3.02</b>	0.327	0.474	0.368	0.441	ND (0.250)	0.508	ND (0.417)	ND (0.400)	<b>3.1</b>	<b>1.8</b>	0.74		
Gasoline Range Organics (GRO)				<b>1.3*</b>	-	0.051	0.06	0.071	0.238	-	ND (0.08)	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	-	-	ND (0.05)		
Residual Range Organics (RRO)				<b>1.1</b>	-	-	<b>7.5</b>	<b>24.2</b>	-	<b>12.3</b>	-	-	-	-	0.956	ND (0.500)	ND (0.480)	-	-	-	-		
<b>Volatile Organic Compounds (VOCs)</b>																							
Benzene				<b>0.005</b>	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	<b>0.0058</b>	ND (0.0005)	
1,1-Dichloroethane				<b>3.65</b>	ND (0.005)	0.004	0.0009	ND (0.0005)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.0005)	
1,1-Dichloroethene				<b>0.007</b>	ND (0.005)	0.0021	ND (0.0005)	ND (0.0005)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.0005)	
cis-1,2-Dichloroethene				<b>0.07</b>	0.0100	0.021	0.026	0.0073	0.0183	-	0.0152	0.0244	0.0197	0.0154	0.0157	0.00635	0.00902	0.00954	ND (0.003)	0.066	0.0025	ND (0.003)	0.0025
Ethylbenzene				<b>0.7</b>	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.0035	ND (0.0005)
Methylene Chloride				<b>0.005</b>	ND (0.01)	ND (0.005)	ND (0.001)	ND (0.001)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.001)	<b>0.012</b>	0.0023	ND (0.001)	
Naphthalene				<b>0.7</b>	ND (0.005)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.001)	-	ND (0.002)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.005)	0.011	ND (0.002)	
Styrene				<b>0.1</b>	ND (0.003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.003)	ND (0.003)	ND (0.0005)	
Tetrachloroethene (PCE)				<b>0.005</b>	<b>0.014</b>	<b>0.017</b>	<b>0.0057</b>	<b>0.011</b>	0.0046	-	0.00416	0.00375	0.00323	0.00335	0.00256	0.00183	0.00239	0.00248	<b>0.083</b>	<b>0.036</b>	<b>0.01</b>	ND (0.0005)	
Toluene				<b>1.0</b>	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.015	ND (0.0005)	
1,1,1-Trichloroethane (TCA)				<b>0.2</b>	0.021	0.025	0.0009	0.0006	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.063	ND (0.005)	ND (0.0005)	
Trichloroethene (TCE)				<b>0.005</b>	<b>0.016</b>	<b>0.047</b>	<b>0.06</b>	0.0048	<b>0.0374</b>	-	<b>0.0185</b>	<b>0.0349</b>	<b>0.0255</b>	<b>0.0372</b>	<b>0.0303</b>	<b>0.0104</b>	<b>0.0163</b>	<b>0.0173</b>	<b>0.019</b>	<b>0.013</b>	<b>0.012</b>	ND (0.0005)	
Vinyl Chloride				<b>0.002</b>	ND (0.002)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.002)	ND (0.002)	ND (0.0005)	
Total Xylene [Calc.]				<b>10.0</b>	[ND (0.002)]	ND (0.0005)	[ND (0.001)]	[ND (0.001)]	[ND (0.003)]	-	ND (0.003)	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.001)	ND (0.003)	ND (0.003)	[ND (0.002)]	[0.113]	ND (0.0005)	ND (0.0005)	

**Notes:**  
 All concentrations are in milligrams per litre (mg/L).  
 ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.  
 \*Standard based on estimated solubility.  
 1. Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.  
 2. Data reported from Analytical Laboratory & Consultants, Oregon Lab Reports #81714 through 81720 and 81126 through 81133 (Aug. 1997); Analytica Alaska Inc. Order A7-09-046 and Analytical Environmental Laboratory Order 97-09-069 (Sept. 1997); Columbia Analytical Services Inc., Anchorage, AK Service Request Orders A9800683 (Sept. 1998), A9800524 (July 1998), A9900271 and A9900238 (June 1999), A9900715 (Sept. 1999), and A9900854 (Nov. 1999); and North Creek Analytical, Portland, OR Files P005200 and P005488 (May 2000), P0K0452 (Nov. 2000), P1J0346 and P1J0528 (Oct. 2001), P2I0604 (Sept. 2002), P3I0738 (Sept. 2003), P4F0112, P4F0225, and P4F0455 (June 2004), P4J1121, P4J1122, and P4J1123 (Oct. 2004).

**TABLE 2**  
**Results of Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location	SCN Date QA/QC	MW97-5	MW97-5	MW97-5	MW97-5	MW97-5	MW97-6M	MW97-6M	MW97-6M	MW97-6M	MW97-6M	MW97-6M	MW97-6M	MW97-6M	MW97-6M	MW97-6M	MW97-6M	MW97-6M	MW97-6M
		A709046-05 6-Sep-97 FDA	A9800524-8 30-Jul-98 FDA	A9900271-6 15-Jun-99	A9900854-15 2-Nov-99	P005200-08 5-May-00	A709046-07 6-Sep-97	A9800524-3 30-Jul-98	A9900271-11 15-Jun-99	A9900854-12 2-Nov-99	P005200-10 8-May-00	P0K0452-07 14-Nov-00	0862-06 29-Jun-01	0886-02 11-Oct-01	0903-10 20-Sep-02	8220-12 16-Sep-03	9029-10 1-Jun-04	041022-02 22-Oct-04 FDA	041022-03 22-Oct-04 FD
<b>BTEX</b>																			
Benzene	0.005	-	0.22	0.36	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-
Ethylbenzene	0.7	-	0.29	0.44	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-
Toluene	1.0	-	0.23	0.3	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-
Xylene (total m,p,o)	10.0	-	1.4	2.4	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	-	-
<b>Petroleum Hydrocarbons</b>																			
Diesel Range Organics (DRO)	1.5	13	8.2	1.69	6.0	1.56	ND (0.25)	0.22	ND (0.100)	0.78	ND (0.250)	ND (0.250)	ND (0.250)	ND (0.000156)	ND (0.250)	ND (0.250)	ND (0.320)	ND (0.435)	ND (0.417)
Gasoline Range Organics (GRO)	1.3*	-	6.5	7.1	0.142	3.430	-	ND (0.05)	ND (0.050)	0.066	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)
Residual Range Organics (RRO)	1.1	-	-	ND (1)	54	ND (0.500)	-	-	ND (1)	ND (1.0)	ND (0.500)	-	-	-	-	-	ND (0.400)	ND (0.522)	ND (0.500)
<b>Volatile Organic Compounds (VOCs)</b>																			
Benzene	0.005	0.160	0.36	0.35	0.0036	0.162	0.009	ND (0.0005)	ND (0.0005)	0.0014	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethane	3.65	ND (0.025)	ND (0.01)	ND (0.05)	ND (0.0005)	ND (0.01)	ND (0.005)	0.0034	ND (0.0005)	0.0011	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethene	0.007	ND (0.025)	ND (0.01)	ND (0.05)	ND (0.0005)	ND (0.01)	ND (0.005)	0.0014	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
cis-1,2-Dichloroethene	0.07	0.024	0.045	0.053	0.0009	0.0321	0.017	0.019	0.015	0.021	0.0203	0.019	0.0241	0.0216	0.0148	0.0139	0.0109	0.0109	0.0107
Ethylbenzene	0.7	0.180	0.31	0.45	0.0066	0.199	0.010	ND (0.0005)	ND (0.0005)	0.0005	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Methylene Chloride	0.005	0.037	ND (0.02)	ND (0.1)	ND (0.001)	ND (0.05)	0.0076	ND (0.005)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Naphthalene	0.7	0.025	0.043	ND (0.2)	ND (0.002)	0.0205	ND (0.005)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.001)	ND (0.002)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Styrene	0.1	0.27	ND (0.01)	ND (0.05)	ND (0.0005)	ND (0.01)	ND (0.003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Tetrachloroethene (PCE)	0.005	ND (0.015)	ND (0.01)	ND (0.05)	0.0009	ND (0.01)	0.012	0.011	0.0062	0.0027	0.00395	0.00404	0.00283	0.00248	0.00228	0.00158	0.00227	0.00164	0.00166
Toluene	1.0	0.270	0.34	0.26	0.0014	0.0649	0.022	ND (0.0005)	ND (0.0005)	0.0009	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1,1-Trichloroethane (TCA)	0.2	ND (0.025)	ND (0.01)	ND (0.05)	ND (0.0005)	ND (0.01)	0.019	0.018	0.0011	0.0006	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Trichloroethene (TCE)	0.005	ND (0.015)	ND (0.01)	ND (0.05)	0.0006	ND (0.01)	0.030	0.045	0.041	0.012	0.0398	0.0241	0.0375	0.0292	0.0361	0.0322	0.0196	0.0206	0.0204
Vinyl Chloride	0.002	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.0005)	ND (0.01)	ND (0.002)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Total Xylene [Calc.]	10.0	[0.78]	1.8	[2.84]	[0.0201]	[1.042]	[0.042]	ND (0.0005)	[ND (0.001)]	[0.0058]	[ND (0.003)]	ND (0.003)	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.001)	ND (0.003)	ND (0.003)

**Notes:**

All concentrations are in milligrams per litre (mg/L).  
 ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.

\*Standard based on estimated solubility.

- Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.
- Data reported from Analytical Laboratory & Consultants, Oregon Lab Reports #81714 through 81720 and 81126 through 81133 (Aug. 1997); Analytica Alaska Inc. Order A7-09-046 and Analytical Environmental Laboratory Order 97-09-069 (Sept. 1997); Columbia Analytical Services Inc., Anchorage, AK Service Request Orders A9800683 (Sept. 1998), A9800524 (July 1998), A9900271 and A9900238 (June 1999), A9900715 (Sept. 1999), and A9900854 (Nov. 1999); and North Creek Analytical, Portland, OR Files P005200 and P005488 (May 2000), P0K0452 (Nov. 2000), P1J0346 and P1J0528 (Oct. 2001), P2I0604 (Sept. 2002), P3I0738 (Sept. 2003), P4F0112, P4F0225, and P4F0455 (June 2004), P4J1121, P4J1122, and P4J1123 (Oct. 2004).

**TABLE 2**  
**Results of Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location SCN Date QA/QC	STANDARD <sup>1</sup>	MW97-6D	MW97-6D	MW97-6D	MW97-6D	MW97-6D	MW97-6D	MW97-6D	MW97-6D	MW97-6D	MW97-6D	MW97-6D	MW97-6D	MW97-7S	MW97-7S	MW97-7S	MW97-7S	MW97-7S	MW97-7S
		A709046-08 6-Sep-97	A9800524-5 30-Jul-98	A9900271-8 15-Jun-99	A9900854-11 2-Nov-99	P005200-09 8-May-00	P0K0452-08 14-Nov-00	0878-06 28-Jul-01	0886-03 11-Oct-01	0903-11 20-Sep-02	8220-11 16-Sep-03	9029-11 1-Jun-04	041022-01 22-Oct-04	A709046-09 6-Sep-97	A9800524-6 30-Jul-98	A9900271-1 15-Jun-99	A9900854-9 2-Nov-99	P005200-13 5-May-00	P0K0452-09 10-Nov-00
<b>BTEX</b>																			
Benzene	0.005	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)
Ethylbenzene	0.7	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)
Toluene	1.0	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)
Xylene (total m,p,o)	10.0	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.001)
<b>Petroleum Hydrocarbons</b>																			
Diesel Range Organics (DRO)	1.5	ND (0.25)	0.28	ND (0.100)	ND (0.1)	ND (0.250)	ND (0.250)	ND (0.250)	ND (0.000156)	ND (0.250)	ND (0.250)	ND (0.320)	ND (0.417)	0.47	0.14	ND (0.100)	0.12	ND (0.250)	ND (0.250)
Gasoline Range Organics (GRO)	1.3*	-	ND (0.05)	ND (0.050)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	-	ND (0.05)	ND (0.050)	ND (0.05)	ND (0.08)	ND (0.08)
Residual Range Organics (RRO)	1.1	-	-	ND (1)	ND (1.0)	ND (0.500)	-	-	-	-	-	ND (0.400)	ND (0.500)	-	-	ND (1)	ND (1.0)	ND (0.500)	-
<b>Volatile Organic Compounds (VOCs)</b>																			
Benzene	0.005	0.0082	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)
1,1-Dichloroethane	3.65	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)
1,1-Dichloroethene	0.007	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)
cis-1,2-Dichloroethene	0.07	0.015	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000187)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)
Ethylbenzene	0.7	0.0089	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)
Methylene Chloride	0.005	0.0049	ND (0.005)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0067	ND (0.005)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.005)
Naphthalene	0.7	ND (0.005)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.001)	ND (0.002)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.005)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.001)	ND (0.002)
Styrene	0.1	ND (0.003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)
Tetrachloroethene (PCE)	0.005	0.011	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00027)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.0020	0.0006	0.0028	0.0022	0.00280	0.00148
Toluene	1.0	0.020	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)
1,1,1-Trichloroethane (TCA)	0.2	0.015	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)
Trichloroethene (TCE)	0.005	0.029	0.0012	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000359)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.003)	ND (0.0005)	0.002	0.0016	0.00271	ND (0.001)
Vinyl Chloride	0.002	ND (0.002)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.002)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)
Total Xylene [Calc.]	10.0	[0.038]	ND (0.0005)	[ND (0.001)]	[ND (0.001)]	[ND (0.003)]	ND (0.003)	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.001)	ND (0.003)	[ND (0.002)]	ND (0.0005)	[ND (0.001)]	[ND (0.001)]	[ND (0.003)]	ND (0.003)

**Notes:**  
 All concentrations are in milligrams per litre (mg/L).  
 ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.  
 \*Standard based on estimated solubility.  
 1. Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.  
 2. Data reported from Analytical Laboratory & Consultants, Oregon Lab Reports #81714 through 81720 and 81126 through 81133 (Aug. 1997); Analytica Alaska Inc. Order A7-09-046 and Analytical Environmental Laboratory Order 97-09-069 (Sept. 1997); Columbia Analytical Services Inc., Anchorage, AK Service Request Orders A9800683 (Sept. 1998), A9800524 (July 1998), A9900271 and A9900238 (June 1999), A9900715 (Sept. 1999), and A9900854 (Nov. 1999); and North Creek Analytical, Portland, OR Files P005200 and P005488 (May 2000), P0K0452 (Nov. 2000), P1J0346 and P1J0528 (Oct. 2001), P2I0604 (Sept. 2002), P3I0738 (Sept. 2003), P4F0112, P4F0225, and P4F0455 (June 2004), P4J1121, P4J1122, and P4J1123 (Oct. 2004).



**TABLE 2**  
**Results of Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location	SCN	Date	QA/QC	MW97-7S										MW97-7M					
				STANDARD <sup>1</sup>	0862-12	0886-05	0886-06	0903-13	0903-14	8221-01	8221-02	9030-02	041021-07	A709046-10	A9800524-2	A9900271-3	A9900854-8	P005200-12	P0K0452-10
				29-Jun-01	11-Oct-01	11-Oct-01	20-Sep-02	20-Sep-02	16-Sep-03	16-Sep-03	2-Jun-04	21-Oct-04	6-Sep-97	30-Jul-98	15-Jun-99	2-Nov-99	5-May-00	10-Nov-00	
<b>BTEX</b>																			
Benzene			<b>0.005</b>	ND (0.0005)	ND (0.0003)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	
Ethylbenzene			<b>0.7</b>	ND (0.0005)	ND (0.0003)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	
Toluene			<b>1.0</b>	ND (0.0005)	ND (0.0003)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	
Xylene (total m,p,o)			<b>10.0</b>	ND (0.001)	ND (0.0006)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.001)	
<b>Petroleum Hydrocarbons</b>																			
Diesel Range Organics (DRO)			<b>1.5</b>	ND (0.250)	ND (0.000156)	ND (0.000156)	ND (0.250)	ND (0.250)	ND (0.250)	ND (0.250)	0.481	ND (0.417)	ND (0.25)	0.22	ND (0.100)	ND (0.1)	ND (0.250)	ND (0.250)	
Gasoline Range Organics (GRO)			<b>1.3*</b>	ND (0.08)	ND (0.05)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	-	ND (0.05)	ND (0.050)	ND (0.05)	ND (0.08)	ND (0.08)	
Residual Range Organics (RRO)			<b>1.1</b>	-	-	-	-	-	-	-	ND (0.400)	ND (0.500)	-	-	ND (1)	ND (1.0)	ND (0.500)	-	
<b>Volatile Organic Compounds (VOCs)</b>																			
Benzene			<b>0.005</b>	ND (0.001)	ND (0.000121)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	
1,1-Dichloroethane			<b>3.65</b>	ND (0.001)	ND (0.000214)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	
1,1-Dichloroethene			<b>0.007</b>	ND (0.001)	ND (0.000151)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	
cis-1,2-Dichloroethene			<b>0.07</b>	ND (0.001)	ND (0.000187)	ND (0.000187)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	
Ethylbenzene			<b>0.7</b>	ND (0.001)	ND (0.000143)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	
Methylene Chloride			<b>0.005</b>	ND (0.005)	ND (0.002)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	<b>0.0080</b>	ND (0.005)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.005)	
Naphthalene			<b>0.7</b>	ND (0.002)	ND (0.000104)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.005)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.001)	ND (0.002)	
Styrene			<b>0.1</b>	ND (0.001)	ND (0.000154)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	
Tetrachloroethene (PCE)			<b>0.005</b>	0.00198	0.0025	0.00249	0.00204	0.00205	0.00114	0.00106	ND (0.001)	ND (0.001)	0.0049	0.0014	0.0024	0.0018	0.00234	0.00179	
Toluene			<b>1.0</b>	ND (0.001)	ND (0.000115)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	
1,1,1-Trichloroethane (TCA)			<b>0.2</b>	ND (0.001)	ND (0.0001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	
Trichloroethene (TCE)			<b>0.005</b>	0.0016	0.00226	0.00225	0.00249	0.00258	0.0021	0.002	ND (0.001)	ND (0.001)	ND (0.003)	0.0012	0.0021	0.0013	0.00280	0.00132	
Vinyl Chloride			<b>0.002</b>	ND (0.001)	ND (0.00031)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.002)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	
Total Xylene [Calc.]			<b>10.0</b>	ND (0.003)	ND (0.000353)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.001)	ND (0.003)	[ND (0.002)]	ND (0.0005)	[ND (0.001)]	[ND (0.001)]	[ND (0.003)]	ND (0.003)	

**Notes:**

All concentrations are in milligrams per litre (mg/L).

ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.

\*Standard based on estimated solubility.

1. Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.

2. Data reported from Analytical Laboratory & Consultants, Oregon Lab Reports #81714 through 81720 and 81126 through 81133 (Aug. 1997); Analytica Alaska Inc. Order A7-09-046 and Analytical Environmental Laboratory Order 97-09-069 (Sept. 1997); Columbia Analytical Services Inc., Anchorage, AK Service Request Orders A9800683 (Sept. 1998), A9800524 (July 1998), A9900271 and A9900238 (June 1999), A9900715 (Sept. 1999), and A9900854 (Nov. 1999); and North Creek Analytical, Portland, OR Files P005200 and P005488 (May 2000), P0K0452 (Nov. 2000), P1J0346 and P1J0528 (Oct. 2001), P2I0604 (Sept. 2002), P3I0738 (Sept. 2003), P4F0112, P4F0225, and P4F0455 (June 2004), P4J1121, P4J1122, and P4J1123 (Oct. 2004).

**TABLE 2**  
**Results of Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location	SCN Date QA/QC	MW97-7M						MW97-7D											
		0878-04 27-Jul-01	0886-07 11-Oct-01	0903-15 20-Sep-02	8221-03 16-Sep-03	9029-12 1-Jun-04	041021-06 21-Oct-04	A709046-11 6-Sep-97	A9800524-1 30-Jul-98	A9900271-2 15-Jun-99	A9900854-7 2-Nov-99	P005200-11 5-May-00	P0K0452-11 10-Nov-00	0878-05 27-Jul-01	0886-08 11-Oct-01	0905-01 20-Sep-02	8221-04 16-Sep-03	9030-01 1-Jun-04	041021-05 21-Oct-04
<b>BTEX</b>	<b>STANDARD<sup>1</sup></b>																		
Benzene	0.005	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Ethylbenzene	0.7	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Toluene	1.0	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Xylene (total m,p,o)	10.0	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	-	-	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	-
<b>Petroleum Hydrocarbons</b>																			
Diesel Range Organics (DRO)	1.5	0.381	ND (0.000156)	ND (0.250)	ND (0.250)	ND (0.320)	ND (0.417)	0.34	0.28	ND (0.100)	ND (0.1)	ND (0.250)	ND (0.250)	1.03	ND (0.000156)	ND (0.250)	ND (0.250)	ND (0.320)	ND (0.435)
Gasoline Range Organics (GRO)	1.3*	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	-	ND (0.05)	ND (0.050)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)
Residual Range Organics (RRO)	1.1	-	-	-	-	ND (0.400)	ND (0.500)	-	-	ND (1)	ND (1.0)	ND (0.500)	-	-	-	-	-	ND (0.400)	ND (0.522)
<b>Volatile Organic Compounds (VOCs)</b>																			
Benzene	0.005	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethane	3.65	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethene	0.007	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
cis-1,2-Dichloroethene	0.07	ND (0.001)	ND (0.000187)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000187)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Ethylbenzene	0.7	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Methylene Chloride	0.005	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0083	ND (0.005)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Naphthalene	0.7	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.005)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.001)	ND (0.002)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Styrene	0.1	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Tetrachloroethene (PCE)	0.005	0.00235	0.00251	0.00187	0.00109	ND (0.001)	ND (0.001)	0.0034	0.0019	0.0018	0.0017	0.00179	0.00143	0.00136	0.00183	0.00131	ND (0.001)	ND (0.001)	ND (0.001)
Toluene	1.0	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1,1-Trichloroethane (TCA)	0.2	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Trichloroethene (TCE)	0.005	0.00242	0.00258	0.00277	0.0023	ND (0.001)	ND (0.001)	ND (0.003)	0.0008	0.0015	0.0013	0.00208	0.00107	0.00159	0.00186	0.00171	0.00149	ND (0.001)	ND (0.001)
Vinyl Chloride	0.002	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.002)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Total Xylene [Calc.]	10.0	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.001)	ND (0.003)	[ND (0.002)]	ND (0.0005)	[ND (0.001)]	[ND (0.001)]	[ND (0.003)]	ND (0.003)	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.001)	ND (0.003)

**Notes:**

All concentrations are in milligrams per litre (mg/L).  
 ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.

\*Standard based on estimated solubility.

- Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.
- Data reported from Analytical Laboratory & Consultants, Oregon Lab Reports #81714 through 81720 and 81126 through 81133 (Aug. 1997); Analytica Alaska Inc. Order A7-09-046 and Analytical Environmental Laboratory Order 97-09-069 (Sept. 1997); Columbia Analytical Services Inc., Anchorage, AK Service Request Orders A9800683 (Sept. 1998), A9800524 (July 1998), A9900271 and A9900238 (June 1999), A9900715 (Sept. 1999), and A9900854 (Nov. 1999); and North Creek Analytical, Portland, OR Files P005200 and P005488 (May 2000), P0K0452 (Nov. 2000), P1J0346 and P1J0528 (Oct. 2001), P2I0604 (Sept. 2002), P3I0738 (Sept. 2003), P4F0112, P4F0225, and P4F0455 (June 2004), P4J1121, P4J1122, and P4J1123 (Oct. 2004).

**TABLE 2**  
**Results of Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location	SCN Date QA/QC	STANDARD <sup>1</sup>	MW98-1	MW98-1	MW98-1	MW98-1	MW-98-1	MW98-1	MW98-1	MW98-1	MW98-1	MW98-1	MW98-1	MW98-1	MW98-2	MW98-2	MW98-2	MW-98-2	MW98-2	MW98-2	MW98-2	MW98-2	MW98-2	MW98-2	
			A9800683-1 1-Sep-98	A9900238-5 10-Jun-99	A9900854-5 2-Nov-99	P005200-14 6-May-00	P0K0452-12 14-Nov-00	0862-10 29-Jun-01	0885-07 8-Oct-01	0903-05 19-Sep-02	8220-05 15-Sep-03	9029-08 1-Jun-04	041021-08 21-Oct-04 FDA	041021-09 21-Oct-04 FD	A9900271-5 15-Jun-99	A9900854-4 2-Nov-99	P005200-15 8-May-00	P0K0452-13 10-Nov-00	0878-03 27-Jul-01	0885-03 7-Oct-01	0903-04 19-Sep-02	8220-04 15-Sep-03	9029-02 28-May-04	041020-01 20-Oct-04	
<b>BTEX</b>																									
Benzene	0.005	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Ethylbenzene	0.7	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Toluene	1.0	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	-	ND (0.001)	ND (0.001)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Xylene (total m,p,o)	10.0	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	-	-	ND (0.001)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	-
<b>Petroleum Hydrocarbons</b>																									
Diesel Range Organics (DRO)	1.5	-	ND (0.1)	0.41	ND (0.250)	ND (0.250)	ND (0.250)	ND (0.125)	ND (0.250)	ND (0.250)	ND (0.320)	ND (0.500)	ND (0.435)	ND (0.100)	ND (0.1)	ND (0.250)	ND (0.250)	ND (0.250)	ND (0.125)	ND (0.250)				ND (0.320)	ND (0.435)
Gasoline Range Organics (GRO)	1.3*	-	ND (0.050)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.050)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)
Residual Range Organics (RRO)	1.1	-	ND (1)	ND (1.0)	ND (0.500)	-	-	-	-	-	ND (0.400)	ND (0.600)	ND (0.522)	ND (1)	ND (1.0)	ND (0.500)	-	-	-	-	-	-	ND (0.400)	ND (0.522)	
<b>Volatile Organic Compounds (VOCs)</b>																									
Benzene	0.005	-	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethane	3.65	-	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethene	0.007	-	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
cis-1,2-Dichloroethene	0.07	-	ND (0.0005)	ND (0.0005)	0.00306	0.0327	0.00231	0.0129	0.00439	0.0026	0.00529	0.013	0.0129	ND (0.0005)	0.029	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000187)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Ethylbenzene	0.7	-	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Methylene Chloride	0.005	-	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Naphthalene	0.7	-	ND (0.002)	ND (0.002)	ND (0.001)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.001)	ND (0.002)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Styrene	0.1	-	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Tetrachloroethene (PCE)	0.005	-	ND (0.0005)	ND (0.0005)	ND (0.001)	0.00316	ND (0.001)	ND (0.00027)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	0.0062	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00027)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Toluene	1.0	-	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1,1-Trichloroethane (TCA)	0.2	-	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Trichloroethene (TCE)	0.005	-	0.0019	ND (0.0005)	0.00551	0.0277	0.00532	0.015	0.0107	0.00598	0.0197	0.0289	0.029	ND (0.0005)	0.026	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000359)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Vinyl Chloride	0.002	-	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Total Xylene [Calc.]	10.0	-	[ND (0.001)]	[ND (0.001)]	[ND (0.003)]	ND (0.003)	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.003)	[ND (0.001)]	[ND (0.001)]	[ND (0.003)]	ND (0.003)	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.003)

**Notes:**  
 All concentrations are in milligrams per litre (mg/L).  
 ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.  
 \*Standard based on estimated solubility.

- Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.
- Data reported from Analytical Laboratory & Consultants, Oregon Lab Reports #81714 through 81720 and 81126 through 81133 (Aug. 1997); Analytica Alaska Inc. Order A7-09-046 and Analytical Environmental Laboratory Order 97-09-069 (Sept. 1997); Columbia Analytical Services Inc., Anchorage, AK Service Request Orders A9800683 (Sept. 1998), A9800524 (July 1998), A9900271 and A9900238 (June 1999), A9900715 (Sept. 1999), and A9900854 (Nov. 1999); and North Creek Analytical, Portland, OR Files P005200 and P005488 (May 2000), P0K0452 (Nov. 2000), P1J0346 and P1J0528 (Oct. 2001), P2I0604 (Sept. 2002), P3I0738 (Sept. 2003), P4F0112, P4F0225, and P4F0455 (June 2004), P4J1121, P4J1122, and P4J1123 (Oct. 2004).

**TABLE 2**  
**Results of Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location SCN Date QA/QC	STANDARD <sup>1</sup>	MW00-31	MW00-31	MW00-31	MW00-31	MW00-31	MW00-31	MW00-31	MW00-32	MW00-32	MW00-32	MW00-32	MW00-32	MW00-32	MW00-32
		POK0452-14 10-Nov-00	0878-02 27-Jul-01	0885-02 5-Oct-01	0903-06 19-Sep-02	8220-06 15-Sep-03	9029-05 29-May-04	041020-03 20-Oct-04	POK0452-14 10-Nov-00	0878-01 27-Jul-01	0885-05 7-Oct-01	0903-07 19-Sep-02	8220-07 15-Sep-03	9029-06 29-May-04	041020-02 20-Oct-04
<b>BTEX</b>															
Benzene	0.005	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Ethylbenzene	0.7	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Toluene	1.0	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-
Xylene (total m,p,o)	10.0	ND (0.001)	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	-
<b>Petroleum Hydrocarbons</b>															
Diesel Range Organics (DRO)	1.5	0.626	ND (0.250)	ND (0.125)	ND (0.250)	ND (0.250)	0.420	ND (0.417)	1.28	0.381	0.790	ND (0.250)	ND (0.250)	ND (0.320)	ND (0.417)
Gasoline Range Organics (GRO)	1.3*	0.137	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	0.0851	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)
Residual Range Organics (RRO)	1.1	-	-	-	-	-	0.583	ND (0.500)	-	-	-	-	-	ND (0.400)	ND (0.500)
<b>Volatile Organic Compounds (VOCs)</b>															
Benzene	0.005	ND (0.001)	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethane	3.65	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethene	0.007	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
cis-1,2-Dichloroethene	0.07	ND (0.001)	ND (0.001)	ND (0.000187)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000187)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Ethylbenzene	0.7	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Methylene Chloride	0.005	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Naphthalene	0.7	ND (0.002)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Styrene	0.1	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Tetrachloroethene (PCE)	0.005	ND (0.001)	ND (0.001)	ND (0.00027)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00027)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Toluene	1.0	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1,1-Trichloroethane (TCA)	0.2	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Trichloroethene (TCE)	0.005	ND (0.001)	ND (0.001)	ND (0.000359)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000359)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Vinyl Chloride	0.002	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Total Xylene [Calc.]	10.0	ND (0.003)	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.003)

**Notes:**

All concentrations are in milligrams per litre (mg/L).

ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.

\*Standard based on estimated solubility.

- Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.
- Data reported from Analytical Laboratory & Consultants, Oregon Lab Reports #81714 through 81720 and 81126 through 81133 (Aug. 1997); Analytica Alaska Inc. Order A7-09-046 and Analytical Environmental Laboratory Order 97-09-069 (Sept. 1997); Columbia Analytical Services Inc., Anchorage, AK Service Request Orders A9800683 (Sept. 1998), A9800524 (July 1998), A9900271 and A9900238 (June 1999), A9900715 (Sept. 1999), and A9900854 (Nov. 1999); and North Creek Analytical, Portland, OR Files P005200 and P005488 (May 2000), POK0452 (Nov. 2000), P1J0346 and P1J0528 (Oct. 2001), P2I0604 (Sept. 2002), P3I0738 (Sept. 2003), P4F0112, P4F0225, and P4F0455 (June 2004), P4J1121, P4J1122, and P4J1123 (Oct. 2004).

**TABLE 2**  
**Results of Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location SCN Date QA/QC	STANDARD <sup>1</sup>	MW00-33	MW00-33	MW00-33	MW00-33	MW00-33	MW00-33	MW00-33	MW00-34	MW00-34	MW00-34	MW00-34	MW00-35	MW00-35	MW00-35	
		POK0452-16 10-Nov-00	0862-13 29-Jun-01	0885-04 7-Oct-01	0903-08 19-Sep-02	8220-08 15-Sep-03	9029-07 1-Jun-04	041020-04 20-Oct-04	POK0452-17 14-Nov-00	0862-09 29-Jun-01	0885-06 7-Oct-01	041021-02 21-Oct-04	POK0452-18 14-Nov-00	0862-08 29-Jun-01	0886-04 11-Oct-01	
<b>BTEX</b>																
Benzene	0.005	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	-	0.0779	0.0335	0.0268
Ethylbenzene	0.7	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	-	0.0611	0.106	0.09
Toluene	1.0	ND (0.0005)	ND (0.0005)	ND (0.0003)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	-	ND (0.0005)	ND (0.0005)	ND (0.0003)	-	0.19	0.0247	0.0227
Xylene (total m,p,o)	10.0	ND (0.001)	ND (0.001)	ND (0.0006)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	-	ND (0.001)	ND (0.001)	ND (0.0006)	-	0.761	0.222	0.335
<b>Petroleum Hydrocarbons</b>																
Diesel Range Organics (DRO)	1.5	ND (0.250)	ND (0.250)	ND (0.125)	ND (0.250)	ND (0.250)	ND (0.320)	ND (0.417)	-	ND (0.250)	ND (0.250)	ND (0.125)	ND (0.500)	5.15	3.25	3.49
Gasoline Range Organics (GRO)	1.3*	ND (0.08)	ND (0.08)	ND (0.05)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	-	ND (0.08)	ND (0.08)	0.0977	ND (0.08)	5.34	2.06	4.07
Residual Range Organics (RRO)	1.1	-	-	-	-	-	ND (0.400)	ND (0.500)	-	-	-	-	ND (0.600)	-	-	-
<b>Volatile Organic Compounds (VOCs)</b>																
Benzene	0.005	ND (0.001)	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000121)	ND (0.001)	ND (0.001)	0.0599	0.0281	0.0258
1,1-Dichloroethane	3.65	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000214)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.002)	ND (0.000428)
1,1-Dichloroethene	0.007	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000151)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.002)	ND (0.000302)
cis-1,2-Dichloroethene	0.07	0.00784	0.0108	0.0193	0.00464	0.00243	0.00547	ND (0.001)	0.0197	0.0303	0.0222	0.0144	0.0144	0.00655	0.0137	0.0073
Ethylbenzene	0.7	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000143)	ND (0.001)	ND (0.001)	0.204	0.118	0.118
Methylene Chloride	0.005	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.01)	ND (0.004)
Naphthalene	0.7	ND (0.002)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.000104)	ND (0.002)	ND (0.002)	0.0545	0.0361	0.0443
Styrene	0.1	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000154)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.002)	ND (0.000308)
Tetrachloroethene (PCE)	0.005	0.0125	0.00867	0.013	0.00429	0.00227	0.00508	0.00482	0.00469	0.0056	0.00437	0.00283	0.00283	ND (0.005)	ND (0.002)	ND (0.00054)
Toluene	1.0	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.000115)	ND (0.001)	ND (0.001)	0.0492	0.0219	0.0268
1,1,1-Trichloroethane (TCA)	0.2	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.002)	ND (0.0002)
Trichloroethene (TCE)	0.005	0.0158	0.0338	0.0338	0.0156	0.0102	0.0106	ND (0.001)	0.0278	0.0578	0.0354	0.0219	ND (0.005)	0.0028	ND (0.000718)	ND (0.000718)
Vinyl Chloride	0.002	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.00031)	ND (0.001)	ND (0.001)	0.0052	0.00778	0.00392
Total Xylene [Calc.]	10.0	ND (0.003)	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	ND (0.001)	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.000353)	ND (0.003)	ND (0.003)	0.763	0.2625	0.441

**Notes:**

All concentrations are in milligrams per litre (mg/L).

ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.

\*Standard based on estimated solubility.

- Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.
- Data reported from Analytical Laboratory & Consultants, Oregon Lab Reports #81714 through 81720 and 81126 through 81133 (Aug. 1997); Analytica Alaska Inc. Order A7-09-046 and Analytical Environmental Laboratory Order 97-09-069 (Sept. 1997); Columbia Analytical Services Inc., Anchorage, AK Service Request Orders A9800683 (Sept. 1998), A9800524 (July 1998), A9900271 and A9900238 (June 1999), A9900715 (Sept. 1999), and A9900854 (Nov. 1999); and North Creek Analytical, Portland, OR Files P005200 and P005488 (May 2000), P0K0452 (Nov. 2000), P1J0346 and P1J0528 (Oct. 2001), P2I0604 (Sept. 2002), P3I0738 (Sept. 2003), P4F0112, P4F0225, and P4F0455 (June 2004), P4J1121, P4J1122, and P4J1123 (Oct. 2004).

**TABLE 2**  
**Results of Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location SCN Date QA/QC	STANDARD <sup>1</sup>	AS-2	AS-2	AS-4	AS-4	AS-6	AS-6	AS-8	AS-8	AS-10	AS-10	AS-10	AS-12	AS-12
		9030-08 4-Jun-04	041022-07 22-Oct-04	9030-09 4-Jun-04	041023-01 23-Oct-04	9030-10 4-Jun-04	041023-02 23-Oct-04	9030-11 4-Jun-04	041022-08 22-Oct-04	9031-01 9-Jun-04 FDA	9031-02 9-Jun-04 FD	041022-09 22-Oct-04	9031-03 9-Jun-04	041022-10 22-Oct-04
<b>BTEX</b>														
Benzene	0.005	ND (0.0005)	-	ND (0.0005)	-	ND (0.0005)	-	ND (0.0005)	-	ND (0.0005)	ND (0.0005)	-	ND (0.0005)	-
Ethylbenzene	0.7	ND (0.0005)	-	ND (0.0005)	-	ND (0.0005)	-	ND (0.0005)	-	ND (0.0005)	ND (0.0005)	-	ND (0.0005)	-
Toluene	1.0	ND (0.0005)	-	ND (0.0005)	-	ND (0.0005)	-	ND (0.0005)	-	ND (0.0005)	ND (0.0005)	-	ND (0.0005)	-
Xylene (total m,p,o)	10.0	ND (0.001)	-	ND (0.001)	-	ND (0.001)	-	ND (0.001)	-	ND (0.001)	ND (0.001)	-	ND (0.001)	-
<b>Petroleum Hydrocarbons</b>														
Diesel Range Organics (DRO)	1.5	ND (0.320)	ND (0.500)	ND (0.320)	ND (0.417)	ND (0.320)	ND (0.500)	ND (0.320)	ND (0.417)	ND (0.320)	ND (0.320)	ND (0.417)	ND (0.320)	ND (0.400)
Gasoline Range Organics (GRO)	1.3*	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)	ND (0.08)
Residual Range Organics (RRO)	1.1	ND (0.400)	ND (0.600)	ND (0.400)	ND (0.500)	ND (0.400)	ND (0.600)	ND (0.400)	ND (0.500)	ND (0.400)	ND (0.400)	ND (0.500)	ND (0.400)	ND (0.480)
<b>Volatile Organic Compounds (VOCs)</b>														
Benzene	0.005	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethane	3.65	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1-Dichloroethene	0.007	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
cis-1,2-Dichloroethene	0.07	0.0046	0.00412	0.00222	0.00208	0.00257	0.00264	ND (0.001)	ND (0.001)	0.0012	0.0013	0.00122	ND (0.001)	ND (0.001)
Ethylbenzene	0.7	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Methylene Chloride	0.005	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Naphthalene	0.7	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Styrene	0.1	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Tetrachloroethene (PCE)	0.005	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Toluene	1.0	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
1,1,1-Trichloroethane (TCA)	0.2	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Trichloroethene (TCE)	0.005	0.00762	0.00948	0.00427	0.00525	0.00509	0.00600	ND (0.001)	ND (0.001)	0.00283	0.00287	0.00333	0.00141	0.00232
Vinyl Chloride	0.002	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Total Xylene [Calc.]	10.0	ND (0.001)	ND (0.003)	ND (0.001)	ND (0.003)	ND (0.001)	ND (0.003)	ND (0.001)	ND (0.003)	ND (0.001)	ND (0.001)	ND (0.003)	ND (0.001)	ND (0.003)

**Notes:**

All concentrations are in milligrams per litre (mg/L).

ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.

\*Standard based on estimated solubility.

- Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.
- Data reported from Analytical Laboratory & Consultants, Oregon Lab Reports #81714 through 81720 and 81126 through 81133 (Aug. 1997); Analytica Alaska Inc. Order A7-09-046 and Analytical Environmental Laboratory Order 97-09-069 (Sept. 1997); Columbia Analytical Services Inc., Anchorage, AK Service Request Orders A9800683 (Sept. 1998), A9800524 (July 1998), A9900271 and A9900238 (June 1999), A9900715 (Sept. 1999), and A9900854 (Nov. 1999); and North Creek Analytical, Portland, OR Files P005200 and P005488 (May 2000), POK0452 (Nov. 2000), P1J0346 and P1J0528 (Oct. 2001), P2I0604 (Sept. 2002), P3I0738 (Sept. 2003), P4F0112, P4F0225, and P4F0455 (June 2004), P4J1121, P4J1122, and P4J1123 (Oct. 2004).

**TABLE 3**  
**QA/QC Results for Chemical Analysis - Groundwater**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass Yukon Route**

Location SCN Date QA/QC	STANDARD <sup>1</sup>	MW97-2	MW97-2	RPD	MW97-6M	MW97-6M	RPD	MW98-1	MW98-1	RPD
		041022-05 22-Oct-04 FDA	041022-06 22-Oct-04 FD	%	041022-02 22-Oct-04 FDA	041022-03 22-Oct-04 FD	%	041021-08 21-Oct-04	041021-09 21-Oct-04	%
<b>Petroleum Hydrocarbons</b>										
Diesel Range Organics (DRO)	<b>1.5</b>	ND (0.417)	ND (0.400)	nc	ND (0.435)	ND (0.417)	nc	ND (0.500)	ND (0.435)	nc
Gasoline Range Organics (GRO)	<b>1.3*</b>	ND (0.08)	ND (0.08)	nc	ND (0.08)	ND (0.08)	nc	ND (0.08)	ND (0.08)	nc
Residual Range Organics (RRO)	<b>1.1</b>	ND (0.500)	ND (0.480)	nc	ND (0.522)	ND (0.500)	nc	ND (0.600)	ND (0.522)	nc
<b>Volatile Organic Compounds (VOCs)</b>										
Benzene	<b>0.005</b>	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc
1,1-Dichloroethane	<b>3.65</b>	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc
1,1-Dichloroethene	<b>0.007</b>	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc
cis-1,2-Dichloroethene	<b>0.07</b>	0.00902	0.00954	<b>6%</b>	0.0109	0.0107	<b>2%</b>	0.013	0.0129	<b>1%</b>
Ethylbenzene	<b>0.7</b>	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc
Methylene Chloride	<b>0.005</b>	ND (0.005)	ND (0.005)	nc	ND (0.005)	ND (0.005)	nc	ND (0.005)	ND (0.005)	nc
Naphthalene	<b>0.7</b>	ND (0.002)	ND (0.002)	nc	ND (0.002)	ND (0.002)	nc	ND (0.002)	ND (0.002)	nc
Styrene	<b>0.1</b>	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc
Tetrachloroethene (PCE)	<b>0.005</b>	0.00239	0.00248	<b>4%</b>	0.00164	0.00166	<b>1%</b>	ND (0.001)	ND (0.001)	nc
Toluene	<b>1.0</b>	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc
1,1,1-Trichloroethane (TCA)	<b>0.2</b>	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc
Trichloroethene (TCE)	<b>0.005</b>	<b>0.0163</b>	<b>0.0173</b>	<b>6%</b>	<b>0.0206</b>	<b>0.0204</b>	<b>1%</b>	<b>0.0289</b>	<b>0.029</b>	<b>0%</b>
Vinyl Chloride	<b>0.002</b>	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc	ND (0.001)	ND (0.001)	nc
Total Xylene [Calc.]	<b>10.0</b>	ND (0.003)	ND (0.003)	nc	ND (0.003)	ND (0.003)	nc	ND (0.003)	ND (0.003)	nc

**Notes:**

All concentrations are in milligrams per litre (mg/L).

ND (0.001) - Not detected at concentrations above laboratory reporting limit (LRL) shown in parentheses.

RPD - Relative Percent Difference

\*Standard based on estimated solubility.

1. Table C of "18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control" Regulations as amended through May 2004.

2. Data reported from North Creek Analytical, Portland OR Files P4J1122 and P4J1123 (October 2004).

**TABLE 4**  
**Results of Mann-Kendall Test for TCE Concentrations in Groundwater**  
**January 1999 to October 2004**  
**Maintenance Yard Shops, Skagway, AK**  
**White Pass & Yukon Route**

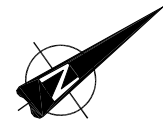
<b>Location</b>	<b>Sample size (n)</b>	<b>Test Statistic (S)</b>	<b>Probability (p)<sup>1</sup></b>	<b>Result<sup>2</sup></b>
MW-1AHC (shallow)	11	-33	1%	downward trend
MW-1HC (deep)	11	13	18%	no trend
MW-2HC	10	-3	43%	no trend
MW-3HC	6	-13	1%	downward trend
MW-4HC	9	2	46%	no trend
MW97-1	10	-19	5%	downward trend
MW97-2	10	-13	15%	no trend
MW97-6M	10	-15	11%	no trend
MW97-7S	10	-11	19%	no trend
MW97-7M	10	-8	27%	no trend
MW97-7D	10	-14	13%	no trend
MW98-1	10	25	1%	upward trend
MW00-33	7	-14	3%	downward trend
MW00-34	4	-2	38%	no trend

**Notes:**

- 1 Probability that the statistical inference of trend is incorrect.  
2 Locations where the probability (p) was less than or equal to ten percent were indicated to define either a significant upward or downward trend.



SKAGWAY RIVER

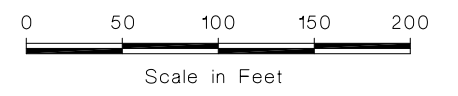
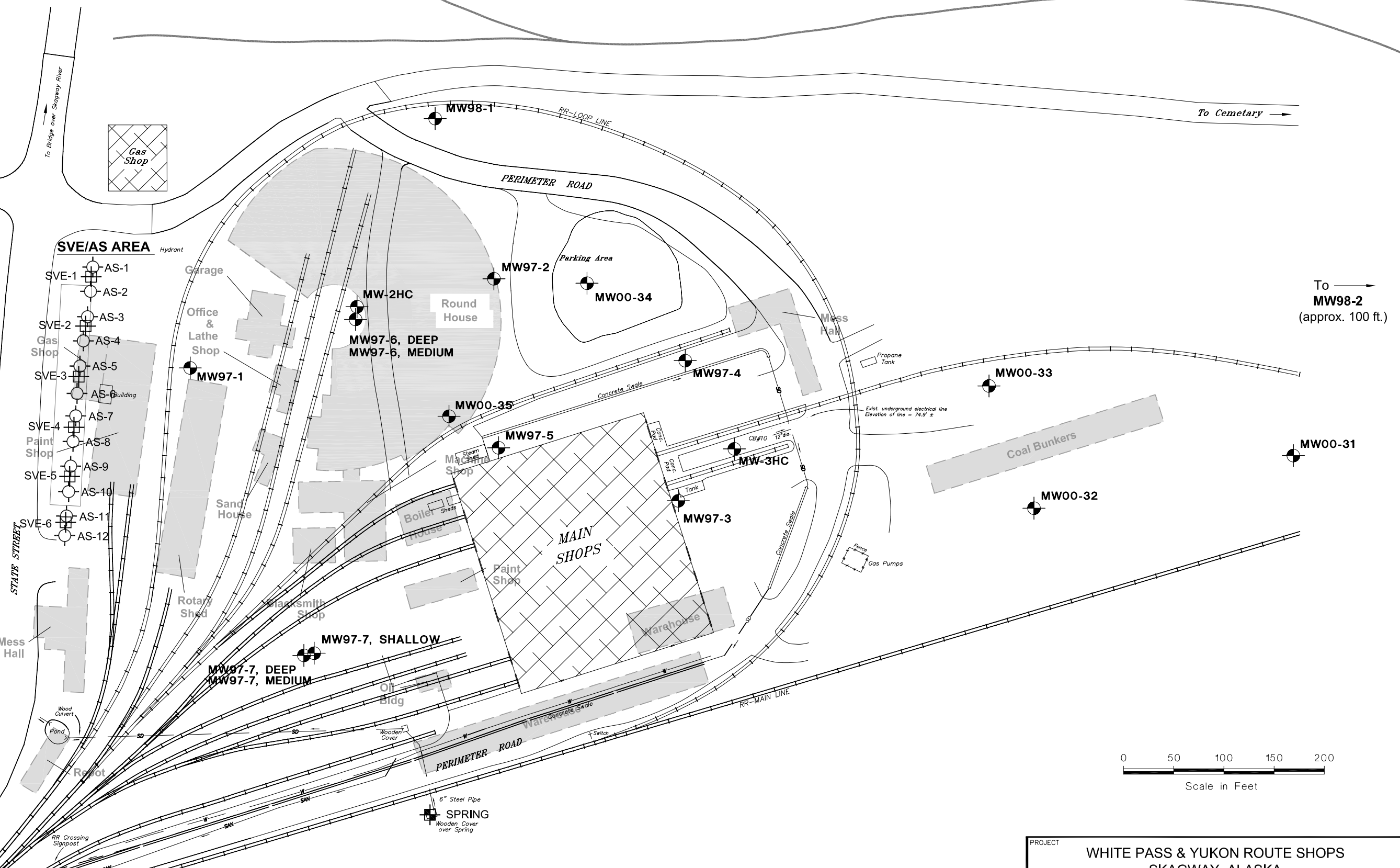


ALASKA STREET

To MW-4HC  
(approx. 1100 ft.)

To MW98-2  
(approx. 100 ft.)

MAIN STREET



LEGEND:

- MW98-1 MONITORING WELL LOCATION BY GOLDER ASSOCIATES
- MW-1HC MONITORING WELL LOCATION BY HART CROWSER
- SPRING SPRING WATER SAMPLE LOCATION (JUNE 2004)
- AS-1 AIR SPARGING WELL LOCATION
- SVE-2 SOIL VAPOUR EXTRACTION WELL LOCATION
- FORMER BUILDING OUTLINE

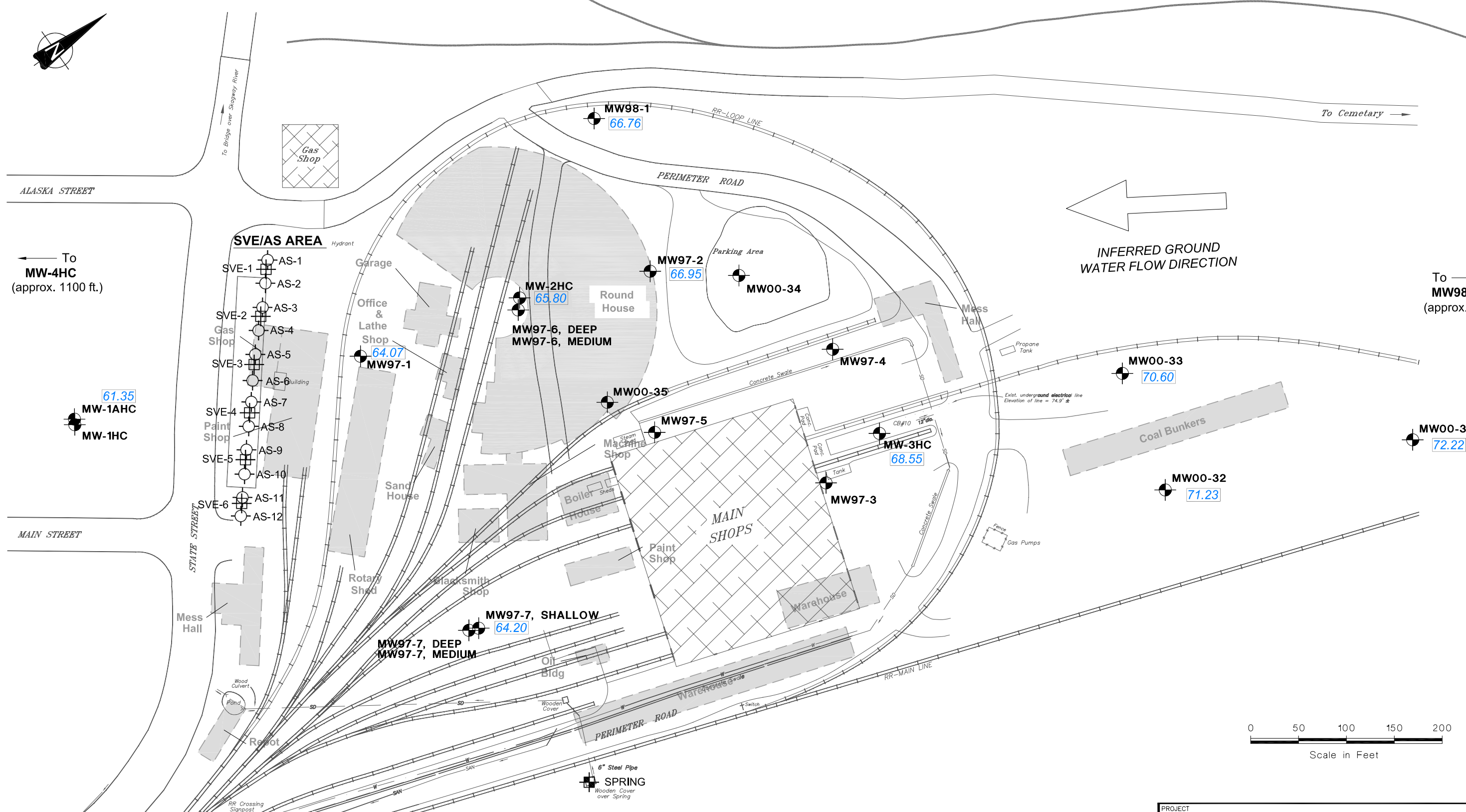
REFERENCE: BASEMAP FROM "SITE PLAN WHITE PASS YARD SKAGWAY, ALASKA," BY UNDERHILL GEOMATICS LTD. NOV, 2000.

PROJECT				WHITE PASS & YUKON ROUTE SHOPS SKAGWAY, ALASKA			
TITLE				LOCATIONS OF MONITORING WELLS AND SVE/AS WELLS			
PROJECT No. 96-1412-853B		FILE No. 8300-12		DESIGN LK 02FEB05		SCALE AS SHOWN REV. -	
CADD JK 02FEB05		CHECK LK 02FEB05		<b>FIGURE 1</b>			
REVIEW							



REVISION DATE: 05/02/2 11:34am By: bdrozdjak CADD FILE: N:\Bur-Graphics\Projects\1400\Older than 98\96-1412-853B\8300-12.dwg

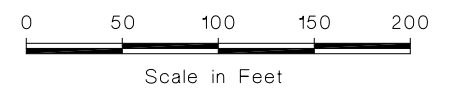
SKAGWAY RIVER



← To  
**MW-4HC**  
(approx. 1100 ft.)

To →  
**MW98-2** 74.42  
(approx. 100 ft.)

←  
INFERRED GROUND  
WATER FLOW DIRECTION



LEGEND:

- MW98-1** MONITORING WELL LOCATION BY GOLDER ASSOCIATES
- MW-1HC** MONITORING WELL LOCATION BY HART CROWSER
- SPRING** SPRING WATER SAMPLE LOCATION (JUNE 2004)
- AS-1** AIR SPARGING WELL LOCATION
- SVE-2** SOIL VAPOUR EXTRACTION WELL LOCATION
- 72.22** WATER TABLE ELEVATION (ft) OCTOBER 2004
- FORMER BUILDING OUTLINE

REFERENCE: BASEMAP FROM "SITE PLAN WHITE PASS YARD SKAGWAY, ALASKA," BY UNDERHILL GEOMATICS LTD. NOV, 2000.

PROJECT <b>WHITE PASS &amp; YUKON ROUTE SHOPS SKAGWAY, ALASKA</b>			
TITLE <b>WATER TABLE ELEVATION OCTOBER 2004</b>			
PROJECT No. 96-1412-853B		FILE No. 8300-12	
DESIGN	LK	02FEB05	SCALE AS SHOWN REV. -
CADD	JK	02FEB05	
CHECK	LK	02FEB05	
REVIEW			
			<b>FIGURE 2</b>

REVISION DATE: 05/02/2 11:34am By: bdrozdak CADD FILE: N:\Bur-Graphics\Projects\1400\Older than 98\96-1412-853B\8300-12.dwg

SKAGWAY RIVER



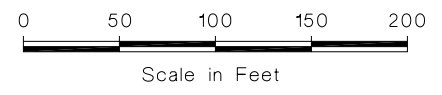
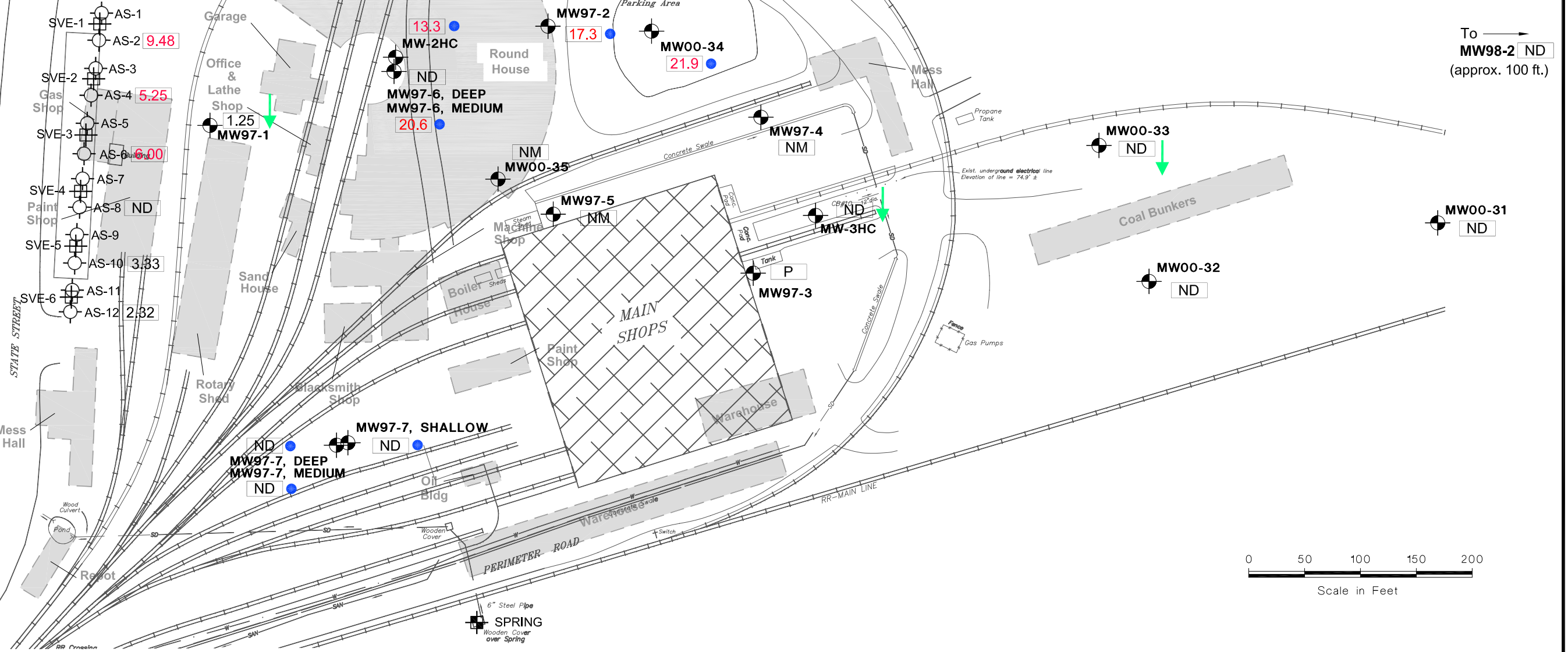
ALASKA STREET

To  
MW-4HC 1.67  
(approx. 1100 ft.)

To  
MW98-2 ND  
(approx. 100 ft.)

MAIN STREET

SVE/AS AREA



LEGEND:

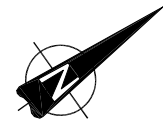
- MW98-1 MONITORING WELL LOCATION BY GOLDER ASSOCIATES
  - MW-1HC MONITORING WELL LOCATION BY HART CROWSER
  - SPRING SPRING WATER SAMPLE LOCATION
  - AS-1 AIR SPARGING WELL LOCATION
  - SVE-2 SOIL VAPOUR EXTRACTION WELL LOCATION
  - FORMER BUILDING OUTLINE
  - 1.41 TCE CONCENTRATION ( $\mu\text{g/L}$ ) OCTOBER 2004
  - 21.9 TCE CONCENTRATION IS ABOVE THE ADEC STANDARD OF  $5 \mu\text{g/L}$
  - ND NOT DETECTED
  - NM NOT MONITORED
  - P PRODUCT DETECTED
  - DECREASING TREND
  - INCREASING TREND
  - NO SIGNIFICANT TREND
- TREND ANALYSIS IS BASED ON MANN-KENDALL TEST FOR TRENDS (JANUARY 1999 - OCTOBER 2004 CHEMISTRY DATA)
- REFERENCE: BASEMAP FROM "SITE PLAN WHITE PASS YARD SKAGWAY, ALASKA," BY UNDERHILL GEOMATICS LTD. NOV, 2000.

PROJECT <b>WHITE PASS &amp; YUKON ROUTE SHOPS SKAGWAY, ALASKA</b>			
TITLE <b>TCE CONCENTRATIONS IN GROUNDWATER OCTOBER 2004</b>			
PROJECT No. 96-1412-853B		FILE No. 8300-12	
DESIGN	LK	02FEB05	SCALE AS SHOWN
CADD	JK	02FEB05	REV. -
CHECK	LK	02FEB05	<b>FIGURE 3</b>
REVIEW			



CADD FILE: N:\Bur-Graphics\Projects\1400\Older than 98\96-1412-853B\8300-12.dwg  
REVISION DATE: 05/02/2 11:35am By: bdrozdjak

SKAGWAY RIVER

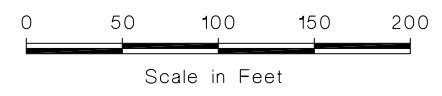
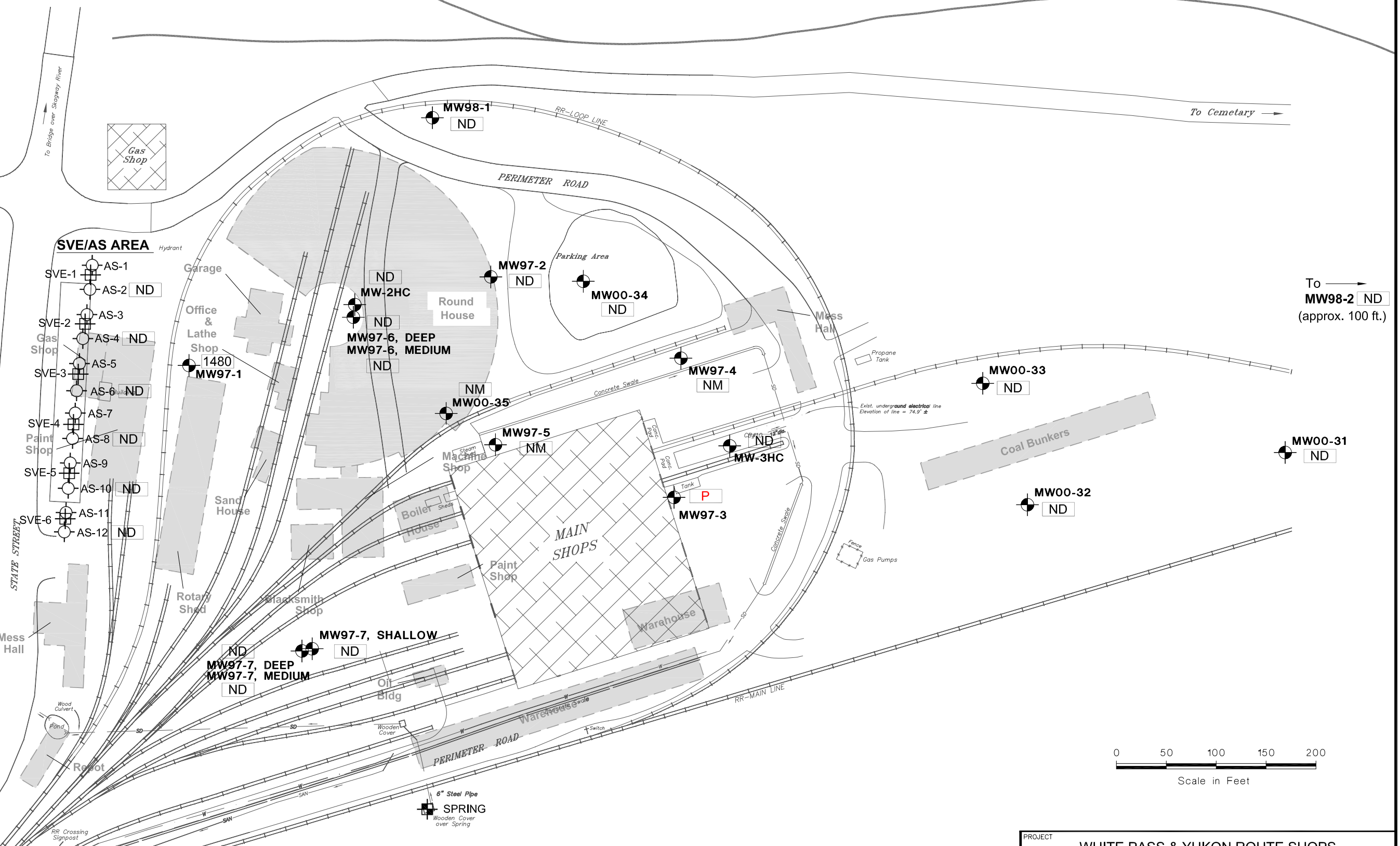


ALASKA STREET

To  
MW-4HC ND  
(approx. 1100 ft.)

To  
MW98-2 ND  
(approx. 100 ft.)

MAIN STREET



LEGEND:

- MW98-1 MONITORING WELL LOCATION BY GOLDER ASSOCIATES
- MW-1HC MONITORING WELL LOCATION BY HART CROWSER
- SPRING SPRING WATER SAMPLE LOCATION
- AS-1 AIR SPARGING WELL LOCATION
- SVE-2 SOIL VAPOUR EXTRACTION WELL LOCATION
- FORMER BUILDING OUTLINE
- 1000 DRO CONCENTRATION ( $\mu\text{g/L}$ ) OCTOBER 2004  
ADEC STANDARD FOR DRO IS 1500  $\mu\text{g/L}$
- ND NOT DETECTED
- NM NOT MONITORED
- P PRODUCT DETECTED

REFERENCE: BASEMAP FROM "SITE PLAN WHITE PASS YARD SKAGWAY, ALASKA," BY UNDERHILL GEOMATICS LTD. NOV, 2000.

PROJECT <b>WHITE PASS &amp; YUKON ROUTE SHOPS SKAGWAY, ALASKA</b>			
TITLE <b>DRO CONCENTRATIONS IN GROUNDWATER OCTOBER 2004</b>			
PROJECT No. 96-1412-853B		FILE No. 8300-12	
DESIGN	LK	02FEB05	SCALE AS SHOWN REV. -
CADD	JK	02FEB05	
CHECK	LK	02FEB05	
REVIEW			
			<b>FIGURE 4</b>

REVISION DATE: 05/02/16 9:26am By: bdrozdjak CADD FILE: N:\Bur-Graphics\Projects\1400\Older than 98\96-1412-853B\8300-12.dwg

Figure 5 Concentration of TCE in Groundwater over Time

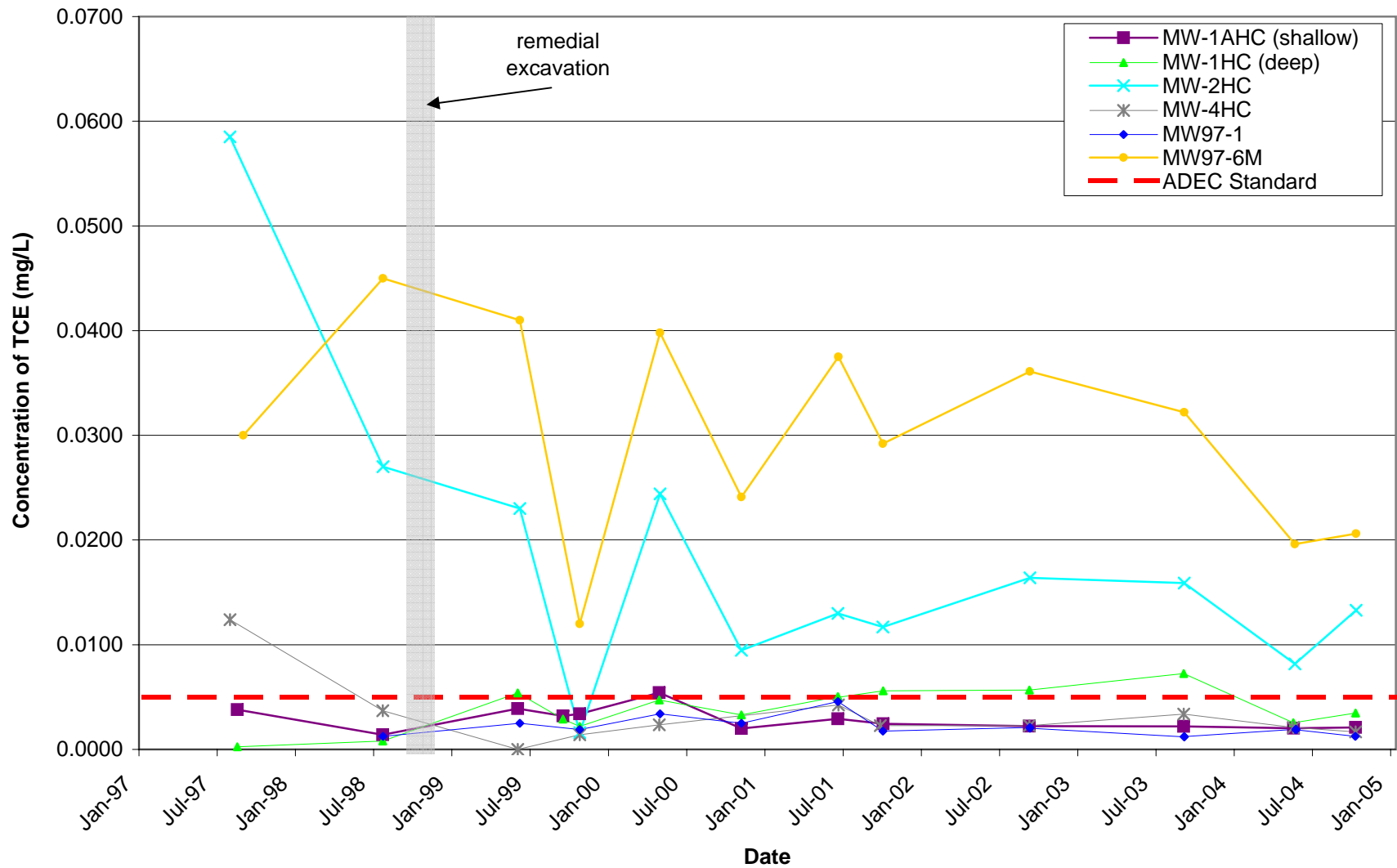
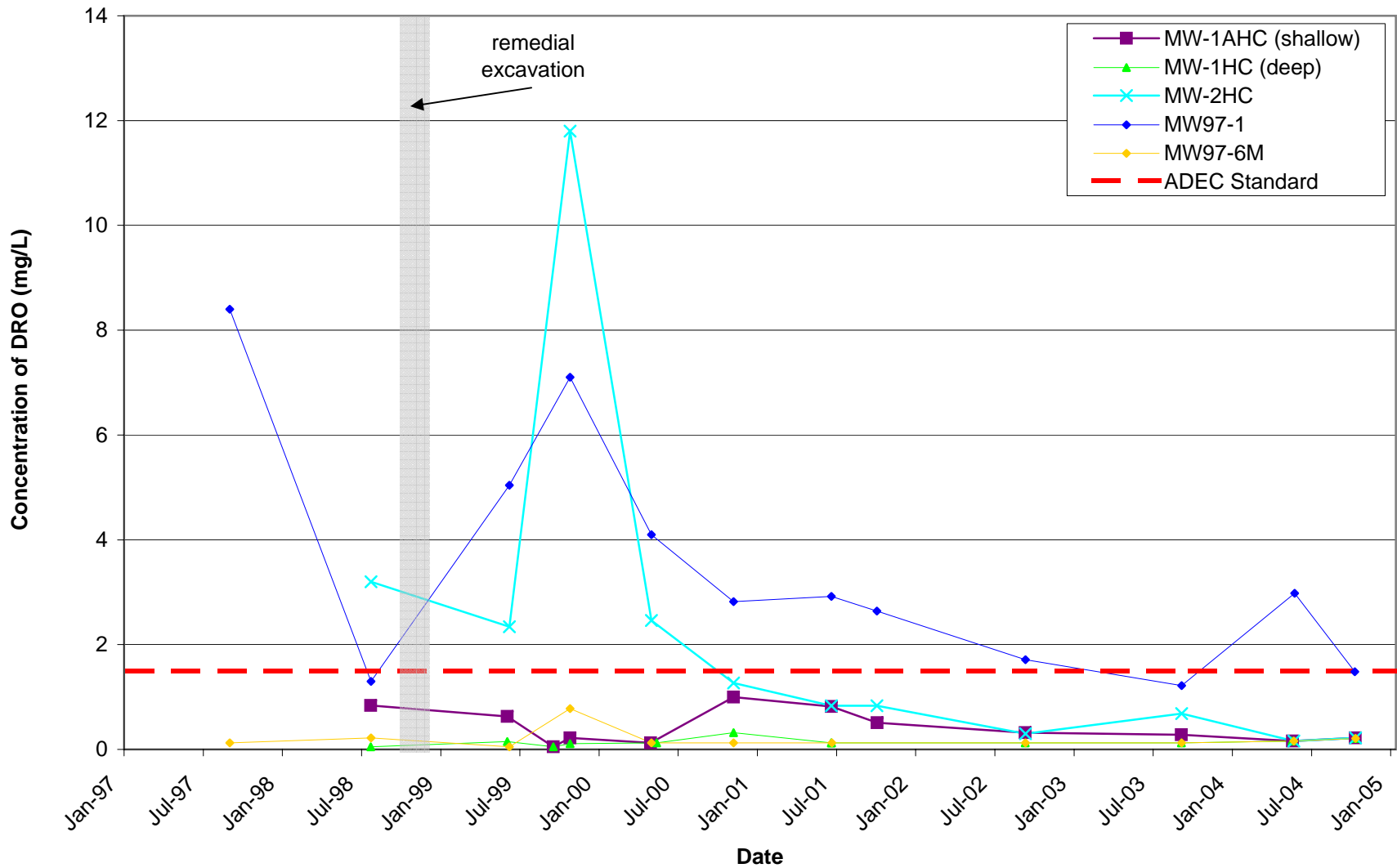


Figure 6 Concentration of DRO in Groundwater over Time



**APPENDIX I**  
**LABORATORY CHEMISTRY REPORTS**



**Seattle** 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
425.420.9200 fax 425.420.9210  
**Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
**Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
**Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
541.383.9310 fax 541.382.7588  
**Anchorage** 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119  
907.563.9200 fax 907.563.9210

November 08, 2004

Linda Kemp  
Golder Associates - Canada  
500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

RE: WP&YR/Shops/Skagway

Enclosed are the results of analyses for samples received by the laboratory on 10/26/04 14:15.  
The following list is a summary of the NCA Work Orders contained in this report.  
If you have any questions concerning this report, please feel free to contact me.

---

<u>Work</u>	<u>Project</u>	<u>ProjectNumber</u>
P4J1121	WP&YR/Shops/Skagway	96-1412-853B

---

Thank You,

---

Mary A. Fritzmann Smith, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**





**Seattle** 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
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 phone: (503) 906.9200 fax: (503) 906.9210  
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 phone: (541) 383.9310 fax: 541.382.7588  
**Anchorage** 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119  
 phone: (907) 563.9200 fax: (907) 563.9210

<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	
	Project Number: 96-1412-853B	<u>Report Created:</u>
	Project Manager: Linda Kemp	11/08/04 17:10

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
041020-01	P4J1121-01	Water	10/20/04 09:45	10/26/04 14:15
041020-02	P4J1121-02	Water	10/20/04 11:30	10/26/04 14:15
041020-03	P4J1121-03	Water	10/20/04 12:30	10/26/04 14:15
041020-04	P4J1121-04	Water	10/20/04 13:30	10/26/04 14:15
041020-05	P4J1121-05	Water	10/20/04 16:30	10/26/04 14:15
041020-06	P4J1121-06	Water	10/20/04 17:30	10/26/04 14:15

North Creek Analytical - Portland

Mary A. Fritzmann Smith, Project Manager

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name:	<b>WP&amp;YR/Shops/Skagway</b>	Report Created: 11/08/04 17:10
	Project Number:	96-1412-853B	
	Project Manager:	Linda Kemp	

**Gasoline Range Organics (C6-C10) per AK101**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-01</b>	<b>Water</b>	<b>041020-01</b>	<b>Sampled: 10/20/04 09:45</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101503	10/29/04	10/29/04 20:40	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 76.2%</i>		<i>Limits: 60 - 120 %</i>						
<b>P4J1121-02</b>	<b>Water</b>	<b>041020-02</b>	<b>Sampled: 10/20/04 11:30</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101503	10/29/04	10/29/04 21:08	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 76.0%</i>		<i>Limits: 60 - 120 %</i>						
<b>P4J1121-03</b>	<b>Water</b>	<b>041020-03</b>	<b>Sampled: 10/20/04 12:30</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101503	10/29/04	10/29/04 22:04	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.6%</i>		<i>Limits: 60 - 120 %</i>						
<b>P4J1121-04</b>	<b>Water</b>	<b>041020-04</b>	<b>Sampled: 10/20/04 13:30</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101503	10/29/04	10/29/04 22:31	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.6%</i>		<i>Limits: 60 - 120 %</i>						
<b>P4J1121-05</b>	<b>Water</b>	<b>041020-05</b>	<b>Sampled: 10/20/04 16:30</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101503	10/29/04	10/29/04 22:59	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 75.0%</i>		<i>Limits: 60 - 120 %</i>						
<b>P4J1121-06</b>	<b>Water</b>	<b>041020-06</b>	<b>Sampled: 10/20/04 17:30</b>							
Gasoline Range Organics	AK101 GRO	<b>85.8</b>	----	80.0	ug/l	1x	4101503	10/29/04	10/29/04 23:27	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 81.2%</i>		<i>Limits: 60 - 120 %</i>						

*Mary A. Fritzmann Smith*



**Seattle** 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
 phone: (425) 420.9200 fax: (425) 420.9210  
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 phone: (907) 563.9200 fax: (907) 563.9210

<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b> Project Number: 96-1412-853B Project Manager: Linda Kemp	Report Created: 11/08/04 17:10
---	---	-----------------------------------

**Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 Low Volume**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-01</b>	<b>Water</b>	<b>041020-01</b>	<b>Sampled: 10/20/04 09:45</b>							
Diesel Range Organics	AK102/103	ND	----	0.435	mg/l	1x	4101442	10/29/04	10/29/04 18:57	
Residual Range Organics	"	ND	----	0.522	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 108%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  104%</i>		<i>                  50 - 150 %</i>						
<b>P4J1121-02</b>	<b>Water</b>	<b>041020-02</b>	<b>Sampled: 10/20/04 11:30</b>							
Diesel Range Organics	AK102/103	ND	----	0.417	mg/l	1x	4101442	10/29/04	10/29/04 19:35	
Residual Range Organics	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 109%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  105%</i>		<i>                  50 - 150 %</i>						
<b>P4J1121-03</b>	<b>Water</b>	<b>041020-03</b>	<b>Sampled: 10/20/04 12:30</b>							
Diesel Range Organics	AK102/103	ND	----	0.417	mg/l	1x	4101442	10/29/04	10/29/04 20:13	
Residual Range Organics	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 89.8%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  85.2%</i>		<i>                  50 - 150 %</i>						
<b>P4J1121-04</b>	<b>Water</b>	<b>041020-04</b>	<b>Sampled: 10/20/04 13:30</b>							
Diesel Range Organics	AK102/103	ND	----	0.417	mg/l	1x	4101442	10/29/04	10/29/04 20:51	
Residual Range Organics	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 94.0%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  120%</i>		<i>                  50 - 150 %</i>						

*Mary A. Fritzmann Smith*



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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name:	<b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:10
	Project Number:	96-1412-853B	
	Project Manager:	Linda Kemp	

**Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 Low Volume**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-05</b>	<b>Water</b>	<b>041020-05</b>	<b>Sampled: 10/20/04 16:30</b>							
Diesel Range Organics	AK102/103	ND	-----	0.417	mg/l	1x	4101442	10/29/04	10/29/04 21:30	
Residual Range Organics	"	ND	-----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 104%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  98.3%</i>		<i>                  50 - 150 %</i>						
<b>P4J1121-06</b>	<b>Water</b>	<b>041020-06</b>	<b>Sampled: 10/20/04 17:30</b>							
Diesel Range Organics	AK102/103	<b>1.48</b>	-----	0.435	mg/l	1x	4101442	10/29/04	10/29/04 22:08	
Residual Range Organics	"	ND	-----	0.522	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 83.7%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  107%</i>		<i>                  50 - 150 %</i>						

*Mary A. Fritzmann Smith*



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
 Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
 11/08/04 17:10

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-01RE1</b>	<b>Water</b>	<b>041020-01</b>	<b>Sampled: 10/20/04 09:45</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110071	11/02/04	11/02/04 14:18	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Environmental Laboratory Network**



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:10

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-01RE1</b>	<b>Water</b>	<b>041020-01</b>	<b>Sampled: 10/20/04 09:45</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110071	11/02/04	11/02/04 14:18	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		Recovery: 94.0%		Limits: 75 - 120 %						
1,2-DCA-d4		114%		77 - 129 %						
Dibromofluoromethane		110%		80 - 121 %						
Toluene-d8		100%		80 - 120 %						

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:10

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-02</b>	<b>Water</b>	<b>041020-02</b>	<b>Sampled: 10/20/04 11:30</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4101521	10/31/04	10/31/04 14:51	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:10

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-02</b>	<b>Water</b>	<b>041020-02</b>	<b>Sampled: 10/20/04 11:30</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4101521	10/31/04	10/31/04 14:51	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery: 96.0%</i>		<i>Limits: 75 - 120 %</i>						
<i>1,2-DCA-d4</i>		<i>104%</i>		<i>77 - 129 %</i>						
<i>Dibromofluoromethane</i>		<i>100%</i>		<i>80 - 121 %</i>						
<i>Toluene-d8</i>		<i>100%</i>		<i>80 - 120 %</i>						

*Mary A. Fritzmann Smith*





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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:10
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-03</b>	<b>Water</b>	<b>041020-03</b>	<b>Sampled: 10/20/04 12:30</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4101521	10/31/04	10/31/04 15:18	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:10

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-03</b>	<b>Water</b>	<b>041020-03</b>	<b>Sampled: 10/20/04 12:30</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4101521	10/31/04	10/31/04 15:18	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery: 95.0%</i>		<i>Limits: 75 - 120 %</i>						
<i>1,2-DCA-d4</i>		<i>116%</i>		<i>77 - 129 %</i>						
<i>Dibromofluoromethane</i>		<i>118%</i>		<i>80 - 121 %</i>						
<i>Toluene-d8</i>		<i>108%</i>		<i>80 - 120 %</i>						

*Mary A. Fritzmann Smith*



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
 Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
 11/08/04 17:10

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-04</b>	<b>Water</b>	<b>041020-04</b>	<b>Sampled: 10/20/04 13:30</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4101521	10/31/04	10/31/04 15:44	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:10

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-04</b>	<b>Water</b>	<b>041020-04</b>	<b>Sampled: 10/20/04 13:30</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4101521	10/31/04	10/31/04 15:44	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Tetrachloroethene</b>	"	<b>4.82</b>	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	

Surrogate(s):	4-BFB	Recovery:	97.0%	Limits:	75 - 120 %	"	"
	1,2-DCA-d4		104%		77 - 129 %	"	"
	Dibromofluoromethane		105%		80 - 121 %	"	"
	Toluene-d8		99.0%		80 - 120 %	"	"

Mary A. Fritzmann Smith



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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:10
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-05</b>	<b>Water</b>	<b>041020-05</b>	<b>Sampled: 10/20/04 16:30</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4101521	10/31/04	10/31/04 16:11	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:10

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-05</b>	<b>Water</b>	<b>041020-05</b>	<b>Sampled: 10/20/04 16:30</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4101521	10/31/04	10/31/04 16:11	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Tetrachloroethene</b>	"	<b>2.94</b>	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery: 92.0%</i>		<i>Limits: 75 - 120 %</i>						
<i>1,2-DCA-d4</i>		<i>106%</i>		<i>77 - 129 %</i>						
<i>Dibromofluoromethane</i>		<i>106%</i>		<i>80 - 121 %</i>						
<i>Toluene-d8</i>		<i>98.5%</i>		<i>80 - 120 %</i>						

*Mary A. Fritzmann Smith*



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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b> Project Number: 96-1412-853B Project Manager: Linda Kemp	Report Created: 11/08/04 17:10
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**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-06</b>	<b>Water</b>	<b>041020-06</b>	<b>Sampled: 10/20/04 17:30</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4101521	10/31/04	10/31/04 16:38	
<b>Benzene</b>	"	<b>1.15</b>	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	"	<b>5.59</b>	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
<b>Ethylbenzene</b>	"	<b>5.84</b>	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:10

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1121-06</b>	<b>Water</b>	<b>041020-06</b>	<b>Sampled: 10/20/04 17:30</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4101521	10/31/04	10/31/04 16:38	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
<b>n-Propylbenzene</b>	"	<b>1.34</b>	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>1.25</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
<b>Vinyl chloride</b>	"	<b>1.49</b>	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery: 102%</i>		<i>Limits: 75 - 120 %</i>						
<i>1,2-DCA-d4</i>		<i>106%</i>		<i>77 - 129 %</i>						
<i>Dibromofluoromethane</i>		<i>109%</i>		<i>80 - 121 %</i>						
<i>Toluene-d8</i>		<i>98.5%</i>		<i>80 - 120 %</i>						

Mary A. Fritzmann Smith





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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:10
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Gasoline Range Organics (C6-C10) per AK101 - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

**QC Batch: 4101503**      **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Blank (4101503-BLK1)</b>											<b>Extracted: 10/29/04 16:20</b>	
Gasoline Range Organics	AK101 GRO	ND	---	80.0	ug/l	1x	--	--	--	--	10/29/04 16:28	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 76.0%</i>		<i>Limits: 60-120%</i>		<i>"</i>					<i>10/29/04 16:28</i>	
<b>LCS (4101503-BS1)</b>											<b>Extracted: 10/29/04 16:20</b>	
Gasoline Range Organics	AK101 GRO	978	---	80.0	ug/l	1x	--	1000	97.8% (60-120)	--	10/29/04 17:23	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 85.0%</i>		<i>Limits: 60-120%</i>		<i>"</i>					<i>10/29/04 17:23</i>	
<b>LCS Dup (4101503-BSD1)</b>											<b>Extracted: 10/29/04 16:20</b>	
Gasoline Range Organics	AK101 GRO	1060	---	80.0	ug/l	1x	--	1000	106% (60-120)	8.05% (20)	10/29/04 17:51	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 83.4%</i>		<i>Limits: 60-120%</i>		<i>"</i>					<i>10/29/04 17:51</i>	
<b>Duplicate (4101503-DUP1)</b>				<b>QC Source: P4J1080-01</b>				<b>Extracted: 10/29/04 16:20</b>				
Gasoline Range Organics	AK101 GRO	13200	---	800	ug/l	10x	13300	--	--	0.755% (50)	10/29/04 18:48	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 87.4%</i>		<i>Limits: 60-120%</i>		<i>1x</i>					<i>10/29/04 18:48</i>	
<b>Duplicate (4101503-DUP2)</b>				<b>QC Source: P4J1122-01</b>				<b>Extracted: 10/29/04 16:20</b>				
Gasoline Range Organics	AK101 GRO	18.6	---	80.0	ug/l	1x	ND	--	--	NR (50)	10/30/04 00:22	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.6%</i>		<i>Limits: 60-120%</i>		<i>"</i>					<i>10/30/04 00:22</i>	

North Creek Analytical - Portland

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	
	Project Number: 96-1412-853B	Report Created: 11/08/04 17:10
	Project Manager: Linda Kemp	

**I Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 Low Volume - Laboratory Quality Control R**  
 North Creek Analytical - Portland

QC Batch: 4101442      Water Preparation Method: EPA 3510 Fuels

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Blank (4101442-BLK1)</b>											Extracted: 10/29/04 06:59	
Diesel Range Organics	AK102/103	ND	---	0.500	mg/l	1x	--	--	--	--	10/29/04 17:02	
Residual Range Organics	"	ND	---	0.600	"	"	--	--	--	--	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery:</i>	<i>96.0%</i>	<i>Limits: 50-150%</i>		<i>"</i>					<i>10/29/04 17:02</i>	
<i>triacontane</i>			<i>95.6%</i>	<i>50-150%</i>		<i>"</i>					<i>"</i>	
<b>LCS (4101442-BS1)</b>											Extracted: 10/29/04 06:59	
Diesel Range Organics	AK102/103	5.33	---	0.500	mg/l	1x	--	5.00	107% (75-125)	--	11/01/04 20:01	
Residual Range Organics	"	3.57	---	0.600	"	"	--	3.01	119% (60-120)	--	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery:</i>	<i>74.2%</i>	<i>Limits: 50-150%</i>		<i>"</i>					<i>11/01/04 20:01</i>	
<i>triacontane</i>			<i>91.7%</i>	<i>50-150%</i>		<i>"</i>					<i>"</i>	
<b>LCS Dup (4101442-BSD1)</b>											Extracted: 10/29/04 06:59	
Diesel Range Organics	AK102/103	5.31	---	0.500	mg/l	1x	--	5.00	106% (75-125)	0.376% (20)	11/01/04 20:39	
Residual Range Organics	"	3.30	---	0.600	"	"	--	3.01	110% (60-120)	7.86% "	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery:</i>	<i>75.8%</i>	<i>Limits: 50-150%</i>		<i>"</i>					<i>11/01/04 20:39</i>	
<i>triacontane</i>			<i>94.0%</i>	<i>50-150%</i>		<i>"</i>					<i>"</i>	

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	Report Created: 11/08/04 17:10
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

QC Batch: 4101521      Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Blank (4101521-BLK1)</b>											Extracted: 10/31/04 08:44	
Acetone	EPA 8260B	ND	---	25.0	ug/l	1x	--	--	--	--	10/31/04 11:18	
Benzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromochloromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromodichloromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromoform	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromomethane	"	ND	---	5.00	"	"	--	--	--	--	"	
2-Butanone	"	ND	---	10.0	"	"	--	--	--	--	"	
n-Butylbenzene	"	ND	---	5.00	"	"	--	--	--	--	"	
sec-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
tert-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Carbon disulfide	"	ND	---	10.0	"	"	--	--	--	--	"	
Carbon tetrachloride	"	ND	---	1.00	"	"	--	--	--	--	"	
Chlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Chloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Chloroform	"	ND	---	1.00	"	"	--	--	--	--	"	
Chloromethane	"	ND	---	5.00	"	"	--	--	--	--	"	
2-Chlorotoluene	"	ND	---	1.00	"	"	--	--	--	--	"	
4-Chlorotoluene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	---	5.00	"	"	--	--	--	--	"	
Dibromochloromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dibromoethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Dibromomethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Dichlorodifluoromethane	"	ND	---	5.00	"	"	--	--	--	--	"	
1,1-Dichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,3-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
2,2-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	"	
Ethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Hexachlorobutadiene	"	ND	---	4.00	"	"	--	--	--	--	"	
2-Hexanone	"	ND	---	10.0	"	"	--	--	--	--	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:10
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

**QC Batch: 4101521**      **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Blank (4101521-BLK1)</b>											<b>Extracted: 10/31/04 08:44</b>	
Isopropylbenzene	EPA 8260B	ND	---	2.00	ug/l	1x	--	--	--	--	10/31/04 11:18	
p-Isopropyltoluene	"	ND	---	2.00	"	"	--	--	--	--	"	
4-Methyl-2-pentanone	"	ND	---	5.00	"	"	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	"	
Methylene chloride	"	ND	---	5.00	"	"	--	--	--	--	"	
Naphthalene	"	ND	---	2.00	"	"	--	--	--	--	"	
n-Propylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Styrene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,1,2-Tetrachloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Tetrachloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
Toluene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,1-Trichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Trichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
Trichlorofluoromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Vinyl chloride	"	ND	---	1.00	"	"	--	--	--	--	"	
o-Xylene	"	ND	---	1.00	"	"	--	--	--	--	"	
m,p-Xylene	"	ND	---	2.00	"	"	--	--	--	--	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>92.5%</i>	<i>Limits:</i>	<i>75-120%</i>	<i>"</i>					<i>10/31/04 11:18</i>	
<i>1,2-DCA-d4</i>			<i>114%</i>		<i>77-129%</i>	<i>"</i>					<i>"</i>	
<i>Dibromofluoromethane</i>			<i>112%</i>		<i>80-121%</i>	<i>"</i>					<i>"</i>	
<i>Toluene-d8</i>			<i>104%</i>		<i>80-120%</i>	<i>"</i>					<i>"</i>	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
 Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
 Project Manager: Linda Kemp

Report Created:  
 11/08/04 17:10

**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

QC Batch: 4101521 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	----------------	----------------	----------	-------

**LCS (4101521-BS1)**

Extracted: 10/31/04 08:44

Benzene	EPA 8260B	19.4	---	1.00	ug/l	1x	--	20.0	97.0% (80-120)	-- --	10/31/04 09:31	
Chlorobenzene	"	17.9	---	1.00	"	"	--	"	89.5% (80-124)	-- --	"	
1,1-Dichloroethene	"	16.7	---	1.00	"	"	--	"	83.5% (78-120)	-- --	"	
Toluene	"	19.3	---	1.00	"	"	--	"	96.5% (80-124)	-- --	"	
Trichloroethene	"	19.7	---	1.00	"	"	--	"	98.5% (80-132)	-- --	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>116%</i>	<i>Limits:</i>	<i>75-120%</i>	<i>"</i>					<i>10/31/04 09:31</i>	
<i>1,2-DCA-d4</i>			<i>104%</i>		<i>77-129%</i>	<i>"</i>					<i>"</i>	
<i>Dibromofluoromethane</i>			<i>97.5%</i>		<i>80-121%</i>	<i>"</i>					<i>"</i>	
<i>Toluene-d8</i>			<i>101%</i>		<i>80-120%</i>	<i>"</i>					<i>"</i>	

**Matrix Spike (4101521-MS1)**

QC Source: P4J0991-01

Extracted: 10/31/04 08:44

Benzene	EPA 8260B	18.6	---	1.00	ug/l	1x	ND	20.0	93.0% (80-124)	-- --	10/31/04 09:58	
Chlorobenzene	"	18.3	---	1.00	"	"	ND	"	90.8% (72.9-134)	-- --	"	
1,1-Dichloroethene	"	17.1	---	1.00	"	"	ND	"	85.5% (79.3-127)	-- --	"	
Toluene	"	16.6	---	1.00	"	"	ND	"	83.0% (79.7-131)	-- --	"	
Trichloroethene	"	17.9	---	1.00	"	"	ND	"	89.5% (68.4-130)	-- --	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>99.5%</i>	<i>Limits:</i>	<i>75-120%</i>	<i>"</i>					<i>10/31/04 09:58</i>	
<i>1,2-DCA-d4</i>			<i>105%</i>		<i>77-129%</i>	<i>"</i>					<i>"</i>	
<i>Dibromofluoromethane</i>			<i>97.0%</i>		<i>80-121%</i>	<i>"</i>					<i>"</i>	
<i>Toluene-d8</i>			<i>96.5%</i>		<i>80-120%</i>	<i>"</i>					<i>"</i>	

**Matrix Spike Dup (4101521-MSD1)**

QC Source: P4J0991-01

Extracted: 10/31/04 08:44

Benzene	EPA 8260B	19.1	---	1.00	ug/l	1x	ND	20.0	95.5% (80-124)	2.65% (25)	10/31/04 10:25	
Chlorobenzene	"	18.9	---	1.00	"	"	ND	"	93.8% (72.9-134)	3.23% "	"	
1,1-Dichloroethene	"	18.0	---	1.00	"	"	ND	"	90.0% (79.3-127)	5.13% "	"	
Toluene	"	17.1	---	1.00	"	"	ND	"	85.5% (79.7-131)	2.97% "	"	
Trichloroethene	"	18.7	---	1.00	"	"	ND	"	93.5% (68.4-130)	4.37% "	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>102%</i>	<i>Limits:</i>	<i>75-120%</i>	<i>"</i>					<i>10/31/04 10:25</i>	
<i>1,2-DCA-d4</i>			<i>103%</i>		<i>77-129%</i>	<i>"</i>					<i>"</i>	
<i>Dibromofluoromethane</i>			<i>95.0%</i>		<i>80-121%</i>	<i>"</i>					<i>"</i>	
<i>Toluene-d8</i>			<i>89.5%</i>		<i>80-120%</i>	<i>"</i>					<i>"</i>	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	Report Created: 11/08/04 17:10
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

QC Batch: 4110071      Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Blank (4110071-BLK1)</b>											Extracted: 11/02/04 07:33	
Acetone	EPA 8260B	ND	---	25.0	ug/l	1x	--	--	--	--	11/02/04 10:14	
Benzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromochloromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromodichloromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromoform	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromomethane	"	ND	---	5.00	"	"	--	--	--	--	"	
2-Butanone	"	ND	---	10.0	"	"	--	--	--	--	"	
n-Butylbenzene	"	ND	---	5.00	"	"	--	--	--	--	"	
sec-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
tert-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Carbon disulfide	"	ND	---	10.0	"	"	--	--	--	--	"	
Carbon tetrachloride	"	ND	---	1.00	"	"	--	--	--	--	"	
Chlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Chloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Chloroform	"	ND	---	1.00	"	"	--	--	--	--	"	
Chloromethane	"	ND	---	5.00	"	"	--	--	--	--	"	
2-Chlorotoluene	"	ND	---	1.00	"	"	--	--	--	--	"	
4-Chlorotoluene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	---	5.00	"	"	--	--	--	--	"	
Dibromochloromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dibromoethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Dibromomethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Dichlorodifluoromethane	"	ND	---	5.00	"	"	--	--	--	--	"	
1,1-Dichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,3-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
2,2-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	"	
Ethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Hexachlorobutadiene	"	ND	---	4.00	"	"	--	--	--	--	"	
2-Hexanone	"	ND	---	10.0	"	"	--	--	--	--	"	

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:10
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

**QC Batch: 4110071**      **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Blank (4110071-BLK1)</b>												
Extracted: 11/02/04 07:33												
Isopropylbenzene	EPA 8260B	ND	---	2.00	ug/l	1x	--	--	--	--	11/02/04 10:14	
p-Isopropyltoluene	"	ND	---	2.00	"	"	--	--	--	--	"	
4-Methyl-2-pentanone	"	ND	---	5.00	"	"	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	"	
Methylene chloride	"	ND	---	5.00	"	"	--	--	--	--	"	
Naphthalene	"	ND	---	2.00	"	"	--	--	--	--	"	
n-Propylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Styrene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,1,2-Tetrachloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Tetrachloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
Toluene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,1-Trichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Trichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
Trichlorofluoromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Vinyl chloride	"	ND	---	1.00	"	"	--	--	--	--	"	
o-Xylene	"	ND	---	1.00	"	"	--	--	--	--	"	
m,p-Xylene	"	ND	---	2.00	"	"	--	--	--	--	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>93.5%</i>	<i>Limits:</i>	<i>75-120%</i>					<i>11/02/04 10:14</i>		
<i>1,2-DCA-d4</i>			<i>111%</i>		<i>77-129%</i>							<i>"</i>
<i>Dibromofluoromethane</i>			<i>107%</i>		<i>80-121%</i>							<i>"</i>
<i>Toluene-d8</i>			<i>99.5%</i>		<i>80-120%</i>							<i>"</i>

*Mary A. Fritzmann Smith*



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500-4260 Still Creek Drive  
 Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
 Project Manager: Linda Kemp

Report Created:  
 11/08/04 17:10

**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

QC Batch: 4110071 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	----------------	----------------	----------	-------

**LCS (4110071-BS1)**

Extracted: 11/02/04 07:33

Benzene	EPA 8260B	19.5	---	1.00	ug/l	1x	--	20.0	97.5% (80-120)	-- --	11/02/04 08:27	
Chlorobenzene	"	19.2	---	1.00	"	"	--	"	96.0% (80-124)	-- --	"	
1,1-Dichloroethene	"	16.6	---	1.00	"	"	--	"	83.0% (78-120)	-- --	"	
Toluene	"	19.3	---	1.00	"	"	--	"	96.5% (80-124)	-- --	"	
Trichloroethene	"	19.7	---	1.00	"	"	--	"	98.5% (80-132)	-- --	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>104%</i>	<i>Limits:</i>	<i>75-120%</i>	<i>"</i>					<i>11/02/04 08:27</i>	
<i>1,2-DCA-d4</i>			<i>108%</i>		<i>77-129%</i>	<i>"</i>					<i>"</i>	
<i>Dibromofluoromethane</i>			<i>100%</i>		<i>80-121%</i>	<i>"</i>					<i>"</i>	
<i>Toluene-d8</i>			<i>102%</i>		<i>80-120%</i>	<i>"</i>					<i>"</i>	

**Matrix Spike (4110071-MS1)**

QC Source: P4J0977-01

Extracted: 11/02/04 07:33

Benzene	EPA 8260B	17.4	---	1.00	ug/l	1x	ND	20.0	87.0% (80-124)	-- --	11/02/04 08:55	
Chlorobenzene	"	18.4	---	1.00	"	"	ND	"	92.0% (72.9-134)	-- --	"	
1,1-Dichloroethene	"	19.3	---	1.00	"	"	ND	"	96.5% (79.3-127)	-- --	"	
Toluene	"	18.4	---	1.00	"	"	ND	"	92.0% (79.7-131)	-- --	"	
Trichloroethene	"	16.3	---	1.00	"	"	ND	"	81.5% (68.4-130)	-- --	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>96.5%</i>	<i>Limits:</i>	<i>75-120%</i>	<i>"</i>					<i>11/02/04 08:55</i>	
<i>1,2-DCA-d4</i>			<i>104%</i>		<i>77-129%</i>	<i>"</i>					<i>"</i>	
<i>Dibromofluoromethane</i>			<i>97.0%</i>		<i>80-121%</i>	<i>"</i>					<i>"</i>	
<i>Toluene-d8</i>			<i>95.0%</i>		<i>80-120%</i>	<i>"</i>					<i>"</i>	

**Matrix Spike Dup (4110071-MSD1)**

QC Source: P4J0977-01

Extracted: 11/02/04 07:33

Benzene	EPA 8260B	19.5	---	1.00	ug/l	1x	ND	20.0	97.5% (80-124)	11.4% (25)	11/02/04 09:21	
Chlorobenzene	"	19.0	---	1.00	"	"	ND	"	95.0% (72.9-134)	3.21% "	"	
1,1-Dichloroethene	"	19.8	---	1.00	"	"	ND	"	99.0% (79.3-127)	2.56% "	"	
Toluene	"	18.9	---	1.00	"	"	ND	"	94.5% (79.7-131)	2.68% "	"	
Trichloroethene	"	19.4	---	1.00	"	"	ND	"	97.0% (68.4-130)	17.4% "	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>101%</i>	<i>Limits:</i>	<i>75-120%</i>	<i>"</i>					<i>11/02/04 09:21</i>	
<i>1,2-DCA-d4</i>			<i>108%</i>		<i>77-129%</i>	<i>"</i>					<i>"</i>	
<i>Dibromofluoromethane</i>			<i>99.0%</i>		<i>80-121%</i>	<i>"</i>					<i>"</i>	
<i>Toluene-d8</i>			<i>100%</i>		<i>80-120%</i>	<i>"</i>					<i>"</i>	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b> Project Number: 96-1412-853B Project Manager: Linda Kemp	<b>Report Created:</b> 11/08/04 17:10
---	---	--

**Notes and Definitions**

Report Specific Notes:

None

Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR / NA - Not Reported / Not Available
- dry - Sample results reported on a dry weight basis. Reporting Limits are corrected for %Solids when %Solids are <50%.
- wet - Sample results and reporting limits reported on a wet weight basis (as received).
- RPD - Relative Percent Difference. (RPDs calculated using Results, not Percent Recoveries).
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL\* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. \*MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated results.
- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

*Mary A. Fritzmann Smith*



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 541-383-9310 FAX 382-7588  
 907-334-9200 FAX 334-9210


### CHAIN OF CUSTODY REPORT

Work Order #: **041020**

CLIENT: <b>GOLDER ASSOCIATES</b>		INVOICE TO:				<b>TURNAROUND REQUEST</b> in Business Days * Organic & Inorganic Analyses <input type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 Petroleum Hydrocarbon Analyses <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 <input type="checkbox"/> OTHER Specify: _____ <small>* Turnaround Requests less than standard may incur Rush Charges.</small>			
REPORT TO: <b>LINDA KEMP</b>		P.O. NUMBER: <b>96-1412-853B</b>							
ADDRESS: <b>500 - 4200 Still Creek Dr. Burnaby, BC</b>		PRESERVATIVE				MATRIX (W, S, O)    # OF CONT.    LOCATION / COMMENTS    NCA WO ID			
PHONE: <b>604-296-2810 FAX: (604) 298-2000 5253</b>		REQUESTED ANALYSES							
PROJECT NAME: <b>Skagway Shops</b>		HCl HCl HCl HCl				VOCs    GRO    DRO    RPO			
PROJECT NUMBER: <b>96 1412 853B</b>									
SAMPLED BY: <b>L. Kemp</b>									
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME								
1 041020-01	Oct 20'04/09:45	✓	✓	✓	✓	W	8		
2 041020-02	Oct 20'04/11:30	✓	✓	✓	✓	W	8		
3 041020-03	Oct 20'04/12:30	✓	✓	✓	✓	W	8		
4 041020-04	Oct 20'04/13:30	✓	✓	✓	✓	W	8		
5 041020-05	Oct 20'04/16:30	✓	✓	✓	✓	W	8		
6 041020-06	Oct 20'04/17:30	✓	✓	✓	✓	W	8		
7									
8									
9									
10									
RELEASED BY:	DATE: <b>Oct 25 2004</b>	RECEIVED BY:	DATE: <b>10/26/04</b>						
PRINT NAME: <b>LINDA KEMP</b>	FIRM: <b>GOLDER</b>	TIME: <b>9 AM</b>	PRINT NAME: <b>Linda Fot</b>	FIRM: <b>NCA</b>					
RELEASED BY:	DATE:	RECEIVED BY:	DATE:						
PRINT NAME:	FIRM:	TIME:	PRINT NAME:	FIRM:					
ADDITIONAL REMARKS:				TEMP: <b>4.4°C</b>		PAGE <b>1</b> OF <b>4</b>			

**NORTH CREEK ANALYTICAL COOLER RECEIPT FORM**

(Army Corp. compliant)

Client: Rolder

1. Please sign for receipt and opening of 3 cooler or          other         

By (print) ERICA POT (sign) Erica Pot

2. Date samples received 10/26/04 Date opened: Same  or     /    /    

3. Delivered by:          NCA courier          FedEx          UPS  Courier PROPAC Client  Other           
Airbill # if applicable          (Put copy of shipping papers in file)

4. There were 0 custody seals present, signed by          date     /    /    .

5. Were the custody seals unbroken and intact at the date and time of arrival?          Yes          No

6. Was ice used?  yes          no Type of ice:          blue ice  gel ice          real ice  
Temperature (degrees C) 39.19 Raytek thermometer          Digi-Therm (probe temperature blank) 4.4°C

7. Are custody papers sealed in a plastic bag and taped inside to lid?  Yes          No

8. Were custody papers filled out properly (ink, signed, etc.)?  Yes          No  
If "no" please specify:         

9. Was project identifiable from custody papers?  Yes          No  
Name of project Slagway (if applicable)

10. Initial and date for unpacking: CEU (initials) date 10/27/04

11. Packing material:  bubble wrap/bag          styrofoam  cardboard          other

12. Were samples in bags?          Yes  No

13. Did all containers indicated on the COC arrive?  Yes          No  
If "no" please indicate which containers were absent         

14. Were all containers unbroken and labels in good condition?  Yes          No  
If "no" please indicate which containers         

15. Were all bottle labels complete (ID, date, time, signature, etc.)?  Yes          No  
Do the IDs, times, etc. agree with the COC?  Yes          No  
If "no" please indicate which containers         

16. Are containers properly preserved for indicated analysis?  Yes          No

17. Is there adequate volume for the test(s) requested?  Yes          No

18. If voa vials were submitted, are they free of bubbles?          N/A  Yes          No

19. Log-in phase: Date samples were logged in: 10/27/04 Elm Project # P401121

20. Logged in by (print) Chelle Fanslow (sign) Chelle Fanslow

21. Was the project manager notified of status? (Use back of form as a record)          Yes  No



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November 08, 2004

Linda Kemp  
Golder Associates - Canada  
500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

RE: WP&YR/Shops/Skagway

Enclosed are the results of analyses for samples received by the laboratory on 10/26/04 14:15.  
The following list is a summary of the NCA Work Orders contained in this report.  
If you have any questions concerning this report, please feel free to contact me.

<u>Work</u>	<u>Project</u>	<u>ProjectNumber</u>
P4J1122	WP&YR/Shops/Skagway	96-1412-853B

Thank You,

Mary A. Fritzmann Smith, Project Manager

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**Environmental Laboratory Network**



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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<u>Report Created:</u> 11/08/04 17:12
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
041021-01	P4J1122-01	Water	10/21/04 08:45	10/26/04 14:15
041021-02	P4J1122-02	Water	10/21/04 10:30	10/26/04 14:15
041021-03	P4J1122-03	Water	10/21/04 11:30	10/26/04 14:15
041021-04	P4J1122-04	Water	10/21/04 13:30	10/26/04 14:15
041021-05	P4J1122-05	Water	10/21/04 14:00	10/26/04 14:15
041021-06	P4J1122-06	Water	10/21/04 15:00	10/26/04 14:15
041021-07	P4J1122-07	Water	10/21/04 16:00	10/26/04 14:15
041021-08	P4J1122-08	Water	10/21/04 17:00	10/26/04 14:15
041021-09	P4J1122-09	Water	10/21/04 17:00	10/26/04 14:15

North Creek Analytical - Portland

Mary A. Fritzmann Smith, Project Manager

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:12
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Gasoline Range Organics (C6-C10) per AK101**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-01</b>	<b>Water</b>	<b>041021-01</b>	<b>Sampled: 10/21/04 08:45</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101503	10/29/04	10/29/04 23:54	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 76.2%</i>		<i>Limits: 60 - 120 %</i>						
<b>P4J1122-02</b>	<b>Water</b>	<b>041021-02</b>	<b>Sampled: 10/21/04 10:30</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101503	10/29/04	10/30/04 00:50	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.6%</i>		<i>Limits: 60 - 120 %</i>						
<b>P4J1122-03</b>	<b>Water</b>	<b>041021-03</b>	<b>Sampled: 10/21/04 11:30</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101503	10/29/04	10/30/04 01:17	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.2%</i>		<i>Limits: 60 - 120 %</i>						
<b>P4J1122-04</b>	<b>Water</b>	<b>041021-04</b>	<b>Sampled: 10/21/04 13:30</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101503	10/29/04	10/30/04 01:45	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 75.0%</i>		<i>Limits: 60 - 120 %</i>						
<b>P4J1122-05</b>	<b>Water</b>	<b>041021-05</b>	<b>Sampled: 10/21/04 14:00</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101503	10/29/04	10/30/04 02:13	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 72.4%</i>		<i>Limits: 60 - 120 %</i>						
<b>P4J1122-06</b>	<b>Water</b>	<b>041021-06</b>	<b>Sampled: 10/21/04 15:00</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101503	10/29/04	10/30/04 03:09	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.2%</i>		<i>Limits: 60 - 120 %</i>						

*Mary A. Fritzmann Smith*



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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:12
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Gasoline Range Organics (C6-C10) per AK101**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-07</b>	<b>Water</b>	<b>041021-07</b>	<b>Sampled: 10/21/04 16:00</b>							
Gasoline Range Organics	AK101 GRO	ND	-----	80.0	ug/l	1x	4101503	10/29/04	10/30/04 03:37	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 73.4%</i>		<i>Limits: 60 - 120 %</i>		"		"		
<b>P4J1122-08</b>	<b>Water</b>	<b>041021-08</b>	<b>Sampled: 10/21/04 17:00</b>							
Gasoline Range Organics	AK101 GRO	ND	-----	80.0	ug/l	1x	4101503	10/29/04	10/30/04 04:04	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.2%</i>		<i>Limits: 60 - 120 %</i>		"		"		
<b>P4J1122-09</b>	<b>Water</b>	<b>041021-09</b>	<b>Sampled: 10/21/04 17:00</b>							
Gasoline Range Organics	AK101 GRO	ND	-----	80.0	ug/l	1x	4101503	10/29/04	10/30/04 04:32	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 75.2%</i>		<i>Limits: 60 - 120 %</i>		"		"		

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:12

**Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 Low Volume**  
North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-01</b>	<b>Water</b>	<b>041021-01</b>	<b>Sampled: 10/21/04 08:45</b>							
Diesel Range Organics	AK102/103	ND	----	0.435	mg/l	1x	4101442	10/29/04	10/29/04 22:46	
Residual Range Organics	"	ND	----	0.522	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 83.9%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  77.2%</i>		<i>                  50 - 150 %</i>						
<b>P4J1122-02</b>	<b>Water</b>	<b>041021-02</b>	<b>Sampled: 10/21/04 10:30</b>							
Diesel Range Organics	AK102/103	ND	----	0.500	mg/l	1x	4101442	10/29/04	10/30/04 00:42	
Residual Range Organics	"	ND	----	0.600	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 108%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  142%</i>		<i>                  50 - 150 %</i>						
<b>P4J1122-03</b>	<b>Water</b>	<b>041021-03</b>	<b>Sampled: 10/21/04 11:30</b>							
Diesel Range Organics	AK102/103	ND	----	0.417	mg/l	1x	4101442	10/29/04	10/30/04 01:21	
Residual Range Organics	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 90.0%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  81.4%</i>		<i>                  50 - 150 %</i>						
<b>P4J1122-04</b>	<b>Water</b>	<b>041021-04</b>	<b>Sampled: 10/21/04 13:30</b>							
Diesel Range Organics	AK102/103	ND	----	0.435	mg/l	1x	4101442	10/29/04	10/30/04 01:59	
Residual Range Organics	"	ND	----	0.522	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 88.2%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  120%</i>		<i>                  50 - 150 %</i>						

*Mary A. Fritzmann Smith*





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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:12

**Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 Low Volume**  
North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-05</b>	<b>Water</b>	<b>041021-05</b>	<b>Sampled: 10/21/04 14:00</b>							
Diesel Range Organics	AK102/103	ND	----	0.435	mg/l	1x	4101442	10/29/04	10/30/04 02:38	
Residual Range Organics	"	ND	----	0.522	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 73.1%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  66.9%</i>		<i>                  50 - 150 %</i>						
<b>P4J1122-06</b>	<b>Water</b>	<b>041021-06</b>	<b>Sampled: 10/21/04 15:00</b>							
Diesel Range Organics	AK102/103	ND	----	0.417	mg/l	1x	4101442	10/29/04	10/30/04 03:17	
Residual Range Organics	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 86.5%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  114%</i>		<i>                  50 - 150 %</i>						
<b>P4J1122-07</b>	<b>Water</b>	<b>041021-07</b>	<b>Sampled: 10/21/04 16:00</b>							
Diesel Range Organics	AK102/103	ND	----	0.417	mg/l	1x	4101442	10/29/04	10/30/04 03:55	
Residual Range Organics	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 86.5%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  82.6%</i>		<i>                  50 - 150 %</i>						
<b>P4J1122-08</b>	<b>Water</b>	<b>041021-08</b>	<b>Sampled: 10/21/04 17:00</b>							
Diesel Range Organics	AK102/103	ND	----	0.500	mg/l	1x	4101442	10/29/04	10/30/04 04:34	
Residual Range Organics	"	ND	----	0.600	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 80.4%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  106%</i>		<i>                  50 - 150 %</i>						

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name:	<b>WP&amp;YR/Shops/Skagway</b>	<u>Report Created:</u> 11/08/04 17:12
	Project Number:	96-1412-853B	
	Project Manager:	Linda Kemp	

**Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 Low Volume**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-09</b>	<b>Water</b>	<b>041021-09</b>	<b>Sampled: 10/21/04 17:00</b>							
Diesel Range Organics	AK102/103	ND	-----	0.435	mg/l	1x	4101442	10/29/04	10/30/04 05:12	
Residual Range Organics	"	ND	-----	0.522	"	"	"	"	"	"
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 90.2%</i>		<i>Limits: 50 - 150 %</i>						<i>"</i>
<i>Triacotane</i>		<i>142%</i>		<i>50 - 150 %</i>						<i>"</i>

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-01</b>	<b>Water</b>	<b>041021-01</b>	<b>Sampled: 10/21/04 08:45</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110003	11/01/04	11/01/04 12:58	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:

11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-01</b>	<b>Water</b>	<b>041021-01</b>	<b>Sampled: 10/21/04 08:45</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110003	11/01/04	11/01/04 12:58	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>1.67</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	

Surrogate(s): 4-BFB	Recovery: 92.5%	Limits: 75 - 120 %	"	"
1,2-DCA-d4	109%	77 - 129 %	"	"
Dibromofluoromethane	108%	80 - 121 %	"	"
Toluene-d8	108%	80 - 120 %	"	"

Mary A. Fritzmann Smith



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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:12
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-02</b>	<b>Water</b>	<b>041021-02</b>	<b>Sampled: 10/21/04 10:30</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110003	11/01/04	11/01/04 13:26	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	"	<b>14.4</b>	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Environmental Laboratory Network**



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-02</b>	<b>Water</b>	<b>041021-02</b>	<b>Sampled: 10/21/04 10:30</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110003	11/01/04	11/01/04 13:26	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Tetrachloroethene</b>	"	<b>2.83</b>	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>21.9</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery: 86.0%</i>		<i>Limits: 75 - 120 %</i>						
<i>1,2-DCA-d4</i>		<i>106%</i>		<i>77 - 129 %</i>						
<i>Dibromofluoromethane</i>		<i>106%</i>		<i>80 - 121 %</i>						
<i>Toluene-d8</i>		<i>99.5%</i>		<i>80 - 120 %</i>						

Mary A. Fritzmann Smith



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
 Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
 11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-03</b>	<b>Water</b>	<b>041021-03</b>	<b>Sampled: 10/21/04 11:30</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110003	11/01/04	11/01/04 13:54	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	"	<b>1.63</b>	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**



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<b>Golder Associates - Canada</b>	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	
500-4260 Still Creek Drive	Project Number: 96-1412-853B	<u>Report Created:</u>
Burnaby, BC/CAN V5C6C6	Project Manager: Linda Kemp	11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-03</b>	<b>Water</b>	<b>041021-03</b>	<b>Sampled: 10/21/04 11:30</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110003	11/01/04	11/01/04 13:54	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>3.48</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery: 94.0%</i>		<i>Limits: 75 - 120 %</i>						
<i>1,2-DCA-d4</i>		<i>108%</i>		<i>77 - 129 %</i>						
<i>Dibromofluoromethane</i>		<i>106%</i>		<i>80 - 121 %</i>						
<i>Toluene-d8</i>		<i>108%</i>		<i>80 - 120 %</i>						

*Mary A. Fritzmann Smith*





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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b> Project Number: 96-1412-853B Project Manager: Linda Kemp	Report Created: 11/08/04 17:12
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**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-04</b>	<b>Water</b>	<b>041021-04</b>	<b>Sampled: 10/21/04 13:30</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110003	11/01/04	11/01/04 14:22	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	"	<b>4.03</b>	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Environmental Laboratory Network**



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:

11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-04</b>	<b>Water</b>	<b>041021-04</b>	<b>Sampled: 10/21/04 13:30</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110003	11/01/04	11/01/04 14:22	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>2.09</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	

Surrogate(s): 4-BFB	Recovery: 89.5%	Limits: 75 - 120 %	"	"
1,2-DCA-d4	102%	77 - 129 %	"	"
Dibromofluoromethane	102%	80 - 121 %	"	"
Toluene-d8	102%	80 - 120 %	"	"

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-05</b>	<b>Water</b>	<b>041021-05</b>	<b>Sampled: 10/21/04 14:00</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110003	11/01/04	11/01/04 14:49	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

**North Creek Analytical, Inc.**  
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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-05</b>	<b>Water</b>	<b>041021-05</b>	<b>Sampled: 10/21/04 14:00</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110003	11/01/04	11/01/04 14:49	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery: 92.5%</i>		<i>Limits: 75 - 120 %</i>						
<i>1,2-DCA-d4</i>		<i>106%</i>		<i>77 - 129 %</i>						
<i>Dibromofluoromethane</i>		<i>106%</i>		<i>80 - 121 %</i>						
<i>Toluene-d8</i>		<i>108%</i>		<i>80 - 120 %</i>						

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b> Project Number: 96-1412-853B Project Manager: Linda Kemp	Report Created: 11/08/04 17:12
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**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-06</b>	<b>Water</b>	<b>041021-06</b>	<b>Sampled: 10/21/04 15:00</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110003	11/01/04	11/01/04 15:17	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-06</b>	<b>Water</b>	<b>041021-06</b>	<b>Sampled: 10/21/04 15:00</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110003	11/01/04	11/01/04 15:17	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		Recovery: 94.5%		Limits: 75 - 120 %						
1,2-DCA-d4		112%		77 - 129 %						
Dibromofluoromethane		109%		80 - 121 %						
Toluene-d8		110%		80 - 120 %						

Mary A. Fritzmann Smith



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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b> Project Number: 96-1412-853B Project Manager: Linda Kemp	Report Created: 11/08/04 17:12
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**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-07</b>	<b>Water</b>	<b>041021-07</b>	<b>Sampled: 10/21/04 16:00</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110003	11/01/04	11/01/04 15:45	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-07</b>	<b>Water</b>	<b>041021-07</b>	<b>Sampled: 10/21/04 16:00</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110003	11/01/04	11/01/04 15:45	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery: 85.0%</i>		<i>Limits: 75 - 120 %</i>						
<i>1,2-DCA-d4</i>		<i>98.0%</i>		<i>77 - 129 %</i>						
<i>Dibromofluoromethane</i>		<i>99.0%</i>		<i>80 - 121 %</i>						
<i>Toluene-d8</i>		<i>98.5%</i>		<i>80 - 120 %</i>						

*Mary A. Fritzmann Smith*





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**Golder Associates - Canada**

500-4260 Still Creek Drive  
 Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
 11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-08</b>	<b>Water</b>	<b>041021-08</b>	<b>Sampled: 10/21/04 17:00</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110003	11/01/04	11/01/04 16:13	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	"	<b>13.0</b>	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-08</b>	<b>Water</b>	<b>041021-08</b>	<b>Sampled: 10/21/04 17:00</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110003	11/01/04	11/01/04 16:13	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>28.9</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	

<i>Surrogate(s):</i> 4-BFB	<i>Recovery:</i> 89.0%	<i>Limits:</i> 75 - 120 %	"	"
1,2-DCA-d4	104%	77 - 129 %	"	"
Dibromofluoromethane	106%	80 - 121 %	"	"
Toluene-d8	104%	80 - 120 %	"	"

Mary A. Fritzmann Smith



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:

11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-09</b>	<b>Water</b>	<b>041021-09</b>	<b>Sampled: 10/21/04 17:00</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110003	11/01/04	11/01/04 16:40	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	"	<b>12.9</b>	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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Mary A. Fritzmann Smith

Mary A. Fritzmann Smith, Project Manager

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Environmental Laboratory Network



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:

11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1122-09</b>	<b>Water</b>	<b>041021-09</b>	<b>Sampled: 10/21/04 17:00</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110003	11/01/04	11/01/04 16:40	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>29.0</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	

Surrogate(s): 4-BFB	Recovery: 94.5%	Limits: 75 - 120 %	"	"
1,2-DCA-d4	108%	77 - 129 %	"	"
Dibromofluoromethane	108%	80 - 121 %	"	"
Toluene-d8	107%	80 - 120 %	"	"

North Creek Analytical - Portland

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Mary A. Fritzmann Smith

Mary A. Fritzmann Smith, Project Manager

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:12
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Gasoline Range Organics (C6-C10) per AK101 - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

**QC Batch: 4101503**      **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Blank (4101503-BLK1)</b>										Extracted: 10/29/04 16:20		
Gasoline Range Organics	AK101 GRO	ND	---	80.0	ug/l	1x	--	--	--	--	10/29/04 16:28	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 76.0%</i>		<i>Limits: 60-120%</i>		<i>"</i>					<i>10/29/04 16:28</i>	
<b>LCS (4101503-BS1)</b>										Extracted: 10/29/04 16:20		
Gasoline Range Organics	AK101 GRO	978	---	80.0	ug/l	1x	--	1000	97.8% (60-120)	--	10/29/04 17:23	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 85.0%</i>		<i>Limits: 60-120%</i>		<i>"</i>					<i>10/29/04 17:23</i>	
<b>LCS Dup (4101503-BSD1)</b>										Extracted: 10/29/04 16:20		
Gasoline Range Organics	AK101 GRO	1060	---	80.0	ug/l	1x	--	1000	106% (60-120)	8.05% (20)	10/29/04 17:51	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 83.4%</i>		<i>Limits: 60-120%</i>		<i>"</i>					<i>10/29/04 17:51</i>	
<b>Duplicate (4101503-DUP1)</b>				<b>QC Source: P4J1080-01</b>			Extracted: 10/29/04 16:20					
Gasoline Range Organics	AK101 GRO	13200	---	800	ug/l	10x	13300	--	--	--	0.755% (50)	10/29/04 18:48
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 87.4%</i>		<i>Limits: 60-120%</i>		<i>1x</i>					<i>10/29/04 18:48</i>	
<b>Duplicate (4101503-DUP2)</b>				<b>QC Source: P4J1122-01</b>			Extracted: 10/29/04 16:20					
Gasoline Range Organics	AK101 GRO	18.6	---	80.0	ug/l	1x	ND	--	--	--	NR (50)	10/30/04 00:22
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.6%</i>		<i>Limits: 60-120%</i>		<i>"</i>					<i>10/30/04 00:22</i>	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Environmental Laboratory Network**



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<b>Golder Associates - Canada</b>	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	
500-4260 Still Creek Drive	Project Number: 96-1412-853B	Report Created:
Burnaby, BC/CAN V5C6C6	Project Manager: Linda Kemp	11/08/04 17:12

**I Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 Low Volume - Laboratory Quality Control R**  
 North Creek Analytical - Portland

QC Batch: 4101442      Water Preparation Method: EPA 3510 Fuels

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Blank (4101442-BLK1)</b>											Extracted: 10/29/04 06:59	
Diesel Range Organics	AK102/103	ND	---	0.500	mg/l	1x	--	--	--	--	10/29/04 17:02	
Residual Range Organics	"	ND	---	0.600	"	"	--	--	--	--	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery:</i>	<i>96.0%</i>	<i>Limits: 50-150%</i>		<i>"</i>					<i>10/29/04 17:02</i>	
<i>triacontane</i>			<i>95.6%</i>	<i>50-150%</i>		<i>"</i>					<i>"</i>	
<b>LCS (4101442-BS1)</b>											Extracted: 10/29/04 06:59	
Diesel Range Organics	AK102/103	5.33	---	0.500	mg/l	1x	--	5.00	107% (75-125)	--	11/01/04 20:01	
Residual Range Organics	"	3.57	---	0.600	"	"	--	3.01	119% (60-120)	--	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery:</i>	<i>74.2%</i>	<i>Limits: 50-150%</i>		<i>"</i>					<i>11/01/04 20:01</i>	
<i>triacontane</i>			<i>91.7%</i>	<i>50-150%</i>		<i>"</i>					<i>"</i>	
<b>LCS Dup (4101442-BSD1)</b>											Extracted: 10/29/04 06:59	
Diesel Range Organics	AK102/103	5.31	---	0.500	mg/l	1x	--	5.00	106% (75-125)	0.376% (20)	11/01/04 20:39	
Residual Range Organics	"	3.30	---	0.600	"	"	--	3.01	110% (60-120)	7.86% "	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery:</i>	<i>75.8%</i>	<i>Limits: 50-150%</i>		<i>"</i>					<i>11/01/04 20:39</i>	
<i>triacontane</i>			<i>94.0%</i>	<i>50-150%</i>		<i>"</i>					<i>"</i>	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**

North Creek Analytical - Portland

QC Batch: 4110003

Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Blank (4110003-BLK1)</b>											Extracted: 11/01/04 08:38	
Acetone	EPA 8260B	ND	---	25.0	ug/l	1x	--	--	--	--	11/01/04 12:30	
Benzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromochloromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromodichloromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromoform	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromomethane	"	ND	---	5.00	"	"	--	--	--	--	"	
2-Butanone	"	ND	---	10.0	"	"	--	--	--	--	"	
n-Butylbenzene	"	ND	---	5.00	"	"	--	--	--	--	"	
sec-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
tert-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Carbon disulfide	"	ND	---	10.0	"	"	--	--	--	--	"	
Carbon tetrachloride	"	ND	---	1.00	"	"	--	--	--	--	"	
Chlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Chloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Chloroform	"	ND	---	1.00	"	"	--	--	--	--	"	
Chloromethane	"	ND	---	5.00	"	"	--	--	--	--	"	
2-Chlorotoluene	"	ND	---	1.00	"	"	--	--	--	--	"	
4-Chlorotoluene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	---	5.00	"	"	--	--	--	--	"	
Dibromochloromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dibromoethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Dibromomethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Dichlorodifluoromethane	"	ND	---	5.00	"	"	--	--	--	--	"	
1,1-Dichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,3-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
2,2-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	"	
Ethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Hexachlorobutadiene	"	ND	---	4.00	"	"	--	--	--	--	"	
2-Hexanone	"	ND	---	10.0	"	"	--	--	--	--	"	

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:12
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

**QC Batch: 4110003**      **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Blank (4110003-BLK1)</b>											<b>Extracted: 11/01/04 08:38</b>	
Isopropylbenzene	EPA 8260B	ND	---	2.00	ug/l	1x	--	--	--	--	11/01/04 12:30	
p-Isopropyltoluene	"	ND	---	2.00	"	"	--	--	--	--	"	
4-Methyl-2-pentanone	"	ND	---	5.00	"	"	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	"	
Methylene chloride	"	ND	---	5.00	"	"	--	--	--	--	"	
Naphthalene	"	ND	---	2.00	"	"	--	--	--	--	"	
n-Propylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Styrene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,1,2-Tetrachloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Tetrachloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
Toluene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,1-Trichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Trichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
Trichlorofluoromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Vinyl chloride	"	ND	---	1.00	"	"	--	--	--	--	"	
o-Xylene	"	ND	---	1.00	"	"	--	--	--	--	"	
m,p-Xylene	"	ND	---	2.00	"	"	--	--	--	--	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>96.0%</i>	<i>Limits:</i>	<i>75-120%</i>						<i>11/01/04 12:30</i>	
<i>1,2-DCA-d4</i>			<i>107%</i>		<i>77-129%</i>						<i>"</i>	
<i>Dibromofluoromethane</i>			<i>103%</i>		<i>80-121%</i>						<i>"</i>	
<i>Toluene-d8</i>			<i>106%</i>		<i>80-120%</i>						<i>"</i>	

North Creek Analytical - Portland

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
 Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
 Project Manager: Linda Kemp

Report Created:  
 11/08/04 17:12

**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

QC Batch: 4110003 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	----------------	----------------	----------	-------

**LCS (4110003-BS1)**

Extracted: 11/01/04 08:38

Benzene	EPA 8260B	21.0	---	1.00	ug/l	1x	--	20.0	105% (80-120)	-- --	11/01/04 10:39	
Chlorobenzene	"	21.6	---	1.00	"	"	--	"	108% (80-124)	-- --	"	
1,1-Dichloroethene	"	17.2	---	1.00	"	"	--	"	86.0% (78-120)	-- --	"	
Toluene	"	21.1	---	1.00	"	"	--	"	106% (80-124)	-- --	"	
Trichloroethene	"	24.0	---	1.00	"	"	--	"	120% (80-132)	-- --	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>104%</i>	<i>Limits:</i>	<i>75-120%</i>	<i>"</i>					<i>11/01/04 10:39</i>	
<i>1,2-DCA-d4</i>			<i>100%</i>		<i>77-129%</i>	<i>"</i>					<i>"</i>	
<i>Dibromofluoromethane</i>			<i>100%</i>		<i>80-121%</i>	<i>"</i>					<i>"</i>	
<i>Toluene-d8</i>			<i>107%</i>		<i>80-120%</i>	<i>"</i>					<i>"</i>	

**Matrix Spike (4110003-MS1)**

QC Source: P4J1122-01

Extracted: 11/01/04 08:38

Benzene	EPA 8260B	21.0	---	1.00	ug/l	1x	ND	20.0	105% (80-124)	-- --	11/01/04 11:07	
Chlorobenzene	"	21.4	---	1.00	"	"	ND	"	107% (72.9-134)	-- --	"	
1,1-Dichloroethene	"	20.6	---	1.00	"	"	ND	"	103% (79.3-127)	-- --	"	
Toluene	"	20.9	---	1.00	"	"	ND	"	104% (79.7-131)	-- --	"	
Trichloroethene	"	23.6	---	1.00	"	"	1.67	"	110% (68.4-130)	-- --	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>98.5%</i>	<i>Limits:</i>	<i>75-120%</i>	<i>"</i>					<i>11/01/04 11:07</i>	
<i>1,2-DCA-d4</i>			<i>100%</i>		<i>77-129%</i>	<i>"</i>					<i>"</i>	
<i>Dibromofluoromethane</i>			<i>102%</i>		<i>80-121%</i>	<i>"</i>					<i>"</i>	
<i>Toluene-d8</i>			<i>106%</i>		<i>80-120%</i>	<i>"</i>					<i>"</i>	

**Matrix Spike Dup (4110003-MSD1)**

QC Source: P4J1122-01

Extracted: 11/01/04 08:38

Benzene	EPA 8260B	21.5	---	1.00	ug/l	1x	ND	20.0	108% (80-124)	2.35% (25)	11/01/04 11:35	
Chlorobenzene	"	21.7	---	1.00	"	"	ND	"	108% (72.9-134)	1.39% "	"	
1,1-Dichloroethene	"	21.2	---	1.00	"	"	ND	"	106% (79.3-127)	2.87% "	"	
Toluene	"	21.4	---	1.00	"	"	ND	"	107% (79.7-131)	2.36% "	"	
Trichloroethene	"	24.0	---	1.00	"	"	1.67	"	112% (68.4-130)	1.68% "	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>99.0%</i>	<i>Limits:</i>	<i>75-120%</i>	<i>"</i>					<i>11/01/04 11:35</i>	
<i>1,2-DCA-d4</i>			<i>102%</i>		<i>77-129%</i>	<i>"</i>					<i>"</i>	
<i>Dibromofluoromethane</i>			<i>103%</i>		<i>80-121%</i>	<i>"</i>					<i>"</i>	
<i>Toluene-d8</i>			<i>106%</i>		<i>80-120%</i>	<i>"</i>					<i>"</i>	

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	
	Project Number: 96-1412-853B	<u>Report Created:</u>
	Project Manager: Linda Kemp	11/08/04 17:12

**Notes and Definitions**

Report Specific Notes:

None

Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR / NA - Not Reported / Not Available
- dry - Sample results reported on a dry weight basis. Reporting Limits are corrected for %Solids when %Solids are <50%.
- wet - Sample results and reporting limits reported on a wet weight basis (as received).
- RPD - Relative Percent Difference. (RPDs calculated using Results, not Percent Recoveries).
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL\* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. \*MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated results.
- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

*Mary A. Fritzmann Smith*



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 541-383-9310 FAX 382-7588  
 907-334-9200 FAX 334-9210


### CHAIN OF CUSTODY REPORT

Work Order #: **041021** *PAJ 1122*

CLIENT: <b>GOLDER ASSOCIATES</b>				INVOICE TO:				<b>TURNAROUND REQUEST</b> in Business Days * Organic & Inorganic Analyses <input checked="" type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 <small>STD.</small> Petroleum Hydrocarbon Analyses <input checked="" type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 <small>STD.</small> <input type="checkbox"/> <b>OTHER</b> Specify: _____ <small>* Turnaround Requests less than standard may incur Rush Charges.</small>					
REPORT TO: <b>LINDA KEMP</b> ADDRESS: <b>500 - 4260 Still Creek Dr. Burnaby, BC</b>				P.O. NUMBER: <b>910 1412 853 B</b>									
PHONE: <b>604 296 2800</b> FAX: <b>604 298 5253</b>				PRESERVATIVE									
PROJECT NAME: <b>Skagway Shops</b>				REQUESTED ANALYSES									
PROJECT NUMBER: <b>96-1412853B</b>				HCl	HCl	HCl	HCl						
SAMPLED BY: <b>L. Kemp</b>				VOCs	GRO	DRO	RRO						
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	VOCs	GRO	DRO	RRO					MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	NCA WO ID
1 041021-01	Oct 21'04 / 8:45 am	✓	✓	✓	✓					W	8		
2 041021-02	Oct 21'04 / 10:30 am	✓	✓	✓	✓					W	8		
3 041021-03	Oct 21'04 / 11:30 am	✓	✓	✓	✓					W	8		
4 041021-04	Oct 21'04 / 1:30 pm	✓	✓	✓	✓					W	8		
5 041021-05	Oct 21'04 / 2:00 pm	✓	✓	✓	✓					W	8		
6 041021-06	Oct 21'04 / 3:00 pm	✓	✓	✓	✓					W	8		
7 041021-07	Oct 21'04 / 4:00 pm	✓	✓	✓	✓					W	8		
8 041021-08	Oct 21'04 / 5:00 pm	✓	✓	✓	✓					W	8		
9 041021-09	Oct 21'04 / 5:00 pm	✓	✓	✓	✓					W	8		
10													
RELEASED BY: <b>L. Kemp</b> FIRM: <b>GOLDER</b> DATE: <b>Oct 25 2004</b> TIME: <b>9 AM</b>				RECEIVED BY: <b>Linda Kemp</b> FIRM: <b>NCA</b> DATE: <b>10/26/04</b> TIME: <b>1415</b>									
RELEASED BY: FIRM: DATE: TIME:				RECEIVED BY: FIRM: DATE: TIME:									
PRINT NAME: FIRM: DATE: TIME:				PRINT NAME: FIRM: DATE: TIME:									
ADDITIONAL REMARKS:													
<b>3.9°C, 1.9, 4.4°C</b> TEMP: <b>3.9°C</b> <small>COC REV 1/03</small> PAC: <b>3.9°C</b> <b>2044</b>													

NORTH CREEK ANALYTICAL COOLER RECEIPT FORM

(Army Corp. compliant)

Client: Polder

1. Please sign for receipt and opening of 3 cooler or          other         

By (print) ENICA POT (sign) Enica Pot

2. Date samples received 10/26/04 Date opened: Same  or     /    /    

3. Delivered by:  NCA courier  FedEx  UPS  Courier  Client  Other           
Airbill # if applicable          (Put copy of shipping papers in file)

4. There were 0 custody seals present, signed by          date     /    /    .

5. Were the custody seals unbroken and intact at the date and time of arrival?  Yes  No

6. Was ice used?  yes  no Type of ice:  blue ice  gel ice  real ice  
Temperature (degrees C) 39.19 Raytek thermometer          Digi-Therm (probe temperature blank)  
4.4°C

7. Are custody papers sealed in a plastic bag and taped inside to lid?  Yes  No

8. Were custody papers filled out properly (ink, signed, etc.)?  Yes  No  
If "no" please specify:         

9. Was project identifiable from custody papers?  Yes  No  
Name of project Slagway (if applicable)

10. Initial and date for unpacking: CEU (initials) date 10/27/04

11. Packing material:  bubble wrap/bag  styrofoam  cardboard  other

12. Were samples in bags?  Yes  No

13. Did all containers indicated on the COC arrive?  Yes  No  
If "no" please indicate which containers were absent         

14. Were all containers unbroken and labels in good condition?  Yes  No  
If "no" please indicate which containers         

15. Were all bottle labels complete (ID, date, time, signature, etc.)?  Yes  No  
Do the IDs, times, etc. agree with the COC?  Yes  No

If "no" please indicate which containers -21 08 one amber says Bpm  
ud says ID is 09; one 09 ud says 08

16. Are containers properly preserved for indicated analysis?  Yes  No

17. Is there adequate volume for the test(s) requested?  Yes  No

18. If voa vials were submitted, are they free of bubbles?          N/A  Yes  No

19. Log-in phase: Date samples were logged in: 10/27/04 Elm Project # P 4J1122

20. Logged in by (print) Carrie Fahshelz (sign) Carrie Fahshelz

21. Was the project manager notified of status? (Use back of form as a record)  Yes  No



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November 08, 2004

Linda Kemp  
Golder Associates - Canada  
500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

RE: WP&YR/Shops/Skagway

Enclosed are the results of analyses for samples received by the laboratory on 10/26/04 14:45.  
The following list is a summary of the NCA Work Orders contained in this report.  
If you have any questions concerning this report, please feel free to contact me.

---

<u>Work</u>	<u>Project</u>	<u>ProjectNumber</u>
P4J1123	WP&YR/Shops/Skagway	96-1412-853B

---

Thank You,

---

Mary A. Fritzmann Smith, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**



**Seattle** 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
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<b>Golder Associates - Canada</b>	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	
500-4260 Still Creek Drive	Project Number: 96-1412-853B	<u>Report Created:</u>
Burnaby, BC/CAN V5C6C6	Project Manager: Linda Kemp	11/08/04 17:13

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
041022-01	P4J1123-01	Water	10/22/04 09:00	10/26/04 14:45
041022-02	P4J1123-02	Water	10/22/04 09:30	10/26/04 14:45
041022-03	P4J1123-03	Water	10/22/04 09:30	10/26/04 14:45
041022-04	P4J1123-04	Water	10/22/04 10:30	10/26/04 14:45
041022-05	P4J1123-05	Water	10/22/04 11:30	10/26/04 14:45
041022-06	P4J1123-06	Water	10/22/04 11:30	10/26/04 14:45
041022-07	P4J1123-07	Water	10/22/04 14:00	10/26/04 14:45
041022-08	P4J1123-08	Water	10/22/04 16:00	10/26/04 14:45
041022-09	P4J1123-09	Water	10/22/04 17:00	10/26/04 14:45
041022-10	P4J1123-10	Water	10/22/04 18:00	10/26/04 14:45
041023-01	P4J1123-11	Water	10/23/04 13:00	10/26/04 14:45
041023-02	P4J1123-12	Water	10/23/04 14:00	10/26/04 14:45

North Creek Analytical - Portland

*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:13
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Gasoline Range Organics (C6-C10) per AK101**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-01</b>	<b>Water</b>	<b>041022-01</b>	<b>Sampled: 10/22/04 09:00</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101517	10/30/04	10/30/04 23:00	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.4%</i>		<i>Limits: 60 - 120 %</i>		"		"		
<b>P4J1123-02</b>	<b>Water</b>	<b>041022-02</b>	<b>Sampled: 10/22/04 09:30</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101517	10/30/04	10/30/04 23:27	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 73.4%</i>		<i>Limits: 60 - 120 %</i>		"		"		
<b>P4J1123-03</b>	<b>Water</b>	<b>041022-03</b>	<b>Sampled: 10/22/04 09:30</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101517	10/30/04	10/30/04 23:55	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 76.8%</i>		<i>Limits: 60 - 120 %</i>		"		"		
<b>P4J1123-04</b>	<b>Water</b>	<b>041022-04</b>	<b>Sampled: 10/22/04 10:30</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101517	10/30/04	10/31/04 00:24	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.2%</i>		<i>Limits: 60 - 120 %</i>		"		"		
<b>P4J1123-05</b>	<b>Water</b>	<b>041022-05</b>	<b>Sampled: 10/22/04 11:30</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101517	10/30/04	10/31/04 00:51	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.4%</i>		<i>Limits: 60 - 120 %</i>		"		"		
<b>P4J1123-06</b>	<b>Water</b>	<b>041022-06</b>	<b>Sampled: 10/22/04 11:30</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101517	10/30/04	10/31/04 01:19	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 76.0%</i>		<i>Limits: 60 - 120 %</i>		"		"		

*Mary A. Fritzmann Smith*



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Gasoline Range Organics (C6-C10) per AK101**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-07</b>	<b>Water</b>	<b>041022-07</b>	<b>Sampled: 10/22/04 14:00</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101517	10/30/04	10/31/04 01:47	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.4%</i>		<i>Limits: 60 - 120 %</i>		"		"		
<b>P4J1123-08</b>	<b>Water</b>	<b>041022-08</b>	<b>Sampled: 10/22/04 16:00</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101517	10/30/04	10/31/04 01:42	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 73.8%</i>		<i>Limits: 60 - 120 %</i>		"		"		
<b>P4J1123-09</b>	<b>Water</b>	<b>041022-09</b>	<b>Sampled: 10/22/04 17:00</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101517	10/30/04	10/31/04 02:10	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 75.6%</i>		<i>Limits: 60 - 120 %</i>		"		"		
<b>P4J1123-10</b>	<b>Water</b>	<b>041022-10</b>	<b>Sampled: 10/22/04 18:00</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101517	10/30/04	10/31/04 02:37	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 76.4%</i>		<i>Limits: 60 - 120 %</i>		"		"		
<b>P4J1123-11</b>	<b>Water</b>	<b>041023-01</b>	<b>Sampled: 10/23/04 13:00</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101517	10/30/04	10/31/04 03:05	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 77.4%</i>		<i>Limits: 60 - 120 %</i>		"		"		
<b>P4J1123-12</b>	<b>Water</b>	<b>041023-02</b>	<b>Sampled: 10/23/04 14:00</b>							
Gasoline Range Organics	AK101 GRO	ND	----	80.0	ug/l	1x	4101517	10/30/04	10/31/04 03:33	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.2%</i>		<i>Limits: 60 - 120 %</i>		"		"		

*Mary A. Fritzmann Smith*





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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 Low Volume**  
North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-01</b>	<b>Water</b>	<b>041022-01</b>	<b>Sampled: 10/22/04 09:00</b>							
Diesel Range Organics	AK102/103	ND	----	0.417	mg/l	1x	4110013	11/01/04	11/01/04 16:44	
Residual Range Organics	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 65.2%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  63.8%</i>		<i>                  50 - 150 %</i>						
<b>P4J1123-02</b>	<b>Water</b>	<b>041022-02</b>	<b>Sampled: 10/22/04 09:30</b>							
Diesel Range Organics	AK102/103	ND	----	0.435	mg/l	1x	4110013	11/01/04	11/01/04 17:23	
Residual Range Organics	"	ND	----	0.522	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 69.8%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  67.8%</i>		<i>                  50 - 150 %</i>						
<b>P4J1123-03</b>	<b>Water</b>	<b>041022-03</b>	<b>Sampled: 10/22/04 09:30</b>							
Diesel Range Organics	AK102/103	ND	----	0.417	mg/l	1x	4110013	11/01/04	11/01/04 18:03	
Residual Range Organics	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 76.2%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  73.1%</i>		<i>                  50 - 150 %</i>						
<b>P4J1123-04</b>	<b>Water</b>	<b>041022-04</b>	<b>Sampled: 10/22/04 10:30</b>							
Diesel Range Organics	AK102/103	ND	----	0.435	mg/l	1x	4110013	11/01/04	11/01/04 18:42	
Residual Range Organics	"	ND	----	0.522	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 104%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  103%</i>		<i>                  50 - 150 %</i>						

*Mary A. Fritzmann Smith*



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 Low Volume**  
North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-05</b>	<b>Water</b>	<b>041022-05</b>	<b>Sampled: 10/22/04 11:30</b>							
Diesel Range Organics	AK102/103	ND	----	0.417	mg/l	1x	4110013	11/01/04	11/01/04 19:21	
Residual Range Organics	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 90.8%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  91.0%</i>		<i>                  50 - 150 %</i>						
<b>P4J1123-06</b>	<b>Water</b>	<b>041022-06</b>	<b>Sampled: 10/22/04 11:30</b>							
Diesel Range Organics	AK102/103	ND	----	0.400	mg/l	1x	4110013	11/01/04	11/01/04 14:46	
Residual Range Organics	"	ND	----	0.480	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 122%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  122%</i>		<i>                  50 - 150 %</i>						
<b>P4J1123-07</b>	<b>Water</b>	<b>041022-07</b>	<b>Sampled: 10/22/04 14:00</b>							
Diesel Range Organics	AK102/103	ND	----	0.500	mg/l	1x	4110013	11/01/04	11/01/04 15:26	
Residual Range Organics	"	ND	----	0.600	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 84.7%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  86.2%</i>		<i>                  50 - 150 %</i>						
<b>P4J1123-08</b>	<b>Water</b>	<b>041022-08</b>	<b>Sampled: 10/22/04 16:00</b>							
Diesel Range Organics	AK102/103	ND	----	0.417	mg/l	1x	4110013	11/01/04	11/01/04 16:05	
Residual Range Organics	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 95.2%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  97.4%</i>		<i>                  50 - 150 %</i>						

*Mary A. Fritzmann Smith*



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 Low Volume**  
North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-09</b>	<b>Water</b>	<b>041022-09</b>	<b>Sampled: 10/22/04 17:00</b>							
Diesel Range Organics	AK102/103	ND	----	0.417	mg/l	1x	4110013	11/01/04	11/01/04 16:44	
Residual Range Organics	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 87.0%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  88.8%</i>		<i>                  50 - 150 %</i>						
<b>P4J1123-10</b>	<b>Water</b>	<b>041022-10</b>	<b>Sampled: 10/22/04 18:00</b>							
Diesel Range Organics	AK102/103	ND	----	0.400	mg/l	1x	4110013	11/01/04	11/01/04 17:23	
Residual Range Organics	"	ND	----	0.480	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 129%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  131%</i>		<i>                  50 - 150 %</i>						
<b>P4J1123-11</b>	<b>Water</b>	<b>041023-01</b>	<b>Sampled: 10/23/04 13:00</b>							
Diesel Range Organics	AK102/103	ND	----	0.417	mg/l	1x	4110013	11/01/04	11/01/04 18:03	
Residual Range Organics	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 116%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  115%</i>		<i>                  50 - 150 %</i>						
<b>P4J1123-12</b>	<b>Water</b>	<b>041023-02</b>	<b>Sampled: 10/23/04 14:00</b>							
Diesel Range Organics	AK102/103	ND	----	0.500	mg/l	1x	4110013	11/01/04	11/01/04 18:42	
Residual Range Organics	"	ND	----	0.600	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 92.1%</i>		<i>Limits: 50 - 150 %</i>						
<i>                  Triacontane</i>		<i>                  98.5%</i>		<i>                  50 - 150 %</i>						

*Mary A. Fritzmann Smith*



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-01</b>	<b>Water</b>	<b>041022-01</b>	<b>Sampled: 10/22/04 09:00</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110146	11/03/04	11/03/04 12:06	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

**North Creek Analytical, Inc.**  
Environmental Laboratory Network



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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:13
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-01</b>	<b>Water</b>	<b>041022-01</b>	<b>Sampled: 10/22/04 09:00</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110146	11/03/04	11/03/04 12:06	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		Recovery: 89.0%		Limits: 75 - 120 %						
1,2-DCA-d4		126%		77 - 129 %						
Dibromofluoromethane		118%		80 - 121 %						
Toluene-d8		111%		80 - 120 %						

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-02</b>	<b>Water</b>	<b>041022-02</b>	<b>Sampled: 10/22/04 09:30</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110146	11/03/04	11/03/04 12:33	
Benzene	"	ND	----	1.00	"	"	"	"	"	"
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	"
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	"
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	"
Bromoform	"	ND	----	1.00	"	"	"	"	"	"
Bromomethane	"	ND	----	5.00	"	"	"	"	"	"
2-Butanone	"	ND	----	10.0	"	"	"	"	"	"
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	"
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	"
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	"
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	"
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	"
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	"
Chloroethane	"	ND	----	1.00	"	"	"	"	"	"
Chloroform	"	ND	----	1.00	"	"	"	"	"	"
Chloromethane	"	ND	----	5.00	"	"	"	"	"	"
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	"
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	"
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	"
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	"
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	"
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	"
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	"
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	"
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	"
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	"
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	"
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	"
<b>cis-1,2-Dichloroethene</b>	"	<b>10.9</b>	----	1.00	"	"	"	"	"	"
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	"
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	"
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	"
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	"
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	"
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	"
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	"
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	"
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	"
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	"
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	"

North Creek Analytical - Portland

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Mary A. Fritzmann Smith

Mary A. Fritzmann Smith, Project Manager

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Environmental Laboratory Network



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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<u>Report Created:</u> 11/08/04 17:13
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-02</b>	<b>Water</b>	<b>041022-02</b>	<b>Sampled: 10/22/04 09:30</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110146	11/03/04	11/03/04 12:33	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Tetrachloroethene</b>	"	<b>1.64</b>	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>20.6</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery: 91.5%</i>		<i>Limits: 75 - 120 %</i>						
<i>1,2-DCA-d4</i>		<i>111%</i>		<i>77 - 129 %</i>						
<i>Dibromofluoromethane</i>		<i>106%</i>		<i>80 - 121 %</i>						
<i>Toluene-d8</i>		<i>98.0%</i>		<i>80 - 120 %</i>						

*Mary A. Fritzmann Smith*



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-03</b>	<b>Water</b>	<b>041022-03</b>	<b>Sampled: 10/22/04 09:30</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110146	11/03/04	11/03/04 12:59	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	"	<b>10.7</b>	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

**North Creek Analytical, Inc.**  
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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-03</b>	<b>Water</b>	<b>041022-03</b>	<b>Sampled: 10/22/04 09:30</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110146	11/03/04	11/03/04 12:59	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Tetrachloroethene</b>	"	<b>1.66</b>	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>20.4</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery: 89.0%</i>		<i>Limits: 75 - 120 %</i>						
<i>1,2-DCA-d4</i>		<i>112%</i>		<i>77 - 129 %</i>						
<i>Dibromofluoromethane</i>		<i>108%</i>		<i>80 - 121 %</i>						
<i>Toluene-d8</i>		<i>95.0%</i>		<i>80 - 120 %</i>						

*Mary A. Fritzmann Smith*



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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:13
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-04</b>	<b>Water</b>	<b>041022-04</b>	<b>Sampled: 10/22/04 10:30</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110146	11/03/04	11/03/04 13:26	
Benzene	"	ND	----	1.00	"	"	"	"	"	"
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	"
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	"
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	"
Bromoform	"	ND	----	1.00	"	"	"	"	"	"
Bromomethane	"	ND	----	5.00	"	"	"	"	"	"
2-Butanone	"	ND	----	10.0	"	"	"	"	"	"
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	"
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	"
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	"
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	"
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	"
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	"
Chloroethane	"	ND	----	1.00	"	"	"	"	"	"
Chloroform	"	ND	----	1.00	"	"	"	"	"	"
Chloromethane	"	ND	----	5.00	"	"	"	"	"	"
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	"
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	"
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	"
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	"
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	"
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	"
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	"
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	"
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	"
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	"
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	"
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	"
<b>cis-1,2-Dichloroethene</b>	"	<b>13.5</b>	----	1.00	"	"	"	"	"	"
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	"
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	"
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	"
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	"
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	"
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	"
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	"
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	"
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	"
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	"
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	"

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:

11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-04</b>	<b>Water</b>	<b>041022-04</b>	<b>Sampled: 10/22/04 10:30</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110146	11/03/04	11/03/04 13:26	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>13.3</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	

Surrogate(s): 4-BFB	Recovery: 88.5%	Limits: 75 - 120 %	"	"
1,2-DCA-d4	114%	77 - 129 %	"	"
Dibromofluoromethane	108%	80 - 121 %	"	"
Toluene-d8	96.0%	80 - 120 %	"	"

North Creek Analytical - Portland

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Mary A. Fritzmann Smith, Project Manager

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500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-05</b>	<b>Water</b>	<b>041022-05</b>	<b>Sampled: 10/22/04 11:30</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110146	11/03/04	11/03/04 13:52	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	"	<b>9.02</b>	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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Mary A. Fritzmann Smith, Project Manager

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500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-05</b>	<b>Water</b>	<b>041022-05</b>	<b>Sampled: 10/22/04 11:30</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110146	11/03/04	11/03/04 13:52	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Tetrachloroethene</b>	"	<b>2.39</b>	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>16.3</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	

Surrogate(s): 4-BFB	Recovery: 87.0%	Limits: 75 - 120 %	"	"
1,2-DCA-d4	112%	77 - 129 %	"	"
Dibromofluoromethane	104%	80 - 121 %	"	"
Toluene-d8	99.0%	80 - 120 %	"	"

Mary A. Fritzmann Smith



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-06</b>	<b>Water</b>	<b>041022-06</b>	<b>Sampled: 10/22/04 11:30</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110146	11/03/04	11/03/04 14:19	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	"	<b>9.54</b>	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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Mary A. Fritzmann Smith

Mary A. Fritzmann Smith, Project Manager

North Creek Analytical, Inc.  
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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<u>Report Created:</u> 11/08/04 17:13
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-06</b>	<b>Water</b>	<b>041022-06</b>	<b>Sampled: 10/22/04 11:30</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110146	11/03/04	11/03/04 14:19	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Tetrachloroethene</b>	"	<b>2.48</b>	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>17.3</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery: 88.5%</i>		<i>Limits: 75 - 120 %</i>						
<i>1,2-DCA-d4</i>		<i>112%</i>		<i>77 - 129 %</i>						
<i>Dibromofluoromethane</i>		<i>114%</i>		<i>80 - 121 %</i>						
<i>Toluene-d8</i>		<i>106%</i>		<i>80 - 120 %</i>						

*Mary A. Fritzmann Smith*



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-07</b>	<b>Water</b>	<b>041022-07</b>	<b>Sampled: 10/22/04 14:00</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110146	11/03/04	11/03/04 14:45	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	"	<b>4.12</b>	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-07</b>	<b>Water</b>	<b>041022-07</b>	<b>Sampled: 10/22/04 14:00</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110146	11/03/04	11/03/04 14:45	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>9.48</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery: 88.5%</i>		<i>Limits: 75 - 120 %</i>						
<i>1,2-DCA-d4</i>		<i>112%</i>		<i>77 - 129 %</i>						
<i>Dibromofluoromethane</i>		<i>106%</i>		<i>80 - 121 %</i>						
<i>Toluene-d8</i>		<i>98.0%</i>		<i>80 - 120 %</i>						

North Creek Analytical - Portland

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Mary A. Fritzmann Smith, Project Manager

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:13
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-08</b>	<b>Water</b>	<b>041022-08</b>	<b>Sampled: 10/22/04 16:00</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110146	11/03/04	11/03/04 15:12	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

**North Creek Analytical, Inc.**  
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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-08</b>	<b>Water</b>	<b>041022-08</b>	<b>Sampled: 10/22/04 16:00</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110146	11/03/04	11/03/04 15:12	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
Trichloroethene	"	ND	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Surrogate(s): 4-BFB		Recovery: 87.5%		Limits: 75 - 120 %		"				"
1,2-DCA-d4		113%		77 - 129 %		"				"
Dibromofluoromethane		108%		80 - 121 %		"				"
Toluene-d8		92.0%		80 - 120 %		"				"

Mary A. Fritzmann Smith



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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<u>Report Created:</u> 11/08/04 17:13
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-09</b>	<b>Water</b>	<b>041022-09</b>	<b>Sampled: 10/22/04 17:00</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110146	11/03/04	11/03/04 15:39	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	"	<b>1.22</b>	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:13
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-09</b>	<b>Water</b>	<b>041022-09</b>	<b>Sampled: 10/22/04 17:00</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110146	11/03/04	11/03/04 15:39	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>3.33</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery: 90.0%</i>		<i>Limits: 75 - 120 %</i>						
<i>1,2-DCA-d4</i>		<i>115%</i>		<i>77 - 129 %</i>						
<i>Dibromofluoromethane</i>		<i>108%</i>		<i>80 - 121 %</i>						
<i>Toluene-d8</i>		<i>99.0%</i>		<i>80 - 120 %</i>						

*Mary A. Fritzmann Smith*



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500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-10</b>	<b>Water</b>	<b>041022-10</b>	<b>Sampled: 10/22/04 18:00</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110146	11/03/04	11/03/04 16:05	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-10</b>	<b>Water</b>	<b>041022-10</b>	<b>Sampled: 10/22/04 18:00</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110146	11/03/04	11/03/04 16:05	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>2.32</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	

Surrogate(s): 4-BFB	Recovery: 82.5%	Limits: 75 - 120 %	"	"
1,2-DCA-d4	112%	77 - 129 %	"	"
Dibromofluoromethane	107%	80 - 121 %	"	"
Toluene-d8	98.5%	80 - 120 %	"	"

Mary A. Fritzmann Smith



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-11</b>	<b>Water</b>	<b>041023-01</b>	<b>Sampled: 10/23/04 13:00</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110146	11/03/04	11/03/04 16:32	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	"	<b>2.08</b>	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-11</b>	<b>Water</b>	<b>041023-01</b>	<b>Sampled: 10/23/04 13:00</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110146	11/03/04	11/03/04 16:32	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>5.25</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	

<i>Surrogate(s):</i> 4-BFB	<i>Recovery:</i> 87.0%	<i>Limits:</i> 75 - 120 %	"	"
1,2-DCA-d4	110%	77 - 129 %	"	"
Dibromofluoromethane	107%	80 - 121 %	"	"
Toluene-d8	97.5%	80 - 120 %	"	"

*Mary A. Fritzmann Smith*



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B

Project Manager: Linda Kemp

Report Created:

11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-12</b>	<b>Water</b>	<b>041023-02</b>	<b>Sampled: 10/23/04 14:00</b>							
Acetone	EPA 8260B	ND	----	25.0	ug/l	1x	4110146	11/03/04	11/03/04 16:58	
Benzene	"	ND	----	1.00	"	"	"	"	"	
Bromobenzene	"	ND	----	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	----	1.00	"	"	"	"	"	
Bromoform	"	ND	----	1.00	"	"	"	"	"	
Bromomethane	"	ND	----	5.00	"	"	"	"	"	
2-Butanone	"	ND	----	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	----	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	----	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	1.00	"	"	"	"	"	
Chloromethane	"	ND	----	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	1.00	"	"	"	"	"	
Dibromomethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	"	<b>2.64</b>	----	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.00	"	"	"	"	"	
2-Hexanone	"	ND	----	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.00	"	"	"	"	"	

North Creek Analytical - Portland

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Mary A. Fritzmann Smith

Mary A. Fritzmann Smith, Project Manager

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**Golder Associates - Canada**

500-4260 Still Creek Drive  
Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
Project Manager: Linda Kemp

Report Created:  
11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B**

North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P4J1123-12</b>	<b>Water</b>	<b>041023-02</b>	<b>Sampled: 10/23/04 14:00</b>							
p-Isopropyltoluene	EPA 8260B	ND	----	2.00	ug/l	1x	4110146	11/03/04	11/03/04 16:58	
4-Methyl-2-pentanone	"	ND	----	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	----	1.00	"	"	"	"	"	
Styrene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.00	"	"	"	"	"	
Toluene	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.00	"	"	"	"	"	
<b>Trichloroethene</b>	"	<b>6.00</b>	----	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.00	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	

Surrogate(s): 4-BFB	Recovery: 87.0%	Limits: 75 - 120 %	"	"
1,2-DCA-d4	114%	77 - 129 %	"	"
Dibromofluoromethane	110%	80 - 121 %	"	"
Toluene-d8	100%	80 - 120 %	"	"

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	
	Project Number: 96-1412-853B	<u>Report Created:</u>
	Project Manager: Linda Kemp	11/08/04 17:13

**Gasoline Range Organics (C6-C10) per AK101 - Laboratory Quality Control Results**  
**North Creek Analytical - Portland**

**QC Batch: 4101517**      **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes		
<b>Blank (4101517-BLK1)</b>										Extracted: 10/30/04 16:22						
Gasoline Range Organics	AK101 GRO	ND	---	80.0	ug/l	1x	--	--	--	--	--	--	10/30/04 21:37			
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.4%</i>		<i>Limits: 60-120%</i>		<i>"</i>							<i>10/30/04 21:37</i>			
<b>LCS (4101517-BS1)</b>										Extracted: 10/30/04 16:22						
Gasoline Range Organics	AK101 GRO	1080	---	80.0	ug/l	1x	--	1000	108%	(60-120)	--	--	10/30/04 22:04			
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 84.4%</i>		<i>Limits: 60-120%</i>		<i>"</i>							<i>10/30/04 22:04</i>			
<b>LCS Dup (4101517-BSD1)</b>										Extracted: 10/30/04 16:22						
Gasoline Range Organics	AK101 GRO	987	---	80.0	ug/l	1x	--	1000	98.7%	(60-120)	9.00% (20)		10/30/04 22:32			
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 82.4%</i>		<i>Limits: 60-120%</i>		<i>"</i>							<i>10/30/04 22:32</i>			
<b>Duplicate (4101517-DUP1)</b>										QC Source: P4J1116-04RE1		Extracted: 10/30/04 16:22				
Gasoline Range Organics	AK101 GRO	914	---	80.0	ug/l	1x	765	--	--	--	17.7% (50)		10/31/04 04:57			
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 98.8%</i>		<i>Limits: 60-120%</i>		<i>"</i>							<i>10/31/04 04:57</i>			
<b>Duplicate (4101517-DUP2)</b>										QC Source: P4J1123-12		Extracted: 10/30/04 16:22				
Gasoline Range Organics	AK101 GRO	23.0	---	80.0	ug/l	1x	ND	--	--	--	NR (50)		10/31/04 04:01			
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 74.0%</i>		<i>Limits: 60-120%</i>		<i>"</i>							<i>10/31/04 04:01</i>			

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:13
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**I Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 Low Volume - Laboratory Quality Control R**  
 North Creek Analytical - Portland

QC Batch: 4110013      Water Preparation Method: EPA 3510 Fuels

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Blank (4110013-BLK1)</b>											<b>Extracted: 11/01/04 08:20</b>	
Diesel Range Organics	AK102/103	ND	---	0.500	mg/l	1x	--	--	--	--	11/01/04 14:46	
Residual Range Organics	"	ND	---	0.600	"	"	--	--	--	--	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery:</i>	<i>87.7%</i>	<i>Limits: 50-150%</i>		<i>"</i>					<i>11/01/04 14:46</i>	
<i>triacontane</i>			<i>86.9%</i>	<i>50-150%</i>		<i>"</i>					<i>"</i>	
<b>LCS (4110013-BS1)</b>											<b>Extracted: 11/01/04 08:20</b>	
Diesel Range Organics	AK102/103	5.49	---	0.500	mg/l	1x	--	5.00	110% (75-125)	--	11/01/04 15:26	
Residual Range Organics	"	3.33	---	0.600	"	"	--	3.01	111% (60-120)	--	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery:</i>	<i>76.7%</i>	<i>Limits: 50-150%</i>		<i>"</i>					<i>11/01/04 15:26</i>	
<i>triacontane</i>			<i>96.8%</i>	<i>50-150%</i>		<i>"</i>					<i>"</i>	
<b>LCS Dup (4110013-BSD1)</b>											<b>Extracted: 11/01/04 08:20</b>	
Diesel Range Organics	AK102/103	4.69	---	0.500	mg/l	1x	--	5.00	93.8% (75-125)	15.7% (20)	11/01/04 16:05	
Residual Range Organics	"	2.85	---	0.600	"	"	--	3.01	94.7% (60-120)	15.5% "	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery:</i>	<i>71.5%</i>	<i>Limits: 50-150%</i>		<i>"</i>					<i>11/01/04 16:05</i>	
<i>triacontane</i>			<i>87.5%</i>	<i>50-150%</i>		<i>"</i>					<i>"</i>	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:13
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**  
**North Creek Analytical - Portland**

**QC Batch: 4110146**      **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Blank (4110146-BLK1)</b>											<b>Extracted: 11/03/04 08:15</b>	
Acetone	EPA 8260B	ND	---	25.0	ug/l	1x	--	--	--	--	11/03/04 10:20	
Benzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromochloromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromodichloromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromoform	"	ND	---	1.00	"	"	--	--	--	--	"	
Bromomethane	"	ND	---	5.00	"	"	--	--	--	--	"	
2-Butanone	"	ND	---	10.0	"	"	--	--	--	--	"	
n-Butylbenzene	"	ND	---	5.00	"	"	--	--	--	--	"	
sec-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
tert-Butylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Carbon disulfide	"	ND	---	10.0	"	"	--	--	--	--	"	
Carbon tetrachloride	"	ND	---	1.00	"	"	--	--	--	--	"	
Chlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Chloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Chloroform	"	ND	---	1.00	"	"	--	--	--	--	"	
Chloromethane	"	ND	---	5.00	"	"	--	--	--	--	"	
2-Chlorotoluene	"	ND	---	1.00	"	"	--	--	--	--	"	
4-Chlorotoluene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	---	5.00	"	"	--	--	--	--	"	
Dibromochloromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dibromoethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Dibromomethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Dichlorodifluoromethane	"	ND	---	5.00	"	"	--	--	--	--	"	
1,1-Dichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,3-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
2,2-Dichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	---	1.00	"	"	--	--	--	--	"	
Ethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Hexachlorobutadiene	"	ND	---	4.00	"	"	--	--	--	--	"	
2-Hexanone	"	ND	---	10.0	"	"	--	--	--	--	"	

North Creek Analytical - Portland

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*Mary A. Fritzmann Smith*

Mary A. Fritzmann Smith, Project Manager

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<b>Report Created:</b> 11/08/04 17:13
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

**QC Batch: 4110146**      **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Blank (4110146-BLK1)</b>												
Extracted: 11/03/04 08:15												
Isopropylbenzene	EPA 8260B	ND	---	2.00	ug/l	1x	--	--	--	--	11/03/04 10:20	
p-Isopropyltoluene	"	ND	---	2.00	"	"	--	--	--	--	"	
4-Methyl-2-pentanone	"	ND	---	5.00	"	"	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	"	
Methylene chloride	"	ND	---	5.00	"	"	--	--	--	--	"	
Naphthalene	"	ND	---	2.00	"	"	--	--	--	--	"	
n-Propylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Styrene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,1,2-Tetrachloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Tetrachloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
Toluene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,1-Trichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	---	1.00	"	"	--	--	--	--	"	
Trichloroethene	"	ND	---	1.00	"	"	--	--	--	--	"	
Trichlorofluoromethane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	---	1.00	"	"	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	---	1.00	"	"	--	--	--	--	"	
Vinyl chloride	"	ND	---	1.00	"	"	--	--	--	--	"	
o-Xylene	"	ND	---	1.00	"	"	--	--	--	--	"	
m,p-Xylene	"	ND	---	2.00	"	"	--	--	--	--	"	
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>88.5%</i>	<i>Limits:</i>	<i>75-120%</i>					<i>11/03/04 10:20</i>		
<i>1,2-DCA-d4</i>			<i>111%</i>		<i>77-129%</i>					<i>"</i>		
<i>Dibromofluoromethane</i>			<i>104%</i>		<i>80-121%</i>					<i>"</i>		
<i>Toluene-d8</i>			<i>99.0%</i>		<i>80-120%</i>					<i>"</i>		

*Mary A. Fritzmann Smith*



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**Golder Associates - Canada**

500-4260 Still Creek Drive  
 Burnaby, BC/CAN V5C6C6

Project Name: **WP&YR/Shops/Skagway**

Project Number: 96-1412-853B  
 Project Manager: Linda Kemp

Report Created:  
 11/08/04 17:13

**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

QC Batch: 4110146 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	----------------	----------------	----------	-------

**LCS (4110146-BS1)**

Extracted: 11/03/04 08:15

Benzene	EPA 8260B	20.1	---	1.00	ug/l	1x	--	20.0	100%	(80-120)	--	--	11/03/04 08:33
Chlorobenzene	"	20.0	---	1.00	"	"	--	"	100%	(80-124)	--	--	"
1,1-Dichloroethene	"	17.7	---	1.00	"	"	--	"	88.5%	(78-120)	--	--	"
Toluene	"	20.0	---	1.00	"	"	--	"	100%	(80-124)	--	--	"
Trichloroethene	"	20.8	---	1.00	"	"	--	"	104%	(80-132)	--	--	"
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>102%</i>	<i>Limits:</i>	<i>75-120%</i>	<i>"</i>							<i>11/03/04 08:33</i>
<i>1,2-DCA-d4</i>			<i>110%</i>		<i>77-129%</i>	<i>"</i>							<i>"</i>
<i>Dibromofluoromethane</i>			<i>97.5%</i>		<i>80-121%</i>	<i>"</i>							<i>"</i>
<i>Toluene-d8</i>			<i>104%</i>		<i>80-120%</i>	<i>"</i>							<i>"</i>

**Matrix Spike (4110146-MS1)**

QC Source: P4K0110-01

Extracted: 11/03/04 08:15

Benzene	EPA 8260B	19.4	---	1.00	ug/l	1x	ND	20.0	97.0%	(80-124)	--	--	11/03/04 09:00
Chlorobenzene	"	18.8	---	1.00	"	"	ND	"	94.0%	(72.9-134)	--	--	"
1,1-Dichloroethene	"	19.8	---	1.00	"	"	ND	"	99.0%	(79.3-127)	--	--	"
Toluene	"	17.8	---	1.00	"	"	ND	"	89.0%	(79.7-131)	--	--	"
Trichloroethene	"	19.2	---	1.00	"	"	ND	"	96.0%	(68.4-130)	--	--	"
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>97.5%</i>	<i>Limits:</i>	<i>75-120%</i>	<i>"</i>							<i>11/03/04 09:00</i>
<i>1,2-DCA-d4</i>			<i>106%</i>		<i>77-129%</i>	<i>"</i>							<i>"</i>
<i>Dibromofluoromethane</i>			<i>98.0%</i>		<i>80-121%</i>	<i>"</i>							<i>"</i>
<i>Toluene-d8</i>			<i>96.5%</i>		<i>80-120%</i>	<i>"</i>							<i>"</i>

**Matrix Spike Dup (4110146-MSD1)**

QC Source: P4K0110-01

Extracted: 11/03/04 08:15

Benzene	EPA 8260B	19.2	---	1.00	ug/l	1x	ND	20.0	96.0%	(80-124)	1.04%	(25)	11/03/04 09:26
Chlorobenzene	"	17.4	---	1.00	"	"	ND	"	87.0%	(72.9-134)	7.73%	"	"
1,1-Dichloroethene	"	19.6	---	1.00	"	"	ND	"	98.0%	(79.3-127)	1.02%	"	"
Toluene	"	17.3	---	1.00	"	"	ND	"	86.5%	(79.7-131)	2.85%	"	"
Trichloroethene	"	19.0	---	1.00	"	"	ND	"	95.0%	(68.4-130)	1.05%	"	"
<i>Surrogate(s): 4-BFB</i>		<i>Recovery:</i>	<i>100%</i>	<i>Limits:</i>	<i>75-120%</i>	<i>"</i>							<i>11/03/04 09:26</i>
<i>1,2-DCA-d4</i>			<i>106%</i>		<i>77-129%</i>	<i>"</i>							<i>"</i>
<i>Dibromofluoromethane</i>			<i>99.0%</i>		<i>80-121%</i>	<i>"</i>							<i>"</i>
<i>Toluene-d8</i>			<i>97.0%</i>		<i>80-120%</i>	<i>"</i>							<i>"</i>

North Creek Analytical - Portland

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<b>Golder Associates - Canada</b> 500-4260 Still Creek Drive Burnaby, BC/CAN V5C6C6	Project Name: <b>WP&amp;YR/Shops/Skagway</b>	<u>Report Created:</u> 11/08/04 17:13
	Project Number: 96-1412-853B	
	Project Manager: Linda Kemp	

**Notes and Definitions**

Report Specific Notes:

None

Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR / NA - Not Reported / Not Available
- dry - Sample results reported on a dry weight basis. Reporting Limits are corrected for %Solids when %Solids are <50%.
- wet - Sample results and reporting limits reported on a wet weight basis (as received).
- RPD - Relative Percent Difference. (RPDs calculated using Results, not Percent Recoveries).
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL\* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. \*MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated results.
- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

*Mary A. Fritzmann Smith*



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 541-383-9310 FAX 382-7588  
 907-334-9200 FAX 334-9210


### CHAIN OF CUSTODY REPORT

Work Order #: 041022 P4J1123

CLIENT: <u>GOLDER ASSOCIATES</u>				INVOICE TO:				<b>TURNAROUND REQUEST</b> in Business Days * Organic & Inorganic Analyses <input checked="" type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 Petroleum Hydrocarbon Analyses <input checked="" type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 STD. <input type="checkbox"/> OTHER Specify: _____ <small>* Turnaround Requests less than standard may incur Rush Charges.</small>			
REPORT TO: <u>LINDA KEMP</u>				P.O. NUMBER: <u>96-1412-853 B</u>							
ADDRESS: <u>500-4260 Still Creek Dr.</u>				PRESERVATIVE				MATRIX (W, S, O)    # OF CONT.    LOCATION / COMMENTS    NCA WO ID			
PHONE: <u>604-296-2800</u> FAX: <u>(604) 298-5253</u>				REQUESTED ANALYSES							
PROJECT NAME: <u>Skagway Stops</u>				HCl HCl HCl HCl				VOCs    GRC    DRC    RRC			
PROJECT NUMBER: <u>96-1412-853B</u>				SAMPLING DATE/TIME							
SAMPLED BY: <u>L. Kemp</u>				DATE				TIME			
CLIENT SAMPLE IDENTIFICATION				DATE							
1 041022-01				04/22/04 / 9 AM				W 7 5x40mL Vials only			
2 041022-02				04/22/04 / 9:30 AM				W 6 4x40mL Vials only			
3 041022-03				04/22/04 / 9:30 AM				W 6 4x40mL Vials only			
4 041022-04				04/22/04 / 10:30 AM				W 8			
5 041022-05				04/22/04 / 11:30 AM				W 6 4x40 mL vials			
6 041022-06				04/22/04 / 11:30 AM				W 6 4x40 mL vials			
7 041022-07				04/22/04 / 2 pm				W 8			
8 041022-08				04/22/04 / 4 pm				W 8			
9 041022-09				04/22/04 / 5 pm				W 8			
10 041022-10				04/22/04 / 6 pm				W 8			
RELEASED BY: <u>Linda Kemp</u>				DATE: <u>22 Oct 2004</u>				RECEIVED BY: <u>Encafat</u>			
FIRM: <u>Golder</u>				TIME: <u>9:00 AM</u>				FIRM: <u>NCA</u>			
DATE: _____				DATE: _____				DATE: <u>10/26/04</u>			
TIME: _____				TIME: _____				TIME: <u>1415</u>			
ADDITIONAL REMARKS:				TEMP: <u>3.9°C, 1.9, 4.4°C</u>				PAGE <u>3</u> OF <u>4</u>			



NORTH CREEK ANALYTICAL COOLER RECEIPT FORM

(Army Corp. compliant)

Client: Rolder

1. Please sign for receipt and opening of 3 cooler or \_\_\_\_\_ other \_\_\_\_\_

By (print) ERICA POT (sign) Erica Pot

2. Date samples received 10/26/04 Date opened: Same  or \_\_\_/\_\_\_/\_\_\_

3. Delivered by: \_\_\_ NCA courier \_\_\_ FedEx \_\_\_ UPS  Courier PROPAC Client  Other \_\_\_\_\_  
Airbill # if applicable \_\_\_\_\_ (Put copy of shipping papers in file)

4. There were 0 custody seals present, signed by \_\_\_\_\_ date \_\_\_/\_\_\_/\_\_\_.

5. Were the custody seals unbroken and intact at the date and time of arrival? \_\_\_ Yes \_\_\_ No

6. Was ice used?  yes \_\_\_ no Type of ice: \_\_\_ blue ice  gel ice \_\_\_ real ice  
Temperature (degrees C) 39.19 Raytek thermometer 4.4°C Digi-Therm (probe temperature blank)

7. Are custody papers sealed in a plastic bag and taped inside to lid?  Yes \_\_\_ No

8. Were custody papers filled out properly (ink, signed, etc.)?  Yes \_\_\_ No  
If "no" please specify: \_\_\_\_\_

9. Was project identifiable from custody papers?  Yes \_\_\_ No  
Name of project Slagway (if applicable)

10. Initial and date for unpacking: CFO (initials) date 10/27/04

11. Packing material:  bubble wrap/bag \_\_\_ styrofoam  cardboard \_\_\_ other \_\_\_\_\_

12. Were samples in bags? \_\_\_ Yes  No

13. Did all containers indicated on the COC arrive? \_\_\_ Yes  No  
If "no" please indicate which containers were absent 22-10 says 8 cont., recvd 7, 2 vials recvd labeled 22-10 but are empty

14. Were all containers unbroken and labels in good condition?  Yes \_\_\_ No  
If "no" please indicate which containers \_\_\_\_\_

15. Were all bottle labels complete (ID, date, time, signature, etc.)?  Yes \_\_\_ No  
Do the IDs, times, etc. agree with the COC?  Yes \_\_\_ No  
If "no" please indicate which containers \_\_\_\_\_

16. Are containers properly preserved for indicated analysis?  Yes \_\_\_ No

17. Is there adequate volume for the test(s) requested?  Yes \_\_\_ No

18. If voa vials were submitted, are they free of bubbles? \_\_\_ N/A  Yes \_\_\_ No

19. Log-in phase: Date samples were logged in: 10/27/04 Elm Project # P 4J1123

20. Logged in by (print) Carrie Fahsholtz (sign) Carrie Fahsholtz

21. Was the project manager notified of status? (Use back of form as a record) \_\_\_ Yes  No



500 - 4260 Still Creek Drive  
 Burnaby, British Columbia, Canada V5C 6C6  
 Telephone (604) 298-6623 Fax (604) 298-5253

# CHAIN OF CUSTODY RECORD/ANALYSIS REQUEST

No. 041020 page 1 of 4

Project Number: <b>961412853 B</b>	Laboratory Name: <b>NCA</b>
Short Title: <b>Skagway Shops</b>	Address:
Golder Contact: <b>L. Kemp</b>	Golder E-mail Address: <b>@golder.com</b>
	Telephone/Fax:
	Contact: <b>Mary Smith.</b>

Office the final reports should be sent to:

500-4260 Still Creek Dr.  
 Burnaby, B.C.  
 V5C 6C6  
 Tel: (604) 298-6623;  
 Fax: (604) 298-5253

202 - 2790 Gladwin Road  
 Abbotsford, B.C.  
 V2T 4S8  
 Tel: (604) 850-8786  
 Fax: (604) 850-8756

220 - 174 Wilson Street  
 Victoria, B.C.  
 V9A 7N6  
 Tel: (250) 881-7372  
 Fax: (250) 881-7470

Sample Control Number (SCN)	Sample Location	Sa. #	Sample Depth (m)	Sample Matrix (over)	Date Sampled (D/M/Y)	Time Sampled (HH:MM)	Sample Type (over)	QAQC Code (over)	Related SCN (over)	Number of Containers	Analyses Required				RUSH	Remarks (over)
											VOCS	GRO	RRO	DRO		
041020-01	MW98-2	1		Water	20/10/04	9:45				8	✓	✓	✓	✓		
041020-02	MW00-32	1		"	20/10/04	11:30				"	✓	✓	✓	✓		
041020-03	MW00-31	1		"	20/10/04	12:30				"	✓	✓	✓	✓		
041020-04	MW00-33	1		"	20/10/04	1:30				"	✓	✓	✓	✓		
041020-05	MW-34C	1		"	20/10/04	4:30				"	✓	✓	✓	✓		
041020-06	MW97-1	1		"	20/10/04	5:30				"	✓	✓	✓	✓		
<del>041020-07</del>																
<del>041020-08</del>																
<del>041020-09</del>																
- 10																
- 11																
- 12																

NCA Chain of Custody Used

Sampler's Signature:	Relinquished by: Signature	Company	Date	Time	Received by: Signature	Company	
Sample Storage (°C)	Relinquished by: Signature	Company	Date	Time	Received by: Signature	Company	
Comments:	Method of Shipment:	Waybill No.:		Received for Lab by:		Date	Time
	Shipped by:	Shipment Condition: Seal Intact:		Temp (°C)	Cooler opened by:	Date	Time



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# CHAIN OF CUSTODY RECORD/ANALYSIS REQUEST

No. 041021 page 2 of 4

Project Number: 96 1412 853 B		Laboratory Name: NCA	
Short Title: Skagway Shops		Address:	
Golder Contact: L. Kemp	Golder E-mail Address: Lkemp@golder.com	Telephone/Fax:	Contact: Mary Smith

Office the final reports should be sent to:

- 500-4260 Still Creek Dr. Burnaby, B.C. V5C 6C6  
 Tel: (604) 298-6623; Fax: (604) 298-5253
- 202 - 2790 Gladwin Road Abbotsford, B.C. V2T 4S8  
 Tel: (604) 850-8786 Fax: (604) 850-8756
- 220 - 174 Wilson Street Victoria, B.C. V9A 7N6  
 Tel: (250) 881-7372 Fax: (250) 881-7470

### Analyses Required

Sample Control Number (SCN)	Sample Location	Sa. #	Sample Depth (m)	Sample Matrix (over)	Date Sampled (D/M/Y)	Time Sampled (HH:MM)	Sample Type (over)	QAQC Code (over)	Related SCN (over)	Number of Containers	VOCs	GR0	DR0	RR0	RUSH	Remarks (over)
041021-01	MW4-HC	1		Water	21/10/04	8:45				8	✓	✓	✓	✓		
041021-02	MW00-34	1		"	"	10:30				8	✓	✓	✓	✓		
041021-03	MW-1HC	1		"	"	11:30				8	✓	✓	✓	✓		
041021-04	MW-1AHC			"	"	1:30				8	✓	✓	✓	✓		
041021-05	MW97-7 Deep			"	"	2:00				8	✓	✓	✓	✓		
041021-06	MW97-7 Medium			"	"	3:00				8	✓	✓	✓	✓		
041021-07	MW97-7 Shallow			"	"	4:00				8	✓	✓	✓	✓		(Sample jar Seals 3 pm)
041021-08	MW98-1			"	"	5:00				8	✓	✓	✓	✓		
041021-09	MW98-1			"	"	5:00		FR	041021-08	8	✓	✓	✓	✓		
- 10																
- 11																
- 12																

Sampler's Signature:	Relinquished by: Signature	Company	Date	Time	Received by: Signature	Company
Sample Storage (°C)	Relinquished by: Signature	Company	Date	Time	Received by: Signature	Company
Comments:	Method of Shipment:	Waybill No.:	Received for Lab by:		Date	Time
	Shipped by:	Shipment Condition: Seal Intact:	Temp (°C)	Cooler opened by:	Date	Time



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# CHAIN OF CUSTODY RECORD/ANALYSIS REQUEST

No 041022 page 3 of 4

Project Number: <b>96 1412853B</b>	Laboratory Name: <b>NCA</b>
Short Title: <b>Skarway Shop</b>	Address:
Golder Contact: <b>L. Kemp</b>	Golder E-mail Address: <b>L.Kemp @golder.com</b>
Telephone/Fax:	Contact: <b>Mary Smith</b>

Office the final reports should be sent to:

- 500-4260 Still Creek Dr. Burnaby, B.C. V5C 6C6  
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- 202 - 2790 Gladwin Road Abbotsford, B.C. V2T 4S8  
 Tel: (604) 850-8786 Fax: (604) 850-8756
- 220 - 174 Wilson Street Victoria, B.C. V9A 7N6  
 Tel: (250) 881-7372 Fax: (250) 881-7470

### Analyses Required

Sample Control Number (SCN)	Sample Location	Sa. #	Sample Depth (m)	Sample Matrix (over)	Date Sampled (D / M / Y)	Time Sampled (HH:MM)	Sample Type (over)	QAQC Code (over)	Related SCN (over)	Number of Containers	VOCS	PRO	BRO	RRO	RUSH	Remarks (over)
041022-01	MW97-6 Deep			W	22/10/04	9:00 <sup>PM</sup>				8	✓	✓	✓	✓		
041022-02	MW97-6 Medium			W	22/10/04	9:30				8	✓	✓	✓	✓		
041022-03	MW97-6 Medium			W	"	9:30	FD	041022-02		8	✓	✓	✓	✓		
041022-04	MW97-6 -2H			W	"	10:30				8	✓	✓	✓	✓		
041022-05	MW97-2			W	"	11:30				8	✓	✓	✓	✓		
041022-06	MW97-2			W	"	11:30	FD	041022-05		8	✓	✓	✓	✓		
041022-07	AS-2			W	"	2:00				8	✓	✓	✓	✓		
041022-08	AS-8			W	"	4:00				8	✓	✓	✓	✓		
041022-09	AS-10			W	"	5:00				8	✓	✓	✓	✓		
041022-10	AS-12			W	"	6:00				8	✓	✓	✓	✓		
- 11																
- 12																

NCA Chain of Custody Used

Sampler's Signature:	Relinquished by: Signature	Company	Date	Time	Received by: Signature	Company
Sample Storage (°C)	Relinquished by: Signature	Company	Date	Time	Received by: Signature	Company
Comments:	Method of Shipment:	Waybill No.:	Received for Lab by:		Date	Time
	Shipped by:	Shipment Condition: Seal Intact:	Temp (°C)	Cooler opened by:	Date	Time



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# CHAIN OF CUSTODY RECORD/ANALYSIS REQUEST

No. 041023 page 4 of 4

Project Number: 26142853B	Laboratory Name: NCA
Short Title: Skagway Shops	Address:
Golder Contact: L Key	Golder E-mail Address: @golder.com
Telephone/Fax:	Contact: MARY SMITH

Office the final reports should be sent to:											Analyses Required						
<input type="checkbox"/> 500-4260 Still Creek Dr. Burnaby, B.C. V5C 6C6 Tel: (604) 298-6623; Fax: (604) 298-5253			<input type="checkbox"/> 202 - 2790 Gladwin Road Abbotsford, B.C. V2T 4S8 Tel: (604) 850-8786 Fax: (604) 850-8756			<input type="checkbox"/> 220 - 174 Wilson Street Victoria, B.C. V9A 7N6 Tel: (250) 881-7372 Fax: (250) 881-7470					Number of Containers					RUSH	Remarks (over)
Sample Control Number (SCN)	Sample Location	Sa. #	Sample Depth (m)	Sample Matrix (over)	Date Sampled (D / M / Y)	Time Sampled (HH:MM)	Sample Type (over)	QAQC Code (over)	Related SCN (over)	VOCs		ORO	PPO	RPO			
041023 - 01	AS-4				23/10/04	1 pm				8	✓	✓	✓	✓			
041023 - 02	AS-6				23/10/04	2 pm				8	✓	✓	✓	✓			
- 03																	
- 04																	
- 05																	
- 06																	
- 07																	
- 08																	
- 09																	
- 10																	
- 11																	
- 12																	

Sampler's Signature:	Relinquished by: Signature	Company	Date	Time	Received by: Signature	Company
Sample Storage (°C)	Relinquished by: Signature	Company	Date	Time	Received by: Signature	Company
Comments:	Method of Shipment:	Waybill No.:	Received for Lab by:		Date	Time
	Shipped by:	Shipment Condition:	Temp (°C)	Cooler opened by:	Date	Time
		Seal Intact:				