

## Tanana FAA Facility Groundwater Monitoring, August 2000: Delivery Order 75

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PREPARED BY: CH2-OH of Alaska  
DATE: November 10, 2000

CH2-OH of Alaska conducted groundwater sampling of 21 monitoring probes and 20 monitoring wells (Figure 1) at the Federal Aviation Administration (FAA) former Living Quarters Facility in Tanana, Alaska, from August 21 to August 24, 2000. CH2-OH prepared this letter report to summarize the field activities and report the results related to the August 2000 sampling event.

### WATER DEPTH MEASUREMENTS

Groundwater measurements were collected on August 21, 2000. An oil-water interface probe (IP) was used to measure the depth to groundwater from the top of riser pipe. Two monitoring probes and two monitoring wells were not measured. MP001 and MP006 were frozen, MW020 was dry, and the monument for MW016 was covered by 3 inches of water. The depth measurements for the remaining wells and probes have been converted to groundwater elevations and are presented in Table 1. Two monitoring probes (MP002 and MP013) contained floating product. The groundwater elevations in these wells were adjusted to account for the thickness and assumed specific gravity of the floating product. Measurements from previous monitoring events are presented for comparison. During this sampling event, the groundwater elevation was higher than the top of the screened interval in at least 16 of the 21 monitoring probes.

**Table 1**  
**Tanana FAA Facility Groundwater Elevations**

Well Number	October 18, 1999	February 1, 2000	April 24, 2000	May 24, 2000	June 21, 2000	July 17, 2000	August 21, 2000
MP001	77.15	Frozen	Dry	79.18	Frozen	Frozen	Frozen
MP002	76.98	Frozen	Frozen	Frozen	Frozen	Frozen	82.62 <sup>(2)</sup>
MP003	74.4	72.8	Flooded	Frozen	Frozen	Frozen	82.65
MP006	93.43	Frozen	Flooded	Frozen	Frozen	Frozen	Frozen
MP007	75.31	Frozen	Flooded	Frozen	Frozen	80.43	80.31
MP008	75.43	74.92	73.38	80.88	88.06	83.13	82.89
MP009	75.09	72.71	73.20	81.42	88.76	83.80	82.83
MP010	75.37	73.08	73.54	80.84	88.10	83.18	82.90
MP011	Dry	Frozen	Dry	80.87	88.03	83.09	82.87
MP012	75.59	73.09	73.51	81.09	88.05	83.14	83.02



Well Number	October 18, 1999	February 1, 2000	April 24, 2000	May 24, 2000	June 21, 2000	July 17, 2000	August 21, 2000
MP013	74.81	72.98	Flooded	80.9	88.02	Not measured	82.90 <sup>(2)</sup>
MP014	75.43	Frozen	Flooded	Frozen	Frozen	83.15	82.90
MP015	75.61	73.09	Flooded	Frozen	88.02	83.15	82.97
MP016	74.66	Dry	Dry	Frozen	Frozen	83.07	82.80
MP017	75.35	73	Dry	80.97	88.02	83.10	82.84
MP018	75.43	73.06	Flooded	Frozen	Frozen	Frozen	82.87
MP023	75.58	73.09	Frozen	Frozen	88.05	83.15	82.96
MP024	75.34	73	Flooded	80.88	88.08	83.15	82.87
MP025	75.43	72.98	Flooded	Frozen	88.03	83.10	82.92
MP028	75.44	73.08	Flooded	80.94	88.08	83.15	82.88
MP029	74.85	72.38	Frozen	80.82	88.07	83.06	82.73
MW001	74.89	73.2	73.59	80.77	88.18	83.27	82.90
MW002	74.86	73.14	73.54	80.79	88.14	83.21	82.88
MW003	74.26	73.14	73.58	80.81	88.11	83.17	82.86
MW004	73.76	73.15	73.56	80.81	88.09	83.15	82.87
MW005	74.16	73.12	73.6	80.18	87.44	82.51	82.86
MW006	74.12	73.08	73.53	80.85	Flooded	83.12	82.86
MW007	73.99	73.08	73.54	80.86	88.06	83.10	82.80
MW008	73.97	73.08	73.54	80.93	88.03	83.11	82.97
MW009	74.36	73.14	73.53	81.01	88.01	83.13	83.08
MW010	74.36	73.13	73.5	80.87	87.97	83.15	82.98
MW011	74.2	73.15	73.52	80.91	88.07	83.12	82.96
MW012	74.67	73.14	73.49	80.97	88.02	83.16	83.07
MW013	74.68	Dry	73.53	80.81	87.95	83.10	82.92
MW014	74.13	73.15	73.56	80.77	Frozen	Frozen	82.90
MW015	77.19	75.14	74.26	79.00	85.14	84.33	82.60
MW016	73.94	73.08	Flooded	Flooded	Flooded	Destroyed	Flooded
MW017	73.84	73.08	73.53	80.93	88.04	83.10	82.92
MW018	73.95	73.14	73.56	7.67	87.97	83.23	82.86
MW019	77.08	75.12	74.12	17.5	85.24	84.27	82.61
MW020	Dry	Dry	70.97	Dry	Dry	Dry	Dry
Yukon River Level (feet) <sup>(3)</sup>	No data	No data	No data	8.53	16.8	No data	12.28

- Notes:
1. Groundwater elevations are based on depth to water from the surveyed top of casing elevation. The top of casing elevations are referenced to an assumed datum of 100.00 feet at a 2-1/2 inch diameter BLM brass cap monument located northeast of the site. The cap is stamped "L1, C1, C1 L12, S5958, 1993".
  2. Groundwater elevations in MP002 and MP013 are based on the thickness of floating product with an assumed specific gravity of 0.8.
  3. The daily Yukon River levels were obtained from the National Weather Service - Alaska River Forecast Center.



Figure 2 shows the apparent groundwater elevation contours for the site. The groundwater gradient across the site is very slight (0.03 vertical feet per 100 horizontal feet). The groundwater flow direction in the area of the state building and Shop Building No. 205 is to the northeast. The stream in the western portion of the site is a losing stream and the groundwater flows away from it to the east. Along the Yukon River, the gradient is very flat but generally points to the west (downstream). There appears to be a relative groundwater low in the middle of the Living Quarters Area. The apparent low is difficult to explain and may be due to poor flow within monitoring probes MP009, MP016, and MP017.

The floating product in monitoring probes MP002 and MP013 was removed using disposable bailers and then allowed to recharge. The probes were gauged again approximately 48 hours after bailing. MP002 contained 1.02 feet of floating product prior to bailing and 0.23 feet of floating product two days after bailing. MP013 contained 0.66 feet of floating product prior to bailing and 0.09 feet of floating product two days after bailing. However, due to the high water table level during the August 2000 sampling event, the product levels in MP002 and MP013 were nearly 1 foot above the top of the well screens. This restricted the flow of product into the wells after bailing and, therefore, the amount of product that would normally recharge these wells is likely underestimated.

## SAMPLING OF MONITORING WELLS AND PROBES

Fifteen of 20 existing wells were sampled from August 21 to August 24, 2000. Monitoring probes MP002 and MP013 were not sampled due to the presence of floating product. Monitoring probe MP007 contained an obstruction that allowed the IP to pass, but would not allow the sample tubing to reach the water level. The monument for monitoring well MW016 was covered by a 3-inch deep pool of water and was therefore inaccessible. Monitoring well MW020 was dry. CH2-OH collected, packed, and shipped the samples from the remaining wells and probes to Analytica Alaska Inc. for analysis. All purge water generated was filtered through a granular activated carbon filter and discharged on the ground.

## WELL PURGING AND FIELD SCREENING

All sampled wells were field screened for temperature, pH, conductance, turbidity, salinity, and dissolved oxygen (DO) before sampling. Table 2 lists the volume of water purged and final field screening results after purging.

**Table 2**  
**Tanana FAA Facility Water Quality Field Screening Data**  
**August 21-24, 2000**

Well Number	Volume Purged (gallons)	Temperature (°C)	pH	Conductance (ms/m)	Turbidity (NTU)	Salinity (%)	DO (mg/L)	Floating Hydrocarbon Product
MW001	3	1.9	6.92	85.0	29	0.03	2.4	No
MW002	3.5	2.4	7.07	83.9	147	0.03	1.3	No
MW003	3.5	2.8	7.02	77.4	14	0.03	1.8	No
MW004	5.5	2.7	7.02	82.4	327	0.03	4.3	No



Well Number	Volume Purged (gallons)	Temperature (°C)	pH	Conductance (ms/m)	Turbidity (NTU)	Salinity (%)	DO (mg/L)	Floating Hydrocarbon Product
MW005	5	3.6	6.52	76.5	10	0.03	5.5	No
MW006	4	4.9	6.54	50.4	10	0.02	1.5	No
MW007	4	2.9	6.62	50.2	10	0.01	0.67	No
MW008	4	4.9	6.82	53.3	109	0.02	Error	No
MW009	6	3.3	6.75	65.1	0	0.02	4.10	No
MW010	4.5	2.6	6.92	77.7	26	0.03	0.32	No
MW011	6	4.0	6.96	83.8	299	0.03	Error	No
MW012	6	3.1	6.76	65.0	203	0.02	0.61	No
MW013	5.5	0.7	6.56	138	0	0.05	3.3	No
MW014	5.5	1.4	6.55	133	0	0.05	0.28	No
MW015	5	1.3	6.45	154	48	0.06	0.29	No
MW016	Well not sampled. Well monument covered by 3 inches of water.							No
MW017	3	4.1	6.47	83.2	10	0.03	2.2	No
MW018	5	1.4	6.46	130	0	0.05	0.25	No
MW019	5	1.3	6.41	157	0	0.06	0.20	No
MW020	Well not sampled. Dry.							No
MP001	2.25	1.3	6.58	145	298	0.06	3.43	No
MP002	0.66 ft floating product present. Probe not sampled.							Yes
MP003	1.75	1.5	6.77	168	0	0.07	0.99	No
MP006	2	1.3	6.89	171	999	0.07	0.88	No
MP007	Probe not sampled due to obstruction.							No
MP008	2.25	1.3	6.82	96	270	0.03	5.70	No
MP009	2.25	1.4	7.00	100	999	0.03	4.35	No
MP010	2.25	1.3	7.01	90.0	701	0.03	1.77	No
MP011	2.5	3.7	6.84	64.7	999	0.02	Error	No
MP012	2.25	4.4	6.76	75.4	999	0.03	Error	No
MP013	1.02 ft floating product present. Probe not sampled							Yes
MP014	2.25	2.3	6.97	96.2	609	0.04	Error	No
MP015	2.25	3.7	6.93	73.1	826	0.02	1.92	No
MP016	1.8	2.5	6.85	100	999	0.04	Error	No
MP017	1.75	1.6	6.93	104	999	0.04	2.78	No
MP018	2.25	1.6	6.85	124	999	0.05	1.62	No
MP023	2.25	3.4	7.04	72.6	575	0.02	Error	No
MP024	1.75	2.1	6.80	100	999	0.04	Error	No
MP025	2.25	4.2	6.93	47.2	999	0.01	Error	No
MP028	2.25	3.3	6.84	63.5	999	0.02	1.31	No
MP029	3.5	3.3	6.92	57.6	96	0.02	1.47	No

Notes: Error - Indicates an inaccurate DO reading. The DO meter was not in contact with the purge water.



## SAMPLE COLLECTION AND ANALYSIS

All wells were sampled following procedures outlined in the Pre-Field Planning Document (PFPD), Addendum No. 4 to Tanana FAA Station Release Investigation Plan and Quality Assurance Project Plan (CH2-OH, August 1998), Fuel Storage Tank Management Program and Expanded Site Investigation/Interim Cleanup, Tanana, Alaska (CH2-OH, August 2000). Groundwater samples were submitted to Analytica Alaska Inc. in Anchorage, Alaska, for the analysis of gasoline-range organics, benzene, toluene, ethylbenzene, and total xylenes (GRO/BTEX) by State of Alaska (AK) Method AK101/8021B, and for diesel-range organics (DRO) by AK102.

Quality assurance and quality control (QA/QC) measures outlined in the Pre-Field Planning Document, Addendum No. 4 to Tanana FAA Station Release Investigation Plan and Quality Assurance Project Plan (CH2-OH, August 1998), Fuel Storage Tank Management Program and Expanded Site Investigation/Interim Cleanup, Tanana, Alaska (CH2-OH, August 2000) were followed. Three trip blanks, prepared by Analytica, were shipped back to the laboratory and analyzed for GRO/BTEX analysis by AK101/8021. Three equipment blanks were collected and submitted for DRO and GRO/BTEX analysis.

## ANALYTICAL RESULTS

Table 3 summarizes laboratory analytical results for monitoring well samples. Attachment 1 contains the laboratory data.

**Table 3**  
**Tanana FAA Facility Groundwater Monitoring Analytical Results**  
**August 21-24, 2000**

Well Number	Sample Number	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	GRO ( $\mu\text{g/L}$ )	DRO ( $\mu\text{g/L}$ )
MW001	TAL00MW001Q03	ND	ND	ND	ND	ND	1,100
MW002	TAL00MW002Q03	ND	ND	ND	ND	ND	ND
MW003	TAL00MW003Q03	ND	ND	ND	ND	ND	320
MW004	TAL00MW004Q03	ND	ND	ND	ND	ND	ND
MW005	TAL00MW005Q03	ND	ND	ND	ND	ND	150
MW006	TAL00MW006Q03	ND	1.7	1.4	5.3	180	450
MW007	TAL00MW007Q03	ND	ND	ND	ND	ND	110
MW008	TAL00MW008Q03	ND	ND	8.3	22	650	1,400
MW009	TAL00MW009Q03	ND	ND	ND	ND	ND	ND
No-Purge Split (MW009)	TAL00MW043Q03	ND	ND	ND	ND	ND	ND
MW010	TAL00MW010Q03	ND	ND	ND	ND	ND	140
No-Purge Split (MW010)	TAL00MW042Q03	ND	ND	ND	ND	ND	ND
MW011	TAL00MW011Q03	ND	ND	ND	ND	ND	220
MW012	TAL00MW012Q03	ND	ND	ND	ND	ND	ND
MW013	TAL00MW013Q03	ND	ND	ND	ND	ND	240
MW014	TAL00MW014Q03	ND	ND	ND	ND	ND	150
MW015	TAL00MW015Q03	ND	ND	ND	ND	ND	4,100



Well Number	Sample Number	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	GRO ( $\mu\text{g/L}$ )	DRO ( $\mu\text{g/L}$ )
MW016					Well monument covered by 3 inches of water. Not sampled.		
MW017	TAL00MW017Q03	ND	ND	3.4	15	810	3,800
MW018	TAL00MW018Q03	1.9	ND	ND	ND	ND	170
MW019	TAL00MW019Q03	ND	ND	ND	ND	ND	120
No-Purge Split (MW019)	TAL00MW044Q03	ND	ND	ND	ND	ND	220
MW020					Well was dry. Not sampled.		
MP001	TAL00MP001Q03	1.2	ND	3.9	4.9	ND	440
MP002					Floating product present. Not sampled.		
MP003	TAL00MP003Q03	250	40	15	1,300	5,500	60,000J
MP006	TAL00MP006Q03	170	11	150	440	4,700	49,000J
MP007					Not sampled due to obstruction in well.		
MP008	TAL00MP008Q03	ND	ND	ND	ND	ND	400
MP009	TAL00MP009Q03	ND	ND	ND	ND	ND	ND
MP010	TAL00MP010Q03	ND	ND	ND	ND	ND	ND
MP011	TAL00MP011Q03	ND	ND	ND	2.1	180	3,800
MP012	TAL00MP012Q03	ND	ND	22	160	11,000	40,000
MP013					Floating product present. Not sampled.		
MP014	TAL00MP014Q03	58	14	240	1,400	5,700	19,000
MP015	TAL00MP015Q03	ND	ND	ND	ND	ND	ND
MP016	TAL00MP016Q03	ND	ND	ND	3.1	ND	ND
MP017	TAL00MP017Q03	ND	ND	ND	ND	ND	110
MP018	TAL00MP018Q03	ND	ND	ND	ND	ND	170
MP023	TAL00MP023Q03	ND	ND	ND	ND	ND	130
MP024	TAL00MP024Q03	8.7	ND	100	210	2,100	10,000
MP025	TAL00MP025Q03	ND	ND	6.4	25	1,900	2,800
No-Purge Split (MP025)	TAL00MW041Q03	ND	ND	4.9	13	590	2,500
MP028	TAL00MP028Q03	ND	ND	6.3	16	620	1,300
MP029	TAL00MP029Q03	ND	ND	ND	10	630	930
<b>ADEC Groundwater Cleanup Levels (Table C)</b>		<b>5</b>	<b>700</b>	<b>2,000</b>	<b>10,000</b>	<b>1,300</b>	<b>1,500</b>
MRL		1	1	1	2	100	100

Notes:

1. MRL = Method reporting limit.
2. ND = Concentrations not detected above the method reporting limit.
3. ADEC Groundwater Cleanup Levels = Maximum contaminant levels (MCL) determined by the ADEC according to Title 18, Chapter 75, Article 3, Table C, of the Alaska Administrative Code (18 AAC 75).
4. Bold numbers = Analytical result above MCL highlighted for comparison.
5. J = Estimated value

The analytical results exceeding the Alaska Department of Environmental Conservation (ADEC) groundwater cleanup levels are highlighted in bold type in Table 3. Four monitoring probes (MP003, MP006, MP014, and MP024) contained benzene concentrations above the ADEC cleanup level of 5  $\mu\text{g/L}$ . GRO was detected above its cleanup level of 1,300  $\mu\text{g/L}$  in samples collected from six monitoring probes (MP003, MP006, MP012, MP014, MP024, and MP025). Two monitoring wells (MW015 and MW017) and seven monitoring



probes (MP003, MP006, MP011, MP012, MP014, MP024, and MP025) contained DRO concentrations above the ADEC cleanup level of 1,500 µg/L.

All other analytes from the remaining wells and probes were below the respective cleanup levels established by the ADEC.

## **NO-PURGE SAMPLING**

All wells and probes were purged prior to sampling as outlined in the PFPD. In addition, one monitoring probe (MP025) and three monitoring wells (MW010, MW009, and MW019) were sampled prior to purging in order to evaluate a no-purge sampling technique for the Tanana FAA site. No-purge split samples from MP025, MW009, MW010, and MW019 were labeled TAL00MW041Q03, TAL00MW043Q03, TAL00MW042Q03, and TAL00MW044Q03, respectively. Table 4 compares the analytical results from the purge and no-purge samples for each site.

The relative percent difference (RPD) shown next to each set of analytes describes the percent difference with respect to the mean of the two values. The DRO, GRO, and BTEX concentrations in monitoring probe MP025 were higher after purging than before purging (RPD ranges from 0%-105%). Both samples collected from MW009 were non-detect in all analytes. Monitoring well MW010 showed an increase in DRO after purging (RPD>33%), but was non-detect for GRO and BTEX in both samples. Monitoring well MW019 contained lower concentrations of DRO after purging than before purging (RPD=59%), and was non-detect for GRO and BTEX in both samples.

## **DATA VALIDATION RESULTS**

CH2-OH performed the data review and validation for groundwater samples collected. Attachment 2 contains a chemical QA report.

The data quality for this quarterly groundwater sampling event at the Tanana FAA facility is acceptable. The laboratory and field QA/QC sample results were within control limits with the following exception:

- DRO surrogate o-Terphenyl recoveries for samples TAL00MP003Q03 and TAL00MP006Q03 were outside acceptance limits. The qualifier "J" has been assigned to DRO results for these samples

## **CONCLUSIONS**

Floating product was encountered in MP002 (0.66 feet thick) and MP014 (1.02 feet thick). Approximately 48 hours after removing the product from these wells, the floating product had recharged to 0.23 feet in MP002 and 0.09 feet in MP013.

Groundwater-sampling results indicate that benzene was present above its cleanup level in monitoring probes MP003, MP006, MP014, and MP024; GRO was present above its cleanup level in MP003, MP006, MP012, MP014, MP024, and MP025; and DRO was present above



its cleanup level in MP003, MP006, MP011, MP012, MP014, MP024, and MP025. The RPD for purge vs. no-purge split samples from MP025, MW009, MW010, and MW019 ranged from 0% in analytes that were non-detect for both split samples to 105% in the GRO analyses for the MP025 samples. The detectable analyte concentrations in the purged samples were higher than the concentrations in the no-purge samples with one exception: the DRO concentration in the purged sample from MW019 was 100 µg/L lower than that in the no-purge sample.

Another groundwater sampling event was performed the week of October 30, 2000.



**Table 4**  
**Tanana FAA Facility Purge vs. No-Purge Analytical Results**  
**August 21-24, 2000**

Well Number	Benzene			Toluene			Ethylbenzene			Xylenes			GRO			DRO		
	No-Purge ( $\mu\text{g/L}$ )	Purge ( $\mu\text{g/L}$ )	RP (%)	No-Purge ( $\mu\text{g/L}$ )	Purge ( $\mu\text{g/L}$ )	RPD (%)	No-Purge ( $\mu\text{g/L}$ )	Purge ( $\mu\text{g/L}$ )	RPD (%)	No-Purge ( $\mu\text{g/L}$ )	Purge ( $\mu\text{g/L}$ )	RPD (%)	No-Purge ( $\mu\text{g/L}$ )	Purge ( $\mu\text{g/L}$ )	RPD (%)	No-Purge ( $\mu\text{g/L}$ )	Purge ( $\mu\text{g/L}$ )	RPD (%)
MP025	ND	0	ND	0	6.4	4.9	27	25	13	6.3	1,900	590	105	2,800	2,500	11		
MW009	ND	0	ND	0	ND	0	ND	0	ND	ND	0	ND	ND	ND	ND	ND	0	
MW010	ND	0	ND	0	ND	0	ND	0	ND	ND	0	ND	ND	ND	ND	ND	>33%	
MW019	ND	0	ND	0	ND	0	ND	0	ND	ND	0	ND	ND	ND	ND	ND	ND	
<b>MCL</b>	<b>5</b>		<b>700</b>		<b>2,000</b>		<b>10,000</b>		<b>1,300</b>		<b>1,500</b>							
MRL	1		1		1		2		2		100		100		100		100	

Notes:

1. MRL = Method reporting limit.

2. ND = Concentrations not detected above the method reporting limit.

3. MCL = Maximum contaminant levels determined according to Title 18, Chapter 75, Article 3, Table C of the *Alaska Administrative Code* (18 AAC 75).

4. RPD = Relative percent difference between purge and no-purge samples – calculated as  $2(\text{value1}-\text{value2})/(\text{value1}+\text{value2}) * 100$ .

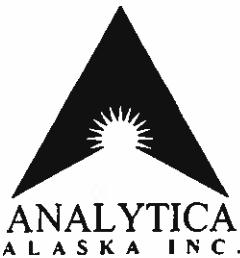
5. Bold numbers = Analytical result above MCL highlighted for comparison



**ATTACHMENT 1**  
**LABORATORY DATA**

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Analytica Alaska Incorporated  
website: [www.analyticagroup.com](http://www.analyticagroup.com)

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CH2M Hill  
301 W. Northern Lights Blvd.  
Suite 601  
Anchorage, AK 99503  
Attn: W Westervelt

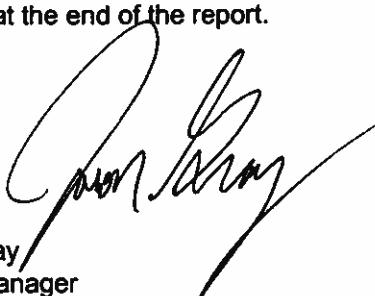
Work Order #: A0008084  
Date: 9/13/00  
Work ID: FAA Tanana GWS  
Date Received: 8/24/00

#### Sample Identification

Lab Sample Number	Client Description	Lab Sample Number	Client Description
A0008084-01	TAL00MP011Q03	A0008084-02	TAL00MP012Q03
A0008084-03	TAL00MP014Q03	A0008084-04	TAL00MP016Q03
A0008084-05	TAL00MP023Q03	A0008084-06	TAL00MP024Q03
A0008084-07	TAL00MP024Q03	A0008084-07	TAL00MP025Q03
A0008084-08	TAL00MP028Q03	A0008084-09	TAL00MP029Q03
A0008084-10	TAL00MW011Q03	A0008084-11	TAL00MW008Q03
A0008084-12	TAL00MW041Q03	A0008084-13	TAL00MP015Q03
A0008084-14	TAL00TB001Q03		

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. Listings of data qualifiers, analytical codes, key dates, and QC relationships are provided at the end of the report.

Sincerely,

  
Jason Gray  
Project Manager

## **Case Narrative**

*Work Order: A0008084*

ADEC Laboratory Approval Number: UST-014

Fourteen samples were received on 8/24/00 properly packed in three coolers at 0.5°C, 2.2°C and 3.8°C. Samples were refrigerated upon receipt.

### **QUALITY CONTROL**

All quality control objectives were met for this project.

### **HOLDING TIMES**

All samples were analyzed within the test method prescribed holding time.

### **INITIAL CALIBRATION**

All samples met the test method acceptance criteria.

### **CONTINUING CALIBRATION**

All samples met the test method acceptance criteria.

### **METHOD BLANKS**

No detectable quantities of sought for analytes were found in the blanks.

### **QC SPIKE SAMPLES**

All LCS/LCSD samples met the test method acceptance criteria.

### **MS/MSD**

No MS/MSD samples were requested for these water samples.

### **SURROGATE RECOVERIES**

All surrogate recovery was within the test method acceptance criteria.

### **COMPLETENESS**

All of the results associated with this project are 100 percent useable.

Analyst \_\_\_\_\_

Date \_\_\_\_\_

9/14/00

Analyst \_\_\_\_\_

Date \_\_\_\_\_

9/14/00

# Summary Tabular Analytical Report

Analytica Alaska Inc.  
Work Order: A00008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

Analytical Method: DRO by AK 102  
Sample Prep Method: 3510C

UNITS:	mg/L	Diesel Range Organics
ID	Client Sample Name	
01B	TAL00MP011Q03	3.8(0.10)
02B	TAL00MP012Q03	40(0.52)
03B	TAL00MP014Q03	19(0.10)
04B	TAL00MP016Q03	ND(0.10)
05B	TAL00MP023Q03	0.13(0.10)
06B	TAL00MP024Q03	10(0.10)
07B	TAL00MP024Q03	2.8(0.10)
08B	TAL00MP028Q03	1.3(0.10)
09B	TAL00MP029Q03	0.93(0.10)
10B	TAL00MW011Q03	0.22(0.10)
11B	TAL00MW008Q03	1.4(0.10)
12B	TAL00MW041Q03	2.5(0.12)
13B	TAL00MP015Q03	ND(0.10)

## Summary Tabular Analytical Report

Analytica Alaska Inc.  
Work Order: A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

Analytical Method: BTX/GAS Water (8021)  
Sample Prep Method: 5030B

UNITS: ug/L

ID	Client Sample Name	Benzene	Toluene	Ethyl Benzene	Xylenes	Gasoline Range Organics
01A	TAL00MP011Q03	ND(1.0)	ND(1.0)	ND(1.0)	2.1(2.0)	180(100)
02A	TAL00MP012Q03	ND(1.0)	ND(1.0)	22(10)	160(20)	11,000(1,000)
03A	TAL00MP014Q03	58(10)	14(10)	240(10)	1,400(20)	5,700(1,000)
04A	TAL00MP016Q03	ND(1.0)	ND(1.0)	ND(1.0)	3.1(2.0)	ND(100)
05A	TAL00MP023Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
06A	TAL00MP024Q03	8.7(2.0)	ND(2.0)	100(2.0)	210(4.0)	2,100(200)
07A	TAL00MP025Q03	ND(1.0)	ND(1.0)	6.4(1.0)	25(2.0)	1,900(100)
08A	TAL00MP028Q03	ND(1.0)	ND(1.0)	6.3(1.0)	16(2.0)	620(100)
09A	TAL00MP029Q03	ND(1.0)	ND(1.0)	ND(1.0)	10(2.0)	630(100)
10A	TAL00MW011Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
11A	TAL00MW008Q03	ND(1.0)	ND(1.0)	8.3(1.0)	22(2.0)	650(100)
12A	TAL00MW041Q03	ND(1.0)	ND(1.0)	4.9(1.0)	13(2.0)	590(100)
13A	TAL00MP015Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
14A	TAL00TB001Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP011Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-01B	Prep Date:	8/28/00
Matrix:	Aqueous	Analysis Date:	9/5/00 7:49:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0090511.D
Prep Batch Number:	A000828001	Dilution Factor:	1
RR #:	1		
<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u> <u>Units</u> <u>PQL</u> <u>MDL</u> <u>Spike</u> <u>% Recov</u> <u>LCL</u> <u>UCL</u>
<u>Analyte Results:</u>			
Diesel Range Organics	n/a	3.8	mg/L 0.10 0.031
<u>Surrogate Results:</u>			
o-Terphenyl	84-15-1	0.037	mg/L 0.0052 0.0010 0.052 71.7 50 150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP012Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-02B	Prep Date:	8/28/00
Matrix:	Aqueous	Analysis Date:	9/6/00 5:13:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0090618.D
Prep Batch Number:	A000828001	Dilution Factor:	5
RR #:	1		
<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u> <u>Units</u> <u>PQL</u> <u>MDL</u> <u>Spike</u> <u>% Recov</u> <u>LCL</u> <u>UCL</u>
<u>Analyte Results:</u>			
Diesel Range Organics	n/a	40	mg/L 0.52 0.16
<u>Surrogate Results:</u>			
o-Terphenyl	84-15-1	0.031	mg/L 0.026 0.0052 0.052 59.6 50 150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP014Q03	Collection Date:	8/22/00							
Lab Sample Number:	A0008084-03B	Prep Date:	8/28/00							
Matrix:	Aqueous	Analysis Date:	9/5/00 8:44:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0090513.D							
Prep Batch Number:	A000828001	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	19		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.047		mg/L	0.0052	0.0010	0.052	89.5	50	150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP016Q03	Collection Date:	8/22/00							
Lab Sample Number:	A0008084-04B	Prep Date:	8/28/00							
Matrix:	Aqueous	Analysis Date:	9/5/00 9:11:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0090514.D							
Prep Batch Number:	A000828001	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.082	J	mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.046		mg/L	0.0052	0.0010	0.052	87.8	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP023Q03	Collection Date:	8/22/00							
Lab Sample Number:	A0008084-05B	Prep Date:	8/28/00							
Matrix:	Aqueous	Analysis Date:	9/5/00 9:38:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0090515.D							
Prep Batch Number:	A000828001	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.13		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.046		mg/L	0.0052	0.0010	0.052	88.6	50	150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP024Q03	Collection Date:	8/22/00							
Lab Sample Number:	A0008084-06B	Prep Date:	8/28/00							
Matrix:	Aqueous	Analysis Date:	9/5/00 10:05:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0090516.D							
Prep Batch Number:	A000828001	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	10		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.052		mg/L	0.0052	0.0010	0.052	99.6	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP024Q03		Collection Date:	8/22/00						
Lab Sample Number:	A0008084-07B		Prep Date:	8/28/00						
Matrix:	Aqueous		Analysis Date:	9/5/00 10:33:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0090517.D						
Prep Batch Number:	A000828001		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	2.8		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.049		mg/L	0.0052	0.0010	0.052	94.1	50	150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP028Q03		Collection Date:	8/22/00						
Lab Sample Number:	A0008084-08B		Prep Date:	8/28/00						
Matrix:	Aqueous		Analysis Date:	9/6/00 2:02:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0090611.D						
Prep Batch Number:	A000828001		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	1.3		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.036		mg/L	0.0052	0.0010	0.052	69.2	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP029Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-09B	Prep Date:	8/28/00
Matrix:	Aqueous	Analysis Date:	9/6/00 2:29:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0090612.D
Prep Batch Number:	A000828001	Dilution Factor:	1
RR #:	1		
<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u> <u>Units</u> <u>PQL</u> <u>MDL</u> <u>Spike</u> <u>% Recov</u> <u>LCL</u> <u>UCL</u>
<u>Analyte Results:</u>			
Diesel Range Organics	n/a	0.93	mg/L 0.10 0.031
<u>Surrogate Results:</u>			
o-Terphenyl	84-15-1	0.036	mg/L 0.0052 0.0010 0.052 68.9 50 150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW011Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-10B	Prep Date:	8/28/00
Matrix:	Aqueous	Analysis Date:	9/6/00 2:57:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0090613.D
Prep Batch Number:	A000828001	Dilution Factor:	1
RR #:	1		
<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u> <u>Units</u> <u>PQL</u> <u>MDL</u> <u>Spike</u> <u>% Recov</u> <u>LCL</u> <u>UCL</u>
<u>Analyte Results:</u>			
Diesel Range Organics	n/a	0.22	mg/L 0.10 0.031
<u>Surrogate Results:</u>			
o-Terphenyl	84-15-1	0.039	mg/L 0.0052 0.0010 0.052 75.8 50 150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW008Q03		Collection Date:	8/22/00						
Lab Sample Number:	A0008084-11B		Prep Date:	8/28/00						
Matrix:	Aqueous		Analysis Date:	9/6/00 3:24:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0090614.D						
Prep Batch Number:	A000828001		Dilution Factor:	1						
RR #:	1									
<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>POL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	1.4		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.031		mg/L	0.0052	0.0010	0.052	60.0	50	150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW041Q03		Collection Date:	8/22/00						
Lab Sample Number:	A0008084-12B		Prep Date:	8/28/00						
Matrix:	Aqueous		Analysis Date:	9/6/00 3:52:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0090615.D						
Prep Batch Number:	A000828001		Dilution Factor:	1						
RR #:	1									
<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>POL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	2.5		mg/L	0.12	0.036				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.045		mg/L	0.0060	0.0012	0.060	75.0	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00MP015Q03	Collection Date:	8/23/00							
Lab Sample Number:	A0008084-13B	Prep Date:	8/28/00							
Matrix:	Aqueous	Analysis Date:	9/6/00 4:18:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0090616.D							
Prep Batch Number:	A000828001	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	POL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	ND		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.041		mg/L	0.0052	0.0010	0.052	78.1	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00MP011Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-01A	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/28/00 12:25:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	180		ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	2.1		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene	540-36-3	57		ug/L	1.0	0.10	50	113.3	60	120
Difluorobenzene(PID)	540-36-3	46		ug/L	1.0	0.10	50	92.9	60	120
Bromofluorobenzene(PID)	1072-85-1	82		ug/L	1.0	0.10	100	82.2	60	120
Bromofluorobenzene	1072-85-1	100		ug/L	1.0	0.10	100	101.9	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00MP012Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-02A	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/28/00 12:53:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	10
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	10	2.1				
Toluene	108-88-3	ND		ug/L	10	3.6				
Gasoline Range Organics	n/a	11,000		ug/L	1,000	110				
Ethylbenzene	100-41-4	22		ug/L	10	1.4				
Xylenes, Total	1330-20-7	160		ug/L	20	3.5				
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	490		ug/L	10	1.0	500	97.5	60	120
Difluorobenzene	540-36-3	510		ug/L	10	1.0	500	102.8	60	120
Bromofluorobenzene(PID)	1072-85-1	1,100		ug/L	10	1.0	1,000	107.9	60	120
Bromofluorobenzene	1072-85-1	1,100		ug/L	10	1.0	1,000	106.5	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP014Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-03A	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/30/00 1:18:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	10
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	58		ug/L	10	2.1				
Toluene	108-88-3	14		ug/L	10	3.6				
Gasoline Range Organics	n/a	5,700		ug/L	1,000	110				
Ethylbenzene	100-41-4	240		ug/L	10	1.4				
Xylenes, Total	1330-20-7	1,400		ug/L	20	3.5				
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	480		ug/L	10	1.0	500	96.0	60	120
Difluorobenzene	540-36-3	510		ug/L	10	1.0	500	101.4	60	120
Bromofluorobenzene(PID)	1072-85-1	890		ug/L	10	1.0	1,000	89.0	60	120
Bromofluorobenzene	1072-85-1	1,000		ug/L	10	1.0	1,000	102.7	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP016Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-04A	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/25/00 1:16:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	90	J	ug/L	100	11				
Ethylbenzene	100-41-4	0.43	J	ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	3.1		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene	540-36-3	53		ug/L	1.0	0.10	50	105.9	60	120
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	96.9	60	120
Bromofluorobenzene(PID)	1072-85-1	90		ug/L	1.0	0.10	100	89.8	60	120
Bromofluorobenzene	1072-85-1	99		ug/L	1.0	0.10	100	98.6	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP023Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-05A	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/25/00 1:45:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>POL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene	540-36-3	52		ug/L	1.0	0.10	50	103.1	60	120
Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.3	60	120
Bromofluorobenzene(PID)	1072-85-1	89		ug/L	1.0	0.10	100	89.3	60	120
Bromofluorobenzene	1072-85-1	90		ug/L	1.0	0.10	100	89.9	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00MP024Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-06A	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/28/00 1:22:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	2
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
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Analyte Results:

Benzene	71-43-2	8.7		ug/L	2.0	0.42				
Toluene	108-88-3	ND		ug/L	2.0	0.72				
Gasoline Range Organics	n/a	2,100		ug/L	200	21				
Ethylbenzene	100-41-4	100		ug/L	2.0	0.28				
Xylenes, Total	1330-20-7	210		ug/L	4.0	0.70				

Surrogate Results:

Difluorobenzene	540-36-3	95		ug/L	2.0	0.20	100	94.7	60	120
Difluorobenzene(PID)	540-36-3	100		ug/L	2.0	0.20	100	103.3	60	120
Bromofluorobenzene(PID)	1072-85-1	230		ug/L	2.0	0.20	200	114.2	60	120
Bromofluorobenzene	1072-85-1	210		ug/L	2.0	0.20	200	103.2	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP025Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-07A	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/25/00 3:10:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	0.75	J	ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	1,900		ug/L	100	11				
Ethylbenzene	100-41-4	6.4		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	25		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene	540-36-3	55		ug/L	1.0	0.10	50	109.5	60	120
Difluorobenzene(PID)	540-36-3	55		ug/L	1.0	0.10	50	110.2	60	120
Bromofluorobenzene(PID)	1072-85-1	95		ug/L	1.0	0.10	100	94.5	60	120
Bromofluorobenzene	1072-85-1	120		ug/L	1.0	0.10	100	115.2	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP028Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-08A	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/25/00 3:38:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	1
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
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### Analyte Results:

Benzene	71-43-2	0.59	J	ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	620		ug/L	100	11				
Ethylbenzene	100-41-4	6.3		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	16		ug/L	2.0	0.35				

### Surrogate Results:

Difluorobenzene	540-36-3	54		ug/L	1.0	0.10	50	107.0	60	120
Difluorobenzene(PID)	540-36-3	51		ug/L	1.0	0.10	50	101.9	60	120
Bromofluorobenzene(PID)	1072-85-1	100		ug/L	1.0	0.10	100	101.3	60	120
Bromofluorobenzene	1072-85-1	100		ug/L	1.0	0.10	100	100.9	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP029Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-09A	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/25/00 4:06:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	630		ug/L	100	11				
Ethylbenzene	100-41-4	0.60	J	ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	10		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	44		ug/L	1.0	0.10	50	89.0	60	120
Difluorobenzene	540-36-3	55		ug/L	1.0	0.10	50	110.4	60	120
Bromofluorobenzene(PID)	1072-85-1	94		ug/L	1.0	0.10	100	93.7	60	120
Bromofluorobenzene	1072-85-1	100		ug/L	1.0	0.10	100	101.7	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW041Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-12A	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/28/00 2:50:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	1
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
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Analyte Results:

Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	590		ug/L	100	11				
Ethylbenzene	100-41-4	4.9		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	13		ug/L	2.0	0.35				

Surrogate Results:

Difluorobenzene	540-36-3	53		ug/L	1.0	0.10	50	106.5	60	120
Difluorobenzene(PID)	540-36-3	52		ug/L	1.0	0.10	50	104.4	60	120
Bromofluorobenzene(PID)	1072-85-1	99		ug/L	1.0	0.10	100	99.1	60	120
Bromofluorobenzene	1072-85-1	94		ug/L	1.0	0.10	100	93.9	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP015Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008084-13A	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/28/00 11:28:00AM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	52		ug/L	1.0	0.10	50	104.5	60	120
Difluorobenzene	540-36-3	53		ug/L	1.0	0.10	50	105.3	60	120
Bromofluorobenzene(PID)	1072-85-1	89		ug/L	1.0	0.10	100	89.4	60	120
Bromofluorobenzene	1072-85-1	86		ug/L	1.0	0.10	100	86.3	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00TB001Q03	Collection Date:	8/22/00
Lab Sample Number:	A0008084-14A	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/28/00 11:56:00AM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	1
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene	540-36-3	54		ug/L	1.0	0.10	50	107.1	60	120
Difluorobenzene(PID)	540-36-3	52		ug/L	1.0	0.10	50	103.3	60	120
Bromofluorobenzene(PID)	1072-85-1	89		ug/L	1.0	0.10	100	88.8	60	120
Bromofluorobenzene	1072-85-1	88		ug/L	1.0	0.10	100	87.9	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW011Q03		Collection Date:	8/22/00						
Lab Sample Number:	A0008084-10A		Prep Date:	8/25/00						
Matrix:	Aqueous		Analysis Date:	8/28/00 10:03:00AM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Boris						
Prep Method ID:	5030		File Name:	B0082804.D						
Prep Batch Number:	A000825001		Dilution Factor:	1						
RR #:	2									
Analyte	CASNo	Result	Flags	Units	POL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	25	J	ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	1.6	J	ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	54		ug/L	1.0	0.10	50	108.0	60	120
Difluorobenzene	540-36-3	57		ug/L	1.0	0.10	50	113.9	60	120
Bromofluorobenzene(PID)	1072-85-1	86		ug/L	1.0	0.10	100	86.3	60	120
Bromofluorobenzene	1072-85-1	88		ug/L	1.0	0.10	100	88.2	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00MW008Q03		Collection Date:	8/22/00						
Lab Sample Number:	A0008084-11A		Prep Date:	8/25/00						
Matrix:	Aqueous		Analysis Date:	8/28/00 2:22:00PM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Boris						
Prep Method ID:	5030		File Name:							
Prep Batch Number:	A000825001		Dilution Factor:	1						
RR #:	2									
Analyte	CASNo	Result	Flags	Units	POL	MDL	Spike	% Recov	LCL	UCL
<b>Analyte Results:</b>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	650		ug/L	100	11				
Ethylbenzene	100-41-4	8.3		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	22		ug/L	2.0	0.35				
<b>Surrogate Results:</b>										
Difluorobenzene	540-36-3	53		ug/L	1.0	0.10	50	105.3	60	120
Difluorobenzene(PID)	540-36-3	51		ug/L	1.0	0.10	50	103.0	60	120
Bromofluorobenzene(PID)	1072-85-1	100		ug/L	1.0	0.10	100	101.0	60	120
Bromofluorobenzene	1072-85-1	91		ug/L	1.0	0.10	100	90.7	60	120

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# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Method Blank Report

Client Sample Name:	MB	Collection Date:	8/28/00							
Lab Sample Number:	A000828001-MB	Prep Date:	8/28/00							
Matrix:	Aqueous	Analysis Date:	9/5/00 6:28:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0090508.D							
Prep Batch Number:	A000828001	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	POL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	ND		mg/L	0.10	0.030				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.049		mg/L	0.0050	0.0010	0.050	97.3	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Method Blank Report

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Client Sample Name:	MB	Collection Date:	8/25/00
Lab Sample Number:	A000825001-MB	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/25/00 9:40:00AM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
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Analyte Results:

Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				

Surrogate Results:

Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.5	60	120
Difluorobenzene	540-36-3	53		ug/L	1.0	0.10	50	105.2	60	120
Bromofluorobenzene	1072-85-1	92		ug/L	1.0	0.10	100	92.5	60	120
Bromofluorobenzene(PID)	1072-85-1	90		ug/L	1.0	0.10	100	90.1	60	120

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# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: LCS Report

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Client Sample Name:	LCS	Collection Date:	8/28/00							
Lab Sample Number:	A000828001-LCS	Prep Date:	8/28/00							
Matrix:	Aqueous	Analysis Date:	9/5/00 6:55:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0090509.D							
Prep Batch Number:	A000828001	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	1.8		mg/L	0.10	0.030	2.0		60	120
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.052		mg/L	0.0050	0.0010	0.050	104.5	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: LCS Report

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Client Sample Name:	LCS	Collection Date:	8/25/00
Lab Sample Number:	A000825001-LCS	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/25/00 10:09:00AM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	13		ug/L	1.0	0.21	13		60	120
Toluene	108-88-3	75		ug/L	1.0	0.36	80		60	120
Gasoline Range Organics	n/a	1,200		ug/L	100	11	1,100		75	125
Ethylbenzene	100-41-4	19		ug/L	1.0	0.14	18		60	120
Xylenes, Total	1330-20-7	91		ug/L	2.0	0.35	93		60	120
<u>Surrogate Results:</u>										
Difluorobenzene	540-36-3	50		ug/L	1.0	0.10	50	100.9	60	120
Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.6	60	120
Bromofluorobenzene	1072-85-1	99		ug/L	1.0	0.10	100	99.0	60	120
Bromofluorobenzene(PID)	1072-85-1	83		ug/L	1.0	0.10	100	82.6	60	120

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# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: LCSD Report

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Client Sample Name:	LCSD	Collection Date:	8/28/00							
Lab Sample Number:	A000828001-LCSD	Prep Date:	8/28/00							
Matrix:	Aqueous	Analysis Date:	9/5/00 7:22:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0090510.D							
Prep Batch Number:	A000828001	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	1.7		mg/L	0.10	0.030	2.0		60	120
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.052		mg/L	0.0050	0.0010	0.050	104.0	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: LCSD Report

Client Sample Name:	LCSD	Collection Date:	8/25/00
Lab Sample Number:	A000825001-LCSD	Prep Date:	8/25/00
Matrix:	Aqueous	Analysis Date:	8/25/00 10:37:00AM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000825001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	14		ug/L	1.0	0.21	13		60	120
Toluene	108-88-3	75		ug/L	1.0	0.36	80		60	120
Gasoline Range Organics	n/a	1,200		ug/L	100	11	1,100		75	125
Ethylbenzene	100-41-4	19		ug/L	1.0	0.14	18		60	120
Xylenes, Total	1330-20-7	91		ug/L	2.0	0.35	93		60	120
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.1	60	120
Difluorobenzene	540-36-3	53		ug/L	1.0	0.10	50	105.8	60	120
Bromofluorobenzene	1072-85-1	98		ug/L	1.0	0.10	100	97.8	60	120
Bromofluorobenzene(PID)	1072-85-1	83		ug/L	1.0	0.10	100	82.7	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## QC Recovery Report

Work Order: A0008084

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Prep Batch Number: A000825001

Base Sample A000825001-MB      Anal. Method: GRO/BTEX by AK101/SW-8021B  
Spike Sample A000825001-LCS      Sample Prep Date: 8/25/00 12:00:00AM  
Spike Duplicate: A000825001-LCSD      Analysis Units: ug/L  
LCS/LCSD Report      Matrix: Aqueous

Analyte	Samp. Result	Spike Result	Sp. Dup. Result	Spike Conc	Spike Recov	Spike Dup Conc	Spiked Recov	RPD	LCL	UCL	RPD Lim.	Recov. Flag	RPD Flag
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<b>Analytes</b>													
Benzene	ND	13	14	13	99.4	13	103.8	4.3	60	120	20		
Toluene	ND	75	75	80	94.3	80	94.0	0.3	60	120	20		
Ethylbenzene	ND	19	19	18	104.8	18	104.8	0.0	60	120	20		
Xylenes, Total	ND	91	91	93	96.6	93	96.4	0.2	60	120	20		
Gasoline Range Organics	ND	1,200	1,200	1,100	106.6	1,100	105.1	1.5	75	125	20		

<b>Surrogates:</b>													
Difluorobenzene(PID)	49	49	49	50	98.0	50	98.0	0.0	60	120	20		
Bromofluorobenzene(PID)	90	83	83	100	83.0	100	83.0	0.0	60	120	20		
Bromofluorobenzene	92	99	98	100	99.0	100	98.0	1.0	60	120	20		
Difluorobenzene	53	50	53	50	100.0	50	106.0	5.8	60	120	20		

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## QC Recovery Report

Work Order: A0008084

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Prep Batch Number: A000828001

Base Sample A000828001-MB      Anal. Method: DRO by AK 102  
Spike Sample A000828001-LCS      Sample Prep Date: 8/28/00 12:00:00AM  
Spike Duplicate: A000828001-LCSD      Analysis Units: mg/L

*LCS/LCSD Report*

Matrix: Aqueous

Analyte	Samp. Result	Spike Result	Sp. Dup Result	Spike Conc	Spike Recov	Spike Dup Conc	SpikeD Recov	RPD	LCL	UCL	RPD Lim.	Recov. Flag	RPD Flag
<u>Analytes</u>													
Diesel Range Organics	ND	1.8	1.7	2.0	86.9	2.0	83.2	4.3	60	120	20		
<u>Surrogates:</u>													
o-Terphenyl	0.049	0.052	0.052	0.050	104.0	0.050	104.0	0.0	60	120	20		

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: 57 Lab Project Number: A0008084

Test: GRO/BTEX by AK101/SW-8021B Prep Date: 8/25/00

Lab Method Blank Id: A000825001-MB

Prep Batch ID: A000825001

Method: GRO/BTEX by AK101/SW-8021B

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates.

<u>SampleNum</u>	<u>ClientSampleName</u>	<u>DataFile</u>	<u>AnalysisDate</u>
A0008084-10A	TAL00MW011Q03		8/28/00 2:22:00PM
A0008084-11A	TAL00MW008Q03		8/28/00 10:03:00AM
A0008084-10A	TAL00MW011Q03	B0082804.D	8/28/00 12:25:00PM
A0008084-01A	TAL00MP011Q03	NULL	8/28/00 12:53:00PM
A0008084-02A	TAL00MP012Q03	NULL	8/30/00 1:18:00PM
A0008084-03A	TAL00MP014Q03	NULL	8/25/00 1:16:00PM
A0008084-04A	TAL00MP016Q03	NULL	8/25/00 1:45:00PM
A0008084-05A	TAL00MP023Q03	NULL	8/28/00 1:22:00PM
A0008084-06A	TAL00MP024Q03	NULL	8/25/00 3:10:00PM
A0008084-07A	TAL00MP025Q03	NULL	8/25/00 3:38:00PM
A0008084-08A	TAL00MP028Q03	NULL	8/25/00 4:06:00PM
A0008084-09A	TAL00MP029Q03	NULL	8/28/00 10:31:00AM
A0008084-11A	TAL00MW008Q03	NULL	8/28/00 2:50:00PM
A0008084-12A	TAL00MW041Q03	NULL	8/28/00 11:28:00AM
A0008084-13A	TAL00MP015Q03	NULL	8/28/00 11:56:00AM
A0008084-14A	TAL00TB001Q03	NULL	8/25/00 10:09:00AM
A000825001-LCS	LCS	NULL	8/25/00 10:37:00AM
A000825001-LCSD	LCSD	NULL	

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008084

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: 57 Lab Project Number: A0008084

Test: DRO by AK 102 Prep Date: 8/28/00  
Lab Method Blank Id: A000828001-MB  
Prep Batch ID: A000828001  
Method: DRO by AK 102

This Method blank and sample preparation batch are associated with the following samples, spikes, and du

<u>SampleNum</u>	<u>ClientSampleName</u>	<u>DataFile</u>	<u>AnalysisDate</u>
A000828001-LCS	LCS	W0090509.D	9/5/00 6:55:00PM
A000828001-LCSD	LCSD	W0090510.D	9/5/00 7:22:00PM
A0008084-01B	TAL00MP011Q03	W0090511.D	9/5/00 7:49:00PM
A0008084-03B	TAL00MP014Q03	W0090513.D	9/5/00 8:44:00PM
A0008084-04B	TAL00MP016Q03	W0090514.D	9/5/00 9:11:00PM
A0008084-05B	TAL00MP023Q03	W0090515.D	9/5/00 9:38:00PM
A0008084-06B	TAL00MP024Q03	W0090516.D	9/5/00 10:05:00PM
A0008084-07B	TAL00MP024Q03	W0090517.D	9/5/00 10:33:00PM
A0008084-08B	TAL00MP028Q03	W0090611.D	9/6/00 2:02:00PM
A0008084-09B	TAL00MP029Q03	W0090612.D	9/6/00 2:29:00PM
A0008084-10B	TAL00MW011Q03	W0090613.D	9/6/00 2:57:00PM
A0008084-11B	TAL00MW008Q03	W0090614.D	9/6/00 3:24:00PM
A0008084-12B	TAL00MW041Q03	W0090615.D	9/6/00 3:52:00PM
A0008084-13B	TAL00MP015Q03	W0090616.D	9/6/00 4:18:00PM
A0008084-02B	TAL00MP012Q03	W0090618.D	9/6/00 5:13:00PM

# **Detailed Analytical Report**

Analytica Alaska Inc.  
Workorder (SDG): A0008084

**Project:** FAA Tanana GWS  
**Client:** CH2M Hill of Alaska  
**Client Project Number:** FAA Tanana GWS

## **DATA FLAGS AND DEFINITIONS**

### **Result Field:**

ND = Not Detected at or above the Reporting Limit Shown  
NA = Analyte not applicable (see Case Narrative for discussion)

### **Qualifier Fields:**

LOW = Recovery is below Low Control Limit  
HIGH = Recovery , RPD, or other parameter is above Upper Control Limit  
E = Reported concentration is above the instrument calibration upper range  
DIL = Sample required dilution to bring analytes within calibration range of the instrument.  
At the dilution level required, the surrogate could not be quantified due to the resulting low surrogate concentration and/or coelution interference from the sample.

### **Organic Analysis Flags:**

B = Analyte was detected in the laboratory method blank  
J = Analyte was detected above 2 x MDL but below the Reporting Limit (Quant Limit)

### **Inorganic Analysis Flags:**

B = Analyte was detected above the MDL or IDL but below the Reporting Limit



Analytica Alaska Incorporated  
website: [www.analyticagroup.com](http://www.analyticagroup.com)

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CH2M Hill  
301 W. Northern Lights Blvd.  
Suite 601  
Anchorage, AK 99503  
Attn: W Westervelt

Work Order #: A0008094  
Date: 9/13/00  
Work ID: FAA Tanana GWS  
Date Received: 8/28/00

#### Sample Identification

Lab Sample Number	Client Description	Lab Sample Number	Client Description
A0008094-01	TAL00MP001Q03	A0008094-02	TAL00MP018Q03
A0008094-03	TAL00MP008Q03	A0008094-04	TAL00MP017Q03
A0008094-05	TAL00MP003Q03	A0008094-06	TAL00MP009Q03
A0008094-07	TAL00MP010Q03	A0008094-08	TAL00MW002Q03
A0008094-09	TAL00MW001Q03	A0008094-10	TAL00MW003Q03
A0008094-11	TAL00MP006Q03	A0008094-12	TAL00MW004Q03
A0008094-13	TAL00MW010Q03	A0008094-14	TAL00MW042Q03
A0008094-15	TAL00TB002Q03	A0008094-16	TAL00MW019Q03
A0008094-17	TAL00MW009Q03	A0008094-18	TAL00MW044Q03
A0008094-19	TAL00EB003Q03	A0008094-20	TAL00MW013Q03
A0008094-21	TAL00MW014Q03	A0008094-22	TAL00EB002Q03
A0008094-23	TAL00MW018Q03	A0008094-24	TAL00EB001Q03
A0008094-25	TAL00MW043Q03	A0008094-26	TAL00MW006Q03
A0008094-27	TAL00MW005Q03	A0008094-28	TAL00MW017Q03
A0008094-29	TAL00MW007Q03	A0008094-30	TAL00MW015Q03
A0008094-31	TAL00MW012Q03	A0008094-32	TAL00DR001Q03
A0008094-33	TAL00TB003Q03		

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. Listings of data qualifiers, analytical codes, key dates, and QC relationships are provided at the end of the report.

Sincerely,

Jason Gray  
Project Manager

## **Case Narrative**

*Analytica Alaska Inc.*  
Work Order: A0008094

ADEC Laboratory Approval Number: UST-014

Thirty three samples were received on 8/28/00 properly packed in six coolers at 3.3°C, 2.4°C, 0.9°C, 2.8°C, 5.2°C and 6.1°C. All samples were refrigerated upon receipt.

### **QUALITY CONTROL**

All quality control objectives were met for this project.

### **HOLDING TIMES**

All samples were analyzed within the test method prescribed holding time.

### **INITIAL CALIBRATION**

All samples met the test method acceptance criteria.

### **CONTINUING CALIBRATION**

All samples met the test method acceptance criteria.

### **METHOD BLANKS**

No detectable quantities of sought for analytes were found in the blanks.

### **QC SPIKE SAMPLES**

All LCS/LCSD samples met the test method acceptance criteria.

### **MS/MSD**

No MS/MSD samples were requested for these water samples.

### **SURROGATE RECOVERIES**

All surrogate recovery was within the test method acceptance criteria.

### **COMPLETENESS**

All of the results associated with this project are 100 percent useable.

Analyst \_\_\_\_\_

Date 9/14/00

Analyst \_\_\_\_\_

Date 9/14/00

# Summary Tabular Analytical Report

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

Analytical Method: DRO by AK 102  
Sample Prep Method: 3510C

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

Analytical Method: DRO by AK 102  
Sample Prep Method: 3510C

ID	Client Sample Name	UNITS: mg/L	Diesel Range Organics
01B	TAL00MP001Q03	0.44(0.10)	
02B	TAL00MP018Q03	0.17(0.10)	
03B	TAL00MP008Q03	0.40(0.10)	
04B	TAL00MP017Q03	0.11(0.10)	
05B	TAL00MP003Q03	60(0.52)	
06B	TAL00MP009Q03	ND(0.10)	
07B	TAL00MP010Q03	ND(0.10)	
08B	TAL00MW002Q03	ND(0.10)	
09B	TAL00MW001Q03	1.1(0.10)	
10B	TAL00MW003Q03	0.32(0.10)	
11B	TAL00MP006Q03	49(0.52)	
12B	TAL00MW004Q03	ND(0.10)	
13B	TAL00MW010Q03	0.14(0.10)	
14B	TAL00MW042Q03	ND(0.10)	
16B	TAL00MW019Q03	0.12(0.11)	
17B	TAL00MW009Q03	ND(0.10)	
18B	TAL00MW044Q03	0.22(0.11)	
19B	TAL00EB003Q03	ND(0.10)	
20B	TAL00MW013Q03	0.24(0.10)	

# Summary Tabular Analytical Report

Analytica Alaska Inc.  
Work Order: A00008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

Analytical Method: DRO by AK 102  
Sample Prep Method: 3510C

UNITS:	mg/L	Diesel Range
ID	Client Sample Name	Organics
21B	TAL00MW014Q03	1.5(0.10)
22B	TAL00EB002Q03	ND(0.10)
23B	TAL00MW018Q03	1.7(0.10)
24B	TAL00EB001Q03	ND(0.10)
25B	TAL00MW043Q03	ND(0.10)
26B	TAL00MW006Q03	0.45(0.10)
27B	TAL00MW005Q03	0.15(0.10)
28B	TAL00MW017Q03	3.8(0.10)
29B	TAL00MW007Q03	0.11(0.10)
30B	TAL00MW015Q03	4.1(0.10)
31B	TAL00MW012Q03	ND(0.096)
32B	TAL00DR001Q03	0.55(0.12)

## Summary Tabular Analytical Report

Analytica Alaska Inc.  
Work Order: A00008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

Analytical Method: BTX/GAS Water (8021)  
Sample Prep Method: 5030B

UNITS: ug/L

ID	Client Sample Name	Benzene	Toluene	Ethyl Benzene	Xylenes	Gasoline Range Organics
01A	TAL00MP001Q03	1.2(1.0)	ND(1.0)	3.9(1.0)	4.9(2.0)	ND(100)
02A	TAL00MP018Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
03A	TAL00MP008Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
04A	TAL00MP017Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
05A	TAL00MP003Q03	250(10)	40(10)	15(10)	1,300(20)	5,500(1,000)
06A	TAL00MP009Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
07A	TAL00MP010Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
08A	TAL00MW002Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
09A	TAL00MW001Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
10A	TAL00MW003Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
11A	TAL00MP006Q03	170(10)	11(10)	150(10)	440(20)	4,700(1,000)
12A	TAL00MW004Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
13A	TAL00MW010Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
14A	TAL00MW042Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
15A	TAL00TB002Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
16A	TAL00MW019Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)

# Summary Tabular Analytical Report

Analytica Alaska Inc.  
Work Order: A00008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

Analytical Method: BTX/GAS Water (8021)  
Sample Prep Method: 5030B

UNITS: ug/L

ID	Client Sample Name	Benzene	Toluene	Ethyl Benzene	Xylenes	Gasoline Range Organics
17A	TAL00MW009Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
18A	TAL00MW044Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
19A	TAL00EB003Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
20A	TAL00MW013Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
21A	TAL00MW014Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
22A	TAL00EB002Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
23A	TAL00MW018Q03	1.9(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
24A	TAL00EB001Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
25A	TAL00MW043Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
26A	TAL00MW006Q03	ND(1.0)	1.7(1.0)	1.4(1.0)	5.3(2.0)	180(100)
27A	TAL00MW005Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
28A	TAL00MW017Q03	ND(1.0)	ND(1.0)	3.4(1.0)	15(2.0)	810(100)
29A	TAL00MW007Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
30A	TAL00MW015Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
31A	TAL00MW012Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)
32A	TAL00DR001Q03	ND(1.0)	ND(1.0)	1.1(1.0)	5.7(2.0)	340(100)

## Summary Tabular Analytical Report

*Analytica Alaska Inc.  
Work Order: A0008094*

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

Analytical Method: BTX/GAS Water (8021)  
Sample Prep Method: 5030B

UNITS: ug/L

ID	Client Sample Name	Benzene	Toluene	Ethyl Benzene	Xylenes	Gasoline Range Organics
33A	TAL00TB003Q03	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(100)

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP001Q03		Collection Date:	8/23/00						
Lab Sample Number:	A0008094-01B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/11/00 5:57:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091161.D						
Prep Batch Number:	A000829008		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.44		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.040		mg/L	0.0052	0.0010	0.052	76.9	50	150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP018Q03		Collection Date:	8/23/00						
Lab Sample Number:	A0008094-02B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/11/00 6:25:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091162.D						
Prep Batch Number:	A000829008		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.17		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.044		mg/L	0.0052	0.0010	0.052	83.6	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP008Q03	Collection Date:	8/23/00							
Lab Sample Number:	A0008094-03B	Prep Date:	8/29/00							
Matrix:	Aqueous	Analysis Date:	9/11/00 6:52:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0091163.D							
Prep Batch Number:	A000829008	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.40		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.042		mg/L	0.0052	0.0010	0.052	80.4	50	150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP017Q03	Collection Date:	8/23/00							
Lab Sample Number:	A0008094-04B	Prep Date:	8/29/00							
Matrix:	Aqueous	Analysis Date:	9/11/00 7:19:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0091164.D							
Prep Batch Number:	A000829008	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.11		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.049		mg/L	0.0052	0.0010	0.052	94.2	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP003Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-05B	Prep Date:	8/29/00
Matrix:	Aqueous	Analysis Date:	9/12/00 12:52:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0091256.D
Prep Batch Number:	A000829008	Dilution Factor:	5
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL	
<u>Analyte Results:</u>											
Diesel Range Organics	n/a	60		mg/L	0.52	0.16					
<u>Surrogate Results:</u>											
o-Terphenyl	84-15-1	ND		mg/L	0.026	0.0052	0.052		50	150	DIL

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP009Q03	Collection Date:	8/23/00							
Lab Sample Number:	A0008094-06B	Prep Date:	8/29/00							
Matrix:	Aqueous	Analysis Date:	9/11/00 11:44:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0091170.D							
Prep Batch Number:	A000829008	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.077	J	mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.042		mg/L	0.0052	0.0010	0.052	79.9	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

Client Sample Name:	TAL00MP010Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-07B	Prep Date:	8/29/00
Matrix:	Aqueous	Analysis Date:	9/12/00 12:11:00AM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0091171.D
Prep Batch Number:	A000829008	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.095	J	mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.044		mg/L	0.0052	0.0010	0.052	84.3	50	150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW002Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-08B	Prep Date:	8/29/00
Matrix:	Aqueous	Analysis Date:	9/12/00 12:38:00AM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0091172.D
Prep Batch Number:	A000829008	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.093	J	mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.039		mg/L	0.0052	0.0010	0.052	74.7	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW001Q03		Collection Date:	8/23/00						
Lab Sample Number:	A0008094-09B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/12/00 1:05:00AM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091173.D						
Prep Batch Number:	A000829008		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	1.1		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.041		mg/L	0.0052	0.0010	0.052	79.4	50	150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW003Q03		Collection Date:	8/23/00						
Lab Sample Number:	A0008094-10B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/12/00 1:32:00AM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091174.D						
Prep Batch Number:	A000829008		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.32		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.044		mg/L	0.0052	0.0010	0.052	85.3	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00MP006Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-11B	Prep Date:	8/29/00
Matrix:	Aqueous	Analysis Date:	9/12/00 1:19:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0091257.D
Prep Batch Number:	A000829008	Dilution Factor:	5
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	49		mg/L	0.52	0.16				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	ND		mg/L	0.026	0.0052	0.052		50	150
									DIL	

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00MW004Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-12B	Prep Date:	8/29/00
Matrix:	Aqueous	Analysis Date:	9/12/00 2:26:00AM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0091176.D
Prep Batch Number:	A000829008	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.085	J	mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.034		mg/L	0.0052	0.0010	0.052		65.9	50
									150	

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW010Q03		Collection Date:	8/23/00						
Lab Sample Number:	A0008094-13B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/12/00 2:53:00AM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091177.D						
Prep Batch Number:	A000829008		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.14		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.045		mg/L	0.0052	0.0010	0.052	87.0	50	150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW042Q03		Collection Date:	8/23/00						
Lab Sample Number:	A0008094-14B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/12/00 3:20:00AM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091178.D						
Prep Batch Number:	A000829008		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	ND		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.050		mg/L	0.0052	0.0010	0.052	95.3	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW019Q03	Collection Date:	8/24/00							
Lab Sample Number:	A0008094-16B	Prep Date:	8/29/00							
Matrix:	Aqueous	Analysis Date:	9/12/00 3:47:00AM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0091179.D							
Prep Batch Number:	A000829008	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.12		mg/L	0.11	0.032				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.048		mg/L	0.0054	0.0011	0.054	88.7	50	150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW009Q03	Collection Date:	8/24/00							
Lab Sample Number:	A0008094-17B	Prep Date:	8/29/00							
Matrix:	Aqueous	Analysis Date:	9/12/00 4:02:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0091263.D							
Prep Batch Number:	A000829008	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.084	J	mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.046		mg/L	0.0052	0.0010	0.052	87.5	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW044Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-18B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/12/00 4:30:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091264.D						
Prep Batch Number:	A000829008		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.22		mg/L	0.11	0.033				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.057		mg/L	0.0056	0.0011	0.056	103.4	50	150

## Report Section: Client Sample Report

Client Sample Name:	TAL00EB003Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-19B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/12/00 4:57:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091265.D						
Prep Batch Number:	A000829008		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	ND		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.048		mg/L	0.0052	0.0010	0.052	92.7	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW013Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-20B	Prep Date:	8/29/00
Matrix:	Aqueous	Analysis Date:	9/12/00 5:24:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0091266.D
Prep Batch Number:	A000829008	Dilution Factor:	1
RR #:	1		
<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u> <u>Units</u> <u>PQL</u> <u>MDL</u> <u>Spike</u> <u>% Recov</u> <u>LCL</u> <u>UCL</u>
<u>Analyte Results:</u>			
Diesel Range Organics	n/a	0.24	mg/L 0.10 0.031
<u>Surrogate Results:</u>			
o-Terphenyl	84-15-1	0.046	mg/L 0.0052 0.0010 0.052 89.0 50 150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW014Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-21B	Prep Date:	8/29/00
Matrix:	Aqueous	Analysis Date:	9/12/00 5:51:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0091267.D
Prep Batch Number:	A000829008	Dilution Factor:	1
RR #:	1		
<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u> <u>Units</u> <u>PQL</u> <u>MDL</u> <u>Spike</u> <u>% Recov</u> <u>LCL</u> <u>UCL</u>
<u>Analyte Results:</u>			
Diesel Range Organics	n/a	1.5	mg/L 0.10 0.031
<u>Surrogate Results:</u>			
o-Terphenyl	84-15-1	0.037	mg/L 0.0052 0.0010 0.052 71.6 50 150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00EB002Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-22B	Prep Date:	8/29/00
Matrix:	Aqueous	Analysis Date:	9/12/00 6:18:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0091268.D
Prep Batch Number:	A000829009	Dilution Factor:	1
RR #:	1		
<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u> <u>Units</u> <u>PQL</u> <u>MDL</u> <u>Spike</u> <u>% Recov</u> <u>LCL</u> <u>UCL</u>
<u>Analyte Results:</u>			
Diesel Range Organics	n/a	ND	mg/L 0.10 0.031
<u>Surrogate Results:</u>			
o-Terphenyl	84-15-1	0.047	mg/L 0.0052 0.0010 0.052 90.0 50 150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW018Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-23B	Prep Date:	8/29/00
Matrix:	Aqueous	Analysis Date:	9/12/00 6:45:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0091269.D
Prep Batch Number:	A000829009	Dilution Factor:	1
RR #:	1		
<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u> <u>Units</u> <u>PQL</u> <u>MDL</u> <u>Spike</u> <u>% Recov</u> <u>LCL</u> <u>UCL</u>
<u>Analyte Results:</u>			
Diesel Range Organics	n/a	1.7	mg/L 0.10 0.031
<u>Surrogate Results:</u>			
o-Terphenyl	84-15-1	0.050	mg/L 0.0052 0.0010 0.052 95.3 50 150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00EB001Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-24B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/12/00 8:07:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091272.D						
Prep Batch Number:	A000829009		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	POL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	ND		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.082		mg/L	0.0052	0.0010	0.10	78.6	50	150

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00MW043Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-25B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/12/00 8:34:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091273.D						
Prep Batch Number:	A000829009		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	POL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.095	J	mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.046		mg/L	0.0052	0.0010	0.052	88.9	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW006Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-26B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/12/00 9:01:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091274.D						
Prep Batch Number:	A000829009		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.45		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.048		mg/L	0.0052	0.0010	0.052	91.2	50	150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW005Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-27B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/12/00 9:29:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091275.D						
Prep Batch Number:	A000829009		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.15		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.049		mg/L	0.0052	0.0010	0.052	94.7	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW017Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-28B	Prep Date:	8/29/00
Matrix:	Aqueous	Analysis Date:	9/12/00 9:56:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0091276.D
Prep Batch Number:	A000829009	Dilution Factor:	1
RR #:	1		
<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u> <u>Units</u> <u>PQL</u> <u>MDL</u> <u>Spike</u> <u>% Recov</u> <u>LCL</u> <u>UCL</u>
<u>Analyte Results:</u>			
Diesel Range Organics	n/a	3.8	mg/L 0.10 0.031
<u>Surrogate Results:</u>			
o-Terphenyl	84-15-1	0.043	mg/L 0.0052 0.0010 0.052 83.0 50 150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW007Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-29B	Prep Date:	8/29/00
Matrix:	Aqueous	Analysis Date:	9/12/00 10:23:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0091277.D
Prep Batch Number:	A000829009	Dilution Factor:	1
RR #:	1		
<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u> <u>Units</u> <u>PQL</u> <u>MDL</u> <u>Spike</u> <u>% Recov</u> <u>LCL</u> <u>UCL</u>
<u>Analyte Results:</u>			
Diesel Range Organics	n/a	0.11	mg/L 0.10 0.031
<u>Surrogate Results:</u>			
o-Terphenyl	84-15-1	0.049	mg/L 0.0052 0.0010 0.052 94.3 50 150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW015Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-30B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/12/00 10:50:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091278.D						
Prep Batch Number:	A000829009		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	4.1		mg/L	0.10	0.031				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.047		mg/L	0.0052	0.0010	0.052	89.4	50	150

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW012Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-31B		Prep Date:	8/29/00						
Matrix:	Aqueous		Analysis Date:	9/12/00 11:17:00PM						
Analytical Method ID:	DRO by AK 102		Instrument:	woof						
Prep Method ID:	3510		File Name:	W0091279.D						
Prep Batch Number:	A000829009		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.067	J	mg/L	0.096	0.029				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.044		mg/L	0.0048	0.00096	0.048	91.0	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00DR001Q03	Collection Date:	8/24/00							
Lab Sample Number:	A0008094-32B	Prep Date:	8/29/00							
Matrix:	Aqueous	Analysis Date:	9/12/00 11:45:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0091280.D							
Prep Batch Number:	A000829009	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	0.55		mg/L	0.12	0.036				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.056		mg/L	0.0060	0.0012	0.060	93.5	50	150

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP001Q03		Collection Date:	8/23/00						
Lab Sample Number:	A0008094-01A		Prep Date:	8/30/00						
Matrix:	Aqueous		Analysis Date:	8/30/00 1:10:00PM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Natasha						
Prep Method ID:	5030		File Name:	N0083009.D						
Prep Batch Number:	A000830001		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	1.2		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	77	J	ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	3.9		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	4.9		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Bromofluorobenzene(PID)	1072-85-1	95		ug/L	1.0	0.10	100	95.5	60	120
Bromofluorobenzene	1072-85-1	92		ug/L	1.0	0.10	100	91.5	60	120
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	95.4	60	120
Difluorobenzene	540-36-3	51		ug/L	1.0	0.10	50	102.8	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00MP018Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-02A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 1:39:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083010.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
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Analyte Results:

Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				

Surrogate Results:

Bromofluorobenzene(PID)	1072-85-1	97		ug/L	1.0	0.10	100	97.2	60	120
Bromofluorobenzene	1072-85-1	93		ug/L	1.0	0.10	100	92.6	60	120
Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.3	60	120
Difluorobenzene	540-36-3	51		ug/L	1.0	0.10	50	102.9	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP008Q03		Collection Date:	8/23/00						
Lab Sample Number:	A0008094-03A		Prep Date:	8/30/00						
Matrix:	Aqueous		Analysis Date:	8/30/00 2:08:00PM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Natasha						
Prep Method ID:	5030		File Name:	N0083011.D						
Prep Batch Number:	A000830001		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Bromofluorobenzene(PID)	1072-85-1	96		ug/L	1.0	0.10	100	96.0	60	120
Bromofluorobenzene	1072-85-1	89		ug/L	1.0	0.10	100	89.5	60	120
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	96.5	60	120
Difluorobenzene	540-36-3	50		ug/L	1.0	0.10	50	99.5	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP017Q03		Collection Date:	8/23/00						
Lab Sample Number:	A0008094-04A		Prep Date:	8/30/00						
Matrix:	Aqueous		Analysis Date:	8/30/00 2:37:00PM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Natasha						
Prep Method ID:	5030		File Name:	N0083012.D						
Prep Batch Number:	A000830001		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Bromofluorobenzene(PID)	1072-85-1	94		ug/L	1.0	0.10	100	94.0	60	120
Bromofluorobenzene	1072-85-1	89		ug/L	1.0	0.10	100	88.9	60	120
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	96.7	60	120
Difluorobenzene	540-36-3	51		ug/L	1.0	0.10	50	101.4	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP003Q03		Collection Date:	8/23/00						
Lab Sample Number:	A0008094-05A		Prep Date:	8/30/00						
Matrix:	Aqueous		Analysis Date:	8/30/00 3:06:00PM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Natasha						
Prep Method ID:	5030		File Name:	N0083013.D						
Prep Batch Number:	A000830001		Dilution Factor:	10						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	250		ug/L	10	2.1				
Gasoline Range Organics	n/a	5,500		ug/L	1,000	110				
Toluene	108-88-3	40		ug/L	10	3.6				
Ethylbenzene	100-41-4	15		ug/L	10	1.4				
Xylenes, Total	1330-20-7	1,300		ug/L	20	3.5				
<u>Surrogate Results:</u>										
Bromofluorobenzene(PID)	1072-85-1	1,100		ug/L	10	1.0	1,000	107.4	60	120
Bromofluorobenzene	1072-85-1	1,000		ug/L	10	1.0	1,000	101.4	60	120
Difluorobenzene(PID)	540-36-3	580		ug/L	10	1.0	500	115.2	60	120
Difluorobenzene	540-36-3	500		ug/L	10	1.0	500	99.3	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP009Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-06A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 3:34:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083014.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
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Analyte Results:

Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	34	J	ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	1.3	J	ug/L	2.0	0.35				

Surrogate Results:

Bromofluorobenzene(PID)	1072-85-1	99		ug/L	1.0	0.10	100	98.9	60	120
Bromofluorobenzene	1072-85-1	91		ug/L	1.0	0.10	100	91.1	60	120
Difluorobenzene(PID)	540-36-3	50		ug/L	1.0	0.10	50	99.3	60	120
Difluorobenzene	540-36-3	49		ug/L	1.0	0.10	50	98.5	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MP010Q03		Collection Date:	8/23/00						
Lab Sample Number:	A0008094-07A		Prep Date:	8/30/00						
Matrix:	Aqueous		Analysis Date:	8/30/00 5:00:00PM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Natasha						
Prep Method ID:	5030		File Name:	N0083017.D						
Prep Batch Number:	A000830001		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	0.91	J	ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Bromofluorobenzene(PID)	1072-85-1	97		ug/L	1.0	0.10	100	97.3	60	120
Bromofluorobenzene	1072-85-1	93		ug/L	1.0	0.10	100	93.2	60	120
Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.5	60	120
Difluorobenzene	540-36-3	51		ug/L	1.0	0.10	50	101.5	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW002Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-08A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 5:29:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083018.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
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Analyte Results:

Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				

Surrogate Results:

Bromofluorobenzene(PID)	1072-85-1	95		ug/L	1.0	0.10	100	94.9	60	120
Bromofluorobenzene	1072-85-1	95		ug/L	1.0	0.10	100	94.5	60	120
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	95.7	60	120
Difluorobenzene	540-36-3	52		ug/L	1.0	0.10	50	103.4	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW001Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-09A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 5:57:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083019.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
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Analyte Results:

Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				

Surrogate Results:

Bromofluorobenzene(PID)	1072-85-1	95		ug/L	1.0	0.10	100	94.7	60	120
Bromofluorobenzene	1072-85-1	91		ug/L	1.0	0.10	100	91.2	60	120
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	95.5	60	120
Difluorobenzene	540-36-3	50		ug/L	1.0	0.10	50	100.3	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00MW003Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-10A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 6:26:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083020.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
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Analyte Results:

Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				

Surrogate Results:

Bromofluorobenzene(PID)	1072-85-1	95		ug/L	1.0	0.10	100	94.6	60	120
Bromofluorobenzene	1072-85-1	91		ug/L	1.0	0.10	100	90.5	60	120
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	95.7	60	120
Difluorobenzene	540-36-3	50		ug/L	1.0	0.10	50	99.6	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00MP006Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-11A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 6:55:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083021.D
Prep Batch Number:	A000830001	Dilution Factor:	10
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	170		ug/L	10	2.1				
Gasoline Range Organics	n/a	4,700		ug/L	1,000	110				
Toluene	108-88-3	11		ug/L	10	3.6				
Ethylbenzene	100-41-4	150		ug/L	10	1.4				
Xylenes, Total	1330-20-7	440		ug/L	20	3.5				
<u>Surrogate Results:</u>										
Bromofluorobenzene(PID)	1072-85-1	1,000		ug/L	10	1.0	1,000	104.6	60	120
Bromofluorobenzene	1072-85-1	1,000		ug/L	10	1.0	1,000	100.4	60	120
Difluorobenzene(PID)	540-36-3	490		ug/L	10	1.0	500	97.5	60	120
Difluorobenzene	540-36-3	510		ug/L	10	1.0	500	102.0	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00MW004Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-12A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 7:23:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083022.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
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Analyte Results:

Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	32	J	ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				

Surrogate Results:

Bromofluorobenzene(PID)	1072-85-1	82		ug/L	1.0	0.10	100	82.2	60	120
Bromofluorobenzene	1072-85-1	84		ug/L	1.0	0.10	100	84.2	60	120
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	95.8	60	120
Difluorobenzene	540-36-3	55		ug/L	1.0	0.10	50	109.5	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW010Q03		Collection Date:	8/23/00						
Lab Sample Number:	A0008094-13A		Prep Date:	8/30/00						
Matrix:	Aqueous		Analysis Date:	8/30/00 7:52:00PM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Natasha						
Prep Method ID:	5030		File Name:	N0083023.D						
Prep Batch Number:	A000830001		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Bromofluorobenzene(PID)	1072-85-1	92		ug/L	1.0	0.10	100	91.6	60	120
Bromofluorobenzene	1072-85-1	91		ug/L	1.0	0.10	100	91.3	60	120
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	95.0	60	120
Difluorobenzene	540-36-3	52		ug/L	1.0	0.10	50	103.0	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW042Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-14A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 8:20:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083024.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>POL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Bromofluorobenzene(PID)	1072-85-1	95		ug/L	1.0	0.10	100	94.8	60	120
Bromofluorobenzene	1072-85-1	94		ug/L	1.0	0.10	100	93.9	60	120
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	96.3	60	120
Difluorobenzene	540-36-3	51		ug/L	1.0	0.10	50	102.9	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00TB002Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-15A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 8:49:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083025.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	25	J	ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	0.98	J	ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Bromofluorobenzene(PID)	1072-85-1	94		ug/L	1.0	0.10	100	93.6	60	120
Bromofluorobenzene	1072-85-1	91		ug/L	1.0	0.10	100	91.1	60	120
Difluorobenzene(PID)	540-36-3	47		ug/L	1.0	0.10	50	94.5	60	120
Difluorobenzene	540-36-3	50		ug/L	1.0	0.10	50	99.7	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW019Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-16A		Prep Date:	8/30/00						
Matrix:	Aqueous		Analysis Date:	8/30/00 9:18:00PM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Natasha						
Prep Method ID:	5030		File Name:	N0083026.D						
Prep Batch Number:	A000830001		Dilution Factor:	1						
RR #:	1									
Analyst	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Bromofluorobenzene(PID)	1072-85-1	94		ug/L	1.0	0.10	100	94.3	60	120
Bromofluorobenzene	1072-85-1	91		ug/L	1.0	0.10	100	90.9	60	120
Disfluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	96.6	60	120
Disfluorobenzene	540-36-3	51		ug/L	1.0	0.10	50	101.9	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW009Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-17A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 9:46:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083027.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Bromofluorobenzene(PID)	1072-85-1	97		ug/L	1.0	0.10	100	96.7	60	120
Bromofluorobenzene	1072-85-1	91		ug/L	1.0	0.10	100	90.9	60	120
Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.4	60	120
Difluorobenzene	540-36-3	49		ug/L	1.0	0.10	50	98.8	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW044Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-18A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/31/00 11:40:00AM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083106.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
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Analyte Results:  
Benzene 71-43-2 ND ug/L 1.0 0.21  
Gasoline Range Organics n/a ND ug/L 100 11  
Toluene 108-88-3 ND ug/L 1.0 0.36  
Ethylbenzene 100-41-4 ND ug/L 1.0 0.14  
Xylenes, Total 1330-20-7 1.1 J ug/L 2.0 0.35

Surrogate Results:  
Bromofluorobenzene(PID) 1072-85-1 96 ug/L 1.0 0.10 100 95.6 60 120  
Bromofluorobenzene 1072-85-1 91 ug/L 1.0 0.10 100 90.9 60 120  
Difluorobenzene(PID) 540-36-3 48 ug/L 1.0 0.10 50 96.6 60 120  
Difluorobenzene 540-36-3 50 ug/L 1.0 0.10 50 100.0 60 120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00EB003Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-19A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 10:43:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083029.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Bromofluorobenzene(PID)	1072-85-1	93		ug/L	1.0	0.10	100	93.0	60	120
Bromofluorobenzene	1072-85-1	88		ug/L	1.0	0.10	100	87.5	60	120
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	96.0	60	120
Difluorobenzene	540-36-3	50		ug/L	1.0	0.10	50	100.4	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW013Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-20A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 11:12:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083030.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
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Analyte Results:

Benzene	71-43-2	ND		ug/L	1.0	0.21				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				

Surrogate Results:

Bromofluorobenzene(PID)	1072-85-1	91		ug/L	1.0	0.10	100	91.2	60	120
Bromofluorobenzene	1072-85-1	87		ug/L	1.0	0.10	100	86.6	60	120
Difluorobenzene(PID)	540-36-3	47		ug/L	1.0	0.10	50	93.9	60	120
Difluorobenzene	540-36-3	50		ug/L	1.0	0.10	50	99.1	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW014Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-21A		Prep Date:	8/30/00						
Matrix:	Aqueous		Analysis Date:	8/30/00 10:02:00AM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Boris						
Prep Method ID:	5030		File Name:	NULL						
Prep Batch Number:	A000830002		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.6	60	120
Difluorobenzene	540-36-3	52		ug/L	1.0	0.10	50	103.8	60	120
Bromofluorobenzene(PID)	1072-85-1	88		ug/L	1.0	0.10	100	88.4	60	120
Bromofluorobenzene	1072-85-1	92		ug/L	1.0	0.10	100	91.6	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00EB002Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-22A		Prep Date:	8/30/00						
Matrix:	Aqueous		Analysis Date:	8/30/00 10:30:00AM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Boris						
Prep Method ID:	5030		File Name:	NULL						
Prep Batch Number:	A000830002		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.8	60	120
Difluorobenzene	540-36-3	52		ug/L	1.0	0.10	50	103.7	60	120
Bromofluorobenzene(PID)	1072-85-1	91		ug/L	1.0	0.10	100	91.5	60	120
Bromofluorobenzene	1072-85-1	94		ug/L	1.0	0.10	100	93.8	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW018Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-23A		Prep Date:	8/30/00						
Matrix:	Aqueous		Analysis Date:	8/30/00 10:58:00AM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Boris						
Prep Method ID:	5030		File Name:	NULL						
Prep Batch Number:	A000830002		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	1.9		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	23	J	ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene	540-36-3	52		ug/L	1.0	0.10	50	104.4	60	120
Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.7	60	120
Bromofluorobenzene(PID)	1072-85-1	89		ug/L	1.0	0.10	100	89.5	60	120
Bromofluorobenzene	1072-85-1	91		ug/L	1.0	0.10	100	91.3	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00EB001Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-24A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 11:26:00AM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000830002	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.7	60	120
Difluorobenzene	540-36-3	52		ug/L	1.0	0.10	50	103.9	60	120
Bromofluorobenzene(PID)	1072-85-1	90		ug/L	1.0	0.10	100	90.1	60	120
Bromofluorobenzene	1072-85-1	92		ug/L	1.0	0.10	100	92.3	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW043Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-25A		Prep Date:	8/30/00						
Matrix:	Aqueous		Analysis Date:	8/30/00 11:54:00AM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Boris						
Prep Method ID:	5030		File Name:	NULL						
Prep Batch Number:	A000830002		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<b>Analyte Results:</b>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<b>Surrogate Results:</b>										
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	96.8	60	120
Difluorobenzene	540-36-3	50		ug/L	1.0	0.10	50	100.8	60	120
Bromofluorobenzene(PID)	1072-85-1	91		ug/L	1.0	0.10	100	91.1	60	120
Bromofluorobenzene	1072-85-1	89		ug/L	1.0	0.10	100	89.2	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW006Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-26A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 12:50:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000830002	Dilution Factor:	1
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
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Analyte Results:

Benzene	71-43-2	0.65	J	ug/L	1.0	0.21				
Toluene	108-88-3	1.7		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	180		ug/L	100	11				
Ethylbenzene	100-41-4	1.4		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	5.3		ug/L	2.0	0.35				

Surrogate Results:

Difluorobenzene	540-36-3	55		ug/L	1.0	0.10	50	110.2	60,	120
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	95.3	60	120
Bromofluorobenzene(PID)	1072-85-1	86		ug/L	1.0	0.10	100	86.4	60	120
Bromofluorobenzene	1072-85-1	110		ug/L	1.0	0.10	100	106.5	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW005Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-27A		Prep Date:	8/30/00						
Matrix:	Aqueous		Analysis Date:	8/30/00 2:46:00PM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Boris						
Prep Method ID:	5030		File Name:	NULL						
Prep Batch Number:	A000830002		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	POL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.1	60	120
Difluorobenzene	540-36-3	53		ug/L	1.0	0.10	50	105.4	60	120
Bromofluorobenzene(PID)	1072-85-1	89		ug/L	1.0	0.10	100	89.2	60	120
Bromofluorobenzene	1072-85-1	92		ug/L	1.0	0.10	100	92.1	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW017Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-28A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 3:14:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000830002	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	810		ug/L	100	11				
Ethylbenzene	100-41-4	3.4		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	15		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	51		ug/L	1.0	0.10	50	101.7	60	120
Difluorobenzene	540-36-3	53		ug/L	1.0	0.10	50	105.4	60	120
Bromofluorobenzene(PID)	1072-85-1	100		ug/L	1.0	0.10	100	99.8	60	120
Bromofluorobenzene	1072-85-1	88		ug/L	1.0	0.10	100	87.9	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW007Q03		Collection Date:	8/24/00						
Lab Sample Number:	A0008094-29A		Prep Date:	8/30/00						
Matrix:	Aqueous		Analysis Date:	8/30/00 3:42:00PM						
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B		Instrument:	Boris						
Prep Method ID:	5030		File Name:	NULL						
Prep Batch Number:	A000830002		Dilution Factor:	1						
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene	540-36-3	52		ug/L	1.0	0.10	50	104.1	60	120
Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.2	60	120
Bromofluorobenzene(PID)	1072-85-1	90		ug/L	1.0	0.10	100	90.0	60	120
Bromofluorobenzene	1072-85-1	92		ug/L	1.0	0.10	100	92.1	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW015Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-30A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 4:10:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000830002	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	80	J	ug/L	100	11				
Ethylbenzene	100-41-4	0.29	J	ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	1.1	J	ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	96.4	60	120
Difluorobenzene	540-36-3	53		ug/L	1.0	0.10	50	105.5	60	120
Bromofluorobenzene(PID)	1072-85-1	87		ug/L	1.0	0.10	100	86.8	60	120
Bromofluorobenzene	1072-85-1	92		ug/L	1.0	0.10	100	92.3	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Client Sample Report

Client Sample Name:	TAL00MW012Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-31A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 4:38:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000830002	Dilution Factor:	1
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	97.8	60	120
Difluorobenzene	540-36-3	52		ug/L	1.0	0.10	50	103.5	60	120
Bromofluorobenzene(PID)	1072-85-1	90		ug/L	1.0	0.10	100	89.8	60	120
Bromofluorobenzene	1072-85-1	90		ug/L	1.0	0.10	100	89.6	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00DR001Q03	Collection Date:	8/24/00
Lab Sample Number:	A0008094-32A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 5:06:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000830002	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
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Analyte Results:

Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	340		ug/L	100	11				
Ethylbenzene	100-41-4	1.1		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	5.7		ug/L	2.0	0.35				

Surrogate Results:

Difluorobenzene(PID)	540-36-3	49		ug/L	1.0	0.10	50	98.2	60	120
Difluorobenzene	540-36-3	52		ug/L	1.0	0.10	50	103.6	60	120
Bromofluorobenzene(PID)	1072-85-1	95		ug/L	1.0	0.10	100	95.2	60	120
Bromofluorobenzene	1072-85-1	95		ug/L	1.0	0.10	100	94.9	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: Client Sample Report

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Client Sample Name:	TAL00TB003Q03	Collection Date:	8/23/00
Lab Sample Number:	A0008094-33A	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 5:33:00PM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000830002	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	ND		ug/L	1.0	0.21				
Toluene	108-88-3	ND		ug/L	1.0	0.36				
Gasoline Range Organics	n/a	ND		ug/L	100	11				
Ethylbenzene	100-41-4	ND		ug/L	1.0	0.14				
Xylenes, Total	1330-20-7	ND		ug/L	2.0	0.35				
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	96.8	60	120
Difluorobenzene	540-36-3	51		ug/L	1.0	0.10	50	101.4	60	120
Bromofluorobenzene(PID)	1072-85-1	89		ug/L	1.0	0.10	100	89.2	60	120
Bromofluorobenzene	1072-85-1	89		ug/L	1.0	0.10	100	89.2	60	120

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# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: Method Blank Report

Client Sample Name:	MB	Collection Date:	8/29/00							
Lab Sample Number:	A000829008-MB	Prep Date:	8/29/00							
Matrix:	Aqueous	Analysis Date:	9/11/00 4:36:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0091158.D							
Prep Batch Number:	A000829008	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	ND		mg/L	0.10	0.030				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.040		mg/L	0.0050	0.0010	0.050	81.0	60	120

## Report Section: Method Blank Report

Client Sample Name:	MB	Collection Date:	8/29/00							
Lab Sample Number:	A000829009-MB	Prep Date:	8/29/00							
Matrix:	Aqueous	Analysis Date:	9/12/00 2:40:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0091260.D							
Prep Batch Number:	A000829009	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	ND		mg/L	0.10	0.030				
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.056		mg/L	0.0050	0.0010	0.050	112.9	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: LCS Report

Client Sample Name:	LCS	Collection Date:	8/29/00							
Lab Sample Number:	A000829008-LCS	Prep Date:	8/29/00							
Matrix:	Aqueous	Analysis Date:	9/12/00 12:24:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0091255.D							
Prep Batch Number:	A000829008	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	POL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	1.5		mg/L	0.10	0.030	2.0		60	120
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.051		mg/L	0.0050	0.0010	0.050	101.9	60	120

## Report Section: LCS Report

Client Sample Name:	LCS	Collection Date:	8/29/00							
Lab Sample Number:	A000829009-LCS	Prep Date:	8/29/00							
Matrix:	Aqueous	Analysis Date:	9/12/00 3:08:00PM							
Analytical Method ID:	DRO by AK 102	Instrument:	woof							
Prep Method ID:	3510	File Name:	W0091261.D							
Prep Batch Number:	A000829009	Dilution Factor:	1							
RR #:	1									
Analyte	CASNo	Result	Flags	Units	POL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	1.5		mg/L	0.10	0.030	2.0		60	120
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.047		mg/L	0.0050	0.0010	0.050	93.6	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: LCS Report

Client Sample Name:	LCS	Collection Date:	8/30/00
Lab Sample Number:	A000830001-LCS	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 11:15:00AM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083005.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
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Analyte Results:

Benzene	71-43-2	14		ug/L	1.0	0.21	13		60	120
Gasoline Range Organics	n/a	1,100		ug/L	100	11	1,100		75	125
Toluene	108-88-3	75		ug/L	1.0	0.36	80		60	120
Ethylbenzene	100-41-4	18		ug/L	1.0	0.14	18		60	120
Xylenes, Total	1330-20-7	95		ug/L	2.0	0.35	93		60	120

Surrogate Results:

Bromofluorobenzene(PID)	1072-85-1	100		ug/L	1.0	0.10	100	100.0	60	120
Bromofluorobenzene	1072-85-1	110		ug/L	1.0	0.10	100	106.8	60	120
Difluorobenzene(PID)	540-36-3	50		ug/L	1.0	0.10	50	99.3	60	120
Difluorobenzene	540-36-3	51		ug/L	1.0	0.10	50	101.3	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: LCS Report

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Client Sample Name:	LCS	Collection Date:	8/30/00
Lab Sample Number:	A000830002-LCS	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 9:05:00AM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000830002	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	12		ug/L	1.0	0.21	13		60	120
Toluene	108-88-3	76		ug/L	1.0	0.36	80		60	120
Gasoline Range Organics	n/a	1,200		ug/L	100	11	1,100		75	125
Ethylbenzene	100-41-4	19		ug/L	1.0	0.14	18		60	120
Xylenes, Total	1330-20-7	92		ug/L	2.0	0.35	93		60	120
<u>Surrogate Results:</u>										
Difluorobenzene	540-36-3	56		ug/L	1.0	0.10	50	111.4	60	120
Difluorobenzene(PID)	540-36-3	50		ug/L	1.0	0.10	50	100.4	60	120
Bromofluorobenzene(PID)	1072-85-1	84		ug/L	1.0	0.10	100	84.4	60	120
Bromofluorobenzene	1072-85-1	100		ug/L	1.0	0.10	100	99.7	60	120

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# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: LCSD Report

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Client Sample Name:	LCSD	Collection Date:	8/29/00
Lab Sample Number:	A000829008-LCSD	Prep Date:	8/29/00
Matrix:	Aqueous	Analysis Date:	9/11/00 5:30:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0091160.D
Prep Batch Number:	A000829008	Dilution Factor:	1
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	1.3		mg/L	0.10	0.030	2.0		60	120
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.049		mg/L	0.0050	0.0010	0.050	97.1	60	120

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## Report Section: LCSD Report

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Client Sample Name:	LCSD	Collection Date:	8/29/00
Lab Sample Number:	A000829009-LCSD	Prep Date:	8/29/00
Matrix:	Aqueous	Analysis Date:	9/12/00 3:35:00PM
Analytical Method ID:	DRO by AK 102	Instrument:	woof
Prep Method ID:	3510	File Name:	W0091262.D
Prep Batch Number:	A000829009	Dilution Factor:	1
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Diesel Range Organics	n/a	1.5		mg/L	0.10	0.030	2.0		60	120
<u>Surrogate Results:</u>										
o-Terphenyl	84-15-1	0.049		mg/L	0.0050	0.0010	0.050	98.0	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## Report Section: LCSD Report

Client Sample Name:	LCSD	Collection Date:	8/30/00
Lab Sample Number:	A000830001-LCSD	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 11:44:00AM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Natasha
Prep Method ID:	5030	File Name:	N0083006.D
Prep Batch Number:	A000830001	Dilution Factor:	1
RR #:	1		

<u>Analyte</u>	<u>CASNo</u>	<u>Result</u>	<u>Flags</u>	<u>Units</u>	<u>PQL</u>	<u>MDL</u>	<u>Spike</u>	<u>% Recov</u>	<u>LCL</u>	<u>UCL</u>
<u>Analyte Results:</u>										
Benzene	71-43-2	14		ug/L	1.0	0.21	13		60	120
Gasoline Range Organics	n/a	1,200		ug/L	100	11	1,100		75	125
Toluene	108-88-3	72		ug/L	1.0	0.36	80		60	120
Ethylbenzene	100-41-4	18		ug/L	1.0	0.14	18		60	120
Xylenes, Total	1330-20-7	93		ug/L	2.0	0.35	93		60	120
<u>Surrogate Results:</u>										
Bromofluorobenzene(PID)	1072-85-1	96		ug/L	1.0	0.10	100	95.5	60	120
Bromofluorobenzene	1072-85-1	110		ug/L	1.0	0.10	100	110.2	60	120
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	95.5	60	120
Difluorobenzene	540-36-3	52		ug/L	1.0	0.10	50	103.7	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

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## Report Section: LCSD Report

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Client Sample Name:	LCSD	Collection Date:	8/30/00
Lab Sample Number:	A000830002-LCSD	Prep Date:	8/30/00
Matrix:	Aqueous	Analysis Date:	8/30/00 9:34:00AM
Analytical Method ID:	GRO/BTEX by AK101/SW-8021B	Instrument:	Boris
Prep Method ID:	5030	File Name:	NULL
Prep Batch Number:	A000830002	Dilution Factor:	1
RR #:	1		

Analyte	CASNo	Result	Flags	Units	PQL	MDL	Spike	% Recov	LCL	UCL
<u>Analyte Results:</u>										
Benzene	71-43-2	13		ug/L	1.0	0.21	13		60	120
Toluene	108-88-3	73		ug/L	1.0	0.36	80		60	120
Gasoline Range Organics	n/a	1,100		ug/L	100	11	1,100		75	125
Ethylbenzene	100-41-4	18		ug/L	1.0	0.14	18		60	120
Xylenes, Total	1330-20-7	88		ug/L	2.0	0.35	93		60	120
<u>Surrogate Results:</u>										
Difluorobenzene(PID)	540-36-3	48		ug/L	1.0	0.10	50	95.1	60	120
Difluorobenzene	540-36-3	53		ug/L	1.0	0.10	50	106.1	60	120
Bromofluorobenzene(PID)	1072-85-1	81		ug/L	1.0	0.10	100	80.7	60	120
Bromofluorobenzene	1072-85-1	97		ug/L	1.0	0.10	100	96.7	60	120

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## QC Recovery Report

Work Order: A0008094

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Prep Batch Number: A000829008

Base Sample A000829008-MB      Anal. Method: DRO by AK 102  
Spike Sample A000829008-LCS      Sample Prep Date: 8/29/00 12:00:00AM  
Spike Duplicate: A000829008-LCSD      Analysis Units: mg/L  
                  LCS/LCSD Report      Matrix: Aqueous

Analyte	Samp. Result	Spike Result	Sp. Dup Result	Spike Conc	Spike Recov	Spike Dup Conc	SpikeD Recov	RPD	LCL	UCL	RPD Lim.	Recov. Flag	RPD Flag
<b><u>Analytes</u></b>													
Diesel Range Organics	ND	1.5	1.3	2.0	73.2	2.0	61.2	17.8	60	120	20		
<b><u>Surrogates:</u></b>													
o-Terphenyl	0.040	0.051	0.049	0.050	102.0	0.050	98.0	4.0	60	120	20		

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Prep Batch Number: A000829009

Base Sample A000829009-MB      Anal. Method: DRO by AK 102  
Spike Sample A000829009-LCS      Sample Prep Date: 8/29/00 12:00:00AM  
Spike Duplicate: A000829009-LCSD      Analysis Units: mg/L  
                  LCS/LCSD Report      Matrix: Aqueous

Analyte	Samp. Result	Spike Result	Sp. Dup Result	Spike Conc	Spike Recov	Spike Dup Conc	SpikeD Recov	RPD	LCL	UCL	RPD Lim.	Recov. Flag	RPD Flag
<b><u>Analytes</u></b>													
Diesel Range Organics	ND	1.5	1.5	2.0	74.8	2.0	73.8	1.4	60	120	20		
<b><u>Surrogates:</u></b>													
o-Terphenyl	0.056	0.047	0.049	0.050	94.0	0.050	98.0	4.2	60	120	20		

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## QC Recovery Report

Work Order: A0008094

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Prep Batch Number: A000830001

Base Sample A000830001-MB      Anal. Method: GRO/BTEX by AK101/SW-8021B  
Spike Sample A000830001-LCS      Sample Prep Date: 8/30/00 12:00:00AM  
Spike Duplicate: A000830001-LCSD      Analysis Units: ug/L

*LCS/LCSD Report*

Matrix: Aqueous

Analyte	Samp. Result	Spike Result	Sp. Dup Result	Spike Conc	Spike Recov	Spike Dup Conc	SpikeD Recov	RPD	LCL	UCL	RPD Lim.	Recov. Flag	RPD Flag
<u>Analytes</u>													
Benzene	ND	14	14	13	107.3	13	104.1	3.0	60	120	20		
Toluene	ND	75	72	80	93.6	80	90.8	3.0	60	120	20		
Ethylbenzene	ND	18	18	18	100.4	18	98.0	2.4	60	120	20		
Xylenes, Total	1.3	95	93	93	100.8	93	97.8	3.0	60	120	20		
Gasoline Range Organics	ND	1,100	1,200	1,100	102.3	1,100	109.6	6.9	75	125	20		

Surrogates:

Difluorobenzene(PID)	49	50	48	50	100.0	50	96.0	4.1	60	120	20		
Bromo fluoro benzene(PID)	99	100	96	100	100.0	100	96.0	4.1	60	120	20		
Bromo fluoro benzene	92	110	110	100	110.0	100	110.0	0.0	60	120	20		
Difluorobenzene	49	51	52	50	102.0	50	104.0	1.9	60	120	20		

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## QC Recovery Report

Work Order:A0008094

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Prep Batch Number: A000830002

Base Sample A000830002-MB      Anal. Method: GRO/BTEX by AK101/SW-8021B  
Spike Sample A000830002-LCS      Sample Prep Date: 8/30/00 12:00:00AM  
Spike Duplicate: A000830002-LCSD      Analysis Units: ug/L  
LCS/LCSD Report      Matrix: Aqueous

Analyte	Samp. Result	Spike Result	Sp. Dup. Result	Spike Conc	Spike Recov	Spike Dup Conc	SpikeD Recov	RPD	LCL	UCL	RPD Lim.	Recov. Flag	RPD Flag
<b>Analytics</b>													
Benzene	ND	12	13	13	91.1	13	98.8	8.1	60	120	20		
Toluene	ND	76	73	80	95.1	80	91.0	4.5	60	120	20		
Ethylbenzene	ND	19	18	18	105.1	18	101.6	3.3	60	120	20		
Xylenes, Total	0.91	92	88	93	97.5	93	93.6	4.1	60	120	20		
Gasoline Range Organics	ND	1,200	1,100	1,100	104.4	1,100	103.1	1.3	75	125	20		

<b>Surrogates:</b>													
Difluorobenzene(PID)	50	50	48	50	100.0	50	96.0	4.1	60	120	20		
Bromofluorobenzene(PID)	91	84	81	100	84.0	100	81.0	3.6	60	120	20		
Bromofluorobenzene	90	100	97	100	100.0	100	97.0	3.0	60	120	20		
Difluorobenzene	51	56	53	50	112.0	50	106.0	5.5	60	120	20		

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: 587 Lab Project Number: A0008094

Test: DRO by AK 102 Prep Date: 8/29/00  
Lab Method Blank Id: A000829008-MB  
Prep Batch ID: A000829008  
Method: DRO by AK 102

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

<u>SampleNum</u>	<u>ClientSampleName</u>	<u>DataFile</u>	<u>AnalysisDate</u>
A000829008-LCSD	LCSD	W0091160.D	9/11/00 5:30:00PM
A0008094-01B	TAL00MP001Q03	W0091161.D	9/11/00 5:57:00PM
A0008094-02B	TAL00MP018Q03	W0091162.D	9/11/00 6:25:00PM
A0008094-03B	TAL00MP008Q03	W0091163.D	9/11/00 6:52:00PM
A0008094-04B	TAL00MP017Q03	W0091164.D	9/11/00 7:19:00PM
A0008094-06B	TAL00MP009Q03	W0091170.D	9/11/00 11:44:00PM
A0008094-07B	TAL00MP010Q03	W0091171.D	9/12/00 12:11:00AM
A0008094-08B	TAL00MW002Q03	W0091172.D	9/12/00 12:38:00AM
A0008094-09B	TAL00MW001Q03	W0091173.D	9/12/00 1:05:00AM
A0008094-10B	TAL00MW003Q03	W0091174.D	9/12/00 1:32:00AM
A0008094-12B	TAL00MW004Q03	W0091176.D	9/12/00 2:26:00AM
A0008094-13B	TAL00MW010Q03	W0091177.D	9/12/00 2:53:00AM
A0008094-14B	TAL00MW042Q03	W0091178.D	9/12/00 3:20:00AM
A0008094-16B	TAL00MW019Q03	W0091179.D	9/12/00 3:47:00AM
A000829008-LCS	LCS	W0091255.D	9/12/00 12:24:00PM
A0008094-05B	TAL00MP003Q03	W0091256.D	9/12/00 12:52:00PM
A0008094-11B	TAL00MP006Q03	W0091257.D	9/12/00 1:19:00PM
A0008094-17B	TAL00MW009Q03	W0091263.D	9/12/00 4:02:00PM
A0008094-18B	TAL00MW044Q03	W0091264.D	9/12/00 4:30:00PM
A0008094-19B	TAL00EB003Q03	W0091265.D	9/12/00 4:57:00PM
A0008094-20B	TAL00MW013Q03	W0091266.D	9/12/00 5:24:00PM
A0008094-21B	TAL00MW014Q03	W0091267.D	9/12/00 5:51:00PM

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: 587 Lab Project Number: A0008094

Test:	DRO by AK 102	Prep Date: 8/29/00
Lab Method Blank Id:	A000829009-MB	
Prep Batch ID:	A000829009	
Method:	DRO by AK 102	

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

<u>SampleNum</u>	<u>ClientSampleName</u>	<u>DataFile</u>	<u>AnalysisDate</u>
A000829009-LCS	LCS	W0091261.D	9/12/00 3:08:00PM
A000829009-LCSD	LCSD	W0091262.D	9/12/00 3:35:00PM
A0008094-22B	TAL00EB002Q03	W0091268.D	9/12/00 6:18:00PM
A0008094-23B	TAL00MW018Q03	W0091269.D	9/12/00 6:45:00PM
A0008094-24B	TAL00EB001Q03	W0091272.D	9/12/00 8:07:00PM
A0008094-25B	TAL00MW043Q03	W0091273.D	9/12/00 8:34:00PM
A0008094-26B	TAL00MW006Q03	W0091274.D	9/12/00 9:01:00PM
A0008094-27B	TAL00MW005Q03	W0091275.D	9/12/00 9:29:00PM
A0008094-28B	TAL00MW017Q03	W0091276.D	9/12/00 9:56:00PM
A0008094-29B	TAL00MW007Q03	W0091277.D	9/12/00 10:23:00PM
A0008094-30B	TAL00MW015Q03	W0091278.D	9/12/00 10:50:00PM
A0008094-31B	TAL00MW012Q03	W0091279.D	9/12/00 11:17:00PM
A0008094-32B	TAL00DR001Q03	W0091280.D	9/12/00 11:45:00PM

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: 587 Lab Project Number: A0008094

Test: GRO/BTEX by AK101/SW-8021B Prep Date: 8/30/00

Lab Method Blank Id: A000830001-MB

Prep Batch ID: A000830001

Method: GRO/BTEX by AK101/SW-8021B

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

<u>SampleNum</u>	<u>ClientSampleName</u>	<u>DataFile</u>	<u>AnalysisDate</u>
A000830001-LCS	LCS	N0083005.D	8/30/00 11:15:00AM
A000830001-LCSD	LCSD	N0083006.D	8/30/00 11:44:00AM
A0008094-01A	TAL00MP001Q03	N0083009.D	8/30/00 1:10:00PM
A0008094-02A	TAL00MP018Q03	N0083010.D	8/30/00 1:39:00PM
A0008094-03A	TAL00MP008Q03	N0083011.D	8/30/00 2:08:00PM
A0008094-04A	TAL00MP017Q03	N0083012.D	8/30/00 2:37:00PM
A0008094-05A	TAL00MP003Q03	N0083013.D	8/30/00 3:06:00PM
A0008094-06A	TAL00MP009Q03	N0083014.D	8/30/00 3:34:00PM
A0008094-07A	TAL00MP010Q03	N0083017.D	8/30/00 5:00:00PM
A0008094-08A	TAL00MW002Q03	N0083018.D	8/30/00 5:29:00PM
A0008094-09A	TAL00MW001Q03	N0083019.D	8/30/00 5:57:00PM
A0008094-10A	TAL00MW003Q03	N0083020.D	8/30/00 6:26:00PM
A0008094-11A	TAL00MP006Q03	N0083021.D	8/30/00 6:55:00PM
A0008094-12A	TAL00MW004Q03	N0083022.D	8/30/00 7:23:00PM
A0008094-13A	TAL00MW010Q03	N0083023.D	8/30/00 7:52:00PM
A0008094-14A	TAL00MW042Q03	N0083024.D	8/30/00 8:20:00PM
A0008094-15A	TAL00TB002Q03	N0083025.D	8/30/00 8:49:00PM
A0008094-16A	TAL00MW019Q03	N0083026.D	8/30/00 9:18:00PM
A0008094-17A	TAL00MW009Q03	N0083027.D	8/30/00 9:46:00PM
A0008094-19A	TAL00EB003Q03	N0083029.D	8/30/00 10:43:00PM
A0008094-20A	TAL00MW013Q03	N0083030.D	8/30/00 11:12:00PM
A0008094-18A	TAL00MW044Q03	N0083106.D	8/31/00 11:40:00AM

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

Project: FAA Tanana GWS  
Client: CH2M Hill of Alaska  
Client Project Number: FAA Tanana GWS

## QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: 587 Lab Project Number: A0008094

Test: GRO/BTEX by AK101/SW-8021B Prep Date: 8/30/00

Lab Method Blank Id: A000830002-MB

Prep Batch ID: A000830002

Method: GRO/BTEX by AK101/SW-8021B

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

<u>SampleNum</u>	<u>ClientSampleName</u>	<u>DataFile</u>	<u>AnalysisDate</u>
A0008094-21A	TAL00MW014Q03	NULL	8/30/00 10:02:00AM
A0008094-22A	TAL00EB002Q03	NULL	8/30/00 10:30:00AM
A0008094-23A	TAL00MW018Q03	NULL	8/30/00 10:58:00AM
A0008094-24A	TAL00EB001Q03	NULL	8/30/00 11:26:00AM
A0008094-25A	TAL00MW043Q03	NULL	8/30/00 11:54:00AM
A0008094-26A	TAL00MW006Q03	NULL	8/30/00 12:50:00PM
A0008094-27A	TAL00MW005Q03	NULL	8/30/00 2:46:00PM
A0008094-28A	TAL00MW017Q03	NULL	8/30/00 3:14:00PM
A0008094-29A	TAL00MW007Q03	NULL	8/30/00 3:42:00PM
A0008094-30A	TAL00MW015Q03	NULL	8/30/00 4:10:00PM
A0008094-31A	TAL00MW012Q03	NULL	8/30/00 4:38:00PM
A0008094-32A	TAL00DR001Q03	NULL	8/30/00 5:06:00PM
A0008094-33A	TAL00TB003Q03	NULL	8/30/00 5:33:00PM
A000830002-LCS	LCS	NULL	8/30/00 9:05:00AM
A000830002-LCSD	LCSD	NULL	8/30/00 9:34:00AM

# Detailed Analytical Report

Analytica Alaska Inc.  
Workorder (SDG): A0008094

**Project:** FAA Tanana GWS  
**Client:** CH2M Hill of Alaska  
**Client Project Number:** FAA Tanana GWS

## DATA FLAGS AND DEFINITIONS

### Result Field:

ND = Not Detected at or above the Reporting Limit Shown  
NA = Analyte not applicable (see Case Narrative for discussion)

### Qualifier Fields:

LOW = Recovery is below Low Control Limit  
HIGH = Recovery , RPD, or other parameter is above Upper Control Limit  
E = Reported concentration is above the instrument calibration upper range  
DIL = Sample required dilution to bring analytes within calibration range of the instrument.  
At the dilution level required, the surrogate could not be quantified due to the resulting low surrogate concentration and/or coelution interference from the sample.

### Organic Analysis Flags:

B = Analyte was detected in the laboratory method blank  
J = Analyte was detected above 2 x MDL but below the Reporting Limit (Quant Limit)

### Inorganic Analysis Flags:

B = Analyte was detected above the MDL or IDL but below the Reporting Limit  
W = Post digestion spike did not meet criteria  
S = Reported value determined by the Method of Standard Additions (MSA)



**ATTACHMENT 2**  
**LABORATORY DATA VALIDATION REVIEW**

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## **Laboratory Data Validation Review**

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This report summarizes a review of analytical results for groundwater samples collected on August 22 and 23, 2000, for the Federal Aviation Administration (FAA) Tanana groundwater-monitoring project, Delivery Order # 75. Samples were collected by CH2-OH, and submitted to Analytica Alaska Inc. (Analytica) in Anchorage, Alaska. Samples were analyzed for the following parameters: diesel-range organics (DRO) by Alaska Method (AK) 102, gasoline range organics (GRO) by AK101, and benzene, toluene, ethylbenzene, and xylenes (BTEX) by Environmental Protection Agency (EPA) Method SW8021. Analytica report numbers A0008084 and A0008094 were reviewed. The table summarizes sample identification, laboratory-assigned sample numbers, dates collected, and qualifiers.

### **Quality Assurance Program**

A quality assurance (QA) program was followed that addressed project administration, sampling protocols, data review, and data QA. Sample QA was provided by CH2-OH through strict adherence to sampling protocols. Chain-of-custody (COC) procedures were followed as an integral part of the QA program.

Data validation consisted of the following:

- Verifying that quality control (QC) blanks were properly prepared, identified, and analyzed
- Reviewing COC records for completeness, signatures, and dates

### **Data Qualifications**

The comments presented in this report refer to field procedures and the laboratory's performance in meeting the QC specifications. The sample results were reviewed using the following documents:

- EPA Document 530/SW-846, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, fourth edition (EPA, November 1991)
- EPA Document 540/R-94/012, EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (EPA, February 1994)
- EPA Document 540/R-94/013, EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (EPA, February 1994)

Data qualifiers were assigned to the results in this report.



## **Data Validation**

### **Data Package**

The data packages were checked for transcription errors, omissions, or other anomalies. The following anomalies were found:

Sample TAL00MW018Q03 was listed twice on the COC.

### ***Holding Times and Preservation***

Samples were appropriately preserved and stored in iced coolers until arrival at Analytica. Sample analyses were conducted within holding time criteria.

### ***Laboratory Method Blanks***

Laboratory method blanks were analyzed at the appropriate frequencies. No analytes were detected in method blanks at or above the practical quantification limits (PQL).

### ***Trip Blanks***

Trips blanks were analyzed at the appropriate frequencies. No analytes were detected in trip blanks at or above the PQL.

### ***Surrogate Recovery Results***

Surrogate analyses were performed at the required frequencies, and the results were within Analytica percent recovery acceptance limits with the following exceptions:

DRO surrogate o-Terphenyl recoveries for samples TAL00MP003Q03 and TAL00MP006Q03 were outside acceptance limits. The qualifier "J" has been assigned to DRO results for these samples

### ***Matrix Spike/Matrix Spike Duplicate***

Matrix spike and matrix spike duplicate (MS/MSD) analyses were not performed on these samples.

### ***Field Duplicates***

QA/QC field duplicates were not collected.

### **Overall Assessment**

The data are judged to be acceptable for use.



### **Precision, Accuracy, and Completeness**

- **Precision:** Precision goals were met.
- **Accuracy:** Accuracy goals were met with the exception of surrogate recoveries stated above.
- **Completeness:** Completeness goals were met.



**Table**  
**Sample Summary**

Sample ID	Matrix	Laboratory ID	Date Collected	Analyte	Qualifier
TAL00MP001Q03	Water	A0008094-01	8/23/00	NQ	NQ
TAL00MP018Q03	Water	A0008094-02	8/23/00	NQ	NQ
TAL00MP008Q03	Water	A0008094-03	8/23/00	NQ	NQ
TAL00MP017Q03	Water	A0008094-04	8/23/00	NQ	NQ
TAL00MP003Q03	Water	A0008094-05	8/23/00	DRO	J
TAL00MP009Q03	Water	A0008094-06	8/23/00	NQ	NQ
TAL00MP010Q03	Water	A0008094-07	8/23/00	NQ	NQ
TAL00MW002Q03	Water	A0008094-08	8/23/00	NQ	NQ
TAL00MW001Q03	Water	A0008094-09	8/23/00	NQ	NQ
TAL00MW003Q03	Water	A0008094-10	8/23/00	NQ	NQ
TAL00MP006Q03	Water	A0008094-11	8/23/00	DRO	J
TAL00MW004Q03	Water	A0008094-12	8/23/00	NQ	NQ
TAL00MW010Q03	Water	A0008094-13	8/23/00	NQ	NQ
TAL00MW042Q03	Water	A0008094-14	8/23/00	NQ	NQ
TAL00MW019Q03	Water	A0008094-16	8/24/00	NQ	NQ
TAL00MW009Q03	Water	A0008094-17	8/24/00	NQ	NQ
TAL00MW044Q03	Water	A0008094-18	8/24/00	NQ	NQ
TAL00EB003Q03	Water	A0008094-19	8/24/00	NQ	NQ
TAL00MW013Q03	Water	A0008094-20	8/24/00	NQ	NQ
TAL00MW014Q03	Water	A0008094-21	8/24/00	NQ	NQ
TAL00EB002Q03	Water	A0008094-22	8/24/00	NQ	NQ
TAL00MW018Q03	Water	A0008094-23	8/24/00	NQ	NQ
TAL00EB001Q03	Water	A0008094-24	8/24/00	NQ	NQ
TAL00MW043Q03	Water	A0008094-25	8/24/00	NQ	NQ
TAL00MW006Q03	Water	A0008094-26	8/24/00	NQ	NQ
TAL00MW005Q03	Water	A0008094-27	8/24/00	NQ	NQ
TAL00MW017Q03	Water	A0008094-28	8/24/00	NQ	NQ
TAL00MW007Q03	Water	A0008094-29	8/24/00	NQ	NQ
TAL00MW015Q03	Water	A0008094-30	8/24/00	NQ	NQ
TAL00MW012Q03	Water	A0008094-31	8/24/00	NQ	NQ
TAL00DR001Q03	Water	A0008094-32	8/24/00	NQ	NQ



Sample ID	Matrix	Laboratory ID	Date Collected	Analyte	Qualifier
TAL00MP011Q03	Water	A0008084-01	8/22/00	NQ	NQ
TAL00MP012Q03	Water	A0008084-02	8/22/00	NQ	NQ
TAL00MP014Q03	Water	A0008084-03	8/22/00	NQ	NQ
TAL00MP016Q03	Water	A0008084-04	8/22/00	NQ	NQ
TAL00MP023Q03	Water	A0008084-05	8/22/00	NQ	NQ
TAL00MP024Q03	Water	A0008084-06	8/22/00	NQ	NQ
TAL00MP025Q03	Water	A0008084-07	8/22/00	NQ	NQ
TAL00MP028Q03	Water	A0008084-08	8/22/00	NQ	NQ
TAL00MP029Q03	Water	A0008084-09	8/22/00	NQ	NQ
TAL00MW011Q03	Water	A0008084-10	8/22/00	NQ	NQ
TAL00MW008Q03	Water	A0008084-11	8/22/00	NQ	NQ
TAN00MW041Q03	Water	A0008084-12	8/22/00	NQ	NQ
TAL00MP015Q03	Water	A0008084-13	8/23/00	NQ	NQ

NQ denotes no qualification necessary.

J denotes an approximate value.

Primary Sample

No-purge split sample

TAL00MW010Q03

TAL00MW042Q03

TAL00MP025Q03

TAL00MW041Q03

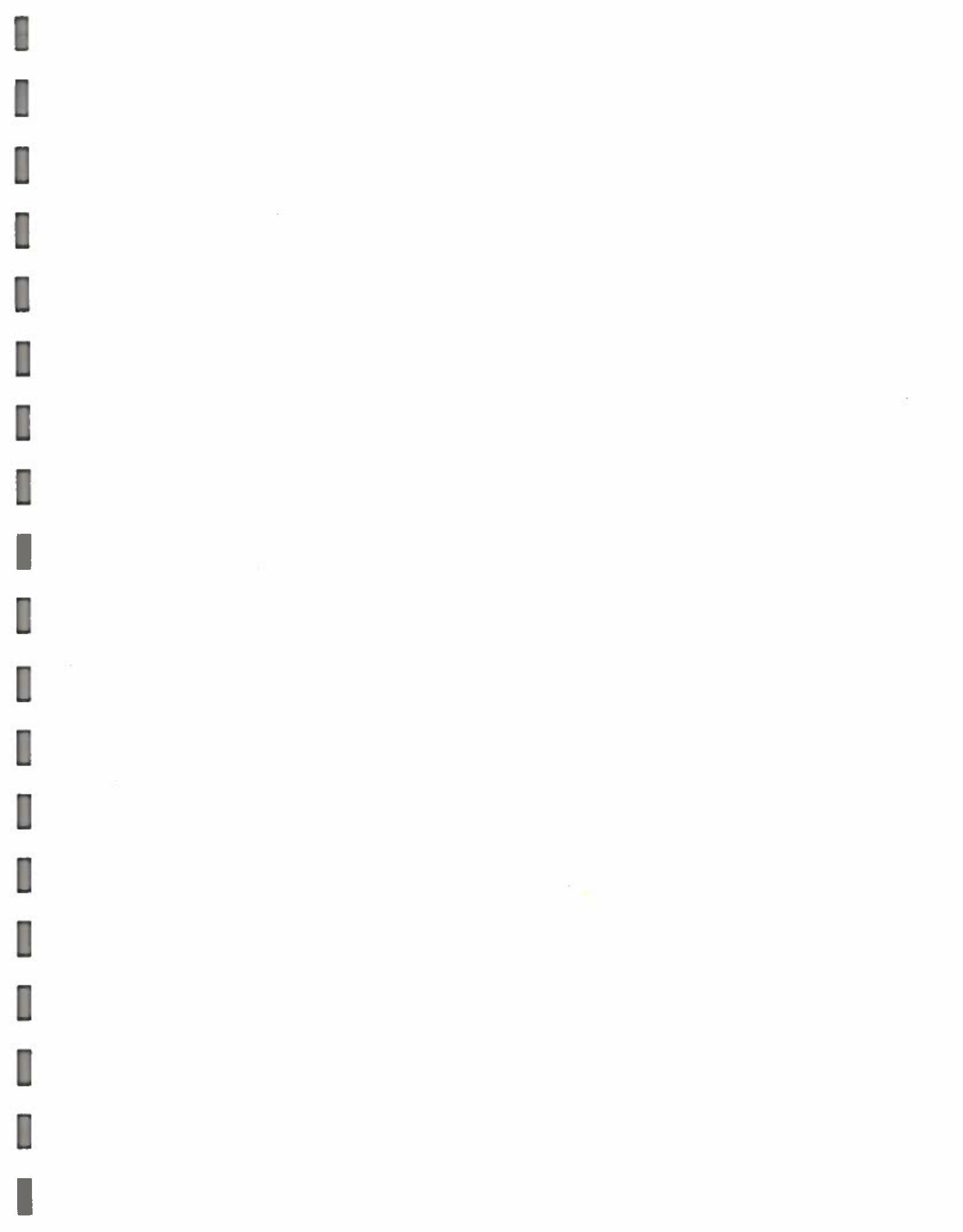
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TAL00MW044Q03

TAL00MW009Q03

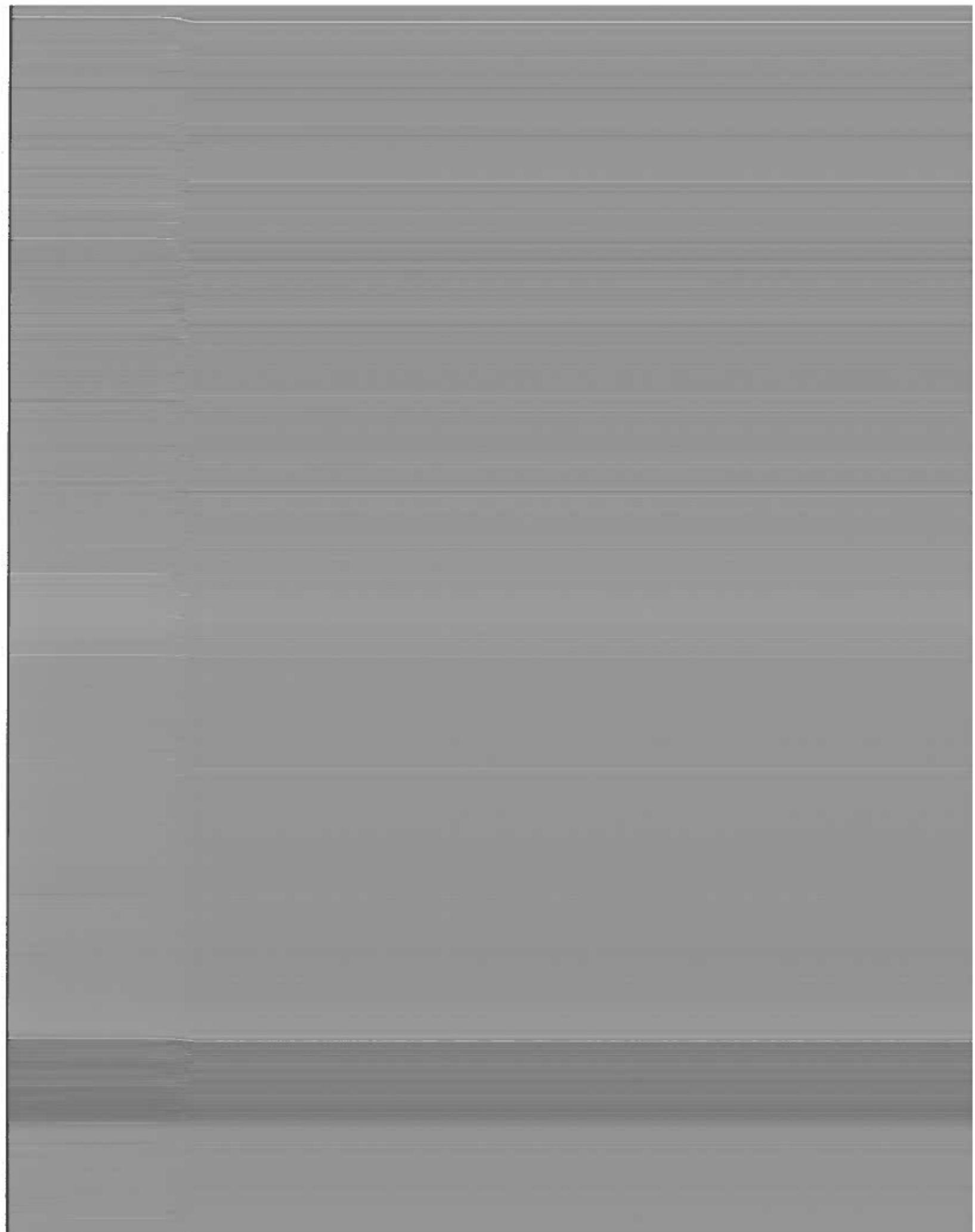
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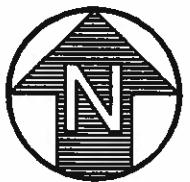






## **FIGURES**





MW019

MW015

MP002  
MP001  
MW020  
MP003  
SHOP BLDG. #206

(STATE)

MP006

GARAGE (STATE)  
BLDG.

PAINT HOUSE (STATE)  
GARAGE (STATE)

LEGEND	
MW014	MONITORING WELL LOCATION
MP008	MONITORING PROBE

TO AIRPORT AND FSS BUILDING

STREAM

MW009

MW010

FORMER GREENHOUSE I (REMOVED) MW013

SHOP BLDG. #106  
MP007

MP015

QUARTERS #100  
MP008

QUARTERS #101  
MP018

QUARTERS #102  
MP014

MW018

COMSERFAC #300  
MP023

MW011

MP016

MP013

MP014

MP010

MP017

MP009

ENG-GEN #600  
MP012

MW006

MP025

MW017

MP011

MP028

MW005

MW004

BLDG. #30 (REMOVED)

MW003

MW002

BLDG. #602 (REMOVED)

MW001

STREAM  
DISCHARGE TO YUKON RIVER

TO TANANA

YUKON RIVER



## GROUNDWATER MONITORING PROBE AND WELL LOCATIONS - SITE MAP

LIVING QUARTERS AREA, TANANA FAA STATION  
Tanana, Alaska

70 0 35 70  
SCALE: 1" = 70'

CLIENT:  
FAA

PROJECT MANAGER:	APPROVED:	DESIGNED:	SCALE:	REVISION:	FIGURE:
W. WESTERVELT	L. NICHOLSON	L. NICHOLSON	1" = 70'	0	1
PROJECT NO.: 810845	DRAWN: R. BEST	DATE: 10-10-00	FILE: 810845_012_02.DWG		

