Northern, Inc.

- Consulting Engineers
- Environmental Scientists
- Special Structural Inspections
- Construction Materials Testing

SPORTLAND MINIMART
Cle Elum

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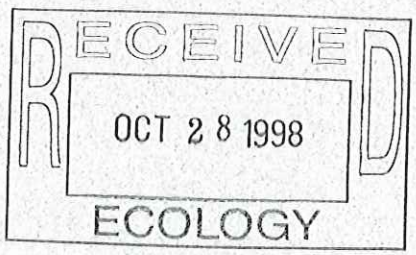

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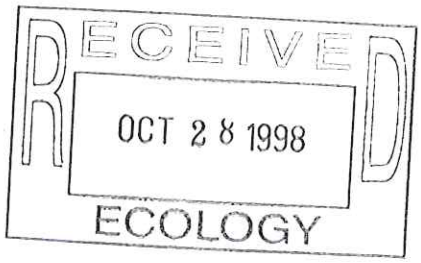
GN Northern Job No. 198-334
GN Northern Document No. 198-334.RPT

UNDERGROUND STORAGE TANK SITE ASSESSMENT
SPORTLAND MINI-MART TEXACO
4400 BULLFROG ROAD
CLE ELUM, WASHINGTON

Prepared for
Mr. Jeff Anderson
4400 Bullfrog Road
Cle Elum, WA 98922



Prepared by
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Justin Bolles
Environmental Geologist

Gerald Harper
Environmental Program Manager

October 22, 1998

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EXECUTIVE SUMMARY

GN Northern has completed underground storage tank site assessment activities for the Sportland Mini-mart Texaco Service Station site located at 4400 Bullfrog Road in Cle Elum, Washington. This report presents our findings on the decommissioning of two 10,000 gallon gasoline underground storage tanks (USTs), one covered pump island, and associated equipment. The USTs were decommissioned between the dates of September 29, and October 1, 1998.

Prior to conducting excavation activities, the tanks were pumped of remaining product and inerted. Residual petroleum product pumped from the USTs prior to removal was stored on-site in five 55-gallon drums until disposal/recycling logistics can be finalized. The condition of the removed tanks and ancillary equipment was visually verified by GN Northern personnel. The steel tanks and removed piping were in good condition with no signs of perforations and/or seam failures.

Analytical laboratory test results revealed that gasoline range petroleum hydrocarbons were detected in soil sample # *Disp. Island* collected from a depth of 3.5 feet below ground surface beneath the dispenser island. Total petroleum hydrocarbons as gasoline (TPH-G) and xylene concentrations of 3,370.0 mg/kg and 54.4 mg/kg were detected above the Model Toxics Control Act (MTCA) Method A cleanup levels of 100.0 mg/kg for gasoline and 20.0 mg/kg for xylene in soil. Elevated concentrations of benzene (0.11 mg/kg), toluene (0.66 mg/kg) and ethylbenzene (1.66 mg/kg) in the sample were below MTCA Method A cleanup levels. Petroleum hydrocarbons were not detected in soil samples collected from the tank excavation or beneath the piping between the dispenser island and the tank excavation.

The tank excavation was backfilled with imported fill and about 88 yds^3 of clean stockpiled overburden material. Limited overexcavation was completed beneath the dispenser island to remove approximately 48 yds^3 of the shallower impacted soil. Additionally, about 364 yds^3 of impacted soil was removed from the new tank excavation just south of the dispenser island that was being prepared for the new tank system. The impacted soil was transported to Taneum Recovery in Ellensburg, Washington, for treatment and reuse. The USTs were transported off-site to the Kittitas Co. solid waste facility (Ryegrass Landfill) in Kittitas, Washington, under the direction of Mr. Derald Gaidos,

the Kittitas Co. fire marshal. The piping was transported to the A&A Auto Wreckers scrap yard in Cle Elum, Washington, for disposal.

In conclusion, UST closure activities including excavation, tank removal observations, analytical testing, and site evaluation have been completed for the site. Results of the subsurface investigation indicated that a release had occurred. Soil with gasoline range petroleum hydrocarbon contaminant concentrations above the MTCA Method A cleanup levels remain in soil beneath the dispenser island and within the suspected groundwater fluctuation zone. In a separate proposal, GN Northern has recommended additional site characterization be performed at the site to assess the extent of the contamination and the need for further cleanup action. Although the exact date of the release has not been determined, it appears that the release occurred from beneath the dispenser pump island.

Two copies of the report and the Site Assessment Checklist must be filed with WDOE. WDOE will retain the report and closure documents with their records in accordance with Washington Administrative Code (WAC) 173-360-630. GN Northern recommends that this report be kept as documentation of the tank removal activities in accordance with WAC 173-360-398.

1.0 PROJECT DESCRIPTION

1.1 Introduction

GN Northern, Inc. (GN Northern) has completed underground storage tank site assessment activities for the Sportland Mini-mart Texaco Service Station site located at 4400 Bullfrog Road in Cle Elum, Washington (Site Location Map - Figure 1, Appendix 1). This report presents our findings on the decommissioning of two 10,000 gallon gasoline underground storage tanks (USTs), one covered pump island, and associated equipment. The USTs were decommissioned between the dates of September 29, and October 1, 1998.

1.2 Purpose and Scope

The purpose of this project was to assist responsible parties in complying with current United States Environmental Protection Agency (EPA) and Washington State Department of Ecology (WDOE) regulations and guidelines for the assessment of UST sites (WDOE, 1991 and 1992). Site specific objectives included evaluating the presence of petroleum hydrocarbons in subsurface soils using field observations and confirmational laboratory sampling.

The following scope of services was performed for this assessment:

- An environmental professional was mobilized to the site with the appropriate equipment to perform the required site assessment. The environmental professional was registered with WDOE to perform environmental site assessments and had 40 hour Occupational Safety and Health Administration (OSHA) hazardous waste site operations training.

- The USTs and ancillary equipment were inspected for areas of severe rusting, perforations, and seam failures. Dimensions, appearance, and corrosion protection methods were noted and documented.

- The excavation areas were evaluated by our field personnel for signs of contamination including visible free product, soil discoloration, and odor. Selected soil samples were screened with a photoionization detector (PID) to determine the presence or absence of volatile organic vapors.

- Selected soil samples were collected from the excavation boundaries, beneath the piping run and below the dispenser island. The samples were shipped to a WDOE approved laboratory for selective analysis of total petroleum hydrocarbons as gasoline

(TPH-G) by Method NWTPH-G, volatile constituents: benzene, toluene, ethlybenzene and xylenes (BTEX) by EPA Method 8020, and lead by EPA Method 7420. Sampling locations were chosen based on field observations and at pre-specified points described by WDOE guidelines (WDOE, 1992).

- This report was prepared to summarize the field activities performed and the findings of the assessment.

1.3 Project Background

GN Northern was contacted on September 21, 1998, by Mr. Jeff Anderson to assist in the preliminary evaluation of a petroleum hydrocarbon release at the site prior to performing UST site assessment activities. The release was discovered by Joe Hall Construction of Selah, Washington, during UST installation and upgrade activities. Field personnel performed subsequent tank decommissioning and excavation activities under the supervision of a WDOE registered decommissioning supervisor employed by Joe Hall Construction.

GN Northern mobilized an environmental professional to the site on September 22, 1998, to document field conditions and collect representative subsurface media samples for characterization and laboratory analysis. Soil samples *B-16'BGS* and *SP-1* were collected from the base of the new tank excavation at a depth of 16 feet below ground surface (BGS) and the stockpiled contaminated soil, respectively. Groundwater was observed at a depth of about 16.5 feet BGS in the new tank excavation. Groundwater sample *GW-1* was collected by hand in a 40 ml VOA vial from the base of the new tank excavation to provide an estimate of groundwater contaminant concentrations. The soil and groundwater samples were submitted to Transglobal Environmental Geosciences Northwest, Inc. (TEG) for analysis of TPH-G and BTEX. Because leaded gasoline was historically used at the site, the soil samples were also analyzed for lead.

Analytical laboratory test results indicated that soil samples *B-16'BGS* and *SP-1* contained gasoline range petroleum hydrocarbon concentrations of 190.0 mg/kg and 1,800.0 mg/kg, respectively. These concentrations exceeded the Model Toxics Control Act (MTCA) Method A cleanup level of 100.0 mg/kg for gasoline range petroleum hydrocarbons in soil. Elevated BTEX concentrations were also

detected in both samples, but only soil sample *SP-1* contained benzene and xylene concentrations which exceeded MTCA Method A cleanup levels. Lead was not detected in either sample.

Elevated BTEX and TPH-G concentrations were detected in groundwater sample *GW-1*. Concentrations of BTEX and TPH-G were 470.0 ug/l, 1,600.0 ug/l, 440.0 ug/l, 1,900.0 ug/l, and 31,000.0 ug/l, respectively. These concentrations exceed the established MTCA Method A cleanup levels of 5.0 ug/l (benzene), 40.0 ug/l (toluene), 30.0 ug/l (ethylbenzene), 20.0 ug/l (xylene), and 1,000.0 ug/l (TPH-G) for these compounds. Analytical laboratory test reports and chain-of-custody documentation are provided in Appendix 2.

2.0 SITE CHARACTERISTICS

2.1 Site Description

The site is identified as the Sportland Mini-mart located at 4400 Bullfrog Road in Cle Elum, Washington. Mr. Jack Wadkins is the present owner of the property and Mr. Jeff Anderson is the operator of the site. Mr. Anderson [Sportland Mini-mart Texaco, 4400 Bullfrog Road, Cle Elum, Washington 98922 - (509) 649-2258] is the authorized representative and contact.

An approximate legal description for the site is the southwest quarter of the southwest quarter of section 21, township 20 north, range 15 east of the W.M. in Kittitas County, Washington. Based on the USGS 7.5 minute series topographic map of the area (Cle Elum Quadrangle), the latitude is 47 degrees 12 minutes 30 seconds and the longitude is 120 degrees 58 minutes 48 seconds. A Site Plan (Figure 2) is provided in Appendix 1.

2.2 Geology

The site is situated between the Cascade Range and the Columbia River Plateau physiographic province. The Columbia Plateau is comprised of a series of flood basalts which cover most of central and eastern Washington. In the site vicinity the Cascade range is composed of Eocene volcanic basalt of the Teanaway Formation. Overlying the Teanaway Formation is sedimentary coastal plain deposits of the Roslyn Formation (Alt and Hyndman, 1984).

The site area is generally level with elevations ranging between 2,120 and 2,135 feet above mean sea level (USGS, 1984). During our site assessment activities the subsurface soil was generally found to be silty gravel (GM). The material was slightly moist, non-plastic, loose to very dense, and brown in color.

2.3 Hydrology

The nearest surface water is the southeasterly flowing Crystal Creek, located about 0.20 mile northeast of the site. The Crystal Creek drainage area is primarily northwest of the site. The creek flows into the Yakima River, approximately 2.0 miles east of the site. Groundwater was encountered in a site excavation at a depth of about 16.5 feet BGS. Based on subsurface information,

groundwater flow is toward the northeast and Crystal Creek. We expect that the groundwater flow may fluctuate seasonally.

2.4 Site History/Regulated Material Issues

The two 10,000 gallon steel USTs were installed about 15 years ago for a new retail gasoline sales facility. According to the property owner, the tanks had been previously used prior to their installation at the site (Wadkins, 1998). Leaded and unleaded gasoline were the only fuel sold at the facility. A UST site assessment was performed in order to comply with current EPA and WDOE regulations and guidelines.

3.0 ASSESSMENT PROCEDURES

3.1 Survey Methods

For each UST system, the tank is inerted, uncovered, and cleaned in place by the excavation contractor. The tank is then removed from the ground and inspected for signs of leakage or closed in place. Visible cracks, seam failures, severe rusting, and staining may signify that a petroleum product release has occurred. The product piping is generally removed and inspected for signs of leakage including loose pipe fittings, cracks, and staining.

The excavation and/or tank basin area is surveyed for hydrocarbon staining that commonly creates discoloration of the soil. Dark grey, black, or green discoloration is suggestive of soil contaminated by petroleum products. Hydrocarbon odors also are often observable if a release has occurred. Soil samples are retained for field screening with a PID and for laboratory analysis based on field observations or at pre-specified locations. Volatile organic vapor screening procedures consist of scanning excavated soil samples with a PID, Microtip Model 100, to determine if volatile organic compounds are present. Headspace samples are prepared by the sampler according to the following procedure: a) collect the samples in airtight plastic bags; b) puncture each bag with the PID instrument probe after sample temperatures have equilibrated; and c) withdraw the trapped air for analysis. These field analyses provide a qualitative indication of the relative amounts of volatile residual liquid hydrocarbons present in the sample and are not to be interpreted as actual contaminant concentrations. If a petroleum product release is not readily apparent, soil samples are retained for laboratory analysis based on field observations or at pre-specified locations.

3.2 Field Observations

An environmental professional from GN Northern arrived at the site to assess the excavation area and collect soil samples between the dates of September 29, and October 1, 1998. Prior to conducting excavation activities, the tanks were pumped of remaining product and inerted. Using a trackhoe, Joe Hall Construction personnel removed the soil overlying the tanks. After removing overburden soil and excavating around the tank sides, the tanks were removed from the subsurface. A small amount of groundwater was observed at a depth of about 14.5 feet BGS during soil sample collection. The dispenser island and piping were also removed during the decommissioning activities.

3.2.1 Tank Condition

The condition of the removed tanks and ancillary equipment was visually verified by GN Northern personnel. The tanks and removed piping were in good condition. Based on the presence of impacted soil beneath the dispenser island, it appears that fuel leakage had occurred from a dispenser fitting. Perforations and/or seam failures were not readily apparent in the tanks or piping. Physical information pertaining to the tank are presented in Table 1.

Table 1
Summary of Tank Physical Data
Sportland Mini-mart Texaco

Tank No.	Construction Materials	Additional Protection	Diameter (ft)	Length (ft)	Capacity (gallons)	Age (years)	Former Contents
1	Steel	None	8	28	10,000	15	Gasoline
2	Steel	None	8	28	10,000	15	Gasoline

3.2.2 Field Activities

Soils from the excavation areas and stockpiles were visually examined for evidence of petroleum hydrocarbon contamination. Strong odors and hydrocarbon staining were observed in the soil from beneath the dispenser island. Instrument responses between 0.0 and 1,701 parts per million (ppm) were observed during volatile organic vapor screening of the soil samples. Following field screening procedures, four soil samples were collected from the UST basin (two grab samples beneath the base of the tanks and two composite sidewall samples), one grab sample from beneath the piping run, one grab sample from beneath the dispenser island, and three grab samples from the approximately 88 cubic yards (yds^3) of stockpiled soil. Composite samples *#NE Comp* and *#WS Comp* were made from soil collected from the north-east sidewalls and west-south sidewalls, respectively.

3.3 Analytical Results

Representative soil samples were collected in 4 oz. glass jars with teflon lids for laboratory analysis. All samples were placed in a cooler with ice and remained in the custody of GN Northern personnel

until shipment to TEG by overnight courier. Time and date of sample collection, sample identification numbers, custody personnel, and time and date received by the laboratory were transcribed onto the chain-of-custody form for each sample. Selected samples were analyzed for TPH-G, BTEX, and lead. Analytical laboratory test results are summarized in Tables 2 and 3. Laboratory reports and chain-of-custody documentation are contained in Appendix 2. The sample locations are shown on Figure 2.

Table 2
Summary of NWTPH-G Analysis in Soil
Sportland Mini-mart Texaco

Date Sample No.	Location[1]	Sample Type Matrix	Analyte	Concentration[2] TPH[3] (mg/kg)
9-30-98 TSP-1	Stockpile, 1.0'	Grab Soil	Gasoline	ND
9-30-98 TSP-2	Stockpile, 1.0'	Grab Soil	Gasoline	ND
9-30-98 TSP-3	Stockpile, 1.0'	Grab Soil	Gasoline	ND
9-30-98 BS-1	Tank-1- Base, 14.0'	Grab Soil	Gasoline	ND
9-30-98 BS-2	Tank-2-Base, 14.0'	Grab Soil	Gasoline	ND
9-30-98 NE Comp	North/East Sidewall, 8.0'	Composite Soil	Gasoline	ND
9-30-98 WS Comp	West/South Sidewall, 8.0'	Composite Soil	Gasoline	ND
9-30-98 PT-1	Piping Trench, 3.0'	Grab Soil	Gasoline	ND
9-30-98 Disp. Island	Dispenser Island, 3.5'	Grab Soil	Gasoline	3,370

Notes: [1] Sample locations are characterized by area from which the sample was obtained and the depth (in feet) below ground surface.

[2] Soil sample results are reported as a dry weight basis in milligrams per kilogram (mg/kg).

[3] TPH = Total Petroleum Hydrocarbons.

ND indicates compound not detected at the listed method detection limit.

Method Detection Limit: Gasoline (10.0 mg/kg).

Model Toxics Control Act (MTCA) Method A Cleanup Level for TPH as gasoline (100 mg/kg).

Samples analyzed by Method NWTPH-G.

Table 3
Summary of BTEX Analysis in Soil
Sportland Mini-mart Texaco

Date · Sample No.	Location[1]	Sample Type Matrix	Analyte			
			Benzene (mg/kg)[2] **(B)**	Toluene (mg/kg) **(T)**	Ethylbenzene (mg/kg) **(E)**	Xylenes (mg/kg) **(X)**
9-30-98 TSP-1	Stockpile, 1.0'	Grab Soil	ND	ND	ND	ND
9-30-98 TSP-2	Stockpile, 1.0'	Grab Soil	ND	ND	ND	ND
9-30-98 TSP-3	Stockpile, 1.0'	Grab Soil	ND	ND	ND	ND
9-30-98 BS-1	Tank-1-Base, 14.0'	Grab Soil	ND	ND	ND	ND
9-30-98 BS-2	Tank-2-Base, 14.0'	Grab Soil	ND	ND	ND	ND
9-30-98 NE Comp	North/East Sidewall, 8.0'	Composite Soil	ND	ND	ND	ND
9-30-98 WS Comp	West/South Sidewall, 8.0'	Composite Soil	ND	ND	ND	ND
9-30-98 PT-1	Piping Trench, 3.0'	Grab Soil	ND	ND	ND	ND
9-30-98 Disp. Island	Dispenser Island, 3.5'	Grab Soil	0.11	0.66	1.66	54.4

Notes: [1] Sample locations are characterized by area from which the sample was obtained and the depth (in feet) below ground surface.

[2] Soil sample results are reported as a dry weight basis in milligrams per kilogram (mg/kg).

ND indicates compound not detected at the listed method detection limit.

Method Detection Limits: Benzene (0.05 mg/kg), Toluene (0.05 mg/kg), Ethylbenzene (0.05 mg/kg), and Xylene (0.05 mg/kg).

Model Toxics Control Act (MTCA) Method A Cleanup Level for Benzene (0.5 mg/kg), Toluene (40.0 mg/kg), Ethylbenzene (20.0 mg/kg), and Xylene (20.0 mg/kg).

Samples analyzed by EPA Method 8020.

3.3.1 Analytical Results

Analytical laboratory test results (Tables 2 and 3) show that gasoline range petroleum hydrocarbons were detected in soil sample # *Disp. Island* collected from a depth of 3.5 feet BGS beneath the dispenser island. TPH-G and xylene concentrations of 3,370.0 mg/kg and 54.4 mg/kg were detected above the MTCA Method A cleanup levels of 100.0 mg/kg for gasoline and 20.0 mg/kg for xylene in soil. Elevated concentrations of benzene (0.11 mg/kg), toluene (0.66 mg/kg) and ethylbenzene (1.66 mg/kg) in the sample were below MTCA Method A cleanup levels.

3.3.2 Analytical Results Summary

Analytical laboratory test results confirm that a release of gasoline had occurred at the site. Petroleum hydrocarbons were not detected in soil samples collected from the tank excavation or beneath the piping between the dispenser island and the tank excavation. Gasoline range petroleum hydrocarbons were detected in soils beneath the dispenser island.

3.4 Material Disposal and Backfill

The tank excavation was backfilled with imported fill and about 88 yds^3 of clean stockpiled overburden material. Limited overexcavation was completed beneath the dispenser island to remove approximately 48 yds^3 of the shallower impacted soil. Additionally, about 364 yds^3 of impacted soil was removed from the new tank excavation just south of the dispenser island that was being prepared for the new tank system.

The USTs were transported off-site to the Kittitas Co. solid waste facility (Ryegrass Landfill) in Kittitas, Washington, under the direction of Mr. Derald Gaidos, the Kittitas Co. fire marshal. The piping was transported to the A&A Auto Wreckers scrap yard in Cle Elum, Washington, for disposal. Residual petroleum product pumped from the USTs prior to removal was stored on-site in five 55-gallon drums until disposal/recycling logistics can be finalized.

4.0 CONCLUSIONS/RECOMMENDATIONS

GN Northern has completed underground storage tank site assessment activities for the Sportland Mini-mart Texaco Service Station site located at 4400 Bullfrog Road in Cle Elum, Washington. This report presents our findings on the decommissioning of two 10,000 gallon gasoline USTs, one covered pump island, and associated equipment. The USTs were decommissioned between the dates of September 29, and October 1, 1998.

Prior to conducting excavation activities, the tanks were pumped of remaining product and inerted. Residual petroleum product pumped from the USTs prior to removal was stored on-site in five 55-gallon drums until disposal/recycling logistics can be finalized. The condition of the removed tanks and ancillary equipment was visually verified by GN Northern personnel. The steel tanks and removed piping were in good condition with no signs of perforations and/or seam failures.

Analytical laboratory test results revealed that gasoline range petroleum hydrocarbons were detected in soil sample # *Disp. Island* collected from a depth of 3.5 feet BGS beneath the dispenser island. TPH-G and xylene concentrations of 3,370.0 mg/kg and 54.4 mg/kg were detected above the MTCA Method A cleanup levels of 100.0 mg/kg for gasoline and 20.0 mg/kg for xylene in soil. Elevated concentrations of benzene (0.11 mg/kg), toluene (0.66 mg/kg) and ethylbenzene (1.66 mg/kg) in the sample were below MTCA Method A cleanup levels. Petroleum hydrocarbons were not detected in soil samples collected from the tank excavation or beneath the piping between the dispenser island and the tank excavation.

The tank excavation was backfilled with imported fill and about 88 yds^3 of clean stockpiled overburden material. Limited overexcavation was completed beneath the dispenser island to remove approximately 48 yds^3 of the shallower impacted soil. Additionally, about 364 yds^3 of impacted soil was removed from the new tank excavation just south of the dispenser island that was being prepared for the new tank system. The impacted soil was transported to Taneum Recovery in Ellensburg, Washington, for treatment and reuse. The USTs were transported off-site to the Kittitas Co. solid waste facility (Ryegrass Landfill) in Kittitas, Washington, under

the direction of Mr. Derald Gaidos, the Kittitas Co. fire marshal. The piping was transported to the A&A Auto Wreckers scrap yard in Cle Elum, Washington, for disposal.

In conclusion, UST closure activities including excavation, tank removal observations, analytical testing, and site evaluation have been completed for the site. Results of the subsurface investigation indicated that a release had occurred. Soil with gasoline range petroleum hydrocarbon contaminant concentrations above the MTCA Method A cleanup levels remain at depth in soil beneath the dispenser island and within the suspected groundwater fluctuation zone. In a separate proposal, GN Northern has recommended additional site characterization be performed at the site to assess the extent of the contamination and the need for further cleanup action. Although the exact date of the release has not been determined, it appears that the release occurred from beneath the dispenser pump island. The permanent closure of the former UST system has been completed in accordance with EPA and WDOE guidelines.

5.0 REPORTING REQUIREMENTS

The WDOE UST Site Assessment Checklist has been completed for documentation purposes and is included in Appendix 3. Two copies of the report and the Site Assessment Checklist must be filed with WDOE. WDOE will retain the report and closure documents with their records in accordance with Washington Administrative Code (WAC) 173-360-630. GN Northern recommends that this report be kept as documentation of the tank removal activities in accordance with WAC 173-360-398.

6.0 LIMITATIONS

This work was performed in accordance with the generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area. GN Northern observed a degree of care and skill generally exercised by other consultants under similar circumstances and conditions. GN Northern's findings and conclusions must be considered not as scientific certainties, but as opinions based on our professional judgement concerning the significance of the data gathered during the course of monitoring. Other than this, no warranty is implied or intended.

7.0 REFERENCES

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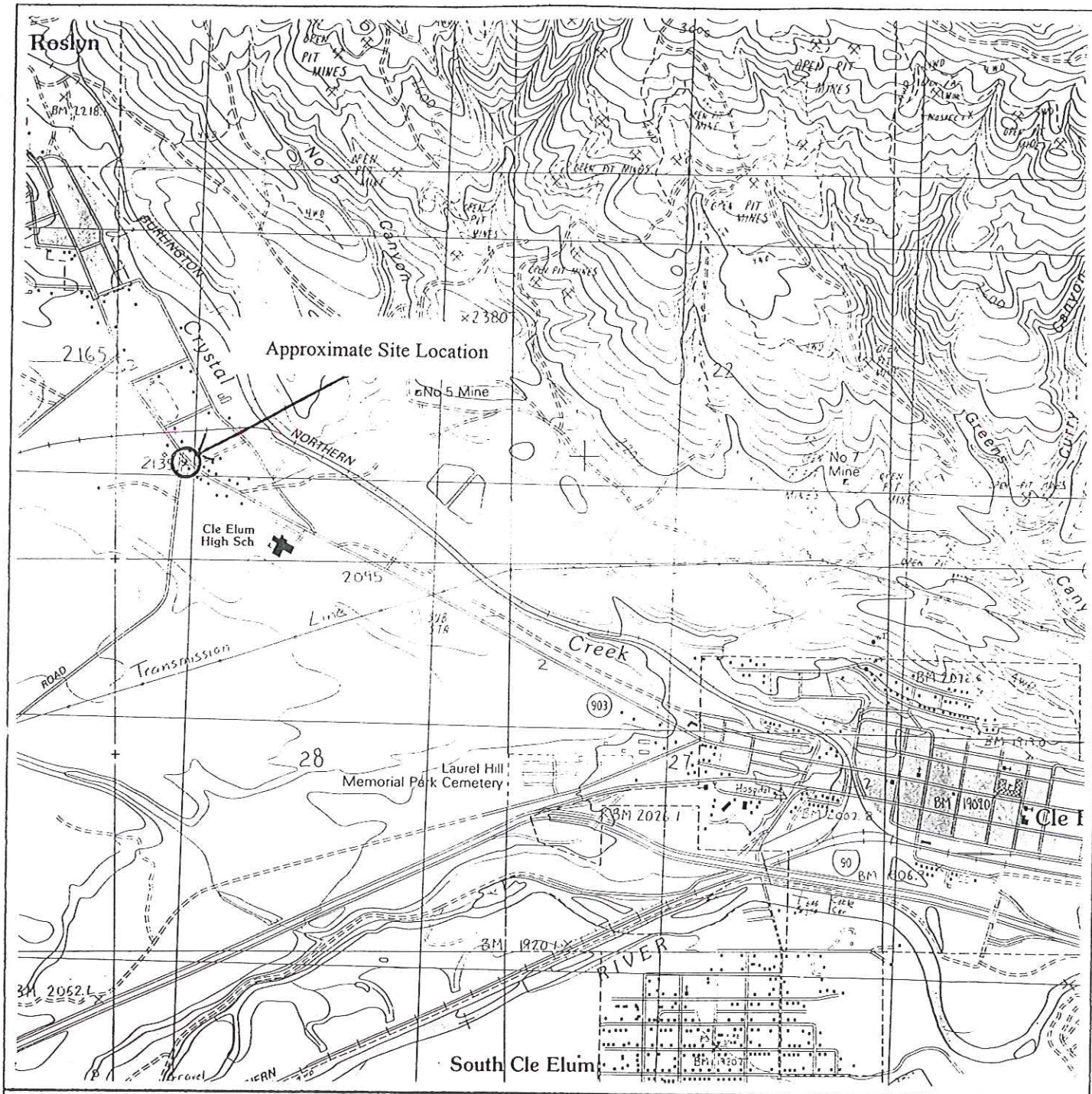
APPENDIX 1
Figures



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CONTOUR INTERVAL 40 FEET

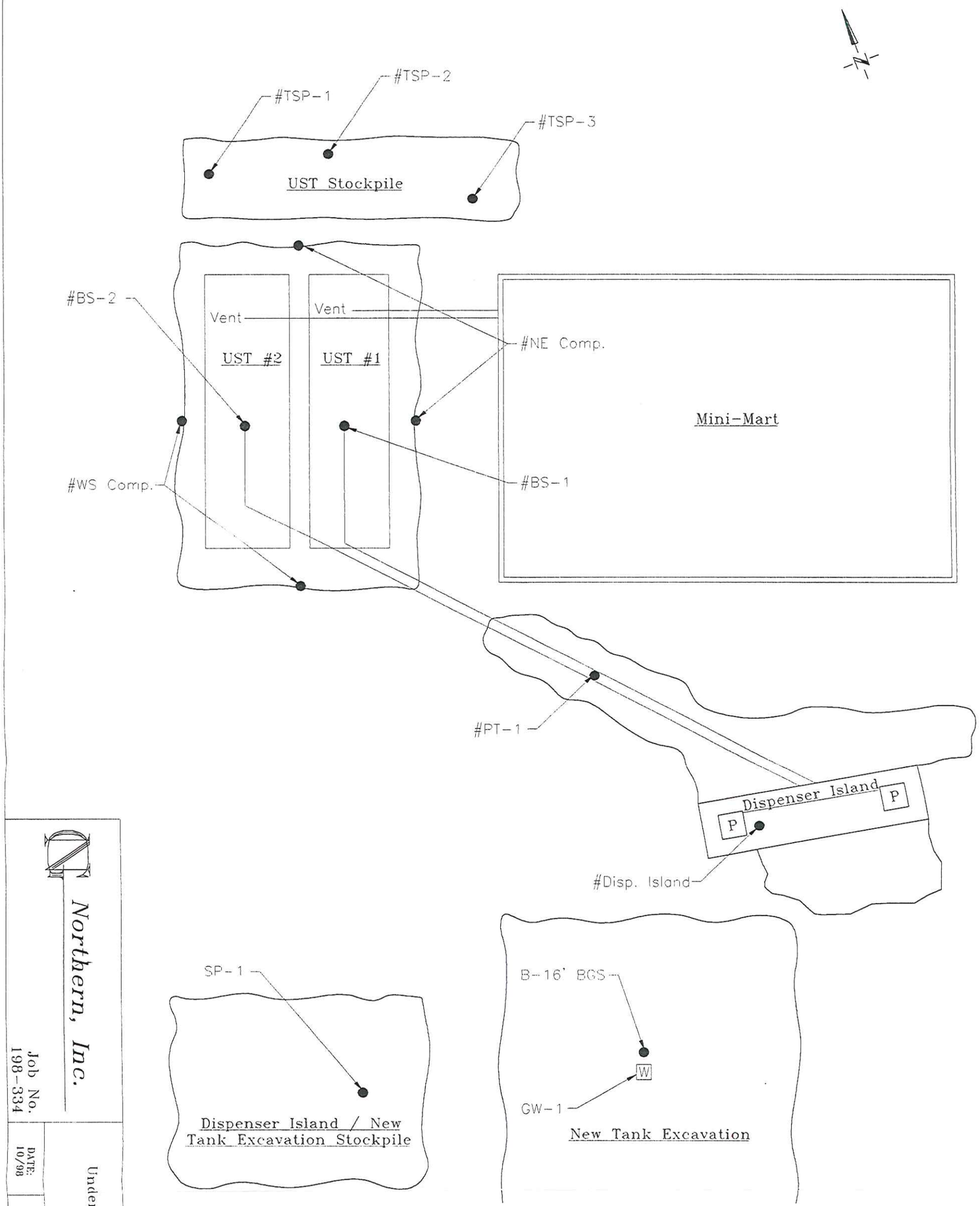
Northern, Inc.

Job No. 198-334

Site Location Map

USGS 7.5 Minute Series (Cle Elum Quadrangle)
Underground Storage Tank Site Assessment
Anderson Texaco Site
Cle Elum, Washington

DATE:	DRAWN BY:	REVIEWED BY:	SCALE:	FIGURE NO
1984	JB	GH	As Shown	1



Northern, Inc.

Job No. 198-334

DATE: 10/98

DRAWN BY: JB

REVIEWED BY: GH

SCALE: Shown

FIGURE NO. 2

Site Plan
Underground Storage Tank Site Assessment
Anderson Texaco Site
Cle Elu, Washington

APPENDIX 2
Analytical Laboratory Test Results and Chain-of-Custody Documentation

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

7110 38th Drive SE
Lacey, Washington 98503

Mobile Environmental Laboratories
Environmental Sampling Services

Telephone: 360-459-4670
Fax: 360-459-3432

September 25, 1998

Justin Bolles
GN Northern, Inc.
6713 West Clearwater Ave., Suite F
Kennewick, WA 99336

Dear Mr. Bolles:

Please find enclosed the analytical data report for the Anderson Texaco Project in Cle Ellum, Washington. Soil and water samples were analyzed for Lead by Method 7420, Gasoline by NWTPH-Gx and BTEX by Method 8020 on September 25, 1998.

The results of these analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. The invoice for this work has been sent to your Yakima office for payment. A copy of the invoice is enclosed for your records.

TEG Northwest appreciates the opportunity to have provided analytical services to GN Northern for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A. Korosec
President

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 602/8020)

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.

ANDERSON TEXACO PROJECT
Cle Ellum, Washington
G N Northern, Inc.
Project No.: 198-334

Gasoline (NWTPH-Gx) & BTEX (EPA 8020) Analyses for Soils

Sample Number	Date Analyzed	Benzene mg/kg	Toluene mg/kg	Eth Benz mg/kg	Xylene mg/kg	Gasoline mg/kg	Recovery (%)
Meth. Blank	09/23/98	nd	nd	nd	nd	nd	103
SP-1	09/23/98	1.1	8.1	10	47	1800	115
B-16' BGS	09/23/98	0.21	1.8	1.0	5.5	190	82
Detection Limits		0.05	0.05	0.05	0.05	10	

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interferences prevent determination.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

ANDERSON TEXACO PROJECT
Cle Elum, Washington
GN Northern, Inc.

Heavy Metals in Soil by EPA-7000 Series

EPA-Method #		7420
Sample Number	Date	Pb mg/kg
Meth. Blank	09/25/98	nd
SP-1	09/25/98	nd
B-16	09/25/98	nd
Method Detection Limit		5

"nd" Indicates not detected at the listed detection limit.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

ANDERSON TEXACO PROJECT
Cle Ellum, Washington
G N Northern, Inc.
Project No.: 198-334

Gasoline (NWTPH-Gx), & BTEX (EPA 8020) Analyses for Water

Sample Number	Date Analyzed	Benzene ug/l	Toluene ug/l	Eth Benz ug/l	Xylene ug/l	Gasoline ug/l	Recovery (%)
Meth. Blank	09/23/98	nd	nd	nd	nd	nd	103
GW-1	09/23/98	470	1600	440	1900	31000	96
Detection Limits		1	1	1	1	100	

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interferences prevent determination.

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECORD

CLIENT: GN NORTHERN, INC.

ADDRESS: 6713 W. Clearwater Ave. #F Kennewick, WA 99336

PHONE (509) 734-9320 FAX: (509) 734-9321

CLIENT PROJECT #: 198-334 PROJECT MANAGER: BOLLES

DATE: 9-22-98 PAGE 1 OF 1

PROJECT NAME: ANDERSON TEXACO

LOCATION: CLE ELUM, WA

COLLECTOR: [signature] DATE OF COLLECTION 9-22-98

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH (8015 (diesel)	TPH 8015 (g & d)	PAH 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS	WTPHG/BTEX Combo	FIELD NOTES	Total Number of Containers	Laboratory Note Number
GW-1	—	1:10P	W	40mL VOA															X				
SP-1	1.0	11:20A	S	4oz JAR												X			X				
B-16'BGS	16.0	1:00P	S	4oz JAR												X			X				
WS-10'BGS	10.0	1:15P	S	4oz JAR																	HOLD		
ES-10'BGS	10.0	1:25P	S	4oz JAR																	HOLD		
NS-10'BGS	10.0	1:20P	S	4oz JAR																	HOLD		

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
[signature]	9-22-98 4:10P	FEDEX	9-22-98 4:05P
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

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:

PLEASE HOLD ALL SAMPLES.

Lead as per phone w/ Justin Bolles 9/23 10am CK

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

7110 38th Drive SE
Lacey, Washington 98503

Mobile Environmental Laboratories
Environmental Sampling Services

Telephone: 360-459-4670
Fax: 360-459-3432

October 5, 1998

Justin Bolles
GN Northern, Inc.
6713 West Clearwater Ave., Suite F
Kennewick, WA 99336

Dear Mr. Bolles:

Please find enclosed the analytical data report for the Anderson Texaco Project in Cle Ellum, Washington. Soil samples were analyzed for Gasoline by NWTPH-Gx and BTEX by Method 8020 on October 2, 1998.

The results of these analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. The invoice for this work has been sent to your Yakima office for payment. A copy of the invoice is enclosed for your records.

TEG Northwest appreciates the opportunity to have provided analytical services to GN Northern for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A Korosec

Michael A. Korosec
President

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)

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Purgeable Volatile Aromatics
(BTEX, EPA 602/8020)

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.

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

ANDERSON TEXACO PROJECT
Cle Ellum, Washington
GN Northern, Inc.
Project No.: 198-334

Gasoline (WTPH-Gx) & BTEX (EPA 8020) Analyses for Soils

Sample Number	Date Analyzed	Benzene mg/kg	Toluene mg/kg	Eth Benz mg/kg	Xylene mg/kg	Gasoline mg/kg	Recovery (%)
Meth. Blank	10/02/98	nd	nd	nd	nd	nd	100
BS-1	10/02/98	nd	nd	nd	nd	nd	86
BS-2	10/02/98	nd	nd	nd	nd	nd	114
NE Comp	10/02/98	nd	nd	nd	nd	nd	95
WS Comp	10/02/98	nd	nd	nd	nd	nd	100
TSP-1	10/02/98	nd	nd	nd	nd	nd	105
TSP-2	10/02/98	nd	nd	nd	nd	nd	95
TSP-3	10/02/98	nd	nd	nd	nd	nd	119
Disp Island-	10/02/98	0.11	0.66	1.66	54.4	3370	133
PT-1	10/02/98	nd	nd	nd	nd	nd	90
Detection Limits		0.05	0.05	0.05	0.05	10	

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interferences prevent determination.

teg TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES

CHAIN-OF-CUSTODY RECORD

CLIENT: GN NORTHERN, INC.

ADDRESS: 6713 W. Clearwater Ave. # F KENNEWICK, WA 99336

PHONE (509) 734-9320 FAX: (509) 734-9321

CLIENT PROJECT #: 198-334 PROJECT MANAGER: BOLES

DATE: 9-30-98 PAGE 1 OF 1

PROJECT NAME: ANDERSON TEXACO

LOCATION: CLE ELUM, WA

COLLECTOR: [signature] DATE OF COLLECTION 9-30-98 10-1-98

Sample Number	Depth	Time	Sample Type	Container Type	ASBESTOS	W/TPH-G/BTEX Condo.	FIELD NOTES	Total Number of Containers	Laboratory Note Number
BS-1	14	8:35A	S	4oz Jar	X				
BS-2	14	11:30A	S	4oz Jar	X				
NE Comp	8	1:00P	S	4oz Jar	X		Composite		
WS Comp	8	1:10P	S	4oz Jar	X		Composite		
TSP-1	1	9:10A	S	4oz Jar	X				
TSP-2	1	9:15A	S	4oz Jar	X				
TSP-3	1	9:20A	S	4oz Jar	X				
Disp Island-1	3.5	2:00P	S	4oz Jar	X				
PT-1	3	9:35A	S	4oz Jar	X				

ANALYSES: VOA 601/8010; VOA 602/8020; VOA 624/8240; Semi Vol 625/8270; TPH 418.1; TPH 8015 (gasoline); TPH (8015 (diesel); TPH 8015 (g & d); PAH 610/8100; PEST/PCBs 8080; HEX CHROME; ORGANIC LEAD; TOTAL LEAD; pH

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
[signature]	4:30P 10-1-98	FEDEXPRESS	4:30P 10-1-98
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

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:

HOLD ALL SAMPLES FOLLOWING ANALYSIS

APPENDIX 3
Washington State Department of Ecology UST Site Assessment Checklist

UNDERGROUND STORAGE TANK
Site Check/Site Assessment Checklist

For Office Use Only
Owner # C V3457 JS
Site # 2200

INSTRUCTIONS:

When a release has **not** been confirmed and reported, this Site Check/Site Assessment Checklist must be completed and signed by a person registered with the Department of Ecology. **The results of the site check or site assessment must be included with this checklist.** This form must be submitted to Ecology at the address shown below within 30 days after completion of the site check/site assessment.

SITE INFORMATION: Include the Ecology site ID number if the tanks are registered with Ecology. This number may be found on the tank owner's invoice or tank permit.

TANK INFORMATION: Please list all the tanks for which the site check and site assessment is being conducted. Use the tank ID number if available, and indicate tank capacity and substance stored.

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT: Please check the appropriate item.

CHECKLIST: Please initial each item in the appropriate box.

SITE ASSESSOR INFORMATION: This form must be signed by the registered site assessor who is responsible for conducting the site check/site assessment.

Underground Storage Tank Section
Department of Ecology
P. O. Box 47655
Olympia, WA 98504-7655

SITE INFORMATION

Site ID Number (on invoice or available from Ecology if the tanks are registered): # 002200

Site/Business Name: SPORTLAND MINI-MART TEXACO

Site Address: 4402 BULLFROG ROAD (Street) Telephone: (509) 649 - 2258

CLE ELUM (City), WA (State) 98922 (ZIP-Code)

TANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
1	10,500 gal	X GASOLINE (UNL)
2	10,500 gal	GASOLINE (UNL)

RECEIVED
OCT 28 1998
ECOLOGY

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT

Check one:

- ____ Investigate suspected release due to on-site environmental contamination.
- ____ Investigate suspected release due to off-site environmental contamination.
- ____ Extend temporary closure of UST system for more than 12 months.
- ____ UST system undergoing change-in-service.
- ____ UST system permanently closed-in-place.
- X UST system permanently closed with tank removed.
- ____ Abandoned tank containing product.
- ____ Required by Ecology or delegated agency for UST system closed before 12/22/88.
- ____ Other (describe): _____

CHECKLIST

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.

		YES	NO
1.	The location of the UST site is shown on the vicinity map.	JJ.	
2.	A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in the Site Assessment Guidance)	JJ.	
3.	A summary of UST system data is provided. (see Section 3.1)	JJ.	
4.	The soils characteristics at the UST site are described. (see Section 5.2)	JJ.	
5.	Is there apparent groundwater in the tank excavation?	JJ.	
6.	A brief description of the surrounding land is provided. (see Section 3.1)	JJ.	
7.	Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.	JJ.	
8.	A sketch or sketches showing the following items is provided:		
	- location and ID number for all field samples collected	JJ.	
	- groundwater samples distinguished from soil samples (if applicable)	JJ.	
	- samples collected from stockpiled excavated soil	JJ.	
	- tank and piping locations and limits of excavation pit	JJ.	
	- adjacent structures and streets	JJ.	
	- approximate locations of any on-site and nearby utilities	JJ.	
9.	If sampling procedures different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see Section 3.4)	N/A	
10.	A table is provided showing laboratory results for each sample collected including: sample ID number, constituents analyzed for and corresponding concentration, analytical method and detection limit for that method.	JJ.	
11.	Any factors that may have compromised the quality of the data or validity of the results are described.	N/A	
12.	*The results of this site check/site assessment indicate that a confirmed release of regulated substance has occured.*	JJ.	

SITE ASSESSOR INFORMATION

Justin Bolles — PERSON REGISTERED WITH ECOLOGY

GN Northern, Inc. — FIRM AFFILIATED WITH

BUSINESS ADDRESS: 6713 W. Clearwater Ave. #F

TELEPHONE: (509) 734-9320

Kennewick, WA 99336

CITY STATE ZIP+CODE

I hereby certify that I have been in responsible charge of performing the site check/site assessment described above. Persons submitting false information are subject to penalties under Chapter 173-360 WAC.

10-9-98

Date

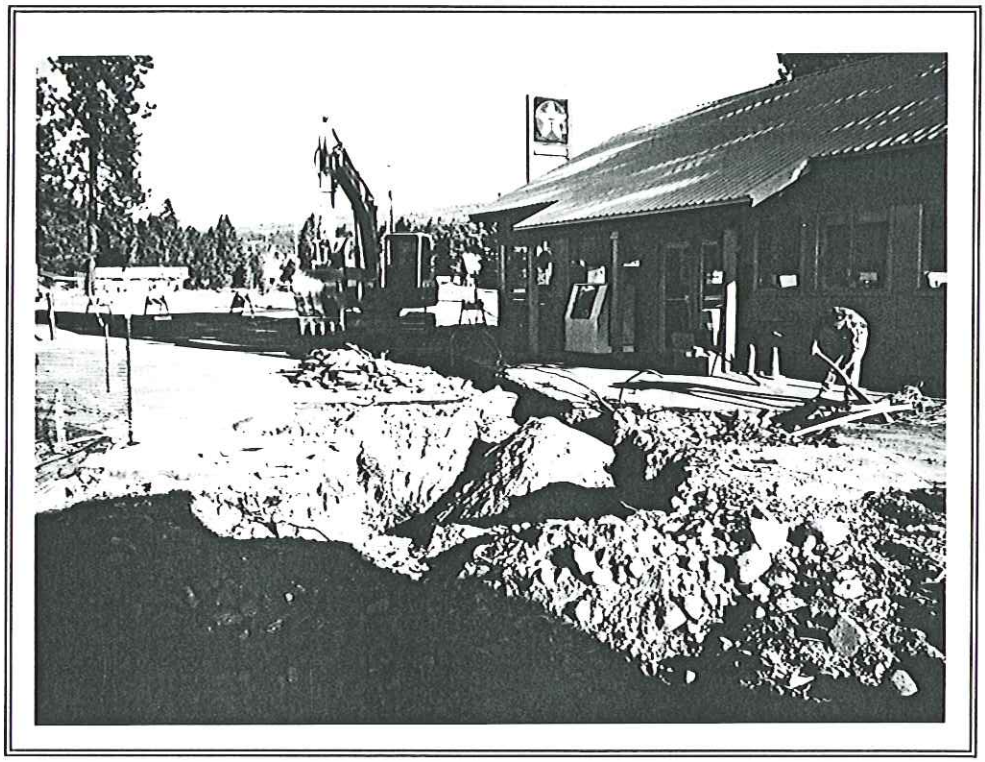
Signature of Person Registered with Ecology

APPENDIX 4
Site Photographs

PHOTOGRAPHER: Justin Bolles

DATE: 9/29/98

VIEW: Underground storage tank excavation,



PHOTOGRAPHER: Justin Bolles

DATE: 9/29/98

VIEW: Piping and dispenser island excavations during decommisioning activiies.

GN NORTHERN Job No.: 198-334	PHOTOGRAPHIC RECORDS Sportland Mini-mart Texaco Underground Storage Tank Site Assessment Cle Elum, Washington			
	DATE: 10/98	MOUNTED BY: JB	REVIEWED BY: GH	EXHIBIT NO. D