June 25, 1991

To: Files

From: Tom Todd TT

Subject: **Sampling at Lincoln Square Apartments, Port Angeles, Clallam County**

Today, April 25, 1991, I sampled the manhole underneath (in the sub-basement) the Lincoln Apartments in Port Angeles. I collected 4 VOA vials. I had requested that they be analysed for WTPH-G and BTEX by 8020. The manhole was covered with three layers of black plactic upon my arrival. I uncovered the manhole and then removed the wooden lid. I observed a slight sheen on the water surface. Also in the water was a layer of sediment at the bottom of the manhole. The amount of non-cloudy water was only a couple of inches thick. The sediment looked as if it might be an anaerobic bacterial colony. It was rust colored and of a loose consistency. There was an odor of pesticide throughout the garage floor and in the lower level (sub-basement).

The samples remained in my custody until they were secured in the SWRO Cooler. I placed the sample bottles on ice while they were in transit.

State of Washington Department of Ecology
Manchester Environmental Laboratory
7411 Beach Dr. East Port Orchard WA. 98366

Data Review
June 15, 1991

Project: **Lincoln Square Apts**

Sample: 177921

Laboratory: Pacific Northwest Environmental Laboratory Inc. 3114

By: Stuart Magoon

Case Summary

These analyses were reviewed for qualitative and quantitative accuracy, validity, and usefulness. Specific methods used and problems incurred during the analysis are detailed in the Case Narrative and will not be addressed here. Specific problems with the QC will be noted and referenced to the Case Narrative.

There is no need to assimilate the "dilution factor" or "sample wt/vol" into the final values reported; these calculations have already been figured into the reported values.

DATA QUALIFIER DEFINITIONS

U - The material was not detected at or above the associated level.

J - The associated numerical value is an estimated quantity.

D - The associated numerical value was from an analysis that was performed at a secondary dilution.

E - The compound exceeded the calibration range and the value is considered an estimate.

BETX

Sample	Date Collect	Date Extd	Date Anlz	#Days collect to ext	#Days Collect to anal
177921	4/25	NA	5/6	NA	11 of 14
177921D	4/25	NA	5/8	NA	13 of 14

This sample was analyzed within the SW-846 recommended holding time. The "D" suffix in an abbreviation for dilution.

Surrogates:

Surrogate recoveries for this sample, and the associated method blanks are reasonable, acceptable, and within QC limits.

Sample Data:

This data is acceptable for use. This sample was re-analyzed at a secondary dilution because the Benzene exceeded the calibration range. Use the value of 5400 ppb for Benzene, reported from the secondary dilution analysis, for the other three analytes (TEX) use the values reported from the first analysis on 5/6/91.

Total Volatile Petroleum Hydrocarbons (TVPH)
as gasoline

Sample	Date Collect	Date Extd	Date Anlz	#Days collect to ext	#Days Collect to anal
177921	4/25	NA	5/6	NA	11 of NE

This sample was analyzed within a reasonable period of time. Fourteen days is the SW-846 recommended holding time limit for volatile compounds.

NE = None Established

Surrogates:

Surrogate recoveries for this sample, and the associated method blank are reasonable, acceptable, and within QC limits.

Sample Data:

This data is acceptable for use.

NATIONAL EXPRESS LABORATORIES, INC.

NATEX

Pacific Northwest Environmental Laboratory, Inc.
3820 159th Avenue, N.E.
Redmond, WA 98052
(206) 885-0083
FAX (206) 867-2214

June 6, 1991

Stuart Magoon
Department of Ecology
7411 Beach Drive East
Port Orchard WA 98366

NARRATIVE FOR PNELI 3114

Enclosed are data summary sheets and supporting documentation for the samples received on May 1, 1991 of the LSA project. The samples were received as follows:

FIELD ID	DOE LATB CLIENT ID	PNELI ID	DATE COLLECTED
MANHOLE	177921	3114-01	05-01-91

Listed below are anomalies and narratives associated with the receipt and/or analysis of these samples.

Sample Receiving

There were no anomalies associated with the receipt of these samples.

Purgeable Aromatics (BTEX) by GC Benzene, Toluene, Ethylbenzene, and Xylene by Method 8020, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, SW-846, 3rd Ed., 1986.

Total Petroleum Hydrocarbons as Gasoline by GC Purge and Trap Method 5030 followed by Modified 8015 of Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, SW-846, 3rd Ed., 1986.

There were no anomalies associated with the preparation and/or analysis of these samples.

Sample 3114-01 required dilution.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designee, as verified by the following signature.

Sincerely,

Rand G. Jenkins

Enclosures

NatEx Laboratories, Inc.
Pacific Northwest Environmental Laboratory, Inc.

\BTEX

PURGEABLE AROMATICS (BTEX) BY GC

Client Sample ID	177921	177921 D
PNELI Sample ID	3114-01	3114-01D
Sample Matrix	Water	water
Date Sample Received	05-01-91	5/1/91
Date Sample Analyzed	05-06-91	5-8-91
Units of Measure	µg/l	mg/L
dilution	1/100	1/1000

Compounds		
Benzene	6600 ~~5,400~~ E	5400
Toluene	2900 ~~2,600~~	2600
Ethylbenzene	480	1000
Total Xylene	4,600	4600

Surrogate		QC limits
% Fluorobenzene	106 ~~97~~	97 72-111
~~% 4-Bromofluorobenzene~~	~~100~~	

NatEx Laboratories, Inc.
Pacific Northwest Environmental Laboratory, Inc.

\BTEX

PURGEABLE AROMATICS (BTEX) BY GC

Client Sample ID	Method Blank	Method Blank
PNELI Sample ID	3114-MB	3114-MB
Sample Matrix	Water	Water
Date Sample Received	~~05-01-91~~ NA	~~05-01-91~~ NA
Date Sample Analyzed	05-06-91	05-08-91
Units of Measure	µg/ℓ	µg/ℓ

Compounds				
Benzene	0.5	U	0.5	U
Toluene	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U
Total Xylene	1.0	U	1.0	U

Surrogate			QC limits
% Fluorobenzene	98	97	72-111
~~% 4-Bromofluorobenzene~~	~~100~~	~~100~~	

NA = NOT APPLICABLE

NatEx Laboratories, Inc.
Pacific Northwest Environmental Laboratory, Inc.

\TVPH

TPH - GASOLINE RANGE PETROLEUM PRODUCTS BY GC

Client Sample ID	177921
PNELI Sample ID	3114-01
Sample Matrix	Water
Date Sample Received	05-01-91
Date Sample Analyzed	05-06-91
Units of Measure	µg/ℓ

Compounds	
TPH Quantitated as:	
Gasoline	28,000

Surrogate		QC Limits
% Fluorobenzene	101	78 - 113
% 2-Chlorotoluene	90	70 - 126

* Quantitated against the full range of gasoline.

TPH - GASOLINE RANGE PETROLEUM PRODUCTS BY GC

Client Sample ID	Method Blank
PNELI Sample ID	3114-MB
Sample Matrix	Water
Date Sample Received	05-01-91
Date Sample Analyzed	05-08-91
Units of Measure	µg/ℓ

Compounds		
TPH Quantitated as:		
Gasoline	20	U

Surrogate		QC Limits &
% Fluorobenzene	105	78 - 113
% 2-Chlorotoluene	103	70 - 126

* Quantitated against the full range of gasoline.

Neighbors

Baker

■ **Amy Baker**, an eighth grader at Queen of Angels School, served as a legislative page in the Washington state House of Representatives April 22 through 26.

Baker was sponsored by Rep. Jim Hargrove of Hoquiam. She is the daughter of **Margaret** and **Larry Baker** of Port Angeles.

She plays the flute, is a member of the school basketball team and is participating in the school's version of *Tom Sawyer*.

■ Members of the SunLand-Sequim Camera Club can "take their best shot" when they attend the meeting at 7 p.m. Thursday in room 6 of the Sequim Bible Church.

"By best shot, we mean the two best slides and/or prints you have taken," said club president **Scott Wilson**. He added, "Some members interpret this as the best shot in the past year. However, there's no time limit."

A program "Composition, the Key to Perception" by the Photographic Society of America will be shown. Members will vote on the subjects to be featured at next year's meetings.

This is the last meeting before summer hiatus. Meetings will resume in September.

■ The Sequim American Legion Post will host the Royal Canadian Legion Malahat Branch during the Sequim Irrigation Festival.

Department of Washington commander **Gene Foley** will participate as well as the Legion band from Olympia Post. The Sauer Kraut Band from Snohomish is to present a program after the parade.

Following the parade, at 5 p.m., the post will hold a fellowship gavel passing ceremony with the Canadian Legion at the post home followed by

Debbie Ross

The hole thing

A large hole at the Jackpot store on Front Street in Port Angeles was created to install new underground fuel storage tanks Tuesday. Once the new tanks are installed, the old tanks will be removed. Canal Construction operates the shovel.

REQUEST FOR ANALYSIS

LAB USE ONLY
Project Code
Lab Numbers

Approved By: M. White

Request Date: 4-25-91 **Program Code:** J5J10

Requested By: Todd Scan No. 586-4689

Report Data To: Tom Todd

Project Name: Lincoln Square Apts. ☒ Enforcement (Chain of Custody REQUIRED)

Project Location: Port Angeles ☐ Emergency (enclose separately REASONS and Approval by)

Sampling Dates: 4-25-91 Date To Lab: 4-26-91

Sample Pickup Location: Tumwater ☐ Other Matrix (Describe): _____

No. of Sam. Other	Sed	H20	General Chem	No. of Sam. Other	Sed	H20	Gen Chem, Biology	No. of Sam. Other	Sed	H20	Organics & Toxics
			Turbidity				BOD/5 day				Base/Neutral/Acids
			pH				COD				Acid/Neutrals Only
			Conductivity				TOC				Volatile Organics
			Total Alkalinity								Pesticides/PCBs
			Hardness				Nutrients (3)				PCBs Only
			Chloride				Ammonia				Organophosphate Pest.
			Sulfate				Nitrate-Nitrite				Cl PhenoxyAcid Herb.
			Fluoride				Total Phosphorous				Purgeable Halocarbons
			Cyanide				Ortho-Phosphate				PAH
							Fecal Coli Bacteria			X	BTEX by 8020
										X	TPH by WTPH-G
			SOLIDS (4)								Hydrocarbon Analysis
			TSS				PP Metals				Phenolics (AAP)
			TS				EP Tox Metals				Oil & Grease
				Total			Diss	Specified			Ignitability
				Other	Sed	H20	H20	Metals (list)			TOX
											Bioassay
			% Solids								NPDES (% effluent)
											HW Designation
			% Lipids								Other:

Comments: Gasoline dissolved

NOTE: Chain of Custody is recommended on all sampling events.

Sample Bottles Required:

Sample Disposition After Analysis:

ECY 040-2-62 (Rev. 7/88)

DEPARTMENT OF ECOLOGY
MANCHESTER ENVIRONMENTAL LABORATORY

SAMPLE REQUIREMENTS

Parameter	Minimum Volume mL	Preservation Hold all samples at 4°C	Holding Time, days	Parameter	Minimum Volume mL	Preservation Hold all samples at 4°C	Hold Time, days
Alkalinity	100		14	Solids (4)	500		7
Biochemical Oxygen Demand	2000	Store in the dark	2	Solids, Suspended	250		7
Chloride	100		28	Solids, Settleable	1000		2
Chemical Oxygen Demand	100	H_2SO_4 to pH < 2	28	Sulfate	100		28
Color	100		2	Turbidity	100		2
Conductivity	100		28	Bacteria, Coliform	200	Do not freeze	30 hours
Cyanide	500	NaOH to pH 12	14	Bacteria, Other	200	Do not freeze	30 hours
Fluoride, Total	100 P		28	Bioassay	100g G		-
Fluoride, Soluble	100 P		28	Lipids	20g G		-
Hardness	100		6 months				
Metals, Total	200	HNO_3 to pH < 2	6 months	Priority Pollutants	2000 GT		7
Metals, Dissolved	200	Filter, then HNO_3 to pH < 2	6 months	Volatile Organics	20 GT		14
Metals, Suspended	200		6 months	PCB	200 GT		14
Mercury	200 G		28	Purgeable Chlorinated HC	200 GT		14
				Halogenated HC (HW)	100 GT		14
				Polynuclear Aromatics (HW)	100 GT		14
Nitrogen, Total Kjeldahl	500	H_2SO_4 to pH < 2	28				
Nitrogen, Ammonia	200	H_2SO_4 to pH < 2	28	EP Toxicity, Metals	200 GT		6 months
Nitrate	200	H_2SO_4 to pH < 2	2	EP Toxicity, Organics	2000 GT		14
Nitrite	200	H_2SO_4 to pH < 2	2	Ignitability	100 G		28
Oil and Grease	500 G	H_2SO_4 pH < 2	28	Reactivity	50 G		28
				TOX	500		28
pH	50		2 hours				
Phosphorous, Total	200		28				
Phosphorous, Ortho	200		2				
Phenolics, Recoverable	500 G	H_2SO_4 pH < 2	28				
Salinity	200		28	Analysis not listed: Discuss with lab chemist.			

G = Use only a glass container.

GT = Use only an organic-free glass container with Teflon lid liner.

P = Use only a plastic container

g = gram

AV/MB2/121814/84

MESSAGE CONFIRMATION

DATE:04/25/91 TIME:08:28

ID:DEPT OF ECOLOGY

DATE	TIME	TX-TIME	DISTANT STATION ID	MODE	PAGES	RESULT
04/25	08:27	00'41"	206 895 4357	G3-S	001	OK

210

State of Washington Department of Ecology

SAMPLE DATA & ANALYSIS REQUIRED

Page ____ of ____

Program Code [ ][ ][ ]

Project Code JSJ10

Project/Name Lincoln Square Apt.

[✓] Enforcement/Custody [ ] Class II

[ ] Possible Toxic/Hazardous Notes ____________

SAMPLING DATE Yr	Mo	Da	TIME Hr	Mn	FIELD STATION IDENTIFICATION	LAB SAMPLE NUMBER Wk	Seq	Matrix Code	Source Code	No. of Containers	General Chemistry	Biology	Organic Chem. WTPH-G	BTEX-8020	METALS
1	04	25	11	47	MANHOLE	17	792	1	5	2			X	X	

General Chemistry: Turbidity, pH, Conductivity, Total Hardness, Chloride, TS, TSS, TNVS, TNVSS, TSS, % Solids, Nutrients (4), Ammonia, Nitrate-Nitrite, Total Phosphorous, Ortho-Phosphate, BOD/5 Day, COD Chem Oxy Demand

Biology: Fecal Coliform Bacteria, Total Coliform Bacteria, Enterococcus, Fish Bioassay

Organic Chem.: Base/Neutrals/Acids, Volatile Organics, Pesticides/PCB's, PCB's Only, Purgeable Halocarbons, Herbicides, Hydrocarbon Analysis, Phenolics (AAP), Oil & Grease, WTPH-G, BTEX-8020

METALS: P.P. Metals, EP Tox Metals, Specific List: Total, [ ] Recoverable, [ ] Totals, [ ] Dissolved

Project Officer Todd

Sampler(s) Todd

Recorder Todd

Date 4 25 91

Chain Of Custody Record

Relinquished By:	Received By:	Yr	Mo	Da	Hr	Mn	Seal I.D.	Condition of Seals	Comments
Todd	Surpo Carter	91	04	25			000097		
	Will White	91	04	26			000081	Intact	
Will White		91	04	26	09	30			
	[illegible]								

Ecy 040-115 Rev. 7/87

Laboratory Copy White — Project Office Copy Yellow — Field or Office Copy Pink

★ Source Codes and Descriptions ★

Code	Description
00	Unspecified Source
01	Unknown Liquid Media (Drum/Tank)
02	Unknown Liquid Media (Spill Area)
03	Unknown Liquid Media (Waste Pond)
10	Water (General)
12	Ambient Stream/River
13	Lake/Reservoir
14	Estuary/Ocean
15	Spring/Seepage
16	Rain
17	Surface Runoff/Pond (General)
18	Irrigation Canal/Return Flow
20	Well (General)
21	Well (Industrial/Agricultural)
22	Well (Drinking Water Supply)
23	Well (Test/Observation)
24	Drinking Water Intake
25	Drinking Water (At Tap)
30	Effluent Wastewater (General)
31	Municipal Effluent
32	Municipal Inplant Waters
33	Sewage Runoff/Leachate
34	Industrial Effluent
35	Industrial Inplant Waters
36	Industrial Surface Runoff/Pond
37	Industrial Waste Pond
38	Landfill Runoff/Pond/Leachate
40	Sediment (General)
42	Bottom Sediment or Deposit
44	Sludge (General)
45	Sludge (Waste Pond)
46	Sludge (Drum/Tank)
48	Soil (General)
49	Soil (Spill/Contaminated Area)
50	Bore Hole Material

Code	Description
60	Air (General)
61	Ambient Air
62	Source or Effluent Air
63	Industrial or Workroom Air
64	Hi-Vol Filter
70	Tissue (General)
71	Fish Tissue
72	Shellfish Tissue
73	Bird Tissue
74	Mammal Tissue
75	Macroinvertebrate
76	Algae
77	Periphyton
78	Plant/Vegetation
80	Oil/Solvent (General)
81	Oil (Transformer/Capacitor)
82	Oil/Solvent (Drum/Tank)
83	Oil/Solvent (Spill Area)
84	Oil/Solvent (Waste Pond)
90	Commercial Product Formulation
95	Well Drill Water
96	Well Drill Mud
97	Well Sealing Material
98	Gravel Pack Material

Matrix Codes

10	Water-Total
11	Water-Dissolved
40	Sediment/Soil
45	Semi-Solid/Sludge
46	Sediment for EP Toxicity
70	Tissue
80	Oil/Solvent
00	Other

April 25, 1991

To: Files

From: Tom Todd

Subject: **Sampling at Lincoln Square Apartments, Port Angeles, Clallam County**

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