

100.26.120

gp

50  
Years  
1954-2004

December 2, 2005

Gold Hill Store  
PO Box 60395  
Fairbanks, Alaska

Attn: Mr. Phil Carboy

**RE: GROUNDWATER MONITORING SAMPLE RESULTS, GOLD HILL STORE,  
ADEC FACILITY 0440, ESTER, ALASKA**

**RECEIVED**

DEC 06 2005

**CONTAMINATED  
SITES  
FAIRBANKS**

We have completed the sampling of the groundwater monitoring wells and a drinking water well at the above referenced property. Our work was conducted in general accordance with the Alaska Department of Environmental Conservation (ADEC) Underground Storage Tank (UST) Regulations 18 AAC 78, and our proposal dated August 12, 2005. The objective of our work was to continue monitoring activities established by others to evaluate groundwater contaminant concentration trends.

## **BACKGROUND**

AMEC Earth and Environmental, Inc. (AMEC) have conducted corrective action and monitoring activities at the Gold Hill Store under the ADEC Storage Tank Assistance Program. According to their *2004 Annual Report Gold Hill Store Site*, the property is developed on dredge spoils and mine tailings over fractured bedrock (schist). A bluff bounds the property to the north and the George Parks Highway to the south. Groundwater is inferred to flow in a southeasterly direction towards Cripple Creek, which is south and parallel to the George Parks Highway.

AMEC also reported that, petroleum hydrocarbons were detected in the groundwater during a 1994 subsurface assessment and identified the former gasoline USTs as the suspected source. In addition, groundwater monitoring was conducted at the site since 1994 and an air sparging (AS) soil vapor extraction (SVE) system was installed in 1996 and upgraded in 2003. In May 2004, ADEC groundwater cleanup levels were exceeded in samples collected from monitoring wells MW-2, MW-16, MW-17, and MW-20. AMEC concluded that the site had been adequately characterized, no additional exploration was necessary, and long-term groundwater monitoring

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SHANNON & WILSON, INC.

would be required. The exit strategies for this site have included termination of remediation system operation and select well decommissioning.

Our proposal dated August 12, 2005 recommended sampling the drinking water well GHW-2, prior to carbon treatment, and monitoring wells MW-2, MW-16, and MW-20 for continuation of the Gold Hill Store long-term monitoring program.

### **FIELD ACTIVITIES**

On October 11, 2005, Angela Miller, an environmental specialist with Shannon & Wilson, collected groundwater samples and field duplicates from monitoring wells MW-16 and MW-20 and drinking water well GHW-2. Snow and ice covered the ground surface making it difficult to confirm monitoring well locations. Measurements taken from a site drawing (attached), prepared by AMEC, and a metal detector were used in an attempt to uncover the wells and unfortunately monitoring well MW-2 could not be located. Samples were recollected from monitoring well MW-16 on October 31, 2005 for ethylenedibromide (EDB) by EPA method 504.1 because the original sample container did not contain the proper preservative.

The depth to groundwater was measured prior to sampling monitoring wells MW-16 and MW-20 using a decontaminated, electronic water-level sounder. The wells were purged until water quality parameters pH, temperature, and conductivity stabilized. Well purging and sample collection were performed using a decontaminated battery-powered, variable-speed, submersible whale pump fitted with new vinyl tubing. Twelve gallons of purge water were collected into a 55-gallon drum.

The drinking water well GHW-2 sample was collected from a tap accessed prior to the carbon treatment system. Ten gallons of water was purged prior to sample collection and placed into a 55-gallon drum.

Analytical water samples were collected in laboratory-supplied sampling containers, placed into a cooler with chain-of-custody documents, and kept cold during transport by Alaska Airlines to North Creek Analytical, Inc. (NCA) in Anchorage, Alaska. Samples were analyzed as shown in the following table.

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### GROUNDWATER SAMPLE ANALYSIS

	Gasoline Range Organics	Benzene, Toluene, Ethylbenzene, and Xylenes	Benzene, Toluene, Ethylbenzene, and Xylenes	Volatile Organic Compounds	Ethylene dibromide
Method	AK 101	EPA 8021	EPA 524.2	EPA 8260	EPA 504.1
MW-2	X	X		X	X
MW-16	X	X		X*	X*
MW-20	X	X			
GHW-2	X		X		
Quality Control	1	1	1	1	1
<b>Total</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>

Notes: Samples were planned for MW-2, but the well could not be located and samples were not collected.

\* Analysis originally scheduled for MW-2

Approximately twenty-two gallons of purged groundwater was collected into a 55-gallon drum and delivered to Emerald Alaska, Inc. in Fairbanks, Alaska.

### RESULTS

Groundwater sample results are summarized in Table 1. ADEC groundwater cleanup levels are reported in 18 AAC 75.345 and are also presented in Table 1 for reference. Copies of the NCA laboratory reports are provided as attachments to this report.

Results for the sample collected from monitoring well MW-20 indicate gasoline range organics (GRO) (86,500 µg/L), benzene (17,800 µg/L), toluene (7,670 µg/L), and ethylbenzene (1,240 µg/L), at concentrations exceeding their respective cleanup levels, and total xylenes were detected at 5,220 µg/L, which is below the cleanup level. Results for the sample and duplicate collected from monitoring well MW-16 indicate 1, 2-dichloroethane (37.7 µg/L and 38.6 µg/L) at concentrations above the cleanup level and methyltertbutylether (MTBE) (18.4 µg/L and 18.6 µg/L); no cleanup level has been established for MTBE, but it exceeds the risk based concentration guidance level. Other volatile organic compounds, including EDB, were not detected above the laboratory's method reporting limit (MRL).

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## QUALITY ASSURANCE AND QUALITY CONTROL

Field quality control (QC) procedures for this project included the collection and analysis of duplicate pairs of groundwater samples. In addition, temperature and trip blanks accompanied the samples during collection activities and were used to check that the samples were kept at the appropriate temperatures and no cross-contamination occurred during sampling or transportation to the laboratory. The temperature blanks demonstrated the samples arrived at the laboratory within the acceptable temperature limits. The trip blanks contained no analyte above its MRL, indicating cross-contamination among samples likely did not occur.

The duplicate water samples (1290-101105-002 and 1290-101105-020) and (1290-103105-002 and 1290-103105-020) were analyzed to evaluate error associated with sampling and laboratory variability. Field duplicate precision can be expressed as a relative percent difference (RPD) between duplicates if both samples contain analytes above their MRL. The RPD for 1,2-dichloroethane and methyltertbutylether detected in the groundwater were within Shannon & Wilson's acceptable range of  $\pm 30$  for water samples. Other analytes were not detected above the MRL.

Laboratory QC included the procedures outlined in the laboratory's ADEC-approved standard operating procedures documentation. As presented in the laboratory report's QC data package summary sheets, there were few analytical anomalies. It is our opinion that the overall utility of the laboratory data has not been compromised by these QC anomalies, and the results are valid for assessing the groundwater conditions at the sampling locations.

## CONCLUSIONS AND RECOMMENDATIONS

The groundwater collected from monitoring well MW-16 and drinking water well GHW-2 did not contain GRO, benzene, toluene, ethylbenzene and xylenes (BTEX) or other analytes in excess of the ADEC cleanup levels. Previous samples collected from monitoring well MW-16 reported GRO, benzene and toluene above cleanup levels and ethylebnzene and xylenes at concentrations below cleanup levels. Similarly, previous samples collected from drinking water well GHW-2 reported benzene at concentrations below the cleanup level.

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Groundwater collected from monitoring well MW-20 not only exceeded cleanup levels for GRO, benzene, toluene, and ethylbenzene, the contaminant concentrations more than doubled from the last sampling event in May 2004.

Groundwater was not collected from monitoring well MW-2, because it could not be located. According to the AMEC site drawing this well is located in the main access point to the property and was likely covered with compacted gravel and ice. Monitoring well MW-2 was scheduled for sample and analysis of GRO, BTEX, volatile organic compounds (VOCs), and EDB. VOCs and EDB were sampled from monitoring well MW-16 instead.

No conclusions can be made on contaminant concentration trends due to the wide variations in analytical results as compared to previous sampling events. To evaluate contaminant concentration trends we recommend continuing monitoring activities as shown in the following table.

#### GROUNDWATER SAMPLING PLAN

	Gasoline Range Organics	Benzene, Toluene, Ethylbenzene, and Xylenes	Volatile Organic Compounds	Ethylene dibromide
Method	AK 101	EPA 524.2	EPA 8260	EPA 504.1
MW-2	X		X	
MW-16	X		X	
MW-20	X		X	X
GHW-2		X		
Quality Control	1	1	1	1
<b>Total</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>2</b>

Notes: Samples will be collected from MW-2 if it can be located.

#### LIMITATIONS

This report presents conclusions based on limited sampling and analysis that we performed at Gold Hill Store in Ester, Alaska. The data presented in this letter report should be considered representative of the time our site observations and sample collection. Changes in the observed site conditions can occur with the passage of time. In addition, changes in government codes.

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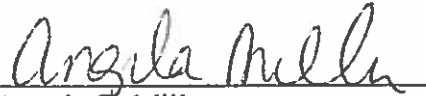
regulations, or laws may occur. Due to such changes, our observations and conclusions regarding this site may need to be revised. In addition, there can be no assurance that a regulatory agency or its staff will reach the same conclusions as Shannon & Wilson.

This report was prepared for the exclusive use of Phil Carboy. If it is made available to others, it should be for information on factual data only and not as a warranty of conditions described in this report. The interpretations and recommendations are based solely upon information available to Shannon & Wilson at the time of this report.

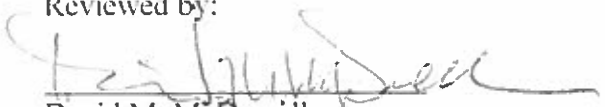
We trust this information is sufficient for your needs at the present time. If you have any questions, please do not hesitate to call.

Sincerely,

SHANNON & WILSON, INC.

  
Angela E. Miller  
Environmental Specialist

Reviewed by:

  
David M. McDowell  
Vice President

Enclosures: Table 1: Analytical Groundwater Sample Results  
AMEC site drawing  
NCA Laboratory Data Reports

CC: Deborah Williams, ADEC

31-1-11290-001

TABLE 1  
 SUMMARY OF ANALYTICAL GROUNDWATER SAMPLE RESULTS  
 GOLD HILL STORE, FAIRBANKS, ALASKA

Sample Number	Sample Location	EPA 504.1		EPA 8021/EPA 524.2*				EPA 8260	
		AK 101 GRO (µg/L)	Ethylene dibromide (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	1,2-Dichloro ethane (µg/L)	Methyltert- butylether (µg/L)
1290-101105-002	Monitoring well MW-16	<50.0	-	<0.500	<0.500	<0.500	<1.50	37.7	18.4
1290-101105-020	Duplicate of monitoring well MW-16	<50.0	-	<0.500	<0.500	<0.500	<1.50	38.6	18.6
1290-101105-200	Monitoring well MW-20	86,500	-	17,800	7,670	1,240	5,220	-	-
1290-101105-GHW1	Drinking water well*	<80.0	-	<0.000500	<0.000500	<0.000500	<0.00100	-	-
1290-101105-GHW2	Duplicate of drinking water well*	<80.0	-	<0.000500	<0.000500	<0.000500	<0.00100	-	-
1290-103105-002	Monitoring well MW-16	-	<0.0100	-	-	-	-	-	-
1290-103105-020	Duplicate of monitoring well MW-16	-	<0.0100	-	-	-	-	-	-
ADEC groundwater cleanup level (18 AAC 75.345)		1,300	0.05	5	1,000	700	10,000	5	-

Notes:

- < Analyte not above specified laboratory Method Reporting Limit (MRL)
- \* Volatile Organic Compounds in the drinking water well were analyzed by EPA 524.2
- Not applicable
- bold** Exceeds groundwater cleanup level



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October 26, 2005

David M. McDowell  
Shannon & Wilson, INC. (Fairbanks)  
2355 Hill Road  
Fairbanks, AK/USA 99709-5326

RE: Gold Hill Store

Enclosed are the results of analyses for samples received by the laboratory on 10/11/05 19:40.  
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>
A5J0049	Gold Hill Store	[none]

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Thank You,

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Mike Priebe For Stephen Wilson, Laboratory 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**





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<b>Shannon &amp; Wilson, INC. (Fairbanks)</b> 2355 Hill Road Fairbanks, AK/USA 99709-5326	Project Name: <b>Gold Hill Store</b> Project Number: [none] Project Manager: David M. McDowell	Report Created: 10/26/05 09:34
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**Gasoline Range Organics (C6-C10) and BTEX per AK101**  
North Creek Analytical - Alaska

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>A5J0049-01</b>	<b>Water</b>	<b>1290-101105-002</b>	<b>Sampled: 10/11/05 11:00</b>							
Gasoline Range Organics	AK101	ND	----	50.0	ug/l	1x	5100046	10/12/05	10/13/05 10:45	
Benzene	"	ND	----	0.500	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.50	"	"	"	"	"	
Surrogate(s): a,a,a-TFT (FID)		Recovery: 87.0%		Limits: 50 - 150 %						
a,a,a-TFT (PID)		84.6%		72.5 - 131 %						
<b>A5J0049-02</b>	<b>Water</b>	<b>1290-101105-020</b>	<b>Sampled: 10/11/05 11:20</b>							
Gasoline Range Organics	AK101	ND	----	50.0	ug/l	1x	5100046	10/12/05	10/13/05 11:18	
Benzene	"	ND	----	0.500	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.50	"	"	"	"	"	
Surrogate(s): a,a,a-TFT (FID)		Recovery: 85.1%		Limits: 50 - 150 %						
a,a,a-TFT (PID)		83.1%		72.5 - 131 %						
<b>A5J0049-03</b>	<b>Water</b>	<b>1290-101105-200</b>	<b>Sampled: 10/11/05 11:50</b>							
Gasoline Range Organics	AK101	86500	----	20000	ug/l	400x	5100046	10/12/05	10/13/05 17:18	R-01
Benzene	"	17800	----	200	"	"	"	"	"	R-01
Toluene	"	7670	----	200	"	"	"	"	"	R-01
Ethylbenzene	"	1240	----	200	"	"	"	"	"	R-01
Xylenes (total)	"	5220	----	600	"	"	"	"	"	R-01
Surrogate(s): a,a,a-TFT (FID)		Recovery: 89.4%		Limits: 50 - 150 %		1x				
a,a,a-TFT (PID)		89.8%		72.5 - 131 %						

North Creek Analytical - Alaska

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Mike Priebe For Stephen Wilson, Laboratory Manager

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Shannon & Wilson, INC. (Fairbanks) 2355 Hill Road Fairbanks, AK/USA 99709-5326	Project Name: <b>Gold Hill Store</b>	Report Created:
	Project Number: [none]	10/26/05 09:34
	Project Manager: David M. McDowell	

**Gasoline Range Organics (C6-C10) and BTEX per AK101/8021B**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
A5J0049-04	Water	1290-101105-GHW1								Sampled: 10/11/05 12:30
Gasoline Range Organics	AK101/8021B	ND	----	80.0	ug/l	1x	5100739	10/17/05	10/18/05 00:07	
Benzene	"	ND	----	0.500	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	

Surrogate(s): 4-BFB (FID) Recovery: 90.4% Limits: 60 - 120 %  
 4-BFB (PID) 88.8% 60 - 120 %

A5J0049-05	Water	1290-101105-GHW2								Sampled: 10/11/05 12:40
Gasoline Range Organics	AK101/8021B	ND	----	80.0	ug/l	1x	5100739	10/17/05	10/18/05 02:14	
Benzene	"	ND	----	0.500	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	

Surrogate(s): 4-BFB (FID) Recovery: 89.6% Limits: 60 - 120 %  
 4-BFB (PID) 87.2% 60 - 120 %

North Creek Analytical - Alaska

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Mike Priebe For Stephen Wilson, Laboratory Manager

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<b>Shannon &amp; Wilson, INC. (Fairbanks)</b> 2355 Hill Road Fairbanks, AK/USA 99709-5326	Project Name: <b>Gold Hill Store</b>	<b>Report Created:</b> 10/26/05 09:34
	Project Number: [none]	
	Project Manager: David M. McDowell	

**Volatile Organic Compounds in Drinking Water per EPA 524.2**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>A5J0049-04</b>	<b>Water</b>	<b>1290-101105-GHW1</b>	<b>Sampled: 10/11/05 12:30</b>							
Benzene	EPA 524.2	ND	----	0.000500	mg/l	1x	5100842	10/19/05	10/19/05 15:22	
Ethylbenzene	"	ND	----	0.000500	"	"	"	"	"	
Toluene	"	ND	----	0.000500	"	"	"	"	"	
Xylenes (total)	"	ND	----	0.00100	"	"	"	"	"	
<i>Surrogate(s):</i>	<i>Dibromofluoromethane</i>	<i>Recovery: 108%</i>		<i>Limits: 70 - 130 %</i>	"	"	"	"	"	
	<i>1,2-DCA-d4</i>	<i>107%</i>		<i>70 - 130 %</i>	"	"	"	"	"	
	<i>Toluene-d8</i>	<i>98.2%</i>		<i>70 - 130 %</i>	"	"	"	"	"	
	<i>4-BFB</i>	<i>92.6%</i>		<i>70 - 130 %</i>	"	"	"	"	"	
<b>A5J0049-05</b>	<b>Water</b>	<b>1290-101105-GHW2</b>	<b>Sampled: 10/11/05 12:40</b>							
Benzene	EPA 524.2	ND	----	0.000500	mg/l	1x	5100842	10/19/05	10/19/05 15:50	
Ethylbenzene	"	ND	----	0.000500	"	"	"	"	"	
Toluene	"	ND	----	0.000500	"	"	"	"	"	
Xylenes (total)	"	ND	----	0.00100	"	"	"	"	"	
<i>Surrogate(s):</i>	<i>Dibromofluoromethane</i>	<i>Recovery: 111%</i>		<i>Limits: 70 - 130 %</i>	"	"	"	"	"	
	<i>1,2-DCA-d4</i>	<i>109%</i>		<i>70 - 130 %</i>	"	"	"	"	"	
	<i>Toluene-d8</i>	<i>98.0%</i>		<i>70 - 130 %</i>	"	"	"	"	"	
	<i>4-BFB</i>	<i>89.6%</i>		<i>70 - 130 %</i>	"	"	"	"	"	
<b>A5J0049-06</b>	<b>Water</b>	<b>Trip Blank</b>	<b>Sampled: 10/11/05 00:00</b>							
Benzene	EPA 524.2	ND	----	0.000500	mg/l	1x	5100842	10/19/05	10/19/05 16:17	
Ethylbenzene	"	ND	----	0.000500	"	"	"	"	"	
Toluene	"	ND	----	0.000500	"	"	"	"	"	
Xylenes (total)	"	ND	----	0.00100	"	"	"	"	"	
<i>Surrogate(s):</i>	<i>Dibromofluoromethane</i>	<i>Recovery: 107%</i>		<i>Limits: 70 - 130 %</i>	"	"	"	"	"	
	<i>1,2-DCA-d4</i>	<i>108%</i>		<i>70 - 130 %</i>	"	"	"	"	"	
	<i>Toluene-d8</i>	<i>97.6%</i>		<i>70 - 130 %</i>	"	"	"	"	"	
	<i>4-BFB</i>	<i>88.8%</i>		<i>70 - 130 %</i>	"	"	"	"	"	

North Creek Analytical - Alaska

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Mike Priebe For Stephen Wilson, Laboratory Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network



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<b>Shannon &amp; Wilson, INC. (Fairbanks)</b> 2355 Hill Road Fairbanks, AK/USA 99709-5326	Project Name: <b>Gold Hill Store</b>	<b>Report Created:</b> 10/26/05 09:34
	Project Number: [none]	
	Project Manager: David M. McDowell	

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

QC Batch: 5100046      Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
<b>Matrix Spike (5100046-MS1)</b>			QC Source: A5J0038-02				Extracted: 10/12/05 12:59					
Benzene	AK101 GRO/BTEX	19.3	---	0.500	ug/l	1x	0.209	20.0	95.5% (62.1-143)	-- --	10/13/05 03:10	
Toluene	"	20.1	---	0.500	"	"	0.161	"	99.7% (68.5-133)	-- --	"	
Ethylbenzene	"	20.0	---	0.500	"	"	0.358	"	98.2% (64.5-132)	-- --	"	
Xylenes (total)	"	61.1	---	1.50	"	"	0.850	60.0	100% (70.2-133)	-- --	"	
Surrogate(s): a,a,a-TFT (PID)		Recovery: 89.0%		Limits: 72.5-131%								
<b>Matrix Spike Dup (5100046-MSD1)</b>			QC Source: A5J0038-02				Extracted: 10/12/05 12:59					
Benzene	AK101 GRO/BTEX	19.3	---	0.500	ug/l	1x	0.209	20.0	95.5% (62.1-143)	0.00%(13.3)	10/13/05 03:42	
Toluene	"	20.3	---	0.500	"	"	0.161	"	101% (68.5-133)	0.99%(16.4)	"	
Ethylbenzene	"	20.1	---	0.500	"	"	0.358	"	98.7% (64.5-132)	0.49%(14.8)	"	
Xylenes (total)	"	61.8	---	1.50	"	"	0.850	60.0	102% (70.2-133)	1.14%(14.9)	"	
Surrogate(s): a,a,a-TFT (PID)		Recovery: 89.6%		Limits: 72.5-131%								

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**Shannon & Wilson, INC. (Fairbanks)**

2355 Hill Road  
 Fairbanks, AK/USA 99709-5326

Project Name: **Gold Hill Store**  
 Project Number: [none]  
 Project Manager: David M. McDowell

Report Created:  
 10/26/05 09:34

**Gasoline Range Organics (C6-C10) and BTEX per AK101/8021B - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

QC Batch: 5100739 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
Extracted: 10/17/05 11:55												
<b>Blank (5100739-BLK1)</b>												
Gasoline Range Organics	AK101/8021B	ND	---	80.0	ug/l	1x	--	--	--	--	10/17/05 14:24	
Benzene	"	ND	---	0.500	"	"	--	--	--	--	"	
Toluene	"	ND	---	0.500	"	"	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.500	"	"	--	--	--	--	"	
Xylenes (total)	"	ND	---	1.00	"	"	--	--	--	--	"	
Surrogate(s): 4-BFB (FID)		Recovery: 94.4%		Limits: 60-120%								10/17/05 14:24
4-BFB (PID)		Recovery: 92.6%		Limits: 60-120%								"
Extracted: 10/17/05 11:55												
<b>LCS (5100739-BS1)</b>												
Benzene	AK101/8021B	19.0	---	0.500	ug/l	1x	--	20.0	95.0% (70-130)	--	10/17/05 13:21	
Toluene	"	19.6	---	0.500	"	"	--	"	98.0% (76-129)	--	"	
Ethylbenzene	"	20.3	---	0.500	"	"	--	"	102% (82-130)	--	"	
Xylenes (total)	"	60.4	---	1.00	"	"	--	60.0	101% (76-130)	--	"	
Surrogate(s): 4-BFB (PID)		Recovery: 90.6%		Limits: 60-120%								10/17/05 13:21
Extracted: 10/17/05 11:55												
<b>LCS (5100739-BS2)</b>												
Gasoline Range Organics	AK101/8021B	461	---	80.0	ug/l	1x	--	500	92.2% (60-120)	--	10/17/05 12:18	
Surrogate(s): 4-BFB (FID)		Recovery: 95.0%		Limits: 60-120%								10/17/05 12:18
Extracted: 10/17/05 11:55												
<b>LCS Dup (5100739-BSD1)</b>												
Benzene	AK101/8021B	19.3	---	0.500	ug/l	1x	--	20.0	96.5% (70-130)	1.57% (20)	10/17/05 13:53	
Toluene	"	20.0	---	0.500	"	"	--	"	100% (76-129)	2.02%	"	
Ethylbenzene	"	20.8	---	0.500	"	"	--	"	104% (82-130)	2.43%	"	
Xylenes (total)	"	61.9	---	1.00	"	"	--	60.0	103% (76-130)	2.45%	"	
Surrogate(s): 4-BFB (PID)		Recovery: 91.2%		Limits: 60-120%								10/17/05 13:53
Extracted: 10/17/05 11:55												
<b>LCS Dup (5100739-BSD2)</b>												
Gasoline Range Organics	AK101/8021B	477	---	80.0	ug/l	1x	--	500	95.4% (60-120)	3.41% (20)	10/17/05 12:50	
Surrogate(s): 4-BFB (FID)		Recovery: 94.4%		Limits: 60-120%								10/17/05 12:50
Extracted: 10/17/05 11:55												
<b>Duplicate (5100739-DUP1)</b>												
Gasoline Range Organics	AK101/8021B	ND	---	80.0	ug/l	1x	ND	--	--	--	NR (50)	10/18/05 01:43
Surrogate(s): 4-BFB (FID)		Recovery: 90.0%		Limits: 60-120%								10/18/05 01:43

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Mike Priebe For Stephen Wilson, Laboratory Manager

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<b>Shannon &amp; Wilson, INC. (Fairbanks)</b> 2355 Hill Road Fairbanks, AK/USA 99709-5326	Project Name: <b>Gold Hill Store</b> Project Number: [none] Project Manager: David M. McDowell	Report Created: 10/26/05 09:34
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**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

QC Batch: 5100702      Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	DII	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
Blank (5100702-BLK1)												
Extracted: 10/17/05 08:09												
Acetone	EPA 8260B	ND	---	25.0	ug/l	Ix	--	--	--	--	10/17/05 11:15	
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>Shannon &amp; Wilson, INC. (Fairbanks)</b> 2355 Hill Road Fairbanks, AK/USA 99709-5326	Project Name: <b>Gold Hill Store</b> Project Number: [none] Project Manager: David M. McDowell	Report Created: 10/26/05 09:34
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**Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

QC Batch: 5100702      Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC (Limits)	% RPD (Limits)	Analyzed	Notes
LCS (5100702-BS1) <span style="float:right">Extracted: 10/17/05 08:09</span>												
Benzene	EPA 8260B	19.7	---	1.00	ug/l	1x	--	20.0	98.5% (80-120)	--	10/17/05 09:02	
Chlorobenzene	"	21.1	---	1.00	"	"	--	"	106% (80-124)	--	"	
1,1-Dichloroethene	"	15.1	---	1.00	"	"	--	"	75.5% (78-120)	--	"	Q-27
Toluene	"	20.9	---	1.00	"	"	--	"	104% (80-124)	--	"	
Trichloroethene	"	20.4	---	1.00	"	"	--	"	102% (80-132)	--	"	
Surrogate(s): 4-BFB		Recovery:	105%	Limits:	75-120%	"					10/17/05 09:02	
1,2-DCA-d4			99.5%		77-129%	"					"	
Dibromofluoromethane			101%		80-121%	"					"	
Toluene-d8			100%		80-120%	"					"	

Matrix Spike (5100702-MS1) <span style="float:right">QC Source: P5J0556-01      Extracted: 10/17/05 08:09</span>												
Benzene	EPA 8260B	19.5	---	1.00	ug/l	1x	ND	20.0	97.5% (80-124)	--	10/17/05 09:29	
Chlorobenzene	"	20.2	---	1.00	"	"	ND	"	101% (72.9-134)	--	"	
1,1-Dichloroethene	"	19.0	---	1.00	"	"	0.230	"	93.8% (79.3-127)	--	"	
Toluene	"	19.6	---	1.00	"	"	ND	"	98.0% (79.7-131)	--	"	
Trichloroethene	"	21.1	---	1.00	"	"	2.21	"	94.4% (68.4-130)	--	"	
Surrogate(s): 4-BFB		Recovery:	102%	Limits:	75-120%	"					10/17/05 09:29	
1,2-DCA-d4			98.0%		77-129%	"					"	
Dibromofluoromethane			100%		80-121%	"					"	
Toluene-d8			99.0%		80-120%	"					"	

Matrix Spike Dup (5100702-MSD1) <span style="float:right">QC Source: P5J0556-01      Extracted: 10/17/05 08:09</span>												
Benzene	EPA 8260B	20.2	---	1.00	ug/l	1x	ND	20.0	101% (80-124)	3.53% (25)	10/17/05 09:55	
Chlorobenzene	"	21.0	---	1.00	"	"	ND	"	105% (72.9-134)	3.88%	"	
1,1-Dichloroethene	"	20.0	---	1.00	"	"	0.230	"	98.8% (79.3-127)	5.13%	"	
Toluene	"	20.6	---	1.00	"	"	ND	"	103% (79.7-131)	4.98%	"	
Trichloroethene	"	21.8	---	1.00	"	"	2.21	"	98.0% (68.4-130)	3.26%	"	
Surrogate(s): 4-BFB		Recovery:	102%	Limits:	75-120%	"					10/17/05 09:55	
1,2-DCA-d4			100%		77-129%	"					"	
Dibromofluoromethane			100%		80-121%	"					"	
Toluene-d8			100%		80-120%	"					"	

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<b>Shannon &amp; Wilson, INC. (Fairbanks)</b> 2355 Hill Road Fairbanks, AK/USA 99709-5326	Project Name: <b>Gold Hill Store</b>	<b>Report Created:</b> 10/26/05 09:34
	Project Number: [none]	
	Project Manager: David M. McDowell	

**Volatile Organic Compounds in Drinking Water per EPA 524.2 - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

QC Batch: 5100842      Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (5100842-BLK1)</b>														
Extracted: 10/19/05 09:17														
Naphthalene	EPA 524.2	ND	---	0.000500	mg/l	1x	--	--	--	--	--	--	10/19/05 13:04	
n-Propylbenzene	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
Styrene	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
1,1,1,2-Tetrachloroethane	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
Tetrachloroethene	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
1,1,1-Trichloroethane	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
Trichloroethene	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
Trichlorofluoromethane	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
Vinyl chloride	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Surrogate(s): Dibromofluoromethane		Recovery:	105%	Limits:	70-130%	"							10/19/05 13:04	
1,2-DCA-d4			108%		70-130%	"							"	
Toluene-d8			98.4%		70-130%	"							"	
4-BFB			90.0%		70-130%	"							"	

<b>LCS (5100842-BS1)</b>														
Extracted: 10/19/05 09:17														
Benzene	EPA 524.2	0.00503	---	0.000500	mg/l	1x	--	0.00500	101%	(70-130)	--	--	10/19/05 11:14	
Bromobenzene	"	0.00533	---	0.000500	"	"	--	"	107%	"	--	--	"	
Bromochloromethane	"	0.00509	---	0.000500	"	"	--	"	102%	"	--	--	"	
Bromodichloromethane	"	0.00514	---	0.000500	"	"	--	"	103%	"	--	--	"	
Bromoform	"	0.00483	---	0.000500	"	"	--	"	96.6%	"	--	--	"	
Bromomethane	"	0.00518	---	0.000500	"	"	--	"	104%	"	--	--	"	
n-Butylbenzene	"	0.00505	---	0.000500	"	"	--	"	101%	"	--	--	"	
sec-Butylbenzene	"	0.00527	---	0.000500	"	"	--	"	105%	"	--	--	"	
tert-Butylbenzene	"	0.00535	---	0.000500	"	"	--	"	107%	"	--	--	"	
Carbon tetrachloride	"	0.00496	---	0.000500	"	"	--	"	99.2%	"	--	--	"	
Chlorobenzene	"	0.00498	---	0.000500	"	"	--	"	99.6%	"	--	--	"	
Chloroethane	"	0.00481	---	0.000500	"	"	--	"	96.2%	"	--	--	"	
Chloroform	"	0.00516	---	0.000500	"	"	--	"	103%	"	--	--	"	
Chloromethane	"	0.00479	---	0.000500	"	"	--	"	95.8%	"	--	--	"	
2-Chlorotoluene	"	0.00520	---	0.000500	"	"	--	"	104%	"	--	--	"	
4-Chlorotoluene	"	0.00526	---	0.000500	"	"	--	"	105%	"	--	--	"	
1,2-Dibromo-3-chloropropane	"	0.00503	---	0.000500	"	"	--	"	101%	"	--	--	"	
Dibromochloromethane	"	0.00494	---	0.000500	"	"	--	"	98.8%	"	--	--	"	

North Creek Analytical - Alaska

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North Creek Analytical, Inc.  
 Environmental Laboratory Network





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 phone: (907) 563.9200 fax: (907) 563.9210

**Shannon & Wilson, INC. (Fairbanks)**

2355 Hill Road  
 Fairbanks, AK/USA 99709-5326

Project Name: **Gold Hill Store**  
 Project Number: [none]  
 Project Manager: David M. McDowell

Report Created:  
 10/26/05 09:34

**Volatile Organic Compounds in Drinking Water per EPA 524.2 - Laboratory Quality Control Results**  
 North Creek Analytical - Portland

QC Batch: 5100842 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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**LCS (5100842-BS1)**

Extracted: 10/19/05 09:17

Surrogate(s): Toluene-d8  
 4-BFB

Recovery: 97.8%  
 105%

Limits: 70-130% 1x  
 70-130% "

10/19/05 11:14

**LCS Dup (5100842-BSD1)**

Extracted: 10/19/05 09:17

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Benzene	EPA 524.2	0.00509	---	0.000500	mg/l	1x	--	0.00500	102%	(70-130)	1.19%	(30)	10/19/05 12:09	"
Bromobenzene	"	0.00549	---	0.000500	"	"	--	"	110%	"	2.96%	"	"	"
Bromochloromethane	"	0.00526	---	0.000500	"	"	--	"	105%	"	3.29%	"	"	"
Bromodichloromethane	"	0.00540	---	0.000500	"	"	--	"	108%	"	4.93%	"	"	"
Bromoform	"	0.00506	---	0.000500	"	"	--	"	101%	"	4.65%	"	"	"
Bromomethane	"	0.00518	---	0.000500	"	"	--	"	104%	"	0.00%	"	"	"
n-Butylbenzene	"	0.00468	---	0.000500	"	"	--	"	93.6%	"	7.61%	"	"	"
sec-Butylbenzene	"	0.00506	---	0.000500	"	"	--	"	101%	"	4.07%	"	"	"
tert-Butylbenzene	"	0.00534	---	0.000500	"	"	--	"	107%	"	0.187%	"	"	"
Carbon tetrachloride	"	0.00495	---	0.000500	"	"	--	"	99.0%	"	0.202%	"	"	"
Chlorobenzene	"	0.00516	---	0.000500	"	"	--	"	103%	"	3.55%	"	"	"
Chloroethane	"	0.00480	---	0.000500	"	"	--	"	96.0%	"	0.208%	"	"	"
Chloroform	"	0.00533	---	0.000500	"	"	--	"	107%	"	3.24%	"	"	"
Chloromethane	"	0.00469	---	0.000500	"	"	--	"	107%	"	2.11%	"	"	"
2-Chlorotoluene	"	0.00524	---	0.000500	"	"	--	"	93.8%	"	0.766%	"	"	"
4-Chlorotoluene	"	0.00522	---	0.000500	"	"	--	"	105%	"	0.763%	"	"	"
1,2-Dibromo-3-chloropropane	"	0.00491	---	0.000500	"	"	--	"	104%	"	2.41%	"	"	"
Dibromochloromethane	"	0.00503	---	0.000500	"	"	--	"	101%	"	1.81%	"	"	"
1,2-Dibromoethane	"	0.00547	---	0.000500	"	"	--	"	109%	"	7.39%	"	"	"
Dibromomethane	"	0.00527	---	0.000500	"	"	--	"	105%	"	4.66%	"	"	"
1,2-Dichlorobenzene	"	0.00505	---	0.000500	"	"	--	"	101%	"	4.64%	"	"	"
1,3-Dichlorobenzene	"	0.00534	---	0.000500	"	"	--	"	107%	"	2.04%	"	"	"
1,4-Dichlorobenzene	"	0.00531	---	0.000500	"	"	--	"	106%	"	1.52%	"	"	"
Dichlorodifluoromethane	"	0.00431	---	0.000500	"	"	--	"	86.2%	"	0.694%	"	"	"
1,1-Dichloroethane	"	0.00514	---	0.000500	"	"	--	"	103%	"	2.36%	"	"	"
1,2-Dichloroethane	"	0.00516	---	0.000500	"	"	--	"	103%	"	3.95%	"	"	"
1,1-Dichloroethene	"	0.00485	---	0.000500	"	"	--	"	97.0%	"	0.617%	"	"	"
cis-1,2-Dichloroethene	"	0.00499	---	0.000500	"	"	--	"	99.8%	"	0.599%	"	"	"
trans-1,2-Dichloroethene	"	0.00499	---	0.000500	"	"	--	"	99.8%	"	0.400%	"	"	"
1,2-Dichloropropane	"	0.00521	---	0.000500	"	"	--	"	104%	"	4.11%	"	"	"
1,3-Dichloropropane	"	0.00530	---	0.000500	"	"	--	"	106%	"	6.23%	"	"	"
2,2-Dichloropropane	"	0.00487	---	0.000500	"	"	--	"	106%	"	6.23%	"	"	"
1,1-Dichloropropene	"	0.00480	---	0.000500	"	"	--	"	97.4%	"	1.63%	"	"	"
cis-1,3-Dichloropropene	"	0.00486	---	0.000500	"	"	--	"	96.0%	"	2.47%	"	"	"
trans-1,3-Dichloropropene	"	0.00487	---	0.000500	"	"	--	"	97.2%	"	2.08%	"	"	"
Ethylbenzene	"	0.00513	---	0.000500	"	"	--	"	97.4%	"	0.206%	"	"	"
Hexachlorobutadiene	"	0.00465	---	0.000500	"	"	--	"	103%	"	0.583%	"	"	"
Isopropylbenzene	"	0.00526	---	0.000500	"	"	--	"	93.0%	"	9.43%	"	"	"

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

North Creek Analytical - Alaska

Mike Priebe For Stephen Wilson, Laboratory Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network



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<b>Shannon &amp; Wilson, INC. (Fairbanks)</b> 2355 Hill Road Fairbanks, AK/USA 99709-5326	Project Name: <b>Gold Hill Store</b>	<u>Report Created:</u> 10/26/05 09:34
	Project Number: [none]	
	Project Manager: David M. McDowell	

**Notes and Definitions**

Report Specific Notes:

- Q-01 - The matrix spike recovery, and/or RPD, for this QC sample is outside of established control limits. Failure of a matrix spike QC sample does not represent an out-of-control condition for the batch.
- Q-27 - Analyte recovery outside of specified criteria. Individual analyte criteria exceedences allowed for multi-component analyses without disqualification of data per USACE EM200-1-3.
- R-01 - Reporting limit raised due to dilution necessary for analysis.

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.

North Creek Analytical Cooler Receipt Form

(Must be Completed)

WORK ORDER # AST0049 CLIENT: Trinnor Wilson PROJECT: Gold Hill

Date Time Cooler Arrived 10/11/05 19:40 Cooler signed for by: Jon McQuinn  
(Print name)

Preliminary Examination Phase:

Date cooler opened:  same as date received or 1

Cooler opened by (print) Jon McQuinn (sign) [Signature]

1. Delivered by  ALASKA AIRLINES  Fed-Ex  UPS  INAC  LYNDEN  Other: \_\_\_\_\_

Shipment Tracking # if applicable 2910 5762 (include copy of shipping papers in file)

2. Number of Custody Seals 2 Signed by See Back Date 10/11/05

Were custody seals unbroken and intact on arrival?  Yes  No

3. Were custody papers sealed in a plastic bag?  Yes  No

4. Were custody papers filled out properly (ink, signed, etc.)?  Yes  No

5. Did you sign the custody papers in the appropriate place?  Yes  No

6. Was ice used?  Yes  No Type of ice:  blue ice  gel ice  real ice  dry ice Condition of ice: Frozen

Temperature by Digi-Thermo Probe 5.4° °C Thermometer # \_\_\_\_\_

7. Packing in Cooler:  bubble wrap  styrofoam  cardboard  Other: \_\_\_\_\_

8. Did samples arrive in plastic bags?  Yes  No

9. Did all bottles arrive unbroken, and with labels in good condition?  Yes  No

10. Are all bottle labels complete (ID, date, time, etc.)?  Yes  No

11. Do bottle labels and Chain of Custody agree?  Yes  No

12. Are the containers and preservatives correct for the tests indicated?  Yes  No

13. Is there adequate volume for the tests requested?  Yes  No

14. Were VOA vials free of bubbles?  N/A  Yes  No

If "NO" which containers contained "head space" or bubbles? \_\_\_\_\_

Log-in Phase:

Date of sample log-in 11/12/05

Samples logged in by (print) Holly A. Martinson (sign) \_\_\_\_\_

1. Was project identifiable from custody papers?  Yes  No

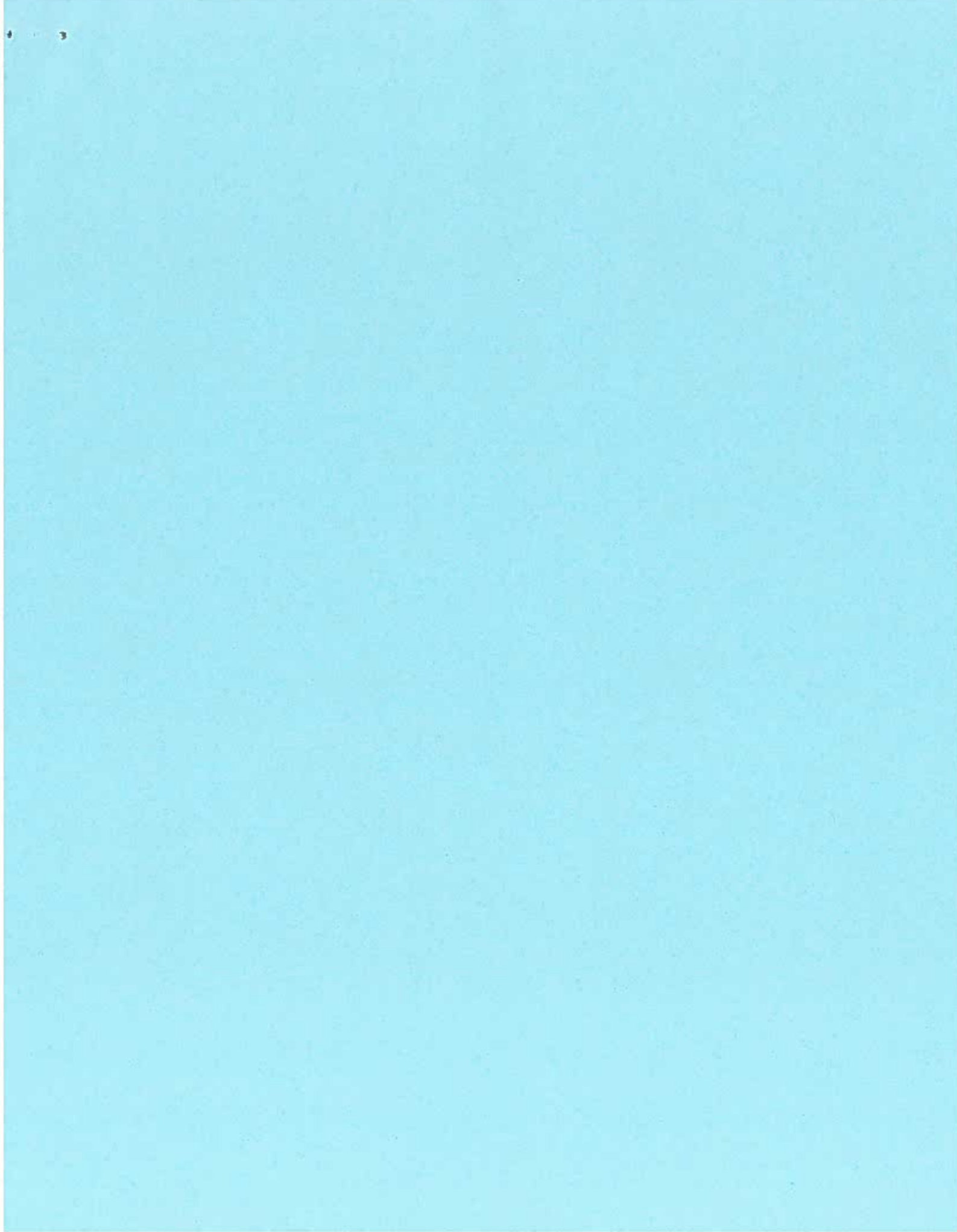
2. Do Turn Around Times and Due Dates agree?  Yes  No

3. Was the Project Manager notified of status?  Yes  No

4. Was the Lab notified of status? (Dry Erase Board.)  Yes  No

5. Was the COC scanned and copied?  Yes  No

Comments: (SEE REVERSE SIDE FOR CORRECTIVE ACTION.)





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November 15, 2005

David M. McDowell  
Shannon & Wilson, Inc. (Fairbanks, AK)  
2355 Hill Road  
Fairbanks, AK/USA 99709-5326

RE: Gold Hill

Enclosed are the results of analyses for samples received by the laboratory on 11/01/05 11:00.  
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>
P5K0022	Gold Hill	31-1-11290

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Thank You,

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Joy D. Chang, Project Manager

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<b>Shannon &amp; Wilson, Inc. (Fairbanks, AK)</b> 2355 Hill Road Fairbanks, AK/USA 99709-5326	Project Name:	<b>Gold Hill</b>	Report Created: 11/15/05 14:34
	Project Number:	31-1-11290	
	Project Manager:	David M. McDowell	

**EDB, DBCP and TCP in Drinking Water per EPA 504.1**  
 North Creek Analytical - Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>P5K0022-01RE1</b>	Water	<b>1290-103105-002</b>	<b>Sampled: 10/31/05 12:00</b>							
1,2-Dibromoethane (EDB)	EPA 504.1	ND	---	0.0100	ug/l	1x	5110660	11/14/05	11/14/05 21:19	
<b>P5K0022-02RE1</b>	Water	<b>1290-103105-020</b>	<b>Sampled: 10/31/05 12:15</b>							
1,2-Dibromoethane (EDB)	EPA 504.1	ND	---	0.00992	ug/l	1x	5110660	11/14/05	11/14/05 21:45	

North Creek Analytical - Portland

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Joy D. Chang, Project Manager

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<b>Shannon &amp; Wilson, Inc. (Fairbanks, AK)</b> 2355 Hill Road Fairbanks, AK/USA 99709-5326	Project Name: <b>Gold Hill</b>	<b>Report Created:</b> 11/15/05 14:34
	Project Number: 31-1-11290	
	Project Manager: David M. McDowell	

**Notes and Definitions**

**Report Specific Notes:**

None

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- 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.

NORTH CREEK ANALYTICAL COOLER RECEIPT FORM

Army Corp. compliant)

Client: Shannon & Wilson

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

By (print) Allison Brewer (sign) Allison Brewer

2. Date samples received 11/1/05 Date opened: Same or

3. Delivered by: NCA courier edEx UPS Courier Client Other Goldstreak

4. There were 9 custody seals present, signed by date 1/1/05

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

6. Was ice used? yes no Type of ice: blue ice gel ice real ice

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

8. Were custody papers filled out properly (ink, signed, etc.)? X Yes No

9. Was project identifiable from custody papers? X Yes No

10. Initial and date for unpacking: AB (initials) date 11-1-05

11. Packing material: bubble wrap bag styrofoam cardboard other X Yes No

12. Were samples in bags? X Yes No

13. Did all containers indicated on the COC arrive? X Yes No

14. Were all containers unbroken and labels in good condition? X Yes No

15. Were all bottle labels complete (ID date, time, signature, etc.)? X Yes No

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

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

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

19. Log-in phase: Date samples were logged in: 11/1/05 Elm Project # P15K0022

20. Logged in by (print) Allison Brewer (sign) Allison Brewer

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