

GALLOWAY ENVIRONMENTAL, INC

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September 12, 2003

Storey Gas Station Facility Attn. Ms. Suzanne Storey 1310 East First Street Cle Elum, Washington 98922



SUBJECT:

Groundwater Quality Monitoring Report — Storey Service Station, 1310 East

First Street, Cle Elum, Washington

Dear Ms. Storey:

This Groundwater Monitoring Report presents a summary of Galloway Environmental, Inc.'s (GEI's) findings from testing of four existing groundwater monitoring wells at the above-referenced site.

This work has been completed in compliance with the Washington State Department of Ecology's ("Ecology's) requirement that groundwater compliance monitoring be completed at the site every five years – this report is intended to serve as the first of the five year sampling of the wells (see Ecology Letter to Storey Gas Station Facility, dated February 12, 2003). The next sampling event is scheduled to occur during high water table conditions in the year 2008.

GROUNDWATER SAMPLE RESULTS

Chemical results of water samples collected from monitor wells —MW-1, MW-2, MW-3 and MW-4 (in September 2003) resulted in non-detect for all compounds tested. These data confirm that petroleum compounds in all four wells have resulted in "No Detectable" petroleum compounds in any of the wells since water quality sampling began in January 1998 with the exception of one sample in MW-2 in June 4, 1998 (see Table). Based on these groundwater sample results, this site does not appear to pose any threat to human health and/or the environment. Should you have any questions regarding this report or if you would like to discuss our findings, please call me at (425) 688-8852.

Respectfully Submitted,

Thomas Tall

GALLOWAY ENVIRONMENTAL, INC.

Gary L. Galloway, RG, CHMM, REA

President

CC:

Tom Myler - Marine Vacuum Services

Brian T. Deeken, WDOE Central Division

TABLE - GROUND	WATER	MONI	TORING	WELLS S	AMPLI	ESUM	MARY	((μ/L,	ppb)	4/
Sample Number & Date		HCID Diesel		TPH- Gas		B/T/	E/X		TPH-L	ix (4)
MW-1 (1/15/98)	ND	ND	ND							
MW-1 (6/4/98)	ND	ND	ND							
MW-1 (9/16/99)	ND	ND	ND							
MW-1 (7/13/00)	ND	ND	ND							
MW-1 (10/17/00)	ND	ND	ND							
MW-1 (1/29/01)	ND	ND	ND							
MW-1 (4/30/01)	ND	ND	ND							
MW-1 (8/3/01)	ND	ND	ND							
MW-1 (2/21/02)	ND	ND	ND							
MW-1 (7/9/02)	ND	ND	ND				- 			<u> </u>
MW-1 (9/3/03)				ND	ND	ND	ND	ND	ND	ND
MW-2 (1/15/98)	ND	ND	ND							
MW-2 (6/4/98)	Gas	ND	ND	10,000	350	1,400	140	940		
MW-2 (9/16/99)	ND	ND	ND							
MW-2 (7/13/00)	ND	ND	ND							
MW-2 (10/17/00)	ND	ND	ND							ļ
MW-2 (1/29/01)	ND	ND	ND							
MW-2 (4/30/01)	ND	ND	ND							
MW-2 (8/3/01)	ND	ND	ND							
MW-2 (2/21/02)	ND	ND	ND							
MW-2 (7/9/02)	ND	ND	ND							
MW-2 (9/3/03)				ND	ND	ND	ND	ND	ND	ND
MW-3 (1/15/98)	ND	ND	ND							
MW-3 (6/4/98)	ND	ND	ND						<u> </u>	
MW-3 (9/16/99)	ND	ND	ND							
MW-3 (7/13/00)	ND	ND	ND							
MW-3 (10/17/00)	ND	ND	ND						-	
MW-3 (1/29/01)	ND	ND	ND							
MW-3 (4/30/01)	ND	ND	ND							ļ
MW-3 (8/3/01)	ND	ND	ND							
MW-3 (2/21/02) ~	ND	ND	ND					<u> </u>		
MW-3 (7/9/02)	ND	ND	ND							
MW-3 (9/3/03)				ND	ND	ND	ND	ND	ND	ND

Sample Number & Date	HCID		TPH-	B/T/E/X				TPH-Dx		
Guarge Community	Gas	Gas/Diesel/Oil		Gas			· · · · · · · · · · · · · · · · · · ·		Diese	<u> </u>
MW-4 (1/15/98)	ND	ND	ND							
MW-4 (6/4/98)	ND	ND	ND							
MW-4 (9/16/99)	ND	ND	ND							
MW-4 (7/13/00)	ND	ND	ND							
MW-4 (10/17/00)	ND	ND	ND							<u> </u>
MW-4 (1/29/01)	ND	ND	ND							
MW-4 (4/30/01)	ND	ND	ND							
MW-4 (8/3/01)	ND	ND	ND							
MW-4 (2/21/02)	ND	ND	ND							
MW-4 (7/9/02)	ND	ND	ND							
MW-4 (9/3/03)				ND	ND	ND	ND	ND	ND	NE
MTCA Action Levels				1000	5.0	40.0	30.0	20.0	1000	100

ATTACHMENT

Laboratory Chemical Results (Recent water samples- see interim status reports for earlier lab sheets)



September 8, 2003

Gary Galloway Galloway Environmental, Inc. 3102 220th Place SE Samamish, WA 98075

Re:

Analytical Data for Project Storey Laboratory Reference No. 0309-026

Dear Gary:

Enclosed are the analytical results and associated quality control data for samples submitted on September 3, 2003.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures

Laboratory Reference: 0309-026

Project: Storey

Case Narrative

Samples were collected on September 3, 2003, and received by the laboratory on September 3, 2003. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a footnote reference and will be included on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Laboratory Reference: 0309-026

Project: Storey

NWTPH-Gx/BTEX

Date Extracted:

9-4-03

Date Analyzed:

9-4-03

Matrix: Water Units: ug/L (ppb)

Client ID:

STOREY 9/3 MW-1

STOREY 9/3 MW-2

Lab ID:

09-026-01

09-026-02

			201	Result	Flags	PQL
	Result	Flags	PQL	Result	lago	•
Benzene	ND		1.0	ND		1.0
Toluene	ND		1.0	ND		1.0
Ethyl Benzene	ND		1.0	ND		1.0
m,p-Xylene	ND		1.0	ND		1.0
o-Xylene	ND		1.0	ND		1.0
•	ND		100	ND		100
TPH-Gas	MD					
Surrogate Recovery: Fluorobenzene	112%			112%		

Date of Report: September 8, 2003 Samples Submitted: September 3, 2003 Laboratory Reference: 0309-026

Project: Storey

NWTPH-Gx/BTEX

Date Extracted:

9-4-03

Date Analyzed:

9-4-03

Matrix: Water Units: ug/L (ppb)

Client ID:

STOREY 9/3 MW-3

STOREY 9/3 MW-4

Lab ID:

09-026-03

09-026-04

	Result	Flags	PQL	Result	Flags	PQL
Benzene	ND		1.0	ND		1.0
Toluene	ND		1.0	ND	•	1.0
Ethyl Benzene	ND		1.0	ND		1.0
m,p-Xylene	ND		1.0	ND		1.0
o-Xylene	ND		1.0	ND		1.0
TPH-Gas	ND		100	ND		100
Surrogate Recovery:						
Fluorobenzene	112%			111%		

Laboratory Reference: 0309-026

Project: Storey

NWTPH-Gx/BTEX
METHOD BLANK QUALITY CONTROL

Date Extracted:

9-4-03

Date Analyzed:

9-4-03

Matrix: Water Units: ug/L (ppb)

Lab ID:

MB0904W1

	Result	Flags	PQL
Benzene	ND		1.0
Toluene	ND		1.0
Ethyl Benzene	ND		1.0
m,p-Xylene	ND		1.0
o-Xylene	ND		1.0
TPH-Gas	ND		100
Surrogate Recovery: Fluorobenzene	111%		

Laboratory Reference: 0309-026

Project: Storey

NWTPH-Gx/BTEX METHOD BLANK QUALITY CONTROL

Date Extracted:

9-4-03

Date Analyzed:

9-4-03

Matrix: Water Units: ug/L (ppb)

Fluorobenzene

Lab ID:

MB0904W1

	Result	Flags	PQL
Benzene	ND		1.0
Toluene	ND		1.0
Ethyl Benzene	ND		1.0
m,p-Xylene	ND		1.0
o-Xylene	ND		1.0
TPH-Gas	ND		100
Surrogate Recovery: Fluorobenzene	111%		

Laboratory Reference: 0309-026 Project: Storey

NWTPH-Gx/BTEX DUPLICATE QUALITY CONTROL

Date Extracted:

9-4-03

Date Analyzed:

9-4-03

Matrix: Water Units: ug/L (ppb)

Lab ID:	09-026-01 Original	09-026-01 Duplicate	RPD	Flags
Benzene	ND	ND	NA	
Toluene	ND	ND	NA	
Ethyl Benzene	ND	ND	NA	
m,p-Xylene	ND	ND	NA	
o-Xylene	ND	ND	NA	
TPH-Gas	ND	ND	NA	
Surrogate Recovery: Fluorobenzene	112%	113%		

Laboratory Reference: 0309-026

Project: Storey

NWTPH-Gx/BTEX
MS/MSD QUALITY CONTROL

Date Extracted:

9-4-03

Date Analyzed:

9-4-03

Matrix: Water Units: ug/L (ppb)

Spike Level: 50.0 ppb

Lab ID:	09-026-01 MS	Percent Recovery	09-026-01 MSD	Percent Recovery	RPD	Flags
Benzene	53.2	106	53.4	107	0	
Toluene	52.1	104	52.2	104	0	
Ethyl Benzene	53.1	106	53.1	106	0	
m,p-Xylene	53.4	107	53.4	107	0	
o-Xylene	52.9	106	52.8	106	0	
Surrogate Recovery:						
Fluorobenzene	114%		114%			



Data Qualifiers and Abbreviations

Data quanners and state
A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
B. The analyte indicated was also found in the blank sample.
C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
D - Data from 1: dilution.
E - The value reported exceeds the quantitation range and is an estimate.
F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
G - Insufficient sample quantity for duplicate analysis.
H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
I - Compound recovery is outside of the control limits.
J - The value reported was below the practical quantitation limit. The value is an estimate.
K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
L - The RPD is outside of the control limits.
M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
O - Hydrocarbons outside the defined gasoline range are present in the sample.
P - The RPD of the detected concentrations between the two columns is greater than 40.
Q - Surrogate recovery is outside of the control limits.
S - Surrogate recovery data is not available due to the necessary dilution of the sample.
T - The sample chromatogram is not similar to a typical
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
W - Matrix Spike/Matrix Spike Duplicate RPD is outside control limits due to sample inhomogeneity.
X - Sample extract treated with a silica gel cleanup procedure.
Y - Sample extract treated with a silica gel/acid cleanup procedure.
Z -
ND - Not Detected at PQL MRL - Method Reporting Limit PQL - Practical Quantitation Limit RPD - Relative Percent Difference