Northern, Inc.
· Consulting Engineers · Environmental Scientists · Construction Material Testing

6713 W. Clearwater, Ste. F
Kennewick, WA 99336
(509) 734-9320
Fax (509) 734-9321

722 No. 16th Ave., Ste. 31
Yakima, WA 98902
(509) 248-9798
Fax (509) 248-4220

9757 Juanita Dr. N.E., Ste. 121
Kirkland, WA 98034
(425) 825-0327
Fax (425) 825-0328

81006 Hwy. 395 No.
Hermiston, OR 97838
(541) 564-0991
Fax (541) 564-0928

September 8, 1999

Mr. Jeff Anderson
Sportland Mini-Mart
4400 Bullfrog Road
Cle Elum, WA 98922

UST # 2200

RE: Quarterly Groundwater Monitoring, Sportland Mini-Mart, Cle Elum Washington

Dear Mr. Anderson:

GN Northern, Inc. (GN Northern) is pleased to submit the following update on groundwater sampling activities at the referenced site. Groundwater samples were collected from three on-site monitoring wells on August 18, 1999.

Background

Previously, GN Northern had completed groundwater sampling at the site. Groundwater samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX, EPA Method 602/8020), and total petroleum hydrocarbons as gasoline (NWTPH-G, Modified EPA Method 8015). Analytical laboratory test results confirmed that petroleum hydrocarbons were not detected in the groundwater samples collected from monitoring wells #1, #2 or #4 (MW #1) at concentrations above the model Toxics Control Act Method A Cleanup Levels. However, free product has been observed in monitoring wells #3 and #5.

Summary

Groundwater was sampled in four site wells to evaluate the conditions on August 18, 1999. Approximately 0.5 inches of free product was measured in monitoring wells #3 and #5. Groundwater samples from monitoring wells #2 and #4 were submitted to the analytical laboratory for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX, EPA Method 602/8020) and total petroleum hydrocarbons (NWTPH-G Modified EPA Method 8015). Analytical laboratory test results confirm that petroleum hydrocarbons were detectable in water samples collected from MW #4. Benzene and xylenes were present at concentrations above the Model Toxic Central Act Method A cleanup level (Table 1).

A sample could not be collected from monitoring well #1 because of the surface cover and piping had been damaged during snow removal in the winter.

Based upon the results of our quarterly groundwater monitoring, we have scheduled another monitoring event for November 1999. We have also been working on developing a biologic dosage rate for the existing wells The microbes will not be effective for free product but should be suitable for the wells based upon minimal free product or when free product is inundated as water levels rise. If you have any questions please feel free to contact us at your convenience.

Respectfully Submitted,

GN NOTHERN, INC.

Gerald G. Harper
Division Manager

Table 1
Summary of Groundwater Monitoring Data
Sportland Min-Mart
Clem Elum, Washington

Well ID	Date Sample Number	TPH – G (ppb)	Benzene (ppb) (B)	Toluene (ppb) (T)	Etylbenzene (ppb) (E)	Xylenes (ppb) (X)
MW – 2	08-18-99	ND	2.8	ND	ND	ND
MW – 4	08-18-99	890	12	2.3	ND	120

Notes: ppb = parts per billion is equivalent to micrograms per liter (ug/l).
ND – indicates compound not detected at the listed method detection limit. Samples analyzed by WTPH-G/BTEX comb.
Method Detection Limits: Benzene 1 ug/1, Toluene 1 ug/1, Ethylbenze 1 ug/1, Xylene 1 ug/1, and TPH-G 100 ug/1.
Model Toxics Control Act (MTCA) Method A cleanup levels: Benzene 1 ug/1, Toluene 40 ug/1, Ethylbenzene 30 ug/1, and TPH-g 1,000 ug/1.

QA/QC FOR ANALYTICAL METHODS

GENERAL

The TEG Northwest Laboratory quality assurance and quality control (QA/QC) procedures are conducted following the guidelines and objectives which meet or exceed certification/-accreditation requirements of California DOHS, Washington DOE, and Oregon DEQ. The Quality Control Program is a consistent set of procedures which assures data quality through the use of appropriate blanks, replicate analyses, surrogate spikes, and matrix spikes, and with the use of reference standards that meet or exceed EPA standards.

When analyses are taking place on-site with the mobile lab, the need for Field Blanks or Travel/Trip Blanks is eliminated. If there is going to be a delay before sample preparation for analysis, the sample is stored at 4^{o} C.

ANALYTICAL METHODS

TEG Northwest Labs use analytical methodologies which are in conformity with U. S. Environmental Protection Agency (EPA), Washington DOE, and Oregon DEQ methodologies. When necessary and appropriate due to the nature or composition of the sample, TEG may use variations of the methods which are consistent with recognized standards or variations used by the industry and government laboratories.

TPH-Gasoline, TPH-Diesel

(Gasoline and/or Diesel, Modified EPA 8015, NWTPH-Gx and NWTPH-Dx)

A check standard is run at the beginning of the day. 1) A close standard is run at the end of the day. 2) Both open and close standards must be within 15% of the continuing calibration curve value. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135% unless high sample concentrations interfere with the determination of the recovery percentage. A duplicate sample is run at a rate of 1 per 10 samples. At least 1 method blank is run per 20 samples analyzed.

Purgeable Volatile Aromatics
(BTEX, EPA 8021B)

A check standard is run at the beginning of the day. The check standard is run at the end of the day. Both open and close standards must be within 15% of the continuing calibration curve value. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135% unless high sample concentrations interfere with the determination of the recovery percentage. At least 1 method blank is run per day.

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECORD

CLIENT: Sportsland Mini Mart / c/o GN Northern
ADDRESS: 6713 W. Clearwater, Suite F Kennewick WA
PHONE: 509 734-9320 FAX: 509734-9321
CLIENT PROJECT #: 198-334 PROJECT MANAGER: G. Harper

DATE: 8-19-99 PAGE 1 OF 1
PROJECT NAME: Sportsland Mini Mart
LOCATION: Clr Elum, Washington
COLLECTOR: G. Harper DATE OF COLLECTION 8-19-99

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 8010/8021B	VOA 8021B BTEX	VOA 8260	SEMI VOL 8270	TPH - HCID	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (d & o)	PAH 8100	PCBs 8082	Pesticides 8081	TOTAL LEAD	pH	MWTPH-G/BTEX	NOTES	Total Number of Containers	Laboratory Note Number
1. MW-2	—	2:20	H_2O	Vials														X		3	
2. MW-4	—	3:00	↓	↓														X		3	
3.																					
4.																					
5.																					
6.																					
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RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
[signature]	8/19/99 4:50		
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Julie Miller	8/20/99		

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Turn Around Time: